Welcome to the premiere edition of Cascade Microtech’s Microprobe Access Catalog, a showcase of microprobing supplies and accessories.

Call 1-800-550-3279 or visit www.cascademicronetech.com/access

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Air Coplanar Series Probes: ACP40 series, ACP50, ACP65, ACP110, ACP40-Dual, ACP75, ACP110
- Unique Air Coplanar® tip design
- DC to 110 GHz models available
- Low insertion and return loss with ultra-low-loss (-L) versions
- Patented design for suppression of unwanted modes
- Excellent crosstalk characteristics
- Wide operating temperature -65°C to +200°C
- 100 to 250 µm standard pitch range (50 to 1250 µm available)
- Choice of beryllium copper (BeCu) or tungsten tip material
- Precision tip dual configuration available
- BeCu tip provides rugged, repeatable contact on gold pads
- Good visibility at probe tip allows accurate placement on DUT contact pads
- Individually supported contacts provide outstanding compliance for probing non-planar surfaces
- Stable and repeatable over-temperature measurements
- Typical probe life of 500,000 contacts on gold pads

High Performance Characterization Probes: HPC40, HPC50, HPC65
- Special reduced contact area Air Coplanar tip
- Low insertion loss and VSWR
- Excellent crosstalk characteristics
- Designed for suppression of unwanted modes
- Wide operating temperature range (-65°C to 200°C)
- 100 or 150 µm standard pitch (125, 200 or 250 µm available)
- Choice of BeCu or tungsten
- Compatible with Cascade Microtech WinCal™ software for automatic VNA calibration
- Save valuable wafer space by probing pads as small as 50 µm (excellent tip visibility/reduced contacts)
- Increase wafer yield and reduce measurement guardbands (probe repeatability and crosstalk)
- Ideal for noise parameter or load pull characterization (low insertion loss)
**Fixed Pitch Compliant Series: FPC**

- DC - 40 GHz bandwidth
- 20 ps rise time
- Low insertion and return loss
- 2 mils of tip-to-tip compliance
- High probing angle and clearance
- Maintains 50 Ω environment which allows accurate high-frequency measurement of microelectronic modules
- Compliant tips allow probing of non-planar structures
- BeCu tips provide longer probing life and reduce probe damage
- Access contacts close to components, module walls, or other obstructions

**High Performance Bias Probe**

The Highest Performance dc bias probe in the industry today.

- High performance power bypassing provides low-impedance and resonant-free connections to 20 GHz
- Long probe life: >250,000 contacts
- Flexible configuration; can mix ground, logic, power supply, ac signal, or power supply sense
- Up to 12 contacts per probe head
- Beryllium-copper tips for gold pads or tungsten for aluminum pads

**104-913 WPH mount to fine pitch adapter**

- Allows mounting of most FP-style probes (FPC, FPM, FPS, FPR, FP Needle Holder, but not FPA) on standard WPH-style probe arms
Probe Calibration* - Impedance Standard Substrate (ISS) and Support

**005-018  Contact substrate**
- Used to adjust probe contact, planarity, and overtravel
- Dull gold finish to aid in setting probe planarity
- Dimensions: 0.8 in. x 0.6 in. x 0.025 in.

**101-190  Line Reflect Match ISS**
- Provides faster, more accurate on-wafer measurement calibrations for high-frequency applications
- Accommodates ground-signal-ground probes with pitches from 100 to 250 microns, up to 75 GHz
- Dimensions: 0.8 in. x 0.6 in. x 0.025 in.
- Twenty-seven GSG Cal sites with 100-250 micron pitches

**103-726  ISS, Ground-Signal**
- Provides an optimized layout for ground-signal probing with pitches from 100 to 250 microns
- Dimensions: 5/8 x 7/8 in. (16 x 22 mm)
- Twenty-seven GS/SG Cal sites with 100-250 micron pitches

**106-682  ISS, wide pitch, GSG**
- Dimensions: 5/8 x 7/8 in. (16 x 22 mm)
- Eight GSG Cal sites with 250-1250 micron pitches

**106-683  ISS, wide pitch, GS/SG**
- Dimensions: 5/8 x 7/8 in. (16 x 22 mm)
- Eight GS Cal sites with 250-1250 micron pitches

**109-531  Right angle ISS, GSG**
- 100 to 250 micron pitch

*For all ISS products: See the ISS Family, Impedance Standard Substrates data sheet*

