Probe Station Accessory Catalog

The FormFactor Complete Set of Accessories for your Probe Station
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**Probe Card Holders and Accessories**

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Positioners, Mounts and Accessories

005-018 — Contact Substrate

Features
• Impedance standard substrates used in probe calibration

Package Compatibility
• BTS 1000 — YES
• BTS 2000 — YES
• BTS-VERT — included in package

106-564 — Variable Pitch Mount

Features
• Adds second FP-mount for variable pitch SGS probing

Specifications
• Up to 18 GHz bandwidth when used with brush contact ground

Package Compatibility
• BTS 1000 — YES
• BTS 2000 — YES
• BTS-VERT — YES

125-058 — Video Monitor

Features
• 19 in LCD, multi-function video monitor

Specifications
• 100/240 VAC
• 50/60 Hz
• (CSA,CE,UL)

Package Compatibility
• BTS 1000 — YES
• BTS 2000 — YES
• BTS-VERT — included in package

129-691 — Vacuum Based Auxiliary Chuck

Features
• Adjustable height auxiliary chuck mounted on a vacuum base

Specifications
• Easily adjust height in 6 mm (1/4 in) increments from approximately 84 mm (3.3 in) (minimum) to 191 mm (7.5 in) (height can be increased with additional spacers, not included)
• Base requires a vacuum manifold (sold separately)

Package Compatibility
• BTS 1000 — YES
• BTS 2000 — YES
• BTS-VERT — YES

131-906 — Vacuum Mount Spacer Block

Features
• Vacuum based spacer block for BTS packages to provide additional positioner height for probing with vertical PCBA and other boards
• Can be used to create adjustable height and position gantry

Specifications
• Height is a nominal 64 mm (2.5 in) and is stackable
• Compatible with MPH style positioners 134-422 and 134-423

Package Compatibility
• BTS 1000 — YES
• BTS 2000 — YES
• BTS-VERT — included in package
**134-420 — Vacuum Base Board Clamp**

**Features**
- Circuit board hold down clamp with vacuum base used for mounting PCB in a horizontal probing orientation

**Specifications**
- Approximately 13 mm (0.5 in) clamping area to hold PCBs
- Accommodates PCBs with 3 mm (0.125 in) keep out on edges, and thickness from 0 to 3 mm (0 to 0.125 in)
- Easily adjust height in 6 mm (0.25 in) increments from approximately 84 mm (3.3 in) (minimum) to 191 (7.5 in) (height can be increased with additional spacers, not included)
- Four clamps are typically required hold the 4 corners of the PCB

**Package Compatibility**
- BTS 1000 — included in package
- BTS 2000 — included in package
- BTS-VERT — YES

---

**134-422, 134-423 — Multi-Orientation Positioners**

**Features**
- Vacuum based RPP210 positioner with a dovetail arm attachment allowing vertical circuit board probing with a vertical range of 102 mm (4 in).

**Specifications**
- 64 mm (2.5 in) of range in dovetail
- Potential 11+ inches in 180° orientation
- Arm can be positioned at 0°, 90°, 180°, and 270° in reference to the platen base
- Compatible with FPC probes
- Reconfiguration converts positioner for horizontal probing
- 134-422 (left-orientation)
- 134-423 (right-orientation)

**Package Compatibility**
- BTS 1000 — YES
- BTS 2000 — YES
- BTS-VERT — YES

---

**134-421 — Vacuum Base PCB Bottom Support**

**Features**
- Circuit board bottom support with vacuum base. Use with vacuum base board clamp (134-420) setup.

**Specifications**
- PCB bottom support can be configured using the bullet tip (insulating material) touching bottom of the PCB, or by removing the bullet tip (6-32 screw) and attaching the PCB to support shaft with 6-32 hardware
- Adjustable height from nominal.
  - Nominal is with bullet tip removed, top of adjust shaft in same as bottom PCB plane of 134-420 hold down clamps
- Easily adjust height in 6 mm (1/4 in) increments from approximately 84 mm (3.3 in) (minimum) to 241 mm (9.5 in)

**Package Compatibility**
- BTS 1000 — included in package
- BTS 2000 — included in package
- BTS-VERT — YES

---

**142-032 — Vibration Isolation Table for BTS Packages**

**Features**
- Heavy duty frame and steel tabletop

**Specifications**
- Dimensions (W x D x H): 1016 x 1016 x 813 mm (40 x 40 X 32 in)

**Package Compatibility**
- BTS 1000 — YES
- BTS 2000 — YES
- BTS-VERT — YES
168-690 — WinCal XE Software

Features
• WinCal XE enhances RF measurement accuracy and productivity through guided system setup, automatic calibration and validation, and other advanced RF measurement related tools

Package Compatibility
• BTS 1000 — YES
• BTS 2000 — YES
• BTS-VERT — YES

177-396 — Vibration Isolation Table, DELUX Package for 200 mm Stations

Features
• Heavy duty frame and steel tabletop.
• Integrated rolling casters.
• Seismic restraint kit.
• Storage shelf below tabletop.
• Ergonomic front support bar.
• Optional side instrument shelves and accessories available.
• Computer accessory mounting kit for keyboard, mouse, joystick.
• Multi-directional LCD monitor support arm (VESA).
• Enclosed system (side walls and front access door).

Specifications
• Dimensions:
  – Steel tabletop is (W x D) 1016 x 1016 (40 x 40 inch)
  – Table operating height is 812 mm (32-inch)
• Weights:
  – Steel tabletop is 104 kg (230 pounds)
  – Complete system (including tabletop) is approximately 218 kg (480 pounds)
• Operation:
  – Optimum air pressure: 25 - 60 psi
  – Input air pressure: min 20 psi (approx.) - max 80 psi
  – Max weight capacity 703 kg (1,150 pounds) (@ 80 psi)
  – Optimum load on the tabletop is 200 to 800 lbs. (Since the pressure is directly related to the mass sitting on the tabletop, the operating pressure determines this range)
  – Vibration isolation: typical performance better than 0 db at 6 Hz, with ~6 dB per octave roll-off to 48 Hz and >-18 dB attenuation above 48 Hz (with a Summit 12K series probe station or equivalent load)

Compatibility
• Summit, BTS
183-000 — Portable Vacuum System

**Features**
- Medium capacity portable vacuum system for manual and semiautomatic probe stations and vacuum based accessories
- Intended for facilities without house vacuum system

**Specifications**
- Oil-less design, noise level typ. 45dBA
- Rated power 40W, safety class IP40, 5 kg (11 pounds)
- Air flow 11.3/14.2 l/min (0.4/0.5 CFM) (50/60Hz) @ vacuum 75 torr
- Air flow 11.7/14.2 l/min (0.4/0.5 CFM) (50/60Hz) @ vacuum 100 mbar
- Rated for 100% continuous duty
- Switchable 100-120V or 200-230V @ 50&60Hz (IEC 60320/C15 socket)
- Connector cable purchased separately
- Includes silencer
- Includes 3 m (9.8 ft) connection tube with 8 mm (0.3 in) diameter

**System Compatibility**
- BTS 1000, BTS 2000, BTS-VERT
- PM5/EPS150, PM8/EPS200, PM300, Summit, PA200/PA200BR, SUMMIT200-SA, T200/TESLA200

Consult factory for PN — Dark Box/Vibration Isolation Table for BTS 1000/2000

**Features**
- Combination anti-vibration table and dark box for applications with probing features smaller than 50 µm (2.0 mils), and with light sensitive tests or I/R laser probing

**Package Compatibility**
- BTS 1000 — YES
- BTS 2000 — YES
- BTS-VERT — YES

EZ-PROBE — EZ-Probe Positioner

**Features**
- Vacuum mount joystick positioner for assisted PCB probe positioning. Provides easy, precise manual probe positioning control in 3 axes.

**Specifications**
- Positioning range: 17 x 17 x 13 mm (0.65 x 0.65 x 0.5 in)
- Placement: 50 µm (2.0 mils)
- Operates with vacuum (requires 48kPa [-15.75 in Hg]) or weighted gravity base
- Three dimensional joystick with 3:1 motion reduction
- Weight: 1.2 kg (2.65 lb)
- Adjustable arm reach: 100-220 mm (3.9 - 8.7 in)
- Arm sweep angle: +90°
- Recommended for use with FPA, FPC, or DCP probes

**Package Compatibility**
- BTS 1000 — YES
- BTS 2000 — YES
- BTS-VERT — YES

FPD-100 — Fine Pitch Dual-Armed Positioners

**Features**
- Fine pitch dual positioner, optimized for variable pitch probing on PCB with FPx probes

**Specifications**
- Vacuum-based
- 100 TPI pitch
- Mounts (2) 104-134 articulating arm probe mount

**Package Compatibility**
- BTS 1000 — YES
- BTS 2000 — YES
- BTS-VERT — YES
**M150-ACC-16 — Magnetic Cable Clamp Kit**

**Features**
- Magnetic base cable clamp
- Enables easy cable routing
- Helps to minimize cable vibration that can affect measurements
- Groove in base holds cable securely

**Kit Contents**
- Each kit includes the necessary hardware for one cable
- Maximum cable diameter = 3 mm (1/8-inch)
- Must be used with steel base

**Compatibility**
Elite 300, Summit, Tesla, M150, Alessi, BTS*

**Package Compatibility**
- BTS 1000 — YES
- BTS 2000 — YES
- BTS-VERT — YES

---

**SQ-115-330-03 — Removable 6 in Pedestal Wafer Chuck**

**Features**
- Planarizable 150 mm wafer chuck for PCB probing

**Specifications**
- Fixed x/y/z/theta
- Bolt-down base mount
- 150 mm (6 in) round chuck
- Includes vacuum manifold for chuck vacuum zones

**Package Compatibility**
- BTS 1000 — YES
- BTS 2000 — YES
- BTS-VERT — NO

---

**SQ-129-032-01 — Bottom Side Viewing Camera Kit**

**Features**
- Vacuum-mounted camera for double-sided probing on printed circuit boards. Monitor is sold separately.

**Specifications**
- 70x video scope on a vacuum base with fine x/y-movement control and coarse z-control
- Video scope includes color camera
- Includes (2) aux chucks mounted on a variable height vacuum base
- Includes (4) extension arms for bottom side probing (all arms are compatible with RPP210 positioners)

**Package Compatibility**
- BTS 1000 — YES
- BTS 2000 — YES
- BTS-VERT — YES

---

**SQ-132-667-01 — Vacuum Mount Gantry Top Plate**

**Features**
- Vacuum mounted gantry for mounting vacuum-based positioners for PCB probing

**Specifications**
- Overall board width 457 mm (18 in)
- Requires (2) vertical probe station spacer blocks (131-906) for each nominal height increase of 64 mm (2.5 in)

**Package Compatibility**
- BTS 1000 — YES
- BTS 2000 — YES
- BTS-VERT — YES
CM300xi with TopHat

**CONNECTION PANELS**

167-117 — Connection Panel

*Features*
- Complete kit of cable connection panels and accessories
- Optimized for CM300xi and Elite 300 universal accessory mounting rail system
- All accessories can be mounted on the platen simultaneously, in any location (left, right and back sides of the probe station platen).

*Kit Contents*
- 2 Triax connection panels
  - Each panel features 8 Triax (3-lug) feed through connectors (f), and 2 BNC (2-lug) connectors (f).
  - Panel connections support single triax cables and Keysight dual triax SMU cable assemblies
  - (For Keysight Quadrax SMU connections, please contact the factory).
- 1 coaxial connection panel – each panel features 10 BNC (2-lug) connectors (f).
- 2 vacuum manifolds – each manifold features 5 vacuum inlets with integrated on/off pull switches
- 2 positioner mounts – used for holding DPP2xx/DPP3xx positioners above the platen while changing probe tips

**COMPATIBILITY**
- • CM300xi

**MOUNTING KITS, PLATES, AND MISCELLANEOUS ACCESSORIES**

143-428 — Keysight 42941A Mounting Kit

*Features*
- Mounting bracket to hold Keysight 42941A probe
- Compatible with CM300xi and Elite 300 RPP305 positioners

*Kit Contents*
- 2 cables:
  - SMA (m) to SMA (m)
  - 120 mm (4.7 in)
- Mounting bracket for RPP305-EL positioner

*COMPATIBILITY*
- • CM300xi, Elite 300

---

**NOTE**
Compatible accessories described in this section and throughout this catalog can be configured with the FormFactor CM300xi or CM300 probe systems.
143-429 — Mounting Plate for B1500A SCUU

Mounted plate

Keysight SCUU mounted to plate

Plate mounts on universal accessory mounting rails

Compatibility
- CM300xi, Elite 300

144-422 — Mounting Plate for B1500A ASU, E5288A Atto Sense Unit

Mounted plate

Keysight ASU mounted to plate

Plate mounts on universal accessory mounting rails

Compatibility
- CM300xi, Elite 300

161-695 — Instrument Shelf

Features
- Shelf system easily attaches to the CM300xi system frame
- Instruments and accessories can be conveniently placed at the rear of the CM300xi
- Instrument shelf is positioned forward over the CM300xi platen surface, allowing test instruments to be located close to probes for shortest cable interconnects

Specifications
- Minimum clearance under the HTS transport: 3HU (133.4 mm [5.25 in])
- Maximum supported instrument load: 50 kg (110 lb)
- Dimensions (WxDxH): 1140 x 590 x 25 mm (44.9 x 23.2 x 1 in)
- Weight: 15 kg (33 lb)

Compatibility
- CM300xi

163-753 — Adjustable RF Probe Mount

Features
- Adjustable height probe mount compensates for different RF probe depth without compromising positioner Z-travel range
- Adapter converts existing Elite 300 RF probe mounts for use with CM300xi
- Compatible with RPP305 positioners
- Compatible with MicroChamber TopHat

Compatibility
- CM300xi, Elite 300
163-755 — DPP2xx 43mm Probe Mount Adapter

Features
• Adapter converts existing Elite 300 DCP probes and needle probe mounts for use with CM300xi
• Compatible with DPP2xx positioners
• Compatible with MicroChamber TopHat
• Constructed with high-stability thermal materials

Compatibility
• CM300xi, Elite 300

176-613 — Large Instrument Shelf

Features
• Large shelf for measurement equipment
• Centered at the rear side of the table, behind the microscope bridge, to allow for large equipment height
• Enables placement of instruments up to 680 mm deep behind the microscope bridge
• For use with the shortest noise and RF application measurement cables
• Includes post

Specifications
• Maximum supported instrument load: 150 kg (330 lb)
• Maximum depth for instrument: 680 mm (26.7 in)
• Maximum width between lead-through for straps: 520 mm (20.4 in)
• Weight (including post): 36 kg (80 lb)

Compatibility
• CM300xi

176-911 — Left Side Instrument Shelf

Features
• Tray assembly mounts on both CM300 left side posts
• Well suited for applications requiring short cabling (e.g., low-noise and RF applications)

Specifications
• Maximum load: 50 kg (110 lb)
• Shelf area (WxD): 488 x 600 mm (19.2 x 23.6 in), adapted for Keysight B1505 footprint
• Height above probe platen: 225 mm (8.9 in)

Compatibility
• CM300 semi-automated probe stations only
• Compatible with rear shelves 161-695 and 176-613

177-560 — Top Hat Assembly, 4 Port, 300 mm

Features
• Enables the use of single or dual Keysight N5291 modules with Infinity and ACP probes on CM300xi and Elite 300 stations with MicroChamber
• Enables full thermal capability

Configuration
• Intended for use with positioner assemblies RPP404-EW-120, RPP404-W-120, RPP304-NS-67, RPP304-NS-67

Compatibility
• CM300xi, Elite300
183-838 — Vacuum Pump Kit Including Vacuum Buffer Reservoir

Features
• Portable vacuum system for semi- and fully-automated probe stations (e.g., one CM300 with one MHU301)
• Intended for facilities without house vacuum system
• For standard use cases only. In case of non-standard use cases, an additional pump kit (PN 183-000) can be added

Specifications
• Oil-less design, noise level typ. 45 dBA
• Rated power 40 W, safety class IP40, 5 kg
• Air flow 11.3/14.2 l/min (0.4/0.5 CFM) (50/60Hz) @ vacuum 75 torr
• Air flow 11.7/14.2 l/min (0.41/0.5 CFM) (50/60Hz) @ vacuum 100 mbar
• Rated for 100% continuous duty
• Switchable 100-120 V or 200-230 V @ 50&60 Hz (IEC 60320/C15 socket)
• Connector cable purchased separately
• Includes silencer
• Includes 3 m (10 ft) connection tube with 8 mm (0.3 in) diameter
• Includes 10 l vacuum buffer reservoir

Compatibility
• CM300, SUMMIT200-FA, TESLA200-FA
CM300xi with Top Chamber

SIGMA KITS

127312 — SIGMA for Keysight 42941A, HF

Features
• SIGMA Integration of the impedance probe Keysight 42941A into MicroAlign Advanced systems for capacitance measurements by IV method, including:
  • On-wafer integration of Keysight 42941A close to the DUT to optimize measurement performance
  • Optimized cable length reduces systematic measurement error
  • Appropriate feed-through and ultra-short SMA cable for RF pad design
• Requires RPP305-S positioner with arm East/West/4PH or arm East/West/4PH/Mirrored plus |Z|Probe GS or SG and an instrument shelf for optimum instrument connection

Compatibility
• CM300xi, PA300 MicroAlign, PM300PS

131467 — SIGMA for Keysight E5288A ASU

Features
• SIGMA Integration of Keysight E5288A ATTO Sense and Switch Units (ASU) to MicroAlign Advanced systems, including:
  • On-wafer integration of one or two ASUs close to the DUT to optimize measurement performance
  • For use with any standard triax or triax/Kelvin probe arm and probe arm for DCP probes
  • Providing automated I-V and C-V measurements
  • Optimized cable length reduces cable capacitance
  • For use with DPP2xx/DPP3xx positioners with Triax probe arm and probe arm for DCP probes

Compatibility
• CM300xi, PA300 MicroAlign, PM300PS

138183 — SIGMA for PreAmp Keithley 4200/6430 (up to 4)

Features
• SIGMA Integration of up to 4 Keithley PreAmps for 4200 and 6430 into MicroAlign Advanced systems, includes:
  • Optimal integration of up to 4 PreAmps on a single Test Equipment Interface placed close to the DUT
  • For use with any standard triax or triax/Kelvin probe arm and probe arm for DCP probes
  • High power cabling outside the MicroAlign (provided by Keithley) eliminates tribo-electric effects

Compatibility
• CM300xi, PA300 MicroAlign, PM300PS

145265 — SIGMA for IV/CV

Features
• SIGMA Integration of Parameter Test Instruments for I-V and C-V measurements into the MicroAlign Advanced systems, includes:
  • 2 panels with 4 triax-triax-dual connectors (Force & Sense), and 4 coax-triax connectors (type E1)
  • Kelvin connectors (Force & Sense) fit to Keysight 4155/4156/4157, and any other single Triax cable with 3-lug plug
  • 4 coax cables with BNC plug for total cable length of 2 m (6.5 ft) for CV measurements
  • CommonRing technology for shortest virtual ground close to the DUT
  • For use with DPP2xx/DPP3xx positioners with Triax probe arm and probe arm for DCP probes

Compatibility
• CM300xi, PA300 MicroAlign, PM300PS
TEST EQUIPMENT INTERFACES

144987 — Test Equipment Interface, Pico Probe (up to 2)

Features
• To connect up to 2 active pico probes to the MicroAlign Advanced
• Includes 1 panel with 2 feedthroughs with integrated cable strain relief

Compatibility
• CM300xi, PA300 MicroAlign, PM300PS

145044 — Test Equipment Interface, PH510 (up to 3)

Features
• Feedthrough plate for control lines of up to 3 PH510 for use in a MicroAlign system with Top Chambers
• Not used control lines are covered by a blank plate

Compatibility
• CM300xi, PA300 MicroAlign, PM300PS
49827 — LN₂ Transport Dewar, 120l

**Features**
- Tank head with safety valve, fill level gauge, central ball valve with 12 mm (0.5 in) quick lock fitting
- Fill level gauge
- Internal pressure build-up system

**Specifications**
- Transfer tube DN10/1.5m
- Maximum positive operating pressure: 1.5 bar

**Compatibility**
- Cryogenic systems only

51113 — LHe Transport Dewar 120l

**Features**
- Specified for transportation of liquid helium (LHe) on public roads
- Made of stainless steel
- Connection flange DN 50 KF
- With casters, safety valve, vibration damper and pressure gauge
- Head with safety neck tube, central ball cock and 12 mm (0.5 in) quick lock fitting
- Two side-gated ball valves for pressure relief and bypass valve

**Specifications**
- Maximum overpressure 1.2 bar gauge pressure

**Compatibility**
- Cryogenic systems only

49906 — HF Precision Cable, PC-2.4 50GHz/0.8m with Right Angle Plug Male/Male

**Features**
- Flexible
- Male-right angle male
- Cable length: 0.8 m (32 in)

**Compatibility**
- PMC200, PMV200, PLV50
# PMC200 Wafer Carriers

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## 128027 — Wafer Carrier, 200 mm, PMC200

**Features**
- For mounting, fixing and handling of SEMI standard 200 mm (8 in) wafers with FormFactor cryogenic probe stations
- Mounting outside vacuum chamber recommended
- Patented mechanical wafer clamping: mechanical clamping from top by a ring shaped leaf spring (top-side wafer contact only at the edge)
- Contact plate made of nickel/gold coated OFHC copper for best heat contact between wafer and chuck
- Includes holder for 2 RF calibration substrates

**Compatibility**
- PMC200

## 130476 — Wafer Carrier, 100 mm, PMC200

**Features**
- For mounting, fixing and handling of SEMI standard 100 mm (4 in) wafers with FormFactor cryogenic probe stations
- Mounting outside vacuum chamber recommended
- Patented mechanical wafer clamping: mechanical clamping from top by a ring shaped leaf spring (top-side wafer contact only at the edge)
- Contact plate made of nickel/gold coated OFHC copper for best heat contact between wafer and chuck
- Includes holder for 2 RF calibration substrates

**Compatibility**
- PMC200

## 130474 — Wafer Carrier, 150 mm, PMC200

**Features**
- For mounting, fixing and handling of SEMI standard 150 mm (6 in) wafers with FormFactor cryogenic probe stations
- Mounting outside vacuum chamber recommended
- Patented mechanical wafer clamping: mechanical clamping from top by a ring shaped leaf spring (top-side wafer contact only at the edge)
- Contact plate made of nickel/gold coated OFHC copper for best heat contact between wafer and chuck
- Includes holder for 2 RF calibration substrates

**Compatibility**
- PMC200

## 133758 — Substrate Holder, 4K, PMC200

**Features**
- For mounting, fixing and handling of small substrates, maximum size 25 x 25 mm (1 x 1 in), with FormFactor cryogenic probe stations. Size and shape of the substrate needs to be specified with the order.
- Includes additional cold shield for achieving lowest sample temperature
- Mounting outside vacuum chamber recommended
- Patented mechanical wafer clamping: mechanical clamping from top by a clamping mask (top-side substrate contact only at the edge)
- Contact plate made of nickel/gold coated OFHC copper for best heat contact between wafer and chuck

**Compatibility**
- PMC200
136397 — Universal Carrier, PMC200

Features

• For mounting, fixing and handling of substrates of different shapes or wafers up to 75 mm (3 in) with FormFactor cryogenic probe stations
• Mounting outside vacuum chamber recommended
• Patented mechanical substrate/wafer clamping: mechanical clamping from top by a universal clamping mask (top-side substrate/wafer contact only at the edge)
• Contact plate made of nickel/gold coated OFHC copper for best heat contact between wafer and chuck

Specifications

• Maximum substrate dimensions:
  – 76.2 mm (3 in) (full wafer)
  – 150 mm (6 in) (quartered wafer)
  – 76.2 x 76.2 mm (3 x 3 in) or 50 x 110 mm (2 x 4.3 in)

Compatibility

• PMC200
PMV200 Wafer Carriers

142361 — Wafer Carrier, 200 mm, HF-Ready, PMV200

Features
- For fixing and handling of wafer, wafer fragments and single chips
- Mounting outside vacuum chamber recommended
- Patented mechanical clamping system: mechanical clamping from top by leaf springs (top-side substrate/wafer contact only at the edge)
- Contact plate made of nickel/gold coated OFHC copper for good thermal contact between wafer and chuck
- Includes holder for 2 RF calibration substrates

Specifications
- Maximum substrate dimensions:
  - 76.2 mm (3 in) (full wafer)
  - 150 mm (6 in) (quartered wafer)
  - 76.2 x 76.2 mm (3 x 3 in) or 50 x 110 mm (2 x 4.3 in)
- Temperature range: -60° to +200°C (-76° to +392°F)

Compatibility
- PMV200

144072 — Universal Carrier, PMV200

Features
- For fixing and handling of wafer, wafer fragments, and single chips
- Mounting outside vacuum chamber recommended
- Patented mechanical clamping system: mechanical clamping from top by leaf springs (top-side substrate/wafer contact only at the edge)
- Contact plate made of nickel/gold coated OFHC copper for good thermal contact between wafer and chuck
- Includes holder for 2 RF calibration substrates

Specifications
- Maximum substrate dimensions:
  - 76.2 mm (3 in) (full wafer)
  - 150 mm (6 in) (quartered wafer)
  - 76.2 x 76.2 mm (3 x 3 in) or 50 x 110 mm (2 x 4.3 in)
- Temperature range: -60° to +200°C (-76° to +392°F)

Compatibility
- PMV200

142365 — Wafer Carrier, 150 mm, HF-Ready, PMV200

Features
- For mounting, fixing and handling of SEMI standard 150 mm wafers
- Mounting outside vacuum chamber recommended
- Patented mechanical clamping system: mechanical clamping from top by a ring shaped leaf spring (top-side wafer contact only at the edge)
- Contact plate made of nickel/gold coated OFHC copper for good thermal contact between wafer and chuck
- Includes holder for 2 HF calibration substrates

Specifications
- Temperature range: -60° to +200°C (-76° to +392°F)

Compatibility
- PMV200

144078 — Wafer Carrier, 100 mm, HF-Ready, PMV200

Features
- For mounting, fixing and handling of SEMI standard 100 mm wafers
- Mounting outside vacuum chamber recommended
- Patented mechanical clamping system: mechanical clamping from top by a ring shaped leaf spring (top-side wafer contact only at the edge)
- Contact plate made of nickel/gold coated OFHC copper for good thermal contact between wafer and chuck
- Includes holder for 2 HF calibration substrates

Specifications
- Temperature range: -60° to +200°C (-76° to +392°F)

Compatibility
- PMV200
PLV50 Wafer Carriers

140971 — Universal Carrier, PLV50

**Features**
- For fixing and handling of wafer, wafer fragments, and single chips
- Mounting outside vacuum chamber recommended
- Patented mechanical clamping system: mechanical clamping from top by leaf springs (top-side substrate/wafer contact only at the edge)
- Clamping on three substrate sides with simple adjustment to the device size by slidable third side piece
- Contact plate made of gold-coated copper for good thermal contact between wafer and chuck

**Specifications**
- Maximum substrate dimensions:
  - 50.8 mm (2 in) (full wafer)
  - 100 mm (4 in) (quartered wafer)
  - 50.8 x 50.8 mm (2 x 2 in)
- Temperature range: -60° to +200°C (-76° to +392°F)

**Compatibility**
- PLV50

141246 — Universal Carrier, HF-Ready, PLV50

**Features**
- For fixing and handling of wafer, wafer fragments, single chips, and up to four (4) HF calibration substrates
- Mounting outside vacuum chamber recommended
- Patented mechanical clamping system: mechanical clamping from top by leaf springs (top-side substrate/wafer contact only at the edge)
- Clamping on three substrate sides with simple adjustment to the device size by slidable third side piece
- Contact plate made of gold-coated copper for good thermal contact between wafer and chuck

**Specifications**
- Maximum substrate dimensions:
  - 50.8 mm (2 in) (full wafer)
  - 100 mm (4 in) (quartered wafer)
  - 50.8 x 50.8 mm (2 x 2 in)
- Temperature range: -60° to +200°C (-76° to +392°F)

**Compatibility**
- PLV50

155-905 — Universal Carrier, PLV50, 300°

**Features**
- For fixing and handling of wafer, wafer fragments, and single chips
- Mounting outside vacuum chamber recommended
- Patented mechanical clamping system: mechanical clamping from top by leaf springs (top-side substrate/wafer contact only at the edge)
- Clamping on three substrate sides with simple adjustment to the device size by slidable third side piece
- Contact plate made of gold-coated copper for good thermal contact between wafer and chuck

**Specifications**
- Maximum substrate dimensions:
  - 50.8 mm (2 in) (full wafer)
  - 100 mm (4 in) (quartered wafer)
  - 50.8 x 50.8 mm (2 x 2 in)
- Temperature range: -60° to +200°C (-76° to +392°F)

**Compatibility**
- PLV50

147917 — Wafer Carrier, 100 mm, PLV50

**Features**
- For mounting, fixing and handling of SEMI standard 100 mm wafers with Vacuum probe stations
- For use with temperature controlled chuck systems up to 200°C
- Mounting outside vacuum chamber recommended
- Patented mechanical wafer clamping: mechanical clamping from top by a ring shaped leaf spring (top-side wafer contact only at the edge)
- Contact plate made of nickel/gold coated OFHC copper for best heat contact between wafer and chuck

**Specifications**
- Temperature range: -60° to +200°C (-76° to +392°F)

**Compatibility**
- PLV50
Test Interface Feedthroughs

137196 — Triax High-Vacuum Feedthrough, DN100 ISO-K

**Features**
- 4 pcs. hermetically sealed bulk feedthrough type W.W. Fischer WDE103 on 100 mm flange
- 4 pcs. low-noise triax cable 2 m (6.5 ft)

**Compatibility**
- PMC200, PMV200, PLV50

---

141182 — SMA 50 Ohm Feedthrough, DN50 KF

**Features**
- Flange plate made from plastics for individually electrically isolated feedthroughs
- Female - female

**Compatibility**
- PMC200, PMV200, PLV50

---

137495 — High-Vacuum 4x-HF Feedthrough, DN50KF 40GHz 2.92

**Features**
- Four pcs. hermetically sealed electrical bulkhead feedthroughs on a DN50-KF flange for DC to 40 GHZ 2.92 connector

**Compatibility**

---

137998 — Two SUB-D (50 PIN) Electrical Feedthrough on DN100 HV Flange

**Features**
- High vacuum electrical feedthrough of 100 pins, grouped to two 50-pin Sub-D female - female connectors integrated into DN100 flange
- Includes wire harnesses of 2x 40 high vacuum proof cables for connection to probe card

**Compatibility**
- PMC200, PMV200, PLV50

---

141257 — Vacuum Rotary Feedthrough for VCP110

**Features**
- Manipulation of one VCP110 from outside vacuum chamber
- Consists of mechanical feedthrough drive and adaptation to VCP110

**Compatibility**
- PMC200, PMV200, PLV50
Replaceable Probe Tips, DC Cables, and Adapters

Replaceable Probe Tips

138-020 — Edge Sense Single Blade Ceramic Needle

**Features**
- Edge Sense
- Single blade ceramic needle

**Specifications**
- For DCP-HTR probe body

**Kit Contents**
- Box of 5

**Compatibility**
- CM300xi, Elite 300, Summit, M150, S300, Alessi

DCP Replacement Tips

**Features**
- High performance probe tips for modeling and characterization work
- Easily replaceable
- Durable

**Specifications**
- Tip material for DCP-1xxR DC coaxial probes: tungsten
- Tip diameters shown below

**Kit Contents**
- 10 tips per set

**Compatibility**
- CM300xi, PA/PM, MicroAlign, Elite 300, Summit, M150, S300, Alessi

**Ordering Information**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Size</th>
<th>Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>154-001</td>
<td>19 µm (0.75 mils)</td>
<td>DCP-HTR</td>
</tr>
<tr>
<td>154-003</td>
<td>10 µm (0.39 mils)</td>
<td>DCP-HTR</td>
</tr>
</tbody>
</table>

PTC-12-25 — Specialty Probe Tip, Tungsten Carbide

**Features**
- Tungsten carbide tip

**Specifications**
- 1.2 µm (0.05 mils)
- Straight

**Kit Contents**
- 25 tips per set

**Compatibility**
- CM300xi, PA/PM, MicroAlign, Elite 300, Summit, M150, S300, Alessi

---

Replaceable Probe Tips, DC Cables, and Adapters
PTS 24-25 — Specialty Probe Tip, Osmium

Features
• Osmium tip

Specifications
• 2.4 µm (0.09 mils)

Kit Contents
• 25 tips per set
• Straight

Compatibility
• CM300xi, PA/PM, MicroAlign, Elite 300, Summit, M150, S300, Alessi

PTS 24/4-25 — Specialty Probe Tip, Osmium, 45 degree

Features
• Osmium tip

Specifications
• 2.4 µm (0.09 mils)
• 45 degree bend

Kit Contents
• 25 tips per set

Compatibility
• CM300xi, PA/PM, MicroAlign, Elite 300, Summit, M150, S300, Alessi

PTT Probe Tips

Features
• Low cost
• Easily replaceable
• Durable

Specifications
• Tip material: Tungsten
• Tip diameters shown below

Kit Contents
• 25 tips per set

Compatibility
• CM300xi, PA/PM, MicroAlign, Elite 300, Summit, M150, S300, Alessi

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Type</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTT-06-25</td>
<td>Straight</td>
<td>0.6 µm (0.002 mils)</td>
</tr>
</tbody>
</table>
DC/CV Triax/BNC Cables

100652 — Adapter DC RPP305-S

**Features**
- Adapter plate to use standard DPP2xx-S / DPP3xx-S DC arms with RPP305-S

**Compatibility**
- RPP305-S

---

100805 — 50 Ohm Coax Cable for DPP105-x-Al 0.5m

**Features**
- 50 Ohm coax cable, length 500 mm (19.7 in)
- One miniature female HF plug (to positioner)
- One standard male BNC plug
- Also compatible with DC-tip holder (157-451)

**Compatibility**
- DPP105-x-Al, 157-451

---

100697 — Probe Arm Extension, 70mm

**Features**
- 70 mm (2.8 in) extension for all standard DPP2xx-S / DPP3xx-S arms
- Recommended for backside probing setups
- Can be connect in series (recommended maximum of 2)

**Compatibility**
- DPP2xx-S, DPP3xx-S

---

10751 — 50 Ohm Coax Cable for DPP105-x-Al 1.5m

**Features**
- 50 Ohm coax cable, length 1500 mm (59 in)
- One miniature female HF plug (to positioner)
- One standard male BNC plug
- Also compatible with DC-tip holder (157-451)

**Compatibility**
- DPP105-x-Al, 157-451

---

103-775 — Parametric Cable, SSMC to DCP-HTR, 2 m

**Features**
- Low noise cable kit for current or capacitance parametric test

**Specifications**
- Cable length: 2 m (6.5 ft)

**Kit Contents**
- Four 104-330-LC triax cables with large to small connector, 60 cm (24 in) length
- Four 104-365 coaxial cable with BNC connector, 140 cm (55 in) length
- Four 104-341 triax to BNC adapter (guard shorted)

**Compatibility**
- CM300xi, Elite 300, Summit, M150, S300, Alessi

---

104-330-LC — Triax Cable, Large to Small Triax Connector, Low Noise, 60 cm

**Features**
- Provides a low noise connection between large and small triax connectors

**Specifications**
- Cable length: 60 cm (23.5 in)
- Large to small triax (male to male)

**Compatibility**
- CM300xi, Elite 300, Summit, M150, S300, Alessi
104-334 — Triax Extension Cable, 53 cm

**Features**
- Extends existing triax cables

**Specifications**
- Cable length: 53 cm (21 in)
- Triax to triax (male to male)

**Compatibility**
- CM300xi, Elite 300, Summit, M150, S300, Alessi

104-365 — Coaxial Cable with BNC Connector

**Features**
- Connects BNC connectors

**Specifications**
- Cable length: 1.4 m (4.6-feet)
- Coaxial
- BNC to BNC (male to male)

**Compatibility**
- CM300xi, Elite 300, Summit, M150, S300, Alessi

105-001 — Bias Cable, 1.2 m, BNC to SMB Female

**Features**
- Connects BNC and SMB connectors

**Specifications**
- Cable length: 1.2 m (4-feet)
- BNC to SMB (male to female)

**Compatibility**
- CM300xi, Elite 300, Summit, M150, S300, Alessi

105-148 — Interlock Cable for Keysight 4155-4156

**Features**
- Safety interlock cable for Keysight 4155-4156
- Connects the probe station and the Keysight 4155-4156

**Specifications**
- Cable length: 1.8 m (6-feet) (male to male)

**Compatibility**
- CM300xi, Elite 300, Summit, M150, S300, Alessi

105-540 — BNC to SSMC Cable, 1 m

**Features**
- Connects the BNC and SSMC connectors

**Specifications**
- Cable length: 1 m (3.3-feet)
- BNC to SSMC (male to male)

**Compatibility**
- CM300xi, Elite 300, Summit, M150, S300, Alessi

108-138 — Triax Cable Large to Small Triax Connector, Low Noise, 1.8 m

**Features**
- Provides a low noise connection between large and small triax connectors

**Specifications**
- Cable length: 1.8 m (6-feet)
- Large to small triax (male to male)

**Compatibility**
- CM300xi, Elite 300, Summit, M150, S300, Alessi
### 124-082 — Cable, Eye Pass, 1.2 m, Molex to BNC

**Features**
- Provides single channel connections between the EyePass probe and BNC connector

**Specifications**
- Cable length: 1.2 m (4 ft)
- BNC male to 2-pin Molex (female) connector cable

**Compatibility**
- CM300xi, Elite 300, Summit, M150, S300, Alessi

### 124-084-B — RF cable 40GHz 2.92 (f)-2.92 (m), 1.2m

**Features**
- Connects 40GHz probes with VNA

**Specifications**
- For signals DC to 40GHz
- Connectors straight 2.92/K (f) to straight 2.92/K (m)
- Length: ~120 cm (48 in)

**Compatibility**
- Most configurations. Ensure close position of VNA.

### 124-085-B — RF cable 50GHz 2.4 (f)-2.4 (m), 1.2m

**Features**
- Connects 50GHz probes with VNA

**Specifications**
- For signals DC to 50GHz
- Connectors straight 2.4 (f) to straight 2.4 (m)
- Length: ~120 cm (48 in)
- Connector mechanically compatible with 1.85 type

