





### Cascade

# **Genius Education Kits**

Turn-key S-parameter Measurement Systems for RF and Microwave Test





## Become a Genius

The new **Genius** on-wafer S-parameter measurement education kits from FormFactor include all critical components - everything from a probe station to even a network analyzer - to achieve accurate measurements at an affordable price. Validated and proven to deliver leading-edge performance measurements, the entry-level system is the perfect, easy-to-purchase choice for universities and schools with minimum lab space.

#### **Features**

- / Best in class RF and microwave measurement performance
- / Industry standard calibration techniques
- / All critical components included
- / Small benchtop footprint
- / Affordable price (starting at USD 38,915\*)

### Integrated Measurement Solution



The **Genius Education Kits** include all critical components to perform highly-accurate measurements. Not only the probe station, probes, positioners, cables, calibration substrate and calibration software but also the Vector Network Analyzer – an industry first.

The performance envelope of the solution has been further enhanced and goes far beyond a simple product bundle. The perfect integration of the components, paired with advanced ergonomics and easily accessible controls, guarantee best usability and highly-precise measurements.

\*Base price. Only for educational customers. Includes RFgenius manual probe station, Keysight Streamline 4.5 GHz Vector Network Analyzer, choice of two 40 GHz RF probes, and WinCal XE calibration software. Laptop computer not included. Price is subject to change without notice. Conditions apply, contact Sales for details.

### **Probe Station**



- / RF chuck ±3 µm surface planarity
- / Unique 200  $\mu$ m platen contact/ separation stroke with  $\leq$ ± 1  $\mu$ m accuracy for repeatable contact
- / Precision probe alignment
- / Consistent contact force and overtravel
- / Stable contact performance

#### VNA



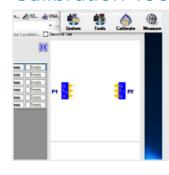
- / Wide frequency coverage:
- **RFgenius:** 4.5 / 6.5 / 9 / 14 / 20 / 26.5 GHz
- μWgenius: 100 kH to 53 GHz
- / Full 2-port VNA, ability to extend the number of ports
- / Same calibration and metrology across all trusted Keysight VNAs
- / Common GUI with the Keysight VNAs

#### **Probes**



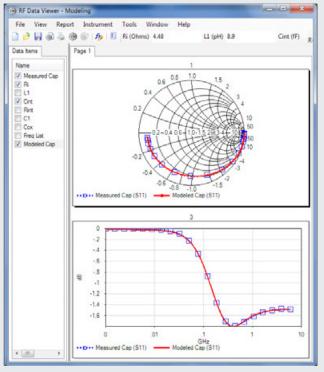
- / Infinity Probe: best for AI (Si)
- / ACP Probe: best for AU (III-Vs)
- / |Z| Probe: robust solution (long lifetime)
- / Precision contact on a wide variety of materials
- / Accurate results with excellent crosstalk
- / Matching cables and substrates included

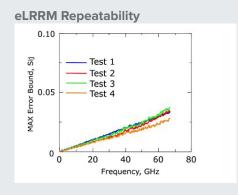
### **Calibration Tools**



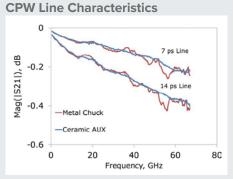
- / Exclusive 1-, 2-, 3-, and 4-port on-wafer calibration algorithms
- / Automated calibration monitoring
- / Unique measurement & analysis methods
- / Accurate S-parameter measurements
- / Automatic calibration setup for higher efficiency
- / Fast and easy data interpretation and reporting

### **Calibration Tools**





Highlyrepeatable LRRM calibration algorithm available from WinCal XE



Optimal boundary conditions due to integrated ceramic AUX chuck

Modeling tool screen in WinCal XE software

### Installation and Support

To complete your support needs, FormFactor can install, train and support the whole solution. Our application engineers have the test expertise needed to help you to be successful, whether you make critical measurements or just learn how to do on-wafer S-parameter measurements.

### **Ordering Information**

Part number	Description
RFgenius-xx*	RFgenius education kit, turn-key solution for measurements up to 4.5/6.5/9/14/20/26.5 GHz
uWgenius-53	μWgenius education kit, turn-key solution for measurements from 100KHz to 53GHz
181-669	FormFactor certified laptop for Genius Education Kits (optional)**

<sup>\*</sup> Enter the frequency range for a VNA of your choice. Example: RFgenius-4 for 4.5 GHz. RFgenius-26 for 26.5 GHz. \*\* Minimum requirement for a laptop to be supplied by a user: Windows 7 or 10 (64 bit), Intel i5 6th Gen or newer, 4 GB memory or more (16 GB recommended), 2 GB disk space or more, 1024 x 768 resolution, USB 3.0 port. For more information contact us at 1-800-550-3279 (1-503-601-1000) or email sales\_support@cmicro.com

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