4x More Available Cal Sites than Any Other Commercially Available Substrate!
<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>018-021</td>
<td>26.5 GHz probe connector/cable kit</td>
</tr>
<tr>
<td></td>
<td>• Compatible with SMA, K and 3.5 mm connectors</td>
</tr>
<tr>
<td></td>
<td>• Two 26.5 GHz semi-rigid K-connector cables (010-044)</td>
</tr>
<tr>
<td></td>
<td>• Four K-connector 90° elbows (100-934)</td>
</tr>
<tr>
<td></td>
<td>• Four Thumbsaver connector wrenches</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-162</td>
<td>40 GHz flexible K-connector cable</td>
</tr>
<tr>
<td></td>
<td>• Compatible with SMA, 3.5 mm, or K connectors</td>
</tr>
<tr>
<td></td>
<td>• Male-female</td>
</tr>
<tr>
<td></td>
<td>• Integrated elbow</td>
</tr>
<tr>
<td></td>
<td>• VSWR: better than 1.45 (0 to 40 GHz)</td>
</tr>
<tr>
<td></td>
<td>• Insertion loss: better than -4.26 dB (0 to 40 GHz)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>100-934</td>
<td>40 GHz K-connector 90° elbow</td>
</tr>
<tr>
<td></td>
<td>• Compatible with SMA and 3.5 mm connectors</td>
</tr>
<tr>
<td></td>
<td>• Male-female</td>
</tr>
<tr>
<td></td>
<td>• 0.118 Semi-rigid cable</td>
</tr>
<tr>
<td></td>
<td>• 50 ohm</td>
</tr>
<tr>
<td></td>
<td>• VSWR: better than 1.43 (0 to 40 GHz)</td>
</tr>
<tr>
<td></td>
<td>• Insertion loss: better than -0.45 dB (0 to 40 GHz)</td>
</tr>
</tbody>
</table>
103-202  50 GHz flexible cable
- Compatible with 2.4 mm and 1.85 mm connectors
- Male-female
- Integrated elbow
- Connectors: 2.4 mm
- VSWR: better than 1.45 (0 to 50 GHz)
- Insertion loss: better than -6.00 dB (0 to 50 GHz)

104-540  Cable, 65 GHz flexible, 1.85 mm conn., 60 cm (24 in.) m-f
- Compatible with 2.4 mm and 1.85 mm connectors
- Male-female
- Integrated elbow
- 1.85 mm connectors

105-010  2.4 mm, 90° elbow
- Compatible with 1.85 mm connectors
- Male-female
- 0.085 semi-rigid coax
- VSWR: better than 1.50 (0 to 50 GHz)
- Insertion loss: better than -0.75 dB (0 to 50 GHz)
Software, Accessories

125-935 WinCal 3.0 VNA calibration software
- Used with RF Summit semiautomatic stations
- Used with RF PS21 automatic station

125-936 WinCal 3.0 VNA calibration software
- Used with Summit 11K and RF-1 manual stations

125-925 WinCal 3.0 VNA calibration demo software
- Includes CD and on-line documentation
- No manual or hardware key
FREE! Demo Software

125-937 Upgrade to WinCal 3.0 VNA from previous WinCal versions
- Upgrades from all previous versions

107-107 GPIB bus breaker kit
- Enables the Summit station controller to receive commands over the GPIB

112-044 NI IEEE-488 PCI-GPIB card
- National Instruments 1/2 size card
- GPIB cable included
- For use with Windows® 95/98 software
**Summit Upgrades, Accessories & Summit Probe Positioners**

**115-737 AttoGuard™ upgrade kit for Summit 11/12K Probe Stations**
- Converts Summit 1175X to 1186X
- Converts Summit 1275X to 1286X
- Customer installable

**116-511 MicroChamber large top hat upgrade kit for Summit 11/12K Probe Stations**
- Accommodates all ACP probes including low loss
- 2 x 2 inch microscope range
- Standard on all new Summit 11/12K stations

**112-960 East positioner, 8510XF, for Summit 9100**

**112-970 West positioner, 8510XF, for Summit 9100**
- Designed to hold Agilent 8510XF test head
- Probe mount provides three axis probe position adjustment
- Use SQ-MPH-4VL-TH03 and SQ-MPH-4VL-TH01 for 3 or 4 port configuration. Add platen extension 114-037