**Compatibility**
- Most configurations. Ensure close position of VNA.

### 124-562 — BNC to SSMC Cable, 2 m

**Features**
- Connects BNC and SSMC connectors

**Specifications**
- Cable length: 2 m (6.5-feet)
- BNC to SSMC (male to male)

**Compatibility**
- CM300xi, Elite 300, Summit, M150, S300, Alessi

### 127-911 — 42941 Holder and Cable

**Features**
- Holds the 42941 capacitance meter impedance positioner

**Specifications**
- Includes two SMA male to male cables, 7.6 cm (3 in)

**Compatibility**
- Summit
- RPP305-EW-EL-AI, RPP305-EW-SU-AI

127-911
132-909 — Triax Cable, large to Small Connector, PureLine, 60 cm

Features
- Connects large and small triax connectors

Specifications
- Cable length: 60 cm (23.5 in)
- Large to small triax (male to male)

Compatibility
- CM300xi, Elite 300, Summit, M150, S300, Alessi

138-019 — Cable, Edge Sense, SSMC to DCP-HTR, 2 m

Features
- Connects the SSMC and DCP-HTR probe

Specifications
- Cable length: 2 m (6.5-feet)
- SSMC to DCP-HTR probe (male to male)

Compatibility
- CM300xi, Elite 300, Summit, M150, S300, Alessi

146-214 — Coax Cable, SMA to BNC, 61 cm

Features
- Connects the SMA and BNC connector

Specifications
- Cable length: 61 cm (24 in)
- SMA to BNC (male to male)

Compatibility
- CM300xi, Elite 300, Summit, M150, S300, Alessi
### DC/CV Adapters

#### 104-341 — Triax to BNC Adapter, Guard Shorted

**Features**  
- Adapts triax to BNC connection

**Specifications**  
- Guard shorted (male to female)

**Compatibility**  
- CM300xi, Elite 300, Summit, M150, S300, Alessi

#### 104-342 — Triax Feed-Thru for Summit Triax Panel

**Features**  
- Bulkhead adapter for triax connector
- For use with Summit triax panel

**Specifications**  
- Triax to triax (female to female)

**Compatibility**  
- CM300xi, Elite 300, Summit, M150, S300, Alessi

#### 104-357 — BNC Feed-Thru for Summit Triax Panel

**Features**  
- Bulkhead adapter for BNC connector
- For use with Summit triax panel

**Specifications**  
- BNC (female) to BNC (female)

**Compatibility**  
- CM300xi, Elite 300, Summit, M150, S300, Alessi

#### 104-347 — Ground Unit Adapter Kit

**Features**  
- For use with the SMU ground unit

**Kit Contents**  
- Two triax to triax cables, 25 cm (9.8 in)
- Ground unit bulkhead adapter

**Compatibility**  
- CM300xi, Elite 300, Summit, M150, S300, Alessi

#### 104-372 — Ground Unit Adapter Kit

**Features**  
- For use with the SMU ground unit

**Kit Contents**  
- Two triax to triax cables, 25 cm (9.8 in)
- Ground unit bulkhead adapter

**Compatibility**  
- CM300xi, Elite 300, Summit, M150, S300, Alessi

#### 104-372 — Ground Unit Adapter Kit

**Features**  
- For use with the SMU ground unit

**Kit Contents**  
- Two triax to triax cables, 25 cm (9.8 in)
- Ground unit bulkhead adapter

**Compatibility**  
- CM300xi, Elite 300, Summit, M150, S300, Alessi

#### 104-373 — Triax Shorting Plug

**Features**  
- Used to terminate the triax chuck

**Specifications**  
- Triax connector (male) with shorted end

**Compatibility**  
- CM300xi, PA/PM, MicroAlign, Elite 300, Summit, M150, S300, Alessi

#### 104-374 — Triax EMI Cap

**Features**  
- Used to cap the end of the triax connector to reduce EMI

**Compatibility**  
- CM300xi, Elite 300, Summit, M150, S300, Alessi
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>104-803</td>
<td>Triax to BNC Adapter, Guard Floated</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td>• Adapts triax to BNC connection</td>
</tr>
<tr>
<td><strong>Specifications</strong></td>
<td>• Guard floated (male to female)</td>
</tr>
<tr>
<td><strong>Compatibility</strong></td>
<td>• CM300xi, Elite 300, Summit, M150, S300, Alessi</td>
</tr>
<tr>
<td>104-806</td>
<td>Triax Tee, Single Male to Dual Female</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td>• Splits a single triax input to a dual triax output</td>
</tr>
<tr>
<td><strong>Specifications</strong></td>
<td>• Triax (male) to dual triax (female)</td>
</tr>
<tr>
<td><strong>Compatibility</strong></td>
<td>• CM300xi, Elite 300, Summit, M150, S300, Alessi</td>
</tr>
<tr>
<td>104-810</td>
<td>DCP Mounting Block Kit</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td>• Drop down part</td>
</tr>
<tr>
<td></td>
<td>• Adapts RPP positioner for use with use DCP probes</td>
</tr>
<tr>
<td></td>
<td>• Mounts onto RPP305 positioner</td>
</tr>
<tr>
<td></td>
<td>• For use with DCP/SSCM cable</td>
</tr>
<tr>
<td><strong>Kit Contents</strong></td>
<td>• Four DCP mounting blocks</td>
</tr>
<tr>
<td><strong>Compatibility</strong></td>
<td>• CM300xi, Elite 300, Summit, M150, S300, Alessi</td>
</tr>
<tr>
<td>105-931</td>
<td>EMI Cover for Triax Adapter Block</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td>• Used to cap the end of the triax adapter block to reduce EMI</td>
</tr>
<tr>
<td><strong>Compatibility</strong></td>
<td>• CM300xi, Elite 300, Summit, M150, S300, Alessi</td>
</tr>
<tr>
<td>106-510</td>
<td>BNC Shorting Plug</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td>• Used to terminate the coax chuck</td>
</tr>
<tr>
<td><strong>Specifications</strong></td>
<td>• Coax connector (male) with shorted end</td>
</tr>
<tr>
<td><strong>Compatibility</strong></td>
<td>• CM300xi, Elite 300, Summit, M150, S300, Alessi</td>
</tr>
<tr>
<td>106-560</td>
<td>Triax Adapter, Female to Female</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td>• Used to adapt cable end gender or connect triax cables</td>
</tr>
<tr>
<td><strong>Specifications</strong></td>
<td>• Triax to triax (female to female)</td>
</tr>
<tr>
<td><strong>Compatibility</strong></td>
<td>• CM300xi, Elite 300, Summit, M150, S300, Alessi</td>
</tr>
<tr>
<td>106-837</td>
<td>Triax to BNC Adapter, Guard Thru, No Shield</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td>• Adapts triax to BNC connector</td>
</tr>
<tr>
<td><strong>Specifications</strong></td>
<td>• Guard thru, no shield</td>
</tr>
<tr>
<td></td>
<td>• Triax (male) to BNC (female)</td>
</tr>
<tr>
<td><strong>Compatibility</strong></td>
<td>• CM300xi, Elite 300, Summit, M150, S300, Alessi</td>
</tr>
<tr>
<td>Part Number</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| 108-714     | Adapter BNC Female to Triax Female, Guard Short | Adapts triax to BNC connector | • Guard short  
• Triax (female) to BNC (female) | CM300xi, Elite 300, Summit, M150, S300, Alessi |
| 108-715     | Adapter, BNC to BNC Coupler | Adapts BNC to BNC connectors | • BNC to BNC (female to female) | CM300xi, Elite 300, Summit, M150, S300, Alessi |
| 108-716     | Adapter, BNC Male to Triax Female, Guard Short | Adapts triax to BNC connector | • Guard short  
• Triax (female) to BNC (male) | CM300xi, Elite 300, Summit, M150, S300, Alessi |
| 108-718     | Adapter, BNC Tee, Female-Male-Female | Adapts BNC to BNC connectors | • BNC tee  
• BNC (female-male-female) | CM300xi, Elite 300, Summit, M150, S300, Alessi |
| 123-625     | DCP to DCP Guard Connection Strap | DCP to DCP connection wire for LCR meter | • Cable length: 7.6 cm (3 in), with DCP/DCP clip | CM300xi, Elite 300, Summit, M150, S300, Alessi |
| 126-985     | Kit, DCP to DCP Connection Strap | DCP to DCP connection wire kit for LCR meter | • 4 straps (PN 123-625)  
• DCP strap tech note | CM300xi, Elite 300, Summit, M150, S300, Alessi |
Cable/Pin Jack Wires for MMP and MPC Probe Holders/Mounts

Features
• Electrical jumper wire for MMP and MPC Probe Holders/Mounts
• Pin jack style connection

Specifications

Compatibility
• CM300xi, Elite 300, Summit, M150, S300, Alessi

Ordering Information
• Part Number: See specifications table for cable length selection

<table>
<thead>
<tr>
<th>PN</th>
<th>Cable length</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAE-44/6</td>
<td>152 mm (6 in)</td>
</tr>
<tr>
<td>MAE-44/12</td>
<td>305 mm (12 in)</td>
</tr>
<tr>
<td>MAE-44/18</td>
<td>457 mm (18 in)</td>
</tr>
<tr>
<td>MAE-44/24</td>
<td>610 mm (24 in)</td>
</tr>
</tbody>
</table>
Station Accessories

**CONNECTION PANELS**

141-790 — Connection Panel

*Features*
- Complete kit of cable connection panels and accessories
- Optimized for CM300xi and Elite 300 universal accessory mounting rail system
- All accessories can be mounted on the platen simultaneously, in any location (left, right and back sides of the probe station platen).

*Kit Contents*
- 2 Triax connection panels
  - Each panel features 8 Triax (3-lug) feed through connectors (f), and 2 BNC (2-lug) connectors (f).
  - Panel connections support single triax cables and Keysight dual triax SMU cable assemblies
  - (For Keysight Quadrax SMU connections, please contact the factory).
- 1 coaxial connection panel – each panel features 10 BNC (2-lug) connectors (f).
- 2 vacuum manifolds – each manifold features 5 vacuum inlets with integrated on/off pull switches
- 2 positioner mounts – used for holding DPP2xx/DPP3xx positioners above the platen while changing probe tips

**MONITORS**

177-398 — Dual LCD Monitor

*Features*
- Adds second LCD screen (20 in) for dual monitor configuration with Elite 300.
- Includes ergonomic dual LCD VESA monitor mounting kit
- Articulated arm for free floating placement of second LCD monitor
- Universal design can mount in multiple different configurations

*Specifications*
- Supports LCD monitor with VESA mount (weight range 5-13 kg [12-29 lb])
- Monitor arm has 406 mm (16 in) height range and tilt/swivel adjustment
- VESA mounting plates (70/100 mm [2.8/3.9 in])
- Second LCD monitor can be mounted in two locations:
  - To the existing Elite 300 LCD monitor mount (both on one side)
  - Alone on the Elite 300 system frame (opposite side to existing LCD monitor)

*Compatibility*
- Elite 300

**ACCESSORY SHELVES**

144-340 — Side Accessory Shelf Kit

*Features*
- Side accessory shelf kit easily attaches to the Elite 300 system frame
- Instruments and accessories can be conveniently placed at the side of the Elite 300
- Keyboard/mouse accessory tray allows easy front panel control of test instruments
- Height adjustable
- Adjustable instrument tray can be positioned over the Elite 300

*Compatibility*
- Elite 300
platen surface, allowing test instruments to be located close to probes for short cable interconnects

• Seismic restraint straps and attachment points on swiveling platform

Specifications

• Maximum load supported by platform: 68 kg (150 lb)

• Dimensions
  – Platform (W x D): 43 x 53 cm (21 x 17 in), Adjustment height: 30.5 cm (12 in)
  – Keyboard/mouse tray (W x D): 50.8 x 44.45 cm (20 x 17.5 in)
  – Adjustment height: None

• Weight
  – Platform and mounting arm: 13.166 kg (29 lb)
  – Keyboard/mouse tray: 9.988 kg (22 lb)

Kit Contents

• Swiveling instrument/accessory platform
• Mounting hardware
• Keyboard/mouse tray
• Removable/adjustable lower shelf instrument tray
• Removable/adjustable upper shelf
• Seismic restraint straps

Compatibility

• Elite 300

143-420 — Rear Instrument Shelf System

Features

• Shelf system easily attaches to the Elite 300 system frame
• Instruments and accessories can be conveniently placed at the rear of the Elite 300
• Seismic restraint straps and attachment points on shelving
• Height adjustable upper shelf
• Adjustable instrument tray can be positioned forward over the Elite 300 platen surface, allowing test instruments to be located close to probes for short cable interconnects

Specifications

• Maximum supported instrument load
  – Lower shelf and tray: 90.8 kg (200 lb)
  – Upper shelf: 45.4 kg (100 lb)

• Dimensions
  – Lower shelf (WxDxH): 120 x 46 x 76.8 cm (47.24 x 18.11 x 30.23 in)
  – Lower tray (WxD): 75 x 75 cm (29.52 x 29.52 in), Adjustment

143-418 — Seismic Restraints

Features

• Provides seismic restraint for Elite 300 station platform
• Installation at time of station facilities setup
• Compatible with Elite standard and low profile height kits

Kit Contents

• 4 restraint brackets
• Installation guide and bolt mounting recommendations

Compatibility

• Elite 300

Bottom shelf and adjustable instrument tray (forward position)
Mounting Kits, Plates, and Miscellaneous Accessories

143-428 — Keysight 42941A Mounting Kit

Features
• Mounting bracket to hold Keysight 42941A probe
• Compatible with CM300xi and Elite 300 RPP305 positioners

Kit Contents
• 2 cables:
  – SMA (m) to SMA (m)
  – 120 mm (4.7 in)
• Mounting bracket for RPP305-EL positioner

Compatibility
• CM300xi, Elite 300

143-429 — Mounting Plate for B1500A SCUU

Mounted plate

Keysight SCUU mounted to plate

Compatibility
• CM300xi, Elite 300

144-422 — Mounting Plate for B1500A ASU, E5288A Atto Sense Unit

Mounted plate

Keysight ASU mounted to plate

Compatibility
• CM300xi, Elite 300

177-560 — Top Hat Assembly, 4 Port, 300 mm

Features
• Enables the use of single or dual Keysight N5291 modules with Infinity and ACP probes on CM300xi and Elite 300 stations with MicroChamber
• Enables full thermal capability

Configuration
• Intended for use with positioner assemblies RPP404-EW-120 and RPP404-W-120, RPP304-NS-67

Compatibility
• CM300xi, Elite300

Plate mounts on universal accessory mounting rails
Lab Accessories and Miscellaneous

Tables

115405 — Vibration Isolation Table, VIT801

Features
- 1 pressure input regulator with gauge
- Storage shelf 550 x 320 mm (21.6 x 12.6) at rear bottom
- Support arm systems optionally available

Specifications
- W x D x H = 800 x 800 x 750 mm (31.5 x 31.5 x 29.5 in)
- Adjustable two-chamber air damping system with resonance frequency of 2.5Hz
- Automatic load leveling
- Max. load capacity: 360 kg (794 lb)
- Air pressure required: ~1.5 to 4 bar, depending on load
- Normal working pressure: 2 to 3.5 bar

Compatibility
- PA200, PM8, MPS150, EPS150

138815 — Probe Station Table 700

Features
- For BlueRay and APS/SPS200TESLA use
- Prepared for 483 mm (19 in) devices
- Equipped with docking points for upgrade with BlueRay Loader Module to fully automatic probe station
- Measurement shelf and monitor/keyboard arm optionally available

Specifications
- W x D x H = 700 x 700 x 750 mm (27.5 x 27.5 x 29.5 in)

Compatibility
- PA200 BlueRay, PA200 DS BlueRay, APS/SPS200TESLA

117931 — SE1200 EMC Adapter for VIT951/PA300

Features
- Connects the SE1200 EMC to the PA300 vibration isolating table
- Impacts to the ShieldEnclosure are isolated from the probe station
- Electromagnetically shielding

Compatibility
- PA300

135100 — Vibration Isolation Table, VIT701

Features
- For BlueRay and APS/SPS200TESLA use
- Prepared for 483 mm (19 in) devices
- Equipped with docking points for upgrade with BlueRay Loader Module to fully automatic probe station
- Requires compressed air (min. 6 bar, 8 mm [0.31 in] hose).
- Measurement shelf and monitor/keyboard arm optionally available

Specifications
- Dimensions:
  - Steel tabletop (W x D): 1016 x 1016 mm (40 x 40 in)
  - Table operating height: 813 mm (32 in)
- Weights:
  - Steel tabletop: 104 kg (230 lb)
  - Complete system (including tabletop): ~218 kg (~480 lb)
- Operation:
  - Optimum air pressure: 25 - 60 psi
  - Input air pressure: min 20 psi (approx.) - max 80 psi
  - Max weight capacity 703 kg (1,150 lb) (@ 80 psi)
– Optimum load on the tabletop is 90-363 kg (200-800 lb) (since the pressure is directly related to the mass sitting on the tabletop, the operating pressure determines this range)
– Vibration isolation: typical performance better than 0db at 6 Hz, with –6 dB per octave roll-off to 48 Hz and >–18 dB attenuation above 48 Hz (with a Summit 12000 series probe station or equivalent load)

Compatibility
• Summit, M150, BTS

177-396 — Vibration Isolation Table, DELUX Package for 200 mm Stations

Features
• Heavy duty frame and steel tabletop
• Integrated rolling casters
• Seismic restraint kit
• Storage shelf below tabletop
• Ergonomic front support bar
• Optional side instrument shelves and accessories available
• Computer accessory mounting kit for keyboard, mouse, joystick
• Multi-directional LCD monitor support arm (VESA).
• Enclosed system (side walls and front access door).

Specifications
• Dimensions:
  – Steel tabletop (W x D): 1016 x 1016 mm (40 x 40 in)
  – Table operating height: 813 mm (32 in)
• Weights:
  – Steel tabletop: 104 kg (230 lb)
  – Complete system (including tabletop): ~218 kg (~480 lb)
• Operation:
  – Optimum air pressure: 25 - 60 psi
  – Input air pressure: min 20 psi (approx.) - max 80 psi
  – Max weight capacity 703 kg (1,150 lb) (@ 80 psi)
  – Optimum load on the tabletop is 90-363 kg (200-800 lb) (since the pressure is directly related to the mass sitting on the tabletop, the operating pressure determines this range)
  – Vibration isolation: typical performance better than 0 db at 6 Hz, with –6 dB per octave roll-off to 48 Hz and >–18 dB attenuation above 48 Hz (with a Summit 12000 series probe station or equivalent load)

143-567 — Side Instrument Shelf for Table

Features
• Universal design can mount on left or right side of table
• Heavy duty design can hold multiple instruments
• Easy mounting enables quick reconfiguration

Specifications
• Dimensions:
  – Side shelf (W x D): 533 x 1016 mm (21 x 40 in), positioned with a 25.4 mm (1 in) space between the side shelf and main steel tabletop
  – Table width (with 2 side shelves installed, left and right): 2184.4 mm (86 in)

169-130 — Vibration Isolation Platform VIP601

Features
• Compact, vibration dampening platform
• Suitable for MPS150 and EPS150 probe stations

Specifications
• Dimensions (WxDxH): 598 x 530 x 87 mm (23.5 x 20.9 x 3.4 in)
• Max. load at 4 bar: 530N per damper
• Max load capacity at nominal pressure (4 bar): 200 kg
• Internal frequency: 2.5 Hz (vert.), 2.5 Hz (hor.), depending on load

Compatibility
• MPS150, EPS150 and also with SE750

171-512 — Optional Cover and Earthquake Kit for VIP601

Features
• Cover for VIP601
• Earthquake protection

Specifications
• Fixed link between probe station and platform provides seismic stability
• Enables probe station movement together with the platform in case of relocation or a seismic event

Compatibility
• VIP601
• Not configurable with EPS-ACC-SE750-COAX and EPS-ACC-SE750-TRX (earthquake protection already included)
Shield Enclosures/Dark Boxes

111650 — Shield Enclosure, SE1200 EMC

Features
- For standard probe systems PM300 and PA300 (others on request).
- Light-tight, electrically grounded and optimized design for EMC shielding
- Vizor opening
- Requires additional feed-throughs and table adaptation
- Requires EMO option in combination with (semiautomatic) PA300.
- Inside light and interlock switch optional
- Clean room compliant field upgrades are not possible
- Four people are required to complete field upgrade installation

Specifications
Required floor space:
- Width = 1.5 m (59 in)
- Depth = 1.3 m (51.2 in)
- Height (with table): 2.1 m (82.7 in)

Compatibility
- PA300, PM300

100689 — EMC Light-Tight Feedthrough

Features
- For SE750EMC, SE1000EMC and SE1200EMC.
- Electromagnetically shielded
- For probe station, thermal chuck and video wiring

Compatibility
- Shield enclosures: SE750, SE1000, SE1200

138121 — Shield Enclosure, SE1000 EMC with Interlock and Illumination

Features
- For standard probe systems PM5 (with laser cutter), PM8 and PA200 (others on request).
- Light-tight, electrically grounded and optimized design for EMC shielding
- With lamps inside and interlock switch at front door
- Requires additional feed-throughs and table adaptation
- Requires EMO option in combination with (semiautomatic) PA200
- Clean room compliant field upgrades are not possible
- Four people are required to complete field upgrade installation

Specifications
Required floor space:
- Width = 1.3 m (51.2 in)
- Depth (with front lid opened) = 2 m (78.7 in)
- Height (with table and front lid opened): 2.5 m (98.4 in)
- Requires:
  - Adaptation to VIT70x (PN 138390)
  - VIT700 (PN 138815) or VIT701 (PN 135100) for BlueRay
  - Adaptation SE1000EMC to VIT801 (PN 119585)
  - Vibration isolation table VIT801 (PN 115405)

Options:
- 100689 EMC light-tight feed-through
- 112392 EMC test equipment interface, standard
- 112391 EMC test equipment interface, Kelvin

Compatibility
- PA200, PA200 BlueRay, PM8, MPS150, EPS150

112391 — EMC Test Equipment Interface, Kelvin

Features
- For test equipment adaptation (e.g., HP4142/4156B)
- 4 triax-triax-dual (Kelvin) and 8 coax-coax feedthroughs

Compatibility
- Shield enclosures: SE750, SE1000, SE1200

112392 — EMC Test Equipment Interface, Standard

Features
- For adapting test equipment
- One plate with 8 triax-triax and 8 coax-coax feedthroughs

Compatibility
- Shield enclosures: SE750, SE1000, SE1200
EPS-ACC-SE750-COAX — Shield Enclosure

**Features**
- Light-tight and EMI-shielded environment
- Stable table required as base
- Includes media feedthrough, test equipment interface with 5 coax-coax measurement feedthroughs, and opening for one additional test equipment interface

**Specifications**
- Width: 750 mm (29.5 in)
- Depth: 750 mm (29.5 in)
- Height: 820 mm (32.3 in) (door closed), 1620 mm (63.8 in) (door open)
- DC-noise reduction (1 Sigma) between -20dB and -40dB depending on measurement environment
- Depending on measurement environment up to 100 femtoampere (fA) will be possible

**Compatibility**
- EPS150, MPS150 (without laser cutter)

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EPS-ACC-SE750-TRX — Shield Enclosure

**Features**
- Light-tight and EMI-shielded environment
- Stable table required as base
- Includes media feedthrough, test equipment interface with 1x12 mm RF and 6x triax-triax measurement feedthroughs, and opening for one additional test equipment interface

**Specifications**
- Width: 750 mm (29.5 in)
- Depth: 750 mm (29.5 in)
- Height: 820 mm (32.3 in) (door closed), 1620 mm (63.8 in) (door open)
- Depending on measurement environment up to 100 femtoampere (fA) will be possible

**Compatibility**
- EPS150, MPS150 (without laser cutter)
112392 — EMC Test Equipment Interface, Standard

Features
• For test equipment adaptation
• Includes 8 triax-triax and 8 coax-coax feedthroughs

Compatibility
• Shield Enclosures

167-746 — CM300xi Shield Enclosure (Including Monitor)

Features
• Provides dark, light-shielded probing environment
• Vertical lift front door balanced with gas struts
• Locking front door handle
• Large open access to CM300xi station platen/test area
• 508 mm (20 in) interior monitor enables convenient adjustment
• Monitor switches off automatically when box is closed.
• Accommodates video camera microscopes
• Internal low voltage LED lighting with automatic door position activated on/off switching
• Lift handles for installation and removal (lifting requires four people)
• Removable large cover provides rear access to station accessories
• 4 removable blank access panels allow custom feedthroughs (2 panels at rear, each 1 at side)
• EMC Test Equipment Interfaces or EMC Light-Tight Feedthrough may be used to replace the blank panels
• Twinaxial BNC safety interlock switch for use with instrument

Specifications
• Width: 120 cm (47 in)
• Depth: 117 cm (46 in)
• Height with door closed: 86 cm (34 in)
• Height with door open: 125 cm (49 in)
• Total system height with open shield enclosure: 228 cm (90 in)
• Access ports for cable connections: 225 x 215 mm (8 x 8 in)

Compatibility
• CM300xi-F and CM300xi-S (note that installation can have a detrimental effect on the probe station positioning accuracy)
• Not recommended for CM300-O (open system)
• If configured with MHU300, access panels at the MHU300 connection side will be unavailable
Mounting Accessories

138600 — Single Monitor Arm

Features
- Single arm for a flat panel display (up to 24 in)
- Compact design frees up space
- Lift: 33 cm (13 in)
- Tilt/Pan: 80°/180°, rotation: 90°

Compatibility
- PA300, PA300PS-MA, PA200 BlueRay, VIT801

148858 — Single Monitor Arm

Features
- Two single arms for flat panel displays (up to 24 in)
- Compact design frees up space, monitor position beside and above each other possible
- Lift: 33 cm (13 in)
- Tilt/Pan: 80°/180°, rotation: 90°
- Dual DVI-card for control PC included

Compatibility
- PA300, PA300PS-MA, PA200 BlueRay, VIT801

138846 — Control Console

Features
- For mouse, joystick control panel and compact size keyboard
- Compatible with VIT801, PA300, and MicroAlign systems
- Can be installed on front left or right side

Compatibility
- PA300, PA200, PA200 BlueRay, VIT801

177-395 — LCD, Keyboard, Joystick and Mouse Mounting Kit for Vibration Isolation Table

Features
- Ergonomic platform for computer keyboard, mouse, joystick
- LCD monitor support (VESA) with articulated arm for free floating placement
- Universal design can mount on left or right side of table
- Easy mounting allows for quick reconfiguration

Specifications
- Supports LCD monitor with VESA mount (weight range 5-13 kg [12-29 lb])
- Monitor arm has 406 mm (16 in) height range, and tilt/swivel adjustment
- VESA mounting plates (70/100 mm)
- Accessory mounting posts (2) are height adjustable

Compatibility
- 142-032
## Miscellaneous Accessories

### 100422 — Textool Socket Adapter

**Features**
- For holding of PC boards with 50-130 mm width
- Adapter is vacuum clamped onto chuck

**Compatibility**
- Vacuum chucks

### 100539 — Vacuum Switches for HF Chuck

**Features**
- Block with two vacuum switches for HF chucks
- Controls vacuum for calibration substrates and burnishing pads

**Specifications**
- Contained in HF Kit for PA200, PM8 III, PA300 and PM300

**Compatibility**
- PA300, PM300, PA200, PM8, PM300PS

### 100605 — Inker, DPP2xx/DPP3xx

**Features**
- Fits positioners DPP2xx-S, DPP3xx-S.
- Can be used in combination with probe cards
- Can be used with software inker output, or a driver unit when used with manual systems
- Includes cartridge holder

**Compatibility**
- DPP2xx-S, DPP3xx-S

### 145530 — Inker Cartridge, Markem 6990

**Features**
- Markem ink type 6990, color: black
- Alcohol soluble, relatively thin, flows very consistently, requires heat curing
- After opening, the cartridge can be used for about 5 days

**Specifications**
- Order requires one of the following configurations to be specified:
  - DM-1 5,8,10,15,20,25,30 mil
  - DM-1.25 10,15,20,25 mil
  - DM-S 10,15 mil
- Shelf life: 4 months

**Pack of 10**

### 157-842 — Universal DUT Board Holder

**Features**
- For isolated holding of PC boards with up to 150 mm (6 in) width
- Adapter is vacuum clamped onto chuck

**Specifications**
- Max. board thickness up to 2.5 mm (0.09 in)

**Compatibility**
- MPS150, PM8, PA200, PM300

### 161-096 — Analogue Separation Drive Display for MPS150 Universal Platen

**Features**
- Displays positioner platen z-height
- For use with MPS150/EPS150 universal platen
- Enables exact overtravel adjustment

**Specification**
- 10 µm (0.39 mils) division marks
- 1 turn = 1 mm (0.04 in)
- Adjustable 0 position

**Compatibility**
- MPS150 / EPS150 (universal platen)

### 164-486 — Analogue Separation Drive Display for MPS150 MMWPlaten

**Features**
- Displays positioner platen z-height
- For use with MPS150 MMW platen
- Enables exact overtravel adjustment

**Specification**
- 10 µm (0.39 mils) division marks
- 1 turn = 1 mm (0.04 in)
- Adjustable 0 position

**Compatibility**
- MPS150 (MMW platen)
164-917 — Air Drying Unit

Features
- Membrane air dryer (internal purge air consumption 120 l/min [4.2 CFM])
- Integrated nano filter
- No electric power required
- Designed for wall mounting

Specifications
- Dimensions (HxWxD): 805 x 100 x 81 mm (31.7 x 3.9 x 3.2 in.)
- Input CDA requirements
  - Minimum inlet pressure 7 bar/0.7 MPa/101.5 psi
  - Oil-free, particle-free (<1 μm), pressure dew point < +3°C (37.4°F)
- Outlet pressure dew point depending on inlet pressure, inlet pressure dew point and flow rate
- Purge air 120 l/min (4.2 CFM)
- Requires yearly exchange of filter unit

Application Example
- Inlet pressure 7 bar/0.7 MPa/101.5 psi, inlet pressure dew point +3°C (37.4°F), inlet air flow 570 l/min (20.1 CFM)
- Outlet pressure dew point < -20°C (-4°F)
- Outlet air flow 450 l/min (15.9 CFM)

M150-ACC-13 — Vacuum Manifold, Magnetic Base

Features
- 5 port vacuum manifold
- Magnet base mounts at the most convenient location (e.g., on platen)
- For use with vacuum based positioners or other vacuum based accessories
- Easy push-pull on/off controls

Specifications
- Input connection: 3 mm (1/8 in) ID push on connector
- Output connections: 1.5 mm (1/16 in) ID

Compatibility
- Elite 300, Summit, Tesla, M150, Alessi

M150-ACC-16 — Magnetic Cable Clamp Kit

Features
- Magnetic base cable clamp
- Enables easy cable routing
- Helps to minimize cable vibration that can affect measurements
- Groove in base holds cable securely

Kit Contents
- Each kit includes the necessary hardware for one cable
- Maximum cable diameter = 3 mm (1/8-inch)
- Must be used with steel base

Compatibility
- Elite 300, Summit, Tesla, M150, Alessi, BTS*

Package Compatibility
- BTS 1000 — YES
- BTS 2000 — YES
- BTS-VERT — YES

M150-ACC-18 — Pin to Banana Interface Kit

Features
- Six port pin jack to banana jack interface with magnetic base
- Used with unshielded probes (e.g., MMP-01 or 139-332) to convert to a banana style output
- Magnet base enables convenient placement based on your positioner locations
Kit Contents
• One 6 port interface

Compatibility
• Elite 300, Summit, Tesla, M150, Alessi

M150-ACC-19 — Triax Panel, Magnetic Base

Features
• Triax connection panel for convenient cable management
• Magnet base enables convenient placement based on your positioner location
• 10 Triax (3-lug) feed through connectors (female)
• Panel connections support single triax cables and Keysight dual triax SMU cable assemblies. For Keysight Quadrax SMU connections, please contact the factory.

Kit Contents
• Magnet base connection panel
• Ground strap

Compatibility
• Elite 300, Summit, Tesla, TESLA200, SUMMIT200, M150, Alessi

M150-ACC-28 — Coax Panel, Magnetic Base

Features
• Coaxial connection panel for convenient cable management
• Magnet base allows for convenient placement based on your positioner location
• 10 Coaxial feed through connectors (female)

Kit Contents
• Magnet base connection panel
• Ground strap

Compatibility
• Elite 300, Summit, Tesla, M150, Alessi
Manual Stations

PM8

100507 — Supply Kit for Vacuum Adapter

Features
• For vacuum clamping of positioners on magnetic or HF platen

Compatibility
• PM8

190-243 — ATT Auxiliary Chuck 160/200 mm for ISS up to 22.2mm

Features
• Additional chuck for one calibration Substrate, custom ISS and/or burnishing pad up to 22.2mm*22.2mm, for 160mm or 200mm ATT thermal chuck
• Up to two additional chucks can be mounted at front-left and front-right position
• Requires vacuum switches for HF chuck: – PN 100539 for PA200/PM8

Compatibility:
• PA200, PA200 BlueRay, PM8 with 160 mm (6 in) / 200 mm (8 in) ATT thermal chuck

PM300

133270 — Additional Chuck for Two Substrates

Features
• Additional chuck for 2 calibration substrates and/or burnishing pads

Compatibility
• PM300

190-244 — ATT Auxiliary Chuck 300 mm dual for ISS up to 22.2mm

Features
• Additional chuck for two calibration substrates, custom ISS and/or burnishing pad up to 22.2mm*22.2mm, for 300mm ATT thermal chuck
• Can be mounted at front-left position
• Requires vacuum switches for HF chuck (PN 100539)

Compatibility:
• PA300, PM300 with 300 mm ATT thermal chuck, PM300PS
Microscopes

181-123 — eVue IV Digital Imaging System, 10X, Remote Focus, Pro Package, for CM300 (no focus block, for motorized transport)

Features
• Multi lens design
  – Quick and easy probe tip navigation
  – Maximizes field-of-view
  – High magnification
• Longer focus range
  – Z drive can work in the same range as the chuck
  – Shadow-free view of the corresponding features
• Intelligent objective lens mount
  – Automatically configure and optimize performance
  – Easy lens exchange
• Advanced design
  – cTUVus certified and CE
  – Compatible with TopHat for perfect shielding
  – Compatible with high-voltage measurements
• Extended lifetime
  – 24/7 operating, increased MTBF
  – No internal maintenance required
• Intelligent collision detection system
  – Protects the measurement setup
  – Prevents involuntary mechanical contact between lens and probes
  – Stops all system motion and warns of unobserved contact

Specifications
• 2 optical paths
• 4 mm fine focus Z drive range
• 0.2 µm (0.008 mils) Z drive resolution
• Auto focus
• Multi view with two screens
• 45.5 fps video frame rates (1024 x 768)
• 13.1 fps video frame rates (2048 x 1536)
• 0.5 - 5.0X zoom range

Kit Contents
• Integrated LED illumination system
• USB remote control box
• Digital video PC interface card
• Video processing software
• Probe station software integration module

Compatibility
• CM300xi

Requirements
• Velox probe station control software
• Velox 2.4 or later

181-124 — eVue IV Digital Imaging System, 10X, Remote Focus, for CM300 (no focus block, for motorized transport)

Features
• Multi lens design
  – Quick and easy probe tip navigation
  – Maximizes field-of-view
  – High magnification
• Longer focus range
  – Z drive can work in the same range as the chuck
  – Shadow-free view of the corresponding features
• Intelligent objective lens mount
  – Automatically configure and optimize performance
  – Easy lens exchange
• Advanced design
  – cTUVus certified and CE
  – Compatible with TopHat for perfect shielding
  – Compatible with high-voltage measurements
• Extended lifetime
  – 24/7 operating, increased MTBF
  – No internal maintenance required
• Intelligent collision detection system
  – Protects the measurement setup
  – Prevents involuntary mechanical contact between lens and probes
  – Stops all system motion and warns of unobserved contact

Specifications
• 2 optical paths
• 0.2 µm (0.008 mils) Z drive resolution
• 45.5 fps video frame rates (1024 x 768)
• 0.5 - 5.0X zoom range

Kit Contents
• Integrated LED illumination system
• USB remote control box
• Digital video PC interface card
• Video processing software
• Probe station software integration module

Compatibility
• CM300xi

Requirements
• Velox probe station control software
• Velox 2.4 or later

181-133 — eVue IV Digital Imaging System, 40X, Remote Focus, Pro Package, for CM300 (no focus block, for motorized transport)

Features
• Multi lens design
  – Quick and easy probe tip navigation
  – Maximizes field-of-view
  – High magnification

• Longer focus range
  – Z drive can work in the same range as the chuck
  – Shadow-free view of the corresponding features

• Intelligent objective lens mount
  – Automatically configure and optimize performance
  – Easy lens exchange

• Advanced design
  – cTUVus certified and CE
  – Compatible with TopHat for perfect shielding
  – Compatible with high-voltage measurements

• Extended lifetime
  – 24/7 operating, increased MTBF
  – No internal maintenance required

• Intelligent collision detection system
  – Protects the measurement setup
  – Prevents involuntary mechanical contact between lens and probes
  – Stops all system motion and warns of unobserved contact

Specifications
• 3 optical paths
• 4 mm fine focus Z drive range
• 0.2 µm (0.008 mils) Z drive resolution
• Auto focus
• Multi view with three screens
• 45.5 fps video frame rates (1024 x 768)
• 13.1 fps video frame rates (2048 x 1536)
• 0.5 - 20.0X zoom range

Kit Contents
• Integrated LED Illumination system
• USB remote control box
• Digital video PC interface card

• Video processing software
• Probe station software integration module

Compatibility
• CM300xi

Requirements
• Velox probe station control software
• Velox 2.4 or later

181-134 — eVue IV Digital Imaging System, 40X, Remote Focus, for CM300 (no focus block, for motorized transport)

Features
• Multi lens design
  – Quick and easy probe tip navigation
  – Maximizes field-of-view
  – High magnification

• Longer focus range
  – Z drive can work in the same range as the chuck
  – Shadow-free view of the corresponding features

