

Cascade

DC PROBEWEDGE

DC Wafer Probe

➤ Overview

When performing on-wafer probing, it is often necessary to contact many pads at the same time. If the design does not change, such as in production testing, a probe card is typically the best solution. However, for R&D testing and other areas, a probe card is very often too expensive and inflexible to test constantly changing layouts. Also, a mixed-signal set of DC contacts is often required, and occasionally the pads are grouped on one side, rather than around the device, making a large card unpractical.

FormFactor offers a complete family of highly-flexible Cascade DC ProbeWedges that can carry up to 16 DC needles. It is the ideal test solution for simple wafer-level reliability, multi-site tests and low-current probing, because the low leakage and low noise characteristics of the ProbeWedge ensure excellent measurements down to fA range. Additional elements, such as SMDs, can be mounted on the wedge board to cover your special measurement requirements.

The DC ProbeWedge family is compatible with FormFactor's probing systems. Feed-throughs in a special connector

plate ensure perfect EMI shielding for sensitive low noise measurements in the ProbeShield® environment. Our unique plug and play concept of HF probes and arms also includes the DC ProbeWedge. It fits onto any HF probe arm, because its size is fully compatible with those of the IZI Probes®. Changing between HF and DC tests is easy as and quick without the manipulator itself having to be adjusted.

FormFactor's plug and play concept also extends to the cables used to connect the Cascade DC ProbeWedge with the measuring system. Single low-noise coaxial cables can easily be plugged in to an SCI-carrier (Small Carrier Interface). All cables can be reused and replaced individually. The ProbeWedge design allows easy changeover to cost-effective ribbon cabling. The ribbon cable has a G-P-G-P-G design and is available from all standard electronic equipment suppliers. The connection to your measurement instrument can be made with either a coaxial BNC connector or a triaxial connector depending on your application needs.

➤ Features and Benefits

Flexibility

- The ProbeWedge family is compatible with your existing FormFactor's probing systems
- Plug and play design provides easy handling and strain relief
- Ideal probe solution for wafer-level reliability, multi-site tests and DC biasing

Cost Effectiveness

- Alternative to inflexible probe cards, ideal for changing demands in R&D
- All cables can be re-used and additional single cables can be ordered
- Probe blades can be repaired individually

Accuracy

- Kelvin ProbeWedge is ideal for low-resistance measurements
- Fully-guarded microstrip blades for low-current measurements down to fA range

➤ Mechanical Specifications*

Probe Tip Materials

Tungsten (standard) for aluminum pads

Beryllium-copper for gold pads

Probe Tip Radius

38 μm (1.5 mil); others available upon request

Non-Kelvin Connection

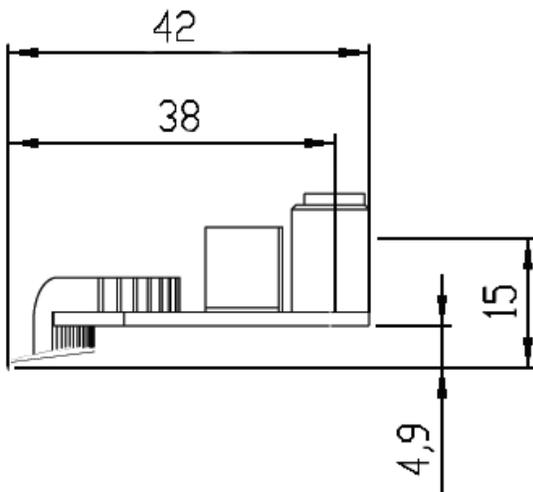
- Blade types Ceramic, microstrip, metal
- Contacts Up to 16 contacts (others available upon request)

Cable Harness

- With SCI carrier 0.6m or 1.2m (34 PIN)
Triaxial or coaxial connector to measurement instrument
- With Ribbon carrier Length according to your application
Ribbon connector (34 PIN): cables are available from all standard electronic equipment suppliers

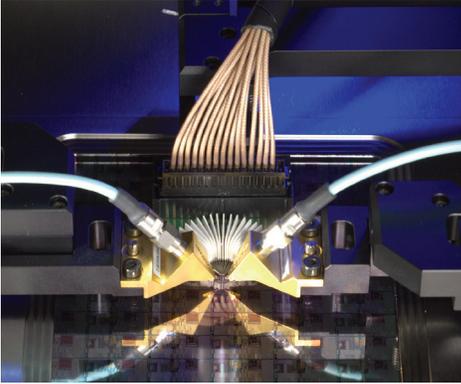
*Data, design and specification depend on individual process conditions and can vary according to equipment configurations. Not all specifications may be valid simultaneously.

➤ Physical Dimensions (measurements in mm)

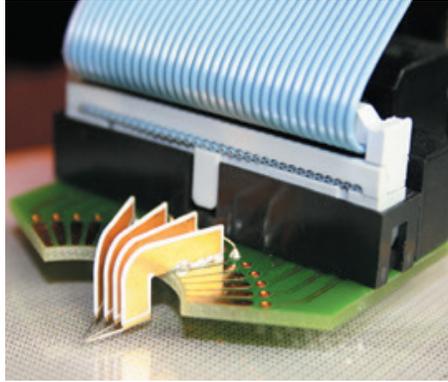


Side view (All dimensions in mm)

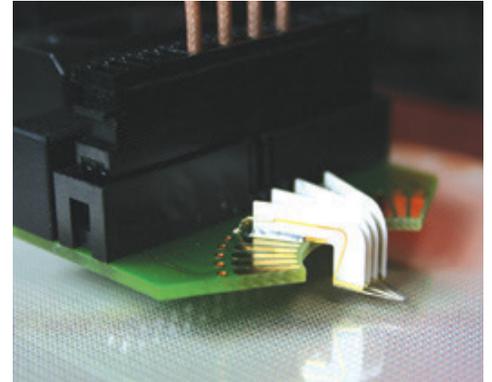
➤ Applications



Simultaneous use of DC ProbeWedge and IZI Probes in PA300PS.



DC ProbeWedge with cost-effective ribbon cables.



Microstrip blades used for DC and Kelvin ProbeWedges.

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