**113-120 West positioner, 8510XF, for Summit 11K/12K series**

**113-130 East positioner, 8510XF, for Summit 11K/12K series**
- Designed to hold Agilent 8510XF test head
- Probe mount provides three axis probe position adjustment
- Use MPHM-6AR for 3 or 4 port configuration. High stability microscope mount is required

**114-746 East-west RF positioner for Summit 11/12K series**
- Probe mount provides three axis probe position adjustments.
- Compatible with north/south positioner (114-845)
- 0° arm
- Micrometer set planarity adjustment
- Cable clamp

**114-845 North-south RF positioner for Summit 11/12K series**
- Probe mount provides three axis probe position adjustments.
- Positioner is compatible with the east/west positioner (114-746)
- 90° arm
- Micrometer set planarity adjustment
- Cable clamp

**115-597 West RF positioner for Summit 11/12K series**
- Probe mount provides three axis probe position adjustments.
- Incompatible with the north/south positioners (114-845)
- 0° arm
- Micrometer set planarity adjustment
- Cable clamp

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Summit Probe Positioners

DCM-208-ML Probe positioner, magnetic base, left, 80 TPI
- Used for DC/CV wafer probing
- Eighty turns per-inch
- Magnetic break handle release
- Adjustable probe arm mounting plate
- 0.5 in. (12.7 mm) x, y, and z axes range
- Must order dual triax Kelvin adapter (114-818)

DCM-208-MR Probe positioner, magnetic base, right, 80 TPI
- See DCM-208-ML for details

DCM-208-VL Probe positioner, vacuum base, left, 80 TPI
- Eighty turns per-inch
- Vacuum release (requires 13 in. Hg @ 0.15 CFM)
- Adjustable probe arm mounting plate
- 0.5 in. (12.7 mm) x, y, and z axes range
- Must order dual triax Kelvin adapter (114-818)

DCM-208-VR Probe positioner, vacuum base, right, 80 TPI
- See DCM-208-VL probe positioner, vacuum base, left, 80 TPI for details

DCM-210-ML Probe positioner, magnetic base, left, 100 TPI
- One hundred turns per-inch
- Magnetic break handle release
- Adjustable probe arm mounting plate
- 0.5 in. (12.7 mm) x, y, and z axes range
- Must order dual triax Kelvin adapter (114-818)

DCM-210-MR Probe positioner, magnetic base, right, 100 TPI
- See DCM-210-ML for details

DCM-210-VL Probe positioner, vacuum base, left, 100 TPI
- One hundred turns per-inch
- Vacuum release (requires 13 in. Hg @ 0.15 CFM)
- Adjustable probe arm mounting plate
- 0.5 in. (12.7 mm) x, y, and z axes range
- Must order dual triax Kelvin adapter (114-818)

DCM-210-VR Probe positioner, vacuum base, right, 100 TPI
- See DCM-210-VL for details

*All DCM positioners:
- See the DCM Series Probe Micropositioner data sheet

Summit Positioner Probe Mounts for 11/12K Stations

114-818 DCP probe mount with dual triax adapter for DCM series positioners
- Necessary to connect DCP probe to DCM series positioner
- Kelvin Mount only
DC / Parametric Probe Tips and Holders

107-157 Probe tip, replaceable, 1.5 micron, for DCP-115R, box of ten

107-158 Probe tip, replaceable, 5 micron, for DCP-150R, box of ten

107-159 Probe tip, replaceable, 0.5 micron, for DCP-105R, box of ten

109-946 Probe tip, replaceable, for DCP-HTR, box of ten

DCP-105R DC coaxial probe, single line, 0.5 micron radius, replaceable tip

DCP-115R DC coaxial probe, single line, 1.5 micron radius, replaceable tip

DCP-150R DC coaxial probe, single line, 5.0 micron, replaceable tip

DCP-150GP-50 DC coaxial probe with ground needle, 50 micron pitch

DCP-150K-25 DC coaxial probe, Kelvin, 25 micron pitch, 5.0 micron tip radius

DCP-150K-50 DC coaxial probe, Kelvin, 50 micron pitch, 5.0 micron tip

• Frequency range: dc - 100 MHz
• 500 V breakdown voltage, isolation resistance 1E13 Ω
• Connector type: SSMC
• Probe Tip: Tungsten
• See the DCP 100-Series Probes Precision DC Coaxial Microprobes data sheet