• Intelligent objective lens mount
  – Automatically configure and optimize performance
  – Easy lens exchange

• Advanced design
  – cTUVus certified and CE
  – Compatible with TopHat for perfect shielding
  – Compatible with high-voltage measurements

• Extended lifetime
  – 24/7 operating, increased MTBF
  – No internal maintenance required

• Intelligent collision detection system
  – Protects the measurement setup
  – Prevents involuntary mechanical contact between lens and probes
  – Stops all system motion and warns of unobserved contact

Specifications
• 3 optical paths
• 0.2 µm (0.008 mils) Z drive resolution
• 45.5 fps video frame rates (1024 x 768)
• 0.5 - 20.0X zoom range

Kit Contents
• Integrated LED Illumination system
• USB remote control box
• Digital video PC interface card
• Video processing software
• Probe station software integration module
Compatibility
- CM300xi

Requirements
- Velox probe station control software
- Velox 2.4 or later

181-121 — eVue IV Digital Imaging System, 10X, Remote Focus, for Elite 300 (no focus block)

Features
- Multi lens design
  - Quick and easy probe tip navigation
  - Maximizes field-of-view
  - High magnification
- Longer focus range
  - Z drive can work in the same range as the chuck
  - Shadow-free view of the corresponding features
- Intelligent objective lens mount
  - Automatically configure and optimize performance
  - Easy lens exchange
- Advanced design
  - cTUVus certified and CE
  - Compatible with TopHat for perfect shielding
  - Compatible with high-voltage measurements
- Extended lifetime
  - 24/7 operating, increased MTBF
  - No internal maintenance required
- Intelligent collision detection system
  - Protects the measurement setup
  - Prevents involuntary mechanical contact between lens and probes
  - Stops all system motion and warns of unobserved contact

Specifications
- 2 optical paths
- 0.2 µm (0.008 mils) Z drive resolution
- 45.5 fps video frame rates (1024 x 768)
- 0.5 - 5.0X zoom range

Kit Contents
- Integrated LED Illumination system
- USB remote control box
- Digital video PC interface card
- Video processing software
- Probe station software integration module

Compatibility
- Elite 300, T300

Requirements
- Velox Probe station control software
- Velox 2.4 or later

181-131 — eVue IV Digital Imaging System, 40X, Remote Focus, for Elite 300 (no focus block)

Features
- Multi lens design
  - Quick and easy probe tip navigation
  - Maximizes field-of-view
  - High magnification
- Longer focus range
  - Z drive can work in the same range as the chuck
  - Shadow-free view of the corresponding features
- Intelligent objective lens mount
  - Automatically configure and optimize performance
  - Easy lens exchange
- Advanced design
  - cTUVus certified and CE
  - Compatible with TopHat for perfect shielding
  - Compatible with high-voltage measurements
- Extended lifetime
  - 24/7 operating, increased MTBF
  - No internal maintenance required
- Intelligent collision detection system
  - Protects the measurement setup
  - Prevents involuntary mechanical contact between lens and probes
  - Stops all system motion and warns of unobserved contact

Specifications
- 3 optical paths
- 0.2 µm (0.008 mils) Z drive resolution
- 45.5 fps video frame rates (1024 x 768)
- 0.5 - 20.0X zoom range

Kit Contents
- Integrated LED Illumination system
- USB remote control box
- Digital video PC interface card
- Video processing software
- Probe station software integration module

Compatibility
- Elite 300, T300

Requirements
- Velox Probe station control software
- Velox 2.4 or later
181-122 — eVue IV Digital Imaging System, 10X, Remote Focus, Pro Package, for Elite 300 (no focus block)

Features
• Multi lens design
  – Quick and easy probe tip navigation
  – Maximizes field-of-view
  – High magnification
• Longer focus range
  – Z drive can work in the same range as the chuck
  – Shadow-free view of the corresponding features
• Intelligent objective lens mount
  – Automatically configure and optimize performance
  – Easy lens exchange
• Advanced design
  – cTUVus certified and CE
  – Compatible with TopHat for perfect shielding
  – Compatible with high-voltage measurements
• Extended lifetime
  – 24/7 operating, increased MTBF
  – No internal maintenance required
• Intelligent collision detection system
  – Protects the measurement setup
  – Prevents involuntary mechanical contact between lens and probes
  – Stops all system motion and warns of unobserved contact

Specifications
• 2 optical paths
• 4 mm fine focus Z drive range
• 0.2 µm (0.008 mils) Z drive resolution
• Auto focus
• Multi view with two screens
• 45.5 fps video frame rates (1024 x 768)
• 13.1 fps video frame rates (2048 x 1536)
• 0.5 - 5.0X zoom range

Kit Contents
• Integrated LED Illumination system
• USB remote control box
• Digital video PC interface card
• Video processing software
• Probe station software integration module

Compatibility
• Elite 300, T300

Requirements
• Velox Probe station control software
• Velox 2.4 or later

181-132 - eVue IV Digital Imaging System, 40X, Remote Focus, Pro Package, for Elite 300 (no focus block)

Features
• Multi lens design
  – Quick and easy probe tip navigation
  – Maximizes field-of-view
  – High magnification
• Longer focus range
  – Z drive can work in the same range as the chuck
  – Shadow-free view of the corresponding features
• Intelligent objective lens mount
  – Automatically configure and optimize performance
  – Easy lens exchange
• Advanced design
  – cTUVus certified and CE
  – Compatible with TopHat for perfect shielding
  – Compatible with high-voltage measurements
• Extended lifetime
  – 24/7 operating, increased MTBF
  – No internal maintenance required
• Intelligent collision detection system
  – Protects the measurement setup
  – Prevents involuntary mechanical contact between lens and probes
  – Stops all system motion and warns of unobserved contact

Specifications
• 3 optical paths
• 4 mm fine focus Z drive range
• 0.2 µm (0.008 mils) Z drive resolution
• Auto focus
• Multi view with three screens
• 45.5 fps video frame rates (1024 x 768)
• 13.1 fps video frame rates (2048 x 1536)
• 0.5 - 20.0X zoom range

Kit Contents
• Integrated LED Illumination system
• USB remote control box
• Digital video PC interface card
• Video processing software
• Probe station software integration module

Compatibility
• Elite 300, T300

Requirements
• Velox Probe station control software
• Velox 2.4 or later
181-125 — eVue IV Digital Imaging System, 10X, Remote Focus

**Features**

- Multi lens design
  - Quick and easy probe tip navigation
  - Maximizes field-of-view
  - High magnification
- Longer focus range
  - Z drive can work in the same range as the chuck
  - Shadow-free view of the corresponding features
- Intelligent objective lens mount
  - Automatically configure and optimize performance
  - Easy lens exchange
- Advanced design
  - cTUVus certified and CE
  - Compatible with TopHat for perfect shielding
  - Compatible with high-voltage measurements
- Extended lifetime
  - 24/7 operating, increased MTBF
  - No internal maintenance required
- Intelligent collision detection system
  - Protects the measurement setup
  - Prevents involuntary mechanical contact between lens and probes
  - Stops all system motion and warns of unobserved contact

**Specifications**

- 2 optical paths
- 0.2 µm (0.008 mils) Z drive resolution
- 45.5 fps video frame rates (1024 x 768)
- 0.5 - 5.0X zoom range

**Kit Contents**

- Integrated LED Illumination system
- USB remote control box
- Digital video PC interface card
- Video processing software
- Probe station software integration module

**Compatibility**

- SUMMIT200, TESLA200, Summit 12000

**Requirements**

- Velox Probe station control software
- Velox 2.4 or later

181-135 — eVue IV Digital Imaging System, 40X, Remote Focus

**Features**

- Multi lens design
  - Quick and easy probe tip navigation
  - Maximizes field-of-view
  - High magnification
- Longer focus range
  - Z drive can work in the same range as the chuck
  - Shadow-free view of the corresponding features
- Intelligent objective lens mount
  - Automatically configure and optimize performance
  - Easy lens exchange
- Advanced design
  - cTUVus certified and CE
  - Compatible with TopHat for perfect shielding
  - Compatible with high-voltage measurements
- Extended lifetime
  - 24/7 operating, increased MTBF
  - No internal maintenance required
- Intelligent collision detection system
  - Protects the measurement setup
  - Prevents involuntary mechanical contact between lens and probes
  - Stops all system motion and warns of unobserved contact

**Specifications**

- 3 optical paths
- 0.2 µm (0.008 mils) Z drive resolution
- 45.5 fps video frame rates (1024 x 768)
- 0.5 - 20.0X zoom range

**Kit Contents**

- Integrated LED Illumination system
- USB remote control box
- Digital video PC interface card
- Video processing software
- Probe station software integration module

**Compatibility**

- SUMMIT200, TESLA200, Summit 12000

**Requirements**

- Velox Probe station control software
- Velox 2.4 or later
181-126 — eVue IV Digital Imaging System, 10X, Remote Focus, Pro Package

**Features**

- Multi lens design
  - Quick and easy probe tip navigation
  - Maximizes field-of-view
  - High magnification
- Longer focus range
  - Z drive can work in the same range as the chuck
  - Shadow-free view of the corresponding features
- Intelligent objective lens mount
  - Automatically configure and optimize performance
  - Easy lens exchange
- Advanced design
  - cTUVus certified and CE
  - Compatible with TopHat for perfect shielding
  - Compatible with high-voltage measurements
- Extended lifetime
  - 24/7 operating, increased MTBF
  - No internal maintenance required
- Intelligent collision detection system
  - Protects the measurement setup
  - Prevents involuntary mechanical contact between lens and probes
  - Stops all system motion and warns of unobserved contact

**Specifications**

- 2 optical paths
- 4 mm fine focus Z drive range
- 0.2 µm (0.008 mils) Z drive resolution
- Auto focus
- Multi view with two screens
- 45.5 fps video frame rates (1024 x 768)
- 13.1 fps video frame rates (2048 x 1536)
- 0.5 - 5.0X zoom range

**Kit Contents**

- Integrated LED Illumination system
- USB remote control box
- Digital video PC interface card
- Video processing software
- Probe station software integration module

**Compatibility**

- SUMMIT200, TESLA200, Summit 12000

**Requirements**

- Velox Probe station control software
- Velox 2.4 or later

181-136 — e Vue IV Digital Imaging System, 40X, Remote Focus, Pro Package

**Features**

- Multi lens design
  - Quick and easy probe tip navigation
  - Maximizes field-of-view
  - High magnification
- Longer focus range
  - Z drive can work in the same range as the chuck
  - Shadow-free view of the corresponding features
- Intelligent objective lens mount
  - Automatically configure and optimize performance
  - Easy lens exchange
- Advanced design
  - cTUVus certified and CE
  - Compatible with TopHat for perfect shielding
  - Compatible with high-voltage measurements
- Extended lifetime
  - 24/7 operating, increased MTBF
  - No internal maintenance required
- Intelligent collision detection system
  - Protects the measurement setup
  - Prevents involuntary mechanical contact between lens and probes
  - Stops all system motion and warns of unobserved contact

**Specifications**

- 3 optical paths
- 4 mm fine focus Z drive range
- 0.2 µm (0.008 mils) Z drive resolution
- Auto focus
- Multi view with three screens
- 45.5 fps video frame rates (1024 x 768)
- 13.1 fps video frame rates (2048 x 1536)
- 0.5 - 20.0X zoom range

**Kit Contents**

- Integrated LED Illumination system
- USB remote control box
- Digital video PC interface card
- Video processing software
- Probe station software integration module

**Compatibility**

- SUMMIT200, TESLA200, Summit 12000

**Requirements**

- Velox Probe station control software
- Velox 2.4 or later
181-127 — eVue IV Digital Imaging System, 10X, R-focus for manual stations (Velox, Ctrl, LCD), Standalone

Complete eVue IV Digital Imaging System for standalone use with manual probe stations and package/board test systems (upgradable to Pro version)

**Features**
- Multi lens design
  - Quick and easy probe tip navigation
  - Maximizes field-of-view
  - High magnification
- Longer focus range
  - Z drive can work in the same range as the chuck
  - Shadow-free view of the corresponding features
- Intelligent objective lens mount
  - Automatically configure and optimize performance
  - Easy lens exchange
- Advanced design
  - cTUVus certified and CE
  - Compatible with TopHat for perfect shielding
  - Compatible with high-voltage measurements
- Extended lifetime
  - 24/7 operating, increased MTBF
  - No internal maintenance required
- Intelligent collision detection system
  - Protects the measurement setup
  - Prevents involuntary mechanical contact between lens and probes
  - Stops all system motion and warns of unobserved contact

**Specifications**
- 2 optical paths
- 0.2 µm (0.008 mils) Z drive resolution
- 45.5 fps video frame rates (1024 x 768)
- 0.5 - 5.0X zoom range

**Kit Contents**
- Integrated LED Illumination system
- USB remote control box
- Digital video PC interface card
- Video processing software
- Probe station software integration module
- Windows 10 - High performance computer
- Latest Velox Probe station control software
- 24 inch LCD monitor
- 2 inch Heavy duty focus block

**Compatibility**
- Manual probe stations and package/board test systems

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181-128 — eVue IV Digital Imaging System, 10X, R-focus, Pro package for manual stations (Velox, Ctrl, LCD)

Complete eVue IV Digital Imaging System for standalone use with manual probe stations and package/board test systems (upgradable to Pro version)

**Features**
- Multi lens design
  - Quick and easy probe tip navigation
  - Maximizes field-of-view
  - High magnification
- Longer focus range
  - Z drive can work in the same range as the chuck
  - Shadow-free view of the corresponding features
- Intelligent objective lens mount
  - Automatically configure and optimize performance
  - Easy lens exchange
- Advanced design
  - cTUVus certified and CE
  - Compatible with TopHat for perfect shielding
  - Compatible with high-voltage measurements
- Extended lifetime
  - 24/7 operating, increased MTBF
  - No internal maintenance required
- Intelligent collision detection system
  - Protects the measurement setup
  - Prevents involuntary mechanical contact between lens and probes
  - Stops all system motion and warns of unobserved contact

**Specifications**
- 2 optical paths
- 4 mm fine focus Z drive range
- 0.2 µm (0.008 mils) Z drive resolution
- 45.5 fps video frame rates (1024 x 768)
- 13.1 fps video frame rates (2048 x 1536)
- 0.5 - 5.0X zoom range

**Kit Contents**
- Integrated LED Illumination system
- USB remote control box
- Digital video PC interface card
- Video processing software
- Probe station software integration module

**Requirements**
- Velox Probe station control software
• Windows 10 - High performance computer
• Latest Velox Probe station control software
• 24 inch LCD monitor
• 2 inch Heavy duty focus block

Compatibility
• Manual probe stations and package/board test systems

Requirements
• Velox Probe station control software

181-137 — eVue IV Digital Imaging System, 40X, R-focus for manual stations (Velox, Ctrl, LCD)
Complete eVue IV Digital Imaging System for standalone use with manual probe stations and package/board test systems (upgradeable to Pro version)

Features
• Multi lens design
  – Quick and easy probe tip navigation
  – Maximizes field-of-view
  – High magnification
• Longer focus range
  – Z drive can work in the same range as the chuck
  – Shadow-free view of the corresponding features
• Intelligent objective lens mount
  – Automatically configure and optimize performance
  – Easy lens exchange
• Advanced design
  – cTUVus certified and CE
  – Compatible with TopHat for perfect shielding
  – Compatible with high-voltage measurements
• Extended lifetime
  – 24/7 operating, increased MTBF
  – No internal maintenance required
• Intelligent collision detection system
  – Protects the measurement setup
  – Prevents involuntary mechanical contact between lens and probes
  – Stops all system motion and warns of unobserved contact

Specifications
• 3 optical paths
• 0.2 µm (0.008 mils) Z drive resolution
• 45.5 fps video frame rates (1024 x 768)
• 0.5 - 20.0X zoom range

Kit Contents
• Integrated LED Illumination system
• USB remote control box
• Digital video PC interface card

181-138 — eVue IV Digital Imaging System, 40X, R-focus, Pro package for manual stations (Velox, Ctrl, LCD)
Complete eVue IV Digital Imaging System for standalone use with manual probe stations and package/board test systems (upgradeable to Pro version)

Features
• Multi lens design
  – Quick and easy probe tip navigation
  – Maximizes field-of-view
  – High magnification
• Longer focus range
  – Z drive can work in the same range as the chuck
  – Shadow-free view of the corresponding features
• Intelligent objective lens mount
  – Automatically configure and optimize performance
  – Easy lens exchange
• Advanced design
  – cTUVus certified and CE
  – Compatible with TopHat for perfect shielding
  – Compatible with high-voltage measurements
• Extended lifetime
  – 24/7 operating, increased MTBF
  – No internal maintenance required
• Intelligent collision detection system
  – Protects the measurement setup
  – Prevents involuntary mechanical contact between lens and probes
  – Stops all system motion and warns of unobserved contact

Specifications
• 3 optical paths
• 4 mm fine focus Z drive range
• 0.2 µm (0.008 mils) Z drive resolution
• Auto focus
• Multi view with three screens
• 45.5 fps video frame rates (1024 x 768)
• 13.1 fps video frame rates (2048 x 1536)
• 0.5 - 20.0X zoom range

**Kit Contents**
• Integrated LED Illumination system
• USB remote control box
• Digital video PC interface card
• Video processing software
• Probe station software integration module
• Windows 10 - High performance computer
• Latest Velox probe station control software
• 24 inch LCD monitor
• 2 inch Heavy duty focus block

**Compatibility**
• Manual probe stations and package/board test systems

**Requirements**
• Velox probe station control software
eVue Pro Package Upgrade Kit

131-964 — Pro Package Upgrade Kit for eVue generation I, II and III

Upgrades the basic eVue (generation I, II and III) to include all the features of the PRO.

Features
• High Performance Pro Package upgrade for eVue Digital Imaging Systems
• Valid for basic 10X and 40X systems

Specifications
• Multi-Z (optical Z-contact system, autofocus)
• Multi-Cam (wafer-probe navigation, picture-in picture)
• Multi-View (hi-res video, probe card alignment, multi-needle views)

Kit Contents
• Pricing includes on-site installation

Compatibility
• eVue I, eVue II, eVue III

183-923 — Pro Package Upgrade Kit for eVue IV

Upgrades the basic eVue IV to include all the features of the PRO.

Features
• High Performance Pro Package upgrade for eVue digital Imaging Systems
• Valid for basic 10X and 40X systems

Specifications
• Multi-Z (optical Z-contact system, autofocus)
• Multi-Cam (wafer-probe navigation, picture-in picture)
• Multi-View (hi-res video, probe card alignment, multi-needle views)

Kit Contents
• Pricing includes on-site installation

Compatibility
• eVue IV
SlimVue

157-459 — SlimVue Microscope

Features
- Unique slim scope design for minimum scope footprint
- Ergonomic design
- Recommended for mmW applications
- High resolution and robust optical design
- Easy operation
- Maintenance free adjustable coaxial LED illumination
- Focus block included
- Quick lens exchange mechanism
- Supports Mitutoyo MPlan Apo or compatible objective lenses (not included)

Specifications
- Zoom ratio: 3.3x
- Zooming type: Manual rotation with detent
- 10x eyepiece magnification
- 100x-330x magnification with 10x objective lens
- Interpupillary Distance: 55mm~75mm
- Working Distance: Depends on used objective lens
- Image Formation: Erect Image
- Illumination: Built-in White LED
- Illumination type: Coaxial
- Compatible with Mitutoyo MPlan or similar objective lenses
- Trinocular photo tube with standard camera c-mount (switchable) for up to 13 mm (0.5 in) CCD cameras
- Optical path change-over: Manual Type 100?0/0?100
- Focus unit range: ±25mm (1 in)(4mm [0.2 in]/100µm per turn of coarse/fine focus knob)
- Power adapter 100V-240 V AC 1.6 A with IEC 60320-1-C14 connector
- Approx 5.5 kg (12 lb)

Kit Contents
- SlimVue Microscope body
- 10x wide field eyepieces
- 50mm (2 in) heavy duty manual focus block
- 2 objective adapters (no objective lens)
- Power supply and light control unit

Compatibility
- MPS150, PM8, PM300, PA200, PA300, Summit 11000/12000, PA200 BlueRay, SUMMIT200
Seiwa 888

VMSS-888L — Seiwa Microscope for IR Lasers with Manual Focus and Accessory Kit

**Features**
- Seiwa PS-888L Series Super Scope for 355-1064nm laser cutters
- Cost effective and robust optical design
- High resolution at high magnification
- Eye piece viewing
- Selectable wavelength ranges through tube lens turret
- Coaxial illumination

**Specifications**
- Zoom 1X wavelength range 355-532 nm
- Zoom 1X wavelength range 532-1064 nm
- Zoom 2X wavelength range 486-656 nm (laser cannot be used on in this position)
- Brightfield Kohler illumination with field and aperture stop
- Color filter and polarizer/analyzer slots
- Weight: ~ 6.8 kg (15 lb)
- Dimensions (HxWxD): ~ 460 x 192 x 360 mm (18.1 x 7.5 x 14.2 in)

**Kit Contents**
- Microscope body with 1X-2X zoom
- 4 objective manual turret
- Eyepieces: 10X wide field
- Objectives: 2.5X, 10X, 20X long working distance
- IR/1064nm - Green/532nm compatible (M Plan APO)
- 2 in heavy duty manual focus block
- F3000 LED light source
- C-mount camera adapter (126-260)

**Compatibility**
- Elite 300/S, Summit, M150, Tesla*, S300, Alessi
  *Objectives with >10x magnification may not be compatible with T200 High Voltage testing.

VMSS-888 — Seiwa Microscope with Manual Focus and Accessory Kit

**Features**
- Seiwa (Super Scope) microscope with accessory kit

**Specifications**
- Zoom 1X wavelength range 486-656 nm
- Zoom 2X wavelength range 486-656 nm
- Brightfield Kohler illumination with field and aperture stop
- Color filter and polarizer/analyzer slots
- Weight: ~ 6.8 kg (15 lb)
- Dimensions (HxWxD): ~ 460 x 192 x 360 mm (18.1 x 7.5 x 14.2 in)

**Kit Contents**
- Microscope body with 1X-2X zoom
- 4 objective manual turret
- Eyepieces: 10X wide field
- Objectives: 2.5X, 10X, 20X long working distance
- IR/1064nm - Green/532nm compatible (M Plan APO)
- 2 in heavy duty manual focus block
- F3000 LED light source
- C-mount video adapter (126-260)

**Compatibility**
- Elite 300/S, Summit, M150, Tesla*, S300, Alessi
  *Objectives with >10x magnification may not be compatible with T200 High Voltage testing.
Mitutoyo FS70

VMSS-70L — Mitutoyo Finescope FS-70 for IR Lasers, Obj., 10X Eyepcs, Fiber Optic Illuminator

Features
- Mitutoyo Finescope FS70L series
- 1X magnification
- Selectable eye piece or laser port viewing
- Coaxial illumination

Specifications
- 1X magnification
- For 355 -1064 nm laser cutters
- Brightfield Kohler illumination with field and aperture stop
- Weight: ~ 6.4 kg (14.1 lb)
- Dimensions (HxWxD): ~ 360 x 229 x 324 mm (14.2 x 9 x 12.8 in)

Kit Contents
- Microscope body
- 4 objective manual turret
- Eyepieces: 10X wide field
- Objectives: 2X, 10X, 20X long working distance
- 51 mm (2 in) heavy duty manual focus block
- F3000 high power light source
- C-mount video adapter

Compatibility
- Elite 300/S, Summit, M150, Tesla*, S300. Alessi
  *Objectives with >10x magnification may not be compatible with T200 High Voltage testing.

VMSS-70Z — Mitutoyo Finescope FS-70, Objectives, 10X Eyepcs, Fiber Optic Illuminator

Features
- Mitutoyo Finescope FS70Z series
- 2:1 continuous zoom
- Eyepiece viewing
- Camera port
- Coaxial illumination

Specifications
- 1X-2X magnification
- Brightfield Kohler illumination with field and aperture stop
- Weight: ~ 6.6 kg (14.5 lb)
- Dimensions (HxWxD): ~ 360 x 229 x 324 mm (14.2 x 9 x 12.8 in)

Kit Contents
- Microscope body
- 4 objective manual turret
- Eyepieces: 10X wide field
- Objectives: 2X, 10X, 20X long working distance
- 51 mm (2 in) heavy duty manual focus block
- F3000 high power light source
- C-mount video adapter

Compatibility
- Elite 300/S, Summit, M150, Tesla*, S300. Alessi
  *Objectives with >10x magnification may not be compatible with T200 High Voltage testing.
Motic PSM1000

141763 — Motic PSM-1000 Microscope

Features

• Microscope body
• Trinocular photo tube
• 1x and 2x VIS body lens
• Objective revolver, rotary type (with 4 mounts)
• Coaxial LED light source
• Two eyepieces: 10x
• Objectives: 2x, 10x, 20x
• Optional polarizer/analyzer capability
• 50mm Focus Block
• Laser ready for 1064, 532, and 355 nm (exchangeable body lenses included)

Compatibility

• Summit, EPS150, PA300, PM300, PA200, PM8, PM5, DSP, BEP
66529 — Motic Stereozoom Microscope, SMZ-168

**Features**
- Light source for optical fiber with control unit (100-240 V/50-60 Hz)
- Ring light with 1m optical fiber
- 2x widefield eyepieces 20x/F.N23
- Trinocular - TV option possible
- Microscope fixation ring with manual focus drive

**Specifications**
- Zoom Range 6.7:1
- Working distance 113 mm (4.4 in)
- Magnification 0.75x - 5.0x
- Eyepiece magnification 15x - 100x
- FOV (diameter) 17.3 - 2.6 mm (0.7 - 0.1 in)

**Compatibility**
- PA300, PM300, PA200, PM8, PM5, DSP, BEP

142811 — Stereo Zoom Microscope, SMZ168

**Features**
- Mounts to BlueRay machine base with flexible industrial arm and horizontal ball bearing
- Light source for optical fiber with control unit (100-240V/50-60Hz)
- Ring light with 1m optical fiber
- Manual focus drive, eyepieces 20x
- Trinocular - TV option separately available

**Specifications**
- Zoom Range 6.7:1
- Working distance 113 mm (4.4 in)
- Magnification 0.75x - 5.0x
- Eyepiece magnification 15x - 100x
- FOV (diameter) 17.3 - 2.6 mm (0.7 - 0.1 in)

**Compatibility**
- PA200(A) BlueRay

**Ordering Information**
- Part Number for TV port option: 66531
132-770 — Leica S8 APO StereoZoom Microscope Kit, Wide FOV, MTS Stations, Video Ready

**Features**
- Wide field of view for probing larger features
- Excellent resolution for low power microscopy
- Continuously variable zoom
- Video ready optical port
- Long life LED ring light
- High value choice for many probing needs

**Specifications**
- 8:1 zoom
- 600 line pairs/mm resolution
- Apochromatic optical design
- 100 mm (3.9 in) working distance with 0.63X objective installed
- 75 mm (3.0 in) working distance without 0.63X objective installed
- Variable illuminator output with auxiliary control

**Kit Contents**
- Leica S8 APO StereoZoom microscope, with 1.0 to 8.0 zoom
- 10X eyepieces (pair)
- Wide FOV objective (0.63X)
- Mounting arm with focus control
- Video adapter 1.0X
- Long working distance solid state LED ring illuminator
- Illumination control box and cables
- Universal power supply (100-240 VAC, 50/60 Hz)

**Compatibility**
- MTS

131-780 — Leica S8 Stereo Zoom Microscope Kit, 1.0 - 8.0 X Zoom, Video-Ready

**Features**
- Wide field of view for probing larger features
- Excellent resolution for low power microscopy
- Continuously variable zoom
- Video ready optical port
- Long life LED ring light
- High value choice for many probing needs

**Specifications**
- 8:1 zoom
- 600 line pairs/mm resolution
- Apochromatic optical design
- 75 mm (3.0 in) working distance
- Variable illuminator output with auxiliary control

**Kit Contents**
- Leica S8 APO StereoZoom microscope, with 1.0 to 8.0 zoom
- 20X eyepieces (pair)
- Mounting arm with focus control
- Video adapter 0.63X
- Long working distance solid state LED ring illuminator
- Illumination control box and cables
- Universal power supply (100-240 VAC, 50/60 Hz)

**Compatibility**
- Summit, M150, Alessi
- T200 High Voltage testing
## Objectives/Eye Pieces

### Key to Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mag</td>
<td>magnification</td>
</tr>
<tr>
<td>WD</td>
<td>working distance</td>
</tr>
<tr>
<td>N.A.</td>
<td>numerical aperture</td>
</tr>
<tr>
<td>f</td>
<td>focal length</td>
</tr>
<tr>
<td>R</td>
<td>resolving power</td>
</tr>
<tr>
<td>DOF</td>
<td>depth of field</td>
</tr>
<tr>
<td>FOV</td>
<td>field of view</td>
</tr>
<tr>
<td>BF</td>
<td>bright field</td>
</tr>
<tr>
<td>LWD</td>
<td>long working distance</td>
</tr>
<tr>
<td>SLWD</td>
<td>super-long working distance</td>
</tr>
<tr>
<td>Laser</td>
<td>laser cutting</td>
</tr>
<tr>
<td>HR</td>
<td>high resolution</td>
</tr>
<tr>
<td>NUV</td>
<td>near-ultraviolet</td>
</tr>
</tbody>
</table>

### MITUTOYO OBJECTIVES

- Compatible with FS70, eVue, iVista, Seiwa, A-Zoom microscopes

---

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>Application</th>
<th>Mag (x)</th>
<th>N.A.</th>
<th>WD (mm)</th>
<th>f (mm)</th>
<th>R (µm)</th>
<th>± DOF (µm)</th>
<th>FOV (mm)</th>
<th>Mass (g)</th>
<th>λ Correction</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-516</td>
<td>M Plan Apo 2x</td>
<td>BF, LWD</td>
<td>2</td>
<td>0.055</td>
<td>34</td>
<td>100</td>
<td>5</td>
<td>91</td>
<td>12</td>
<td>220</td>
<td>436-656 nm</td>
</tr>
<tr>
<td>106-762</td>
<td>M Plan Apo 5x</td>
<td>BF, LWD</td>
<td>5</td>
<td>0.14</td>
<td>34</td>
<td>40</td>
<td>2</td>
<td>14</td>
<td>4.8</td>
<td>230</td>
<td>436-656 nm</td>
</tr>
<tr>
<td>102-517</td>
<td>M Plan Apo 10x</td>
<td>BF, LWD</td>
<td>10</td>
<td>0.28</td>
<td>34</td>
<td>20</td>
<td>1</td>
<td>3.5</td>
<td>2.4</td>
<td>240</td>
<td>436-656 nm</td>
</tr>
<tr>
<td>102-518</td>
<td>M Plan Apo 20x</td>
<td>BF, LWD</td>
<td>20</td>
<td>0.42</td>
<td>20</td>
<td>10</td>
<td>0.7</td>
<td>1.6</td>
<td>1.2</td>
<td>270</td>
<td>436-656 nm</td>
</tr>
<tr>
<td>VMA-60-50</td>
<td>M Plan Apo 50x</td>
<td>BF, LWD</td>
<td>50</td>
<td>0.55</td>
<td>13</td>
<td>4</td>
<td>0.5</td>
<td>0.9</td>
<td>0.48</td>
<td>290</td>
<td>436-656 nm</td>
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<tr>
<td>VMA-60-96</td>
<td>M Plan Apo 100x</td>
<td>BF, LWD, HR</td>
<td>100</td>
<td>0.7</td>
<td>6</td>
<td>2</td>
<td>0.4</td>
<td>0.6</td>
<td>0.24</td>
<td>320</td>
<td>436-656 nm</td>
</tr>
<tr>
<td>VMA-60-54</td>
<td>M Plan Apo NUV 50x</td>
<td>BF, Laser</td>
<td>50</td>
<td>0.42</td>
<td>17</td>
<td>4</td>
<td>0.7</td>
<td>1.6</td>
<td>0.48</td>
<td>315</td>
<td>480-1800 nm</td>
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<tr>
<td>VMA-60-95</td>
<td>M Plan Apo NUV 100x</td>
<td>BF, Laser, NUV</td>
<td>100</td>
<td>0.5</td>
<td>12</td>
<td>2</td>
<td>0.6</td>
<td>1.1</td>
<td>0.24</td>
<td>335</td>
<td>480-1800 nm</td>
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<tr>
<td>VMA-60-52</td>
<td>M Plan Apo NIR 50x</td>
<td>BF, Laser</td>
<td>50</td>
<td>0.42</td>
<td>15</td>
<td>4</td>
<td>0.7</td>
<td>1.6</td>
<td>0.48</td>
<td>350</td>
<td>355-620 nm</td>
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<tr>
<td>VMA-60-97</td>
<td>M Plan Apo NIR 100x</td>
<td>BF, Laser, NUV</td>
<td>100</td>
<td>0.5</td>
<td>11</td>
<td>2</td>
<td>0.6</td>
<td>1.1</td>
<td>0.24</td>
<td>380</td>
<td>355-620 nm</td>
</tr>
</tbody>
</table>

Note:

1. Using Ø = 24 mm eyepiece
## OPERM OBJECTIVES

- M Plan apochromatic
- Compatible with A-Zoom2 microscopes; TopHat-compatible

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>Application</th>
<th>Mag (x)</th>
<th>N.A.</th>
<th>WD (mm)</th>
<th>f (mm)</th>
<th>R (µm)</th>
<th>± DOF (µm)</th>
<th>FOV¹ (mm)</th>
<th>Mass (g)</th>
<th>λ Correction</th>
</tr>
</thead>
<tbody>
<tr>
<td>120-875</td>
<td>High-Res 5x</td>
<td>BF, LWD</td>
<td>5</td>
<td>0.225</td>
<td>34</td>
<td>40</td>
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<td>120-873</td>
<td>High-Res 10x</td>
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<td>0.45</td>
<td>19</td>
<td>20</td>
<td>0.74</td>
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<tr>
<td>132-509</td>
<td>High-Res 20x</td>
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<td>0.6</td>
<td>13</td>
<td>10</td>
<td>0.56</td>
<td>0.75</td>
<td>no spec</td>
<td>290</td>
<td>436-656 nm</td>
</tr>
</tbody>
</table>

## SEIWA OBJECTIVES

- M Plan apochromatic
- Compatible with A-Zoom2 microscopes; TopHat-compatible

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>Application</th>
<th>Mag (x)</th>
<th>N.A.</th>
<th>WD (mm)</th>
<th>f (mm)</th>
<th>R (µm)</th>
<th>± DOF (µm)</th>
<th>FOV¹ (mm)</th>
<th>Mass (g)</th>
<th>λ Correction</th>
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</thead>
<tbody>
<tr>
<td>126-255</td>
<td>M.Plan APO2.5x</td>
<td>BF, LWD</td>
<td>2.5</td>
<td>0.06</td>
<td>32.5</td>
<td>80</td>
<td>5.6</td>
<td>76.4</td>
<td>no spec</td>
<td>232</td>
<td>436-656 nm</td>
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<tr>
<td>126-256</td>
<td>M.Plan APO5x</td>
<td>BF, LWD</td>
<td>5</td>
<td>0.15</td>
<td>35.1</td>
<td>40</td>
<td>2.1</td>
<td>10.7</td>
<td>no spec</td>
<td>238</td>
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</tr>
<tr>
<td>126-257</td>
<td>M.Plan APO10x</td>
<td>BF, LWD</td>
<td>10</td>
<td>0.25</td>
<td>36.9</td>
<td>20</td>
<td>1.5</td>
<td>5.2</td>
<td>no spec</td>
<td>215</td>
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</tr>
<tr>
<td>126-258</td>
<td>M.Plan APO20x</td>
<td>BF, LWD</td>
<td>20</td>
<td>0.35</td>
<td>22.2</td>
<td>10</td>
<td>1</td>
<td>2.2</td>
<td>no spec</td>
<td>289</td>
<td>436-656 nm</td>
</tr>
</tbody>
</table>
LEICA OBJECTIVES

131-788 — Leica 25 X Eye Pieces, High Performance, Extended Relief for Leica Microscopes

Features
• Wide-field eyepieces compatible with eyeglasses

Specifications
• 25X magnification

131-789 — 30x Eyepieces for Leica S6/S8 Microscopes

Features
• Wide field eye-pieces

Specifications
• 30X magnification

132-109 — Leica 0.63 Auxiliary Lens for S8 Leica Microscope

Features
• Objective for Leica S8 StereoZoom microscope
• Increases field of view
• Increases working distance

Specifications
• 0.63X magnification
• 100 mm (3.9 in) working distance
• Apochromatic optical design
Microscope Adapters, Mounting Plates, and Accessories

ADAPTERS

111486 — Microscope Adapter, A-Zoom and Motic PSM-1000/229

Features
• For microscope movement ranges larger than XY 50 x 50 mm (2 x 2 in)
• Used with PA300, PM300 and IceShield PS200

Compatibility
• PA300, PM300, PA200, PM8, PM5, DSP, BEP

120103 — Microscope Adapter, Optem/229

Features
• For microscope movement ranges larger than XY 50 x 50 mm (2 x 2 in)

Compatibility
• PA300, PM300, PA200, PM8, PM5, DSP, BEP

120586 — Microscope Adapter, Mitutoyo FS70x-S/229

Features
• For microscope movement ranges XY 50 x 50 mm (2 x 2 in) and larger
• Compatible with FS70 with original Mitutoyo focus rack 378-062 only
• Used with PA300 and PM300

Compatibility
• PA300, PM300, PA200, PM8, PM5, DSP, BEP

132712 — Microscope Adapter, Optem

Features
• Required for use with OPTEM Zoom 70 video microscope

Compatibility
• PA200 BlueRay, PA200 DS BlueRay

133915 — Microscope Adapter, Olympus SZ2-STP/229

Features
• For adapter Olympus SZ2-STP

Compatibility
• PA300, PM300, PA200, PM8, PM5, DSP, BEP

142730 — Microscope Adapter, Motic SMZ-168/229

Features
• For microscope movement ranges of 50 x 50 mm (2 x 2 in) and 100 x 100 mm (3.9 x 3.9 in)
• Adapts Motic SMZ168 for microscope movement

Compatibility
• PA300, PM300, PA200, PM8, PM5, DSP, BEP

MOUNTING PLATES

158-064 — Microscope Mounting Kit, Leica, Manual Transport

Features
• Dovetail mounting block for Leica S6 and S8
• Adapts standard dovetail to bonder pin common to stereo zoom microscopes
• Universal design for Summit 11000B, 12000B, S300 and legacy probe stations

Compatibility
• Summit, S300, Alessi, MTS

ACCESSORIES

102-363 — Mitutoyo Video Adapter, 1.0X Magnification

Features
• Connect video camera to microscope for remote viewing

Specifications
• 1X magnification

PN 141-400-50 www.formfactor.com
March, 2021
Microscopes • 60
Probe Station Accessories
Cameras and Video Packages

67120 — Moticam 2300 CMOS Camera

Features
• Compatible with CS-mount camera ports and C-mount camera ports (by using included CS mount adapter)
• Three megapixel live resolution
• Software image enhancements include noise-reduction, live filtering, and settings memory
• Software included:
  – Motic Images Plus 2.0ML for Windows
  – Motic Images Plus 2.0 for Macintosh OSX
• Accessories included:
  – 16 mm (0.6 in) focusable lens
  – 28, 30, 34, and 35 mm (1.1, 1.2, 1.3, and 1.4 in) eyepiece couplers
  – B&S adapter for microscope’s eyetube
  – Macro tube
  – Calibration slide for accurate measurements
  – CS mount adapter

Specifications
• Minimum specifications:

<table>
<thead>
<tr>
<th>Windows 2000 or XP</th>
<th>Macintosh</th>
</tr>
</thead>
<tbody>
<tr>
<td>256 MB RAM</td>
<td>OS X or higher</td>
</tr>
<tr>
<td>P4</td>
<td>256 MB RAM</td>
</tr>
<tr>
<td>Built-in USB2.0</td>
<td>G4</td>
</tr>
<tr>
<td></td>
<td>Built-in USB2.0</td>
</tr>
</tbody>
</table>

• Chip configuration: 12.7 mm (0.5 in) live 3.0 megapixels imaging chip in portable casing
• Data output: USB2.0
• Power supply: USB cable from computer

169-080 — Velox Digital Camera Kit

Features
Velox digital camera package for FormFactor probe stations using C-mount microscopes. This camera is supported with SPECTRUM Vision System. Velox Probe Station Control Software is required.

Specifications
• Digital video camera, 780x582 pixel, 1/2 inch CCD sensor, IEEE1394A connector
• IEEE1394A (firewire) interface board and cable
• White light LED fitting into microscope illumination port

Compatibility
• PA200, PA200 BlueRay, Summit12000, SUMMIT200, TESLA200, T300

173-278 — Moticam 1080 Sales Package, 2M, 1/2.8 in, USB/HDMI/SD, 16GB SD-card, USB Mouse

Features
• 1/2.8 in CMOS with C-mount and mounting thread
• Capture resolution on SD-card:
  – Still image: 8.0 MP (3840 x 2160)
  – Video: Full HD 1920 x 1080
• Live display mode through output:
  – USB: 1920 x 1080 (Full HD) @ 30 frames per second
  – HDMI: 1920 x 1080 (Full HD) @ 60 frames per second
• Pixel size: 2.8 x 2.8 microns
• Data transfer: HDMI (1080p) and USB 2.0
• SD card slot (maximal: 32 GB)

Kit Contents
• CS Ring Adapter
• HDMI and USB cable
• Computer mouse (USB)
• SD card 16 GB SDHC
• Motic Images Plus 3.0 application software for PC and Mac

155-499 — 3M Pixel 1/2 in CMOS Camera C Mount USB

Features
• 13 mm (1/2 in) CMOS camera with C-mount and mounting thread
• 3.0 Megapixels (2048x1536) with USB 2.0
• Pixel size 3.2um x 3.2um
• Includes image processing software “TSView” for Windows XP/Vista/7

Specifications
• Windows XP/Vista/7
EPS-ACC-HDTV — Digital TV Package

Features
• Digital TV kit for C-mount microscopes with 720p resolution

Specifications
• Camera:
  – 8.5 mm (0.33 in) color CCD digital camera (HDMI, 720p, 16:9), with C-mount
  – Wired remote control unit for camera setup (detachable)
  – HDMI cable
  – Power supply (100-220 VAC 50/60 HZ CE, UL)
• 22 in TFT monitor:
  – TFT active matrix, 22 in diagonal viewing area with 16:9 ratio
  – Max/native resolution: 1920 x1080
  – High brightness 250 cd/m² & contrast ratio: 1.000.000:1 (DCR)
  – Wide viewing angle: 170/160 (H/V deg)
  – Video inputs: analog DB15, HDMI, 29-pin DVI-D
  – VESA mount and stand
  – Built-in power (100/240 VAC 50/60 Hz, UL/CE)
  – Crosshair overlay

Compatibility
• All EPS complete packages and C-mount video ready microscopes

EPS-ACC-HDTV+ — Digital TV Package

Features
• Video recording and live view, without a computer
• Integrated menu system driven by a mouse for low overhead
• Saves stills and video direct to a memory card and outputs to an HDMI monitor

Specifications
• Moticam 1080
  – 12.7 mm (0.5 in) CMOS with C-mount and mounting thread
  – 2.0 mega pixels, SD card slot, HDMI frame rate: 60 fps
  – Simultaneous HDMI 1080 (60P), USB 1080 (30P), and PC output
  – Motic Images Plus 3.0 application software for PC and Mac
  – Still and live image capture function
• 24 in wide screen monitor
  – HDMI, DisplayPort and VGA inputs

EPS-ACC-TV — Analogue TV package

Features
• Analogue TV kit for C-mount microscopes

Specifications
• Camera:
  – 12.7 mm (0.5 in) in color CCD analogue camera (NTSC, 480 TV lines, 4:3) with C-mount
  – 4.6 m (15 ft) combination cable (YC Svideo + Power)
  – Power supply (100-220VAC 50/60 HZ CE, UL)
• 483 m (19 in) TFT monitor:
  – TFT active matrix, 483 m (19 in) diagonal viewing area with 4:3 ratio
  – Max/native resolution: 1280 x1024
  – High brightness 300 cd/m² & contrast ratio: 700:1
  – Wide viewing angle: 150/130 (H/V deg)
  – Video inputs: analog DB15, S-video, CVBS jack, 29-pin DVI-D
  – VESA mount and stand
  – Built-in power (100/240 VAC 50/60 Hz, UL/TVU/CE)

Compatibility
• All EPS complete packages and C-mount video ready microscopes
Optical

Integrating Sphere and Mounts

53541 — Integrating Sphere, Zenith

Features
- Diffuse, high reflective coating, recommended for UV-VIS-NIR wavelength
- Maximum temperature: 150°C (302°F)
- Input port 6 mm (1/4 in) (cutting edge in design)
- One detector port 6 mm (1/4 in) with baffles and blind plug
- SMA connector fiber optic cable

Compatibility
- Required for 134826, 139086

139086 — Integrating Sphere Mount, RPP305

Features
- Positioner arm with pneumatic cylinder, 40 mm (1.5 in) stroke, for moving sphere out of microscope field of view
- Mounting for Integrating Sphere 1 in, OptoWhite/Zenith

Compatibility
- PA200, PA200 BlueRay, PM8, PM5 + RPP305-S (and former PH250)

134826 — Integrating Sphere Mount, Mitutoyo FS70

Features
- Mounting of 1 in integrating sphere into manual objective turret

Compatibility
- FS70

139085 — Optical Fiber Mount, RPP305

Features
- Mounting for Instrument Systems EKT-fiber

Specifications
- Positioner arm with pneumatic cylinder, 40 mm (1.5 in) stroke, for moving optical fiber out of microscope field of view

Compatibility
- PA200, PA200 BlueRay, PM8, PM5 + RPP305-S (and former PH250)
PA200 BlueRay

CHUCKS AND THERMAL CHUCK ADAPTERS

53551 — ATT Chuck System, A200HS, +15°C to +150°C

Features

• RS232 Interface
• Air used for cooling
• Operated via the interfaces on the controller or through the probe station control software
• Complete system consists of 200 mm (8 in) chuck, controller, cooling unit
• Requires additional thermal chuck adapter for BlueRay, with or without lift pins (138722 or 138723)

Specifications

• Temperature range: +15 to +150°C (59° to 302°F)
• Temperature resolution: 0.01°C (32°F)
• Temperature accuracy: +/- 0.2°C (32.4°F)
• Heating rate:
  - 25 → 150°C (77 → 302°F): ≤ 8 min
  - 15 → 25°C (59 → 77°F): ≤ 2 min
• Cooling rates:
  - 25° → 15°C (77° → 59°F): ≤ 6 min
  - 150° → 25°C (302° → 77°F): ≤ 18 min
• Temperature uniformity:
  - 15…100°C (59°…212°F): ≤ +/- 1K
  - >100°C (212°F): ≤ +/- 1%
• Flatness: ≤ +/-12 µm (0.5 mils)
• Power supply: 100-127/208-240 V 50/60 Hz AC  800 VA
• Air supply: 200 l/min at 6 bar dewpoint < -10°C (50°F) oil free

Compatibility

• PA200 BlueRay

138722 — Thermal Chuck Adapter

Features

• Adapter for ATT chuck system A200HS+15
• Thermal and electrical insulation of chuck to machine

Compatibility

• PA200 BlueRay

138723 — Thermal Chuck Adapter for Chuck with Lift Pins

Features

• Adapter for ATT chuck system A200HS+15
• Thermal and electrical insulation of chuck to machine
• With lift pins for loader application

Compatibility

• PA200 BlueRay

139873 — Double Side Chuck Plate

Features

• Top plate for double side chuck
• To be used on PA200 DS BlueRay
• For 76 mm (3 in) wafer, held by clamping mechanism
• 1 mm (0.04 in) circumferential support
• Front cutout for vacuum wand
• Other chucks on request

Compatibility

• PA200 DS BlueRay
143820 — Chuck, 200 mm, HF, PA200A

**Features**
- Chuck insulated from machine
- Vacuum fixture for two calibration substrates or probe cleaning pads
- Vacuum zones for 50 mm (2 in), 100 mm (4 in), 150 mm (6 in), and 200 mm (8 in) wafers
- Single die vacuum location
- Material: stainless steel (others available on request)
- Flat surface with vacuum holes (0.8 mm [0.03 in] Ø)

**Compatibility**
- PA200A BlueRay

143821 — Chuck, 200 mm, HF, AP200

**Features**
- Chuck insulated from machine
- Vacuum fixture for two calibration substrates or probe cleaning pads
- Vacuum zones for 50 mm (2 in), 100 mm (4 in), 150 mm (6 in), and 200 mm (8 in) wafers
- Single die vacuum location
- Material: stainless steel (others available on request)
- Flat surface with vacuum holes (0.8 mm [0.03 in] Ø)

**Compatibility**
- AP200 BlueRay

**MISCELLANEOUS ACCESSORIES**

133371 — Operation Lamp 3 Colors

**Features**
- Colors: red, yellow, green
- Programmable through probe station control software
- Red light can be programmed static or blinking
- 800 mm (31.5 in) pole (when combined with the instrument measurement shelf [136687], the mounting pole is reduced to 400 mm [15.7 in])

**Compatibility**
- PA200 BlueRay, PA200 DS BlueRay

133667 — Mount Arm for Monitor, Keyboard, Mouse, and Joystick

**Features**
- Mount arm for flat panel monitor, mouse and joystick or Expert Control Panel
- Includes compact computer keyboard (US English)
- High quality pneumatic springs and two revolving joints
- Swing, tilt and rotate for optimum ergonomic positioning
- Dynamically adjustable to any working height
- Requires a machine table 700 or VIT701/800/801 for mounting

**Compatibility**
- PA200 BlueRay, PA200 DS BlueRay
135080 — Adaptation Integrating Sphere 4 in Manual

Features
• Integrating sphere holder for PA200 BlueRay DS
• Manual sphere adjustment
• Mount for integrating sphere 102 mm (4 in) LabSphere (sphere not part of this item)
• Other spheres can be adapted on request
• Cannot be combined with automatic loader

Specifications
• Movement Range X/Y: 25 mm (1 in)
• Movement Range Z: 10 mm (0.4 in)

Compatibility
• PA200 BlueRay

136687 — Measuring Instrument Shelf for BlueRay

Features
• Two planes for measurement equipment

Specifications
• Dimensions (W x D): 350 x 380 mm (13.8 x 15 in) each
• Max. load: 30 kg (66 lb)

Compatibility
• PA200 BlueRay, PA200 DS BlueRay
• Cannot be combined with shield enclosures

138651 — Pneumatic Switch Terminal

Features
• Terminal is mounted to BlueRay platen
• Used for switching cal-site vacuum supply

Compatibility
• PA200 BlueRay (not compatible with the BlueRay DS)

139985 — Adaptation Integrating Sphere 4 in Motorized

Features
• Integrating sphere holder for PA200 BlueRay DS
• Motorized/programmable sphere adjustment
• Mount for integrating sphere 102 mm (4 in) LabSphere (sphere not part of this item)
• Other spheres can be adapted on request
• Can be combined with automatic loader

Specifications
• Movement range X/Y: 25 mm (1 in)
• Movement range Z: 25 mm (1 in)

Compatibility
• PA200 BlueRay

138390 — SE1000 to VIT700/701 Adapter

Features
• Connects the SE1000 to the 700 series probe station tables
• By using the VIT701, vibrations of the ShieldEnclosure are isolated from the probe station

Compatibility
• PA200 BlueRay, PA200 DS BlueRay
• Not compatible with BlueRay loader module
Positioners and Positioner Accessories

DC Positioners

**ENTRY LEVEL**

DPP105-M/V-AI-S

**Features**
- Used for basic IV probing
- Ideal for applications that require more than eight positioners
- Used with PTT DC probe needles
- Low cost probing
- Extremely small footprint
- Probe-tip pressure adjustment
- Single arm with gold-plated clamping included
- Suitable for probing pads down to 100 x 100 µm (3.9 x 3.9 mils)

**Specifications**
- Travel range:
  - X: 8 mm (0.3 in)
  - Y: 6 mm (0.2 in)
  - Z: 25 mm (1 in) (z-axis control: cw=down, ccw=up)
- Feature resolution: 5 µm (0.2 mils)
- Screw resolution:
  - X: 350 µm (13.8 mils)/rev (70 TPI)
  - Y: 500 µm (19.7 mils)/rev (50 TPI)
  - Z: 70 µm (2.8 mils)/rev (350 TPI)
- Base: magnetic or vacuum
- Footprint: 60 x 20 mm (2.4 x 0.8 in)

**Compatibility**

<table>
<thead>
<tr>
<th>Open Platform Bundles</th>
<th>PTH Arms</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM5</td>
<td>PA300</td>
</tr>
<tr>
<td>PM8</td>
<td>EPS150</td>
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<tr>
<td>PM300</td>
<td>MPS150</td>
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<td>PA200</td>
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**Ordering Information**

<table>
<thead>
<tr>
<th>Standard (z-axis: cw=down, ccw=up)</th>
<th>Legacy (z-axis: cw=up, ccw=down)</th>
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<tr>
<td>DPP105-M-AI-S</td>
<td>133346</td>
</tr>
<tr>
<td>DPP105-V-AI-S</td>
<td>100298</td>
</tr>
</tbody>
</table>

NOTE
Positioner movement ranges specified here may be further limited by specific application setups.

DPP105-M/V-PTH

**Features**
- Used for basic IV probing
- Ideal for applications that require more than eight positioners
- Used with PTT DC probe needles
- Low cost probing
- Extremely small footprint
- Probe-tip pressure adjustment
- Compatible with PTT needle holders
- Suitable for probing pads down to 100 x 100 µm (3.9 x 3.9 mils)

**Specifications**
- Travel range:
  - X: 8 mm (0.3 in)
  - Y: 6 mm (0.2 in)
  - Z: 25 mm (1 in) (z-axis control: cw=down, ccw=up)
- Feature resolution: 5 µm (0.2 mils)
- Screw resolution:
  - X: 350 µm (13.8 mils)/rev (70 TPI)
  - Y: 500 µm (19.7 mils)/rev (50 TPI)
  - Z: 70 µm (2.8 mils)/rev (350 TPI)
- Base: magnetic or vacuum
- Footprint: 60 x 20 mm (2.4 x 0.8 in)

**Compatibility**

Open Platform + PTH Arms

Summit 11000/12000

**Ordering Information**

- DPP105-M-PTH
- DPP105-V-PTH
**STANDARD**

**DPP205-M/V-L/R; DPP205-M/V-L/R-S**

**Features**
- Used for IV/CV probing and failure analysis
- Used with PTT and DCP high performance DC probes
- Accurate X and Y placement and precise probe over travel with easily adjusted knobs
- Adjustable probe arm mounting plate
- Optimized for FormFactor’s triaxial probing accessories and MicroChamber
- With probe and triaxial accessories, micropositioner configures to state-of-the-art, guarded, low-noise triaxial probing in minutes
- Captive stages with leadscrew design
- High precision cross-roller bearings
- Configured for use on left/right side of platen

**Specifications**
- Feature resolution: <2 μm (0.08 mils)
- Fine screw: 0.5 mm (0.02 in) pitch (50 TPI)
- Travel range: 12.5 mm (0.5 in) in X, Y and Z (z-axis control: cw=down, ccw=up)
- Base: magnetic or vacuum
- Footprint (WxD): 90 x 60 mm (3.5 x 2.4 in)

**Compatibility**
- Platforms + Dedicated Arms*: CM300xi, Elite 300, PA300MA, PM300PS, Summit 11000/12000, Tesla, SUMMIT200, TESLA200
- Power: PM5, PM8, PM300, PA200, PA200 BlueRay, PA300, EPS150, MPS150

*Available by special request. Contact your FormFactor representative.

**Ordering Information**

<table>
<thead>
<tr>
<th>Standard</th>
<th>Legacy</th>
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<tbody>
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<td>(z-axis: cw=up, ccw=down)</td>
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<td>DPP205-M-L</td>
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<tr>
<td>DPP205-V-L</td>
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<tr>
<td>DPP205-V-R</td>
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<td>DPP205-M-L-S</td>
<td>DPP205-M-L-S-I*</td>
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<tr>
<td>DPP205-M-R-S</td>
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<td>DPP205-V-R-S-I*</td>
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</tbody>
</table>

**DPP210-M/V-L/R; DPP210-M/V-L/R-S**

**Features**
- Used for IV/CV probing and failure analysis
- Used with PTT and DCP high performance DC probes
- Accurate X and Y placement and precise probe over travel with easily adjusted knobs
- Adjustable probe arm mounting plate
- Optimized for FormFactor’s triaxial probing accessories and MicroChamber
- With probe and triaxial accessories, micropositioner configures to state-of-the-art, guarded, low-noise triaxial probing in minutes
- Captive stages with leadscrew design
- High precision cross-roller bearings
- Configured for use on left/right hand side of platen

**Specifications**
- Feature resolution: <1 μm (0.04 mils)
- Fine screw: 0.25mm (0.02 in) pitch (100 TPI)
- Travel range: 12.5 mm (0.5 in) in X, Y and Z (z-axis control: cw=down, ccw=up)
- Base: magnetic or vacuum
- Footprint (WxD): 90 x 60 mm (3.5 x 2.4 in)
**Compatibility**

<table>
<thead>
<tr>
<th>Platforms + Dedicated Arms*</th>
<th>Open Platforms + DC Arms**</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM300xi</td>
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<td>Elite 300</td>
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<td>PA300MA</td>
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<td>PM300PS</td>
<td>PA200</td>
</tr>
<tr>
<td>Summit 11000/12000</td>
<td>PA200 BlueRay</td>
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<tr>
<td>Tesla</td>
<td>PA300</td>
</tr>
<tr>
<td>SUMMIT200</td>
<td>EPS150</td>
</tr>
<tr>
<td>TESLA200</td>
<td>MPS150</td>
</tr>
</tbody>
</table>

* Platforms + Dedicated Arms require the non-S versions of the positioner.

** Open Platforms + DC Arms require the -S version of the positioner.

**Ordering Information**

<table>
<thead>
<tr>
<th>Standard (z-axis: cw=down, ccw=up)</th>
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<tbody>
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<td>DPP210-M-R</td>
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<td>DPP210-V-L-S</td>
<td>DPP210-M-L-S-I*</td>
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<tr>
<td>DPP210-V-R-S</td>
<td>DPP210-M-R-S-I*</td>
</tr>
</tbody>
</table>

* Available by special request. Contact your FormFactor representative.

**Specifications**

- Feature resolution: 0.5 µm (0.02 mils)
- Fine screw: 0.125 mm (0.005 in) pitch (200 TPI)
- Travel range: 12.5 mm (0.5 in) in X, Y and Z (z-axis control: cw=down, ccw=up)
- Base: magnetic or vacuum
- Footprint (WxD): 90 x 60 mm (3.5 x 2.4 in)

**DPP220-M/V-L/R; DPP220-M/V-L/R-S**

**Features**

- Used for IV/CV probing and failure analysis
- Used with PTT and DCP high performance DC probes
- Accurate X and Y placement and precise probe over travel with easily adjusted knobs
- Adjustable probe arm mounting plate
- Optimized for FormFactor’s triaxial probing accessories and MicroChamber
- With probe and triaxial accessories, micropositioner configures to state-of-the-art, guarded, low-noise triaxial probing in minutes
- Captive stages with leadscrew design

- High precision cross-roller bearings
- Configured for use on left/right hand side of platen

**Ordering Information**

<table>
<thead>
<tr>
<th>Platforms + Dedicated Arms</th>
<th>Open Platforms + DC Arms</th>
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<tbody>
<tr>
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<td>PM300PS</td>
<td>PA200</td>
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<td>Summit 11000/12000</td>
<td>PA200 BlueRay</td>
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<td>Tesla</td>
<td>PA300</td>
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<tr>
<td>SUMMIT200</td>
<td>EPS150</td>
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<td>TESLA200</td>
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<table>
<thead>
<tr>
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<td>DPP220-M-R</td>
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<td>DPP220-V-R</td>
<td>DPP220-V-R-S</td>
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</tbody>
</table>
High-End Failure Analysis (FA) Positioners

**DPP305-M/V-S; DPP305-M/V-PTH**

**Features**
- Used for high-precision and high-resolution probing, high-performance IV/CV probing and failure analysis, and internal node probing
- Used with PTT and DCP high performance DC probes
- Precision ball bearings

**Specifications**
- Feature resolution: 0.5 μm (0.02 mils)
- Travel range:
  - X/Y: 10 mm (0.4 in)
  - Z: 8 mm (0.3 in) (z-axis control: cw=down, ccw=up)
- Z coarse adjustment range: 15 mm (0.6 in)
- Micrometer screws: 500 μm (19.7 mils) pitch (50 TPI)
- Footprint (WxD): 75 x 50 mm (3 x 2 in)
- Base: magnetic or vacuum

**Compatibility**
- Open Platforms + DC Arms* require the -S version of the positioner.
- Platforms + Dedicated Arms require the non-S versions of the positioner.

**Ordering Information**

<table>
<thead>
<tr>
<th>Standard (z-axis: cw=down, ccw=up)</th>
<th>Legacy (z-axis: cw=up, ccw=down)</th>
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<tbody>
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<td>DPP305-M-S</td>
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<tr>
<td>DPP305-V-S</td>
<td>900286+100508</td>
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<tr>
<td>DPP305-M-PTH</td>
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</tr>
</tbody>
</table>

**DPP310-M/V-S; DPP310-M/V-PTH**

**Features**
- Used for high-precision and high-resolution probing, high-performance IV/CV probing and failure analysis, and internal node probing
- Used with PTT and DCP high performance DC probes
- Precision ball bearings

**Specifications**
- Feature resolution: 0.5 μm (0.02 mils)
- Travel range:
  - X/Y: 10 mm (0.4 in)
  - Z: 8 mm (0.3 in) (z-axis control: cw=down, ccw=up)
- Z coarse adjustment range: 15 mm (0.6 in)
- Micrometer screws: 250 μm (9.8 mils) pitch (100 TPI)
- Footprint (WxD): 75 x 50 mm (3 x 2 in)
- Base: magnetic or vacuum

**Compatibility**
- Open Platforms + DC Arms* require the -S version of the positioner.
- Platforms + Dedicated Arms require the non-S versions of the positioner.

**Ordering Information**

<table>
<thead>
<tr>
<th>Standard (z-axis: cw=down, ccw=up)</th>
<th>Legacy (z-axis: cw=up, ccw=down)</th>
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<tbody>
<tr>
<td>DPP310-M-S</td>
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<tr>
<td>DPP310-V-PTH</td>
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</table>
DPP450-M/V-S; DPP450-M/V-PTH

Features

- Used for high-resolution probing, high-performance IV/CV probing and failure analysis, and high-performance internal node probing
- Used with PTT and DCP high performance DC probes and respective DPP3xx arms
- Precision ball bearings
- Remote control block for fine movement

Specifications

- Feature resolution: 0.2 μm (0.008 mils)
- Travel range:
  - X/Y: 10 mm (0.4 in)
  - Z: 8 mm (0.3 in) (z-axis control: cw=down, ccw=up)
  - Micrometer screws: 500 μm (19.7 mils) pitch (50 TPI)
- Fine movement: 300 μm (11.8 mils) in each axis
- Z coarse adjustment range: 15 mm (0.6 in)
- Footprint (WxD): 75 x 50 mm (3 x 2 in)
- Base: magnetic or vacuum

Compatibility

<table>
<thead>
<tr>
<th>Platforms + PTH Arms</th>
<th>Open Platforms + DC Arms</th>
<th>Platforms + Dedicated Arms</th>
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<tbody>
<tr>
<td>CM300xi</td>
<td>PM5</td>
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<td>Power</td>
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Ordering Information

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<th>Standard (z-axis: cw=down, ccw=up)</th>
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</tr>
<tr>
<td>DPP450-V-PTH</td>
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</tbody>
</table>
RF Positioners

**STANDARD**

**RPP210-M/V-L/R-S**

**Features**
- RF and multi-contact/mixed-signal probing and wafer-level reliability probing
- Used with Infinity / ACP / |Z| Probe high performance RF probes
- 3 linear axes with precision ball bearings
- For adaptation of HF probes or probe wedges
- Magnetic fixation on HF platen or alternative with vacuum

**Specifications**
- Feature resolution: <1 μm (0.04 mils)
- Travel range: 12.5 mm (0.5 in) in X, Y and Z (z-axis control: cw=down, ccw=up)
- Fine screws: 0.25 mm (0.01 in) pitch (100 TPI)
- Micrometer set planarity adjust: ±5°
- Mount: vacuum or magnetic
- Footprint (WxD): 90 x 60 mm (3.5 x 2.4 in)

**Compatibility**
- Platforms + RF Arms
  - PM5: PA200 BlueRay
  - PM8: PA300
  - PM300: PA300-MA
  - PM300PS: EPS150
  - PA200: MPS150

**Ordering Information**

<table>
<thead>
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<th>Standard (z-axis: cw=down, ccw=up)</th>
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<tr>
<td>RPP210-M-L-S</td>
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<tr>
<td>RPP210-B-R-S</td>
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</tbody>
</table>

*Available by special request. Contact your FormFactor representative.*

**RPP210-M/V-B-L/R-AI**

**Features**
- RF and multi-contact/mixed-signal probing and wafer-level reliability probing
- Used with Infinity / ACP / |Z| Probe high performance RF probes
- Rigid probe platform yields repeatable measurements at microwave frequencies
- Economical conversion for probe stations originally configured for needle probing
- Accurate X and Y placement and precise probe overtravel with easily adjusted knobs
- Micrometer set planarity adjustment
- Captive stages with leadscrew design
- High precision cross-roller bearings
- Configured for use on left/right hand side of platen
- Can be ordered with either:
  - Switch type magnetic base with residual holding force
  - Vacuum base
  - Bolt-down base

**Specifications**
- Feature resolution: <1 μm (0.04 mils)
- Travel range: 12.5 mm (0.5 in) in X, Y and Z (z-axis control: cw=down, ccw=up)
- Fine screws: 0.25 mm (0.01 in) pitch (100 TPI)
- Micrometer set planarity adjust: ±5°
- Mount: vacuum or magnetic
- Footprint (WxD): 90 x 60 mm (3.5 x 2.4 in)

**Configurations**
- Use on platen left location as West positioner
- Use on platen front location as South positioner
- Use on platen right location as East positioner
- Use on platen rear location as North positioner

**Compatibility**
- Summit 11000/12000

**Ordering Information**
- RPP210-M-L-AI
- RPP210-M-R-AI
• RPP210-V-L-AI
• RPP210-V-R-AI
• RPP210-B-L-AI
• RPP210-B-R-AI

RPP210-B-SP-AI

Features
• RF and multi-contact/mixed-signal probing and wafer-level reliability probing
• Used with Infinity / ACP / [Z] Probe high performance RF probes
• Rigid probe platform yields repeatable measurements at microwave frequencies
• Economical conversion for probe stations originally configured for needle probing
• Use with mmWave positioners for 4-port applications
• Accurate X and Y placement and precise probe over travel with easily adjusted knobs
• Micrometer set planarity adjustment
• Optimized for FormFactor’s MicroChamber
• Captive stages with leadscrew design
• High precision cross-roller bearings
• Bolt-down base

Specifications
• Feature resolution: <1 μm (0.04 mils)
• Travel range: 12.5 mm (0.5 in) in X, Y and Z (z-axis control: cw=down, ccw=up)
• Fine screws: 0.25 mm (0.01 in) pitch (100 TPI)
• Micrometer set planarity adjust: ±5°
• Mount: vacuum or magnetic
• Footprint (WxD): 90 x 60 mm (3.5 x 2.4 in)

Configurations
• Use on platen in South position only

Compatibility
• Summit 11000/12000

RPP210-B-NP-AI

Features
• RF and multi-contact/mixed-signal probing and wafer-level reliability probing
• Used with Infinity / ACP / [Z] Probe high performance RF probes
• Rigid probe platform yields repeatable measurements at microwave frequencies
• Economical conversion for probe stations originally configured for needle probing
• Use with mmWave positioners for 4-port applications
• Accurate X and Y placement and precise probe over travel with easily adjusted knobs
• Micrometer set planarity adjustment
• Optimized for FormFactor’s MicroChamber
• Captive stages with leadscrew design
• High precision cross-roller bearings
• Bolt-down base

Specifications
• Feature resolution: <1 μm (0.04 mils)
• Travel range: 12.5 mm (0.5 in) in X, Y and Z (z-axis control: cw=down, ccw=up)
• Fine screws: 0.25 mm (0.01 in) pitch (100 TPI)
• Micrometer set planarity adjust: ±5°
• Mount: vacuum or magnetic
• Footprint (WxD): 90 x 60 mm (3.5 x 2.4 in)

Configurations
• Use on platen in North position only

Compatibility
• Summit 11000/12000

RPP210-L/R-EW-CMC-AI — RF Probe Positioner Left/Right Magnetic East-West

Features
• RF and multi-contact/mixed-signal probing and wafer-level reliability probing
• Used with Infinity / ACP / [Z] Probe high performance RF probes
• 3 linear axes with precision ball bearings
• Used to adapt HF probes or probe wedges

Specifications
• Feature resolution: <1 μm (0.04 mils)
• Travel range: 12.5 mm (0.5 in) in X, Y and Z (z-axis control: cw=down, ccw=up)
• Fine screws: 0.25 mm (0.01 in) pitch (100 TPI)
• Micrometer set planarity adjust: ±5°
• Mount: vacuum or magnetic
• Footprint (WxD): 90 x 60 mm (3.5 x 2.4 in)
• Positions the probe at the right side of DUT
• Horizontal probe mounting plate can be leveled
• East-West orientation
• Used with HF platen and MicroAlign

**Compatibility**
• CM300xi with top chambers

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**RPP210-L/R-NS-CMC-AI — RF Probe Positioner Left/Right Magnetic North-South**

**Features**
• RF and multi-contact/mixed-signal probing and wafer-level reliability probing
• Used with Infinity / ACP / |Z| Probe high performance RF probes
• 3 linear axes with precision ball bearings
• For adaptation of HF probes or probe wedges
• Magnetic fixation on HF platen or alternative with vacuum

**Specifications**
• Feature resolution: <1 μm (0.04 mils)
• Travel range: 12.5 mm (0.5 in) in X, Y and Z (z-axis control: cw=down, ccw=up)
• Fine screws: 0.25 mm (0.01 in) pitch (100 TPI)
• Micrometer set planarity adjust: ±5°
• Mount: vacuum or magnetic
• Footprint (WxD): 90 x 60 mm (3.5 x 2.4 in)
• Positions the probe at the right side of DUT
• Horizontal probe mounting plate can be leveled
• East-West orientation
• Used with HF platen and MicroAlign

**Compatibility**
• RPP304-NS-SU-AI

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**ADVANCED**

**RPP304-EW/NS/W-SU-AI**

**Features**
• Precision 4-axis probe positioner for RF/microwave probes
• Optimized for Summit 11000/12000-B station platform
• Rigid design for best probe placement
• New 1-click positioner quick release control allows fast setup and effortless gross positioning of RF probes
• Smooth glide micrometer controls for accurate probe placement
• Best probe-to-probe separation
• Multi position RF cable clamp and offset probe mounting arm for optimized RF cable connection
• Micrometer set planarity adjustment
• EMI grounding strap
• Industry standard RF probe mount

**Specifications**
• Feature resolution: <1 μm (0.04 mils)
• Travel range:
  – X/Y: 12 mm (0.47 in)
  – Z: 12 mm (0.47 in) (z-axis control: cw=down, ccw=up)
• Micrometer screws: 1000 μm (3.9 mils) pitch (25 TPI)
• Micrometer set planarity adjust: ±5°
• Gross X travel:
  – 26 mm (1 in) with TopHat
  – 68 mm (2.7 in) with no TopHat/insert
• 2-port probe tip separation
  – With MicroChamber TopHat: 40 mm (1.6 in)
  – Without MicroChamber TopHat: 93 mm (3.7 in)
• Probe mount interface: 3 hole FormFactor standard design, with locating pin

**Configurations**
• Use on platen right/left location as East/West positioner (4-port)
• Use on platen top/bottom location as North/South positioners (4-port)

**Compatibility**
• Summit 11000/12000, Tesla200

**Ordering Information**
• RPP304-NS-SU-AI
RPP304-EW-SU-AI
RPP304-W-SU-AI

RPP304-EW/NS-EL-AI

Features
- Precision 4-axis probe positioner for RF/microwave probes
- Optimized for Elite MicroChamber platform
- Rigid design for optimal probe placement
- One-click positioner quick release control enables fast setup and effortless gross positioning of RF probes
- Smooth glide micrometer controls enable accurate probe placement
- Multi position RF cable clamp and offset probe mounting arm optimize RF cable connection
- Micrometer set planarity adjustment
- EMI grounding strap
- Industry standard RF probe mount

Specifications
- Feature resolution: <1 μm (0.04 mils)
- Travel range:
  - X/Y: 12 mm (0.47 in)
  - Z: 12 mm (0.47 in) (z-axis control: cw=down, ccw=up)
- Micrometer screws: 1000 μm (39.4 mils) pitch (25 TPI)
- Micrometer set planarity adjust: ±5°
- Gross X travel: 26 mm (1 in) with TopHat; 68 mm (2.7 in) with no TopHat/insert
- 2-port probe tip separation
  - With MicroChamber TopHat: 40 mm (1.6 in)
  - Without MicroChamber TopHat: 93 mm (3.7 in)
- Probe mount interface: 3 hole FormFactor standard design, with locating pin

Configurations
- Use on platen right/left location as East/West positioner (4-port)
- Use on platen top/bottom location as North/South positioners (4-port)

Compatibility
- Elite300

Ordering Information
- RPP304-NS-EL-AI
- RPP304-EW-EL-AI
- RPP304-W-EL-AI

RPP304-EW/NS/W-67 — Positioner (North/South)

Features
- Enables probes in north/south position
- Supplied with Chamber/EMI seal

Specifications
- Compatible with 67 GHz and lower RF probes, or DCQ probes
- Feature resolution: <1 μm (0.04 mils)
- Travel range:
  - X/Y: 12 mm (0.47 in)
  - Z: 12 mm (0.47 in) (z-axis control: cw=down, ccw=up)
- Micrometer screws: 1000 μm (39.4 mils) pitch (25 TPI)
- Micrometer set planarity adjust: ±5°
- Probe mount interface: 3 hole FormFactor standard design, with locating pin

Compatibility
- CM300xi, SUMMIT200, TESLA200, Elite300

Ordering Information
- RPP304-EW-67
- RPP304-W-67
- RPP304-NS-67

RPP305-EW/NS-EL/SU-AI

Features
- Used for high-performance RF, multi-contact/mixed signal probing, high-performance wafer-level reliability probing, and single-ended broadband/mm-Wave, THz, source/load-pull, RF noise probing
- Used with Infinity / ACP / |Z| Probe / T-Wave high performance RF probes
- Precision 4 axis probe positioner for RF/microwave probes
- Optimized for Elite 300/Summit 12000-B station platform
- Ultra rigid design for best probe placement
- New one-click positioner quick release control allows fast setup and effortless gross positioning of RF probes
- Smooth glide micrometer controls enable accurate probe placement
- Best probe-to-probe separation
- Multi position RF cable clamp and offset probe mounting arm for optimized RF cable connection
• Micrometer set planarity adjustment
• EMI grounding strap
• Industry standard RF probe mount

**Specifications**

• Feature resolution: <1 μm (0.04 mils)
• Travel range:
  – X/Y: 25 mm (1 in),
  – Z: 10 mm (0.4 in) (z-axis control: cw=down, ccw=up)
• Micrometer set planarity adjust: ±5°
• Micrometer screws: 500μm pitch (50 TPI)
• 2-port probe tip separation
  – With TopHat: 40 mm (1.6 in)
  – Without TopHat: 93 mm (3.7 in)
• Mount: bolt-down
• Footprint (W x D): 124 x 124 mm (4.9 x 4.9 in)

**Configurations**

• Use on platen right/left location as East/West positioner (4-port)
• Use on platen top/bottom location as North/South positioners (4-port)