DCP-HTR High performance DC probe holder

• Frequency range: dc - 100 MHz
• 500 V breakdown voltage, isolation resistance 1E13 Ω
• Temperature range -65 to +300°C
• Leakage noise: ±10 fA, -65 to +200°C ±20 fA, 200 to 300°C
• Does not include replaceable tip
• See the DCP-HTR High Performance DC Probe Holder data sheet

Call 1-800-550-3279 or visit www.cascademicrotech.com/access 12
103-775 Cable kit for current or capacitance parametric tests Used with the Agilent 4142
Includes (4) each the following:
• 104-330-LC Triax cable
• 104-365 Coaxial cable
• 104-341 Triax-to-BNC adapter

104-330-LC Triax cable, large to small triax connector, low noise, 60 cm (24 in.)
• Recommended for measurements below 20 fA
• Connects triax block on positioner to triax connection panel on rear of probe

104-334 Triax extension cable, 53 cm (21 in.)
• 3-lug triaxial connectors

104-341 Adapter, triax-to-BNC, guard shorted
• Adapts LCR meter BNC cable to probe station triaxial input.

104-365 Coaxial Cable with BNC connectors, 140 cm (55 in.)
• Used with triax-to-BNC adapters (104-341) to connect probe to LCR meter

104-372 Ground unit adapter kit
• Converts Agilent 4142B GNDU force and sense connections to standard SMV format

104-740 Triax shorting plug
• Connects chuck or probe to ground (MicroChamber® shield) by shorting triax center, guard, and shield together

104-803 Triax-to-BNC adapter, guard removed
• Allows sources with BNC connection to interface to prober triaxial environment

104-806 Triax tee, single male to dual female
106-837 Adapter, triax to BNC, guard thru, no shield
• Used to connect driven guard instruments to coaxial accessories

108-138 Triax cable, large to small triax connector, low noise, 180 cm (72 in.)

108-714 Adapter, BNC female to triax female, guard short

108-715 Adapter, BNC to BNC coupler

108-716 Adapter, BNC male to triax female, guard short

108-717 Adapter, BNC tee, female

108-718 Adapter, BNC tee, female-male-female

108-719 Wiring harness, triax, 24 pin for Summit low-leakage probe card, 2 meter
• Triax
• 24 pin for Summit low-leakage probe card
• 2 meter

Module Probe Accessory

104-913 WPH mount to fine pitch adapter
• Allows mounting of most FP-style probes (FPC, FPM, FPS, FPR, FP Needle Holder, but not FPA) on standard WPH-style probe arms

Summit Positioner Probe Mounts for 11/12K Stations

114-818 DCP probe mount with dual triax adapter for DCM series positioners
• Necessary to connect DCP probe to DCM series positioner
• Kelvin
Mount only

Call 1-800-550-3279 or visit www.cascademictech.com/access
LWP-CLV-MM  Lightwave probe, cleaved fiber, 62.5 mm core, multi-mode
LWP-CLV-SM  Lightwave probe, cleaved fiber, single-mode
LWP-LEN-MM  Lightwave probe, lensed fiber, 62.5 mm core, multi-mode
LWP-LEN-SM  Lightwave probe, lensed fiber, single-mode
• Choice of cleaved (CLV) or lensed (LEN) optical fiber
• Choice of single mode (SM) or multi-mode (MM) optical fiber
• Wavelength: Single mode 1300 or 1550 nm NA = 0.13
• Wavelength: Multimode 850 to 1300 nm NA = 0.22
• Insertion loss 0.5 dB max.
• Spot size: Cleaved 25 microns, lensed 5 microns
• Field-interchangeable fiber-optic pigtails
• Standard FC type fiber optic connection
• Low-cost, field-replaceable optical fibers
• Accessories include two eyepiece filters for safe viewing of CDRH Class 1 lasers and an alternate mounting bracket for use in a Summit 11/12K MicroChamber.
• See the Lightwave Probe Data Sheet

Lightwave Probe Fiber Tips*
FT-CLV-MM  Cleaved, 62.5 mm core, multi-mode fiber tip
FT-CLV50-MM  Cleaved, 50 mm core, multi-mode fiber tip
FT-CLV-SM  Cleaved, single-mode fiber tip
FT-LEN-MM  Lensed, 62.5 mm core, multi-mode fiber tip
FT-LEN50-MM  Lensed, 50 mm core, multi-mode fiber tip
FT-LEN-SM  Lensed, single-mode fiber tip
* Replacement fibers for LWP Lightwave Probes
EZ-PROBE EZ-Probe, positioner with joystick, base, articulating arm