**Compatibility**

- CM300xi with Top Hat, Elite 300

**Ordering Information**

• RPP305-NS-EL-AI
• RPP305-EW-EL-AI
• RPP305-NS-SU-AI
• RPP305-EW-SU-AI
• New one-click positioner quick release control allows fast setup and effortless gross positioning of RF probes
• Smooth glide micrometer controls for accurate probe placement
• Best probe-to-probe separation
• Multi position RF cable clamp and offset probe mounting arm for optimized RF cable connection
• Micrometer set planarity adjustment
• Industry standard RF probe mount

Specifications
• Feature resolution: <1 μm (0.04 mils)
• Travel range:
  – X/Y: 25 mm (1 in),
  – Z: 10 mm (0.4 in) (z-axis control: cw=down, ccw=up)
• Micrometer set planarity adjust: ±5°
• Micrometer screws: 500μm pitch (50 TPI)
• 2-port probe tip separation
  – With TopHat: 40 mm (1.6 in)
  – Without TopHat: 93 mm (3.7 in)
• Mount: bolt-down
• Footprint (W x D): 124 x 124 mm (4.9 x 4.9 in)

Configurations
• Use on platen right/left location as East/West positioner (4-port)
• Use on platen top/bottom location as North/South positioners (4-port)

Compatibility
• CM300xi with top chambers

Ordering Information
• RPP305-NS-CMC-AI
• RPP305-EW-CMC-AI

RPP305-EW/NS-HT-AI

Features
• Used for high-performance RF, multi-contact/mixed signal probing, high-performance wafer-level reliability probing, and single-ended broadband/mm-Wave, THz, source/load-pull, RF noise probing
• Used with Infinity / ACP / |Z| Probe / T-Wave high performance RF probes
• Precision 4-axis probe positioner for RF/microwave probes
• High temperature stability
• Recommended for testing at high temperatures or multiple temperatures
• Optimized for CM300xi station platform
• Ultra rigid design for best probe placement
• New one-click positioner quick release control enables fast setup and effortless gross positioning of RF probes
• Smooth glide micrometer controls for accurate probe placement
• Best probe-to-probe separation
• Multi position RF cable clamp and offset probe mounting arm for optimized RF cable connection
• Micrometer set planarity adjustment
• EMI grounding strap
• Industry standard RF probe mount

Specifications
• Feature resolution: <1 μm (0.04 mils)
• Travel range:
  – X/Y: 25 mm (1 in),
  – Z: 10 mm (0.4 in) (z-axis control: cw=down, ccw=up)
• Micrometer set planarity adjust: ±5°
• Micrometer screws: 500μm pitch (50 TPI)
• 2-port probe tip separation
  – With TopHat: 40 mm (1.6 in)
  – Without TopHat: 93 mm (3.7 in)
• Mount: bolt-down
• Footprint (W x D): 124 x 124 mm (4.9 x 4.9 in)

Configurations
• Use on platen right/left location as East/West positioner (4-port)
• Use on platen top/bottom location as North/South positioners (4-port)

Compatibility
• CM300xi with Top Hat, Elite 300

Ordering Information
• RPP305-EW-HT-AI
• RPP305-NS-HT-AI
RPP305-EWM-CMC-AI — High Performance RF Probe Positioner 50 TPI Bolt Down East-West or Mirrored

Features
- Used for high-performance RF, multi-contact/mixed signal probing, high-performance wafer-level reliability probing, and single-ended broadband/mm-Wave, THz, source/load-pull, RF noise probing
- Used with Infinity / ACP / |Z| Probe / T-Wave high performance RF probes
- Precision 4 axis probe positioner for RF/microwave probes
- Optimized for CM300xi station platform
- Ultra rigid design for best probe placement
- New one-click positioner quick release control allows fast setup and effortless gross positioning of RF probes
- Smooth glide micrometer controls for accurate probe placement
- Best probe-to-probe separation
- Multi position RF cable clamp and offset probe mounting arm for optimized RF cable connection
- Micrometer set planarity adjustment
- Industry standard RF probe mount

Specifications
- Feature resolution: <1 μm (0.04 mils)
- Travel range:
  - X/Y: 25 mm (1 in),
  - Z: 10 mm (0.4 in) (z-axis control: cw=down, ccw=up)
- Micrometer screws: 500μm pitch (50 TPI)
- Micrometer set planarity adjust: ±5°
- 2-port probe tip separation
  - With TopHat: 40 mm (1.6 in)
  - Without TopHat: 93 mm (3.7 in)
- Mount: bolt-down
- Footprint (W x D): 124 x 124 mm (4.9 x 4.9 in)

Configurations
- Use on platen right/left location as East/West positioner (4-port)

Compatibility
- CM300xi with top chambers

Ordering Information
- RPP305-EWM-CMC-AI

RPP305-M/V/B-S

Features
- Used for high-performance RF, multi-contact/mixed signal probing, high-performance wafer-level reliability probing, and single-ended broadband/mm-Wave, THz, source/load-pull, RF noise probing
- Used with Infinity / ACP / |Z| Probe / T-Wave high performance RF probes
- Precision 4 axis probe positioner for RF/microwave probes
- 3 linear axes with precision ball bearings
- For adaptation of HF probes
- Bolt down, magnetic, or vacuum fixation to HF platen

Specifications
- Feature resolution: <1 μm (0.04 mils)
- Travel range:
  - X/Y: 25 mm (1 in),
  - Z: 10 mm (0.4 in) (z-axis control: cw=down, ccw=up)
- Micrometer set planarity adjust: ±5°
- Mount: magnetic, vacuum, bolt-down
- Footprint (W x D): 124 x 124 mm (4.9 x 4.9 in)

Compatibility
- Platforms + RF Arms
  - PM8: PA300
  - PM300: PA300-MA
  - PM300PS: EPS150
  - PA200: MPS150
  - PA200 BlueRay

Ordering Information
- Standard (z-axis: cw=down, ccw=up)
  - RPP305-M-S: 100382+131808
  - RPP305-V-S: 100382+112953
  - RPP305-B-S: 100382

- Legacy (z-axis: cw=up, ccw=down)
RPP404 / RPP404-W

Features
- Used for high-performance RF, multi-contact/mixed signal probing, high-performance wafer-level reliability probing, and single-ended broadband/mm-Wave, THz, source/load-pull, RF noise probing
- Used with Infinity / ACP / |Z| Probe / T-Wave high performance RF probes
- Version for East and West

Specifications
- Compatible with RFA probe arms
- Feature resolution: <1 μm (0.04 mils)
- Travel range: 12 mm (0.47 in) in X, Y, and Z (z-axis control: cw=down, ccw=up)
- Micrometer screws: 1000 μm (39.4 mils) pitch (25 TPI)
- Mount: bolt-down (large base)
- Footprint (WxD): 124 x 149.5 mm (4.9 x 5.9 in)

Configuration
- Use adapter (174-889) for mounting to Summit 11000/12000 stations
- Use adapter (174-973) for mounting to EPS stations

Compatibility
- CM300xi, SUMMIT200, Elite
- EPS150, EPS200, Summit 11000/12000 with dedicated adapter

191-446 — Micrometer Screw for RPP404 X-axis

Features
- Digital micrometer screw for RPP404 X-axis to support precise multiline TRL calibrations
- Replaces the manual X-axis micrometer with a micrometer with digital LCD readout
- For RPP404 and RPP304 positioners
- Preset, inch/mm conversion

Specifications
- Resolution: 0.001mm (.00005 in)
- Repeatability: < +/- 0.6 μm (0.24 mils)
- Accuracy: < +/- 1 μm (0.04 mils) (within +/- 2 mm travel range)

Compatibility
- CM300xi, SUMMIT200, Elite
- EPS150, EPS200, Summit 11000/12000 with dedicated adapter

RPP504

Features
- Used for autonomous RF, multi-contact/mixed signal probing, high-performance wafer-level reliability probing, and single-ended broadband/mm-Wave, THz, source/load-pull, RF noise probing
- Used with Infinity / ACP / |Z| Probe / T-Wave high performance RF probes
- Universal version for East and West

Specifications
- Compatible with RFA probe arms
- Feature resolution: <1 μm (0.04 mils)
- Travel range: 12 mm (0.47 in) in X, Y, and Z (z-axis control: cw=down, ccw=up)
- Minimum step size 0.3 μm / 0.1 μm resolution
- Mount: bolt-down (large base)
- Footprint (WxD): 124 x 149.5 mm (4.9 x 5.9 in)

Configuration
- Requires MPX controller (178-511 for up to 4 positioners, 181-170 for up to 2 positioners, 183-111 for single positioner)
- Requires station adapter kit (178-517 for CM300xi, 183-825 for SUMMIT200, 178-920 for EPS)
- For use with ECX box on 12KB/E300, one interface 174-544 per positioner required
- Use adapter (174-973) for mounting to EPS stations
- Use adapter (174-889) for mounting to Summit 11000/12000 stations

Compatibility
- CM300xi, SUMMIT200, Elite
- EPS150, EPS200, Summit 11000/12000 with dedicated adapter

RPP504-NS-67

Features
- For RPP404 and RPP304 positioners
- Can be mounted on all axes
• Used for autonomous RF, multi-contact/mixed signal probing, high-performance wafer-level reliability probing, and single-ended broadband/ mm-Wave, THz, source/load-pull, RF noise probing
• Used with Infinity / ACP / |Z| Probe / T-Wave high performance RF probes
• Universal version for East and West

Specifications
• Compatible with RFA probe arms
• Feature resolution: <1 μm (0.04 mils)
• Travel range: 12 mm (0.47 in) in X, Y, and Z (z-axis control: cw=down, ccw=up)
• Minimum step size 0.3 μm / 0.1 μm resolution
• Mount: bolt-down (large base)
• Footprint (WxD): 124 x 149.5 mm (4.9 x 5.9 in)

Configuration
• Requires MPX controller (178-511 for up to 4 positioners, 181-170 for up to 2 positioners, 183-111 for single positioner)
• Requires station adapter kit (178-517 for CM300xi, 183-825 for SUMMIT200, 178-920 for EPS)
• For use with ECX box on 12KB/E300, one interface 174-544 per positioner required
• Use adapter (174-973) for mounting to EPS stations
• Use adapter (174-889) for mounting to Summit 11000/12000 stations

Compatibility
• CM300xi, SUMMIT200, Elite
• EPS150, EPS200, Summit 11000/12000 with dedicated adapter
RF and Microwave Cables

Infinity probe shown with TopHat incompatible cable (left) Infinity probe with Top Hat compatible cable (right). An extended ferrule shorts the coax shield to the EMI gasketed TopHat for local ground reference.

Cables for unshielded environments

<table>
<thead>
<tr>
<th>GORE P/N</th>
<th>Junkosha P/N</th>
<th>Freq</th>
<th>Style</th>
<th>Length</th>
<th>Probe station</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-162-B‡</td>
<td>180-801</td>
<td>40 GHz</td>
<td>vertical</td>
<td>~120 cm (48 in)</td>
<td>EPS with SlimVue</td>
</tr>
<tr>
<td>103-202-B†</td>
<td>180-805</td>
<td>50 GHz</td>
<td>vertical</td>
<td>~120 cm (48 in)</td>
<td>EPS with SlimVue</td>
</tr>
<tr>
<td>124-084-B</td>
<td>180-800</td>
<td>40 GHz</td>
<td>angled</td>
<td>~120 cm (48 in)</td>
<td>EPS with SMZ168</td>
</tr>
<tr>
<td>124-085-B</td>
<td>180-804</td>
<td>50 GHz</td>
<td>angled</td>
<td>~120 cm (48 in)</td>
<td>EPS with SMZ168</td>
</tr>
<tr>
<td>124-605-B†</td>
<td>180-809</td>
<td>67 GHz</td>
<td>vertical</td>
<td>~90 cm (36 in)</td>
<td>EPS with SlimVue*</td>
</tr>
<tr>
<td>124-606-B</td>
<td>180-808</td>
<td>67 GHz</td>
<td>angled</td>
<td>~90 cm (36 in)</td>
<td>EPS with SMZ168*</td>
</tr>
<tr>
<td>132-458</td>
<td>180-812</td>
<td>110 GHz</td>
<td>angled</td>
<td>18 cm (7.1 in)</td>
<td>EPS with SlimVue*</td>
</tr>
</tbody>
</table>

* Rear mounted instrument rack recommended.
† Item on limited supply. If possible, convert to alternative from Junkosha.
‡ Item is obsolete, listed for reference only.

Cables for shielded environments with TopHat

<table>
<thead>
<tr>
<th>GORE P/N</th>
<th>Junkosha P/N</th>
<th>Freq</th>
<th>Style</th>
<th>Length</th>
<th>Probe station</th>
</tr>
</thead>
<tbody>
<tr>
<td>132-420‡</td>
<td>180-803</td>
<td>40 GHz</td>
<td>vertical</td>
<td>~120 cm (48 in)</td>
<td>CM300, Elite, SUMMIT200, Summit 11000/12000</td>
</tr>
<tr>
<td>132-421†</td>
<td>180-807</td>
<td>50 GHz</td>
<td>vertical</td>
<td>~120 cm (48 in)</td>
<td>CM300, Elite, SUMMIT200, Summit 11000/12000</td>
</tr>
<tr>
<td>132-422†</td>
<td>180-811</td>
<td>67 GHz</td>
<td>vertical</td>
<td>~90 cm (36 in)</td>
<td>CM300, Elite, SUMMIT200, Summit 11000/12000*</td>
</tr>
<tr>
<td>132-423†</td>
<td>180-802</td>
<td>40 GHz</td>
<td>angled</td>
<td>~120 cm (48 in)</td>
<td>CM300, Elite, SUMMIT200, Summit 11000/12000</td>
</tr>
<tr>
<td>132-424†</td>
<td>180-806</td>
<td>50 GHz</td>
<td>angled</td>
<td>~120 cm (48 in)</td>
<td>CM300, Elite, SUMMIT200, Summit 11000/12000</td>
</tr>
<tr>
<td>132-425†</td>
<td>180-810</td>
<td>67 GHz</td>
<td>angled</td>
<td>~90 cm (36 in)</td>
<td>CM300, Elite, SUMMIT200, Summit 11000/12000*</td>
</tr>
<tr>
<td>132-458</td>
<td>180-812</td>
<td>110 GHz</td>
<td>angled</td>
<td>18 cm (7.1 in)</td>
<td>Summit 11000/12000 single port*</td>
</tr>
<tr>
<td>147-316</td>
<td>180-813</td>
<td>110 GHz</td>
<td>angled</td>
<td>24 cm (9.4 in)</td>
<td>CM300, Elite, Summit 11000/12000*,**,</td>
</tr>
<tr>
<td>178-383</td>
<td>—</td>
<td>110 GHz</td>
<td>angled</td>
<td>10 cm (3.9 in)</td>
<td>EPS150, EPS200, SUMMIT200, Elite, and CM300xi*</td>
</tr>
<tr>
<td>178-387</td>
<td>—</td>
<td>110 GHz</td>
<td>angled</td>
<td>13 cm (5.1 in)</td>
<td>EPS150, EPS200, SUMMIT200, Elite, and CM300xi*</td>
</tr>
</tbody>
</table>

* Rear mounted instrument rack recommended.
** For Summit 11000/12000 multiport set-up.
† Item on limited supply. If possible, convert to alternative from Junkosha.
‡ Item is obsolete, listed for reference only.
SHIELDED ENVIRONMENTS WITH TOPHAT

180-803 — Cable, 40 GHz, m/f, Flexible, Vertical Style
Probe Body, 48 in for MicroChamber

**Features**
- Connects 40 GHz probes with VNA

**Specifications**
- For signals DC to 40 GHz
- Connectors straight K (f) to elbow K (m)
- Length: ~120 cm (48 in)

**Compatibility**
- For vertical probe bodies and use in MicroChamber/TopHat applications

180-807 — Cable, 50 GHz, m/f, Flexible, Vertical Style
Probe Body, 48 in for MicroChamber

**Features**
- Connects 50 GHz probes with VNA

**Specifications**
- For signals DC to 50 GHz
- Connectors straight 2.4 (f) to elbow 2.4 (m)
- Length: ~120 cm (48 in)

**Compatibility**
- For vertical probe bodies and use in MicroChamber/TopHat applications

180-811 — Cable, 67 GHz, m/f, Flexible, Vertical Style
Probe Body, 36 in for MicroChamber

**Features**
- Connects 67 GHz probes with VNA

**Specifications**
- For signals DC to 67 GHz
- Connectors straight 1.85 (f) to straight 1.85 (m)
- Length: ~90 cm (36 in)
- Connector mechanically compatible with 2.4 type

**Compatibility**
- For angled probe bodies and use in MicroChamber/TopHat applications

180-806 — Cable, 50 GHz, m/f, Flexible, Angled Style
Probe Body, 48 in for MicroChamber

**Features**
- Connects 50 GHz probes with VNA

**Specifications**
- For signals DC to 50 GHz
- Connectors straight 2.4 (f) to straight 2.4 (m)
- Length: ~120 cm (48 in)

**Compatibility**
- For angled probe bodies and use in MicroChamber/TopHat applications

180-810 — Cable, 67 GHz, m/f, Flexible, Angled Style
Probe Body, 36 in for MicroChamber

**Features**
- Connects 67 GHz probes with VNA

**Specifications**
- For signals DC to 67 GHz
- Connectors straight 1.85 (f) to straight 1.85 (m)
- Length: ~90 cm (36 in)
- Connector mechanically compatible with 2.4 type

**Compatibility**
- For angled probe bodies and use in MicroChamber/TopHat applications

180-812 — Cable, Test Port, 1mm, m/f, 110 GHz, 18 cm
for MicroChamber

**Features**
- Connects 110 GHz probes with test head

**Specifications**
- For signals DC to 110 GHz
- Connectors straight 1.00 (f) to straight 1.00 (m)
- Length: 18 cm (7 in)

**Compatibility**
- For vertical probe bodies and use in MicroChamber/TopHat applications
180-813 — Cable, Test Port, 1mm m/f, 110 GHz, 24 cm for Elite 300

Features
- Connects 110 GHz probes with test head

Specifications
- For signals DC to 110 GHz
- Connectors straight 1.00 (f) to straight 1.00 (m)
- Length: 24 cm (9 in)

Compatibility
- For angled probe bodies and use in MicroChamber/TopHat applications on Elite 300

178-383 — RF Cable, 110 GHz, m/f, 100 mm

Features
- Connects 110 GHz probes with Keysight M4 test head

Specifications
- For signals DC to 110 GHz
- Connectors straight 1.00 (f) to straight 1.00 (m)
- Length: 10 cm (4 in)

Compatibility
- For angled probe bodies and use in MicroChamber/TopHat applications in M4 single port set-up

178-387 — RF Cable, 110 GHz, m/f, 130 mm

Features
- Connects 110 GHz probes with Keysight M4 test head

Specifications
- For signals DC to 110 GHz
- Connectors straight 1.00 (f) to straight 1.00 (m)
- Length: 13 cm (5 in)

Compatibility
- For angled probe bodies and use in MicroChamber/TopHat applications in M4 multiport set-up

132-421 — Cable, 50 GHz, m/f, Flexible, Vertical Style Probe Body, 48 in for MicroChamber

Features
- Connects 50 GHz probes with VNA

Specifications
- For signals DC to 50 GHz
- Connectors straight 2.4 (f) to straight 2.4 (m)
- Length: ~120 cm (48 in)

Compatibility
- For vertical probe bodies and use in MicroChamber/TopHat applications

132-422 — Cable, 67 GHz, m/f, Flexible, Vertical Style Probe Body, 36 in for MicroChamber

Features
- Connects 67 GHz probes with VNA

Specifications
- For signals DC to 67 GHz
- Connectors straight 2.4 (f) to elbow 2.4 (m)
- Length: ~90 cm (36 in)

Compatibility
- For vertical probe bodies and use in MicroChamber/TopHat applications

132-423 — Cable, 40 GHz, m/f, Flexible, Angled Style Probe Body, 48 in for MicroChamber

Features
- Connects 40 GHz probes with VNA

Specifications
- For signals DC to 40 GHz
- Connectors straight K (f) to straight K (m)
- Length: ~120 cm (48 in)

Compatibility
- For angled probe bodies and use in MicroChamber/TopHat applications

132-424 — Cable, 50 GHz, m/f, Flexible, Angled Style Probe Body, 48 in for MicroChamber

Features
- Connects 50 GHz probes with VNA

Specifications
- For signals DC to 50 GHz
• Connectors straight 2.4 (f) to straight 2.4 (m)
• Length: ~120 cm (48 in)

**Compatibility**
• For angled probe bodies and use in MicroChamber/TopHat applications

**132-425 — Cable, 67 GHz, m/f, Flexible, Angled Style Probe Body, 36 in for MicroChamber**

**Features**
• Connects 67 GHz probes with VNA

**Specifications**
• For signals DC to 67 GHz
• Connectors straight 1.85 (f) to straight 1.85 (m)
• Length: ~90 cm (36 in)
• Connector mechanically compatible with 2.4 type

**Compatibility**
• For angled probe bodies and use in MicroChamber/TopHat applications

**147-316 — Cable, Test Port, 1mm m/f, 110 GHz, 24 cm for Elite 300**

**Features**
• Connects 110 GHz probes with test head

**Specifications**
• For signals DC to 110 GHz
• Connectors straight 2.00 (f) to straight 2.00 (m)
• Length: 24 cm (9 in)

**Compatibility**
• For angled probe bodies and use in MicroChamber/TopHat applications on Elite 300

**132-458 — Cable, Test Port, 1mm m/f, 110 GHz, 18 cm for MicroChamber**

**Features**
• Connects 110 GHz probes with test head

**Specifications**
• For signals DC to 110 GHz
• Connectors straight 2.4 (f) to straight 2.4 (m)
• Length: 18 cm (7 in)

**Compatibility**
• For angled probe bodies and use in MicroChamber/TopHat applications

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**UNSHIELDED ENVIRONMENTS**

**180-801 — Cable, 40 GHz 2.92mm (f), 2.92 mm (m) Integrated Elbow, 48 inch**

**Features**
• Connects 40 GHz probes with VNA

**Specifications**
• For signals DC to 40 GHz
• Connectors straight K (f) to elbow K (m)
• Length: ~120 cm (48 in)

**Compatibility**
• For vertical probe bodies and non-microchambered applications

**180-805 — Cable, 50 GHz 2.4mm (f), 2.4mm (m) Integrated Elbow, 48 inch**

**Features**
• Connects 50 GHz probes with VNA

**Specifications**
• For signals DC to 50 GHz
• Connectors straight 2.4 (f) to elbow 2.4 (m)
• Length: ~120 cm (48 in)

**Compatibility**
• For vertical probe bodies and non-microchambered applications

**180-800 — Cable, 40 GHz,  K (f) Straight, K (m) Straight, 48 in**

**Features**
• Connects 40 GHz probes with VNA

**Specifications**
• For signals DC to 40 GHz
• Connectors straight K (f) to straight K (m)
• Length: ~120 cm (48 in)

**Compatibility**
• For angled probe bodies for non-microchambered applications

**180-804 — Cable, 50 GHz 2.4 (f) Straight, 2.4 (m) Straight, 48 in**

**Features**
• Connects 50 GHz probes with VNA

**Specifications**
• For signals DC to 50 GHz
• Connectors straight 2.4 (f) to straight 2.4 (m)
• Length: ~120 cm (48 in)

Compatibility
• For angled probe bodies for non-microchambered applications

180-808 — Cable, 67 GHz 1.85mm (f), 1.85mm (m)
Straight, 36 in

Features
• Connects 67 GHz probes with VNA

Specifications
• For signals DC to 67 GHz
• Connectors straight 1.85 (f) to straight 1.85 (m)
• Length: ~90 cm (36 in)
• Connector mechanically compatible with 2.4 type

Compatibility
• For angled probe bodies for non-microchambered applications

180-809 — Cable, 67 GHz 1.85mm (f), 1.85mm (m)
Integrated Elbow, 36 in

Features
• Connects 67 GHz probes with VNA

Specifications
• For signals DC to 67 GHz
• Connectors straight 1.85 (f) to elbow 1.85 (m)
• Length: ~90 cm (36 in)
• Connector mechanically compatible with 2.4 type

Compatibility
• For vertical probe bodies and non-microchambered applications

103-202-B — Cable, 50 GHz Flexible 2.4 mm Connector
Cable/Integrated Elbow, 4-feet, m/f

Features
• Connects 50 GHz probes with VNA

Specifications
• For signals DC to 50 GHz
• Connectors straight 2.4 (f) to elbow 2.4 (m)
• Length: ~120 cm (48 in)

Compatibility
• For vertical probe bodies and non-microchambered applications

124-084-B — Cable, 40 GHz, K (f) Straight, K (m)
Straight, 48 in

Features
• Connects 40 GHz probes with VNA

Specifications
• For signals DC to 40 GHz
• Connectors straight K (f) to straight K (m)
• Length: ~120 cm (48 in)

Compatibility
• For angled probe bodies for non-microchambered applications

124-085-B — Cable, 50 GHz 2.4 (f) Straight, 2.4 (m)
Straight, 48 in

Features
• Connects 50 GHz probes with VNA

Specifications
• For signals DC to 50 GHz
• Connectors straight 2.4 (f) to straight 2.4 (m)
• Length: ~120 cm (48 in)

Compatibility
• For angled probe bodies for non-microchambered applications

124-605-B — Cable, 67 GHz 1.85mm (f), 1.85mm (m)
Integrated Elbow, 36 in

Features
• Connects 67 GHz probes with VNA

Specifications
• For signals DC to 67 GHz
• Connectors straight 1.85 (f) to elbow 1.85 (m)
• Length: ~90 cm (36 in)
• Connector mechanically compatible with 2.4 type

Compatibility
• For vertical probe bodies and non-microchambered applications

124-606-B — Cable, 67 GHz 1.85mm (f), 1.85mm (m)
Straight, 36 in

Features
• Connects 67 GHz probes with VNA

Specifications
• For signals DC to 67 GHz
• Connectors straight 1.85 (f) to straight 1.85 (m)
• Length: ~90 cm (36 in)
• Connector mechanically compatible with 2.4 type

Compatibility
• For angled probe bodies for non-microchambered applications

132-458 — Cable, Test Port, 1mm, m/f, 110 GHz, 18 cm for MicroChamber

Features
• Connects 110 GHz probes with test head

Specifications
• For signals DC to 110 GHz
• Connectors straight 1.00 (f) to straight 1.00 (m)
• Length: 18 cm (7 in)

Compatibility
• For angled probe bodies and use in MicroChamber/TopHat applications
RF Adapters

100-934 — 2.92 mm (K connector) 90° Elbow, (m) to (f)

- Connects 40 GHz cables to 40 GHz or 50 GHz Keysight VNA, or 40 GHz probes to 50 GHz cables

 Compatibility
- For |Z| Probe wedges with square S-G pins

105-010 — 2.4 mm 90° Elbow, (m) to (f)

105-097 — 2.4 mm (f) to 2.92 mm (m) Adapter

- Connects 40 GHz cables to 40 GHz or 50 GHz Keysight VNA, or 40 GHz probes to 50 GHz cables

 Specifications
- Connector straight SMA (f) to straight S-G square pin (f)
- Length: ~30 cm (12 in)

 Compatibility
- For |Z| Probe wedges with square S-G pins

164-500 — 2.4 mm (m) to 2.92 mm (f) Adapter

- Connects 50 GHz probes to 40 GHz cables

122-237 — SMA (f) to S-G Square Pin Header, 12 in (30 cm) Flexible Cable

- Connects |Z| Probe wedges with VNA

 Specifications
- For signals DC to 18 GHz

 Compatibility
- Summit 11000/12000

123-724 — Adapter Kit for Interface Between Summit 11000/12000 and Agilent E4991A Module

- Connects a Keysight E4991A module to an ACP probe

 Specifications
- For signals DC to 110 GHz
- Connectors straight 1.00 (f) to straight 1.00 (m)
- Length: 24 cm (9.5 in)

 Compatibility
- Summit 11000/12000
OPEN PLATFORM RF AND MICROWAVE POSITIONERS

129227 — PH350HF (2)

Features
- Set of two PH350HF includes probe arms for fixing standard HF probes from all vendors
- For adaptation of the 1 mm 110GHz modules Keysight N5250A or Anritsu 3742A-EW fixed with screws on the PH350
- For adaptation of all Rohde & Schwarz converter with 1 mm cable, requires additional adapter platen depending from type (on request)
- Special flat design to minimize the HF cable length for highest measurement dynamic range
- Mounting of other tuners is possible with leveling feet and/or adapter platen (on request)
- Fixed by screws onto the HF platen

Specifications
- Travel range:
  - X/Y: 25 mm (1 in)
  - Z: 10 mm (0.4 in) (z-axis control: cw=down, ccw=up)
- With 75 mm (3 in) fast X-coarse movement for coaxial measurements
- Micrometer pitch: 500µm pitch (50 TPI)

Compatibility
- All PA/PM stations with dedicated platen (except BlueRay and MicroAlign)

138230 — PH510 Motorized Positioner

Features
- IV/CV, RF motorized probing
- Multi-contact/mixed signal probing
- Versatile wafer level reliability probing

Specifications
- Feature resolution: 3 µm (0.12 mils)
- Travel range: 25 mm (1 in) in X, Y, and Z
- Encoder resolution: (X / Y / Z) 0.02/ 0.02/ 0.02 µm (0.0008 mils)
- Mount: vacuum, magnetic, bolt down
- Footprint: 64 x 122 mm (2.5 x 4.8 in)

Configuration
- Use adapter 138610, 142480 or 143098 for mounting to PM5, PM8, PM300, PA200, PA300, PA200 BlueRay, PA300 MicroAlign

Compatibility
- PM5, PM8, PM300, PM300PS, PA200, PA200 BlueRay, PA300, PA300 MicroAlign

CM300XI & ELITE 300 RF AND MICROWAVE POSITIONERS

141-778 — mmW Large Area Positioner (E)

Features
- Used for high-performance single-ended/differential broadband/ mm-Wave, sub-THz S-parameters, and source/load-pull, RF noise probing
- Used with Infinity / ACP / T-Wave high performance RF probes
- Precision 3 axis large area positioner for mmWave probes
- Optimized for CM300xi and Elite 300 Station Platforms
- Micrometer set planarity adjustment

Specifications
- Feature resolution: 3 µm (0.12 mils)
- Travel range:
  - X/Y: 150 mm (5.9 in)
  - Z: 12.5 mm (0.5 in) (z-axis control: cw=down, ccw=up)
- Micrometer set planarity adjust: ±5°
- 2-port probe tip separation
- Adjustable for MicroChamber TopHat: 40 mm (1.6 in for Elite) and 43 mm (1.7 in for CM300xi)
- Without MicroChamber TopHat: TBD mm (y in)
- Mount: bolt-down
- Footprint: 204 x 204 mm (8 in)
- Weight = approx. 11 kg (23 pounds)

Configurations
- Use on platen right location as East positioner (2-port)

4-port configuration using East mmWave positioner, West mmWave positioner, and 2 E/W RF positioners placed in N/S positions
Compatibility
• SUMMIT200, CM300xi, Elite 300

141-779 — mmW Large Area Positioner (W)

Features
• Used for high-performance single-ended/differential broadband/mm-Wave, sub-THz S-parameters, and source/load-pull, RF noise probing
• Used with Infinity / ACP / T-Wave high performance RF probes
• 3 axis large area positioner for mmWave probes
• Optimized for CM300xi and Elite 300 Station Platforms
• Micrometer set planarity adjustment
• Industry standard RF probe mount

Specifications
• Feature resolution: 3 μm (0.12 mils)
• Travel range:
  – X/Y: 150 mm (5.9 in)
  – Z: 12.5 mm (0.5 in) (z-axis control: cw=down, ccw=up)
• Micrometer set planarity adjust: ±5°
• 2-port probe tip separation
• Adjustable for MicroChamber TopHat: 40 mm (1.6 in for Elite) and 43 mm (1.7 in for CM300xi)
• Without MicroChamber TopHat: TBD mm (y in)
• Mount: bolt-down
• Footprint: 204 x 204 mm (8 in)
• Weight = approx. 11 kg (23 pounds)

Configurations
• Use on platen left location as West positioner (2-port)

Compatibility
• SUMMIT200, CM300xi, Elite 300

181-895 — mmW Large Area Positioner HTS (E)

Features
• Used for high-performance single-ended/differential broadband/mm-Wave, sub-THz S-parameters, and source/load-pull, RF noise probing
• Used with Infinity / ACP / T-Wave high performance RF probes
• Precision 3 axis large area positioner for mmWave probes
• Optimized for CM300xi and Elite 300 Station Platforms
• Micrometer set planarity adjustment
• High temperature stability (HTS)
• Recommended for testing at high temperatures or multiple temperatures

Specifications
• Feature resolution: 3 μm (0.12 mils)
• Travel range:
  – X/Y: 150 mm (5.9 in)
  – Z: 12.5 mm (0.5 in) (z-axis control: cw=down, ccw=up)
• Micrometer set planarity adjust: ±5°
• 2-port probe tip separation
• Adjustable for MicroChamber TopHat: 40 mm (1.6 in for Elite) and 43 mm (1.7 in for CM300xi)
• Without MicroChamber TopHat: TBD mm (y in)
• Mount: bolt-down
• Footprint: 204 x 204 mm (8 in)
• Weight = approx. 11 kg (23 pounds)

Configurations
• Use on platen right location as East positioner (2-port)

Compatibility
• CM300xi with Top Hat, Elite 300

4-port configuration using East mmWave positioner, West mmWave positioner, and 2 E/W RF positioners placed in N/S positions

181-896 — mmW Large Area Positioner HTS (W)

Features
• Used for high-performance single-ended/differential broadband/mm-Wave, sub-THz S-parameters, and source/load-pull, RF noise probing
• Used with Infinity / ACP / T-Wave high performance RF probes

Specifications
• Feature resolution: 3 μm (0.12 mils)
• Travel range:
  – X/Y: 150 mm (5.9 in)
  – Z: 12.5 mm (0.5 in) (z-axis control: cw=down, ccw=up)
• Micrometer set planarity adjust: ±5°
• 2-port probe tip separation
• Adjustable for MicroChamber TopHat: 40 mm (1.6 in for Elite) and 43 mm (1.7 in for CM300xi)
• Without MicroChamber TopHat: TBD mm (y in)
• Mount: bolt-down
• Footprint: 204 x 204 mm (8 in)
• Weight = approx. 11 kg (23 pounds)

Configurations
• Use on platen right location as East positioner (2-port)

Compatibility
• CM300xi with Top Hat, Elite 300

4-port configuration using East mmWave positioner, West mmWave positioner, and 2 E/W RF positioners placed in N/S positions
• Precision 3 axis large area positioner for mmWave probes
• Optimized for CM300xi and Elite 300 Station Platforms
• Micrometer set planarity adjustment
• High temperature stability (HTS)
• Recommended for testing at high temperatures or multiple temperatures

Specifications
• Feature resolution: 3 μm (0.12 mils)
• Travel range:
  – X/Y: 150 mm (5.9 in)
  – Z: 12.5 mm (0.5 in) (z-axis control: cw=down, ccw=up)
• Micrometer set planarity adjust: ±5°
• 2-port probe tip separation
• Adjustable for MicroChamber TopHat: 40 mm (1.6 in for Elite) and 43 mm (1.7 in for CM300xi)
• Without MicroChamber TopHat: TBD mm (y in)
• Mount: bolt-down
• Footprint: 204 x 204 mm (8 in)
• Weight = approx. 11 kg (23 pounds)

Configurations
• Use on platen left location as West positioner (2-port)

Compatibility
• CM300xi with TopHat, Elite 300

MS1-8-40 — RF Motorized Microwave Positioner (E/W)

Features
• Fully programmable high resolution positioner for RF/microwave probes
• Optimized for Elite 300 station platform
• Provides 3 axes of linear motion with 25 mm (1 in) of travel
• Video point-and-click movement with prober control software
• New one-click positioner quick release enables easy setup and gross positioning
• Ultra rigid design for best probe placement
• Manual override of XYZ controls without losing software position
• Multi position RF cable clamp and offset probe mounting arm for optimized RF cable connection
• Micrometer set planarity adjustment
• EMI grounding strap
• Industry standard RF probe mount

Specifications
• Travel range:
  – X/Y: 25 mm (1 in)
  – Z: 15 mm (0.6 in)
• Accuracy: 1 μm (0.04 mils)
• Repeatability: 1 μm (0.04 mils)
• High resolution at 0.1 μm (0.004 mils) step size
• Closed loop motor-encoder system
• Speed: 1 mm/sec
• Micrometer set planarity adjust: ±5°
• Gross Y travel: 26.42 mm (1.04 in) with TopHat; 61.98 mm (2.44 in) with no TopHat/insert
• Weight: 4.99 kg (11 lb)
• Dimensions (HxWxD): 140 x160 x148 mm (5.5 x 6.28 x 5.8 in)
• 2-port probe tip separation
  – With MicroChamber TopHat: 40.64 mm (1.6 in)
  – Without MicroChamber TopHat: 81.28 mm (3.2 in)
• Probe mount interface: 3 hole FormFactor standard design, with locating pin
• Includes 1 ECA-53 motor controller card for ECX-56D high resolution controller (not included)

Configurations
• Use on platen right location as East positioner
• Use on platen left location as West positioner

Compatibility
• Elite 300

SUMMIT 11000/12000 RF AND MICROWAVE POSITIONERS

MS1-8E — East Positioner, Programmable

Features
• Fully programmable high resolution positioner for RF/microwave probes
• Provides 3 axes of linear motion with 25 mm (1 in) of travel
• Video point and click movement with prober control software
• Ultra rigid design for best probe placement
• Manual override of XYZ controls without losing software position
• Multi position RF cable clamp for optimized RF cable connection
• Micrometer set planarity adjustment

Two MS1-8-40 positioners shown in East and West positions with two 139-311B positioners (in N/S positions)
Specifications

- EMI grounding strap
- Industry standard RF probe mount

**Features**

- Fully programmable high resolution positioner for RF/microwave probes
- Provides 3 axes of linear motion with 25 mm (1 in) of travel
- Video point and click movement with probe station control software
- Ultra rigid design for best probe placement
- Manual override of XYZ controls without losing software position
- Multi position RF cable clamp for optimized RF cable connection
- Micrometer set planarity adjustment
- EMI grounding strap
- Industry standard RF probe mount

Specifications

- XY travel: 25 mm (1 in)
- Z travel: 15 mm (0.6 in)
- Accuracy: 1 µm (0.04 mils)
- Repeatability: 1 µm (0.04 mils)
- High resolution at 0.1 µm (0.004 mils) step size
- Closed loop motor-encoder system
- Speed: 1 mm/sec
- Micrometer set planarity adjust: ±5°

**Specifications**

- XY travel: 25 mm (1 in)
- Z travel: 15 mm (0.6 in)
- Feature resolution: 3 µm (0.012 mils)
- High resolution at 0.1 µm (0.004 mils) step size
- Closed loop motor-encoder system
- Speed: 1 mm/sec
- Micrometer set planarity adjust: ±5°
- Weight: 4.99 kg (11 lb)
- Dimensions (WxDxH): 160 x 148 x 140 mm (6.28 x 5.8 x 5.5 in)
- Probe mount interface: 3 hole FormFactor standard design, with locating pin
- Includes 1 ECA-53 motor controller card for ECX-56D high resolution controller (not included)

**Configurations**

- Use on platen left location as West positioner

**Compatibility**

- Summit 11000/12000, S300

133-525 — mmW Positioner, Manual, West Positioner

**Features**

- Precision 3 axis large area positioner for Waveguide and 1.0 mm coaxial probes
- True vertical Z-axis avoids probe damage when probes are in close proximity to each other (thru measurements) and easy to view initial contact for accurate probe placement
- Quick release mechanism on X and Y axes for rapid test set-up
- Micrometer set planarity adjustment
- Industry standard RF probe mount
- Includes brackets to secure common test heads

Specifications

- X travel: 132 mm (5.2 in)
- Y travel: 143 mm (5.6 in)
- Z travel: 12.5 mm (0.5 in) (z-axis control: cw=down, ccw=up)
- Micrometer set planarity adjust: ±5°
- Probe mount interface: 3 hole FormFactor standard design, with locating pin

**Configurations**

- Use on platen right location as East positioner

**Compatibility**

- Summit 11000/12000, S300

133-528 — mmW Positioner, Manual, East Position

**Features**

- Precision 3 axis large area positioner for Waveguide and 1.0 mm coaxial probes
- True vertical Z-axis avoids probe damage when probes are in close proximity to each other (thru measurements) and easy to view initial contact for accurate probe placement
- Quick release mechanism on X and Y axes for rapid test set-up
• Micrometer set planarity adjustment
• Industry standard RF probe mount
• Includes brackets to secure common test heads

Specifications
• X travel: 132 mm (5.2 in)
• Y travel: 143 mm (5.6 in)
• Z travel: 12.5 mm (0.5 in) (z-axis control: cw=down, ccw=up)
• Micrometer set planarity adjust: ±5°
• Probe mount interface: 3 hole FormFactor standard design, with locating pin

Configurations
• Use on platen left location as East positioner

Compatibility
• Summit 11000/12000, S300
Positioner Accessories

DCM POSITIONER ACCESSORIES

138-023 — Bracket for Keithley 4200-PA-1 for DPP2xx Positioner

Features
- Positions the Preamp close to the wafer/device under test
- Isolated from the thermal environment of the wafer and station platen for highly stable measurements
- Mounts to Z axis to minimize cable flexure between the Amp and probe

Kit Contents
- Mounting bracket
- Mounting hardware

Compatibility
- Elite 300, Summit 11000/12000, S300, M150, Alessi

RF POSITIONER ACCESSORIES

107-088 — Bracket Mount for Bias Tee/Keysight E4991A Module, for RF Positioners

Features
- Accessory mounting kit for RF positioners
- Used for bias tees
- Used for test head modules such as Keysight E4991 test heads
- Slotted mounting holes for easy multiple use adaptation

Kit Contents
- Mounting plate
- Plate mounting hardware

Compatibility
- Elite 300, Summit 11000/12000, S300, M150, Alessi

141-858 — FPC Mount for RF Positioners

Features
- Adapts from standard FormFactor 3-hole mount to FPC style mount
- Enables the FPC probe to swing to reach probing target

Specifications
- Compatible with standard 40 mm chuck below platen configurations
- Compatible with POS-RF positioners

157-451 — DC Tip Holder

Features
- Mounts a DC needle to any RF probe mount
- Requires 100805 (50 cm/2 in) or 100751 (150 cm/6 in) coaxial cable arm

Specifications
- Leakage: <5fA
- Capacitance: <4pF

174-889 — Summit 11000/12000 Platen Adapter

Features
- Adapts the Summit 11000/12000 station platen to enable mounting of RPP404/RPP504 positioners
- Requires one adapter per side

Compatibility
- Summit 11000/12000 11000/12000

174-973 — EPS Platen Adapter

Features
- Adapts the EPS station platen to enable mounting of RPP404/RPP504 positioners
- Requires one adapter per positioner

Compatibility
- EPS150, EPS200
**Positioner Accessories for Open Platforms**

**18129 — Plug, Female, HF-3 mm, Subminiature**

*Features*
- Fits 3 mm (0.12) male HF plug (18130) used with DPP105

*Compatibility*
- DPP105

**Compatibility**

**115604 — Quarter Ring on HF Platen for DC Probes**

*Features*
- One quarter ring which instead of a [RPP305-M-S] can be bolted down to each of the 4 corners of an HF platen
- All DC probes can be used with standard arm length
- Fits all HF platens except MicroAlign

*Compatibility*
- PA300, PM300, PA200, PM8 + HF platen

**143098 — PH510 Positioner Adapter for HF Platen and RPP305-S Probe Arm**

*Features*
- Mechanical adaptation of PH510 to layout of RF platen
- Adaptation for use of RF probe arms RPP305-S

*Compatibility*
- PH510

**RPP504 Motorized Positioner Accessories**

**178-511 — MPX Controller for 4 Motorized Positioners RPP504**

*Features*
- Controller box for up to 4 motorized RPP504 positioners

*Compatibility*
- CM300xi, SUMMIT200, Elite300, Summit 11000/12000 12000, EPS150/200

**178-517 — Adapter Kit for MPX Controller on CM300xi**

*Features*
- Used for mounting the MPX controller on a CM300xi station
- Mounts at the rear side of the station

*Compatibility*
- CM300xi

**178-924 — Adapter Kit for MPX Controller on SUMMIT200**

*Features*
- Used for mounting the MPX controller on a SUMMIT200 station
- Mounts at the rear side of the station

*Compatibility*
- SUMMIT200

**178-920 — Adapter Kit for MPX Controller on EPS**

*Features*
- Used for mounting the MPX controller as a stand-alone unit
Compatibility
• EPS150/200, Summit 11000/12000 12000, Elite 300

178-511 — MPX Controller for 4 Motorized Positioners
RPP504

Features
• Controller box for up to 4 motorized RPP504 positioners

Compatibility
• CM300xi, SUMMIT200, Elite300, Summit 11000/12000 12000, EPS150/200

181-170 — MPX Controller for 2 Motorized Positioners
RPP504

Features
• Controller box for up to 2 motorized RPP504 positioners

Compatibility
• CM300xi, SUMMIT200, Elite300, Summit 11000/12000 12000, EPS150/200

183-111 — MPX Controller for 1 Motorized Positioners
RPP504

Features
• Controller box for 1 motorized RPP504 positioner

Compatibility
• CM300xi, SUMMIT200, Elite300, Summit 11000/12000 12000, EPS150/200
Cryogenic & Vacuum Positioners

137197 — VCP110, DC Triax, Cryo, PMC200/PAC200

Features
- Used for IV/CV probing and failure analysis in vacuum/cryogenic environments
- Used with PTT probes
- VCP110 high vacuum probe positioner
- Stainless steel main body
- Magnetic foot adapter
- 3 linear axes with 12 mm movement range
- Probe arm DC triax with vacuum proof triax cable with connector to electrical feedthrough flange

Specifications
- Feature resolution: 3 μm (0.12 mils)
- Travel range: 12 mm (0.5 in) in X, Y, and Z
- Mount: magnetic
- Footprint (WxD): 65 x 65 mm (0.24 x 0.24 in)

Compatibility
- PAC200, PMC200

137198 — VCP110, HF East-West, Cryo, PMC200/PAC200

Features
- Used for RF probing in vacuum/cryogenic environments
- Used with high performance RF probes
- VCP110 high vacuum probe positioner
- Stainless steel main body
- Magnetic foot adapter
- Probe arm HF straight

Specifications
- Feature resolution: 3 μm (0.12 mils)
- Travel range: 12 mm (0.5 in) in X, Y, and Z
- Mount: magnetic
- Footprint (WxD): 65 x 65 mm (0.24 x 0.24 in)

Compatibility
- PAC200, PMC200

137199 — VCP110, North-South, Cryo, PMC200/PAC200

Features
- Used for RF probing in vacuum/cryogenic environments
- Used with high performance RF probes
- VCP110 high vacuum positioner
- Stainless steel main body
- Magnetic foot adapter
- Probe arm HF right-angled

Specifications
- Feature resolution: 3 μm (0.12 mils)
- Travel range: 12 mm (0.5 in) in X, Y, and Z
- Mount: magnetic
- Footprint (WxD): 65 x 65 mm (0.24 x 0.24 in)

Compatibility
- PAC200, PMC200

140967 — VCP110, High Vacuum, DC Triax, PLV50

Features
- Used for IV/CV probing and failure analysis in vacuum/cryogenic environments
- Used with PTT probes
- VCP110 high vacuum probe positioner
- Stainless steel main body
- Magnetic foot adapter
- Probe arm DC triax with vacuum proof triax cable with connector to electrical feedthrough flange

Specifications
- Feature resolution: 3 μm (0.12 mils)
- Travel range: 12 mm (0.5 in) in X, Y, and Z
- Mount: magnetic
- Footprint (WxD): 65 x 65 mm (0.24 x 0.24 in)

Compatibility
- PLV50
140968 — VCP110, High Vacuum, HF East-West, PLV50

Features
- Used for RF probing in vacuum/cryogenic environments
- Used with high performance RF probes
- VCP110 high vacuum probe positioner
- Stainless steel main body
- Magnetic foot adapter
- Probe arm HF straight

Specifications
- Feature resolution: 3 μm (0.12 mils)
- Travel range: 12 mm (0.5 in) in X, Y, and Z
- Mount: magnetic
- Footprint (WxD): 65 x 65 mm (0.24 x 0.24 in)

Compatibility
- PLV50

140969 — VCP110, High Vacuum, HF Arm, North-South, PLV50

Features
- Used for RF probing in vacuum/cryogenic environments
- Used with high performance RF probes
- VCP110 high vacuum probe positioner
- Stainless steel main body
- Magnetic foot adapter
- Probe arm HF right-angled

Specifications
- Feature resolution: 3 μm (0.12 mils)
- Travel range: 12 mm (0.5 in) in X, Y, and Z
- Mount: magnetic
- Footprint (WxD): 65 x 65 mm (0.24 x 0.24 in)

Compatibility
- PLV50

147161 — VCP110, HF North-South, Cryo, PMC200/PAC200

Features
- Used for RF probing in vacuum/cryogenic environments
- Used with high performance RF probes
- VCP110 high vacuum probe positioner
- Stainless steel main body
- Magnetic foot adapter
- Right-angled HF arm includes thermal contacts for cooling Cryo |Z|Probe

Specifications
- Feature resolution: 3 μm (0.12 mils)
- Travel range: 12 mm (0.5 in) in X, Y, and Z
- Mount: magnetic
- Footprint (WxD): 65 x 65 mm (0.24 x 0.24 in)

Compatibility
- PAC200, PMC200

147160 — VCP110, HF East-West, Cryo, PMC200/PAC200

Features
- Used for RF probing in vacuum/cryogenic environments
- Used with high performance RF probes
- VCP110 high vacuum probe positioner
- Stainless steel main body
- Magnetic foot adapter
- HF arm straight includes thermal contacts for cooling Cryo |Z| probe

Specifications
- Feature resolution: 3 μm (0.12 mils)
- Travel range: 12 mm (0.5 in) in X, Y, and Z
- Mount: magnetic
- Footprint (WxD): 65 x 65 mm (0.24 x 0.24 in)

Compatibility
- PAC200, PMC200
148722 — VCP110, DC Triax, Cryo, PMC200/PAC200

Features
• Used for IV/CV/RF probing and failure analysis in vacuum/cryogenic environments
• Used with high performance DC or RF probes
• VCP110 high vacuum probe positioner
• Stainless steel main body
• Magnetic foot adapter
• Probe arm DC triax with vacuum proof triax cable with connector to electrical feedthrough flange
• Thermal contacts for probe cooling

Specifications
• Feature resolution: 3 μm (0.12 mils)
• Travel range: 12 mm (0.5 in) in X, Y, and Z
• Mount: magnetic
• Footprint (WxD): 65 x 65 mm (0.24 x 0.24 in)

Compatibility
• PAC200, PMC200
Probe Card Holders and Accessories

PA, PM, DSP

100529 — Probe Card Holder, 6x7 in

**Features**
- Accepts 150 mm (6 in) wide probe card
- Probe card located below platen
- Flexible probe arms recommended if DPP3xx is used
- Low profile probe card holder with bridge mounted 5° Theta and planarity adjustment

**Compatibility**
- PA300, PM300, PA200, PM8, PM5, all DSP stations

**Specifications**
- For standard formats:
  - Width: 114 mm (4.5 in)
  - Length: 178-279 mm (7-11 in)
- Theta adjustment range: 5°
- Minimum tip drop: 2 mm (0.08 in)

129912 — Probe Card Holder, 4.5 x 7 in to 4.5 x 11 in

**Features**
- Top loader/front loader functionality
- Maximum probe card thickness: 23 mm (0.9 in), front loading
- Very stiff design
- Requires Platen Insert Ring PH/PC for use in PM300BEP (132521)

**Compatibility**
- PA300, PM300, PA200, PM8, PM5, all DSP stations

51127 — Celadon Cable Harness

**Features**
- 25 triaxial cable harness for Celadon probe cards (single site, multi site), MiniTiles or VersaTiles, length 2 meter (6.6 ft)
- Note: The double number of cables in the harness or even several harnesses are required for Kelvin Connections (two cables to each probe)
- Cable end to the prober: 26 pole microcoax connector AMP (1 Ground)
- Cable end to test meter: 25 3-lug triax plugs

100651 — Insert for Probe Card Holder

**Features**
- Used with probe cards with probe card holder and HF platen
- When DPP positioners are used, RPP305-B must be removed

**Compatibility**
- MPS150, EPS150, PM8, PM300, PA200, PA300 with RF platen,
Probe Card Holders and Accessories

**CM300xi**

**171-226 — Probe Card Holder 4.5 in for shielded CM300xi with Top Chambers**

**Features**
- Used with 114 mm (4.5 in) width probe cards with the CM300xi Advanced and probe card
- Integrated ProtecPlate for optimal low-level accuracy
- Frost-free probing
- Simultaneous usage with positioners
- Simple and fast installation
- Easy compensation for different tip drop
- Check probe card for mechanical compatibility (electric connectors, tip drop, wire harness, etc.)

**Specifications**
- Probe card support:
  - Max. probe card length = 284 mm (11.2 in) (max. 142 mm [5.6 in] from probe center to front/rear)
  - Tip drop adjustable for 3.0 to 5.0 mm (in 0.5 mm steps)

**Compatibility**
- CM300xi

**171-976 — Probe Card Holder 4.5 in for shielded CM300xi with Cover**

**Features**
- Used with 114 mm (4.5 in) width probe cards inside the EMI/RFI shielded and light-tight CM300xi environment
- Integrated AttoGuard for optimal low-level accuracy
- Frost-free probing
- Use positioners in conjunction with the probe card by removing the PCH cover (open environment)
- Simple and fast installation
- Easy compensation of different tip drop
- Check probe card for mechanical compatibility (electric connectors, tip drop, wire harness, etc.)

**Specifications**
- Probe card support:
  - Max. probe card length = 284 mm (11.2 in) (max. 142 mm [5.6 in] from probe center to front/rear)
  - Tip drop adjustable for 3.0 to 5.0 mm (in 0.5 mm steps)

**Compatibility**
- CM300xi

**171-977 — Probe Card Holder 4.5 in for shielded CM300xi with Cover and Celadon Probe Cards**

**Features**
- Used with 114 mm (4.5 in) width probe cards inside the EMI/RFI shielded and light-tight CM300xi environment
- Integrated AttoGuard for optimal low-level accuracy
- Frost-free probing
- Use positioners in conjunction with the probe card by removing the PCH cover (open environment)
- Simple and fast installation
- Easy compensation of different tip drop
- Check probe card for mechanical compatibility (electric connectors, tip drop, wire harness, etc.)

**Specifications**
- Probe card support:
  - Max. probe card length = 284 mm (11.2 in) (max. 142 mm [5.6 in] from probe center to front/rear)
  - Tip drop adjustable for 3.0 to 5.0 mm (in 0.5 mm steps)

**Compatibility**
- CM300xi
173-020 — 4.5 in Probe Card Holder, HTS, for Shielded CM300xi

Features

- Probe card holder for 114 mm (4.5 in) rectangular probe cards
- Maintains dark, dry, EMI/RFI shielded environment (CM300xi shielded and fully-shielded)
- Can be oriented E/W/S/N for short cables to test equipment
- Easy 3-point probe card planarization
- Simple and fast installation, quick changeover from positioners to probe card
- High thermal stability design and materials
- Check probe card for mechanical compatibility (electric connectors, nominal tip drop 4.7 mm [0.185 in], etc.)

Specifications

- Temperature range supported: -60°C (-76°F) to 300°C (572°F)
- For unattended testing of pads down to 30 x 30 µm (1.12 x 1.12 mils) at temperatures between -55°C to +175°C (-67°F to +347°F)
- Probe card support:
  - For Celadon T40 probe cards or compatible
  - Max. probe card length = 160 mm (6.3 in) (max. 80 mm [3.1 in] from probe center to front/rear)
- Height adjustability:
  - For nominal tip drop of 4.7 mm (0.185 in)
  - ProbeHorizon tolerates +/-0.5 mm (0.02 in) of nominal tip drop
- Max planarization height range: up to 40 mils compression at each planarization point (3)
- Max probe card force: 20 kg (44 lb)

Compatibility

- CM300xi

ELITE 300/SUMMIT200/TESLA200

177-600/X2-PIPCH — Probe Card Holder

Features

- Universal probe card holder for 114 mm (4.5 in) rectangular probe cards
- PCH can be oriented E/W/S/N for short cables run to test equipment
- Low profile design allows simultaneous probe card and internal node needle probes
- Quick changeover from positioners to probe card
- Supports multiple probe card needle drafts with height adjustment
- Easy 3-point probe card planarization
- Front view of this section is shown in Standard PCH rail (PN 158-491) and Optional PCH rail (PN 158-490) images below
- All units are in mm
– Standard PCH rail (PN 158-491)

Overall probe card draft = 4.55 mm – 11.07 mm

– Optional PCH rail (PN 158-490)

Overall probe card draft = 2.65 mm – 8.79 mm

• Theta rotation: ± 7.5°
• Max planarization height range: up to 40 mils compression at each planarization point (3)
• Max probe card force: 20 kg (44 lb)

Kit Contents
• Probe card holder
• Edge connector kit with 48 and 70 pin connectors (f)
• Rear cable heat shield/support
• Probe card height adjustment kit (4 height settings)

Compatibility
• Elite 300/AP, Elite 300/M, SUMMIT200-S, SUMMIT200-AP, SUMMIT200-M (with performance limitations)
177-610/X2-PIPCHM — MicroChamber Probe Card Holder

Features

- Universal probe card holder for 114 mm (4.5 in) rectangular probe cards
- Maintains dark, dry, EMI-RFI shielded environment (Elite 300 with MicroChamber)
- PCH can be oriented E/W/S/N for short cables run to test equipment
- Low profile design allows simultaneous probe card and internal node needle probes
- Quick changeover from positioners to probe card
- Supports multiple probing configurations with removable access covers
- Supports multiple probe card needle drafts with height adjustment
- Easy 3-point probe card planarization

Specifications

- Temperature range supported: -60°C to 300°C (-76°F to 572°F)
- Probe card support:
  - 114 mm (4.5 in) wide rectangular cards
  - Max. probe card length with edge connector: 11.375
  - Needles for 216 mm (8.5 in) long cards can be up to 64 mm (2.5 in) off center
- Probe card draft (distance between bottom of probe card and probe tip):
  - Standard PCH rail (PN 158-491)
    Overall probe card draft = 4.55 mm – 11.07 mm
  - Optional PCH rail (PN 158-490)
    Overall probe card draft = 2.65 mm – 8.79 mm

• Front view of this section is shown in Standard PCH rail (PN 158-491) and Optional PCH rail (PN 158-490) images below
• All units are in mm
• Theta rotation: ± 7.5°
• Max planarization height range: up to 40 mils compression at each planarization point (3)
• Max probe card force: 20 kg (44 lb)

Kit Contents
• Probe card holder
• MicroChamber cover (supports TopHat microscope objective seal)
• Edge connector kit with 48 and 70 pin connectors (f)
• Rear cable heat shield/support
• Probe card height adjustment kit (4 height settings)
• Cable access/exit kit (2)
• Quick access covers (4)

Compatibility
• Elite 300/AP, Elite 300/M, SUMMIT200-AP, SUMMIT200-M, TESLA200-AP, TESLA200-M (≤ 3kV)

Ordering Information
• For HTS compatible probe card holder, order 177-620

177-620/X2-PIPCHMH — MicroChamber Probe Card Holder, HTS, 40 mm, Universal

Features
• Universal probe card holder for 64 mm (2.5 in) rectangular probe cards
• Maintains dark, dry, EMI-RFI shielded environment (Elite with MicroChamber)
• PCH can be oriented E/W/S/N for short cables run to test equipment
• Low profile design allows simultaneous probe card and internal node needle probes
• Quick changeover from positioners to probe card
• Supports multiple probing configurations with removable access covers
• Supports multiple probe card needle drafts with height adjustment
• Easy 3-point probe card planarization
• Constructed with high-stability thermal materials

Specifications
• Temperature range supported: -60°C to 300°C (-76°F to 572°F)
• Probe card support:
  – 114 mm (4.5 in) wide rectangular cards
  – Max. probe card length with edge connector: 11.375
  – Needles for 216 mm (8.5 in) long cards can be up to 64 mm (2.5 in) off center
• Probe card draft (distance between bottom of probe card and probe tip):

• Front view of this section is shown in Standard PCH rail (PN 158-491) and Optional PCH rail (PN 158-490) images below
• All units are in mm
– Standard PCH rail (PN 158-491)

Overall probe card draft = 4.55 mm – 11.07 mm

– Optional PCH rail (PN 158-490)

Overall probe card draft = 2.65 mm – 8.79 mm

• Theta rotation: ± 7.5°
• Max planarization height range: up to 40 mils compression at each planarization point (3)
• Max probe card force: 20 kg (44 lb)

Kit Contents
• Probe card holder
• MicroChamber cover (supports TopHat microscope objective seal)
• Edge connector kit with 48 and 70 pin connectors (f)
• Rear cable heat shield/support
• Probe card height adjustment kit (4 height settings)
• Cable access/exit kit (2)
• Quick access covers (4)

Compatibility
• Elite 300/AP, Elite 300/M, Summit with HTS platen, SUMMIT200-AP, SUMMIT200-M, TESLA200-AP, TESLA200-M (≤ 3kV)
SUMMIT/S300

110-367 — Probe Card Holder for 6 in Round Cards

Features
• Probe card holder for 152 mm (6 in) round cards
• Mounts on Summit 12000 and S300

Specifications
• 152 mm (6 in) round probe card holder (for Pyramid probe cards)
• Theta adjustment
• No Z (height) adjustment (probe station Z is required)

Compatibility
• Summit, S300

114-338 — High Force Probe Card Holder

Features
• Easy to use probe card clamp
• Screw removal is not required to change similar types of probe cards
• No tools required to clamp the probe card in place
• Back pivoting edge connector for easy mating of edge card connector
• Support for 114 mm (4.5 in) rectangular probe cards up to 289 mm (11.375 in) long
• Stable 3-point planarization adjustment
• Easy probe card height setting (three incremental settings)
• Probe card height adjustment accommodates FormFactor low leakage probe cards and other probe cards
• Theta micrometer control located in front of the HF-PCH
• Includes 48 pin and 70 pin edge connectors

Specifications
• Maximum probe needle force: 20 kg (44 lb) (2,000 needles)
• Temperature range:
  – System with MicroChamber -55°C to 300°C (-67°F to 572°F)
  – System without MicroChamber ambient to 300°C (572°F)
• Theta range: ±3°
• Maximum planarization height compensation: 1.27 mm (0.050 in)
• Probe card maximums:
  – W = 11.4 cm ±3 mm (4.5 in ±0.12 in)
  – L = 15.25 cm 28.9 cm (6 in 11.375 in)

Compatibility
• Summit

115-418 — High Force Probe Card Holder for MicroChamber

Features
• Easy to use probe card clamp
• Screw removal is not required to change similar types of probe cards
• No tools required to clamp the probe card in place
• Back pivoting edge connector for easy mating of edge card connector
• Support for 114 mm (4.5 in) rectangular probe cards up to 289 mm (11.375 in) long
• Maintains a dark and dry EMI-RFI shielded environment (MicroChamber version only)
• Stable 3-point planarization adjustment
• Easy probe card height setting (three incremental settings)
• Probe card height adjustment accommodates FormFactor low leakage probe cards and other probe cards
• Theta micrometer control located in front of the HF-PCH
• Includes 48 pin and 70 pin edge connectors

Specifications
• Maximum probe needle force: 20 kg (44 lb) (2,000 needles)
• Temperature range:
  – System with MicroChamber -55°C to 300°C (-67°F to 572°F)
  – System without MicroChamber ambient to 300°C (572°F)
• Theta range: ±3°
• Maximum planarization height compensation: 1.27 mm (0.050 in)
• Probe card maximums:
  – W = 11.4 cm ±3 mm (4.5 in ±0.12 in)
  – L = 15.25 cm 28.9 cm (6 in 11.375 in)

Compatibility
• Summit
122-437 — Edge Connector Kit Probe Card Holders

**Features**
- Edge connector kit for Summit 114 mm (4.5 in) probe card holders
- Support both 48 and 70 pin standard edge connectors
- Pivots for easy loading of probe card

**Kit Contents**
- Edge connector mount
- 48 pin edge connector
- 70 pin edge connector

**Compatibility**
- Summit

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120-935 — Low-Profile Probe Card Holder for Summit (Non-MicroChamber)

**Features**
- Support for 114 mm (4.5 in) rectangular probe cards up to 289 mm (11.375 in) long
- Simultaneous use of a probe card and multiple positioners/DC probe needles
- DC probe needles can be used with the LP-PCH left in place
- Easy to use probe card clamp
- Screw removal is not required to change similar types of probe cards
- No tools required to clamp the probe card in place
- Back pivoting edge connector for easy mating of edge card connector
- Adjustable edge connector mounting brackets to support long probe cards
- Enables use of DCP probes without probe card in place
- Accurate, front-located theta adjustment wheel
- Stable 3-point planarization adjustment
- Probe card height adjustment accommodates variability in probe card needle depth
- Probe card height adjustment accommodates FormFactor low leakage probe cards and other probe cards
- Includes 48 pin and 70 pin edge connectors

**Specifications**
- Maximum probe needle force: 1 kg (2.2 lb) (100 needles)
- Theta range ±3°
- Maximum planarization height compensation: 0.762 mm (0.030 in)
- Probe card maximums:
  - W = 11.4 cm ±3 mm (4.5 in ±0.12 in)
  - L = 15.25 cm 28.9 cm (6 in 11.375 in)
  - Thickness = 0.15 cm 0.32 cm (0.060 in 0.125 in)

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124-118 — Low-Profile Probe Card Holder for Summit Stations with MicroChamber

**Features**
- Support for 114 mm (4.5 in) rectangular probe cards up to 289 mm (11.375 in) long
- Simultaneous use of a probe card and multiple positioners/DC probe needles
- DC probe needles can be used with the LP-PCH left in place
- Easy to use probe card clamp
- Screw removal is not required to change similar types of probe cards
- No tools required to clamp the probe card in place
- Back pivoting edge connector for easy mating of edge card connector
- Adjustable edge connector mounting brackets to support long probe cards
- Enables use of DCP probes without probe card in place
- Quick switch-over between the TopHat cover and the LP-PCH
- Maintains a dark and dry EMI-RFI shielded environment (MicroChamber version only)
- Accurate, front-located theta adjustment wheel
- Stable 3-point planarization adjustment
- Probe card height adjustment accommodates FormFactor low leakage probe cards and other probe cards
- Includes 48 pin and 70 pin edge connectors

**Specifications**
- Maximum probe needle force: 1 kg (2.2 lb) (100 needles)
- Temperature range:
  - System with MicroChamber -55°C to 200°C (-67° to 392°F)
– System without MicroChamber ambient to 200°C (392°F)
• Theta range ±3°
• Maximum planarization height compensation: 0.762 mm (0.030 in)
• Probe card maximums:
  – W = 11.4 cm ±3 mm (4.5 in ±.012 in)
  – L = 15.25 cm 28.9 cm (6 in 11.375 in)
  – Thickness = 0.15 cm 0.32 cm (0.060 in 0.125 in)

Compatibility
• Summit

138-022 — Clamp Kit for LLPC, in Low Profile Card Holder

Features
• Option to allow use of shallow draft probe cards
• For use on Low Profile Probe Card Holder (120-935) and Low-Profile Probe Card Holder for Summit Stations with MicroChamber (124-118)

Specifications
• Increases the draft from 2.03 to 4.57 mm (0.08 to 0.18 in)

Compatibility
• Summit
**Probe Mounts/Holders and Probes**

**Probe Arms and Probes (S-Positioner Compatible)**

**DC PROBE ARMS, DPP2xx/DPP3xx**

100489 — Adapter Picoprobe 10-34A/DPP2xx/DPP3xx

*Features*
- Holding fixture for active picoprobes from GGB picoprobe 10...34 (picoprobe not included)
- Integrates existing picoprobe with DPP2XX or DPP3xx
- Adapter is included with FormFactor standard picoprobes

*Compatibility*
- MPS150, PM8, PM300, PA200, PA300

**100524 — Probe Arm, DPP2xx/DPP3xx, Edge Sensor**

*Features*
- Includes edge sensor tip
- With connector matching to all semiautomatic standard probe stations (check compatibility to all other probe stations)

*Compatibility*
- All PA/PM stations (except MicroAlign) + DPP2xx-S, DPP3xx-S, DPP450-S (and former PH110, PH120, PH150, PH400)

**100525 — Probe Arm, DPP2xx/DPP3xx, Triax**

*Features*
- 1.5 m (5 ft) 50 Ohm low noise triax cable and triax plug BNC
- Highly isolated and gold plated needle clamping

*Specifications*
- Max. operation temperature: 300°C (572°F)
- Resistance*: 
  - $R_{F-G} @10V$ | Ω | ≥100
  - $R_{G-S} @10V$ | Ω | ≥50
  - $R_{F-S} @10V$ | Ω | ≥300

*Leakage*:
- $F-G @10V@1min$ | fA | ≤500
- $G-S @10V@1min$ | fA | ≤2000
- $F-S @10V@1min$ | fA | ≤500

*Capacitance*:
- $C_{F-G} @300pA$ | pF | ≤300
- $C_{G-S} @300pA$ | pF | ≤500
- $C_{F-S} @300pA$ | pF | ≤200

*Spec test conditions for all cases: 25% humidity, shielded chamber, ambient

*Compatibility*
- MPS150, EPS150, all PA/PM stations (except MicroAlign) + DPP2xx-S, DPP3xx-S, DPP450-S (and former PH110, PH120, PH150, PH400)

**100560 — Probe Arm, DPP3xx, Coax, BNC**

*Features*
- Short 50 Ohm coaxial cable and female BNC connector mounted in DPP3xx positioner base
- Requires additional coaxial cable (BNC male connector)
- Isolated and gold plated needle clamping

*Compatibility*
- MPS150, EPS150, all PA/PM stations (except MicroAlign) + DPP3xx-S, DPP450-S (and former PH150, PH400)

**100561 — Probe Arm, DPP2xx/DPP3xx, Coax, BNC**

*Features*
- 2 m (6.5 ft) 50 Ohm coaxial cable with BNC connector
- Gold plated needle clamp

*Specifications*
- Resistance: >100 TOhm
- Leakage: <120 fA
- Capacitance: <300 pF

*Compatibility*
- MPS150, EPS150, all PA/PM stations (except MicroAlign) + DPP2xx-S, DPP3xx-S, DPP450-S (and former PH110, PH120, PH150, PH400)
100696 — Probe Arm, DPP2xx/DPP3xx, Kelvin, 1 Tip

**Features**
- (2) 2 m (6.5 ft) coaxial cables, 50 Ohm and BNC connector
- Double arm design for improved stiffness, with single tip clamping (gold plated)
- Shield connection can be changed
- Connected for LCR measurements as standard

**Compatibility**
- MPS150, EPS150, all PA/PM stations (except MicroAlign) + DPP2xx-S, DPP3xx-S, DPP450-S (and former PH110, PH120, PH150, PH400)

100715 — Probe Arm, DPP2xx/DPP3xx, Adjustable, Coax, BNC

**Features**
- 2 m (6.5 ft) 50 Ohm coaxial cable and BNC plug
- Four hinges for individual arm profiling
- Gold plated needle clamping

**Specifications**
- Resistance: >100TOhm
- Leakage: <120fA
- Capacitance: <300pF

**Compatibility**
- MPS150, EPS150, all PA/PM stations (except MicroAlign) + DPP2xx-S, DPP3xx-S, DPP450-S (and former PH110, PH120, PH150, PH400)

131844 — Probe Arm, DPP2xx/DPP3xx, Coax, High Temperature

**Features**
- For long term tests at temperatures higher than 100°C and always with temperature chucks up to 300°C

**Specifications**
- 1.5 m (6 ft) 50 Ohm cable with coaxial plug BNC

**Compatibility**
- MPS150, EPS150, all PA/PM stations (except MicroAlign) + DPP2xx-S, DPP3xx-S, DPP450-S (and former PH110, PH120, PH150, PH400)

133838 - Front Plate for DC Arms on RPP2xx Positioners

**Features**
- Used for mounting DC Arms for open systems on RPP2xx RF positioners
- RF arm must be disassembled from the RPP2xx positioner

**Specifications**
- Used to mount 1 (each) of 100489/100524/100560/100561/100696/100715/131844
- Not for use with 144139

**Compatibility**
- EPS150/200, PM8, PA200, PM300 + RPP2xx

144139 — Probe Arm, DPP2xx/DPP3xx, Flex, DCP Probes

**Features**
- High rigidity
- Stainless steel design for high rigidity and minimum thermal drift
- Requires adaptation unit 138697 for use with DPP3xx/DPP450
- DCP probes, cables and connectors not included base

**Compatibility**
- MPS150, EPS150, all PA/PM open systems (except MicroAlign) + DPP2xx-S, DPP3xx-S, DPP450-S (and former PH110, PH150, PH400)

*Note: DPP3xx-S and DPP450-S (and former PH150, PH400) require 138697 in order to mount this arm.*
RF PROBE ARMS, RPP210-S

146041 — Probe Arm, RPP210-S, North-South, for Vacuum/Magnetic Platen
Features
• For use with HF probes (e.g., |Z| Probe)
• Positions the probe at the front or rear side of DUT
• Horizontal probe mounting platen can be leveled
• For use with vacuum and magnetic platen
Compatibility
• MPS150, EPS150, all PA/PM stations (except MicroAlign) + RPP210-S (and former PH110)

RF PROBE ARMS, RPP305

100647 — Probe Arm, RPP305, East
Features
• For use with HF probes (e.g., |Z| Probe)
• For positioning the probe on the right side of DUT
• Probe mounting platen can be leveled (not compatible with 4-port configuration)
Compatibility
• All PA/PM stations (except MicroAlign) + RPP305-S (and former PH250)

100648 — Probe Arm, RPP305, East-West
Features
• For use with HF probes (e.g., |Z| Probe)
• For positioning the probe on the left or right side of DUT
• Probe mounting platen can be leveled
• Mirror image of 100624 (for 4-port configuration, for 2-port configuration with 100624)
Compatibility
• MPS150, EPS150, all PA/PM stations (except MicroAlign) + RPP305-S (and former PH250)

100649 — Probe Arm, RPP305, North-South
Features
• For use with HF probes (e.g., |Z| Probe)
• For positioning the probe at the front or rear of DUT
• Probe mounting platen can be leveled (for 4-port configuration)
Compatibility
• MPS150, EPS150, all PA/PM stations (except MicroAlign) + RPP305-S (and former PH250)

118160 — Probe Arm, RPP305, West
Features
• For use with HF probes (e.g., |Z| Probe)
• For positioning the probe on the left side of DUT
• Probe mounting platen can be leveled (not compatible with 4-port configuration)
Compatibility
• All PA/PM stations (except MicroAlign) + RPP305-S (and former PH250)

RF PROBE ARMS, RPP210-S

146042 — Probe Arm, RPP210-S, East-West, for Vacuum/Magnetic Plate
Features
• For use with HF probes (e.g., |Z| Probe)
• Positions the probe at the left or right side of DUT
• Horizontal probe mounting platen can be leveled
• For use with vacuum and magnetic platen
Compatibility
• MPS150, EPS150, all PA/PM stations (except MicroAlign) + RPP210-S (and former PH110)

100624 — Probe Arm, RPP305, East-West, Mirrored
Features
• For use with HF probes (e.g., |Z| Probe)
• For positioning the probe on the left or right side of DUT
• Probe mounting platen can be leveled
• Mirror image of 100648 (only for 2 port configuration in combination with 100648)
Compatibility
• MPS150, EPS150, all PA/PM stations (except MicroAlign) + RPP305-S (and former PH250)
169-672—RF Probe Arm Mounting Platen

**Features**
- Enables mounting of Lightwave probes on RF arms

**Compatibility**
- Probe stations: MPS150, PM8, PA200, PM300 +
- RF probe arms: RPP2xx (146041, 146042), RPP305 +

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**DC PROBE ARMS, MICROALIGN**

138687 — Probe Arm, DPP2xx/DPP3xx, Triax

**Features**
- For use with MicroAlign systems
- Highly isolated needle clamp for standard single tips like PTT needles
- Stainless steel design for high rigidity and minimum thermal drift
- Requires adaptation unit 138697 for use with DPP3xx-S/DPP450-S