- Provides easy, precise manual probe positioning control in 3 axes
- Positioning range: 0.65 x 0.65 x 0.5 in. (17 x 17 x 13 mm)
- Placement: 50 microns (2 mil)
- Operates with vacuum (requires -15.75 in. Hg) or weighted gravity base
- Three dimensional joystick with 3:1 motion reduction
- Weight: 2.65 lbs. (1.2 kg)
- Adjustable arm reach: 3.9 - 8.7 in. (100-220 mm)
- Arm sweep angle: +90°
- See the EZ-Probe Positioner data sheet
Alessi Probes, Micropositioners, Holders, Micropositioner Probe Mounts & Arms

Alessi MD Micropositioners & Probe Holders

PE5-01 Coaxial probe for MD series
• 50 ohm holder, 30 in. cable and BNC connector

PE5-02 Coaxial probe for RHM, R32, & R41
• Used with RHM, R41, & R32 stations
• Cable length is 32 in. (762 mm)

PE5-32 Triaxial probe
• Impedance: 50 Ω
• Cable length is 9 ft. (229 mm)

PE5-32/5 Triaxial probe for R48, R55, & R61
• Impedance: 50 Ohm
• Cable length is 6 ft. (152 mm)

Alessi MH & MS Micropositioner Probe Mounts & Arms

PE5-32/35 Triaxial probe
• Impedance: 50 Ohm
• Cable length is 9 ft. (229 mm)

MMP-12 Pico probe mount for RHM, R32, R41

MMP-12/5 Pico probe mount for R48, R55, R61

General purpose tungsten tip probes

<table>
<thead>
<tr>
<th>Probe Code</th>
<th>Description</th>
<th>Impedance</th>
<th>Tip Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTT-06-25</td>
<td>Straight</td>
<td>0.6 micron</td>
<td></td>
</tr>
<tr>
<td>PTT-06/4-25</td>
<td>45° Bend</td>
<td>0.6 micron</td>
<td></td>
</tr>
<tr>
<td>PTT-12-25</td>
<td>Straight</td>
<td>1.2 micron</td>
<td></td>
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<tr>
<td>PTT-12/4-25</td>
<td>45° Bend</td>
<td>1.2 micron</td>
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<tr>
<td>PTT-24-25</td>
<td>Straight</td>
<td>2.4 microns</td>
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<tr>
<td>PTT-24/4-25</td>
<td>45° Bend</td>
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<td>PTT-120-25</td>
<td>Straight</td>
<td>12 microns</td>
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<tr>
<td>PTT-120/4-25</td>
<td>45° Bend</td>
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<td>PTT-250-25</td>
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<td>25 microns</td>
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<tr>
<td>PTT-250/4-25</td>
<td>45° Bend</td>
<td>25 microns</td>
<td></td>
</tr>
<tr>
<td>PTT-70-25</td>
<td>Catwhisker</td>
<td>0.07 microns</td>
<td></td>
</tr>
</tbody>
</table>

• Used with Alessi Probes
• Packets of 25

Call 1-800-550-3279 or visit www.cascademicrotech.com/access
**RAC-03  Packaged device holder**
- Accepts 4 1/2 in. wide socket card
- Used on REL-3200 or REL-4100 stations

**RAC-41  Die mount**
- Center hole (0.018 in.) allows vacuum mount of single die

**RAC-31  Socket card**
- Accepts 14 to 40 pin 3 5/8 in. wide DIP or ZIF sockets

**RAC-31/# Socket card with ZIF socket**
- # = pin numbers 14, 16, 24, 28, 36, 40

**RAC-30  Packaged device holder**
- Accepts 3 5/8 in. wide socket card
- Illustration shown is two-dimensional, front view
Microscope Accessories

101-454 Replacement halogen illuminator bulb
• Use with Olympus ZoomStereo (video ready), Mitutoyo Finescope and A-Zoom microscopes

106-763 A-Zoom Mitutoyo objective mount
• Used to secure Mitutoyo objectives to A-Zoom microscopes

108-791 Polarizer/analyzer for A-Zoom microscopes

106-762 Mitutoyo objective, 5X
• Working distance: 34 mm (0.14 N.A.)

Order Today!

Call 1-800-550-3279 or visit www.cascademicrotech.com/access
Order Information

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Theresa Snow
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Linda Jaffe
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Jody Hegenbarth
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