**Specifications**
- 0.75 m (2.5 ft) 50 Ohm low noise triax cable and 3 lug Triax plug
- DC leakage <10 fA at ambient temperature
- For use with temperature chucks up to 300°C (572°F)

**Compatibility**
- PA300 MicroAlign + DPP2xx, DPP3xx-S, DPP450-S (and former PH110, PH150, PH400)

138700 — Probe Arm, DPP2xx/DPP3xx, Pico Probe

**Features**
- For MicroAlign systems
- Holding fixture for Active Pico probes from GGB Pico probe 10…34 (Pico probe not included)
- Stainless steel design for high rigidity and minimum thermal drift
- Requires Test Equipment Interface 144987 for use at MicroAlign Advanced systems
- Requires adaptation unit 138697 for use with DPP3xx-S/DPP450-S

**Compatibility**
- PA300 MicroAlign + DPP2xx, DPP3xx-S, DPP450-S (and former PH110, PH150, PH400)

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138690 — Probe Arm, DPP2xx/DPP3xx, Triax, Kelvin 1Tip

**Features**
- For use with MicroAlign systems
- For triaxial I/V-, Kelvin- and C/V (with CX-TRX adapter) tests
- Stainless steel design for high rigidity and minimum thermal drift
- Highly isolated needle clamp for single tips like PTT needles (signal from force and sense already connected inside chassis)
- Connector sockets for CommonRing cables (C/V-Test, 1 cable included), guard potentials from force and sense are connected to these sockets
- Requires adaptation unit 138697 for use with DPP3xx-S/DPP450-S

**Specifications**
- 2 x 0.75 m (2.5 ft) 50 Ohm low-noise triax cable and 3 lug Triax plug
- For use with temperature chucks up to 300°C (572°F)

**Compatibility**
- PA300 MicroAlign + DPP2xx, DPP3xx-S, DPP450-S (and former PH110, PH150, PH400)

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138697 — Adapter for Probe Arms DPP2xx/DPP3xx to Positioner DPP3xx

**Features**
- Converts DPP3xx-S/DPP450-S front plate for use with DPP2xx/DPP3xx probe arms for DC and RF applications on MicroAlign systems

**Compatibility**
- MPS150, EPS150, CM300xi stations, PM/PA stations + DPP3xx-S, DPP450-S (and former PH110, PH150)
144866 — Probe Arm, DPP2xx/DPP3xx for DCP Probe

**Features**
- For MicroAlign systems
- For triaxial I/V-, Kelvin-, C/V (with CX-TRX adapter) and 1/f applications
- Holding fixture for advanced DC coaxial probes like AP&T Probes, DCP and DCP-HTR probes
- Stainless steel design for high rigidity and minimum thermal drift
- Requires adaptation unit 138697 for use with DPP3xx-S/DPP450-S
- Includes (2) 0.7 m (2.3 ft) cables, 3-lug Triax-SSMC for IV and Kelvin measurements

**Specifications**
- DC leakage <10 fA at ambient temperature

**Compatibility**
- PA300 MicroAlign + DPP2xx, DPP3xx-S, DPP450-S (and former PH110, PH150, PH400)

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133303 — Probe Arm, RPP305, East-West

**Features**
- For MicroAlign systems
- 4 probe setup
- For adaptation of HF probes or probe wedges
- For positioning the probe at left or right side of DUT
- Probe mounting plate can be levelled, adjustment drive screw located at positioner end of the arm for easier operation
- Requires HF add-on platen or RPP305-M
- For use with RPP305 positioners

**Compatibility**
- PM300PS, PA300 MicroAlign + RPP305 (and former PH250)

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144777 — Probe Arm, RPP210-S, East-West

**Features**
- For use with HF probes or wedges
- Positions the probe at the left or right side of DUT
- Horizontal probe mounting plate can be levelled
- For use with HF platen and MicroAlign
- For use with RPP210-S (and former PH110) positioners

**Compatibility**
- All PM/PA stations with RF platen, CM300 and PA300 MicroAlign, RPP210-S (and former PH110)
144778 — Probe Arm, RPP210-S, North-South, MicroAlign

**Features**
- For MicroAlign systems
- For use with HF probes or wedges
- Positions the probe at the front or rear side of DUT
- Horizontal probe mounting plate can be levelled
- For use with HF platen and MicroAlign
- For use with RPP210-S positioners

**Compatibility**
- All PM/PA stations with RF platen, CM300xi and PA300 MicroAlign, RPP210-S (and former PH110)

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**RF PROBE ARMS, PA200 BLUERAY**

142139 — Probe Arm, RPP305-S East, Right, 2 Positioners, BlueRay

**Features**
- For positioning the probe on the right side of DUT
- With integrated probe planarization

**Compatibility**
- RPP305-B-S, RPP305-M-S

142140 — Probe Arm, RPP305-S West, Left, 2 Positioners, BlueRay

**Features**
- For positioning the probe on the left side of DUT
- With integrated probe planarization

**Compatibility**
- RPP305-B-S, RPP305-M-S

142143 — Probe Arm, RPP305-S East-West, 4 Positioners, BlueRay

**Features**
- For positioning the probe on the left or right side of DUT
- With integrated probe planarization

**Compatibility**
- RPP305-B-S, RPP305-M-S

142148 — Probe Arm, RPP305-S North-South, 4 Positioners, BlueRay

**Features**
- For positioning the probe at the front or rear of DUT
- With integrated probe planarization

**Compatibility**
- RPP305-B-S, RPP305-M-S

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**PROBE ARM, OPTICAL FIBER**

145533 — Probe Arm, Optical Fiber 125 µm, DPP2xx

**Features**
- Allows placement of glass fiber over the wafer
- Mount to DPP2xx
- Fiber tip visible in microscope image
- Front part of arm can be horizontally rotated
- Other fiber adaptations on request

**Specifications**
- Ferrule diameter 250 µm (9.8 mils) for 125 µm (4.9 mils) fiber cores and jacket
- Fiber angle vertical adjustable 80°-90°

**Compatibility**
- DPP2xx (and former PH110)
**PROBE ARMS, PM5 POWER SYSTEMS**

145303 — Probe Holder Short

**Features**
- Stainless steel design for high rigidity and minimum thermal drift
- To connect any individual probe to a RPP210 positioner for use with PM5 Power system

**Compatibility**
- PM5 Power

144777 — Probe Arm, RPP210-S, East-West

**Features**
- For use with HF probes or wedges
- Positions the probe at the left or right side of DUT
- Horizontal probe mounting plate can be levelled
- For use with HF platen and MicroAlign
- For use with RPP210-S (and former PH110) positioners

**Compatibility**
- All PM/PA stations with RF platen, CM300 and PA300 MicroAlign, RPP210-S (and former PH110)

**PROBES, PM5 POWER SYSTEMS**

142693 — Probe 10 kV

**DANGER**
To use this probe safely, your station must be configured with a Tesla specific light curtain or approved safety interlocks. Failure to employ these safety measures can result in serious injury or death.

**Features**
- Highly isolated needle clamp for standard single tips
- Stainless steel design for high rigidity and minimum thermal drift
- For use with temperature chucks up to 300°C (572°F)
- Requires arm holder for RPP210

**Specifications**
- 1.2 m (4 ft) coax cable with 10 kV plug
- Operating voltage up to 10 kV

**Compatibility**
- PM5 Power

145297 — Probe HV Triax / 3 kV

**DANGER**
To use this probe safely, your station must be configured with a Tesla specific light curtain or approved safety interlocks. Failure to employ these safety measures can result in serious injury or death.

**Features**
- Highly isolated needle clamp for standard single tips like PTT needles
- For use with temperature chucks up to 300°C (572°F)
- Stainless steel design for high rigidity and minimum thermal drift
- Requires arm holder for RPP210

**Specifications**
- 1.2 m (4 ft) coax cable with HV triax plug
- Operating voltage up to 3 kV with lowest leakage

**Compatibility**
- PM5 Power
145298 — Probe HV Coax / 3 kV

**DANGER**

To use this probe safely, your station must be configured with a Tesla specific light curtain or approved safety interlocks. Failure to employ these safety measures can result in serious injury or death.

**Features**
- Highly isolated needle clamp for standard single tips
- Stainless steel design for high rigidity and minimum thermal drift
- For use with temperature chucks up to 300°C (572°F)
- Requires arm holder for RPP210

**Specifications**
- 0.75 m (2.5 ft) coax cable with SHV plug
- Operating voltage up to 3 kV

**Compatibility**
- PM5 Power

145300 — Probe HV Triax / Kelvin / 3 kV

**DANGER**

To use this probe safely, your station must be configured with a Tesla specific light curtain or approved safety interlocks. Failure to employ these safety measures can result in serious injury or death.

**Features**
- For triaxial I/V and Kelvin measurements
- Highly isolated needle clamp for standard single tips
- Stainless steel design for high rigidity and minimum thermal drift
- For use with temperature chucks up to 300°C (572°F)
- Connector sockets for CommonRing cables
- Requires arm holder for RPP210

**Specifications**
- 2 x 1.2 m (4 ft) 50 Ohm coaxial cable with SHV plug
- Operating voltage up to 3 kV

**Compatibility**
- PM5 Power

145301 — Probe HV Coax / Kelvin / 3 kV

**DANGER**

To use this probe safely, your station must be configured with a Tesla specific light curtain or approved safety interlocks. Failure to employ these safety measures can result in serious injury or death.

**Features**
- For coaxial I/V-, Kelvin- and C/V tests
- Highly isolated needle clamp for standard single tips
- Stainless steel design for high rigidity and minimum thermal drift
- For use with temperature chucks up to 300°C (572°F)
- Connector sockets for CommonRing cables
- Requires arm holder for RPP210

**Specifications**
- 2 x 1.2 m (4 ft) 50 Ohm coaxial cable with BNC connector

**Compatibility**
- PM5 Power

145302 — Probe Coax / Kelvin

**Features**
- For coaxial I/V-, Kelvin- and C/V tests
- Highly isolated needle clamp for single tips (inner conductor of both cables already connected inside chassis)
- Stainless steel design for high rigidity and minimum thermal drift
- For use with temperature chucks up to 300°C (572°F)
- Connector sockets for CommonRing cables
- Requires arm holder for RPP210

**Specifications**
- 2 x 1.2 m (4 ft) 50 Ohm coaxial cable with BNC connector

**Compatibility**
- PM5 Power
Danger

To use this probe safely, your station must be configured with a Tesla specific light curtain or approved safety interlocks. Failure to employ these safety measures can result in serious injury or death.

**Features**

SIGMA Integration of Keysight B1505A Parameter System into the ShieldEnclosure/POWER, including:

- On-wafer integration of Keysight B1505A Parameter Analyzer System for high voltage measurements up to 3 kV and for high current measurements up to 20 A pulsed
- Optimal integration by EMI and light shielded environment
- Dedicated probe arm set of 11 probe arms (triax, coax, Kelvin/triax, Kelvin/coax) for measuring with highest accuracy of:
  - Lateral and vertical devices
  - IV like device break down / I leak
  - CV like Cds and Cgd
- All appropriate feedthroughs, internal system wiring, measurement adapter and supports to accommodate Keysight protection adapters and HV-bias-T according to the Application Overview for B1505A by Keysight
- Keysight-verified configuration and probe accessories
- Also requires:
  - 3 DPP2xx-M positioners with MAG base
  - Standard probe needles suitable for desired voltage/ current range

**Compatibility**

- PM5 Power System

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146151 — Mounting B1505A/Module Selector/SE

Danger

To use this probe safely, your station must be configured with a Tesla specific light curtain or approved safety interlocks. Failure to employ these safety measures can result in serious injury or death.

**Features**

- Feed-through for an Keysight N1258A Module Selector into a ShieldEnclosure for a Power probe system
- Minimum additional space outside the SE required
- Mounting in the rear side of the SE.

**Compatibility**

- PM5 Power System
CM300xi DC Probe Mounts and Holders

TOP HAT CONFIGURATION

163-593 — DCP Probe Mount, 43mm, Dual Triax, DPP2xx DPP2xx

Features
- Probe mount for DCP probes (DCP-1xx, DCP-HTR)
- Compatible with DPP2xx positioners and MicroChamber TopHat
- Constructed with high stability thermal materials

Specifications
- Usable from -60° to 300°C (-140° to 572°F, above 250°C [482°F]: 8 hours max. operation)
- Precision industry standard SSMC connectors
- 50 Ohm characteristic impedance
- Breakdown voltage: >500Volts
- Max Current = 1Amp

Kit Contents
- Probe to positioner mount
- Dual triaxial adapter (Kelvin), mini triax (jack) to SSMC (m)
- EMI shielding cap
- EMI grounding strap

Compatibility
- CM300xi with TopHat, Elite 300

163-595 — DCP Probe Mount, 43mm, HTS, DPP2xx

Features
- Probe mount for DCP probes (DCP-1xx, DCP-HTR)
- Direct probe/cable connection (SSMC)
- Compatible with DPP2xx positioners and MicroChamber TopHat
- Constructed with high stability thermal materials

Kit Contents
- Probe to positioner mount
- EMI grounding strap

Compatibility
- CM300xi with TopHat, Elite 300

163-597 — Needle Probe Mount, 43mm, Enhanced Jack Lock Holder, DPP2xx

Features
- Probe mount for DCP probes (DCP-1xx, DCP-HTR)
- Direct probe/cable connection (SSMC)
- Compatible with DPP2xx positioners and MicroChamber TopHat
- Constructed with high stability thermal materials

Kit Contents
- Probe to positioner mount
- EMI grounding strap

Compatibility
- CM300xi with TopHat, Elite 300

TOP CHAMBER CONFIGURATION

163-307 — Probe Arm, DPP2xx/DPP3xx for DCP Probe

Features
- For CM300xi MicroAlign systems
- For triaxial I/V-, Kelvin-, C/V (with CX-TRX adapter) and 1/f applications
- Holding fixture for advanced DC coaxial probes like AP&T Probes, DCP and DCP-HTR probes
- Stainless steel design for high rigidity and minimum thermal drift
- Requires adaptation unit 138697 for use with DPP3xx-S/DPP450-S
- Includes two cables 0.7 m (2.3 ft) long 3-lug Triax-SSMC for IV and Kelvin measurements

Specifications
- DC leakage <10 fA at ambient temperature

Compatibility
- CM300xi MicroAlign with top chambers + DPP2xx, DPP3xx-S, DPP450-S (and former PH110, PH150, PH400)
163-309 — Probe Arm, DPP2xx/DPP3xx, Triax

**Features**
- For use with CM300xi MicroAlign systems
- Highly isolated needle clamp for standard single tips like PTT needles
- Stainless steel design for high rigidity and minimum thermal drift
- Requires adaptation unit 138697 for use with DPP3xx-S/DPP450-S

**Specifications**
- 0.75 m (2.3 ft) 50 Ohm low noise triax cable and 3 lug Triax plug
- DC leakage <10 fA at ambient temperature
- For use with temperature chucks up to 300°C (572°F)

**Compatibility**
- CM300xi MicroAlign with top chambers + DPP2xx, DPP3xx-S, DPP450-S (and former PH110, PH150, PH400)

163-313 — Probe Arm, DPP2xx/DPP3xx, Pico Probe

**Features**
- For use with CM300xi MicroAlign systems
- Holding fixture for Active Pico probes from GGB Pico probe 10...34 (Pico probe not included)
- Stainless steel design for high rigidity and minimum thermal drift
- Requires Test Equipment Interface 144987 for use at MicroAlign Advanced systems
- Requires adaptation unit 138697 for use with DPP3xx-S/DPP450-S

**Compatibility**
- CM300xi MicroAlign + DPP2xx, DPP3xx-S, DPP450-S (and former PH110, PH150, PH400)

163-311 — Probe Arm, DPP2xx/DPP3xx, Triax, Kelvin 1Tip

**Features**
- For use with CM300xi MicroAlign systems
- For triaxial I/V-, Kelvin- and C/V (with CX-TRX adapter) tests
- Stainless steel design for high rigidity and minimum thermal drift
- Highly isolated needle clamp for single tips like PTT needles (signal from force and sense already connected inside chassis)
- Connector sockets for CommonRing cables (C/V-Test, 1 cable included), guard potentials from force and sense are connected to these sockets
- Requires adaptation unit 138697 for use with DPP3xx-S/DPP450-S

**Specifications**
- 2 x 0.75 m (2.3 ft) 50 Ohm low-noise triax cable and 3 lug Triax plug
- For use with temperature chucks up to 300°C (572°F)

**Compatibility**
- CM300xi MicroAlign + DPP2xx, DPP3xx-S, DPP450-S (and former PH110, PH150, PH400)
Elite 300 and Summit DC Probe Mounts and Holders

144-388 — Universal Probe Holder with Dovetail Adapter Kit

Features
- Universal probe holder for DPP series positioners (not TopHat compatible)
- Locking universal swivel in joint for quick probe setup
- Gross Z height adjustment for easy probe tip replacement
- Standard probe interface supports multiple probes (coax, triax, unshielded, picoprobe)

Compatibility
- Elite 300, Summit

Kit Contents
- Universal probe holder
- Cable clamp
- Mounting screws

Universal probe holder shown mounted on a DPP2xx positioner, with a straight coaxial probe and PTT needle combination

144-389 — Universal Probe Holder with MS1 Adapter

Features
- Universal probe holder for MS1-44 programmable positioners (not compatible with TopHat)
- Locking universal swivel in joint for quick probe setup
- Gross Z height adjustment for easy probe tip replacement
- Standard probe interface supports multiple probes (coax, triax, unshielded, pico probe)
- Side cable clamp for minimizing cable vibration to the probe

Compatibility
- Elite 300, Summit, SUMMIT200

Kit Contents
- Universal probe holder
- Cable clamp
- Mounting screws

Picoprobe high impedance probe on DPP2xx-PTH positioner

144-887 — Mount, Pico Probe, Stud Grip

Features
- Adapts pico probe high impedance probes to the universal probe holder

Compatibility
- Elite 300, Summit, SUMMIT200
151-286 — DCP Probe Mount, 40 mm, HTS, Triax, MS1 Series

Features

• Probe mount for DCP probes (DCP-1xx, DCP-HTR)
• For use on Elite 300
• Compatible with MS1 programmable positioners
• Compatible with MicroChamber TopHat
• Constructed with high-stability thermal materials

Specifications

• Usable from -60°C to +300°C (-140° to +572°F, above +250°C [+482°F]: 8 hours max. operation)
• Precision Industry Standard SSMC connectors
• 50 Ohm characteristic impedance
• Breakdown voltage: >500Volts
• Max Current = 1Amp

Kit Contents

• Probe to positioner mount
• Dual triaxial adapter (Kelvin), mini triax (jack) to SSMC (m)
• EMI shielding cap
• EMI grounding strap

Compatibility

• Elite 300/AP, Elite 300/M

151-287 — DCP Probe Mount, 40 mm, HTS, DPP2xx

Features

• Probe mount for DCP probes (DCP-1xx, DCP-HTR)
• For use on Elite 300
• Direct probe/cable connection (SSMC)
• Compatible with DPP2xx positioners
• Compatible with MicroChamber TopHat
• Constructed with high-stability thermal materials

Kit Contents

• Probe to positioner mount
• EMI grounding strap

Compatibility

• Elite 300/AP, Elite 300/M, Summit (with HTS platen upgrade), SUMMIT200, TESLA200

151-288 — Needle Probe Mount and Enhanced Jack Lock Holder for DPP2xx Positioners

Features

• Enhanced probe mount for PTT needle probes (45°)
• Easy probe needle replacement without tools
• Constructed with high-stability thermal materials
• For use on Elite 300
• Compatible with MicroChamber TopHat
• Compatible with all 45° PTT series probe needles

Kit Contents

• Probe to positioner mount
• Jack lock holder with SSMC (f) and pin jack (f) connectors
• 1 m (3.3 ft) coax (m) to SSMC (m)
• 46 cm (18 in) cable with pin jack (m) to (m)
• EMI grounding strap

Compatibility

• Elite 300/AP, Elite 300/M, Summit (with HTS platen upgrade), SUMMIT200, TESLA200
151-290 — PTT Needle Probe Mount, 40 mm, HTS, Enhanced Jack Lock Holder, MS1 Series

**Features**

- Enhanced probe mount for PTT needle probes (45°)
- For use on Elite 300
- Compatible with MicroChamber TopHat
- Easy probe needle replacement without tools
- Compatible with all 45° PTT series probe needles
- Compatible with MS1 programmable positioners

**Kit Contents**

- Probe to positioner mount
- Jack lock holder with SSMC (f) and pin jack (f) connectors
- 1 m (3.3 ft) coax (m) to SSMC (m)
- 46 cm (18 in) cable with pin jack (m) to (m)
- EMI grounding strap

**Compatibility**

- Elite 300/AP, Elite 300/M, Summit (with HTS platen upgrade)
Elite 300 and Summit DC Probes

139-331 — Coaxial Probe (Straight)

Features
• Shielded DC measurements with coaxial probe
• Straight configuration for multiple probing applications when using straight or 45° needles for steep access
• Easy probe needle replacement without tools
• Compatible with all PTT series probe needles
• Replaceable SMA cable
• Easy connection to Elite 300 coax connection panel on platen

Kit Contents
• Bent 35° shielded probe
• Integrated SMA (f) connector
• Shielded coaxial cable, 76 cm (30 in) with SMA (m) to BNC plug

Compatibility
• Elite 300, Summit, SUMMIT200

144-390 — Triaxial Probe (Straight)

Features
• Guarded DC measurements with triaxial probe
• Integrated triaxial cable for low-noise measurements
• Easy connection to Elite 300 triaxial connection panel on platen
• Straight configuration for multiple probing applications when using straight or 45° needles for steep access
• Easy probe needle replacement without tools
• Compatible with all PTT series probe needles

Kit Contents
• Straight triax probe
• Integrated triaxial low-noise cable, 76 cm (30 in) with triax (m) connector

Compatibility
• Elite 300, Summit, SUMMIT200

139-870 — Coaxial Probe (Bent)

Features
• Shielded DC measurements with coaxial probe
• Bent configuration for increased microscope objective clearance with high magnification/low working distance objective lenses
• Easy probe needle replacement without tools
• Compatible with all bent PTT series probe needles

Kit Contents
• Integrated SMA (f) connector
• Shielded coaxial cable, 76 cm (30 in) with SMA (m) to BNC plug

Compatibility
• Elite 300, Summit, SUMMIT200
144-391 — Triaxial Probe (Bent)

**Features**
- Guarded DC measurements with triaxial probe
- Integrated triaxial cable for low-noise measurements
- Easy connection to Elite 300 triaxial connection panel on platen
- Bent configuration for increased microscope objective clearance with high magnification/low working distance objective lenses
- Easy probe needle replacement without tools
- Compatible with all 45° PTT series probe needles

**Kit Contents**
- Bent 35° triax probe
- Integrated triaxial low-noise cable, 76 cm (30 in) with triax (m) connector

**Compatibility**
- Elite 300, Summit, SUMMIT200

144-392 — Unshielded Probe Kit

**Features**
- Interchangeable probe arms (unshielded)
- Easy probe needle replacement without tools
- Pin jack for DC electrical connection
- Compatible with all PTT series probe needles

**Kit Contents**
- Collet adapter with pin lock connector (f)
- Straight unshielded probe arm with jack lock
- 35° bent unshielded probe arm with jack lock
- 46 cm (18 in) cable with pin jack (m) to (m)

**Compatibility**
- Elite 300, Summit, SUMMIT200

PHQ — Quick Lock Probe Holder

**Features**
- Replacement probe tip holder for MMP probes
- Quick lock needle holding mechanism (spring-loaded Collette style)
- Constructed of nickel plated brass that can be user-formed as needed

**Specifications**
- 114 mm (4.5 in) in length
- Nickel plated brass
- Quick lock mechanism

**Kit Contents**
- Probe tip holder
- MAE-44/18 cable 46 cm (18 in)

**Compatibility**
- Summit

PHW — Wrench Lock Probe Holder

**Features**
- Replacement probe tip holder for MMP probes
- Wrench lock needle holding mechanism (set screw hold)
- Constructed of nickel plated brass that can be user-formed as needed

**Specifications**
- 114 mm (4.5 in) in length
- Nickel plated brass
- Wrench lock mechanism

**Kit Contents**
- Probe tip holder
- MAE-44/18 cable 46 cm (18 in)
- Allen wrench

**Compatibility**
- Summit
Summit DC Probe Arms and Mounts

104-030K — DCP Probe Mount, Dual Triax Adapter (Kelvin) for RPP305-EW-SU positioner

**Features**
- Enables Kelvin connection to DCP style probes on East/West RPP305 positioners
- Supports Summit 11/12K and S300 systems

**Specifications**
- Instrument connections are female mini-triax connectors
- Probe connections are cables with SSMC male for use with DCP style probes
- Usable from -60°C to +300°C (-140° to +572°F, above +250°C [+482°F]: 8 hours max. operation)
- 50 Ohm characteristic impedance
- Breakdown voltage: >500Volts
- Max current = 1Amp

**Kit Contents**
- Mounting hardware

**Compatibility**
- Summit, S300, Alessi

104-856K — DCP Probe Mount, Dual Triax Adapter (Kelvin) for RPP305-NS-SU Positioner

**Features**
- Enables Kelvin connection to DCP style probes on North/South RF positioners
- Supports Summit 11/12K and S300 systems

**Specifications**
- Instrument connections are female mini-triax connectors
- Probe connections are cables with SSMC male for use with DCP style probes
- Usable from -60°C to +300°C (-140° to +572°F, above +250°C [+482°F]: 8 hours max. operation)
- 50 Ohm characteristic impedance
- Breakdown voltage: >500Volts
- Max current = 1Amp

**Kit Contents**
- Mounting hardware

**Compatibility**
- Summit, S300, Alessi

114-818 — DCP Probe Mount, Dual Triax Adapter (Kelvin) for DPP2xx

**Features**
- Enables Kelvin connection to DCP style probes on DPP2xx positioners
- Supports Summit 11/12K and S300 systems

**Specifications**
- Instrument connections are female mini-triax connectors
- Probe connections are cables with SSMC male for use with DCP style probes
- Usable from -60°C to +300°C (-140° to +572°F, above +250°C [+482°F]: 8 hours max. operation)
- 50 Ohm characteristic impedance
- Breakdown voltage: >500Volts
- Max current = 1Amp

**Kit Contents**
- Mounting hardware

**Compatibility**
- Summit, S300, Alessi

114-842 — Needle Probe Mount and Jack Lock Holder for DPP2xx

**Product Features**
- Enhanced probe mount for PTT needle probes (45°)
- Easy probe needle replacement without any tools
- Top hat compatible
- Will work on positioners equipped for DCP probes
- Uses mini pin jack style or SSMC cable connection

**Kit Contents**
- Includes arm and mounting hardware
- Recommended for use with PTT-XX/4-25 (45°) style needles (not included)

**Station Compatibility**
- Summit, S300, Alessi
114-843 — Needle Probe Mount and Jack Lock Holder for MS1 Series Positioners

**Features**
- Needle probe holder (PTT style needles) for MS1 series programmable positioners
- Jack lock style holding mechanism
- Top hat compatible
- Will work on positioners equipped for DCP probes
- Uses mini pin jack style cable connection

**Kit Contents**
- Includes arm and mounting hardware
- Recommended for use with PTT-XX/4-25 (45degree) style needles (not included)

**Compatibility**
- Summit, S300, Alessi

114-847 — Needle Probe Mount and Jack Lock Holder for MH2 Positioners

**Features**
- Needle probe holder (PTT style needles) for MH2 series positioners
- Jack lock style holding mechanism
- Top hat compatible
- Will work on positioners equipped for DCP probes
- Uses mini pin jack style cable connection

**Kit Contents**
- Includes arm and mounting hardware
- Recommended for use with PTT-XX/4-25 (45degree) style needles (not included)

**Compatibility**
- Summit, S300, Alessi

115-596 — DCP Probe Mount, Dual Triax Adapter (Kelvin) for MS1 Series Positioners

**Features**
- Enables Kelvin connection to DCP style probes on MS1 series programmable positioners

**Specifications**
- Instrument connection are female mini-triax connectors
- Probe connections are cables with SSMC male for use with DCP style probes
- Usable from -60°C to +300°C (-140° to +572°F, above +250°C [+482°F]: 8 hours max. operation)
- 50 Ohm characteristic impedance
- Breakdown voltage: >500Volts
- Max current = 1Amp

**Kit Contents**
- Mounting hardware

**Compatibility**
- Summit, S300, Alessi

116-031 — DCP Probe Mount for DPP2xx, Direct Probe/Cable Conn (SSMC)

**Features**
- Mounting bracket for DCP probes, for use on DPP2xx positioners
- To be used with direct cable from instrument to DCP probe (e.g., 105-540 or 124-562 BNC to SSMC cables
- Top Hat compatible

**Kit Contents**
- Mounting hardware

**Compatibility**
- Summit, S300, Alessi
129-116 — PTT Probe Mount (MMP-01/J) and Adapter Kit for DPP2xx

Features
• For use with DPP2xx positioners
• Brass needle holder can be user-formed as needed
• Uses pin jack style connection (e.g., MAE cables), one included
• Has gross Z adjustment via thumb screw on holder arm
• Holder also pivots
• Not recommended for Top Hat use

Kit Contents
• Mounting hardware
• Mounting bracket
• Probe holder arm
• MAE-44/18 cable 46 cm (18 in)

Compatibility
• Summit, S300 (non TopHat), Alessi
DC Probes, Coax and Triax, DCP and PE5 Style Probe Holders

DCP-105R — DC Coaxial Probe, Single Line, 0.5 µm Radius, Replaceable Tip
(Packages of 4 available by ordering DCP-105R-4)

Features
- High-quality construction with low-noise electrical performance
- Ultra-low, fA and fF measurements from -65º to 150ºC (-149º to 302ºF)
- Fully guarded measurements to fA and fF levels
- Great for modeling and characterization work
- Dual Precision SSMC 50 ohm connections allow for Kelvin configuration to the probe body
- Individual connectors for force sense connections
- Integrally designed as part of FormFactor’s complete measurement solution
- Configurable for triax usage
- Replaceable coax probe tips (Not included)

Specifications
- Breakdown voltage: >500 V
- Isolation resistance: > 1 x 10¹³ ohms
- Frequency response (3 dB): 150 MHz
- Temperature range: -65º to +150ºC (-149º to +302ºF)
- Characteristic impedance: 50 ohms
- Tip material: Tungsten
- Body material: Gold plated
- Connector type: SSMC
- 0.5 µm (0.2 mils) radius probe tip

Compatibility
- CM300xi, PA/PM, MicroAlign, Elite 300, Summit, S300, M150, Alessi
- See Replaceable Probe Tips on page 18 for compatible replacement probes

DCP-115R — DC Coaxial Probe, Single Line, 1.5 µm Radius, Replaceable Tip
(Packages of 4 available by ordering DCP-115R-4)

Features
- High-quality construction with low-noise electrical performance
- Ultra-low, fA and fF measurements from -65º to 150ºC (-149º to 302ºF)
- Fully guarded measurement to fA and fF levels
- Great for modeling and characterization work
- Dual Precision SSMC 50 ohm connections allow for Kelvin configuration to the probe body
- Individual connectors for force sense connections
- Integrally designed as part of FormFactor’s complete measurement solution
- Configurable for triax usage
- Replaceable coax probe tips (Not included)

Specifications
- Breakdown voltage: >500 V
- Isolation resistance: > 1 x 10¹³ ohms
- Frequency response (3 dB): 150 MHz
- Temperature range: -65º to +150ºC (-149º to +302ºF)
- Characteristic impedance: 50 ohms
- Tip material: Tungsten
- Body material: Gold plated
- Connector type: SSMC
- 1.5 µm (0.06 mils) radius probe tip

Compatibility
- CM300xi, PA/PM, MicroAlign, Elite 300, Summit, S300, M150, Alessi
- See Replaceable Probe Tips on page 18 for compatible replacement probes
**DCP-150R — DC Coaxial Probe, Single Line, 5.0 µm, Replaceable Tip**

(Packages of 4 available by ordering DCP-150R-4)

**Features**
- High-quality construction with low-noise electrical performance
- Ultra-low, fA and fF measurements from -65°C to +150°C (-149º to +302°F)
- Fully guarded measurements to fA and fF levels
- Great for modeling and characterization work
- Dual Precision SSMC 50 ohm connections allow for Kelvin configuration to the probe body
- Individual connectors for force sense connections
- Integrally designed as part of FormFactor's complete measurement solution
- Configurable for triax usage
- Replaceable coax probe tips (Not included)

**Specifications**
- Breakdown voltage: >500 V
- Isolation resistance: > 1 x 10^13 ohms
- Frequency response (3 dB): 150 MHz
- Temperature range: -65°C to +150°C (-149º to +302°F)
- Characteristic impedance: 50 ohms
- Tip material: Tungsten
- Body material: Gold plated
- Connector type: SSMC
- 5 µm (0.2 mils) radius probe tip

**Compatibility**
- CM300xi, PA/PM, MicroAlign, Elite 300, Summit, S300, M150, Alessi
- See Replaceable Probe Tips on page 18 for compatible replacement probes

---

**DCP-150K-25 — DC Coaxial Probe, Kelvin, 25 µm Pitch, 5.0 µm Tip Radius**

(Packages of 4 available by ordering DCP-150K-25-4)

**Features**
- True Kelvin Probe, two 5 µm (0.2 mils) radius tips separated by 25 µm (0.98 mils)
- High-quality construction with low-noise electrical performance
- Ultra-low, fA and fF measurements from -65°C to +150°C (-149º to +302°F)
- Fully guarded measurements to fA and fF levels
- Great for modeling and characterization work
- Dual Precision SSMC 50 ohm connections, one for each tip
- Individual connectors for each tip
- Integrally designed as part of FormFactor's complete measurement solution
- Configurable for triax usage

**Specifications**
- Breakdown voltage: >500 V
- Isolation resistance: > 1 x 10^13 ohms
- Frequency response (3 dB): 150 MHz
- Temperature range: -65°C to +150°C (-149º to +302°F)
- Characteristic impedance: 50 ohms
- Probe Tip separation: 25 Microns
- Tip material: Tungsten
- Body material: Gold plated
- Connector type: SSMC
- 5 µm (0.2 mils) radius probe tip

**Compatibility**
- CM300xi, PA/PM, MicroAlign, Elite 300, Summit, S300, M150, Alessi
DCP-150K-50 — DC Coaxial Probe, Kelvin, 50 µm Pitch, 5.0 µm Tip

(Packages of 4 available by ordering DCP-150K-50-4)

**Features**
- True Kelvin Probe, two 5 µm (0.2 mils) radius tips separated by 50 µm (2.0 mils)
- High-quality construction with low-noise electrical performance
- Ultra-low, fA and fF measurements from -65° to +150°C (-149º to +302ºF)
- Fully guarded measurements to fA and fF levels
- Great for Modeling and Characterization work
- Dual Precision SSMC 50 ohm connections, one for each tip
- Individual connectors for each tip
- Integrally designed as part of FormFactor’s complete measurement solution
- Configurable for triax usage

**Specifications**
- Breakdown voltage: >500 V
- Isolation resistance: > 1 x 10^13 ohms
- Frequency response (3 dB): 150 MHz
- Temperature range: -65° to +150°C (-149º to +302ºF)
- Characteristic impedance: 50 ohms
- Probe Tip separation: 50 Microns
- Tip material: Tungsten
- Body material: Gold plated
- Connector type: SSMC
- 5 µm (0.2 mils) radius probe tip

**Compatibility**
- CM300xi, PA/PM, MicroAlign, Elite 300, Summit, S300, M150, Alessi

---

DCP-HTR — High Performance DC Probe Holder

**Features**
- High-quality construction with low-noise electrical performance
- Fully guarded measurements to fA and fF levels
- Great for modeling and characterization work
- Configurable for triax usage
- Full temperature range coverage
- Dual Precision SSMC 50 connection allow for Kelvin configuration to the probe body
- Individual connectors for force sense connections
- Replaceable microstrip probe tips (Not included)

**Specifications**
- Frequency range: dc - 100 MHz
- 500 V breakdown voltage, isolation resistance 1E13 ohms
- Temperature range -65° to +300°C (-149º to +572ºF)
- Leakage noise: ± 10fA@-65 to +200°C, ± 20fA@200 to 300°C
- Does not include replaceable tip

**Compatibility**
- CM300xi, PA/PM, MicroAlign, Elite 300, Summit, S300, M150, Alessi
- See Replaceable Probe Tips on page 18 for compatible replacement probes
Optical Bridge Mounts and Transports

115-416 — Low Power Optics Boom Stand

**Features**
- Microscope boom stand for low power microscopes/optic
- Includes illuminator mounting tray
- Provides for a wide range of movement
- Enables movement of the microscope fully out of the probing area
- Fits Summit 11000/12000 systems
- Uses standard bonder arm mounts
- Not compatible with eVue, Mitutoyo, Seiwa, or A-Zoom microscopes

**Compatibility**
- Summit

131-923 — Motorized Theta Upgrade Kit (with 80 Pin Interconnect)

**Features**
- Kit supports automatic wafer alignment and productivity tools in probe station control software packages
- Installation must be ordered with kit (p/n SRV-STATION-UP)
- Must be used with PC48 OR PC38, not compatible with PCI motor card

**Specifications**
- Travel ± 5.5°
- Resolution 0.65 μm (0.03 mils)*
- Repeatability ± 2 μm (0.08 mils)*
- Accuracy ± 2 μm (0.08 mils)* standard moves, ± 3 μm (0.12 mils)* large moves
  *Measured at edge of 200 mm (8 in) chuck

**Kit Contents**
- New motorized Theta/Z-stage assembly
- Interconnect board electronics for 80-pin motor controller
- Motor driver and complete accessories

**Compatibility**
- Summit 12000

158-073 — Large Area Optics Bridge Mount

**Features**
- Larger area 152 x 203 mm (6 x 8 in) XY movement range
- Linear Z lift
- Manual lead screw driven XY movement
- Compatible with most common microscopes used on probing systems
- A microscope mounting plate matching the selected microscope and microscope transport is required
- Fine Z range/focus control is managed using the microscope focus mechanism. Select microscope models offer optional programmability for this feature.

**Specifications**
- 152 mm (6 in) X axis movement range (±76 mm [3 in] from center of travel)
• 203 mm (8 in) Y axis movement range (±102 mm [4 in] from center of travel)
• 76 mm (3 in) linear manual Z lift

Compatibility
• Summit

162-160 — High Stability Optics Bridge Mount (Manual 2x2)

Features
• High stability 51 x 51 mm (2 x 2 in) XY microscope transport
• Easy coaxial manual XY drive controls
• Pneumatic vertical z-lift (102 mm [4 in] of travel)
• Supports laser and very small structure work
• A microscope mounting plate matching the selected microscope and microscope transport is required
• Fine Z range/focus control is managed using the microscope focus mechanism. Select microscope models offer optional programmability for this feature.

Specifications
• 51 mm (2 in) X axis movement range (±25 mm [1 in] from center of travel)
• 51 mm (2 in) Y axis movement range (±25 mm [1 in] from center of travel)

Compatibility
• Summit

162-165 — High Stability Optics Bridge Mount (Motorized 2x2)

Features
• Programmable high stability 51 x 51 mm (2 x 2 in) XY microscope transport
• Pneumatic vertical z-lift (102 mm [4 in] of travel)
• Motorized XY control with rotary encoders for precision positioning
• Knobs for manual control provided
• Supports laser and very small structure work
• ECA-53 drive card included
• An ECX-56 equipped system is required
• Fine Z range/focus control is managed using the microscope focus mechanism. Select microscope models offer optional programmability for this feature.

Specifications
• 51 mm (2 in) X axis movement range (±25 mm [1 in] from center of travel)
• 51 mm (2 in) Y axis movement range (±25 mm [1 in] from center of travel)
• Encoder resolution is 0.4 µm (0.02 mils)

Compatibility
• Summit 12000
Connection Panels (Coax, Triax, Pin jack, Banana Vacuum)

105-626 — Triax Connection Panel, Side Mount

**Features**
- Optional Triax connection panel for convenient cable management
- Designed to mount to the side of the Summit series platen
- 8 Triax (3-lug) feed through connectors (female)
- Panel connections support single triax cables and Keysight dual triax SMU cable assemblies. For Keysight QuadraX SMU connections, please contact the factory.

**Kit Contents**
- Panel with triax feed-throughs mounted
- Mounting hardware
- Cables are not included

**Compatibility**
- Summit

118-640 — Triax Connection Panel, High Stability Bridge Config, S300

**Features**
- Set of Triax connection panels for convenient cable management
- Designed to mount to the high stability optical bridge mount
- Panel connections support single triax cables and Keysight dual triax SMU cable assemblies. Contact the factory for Keysight quadraX SMU connections.

**Specifications**
- 16 total Triax (3-lug) feed through connectors (female), 8 on each side
- Ground straps for each panel

**Compatibility**
- S300

106-171 — Triax Connection Panel, Large Area Optical Bridge/Boom Stand Config

**Features**
- Connection/vacuum panel
- 6 vacuum ports with on/off toggle switches
- Supports triax, BNC, pin-to-banana style connects
- Triax connections support single triax cables and Keysight dual triax SMU cable assemblies. Contact the factory for Keysight quadraX SMU connections.

**Specifications**
- 12 Triax (3-lug) feed through connectors (f)
- 2 BNC (2-lug) feed through connectors (f)
- 4 BNC to pin jack feed through connections
- Shorting bar to set the plane float or grounding setting
- Six 1/8 in barb output vacuum manifold for vacuum base positioner support

**Compatibility**
- Summit

134-710 — Triax Connection Panel, High Stability Bridge Config, Summit

**Features**
- Set of Triax connection panels for convenient cable management
- Designed to mount to the high stability optical bridge mount
- Panel connections support single triax cables and Keysight dual triax SMU cable assemblies. For Keysight quadraX SMU connections, please contact the factory.

**Specifications**
- 10 Triax (3-lug) feed through connectors (female)
- 4 BNC connectors
- 2 banana connectors
- Ground strap on each side

**Compatibility**
- Summit
162-200 — Vacuum Manifold Kit, High Stability Optics Bridge

Features
- One set of 5 port vacuum manifolds (10 total output ports) mounted on each side of the high stability microscope bridge
- Easy push on hose connection
- Easy push/pull, on and off flow toggle

Specifications
- 5 ports per manifold
- 2 manifolds
- Outputs supports 3 mm (1/8 in) vacuum hose

Compatibility
- Summit, S300

RAC-92 — Pin Jack to Banana Interface Panel, High Stability Optical Bridge

Features
- Includes two brackets, with six each Pin Jack to Banana connection interfaces
- Mounts at rear of station onto the high stability bridge mount

Compatibility
- Summit, S300

RAC-96 — Pin Jack to Coax Interface Panel, High Stability Optical

Features
- Includes two brackets, with six each pin jack to coax interface connections
- Mounts at rear of station onto the high stability bridge mount

Compatibility
- Summit, S300
## Mounting Kits and Miscellaneous Accessories

### 105-588 — Thermal Flow Meter Kit

**Features**
- Provide dry air/nitrogen flow control to Summit MicroChamber
- Allow for optimization of the air flow to achieve stable measurement conditions at various set temperatures

**Specifications**
- Input/output ports are 13 mm (0.5 in) OD quick connect style
- Scale resolution is 14 l/min (0.5 SCFM)

**Compatibility**
- Summit

### 116-511 — MicroChamber Large TopHat Upgrade Kit

**Features**
- Upgrades older Summit systems to the current style and size of TopHat
- Enables compatibility with newer accessories and system options
- Provides for compatibility with Current Wave Guide and Unity-MW probes

**Compatibility**
- Summit

### 106-889 — Dust Cover for Summit Systems

**Features**
- Semi-transparent vinyl dust cover for Summit 11000/12000 system
- Provides protection for periods when the system is not in use

**Compatibility**
- Summit

### 116-441 — Enhanced RF Shielded MicroChamber TopHat Kit

**Features**
- Provides for an additional 20db of RF shielding
- Upgrades older Summit systems to the current style and size of TopHat
- Enables compatibility with newer accessories and system options
- Provides for compatibility with Current Wave Guide and Unity-MW probes

**Compatibility**
- Summit, S300

### 116-511 — MicroChamber Large TopHat Objective Ring/Cover

**Features**
- Provides for objective light/environmental seal when used with Summit TopHat
- Collapsible seal prevent damage to microscope or objective

**Compatibility**
- Summit

### 116-512 — MicroChamber Large TopHat Objective Ring/Cover

**Features**
- Provides for an additional 20db of RF shielding
- Upgrades older Summit systems to the current style and size of TopHat
- Enables compatibility with newer accessories and system options
- Provides for compatibility with Current Wave Guide and Unity-MW probes

**Compatibility**
- Summit

### 133-492 — High Stability Bridge Mounting Bracket for Keysight E5288A Atto Sense Unit

**Features**
- Mounts Keysight B1500 Atto sense unit in a thermally isolated position close to the probing environment
- Keeps cables lengths short for optimal performance
- Triax feed through direct connection paths support single triax cables and Keysight dual triax SMU cable assemblies. For Keysight Quadrax SMU connections, please contact the factory.

**Specifications**
- Mount for two Keysight B1500 Atto Sense units
- 4 Triax (3-lug) feed through connectors (female)

**Compatibility**
- Summit, S300
135-038 — Mounting plate for B1500A SCUU (SMU-CMU Unit), High Stability Bridge Config

**Features**
- Mounts Keysight B1500 SCUU (SMU-CMU unify unit) in a thermally isolated position close to the probing environment
- Keeps cables lengths short for optimal performance
- For use on Summit 11000/12000 and S300 systems with high stability optics bridge

**Kit Contents**
- Mounting bracket
- Mounting hardware

**Compatibility**
- Summit, S300

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174-889 — Summit Platen Adapter

**Features**
- Adapter plate enables the use of E300/CM300 positioners (e.g., RPP404-EW-120, RPP404-W-120, RPP304-NS-67)

**Compatibility**
- Summit

---

177-561 — Top Hat Assembly, 4 Port, Summit

**Features**
- Enables the use of single or dual Keysight N5291 modules with Infinity and ACP probes on Summit stations with MicroChamber
- Enables full thermal capability

**Configuration**
- Intended for use with positioner assemblies RPP404-EW-120, RPP404-W-120, RPP304-NS-67

**Compatibility**
- Summit

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165-210 — Xandex Inker, 12V, with Ink Cartridges and DPP2XX Positioner Mount

**Features**
- Inker kit for DPP2XX positioner
- Enables marking/binning of selected dies
- Controlled by FormFactor’s probe station control software or external software
- Solenoid controlled inker

**Specifications**
- 12 volt Xandex inker system

**Kit Contents**
- Cartridge, Xandex die mark ink, 32 mm (1.25 in) needle
- Cartridge, Xandex die mark ink, S-bend needle

**Compatibility**
- Summit, S300
Microscope Mounting Plates

122-246 — Microscope Mounting Kit, Manual Transport, Large Area

**Features**
- Dovetail mounting block for Seiwa VMSS-888 family and Mitutoyo VMSS-70
- Select when ordering a manual large area microscope transport system

**Compatibility**
- Summit, S300, Alessi, MTS

122-248 — Microscope Mounting Kit, eVue/A-Zoom2, Manual Transport, Large Area

**Features**
- Dovetail mounting block for eVue and A-Zoom2
- Select when ordering a manual, large area microscope transport system

**Compatibility**
- Summit, S300

158-064 — Microscope Mounting Kit, Leica, Manual Transport

**Features**
- Dovetail mounting block for Leica S6 and S8
- Adapts standard dovetail to bonder pin common to stereo zoom microscopes
- Universal design for Summit 11000B, 12000B, S300 and legacy probe stations

**Compatibility**
- Summit, S300, Alessi, MTS

162-150 — Microscope Mounting Kit, eVue/A-Zoom2/Seiwa/Mitutoyo/Manual Transport, HS

**Features**
- Dovetail mounting block for eVue, A-Zoom2, Seiwa and Mitutoyo
- Select when ordering a manual, high stability microscope transport system

**Compatibility**
- Summit, S300
### Laser Systems

#### EZA/EZM EZLaze3 Laser Cutter

**Models**

<table>
<thead>
<tr>
<th>Part #</th>
<th>Model</th>
<th>Wavelength (nm)</th>
<th>Scope compatibility</th>
<th>Laser Energy (mJ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZA-1/S</td>
<td>IR ONLY</td>
<td>1064</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EZA-5/S</td>
<td>GREEN ONLY</td>
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<td></td>
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<td>UV3/GREEN</td>
<td>355+532</td>
<td></td>
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<tr>
<td>EZM-153/S</td>
<td>TRILITE UV3</td>
<td>355+532+1064</td>
<td></td>
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</tr>
</tbody>
</table>

**Features**

- Air-cooled architecture
- Selectable wavelengths enable cutting and machining wide range of materials
- 3-axis control of cut size and orientation
- Remote control box with LCD screen
- PC Remote control via RS232 or USB (converter & software included)
- Internal LED spot marker
- Three modes of operation
- Laser class 3b
- Contains interlock for Summit microscope lifts

**Specifications**

- Dimensions (WxDxH):
  - Laser head: 160 x 84 x 305 mm (6.3 x 3.3 x 12.0 in)
  - Power supply: 290 x 127 x 206 mm (11.4 x 5.0 x 8.12 in)
  - Control panel: 127 x 178 x 83 mm (5.0 x 7.0 x 3.25 in)
- Weight:
  - Laser head: 3.9 kg (8.5 pounds)
  - Power supply: 4.1 kg (9 pounds)
  - Control panel: 0.9 kg (2 pounds)
- Operating requirements:
  - Temperature: 21º ±5ºC (70º ±10ºF)
  - Relative humidity: 20 - 80% non-condensing
  - Voltage: 100 - 240 VAC, 50/60Hz
  - Power: 100 W for laser, 100 W for illuminator

#### Compatibility

- Summit (contact a FormFactor representative for laser application on any other platform)

#### QLA/QLM QuikLaze Laser Cutter

**Models**

<table>
<thead>
<tr>
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<th>Model</th>
<th>Wavelength (nm)</th>
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<th>Laser Energy (mJ)</th>
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<td>1064</td>
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</tbody>
</table>

**Features**

- Precise cutting on a microscopic level
- Fast throughput using selectable repetition rates from single shot to 50 Hz continuous
- Compact laser-head design for mounting on a microscope or on high-volume production equipment
- Cutting of assorted materials with variable wavelength (1064, 532, 355, and/or 266 nm) configurations
- Accurate cutting control with the standard motorized X/Y aperture
- Simple operation via intuitive microprocessor based, remote-control panel, or through an RS232 interface
- Versatile software enables precise control of machining
- Ease of installation and operation
- Laser class 3b
- Contains interlock for Summit microscope lifts

**Specifications**

- Dimensions (WxDxH):
  - Laser head: 159 x 83 x 314 mm (6.3 x 3.3 x 12.4 in)
  - Power supply: 194 x 375 x 285 mm (7.7 x 14.8 x 11.2 in)
  - Control panel: 127 x 178 x 83 mm (5.0 x 7.0 x 3.25 in)

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**Part # Model Wavelength (nm) Scope compatibility Laser Energy (mJ)**

<table>
<thead>
<tr>
<th>EZA-1/S</th>
<th>IR ONLY</th>
<th>1064</th>
<th>A-Zoom</th>
<th>0.5</th>
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<tr>
<td>EZA-5/S</td>
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<td>355+532+1064</td>
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</tbody>
</table>

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• Weight:
  – Laser head: 4.5 kg (10 pounds)
  – Power supply: 13.6 kg (30 pounds)
  – Control panel: 0.9 kg (2 pounds)

• Operating requirements:
  – Temperature: 21º ±5ºC (70º ±10ºF)
  – Relative humidity: 20 - 80% non-condensing
  – Voltage: 100 - 240 VAC (laser), 50/60Hz
    90-254 VAC (optional illuminator), 50/60 Hz
  – Power: 100 W for laser, 100 W for illuminator

Compatibility
• Summit (contact a FormFactor representative for laser application
  on any other platform)
**Tesla**

**Keysight Configuration**

**148-651 — HV Adapter Box, 2 SHV (Jack) to 2 BNC (Jack)**

**Features**
- Provides connection between Keysight B1505A module selector and HVP-5C probes (and older HVP-3C models)
- Adapts SHV to BNC connection
- Magnetic base mounts on platen

**Specifications**
- Maximum voltage: 500V DC
- Maximum current (DC): 3A
- Maximum current (Pulse): 40A, (PW ≤1ms, Duty ratio ≤1%)
- Connector type: 2 SHV (jack), 2 BNC (jack)

**Compatibility**
- Tesla

**148-657 — BNC Tee, 1 BNC (Plug) to 2 BNC (Jack)**

**Features**
- Provides the connection between Keysight B1505A HCSMU adapter and HCP-BNC or DCP-HTR probes
- Adapts single BNC connection to dual

**Specifications**
- Maximum voltage: 500V DC
- Maximum current (DC): 5A
- Maximum current (Pulse): 40A, (PW ≤1ms, Duty ratio ≤1%)
- Connector type: 1 BNC (plug), 2 BNC (jack)

**Compatibility**
- Tesla

**148-658 — Keysight HV Triax Cable, (Plug - Plug)**

**Features**
- Provides triax HV connection between Keysight B1505A and Tesla probe station

**Specifications**
- Maximum voltage (triax connection): 3000V DC
- Connector type: Keysight HV triax (plug-plug)
- Cable length: 1.5 m (5 ft)

**Compatibility**
- Tesla
148-659 — BNC Cable, 61 cm, (Plug - Plug)

Features
• Provides the connection between Keysight B1505A HCSMU accessories and HCP-BNC probes

Specifications
• Maximum voltage: 500V DC
• Maximum current (DC): 5A
• Maximum current (Pulse): 40A, (PW≤1ms, Duty ratio ≤1%)
• Connector type: BNC (plug - plug)
• Cable length: 61 cm (24 in)

Compatibility
• Tesla

148-669 — Keysight HV Triax (Plug) – SHV (Plug), 60 cm

Features
• Provides the HV triax to coaxial adaptation between Keysight B1505A and Tesla probe station

Specifications
• Maximum voltage: 3000V DC
• Connector type: Keysight HV triax (plug), SHV (plug)
• Cable length: 60 cm (23.5 in)
• Guard of Keysight HV triax connects to cable shield

Compatibility
• Tesla

148-665 — HC BNC Cable, 61 cm (Plug - Plug)

Features
• Provides the high current, low-resistance connection between Keysight B1505A HCSMU accessories and HCP-BNC probes

Specifications
• Maximum voltage: 500V DC
• Maximum current (DC): 5A
• Maximum current (Pulse): 40A, (PW≤1ms, Duty ratio ≤1%)
• Connector type: BNC (plug - plug)
• Cable length: 61 cm (24 in)

Compatibility
• Tesla

148-668 — Mini Triax (Plug) to BNC (Plug) Cable, 60 cm

Features
• Provides the connection between Keysight B1505A HCSMU adapter and DCP-HTR probes

Specifications
• Maximum voltage: 500V DC
• Connector type: Mini triax (plug), BNC (plug)
• Cable length: 60 cm (23.5 in)

Compatibility
• Tesla

148-724 — SHV to 4-BNC Adapter Box 1 SHV (Jack), 1 BNC (Plug), 3 BNC (Jack)

Features
• Provides the interconnections between the Keysight B1505A HCSMU adapter, GNDU protection adapter and HVP-5C probes (and older HVP-3C models)

Specifications
• Maximum voltage: 500V DC
• Connector type: SHV (jack), BNC (plug), 3 BNC (jack)

Compatibility
• Tesla
149-396 — Resistor Box, HV, 100 KΩ – HV Triax (Jack), SHV (Jack)

Features
• 100KΩ Keysight resistor box
• Provides connection between Keysight B1505A HVSMU and HVP-5C probes (and older HVP-3C models)

Specifications
• Resistance: 100KΩ
• Maximum voltage: 3000V DC
• Connector type: Keysight HV triax (jack), SHV (jack)

Compatibility
• Tesla

149-398 — Resistor Box, HV, 1 KW – HV Triax (Jack), SHV (Jack)

Features
• 1KΩ Keysight resistor box
• Provides connection between Keysight B1505A HPSMU protection adapter box and HVP-5C probes (and older HVP-3C models)

Specifications
• Resistance: 1KΩ
• Maximum voltage: 3000V DC
• Connector type: Keysight HV triax (jack), SHV (jack)

Compatibility
• Tesla

149-397 — Resistor Box, HV, 1 KΩ – Triax (Jack-Jack)

Features
• 1KΩ Keysight resistor box
• Provides connection between Keysight B1505A HPSMU protection adapter and DCP-HTR probes

Specifications
• Resistance: 1KΩ
• Maximum voltage: 500V DC
• Connector type: Standard triax (plug - plug)

Compatibility
• Tesla

149-445 — Test Head Plate Assembly

Features
• Adapter plate for mounting instrument accessories on the Tesla station bridge

Specifications
• Dimensions (WxDxH): 21.59 x 21.28 x 2.54 cm (8.5 x 8.38 x 1.0 in)

Compatibility
• Tesla

149-947 — SHV (Plug) to BNC (Plug) Cable, 60 cm

Features
• Provides SHV to BNC connection

Specifications
• Maximum voltage: 500V DC
• Maximum current (DC): 5A
• Maximum current (Pulse): 40A, (PW≤1ms, Duty ratio ≤1%)
• Connector type: BNC (plug), SHV (plug)
• Cable length: 60 cm (23.5 in)

Compatibility
• Tesla
149-958 — Keysight HV Triax (Plug) to Std Triax Cable (Plug), 1.5 m

**Features**
- Provides the HV triax to standard triax connection for Keysight B1505A

**Specifications**
- Maximum voltage: 500V DC
- Connector type: Keysight HV triax (plug), standard (plug)
- Cable length: 1.5 m (5 ft)

**Compatibility**
- Tesla

149-976 — High Voltage Chuck Floating Plug

**Product Features**
- Provides the floating chuck connection for the Tesla high-power chuck
- Safety interlock connection

**Specifications**
- Dual triax connection
- Maximum voltage: 10,000V

**Station Compatibility**
- Tesla

**Ordering Information**
- Chuck Guard terminal connects to Chuck Shield terminal.

149-977 — High Voltage Chuck Shorting Plug

**Product Features**
- Provides the shorting chuck connection for the Tesla high-power chuck
- Safety interlock connection

**Specifications**
- Dual triax connection
- Maximum current (DC): 10A
- Maximum current (Pulse): 100A, (PW<=1ms, Duty ratio <=1%)

**Station Compatibility**
- Tesla

149-978 — Chuck Cable, HV Chuck to Agilent HV (Plug), 1.5 m

**Product Features**
- Provides dual triax connection between the high voltage Tesla chuck and Agilent B1505A HVSMU
- Low-leakage
- Low resistance, high voltage, high-curent cable

**Specifications**
- Maximum voltage: 3000V DC
- Connector type: Cascade Microtech HV chuck, Agilent high voltage (plug)
- Cable length: 1.5 m (4.92 ft)

**Station Compatibility**
- Tesla

149-981 — Chuck Cable, HV Chuck to SHV (Jack), 1.5 m

**Product Features**
- Provides force and sense connection between the high voltage Tesla chuck and Agilent B1505A
- Low resistance, high voltage, high-curent cable

**Specifications**
- Maximum voltage: 5000V DC
- Connector type: Cascade Microtech HV chuck, SHV (jack)
- Cable length: 1.5 m (4.92 ft)

**Station Compatibility**
- Tesla

151-196 — SHV (Jack) to SHV (Jack) Adapter

**Features**
- Adapts SHV to SHV connection

**Specifications**
- Maximum voltage: 5000V
- Connector type: SHV (jack) to SHV (jack)

**Compatibility**
- Tesla
151-207 — SHV (Plug) to SHV (Plug) Cable, 60 cm

Features
• Provides the high voltage SHV to SHV coaxial connection for Keysight B1505A and Tesla probe station

Specifications
• Maximum voltage: 5000V DC
• Connector type: SHV (plug)
• Cable length: ~0.75m (30 in)

Compatibility
• Tesla

151-256 — Chuck Cable, HV Chuck Connector to BNC (Plug), 1.5 m

Product Features
• Provides force and sense connection between the high voltage Tesla chuck and Agilent B1505A
• Low resistance, high voltage, high-current cable

Specifications
• Maximum voltage: 500V DC
• Maximum current (DC): 5A
• Maximum current (Pulse): 40A, (PW<=1ms, Duty ratio <=1%)  
• Connector type: Cascade Microtech HV chuck, BNC (plug)
• Cable length: 1.5 m (4.92 ft)

Station Compatibility
• Tesla

151-280 — HV Bulkhead Interconnect Panel

Features
• Two Keysight HV triax connectors
• Two BNC connectors
• Two SHV connectors
• Two standard triax connectors
• Includes grounding strap

Specifications
• Max Voltage:
  – Keysight HV triax: 3000V
  – BNC: 500V
  – SHV: 5000V
  – Standard triax: 500V
• Connector type:
  – Keysight HV triax (jack)
  – BNC (jack)
  – SHV (jack)
  – Standard triax (jack)

Compatibility
• Tesla

151-466 — Tesla Bridge Mounting Kit for Keysight B1505A

Features
• Tesla high-power bridge mounting kit for use with Keysight B1505A
• The kit includes necessary brackets, test head plates, interlock cables and hardware to mount the B1505A accessories configured with 1 HVSMU, 1 HCSMU, 2 HPSMUs and 1 MFCMU for typical measurement setup

Compatibility
• Tesla
151-465 — Tesla Probes and Interconnect Accessory Kit for Keysight B1505A

**Features**

- Tesla high-power probing kit for use with Keysight B1505A
- The kit includes the HVP and HCP probes, positioners, necessary brackets, cables and adapters to connect B1505A configured with 1 HVSMU, 1 HCSMU, 2 HPSMUs and 1 MFCMU for typical measurement setup

**Kit Contents**

- HVP-5C-E — HV, Coaxial Probe with SHV Connection 3
- HVP-3T — HV, Triax Probe with Keysight HV Triax Connection 2
- HCP-BNC-3-350 — HC Probe Holder with BNC Connection, 3-Finger, 350 µm (13.8 mils) Tip 2
- DPP210-M positioner 5
- RPP305 positioners 2
- Interlock cable 1
- Test head mounting brackets, small 4
- Test head mounting brackets, large 1
- Keysight HV triax bulkhead assembly 2
- Triax to BNC adapter 1
- 148-651 — HV Adapter Box, 2 SHV (Jack) to 2 BNC (Jack) 1
- 148-657 — BNC Tee, 1 BNC (Plug) to 2 BNC (Jack) 4
- 148-724 — SHV to 4-BNC Adapter Box 1 SHV (Jack), 1 BNC (Plug), 3 BNC (Jack) 2
- 148-658 — Keysight HV Triax Cable, (Plug - Plug) 3
- 148-659 — BNC Cable, 61 cm, (Plug - Plug) 2
- 148-665 — HC BNC Cable, 61 cm (Plug - Plug) 2
- 148-668 — Mini Triax (Plug) to BNC (Plug) Cable, 60 cm 2
- 148-669 — Keysight HV Triax (Plug) – SHV (Plug), 60 cm 1
- 148-670 — HC BNC Cable, 1.5 m (Plug - Plug) 2
- 149-947 — SHV (Plug) to BNC (Plug) Cable, 60 cm 2
- 149-958 — Keysight HV Triax (Plug) to Std Triax Cable (Plug), 1.5 m 2
- 151-207 — SHV (Plug) to SHV (Plug) Cable, 60 cm 2
- 149-976 — High Voltage Chuck Floating Plug 1
- 149-977 — High Voltage Chuck Shorting Plug 1
- 149-981 — Chuck Cable, HV Chuck to SHV (Jack), 1.5 m 1
- 151-256 — Chuck Cable, HV Chuck Connector to BNC (Plug), 1.5 m 1

**Compatibility**

- Tesla

151-467 — Tesla Interconnect Kit for Keysight B1505A (Excluding Probes and Positioners)

**Features**

- Tesla high-power probeless kit for use with Keysight B1505A
- The kit includes necessary brackets, cables and adapters to connect B1505A configured with 1 HVSMU, 1 HCSMU, 2 HPSMUs and 1 MFCMU for typical measurement setup

**Kit Contents**

- Interlock cable 1
- Test head mounting brackets, small 4
- Test head mounting brackets, large 1
- Keysight HV triax bulkhead assembly 2
- Triax to BNC adapter 1
- 148-651 — HV Adapter Box, 2 SHV (Jack) to 2 BNC (Jack) 1
- 148-657 — BNC Tee, 1 BNC (Plug) to 2 BNC (Jack) 4
- 148-724 — SHV to 4-BNC Adapter Box 1 SHV (Jack), 1 BNC (Plug), 3 BNC (Jack) 2
- 148-658 — Keysight HV Triax Cable, (Plug - Plug) 3
- 148-659 — BNC Cable, 61 cm, (Plug - Plug) 2
- 148-665 — HC BNC Cable, 61 cm (Plug - Plug) 2
- 148-668 — Mini Triax (Plug) to BNC (Plug) Cable, 60 cm 2
- 148-669 — Keysight HV Triax (Plug) – SHV (Plug), 60 cm 1
- 148-670 — HC BNC Cable, 1.5 m (Plug - Plug) 2
- 149-947 — SHV (Plug) to BNC (Plug) Cable, 60 cm 2
- 149-958 — Keysight HV Triax (Plug) to Std Triax Cable (Plug), 1.5 m 2
- 151-207 — SHV (Plug) to SHV (Plug) Cable, 60 cm 2
- 149-976 — High Voltage Chuck Floating Plug 1
- 149-977 — High Voltage Chuck Shorting Plug 1
- 149-981 — Chuck Cable, HV Chuck to SHV (Jack), 1.5 m 1
- 151-256 — Chuck Cable, HV Chuck Connector to BNC (Plug), 1.5 m 1

**Compatibility**

- Tesla
Ordering Information
• When ordering as standalone, a 149-401 cable kit is required

153-180 Chuck Cable, HV Chuck to Keysight HV (Plug) for 40A High Current Test, 1.5m

Features
• Provides dual triax connection between the HV Tesla chuck and Keysight B1505A HVSMU
• Low-leakage
• Very low resistance, HV, HC cable for dual HCSMU 40A configuration

Specifications
• Maximum voltage: 3000V
• Maximum current (DC): 3A
• Maximum current (Pulse): 40A, (PW ≤ 1ms, Duty ratio ≤ 1%)
• Connector type: FormFactor HV chuck, Keysight HV (plug)
• Cable length: 1.5 m (5 ft)

Compatibility
• Tesla

153-190 BNC to Keysight HV Triax Adapter

Features
• Provides connection between Keysight B1505A dual HCSMU 40A solution and HCP-BNC probe

Specifications
• Maximum voltage: 500V DC
• Maximum current (DC): 3A
• Maximum current (Pulse): 40A (PW£1ms, Duty ratio £1%)
• Connector type: Keysight HV triax (plug), BNC (jack)

Compatibility
• Tesla
## Keithley Configuration

### KEITHLEY ACCESSORIES

144-527 — HV Triax Connector Cable, Interface Panel to Keithley 237/238

**Features**
- Provides connection between HV triax interface panel and:
  - High Voltage SMUs (Keithley)
  - Standard triax connectors

**Specifications**
- Maximum voltage: 1100V (triax)
- Maximum current (DC): 5A
- Cable length: 1m (3.3 ft)
- Cable characteristics:
  - Withstand voltage: 1,100V (F-G), (G-S)
  - Isolation resistance: 1TΩ @ 1,100V (F-G), 100GΩ @ 1,100V (G-S)
- Terminating connector types:
  - Amphenol triax threaded, 11/16-24 (plug)
  - Standard triax (plug) (HV version)

**Compatibility**
- Tesla

### 151-469 — Tesla Interconnect Kit for Keithley Instruments (Excluding Probes and Positioners)

**Features**
- Tesla high-power probeless kit for use with Keithley instruments
- The kit includes brackets, cables and adapters to connect Keithley instruments for typical measurement setup

**Kit Contents**
- 151-472 — Safety interlock Cable, 3 m
- 162-085 — HV Triax Connector Cable, Interface Panel to HV Coax
- 144-527 — HV Triax Connector Cable, Interface Panel to Keithley 237/238
- 149-976 — High Voltage Chuck Floating Plug
- 149-977 — High Voltage Chuck Shorting Plug
- High Power Chuck Connection Cables
- 149-980 — Tesla Chuck Cable, HV Chuck to Banana Plug Connector, 1.5 m
- 151-256 — Chuck Cable, HV Chuck Connector to BNC (Plug), 1.5 m

**Compatibility**
- Tesla

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151-470 — HV Triax Interface Panel

**Features**
- Eight HV triax connections:
  - Four force
  - Four sense
- Includes grounding strap

**Specifications**
- Max Voltage: 3000V (coax)/1500V (triax)
- Connector type: Amphenol triax threaded 11/16-24 (jack)

**Compatibility**
- Tesla

151-471 — HC Banana & STD Triax Interface Panel

**Features**
- Four pairs standard red and black banana jacks
  - Four force
  - Four ground
- Includes grounding strap

**Specifications**
- Maximum current (Pulse): 100A, (PW≤1ms, Duty ratio ≤1%)
- Max Voltage: 500V
- Connector type: Banana jack

**Compatibility**
- Tesla

151-472 — Safety interlock Cable, 3 m

**Features**
- Provides the interlock connection between the test instrument and the Tesla station safety light curtain

**Specifications**
- Cable length: 3 m (9.8 ft)

**Compatibility**
- Tesla

162-085 — HV Triax Connector Cable, Interface Panel to HV Coax

**Features**
- Provides connection between HV triax interface panel and coaxial instruments

**Specifications**
- Maximum voltage: 3,000V (coax guard-shield connected), 1500V (triax)
- Maximum current (DC): 5A
- Cable length: 3m (9.8 ft)
- Cable characteristics
  - Impedance F-S: 40Ω
  - Withstand voltage F-S: 3,000V
  - Insulation resistance F-S: > 1T ohm @3000V
- Terminating connector types
  - Amphenol triax threaded, 11/16-24 (plug)
  - SHV coaxial (plug)
- Guard of HV triax connects cable shield

**Compatibility**
- Tesla
### Common Probes

<table>
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<th>Product Code</th>
<th>Description</th>
<th>Features</th>
<th>Specifications</th>
<th>Station Compatibility</th>
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<tbody>
<tr>
<td>149-976</td>
<td>High Voltage Chuck Floating Plug</td>
<td>Provides the floating chuck connection for the Tesla high-power chuck, Safety interlock connection</td>
<td>Dual triax connection, Maximum voltage: 10,000V</td>
<td>Tesla</td>
<td>Chuck Guard terminal connects to Chuck Shield terminal.</td>
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<tr>
<td>149-977</td>
<td>High Voltage Chuck Shorting Plug</td>
<td>Provides the shorting chuck connection for the Tesla high-power chuck, Safety interlock connection</td>
<td>Dual triax connection, Maximum current (DC): 10A, Maximum current (Pulse): 100A, (PW≤1ms, Duty ratio ≤1%)</td>
<td>Tesla</td>
<td></td>
</tr>
<tr>
<td>149-978</td>
<td>Chuck Cable, HV Chuck to Agilent HV (Plug), 1.5 m</td>
<td>Provides dual triax connection between the high voltage Tesla chuck and Agilent B1505A HVSMU, Low-leakage, Low resistance, high voltage, high-current cable</td>
<td>Maximum voltage: 3000V DC, Connector type: Cascade Microtech HV chuck, Agilent high voltage (plug), Cable length: 1.5 m (4.92 ft)</td>
<td>Tesla</td>
<td></td>
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</tbody>
</table>
HCP-TIP-3-350 — HC Replaceable Probe Tips, 5-pack

Features
- Includes five tips for use with the HCP-1-B, high current parametric coax
- Patented tip design provides low contact resistance and superior current dissipation

Specifications
- Maximum voltage: 500V DC
- Maximum current: 100A (PW < 1ms, Duty ratio ≤ 1%)
- Tip material: Tungsten
- Number of tips: 3
- Tip pitch: 350 µm (13.8 mils)
- Total footprint: 750 µm (29.5 mils)
- Typical contact resistance on Al: 20mΩ
- Recommended range of overtravel: 150 to 200 µm (5.9 to 7.9 mils)
- Contact force: 20 gms per tip (60 grams total) @ 100 µm (3.9 mils) overtravel
- Scrub: 60 to 80 µm (2.4 to 3.1 mils)

Compatibility
- Tesla, TESLA200
High Power Chuck Connection Cables

149-979 — HV Tesla Chuck Cable, HV Chuck Connector-Std Triax (Plug), 1.5m

**Features**
- Provides connection between the HV Tesla chuck and test instruments
- Low resistance, HV, HC cable

**Specifications**
- Maximum voltage: 500V DC
- Maximum current: 5A (pulse)
- Connector type: FormFactor HV chuck, standard triax (plug)
- Cable length: 1.5 m (5 ft)

**Compatibility**
- Tesla

151-256 — Chuck Cable, HV Chuck Connector to BNC (Plug), 1.5 m

**Product Features**
- Provides force and sense connection between the high voltage Tesla chuck and Agilent B1505A
- Low resistance, high voltage, high-curent cable

**Specifications**
- Maximum voltage: 500V DC
- Maximum current (DC): 5A
- Maximum current (Pulse): 40A, (PW<=1ms, Duty ratio <=1%)
- Connector type: Cascade Microtech HV chuck, BNC (plug)
- Cable length: 1.5 m (4.92 ft)

**Station Compatibility**
- Tesla

149-980 — Tesla Chuck Cable, HV Chuck to Banana Plug Connector, 1.5 m

**Features**
- Provides connection between the HV Tesla chuck and test instruments
- Low resistance, HV, HC cable

**Specifications**
- Maximum voltage: 10000V DC
- Maximum current: 100A (pulse)
- Connector type: FormFactor HV chuck connector, banana jack
- Cable length: 1.5 m (5 ft)

**Compatibility**
- Tesla

151-257 — HV Tesla Chuck Cable, HV Chuck Connector-CMI HV (Plug), 1.5m

**Features**
- Provides force and sense connection between the high voltage Tesla chuck and Agilent B1505A
- Low leakage, low-resistance, HV, HC cable

**Specifications**
- Maximum voltage: 3000V (coax), 1500V (triax)
- Connector type: FormFactor HV chuck, CMI HV Amphenol (plug)
- Cable length: 1.5 m (5 ft)

**Compatibility**
- Tesla

149-981 — Chuck Cable, HV Chuck to SHV (Jack), 1.5 m

**Product Features**
- Provides force and sense connection between the high voltage Tesla chuck and Agilent B1505A
- Low resistance, high voltage, high-curent cable

**Specifications**
- Maximum voltage: 5000V DC
- Connector type: Cascade Microtech HV chuck, SHV (jack)
- Cable length: 1.5 m (4.92 ft)

**Station Compatibility**
- Tesla
Safety Enclosures

170-750 — Clear Safety Enclosure Package

Features
• Impact resistant clear acrylic enclosure
• Safety interlock system for high power testing
• Front opening doors for ergonomic test setup/operation
• Side & rear access panels for easy equipment configuration
• Mounting kit for standard Summit-Tesla vibration isolation table

Compatibility
• Tesla (200 mm)

151-461 — Laser Infrared Safety Light Curtain Package

Features
• Light curtain system surrounding the probe station
• Integrated safety interlock for high power testing
• Clear acrylic side and rear panels (removable for equipment setup)
• Mounting kit for standard Summit-Tesla vibration isolation table

Compatibility
• Tesla (200 mm)
Auxiliary Chucks

174-213 — AUX chuck Add-on for Tesla HV Coax Chuck

Features
• High-Power AUX chuck, with vacuum holes
• High isolation Eccosorb material (magnetically loaded)
• Enables addition surface for holding cleaning, calibration
• Probe contact substrates
• Remote vacuum control integrated into TESLA probe station
• Up to 2 High-Power AUX chucks can be added to a Tesla coax chuck

Compatibility
• Tesla

Ordering Information
• For field upgrade kits, request P/N from the FormFactor Custom Products Group