

GORE™ MICROWAVE TEST ASSEMBLIES FOR USE IN MAKING PRECISION ELECTRICAL MEASUREMENTS

Summary

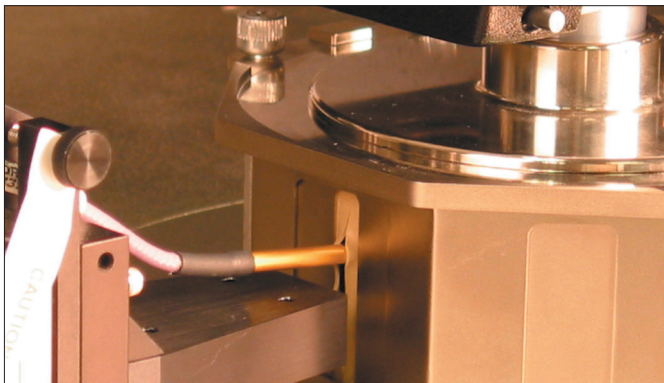
Cascade Microtech, Inc., has partnered with W. L. Gore and Associates to provide high performance assemblies for precision on-wafer measurements. Gore's 30 years of experience in providing high performance, high frequency assemblies is reflected in this latest generation of wafer probe assemblies. Featuring extended grounding ferrules, these assemblies complement Cascade's INFINITY PROBE™ and AIR COPLANAR™ probes, and are compatible with Cascade's MicroChamber® probe stations. Assemblies with broadband performance through 110 GHz are available.

Electrical Performance

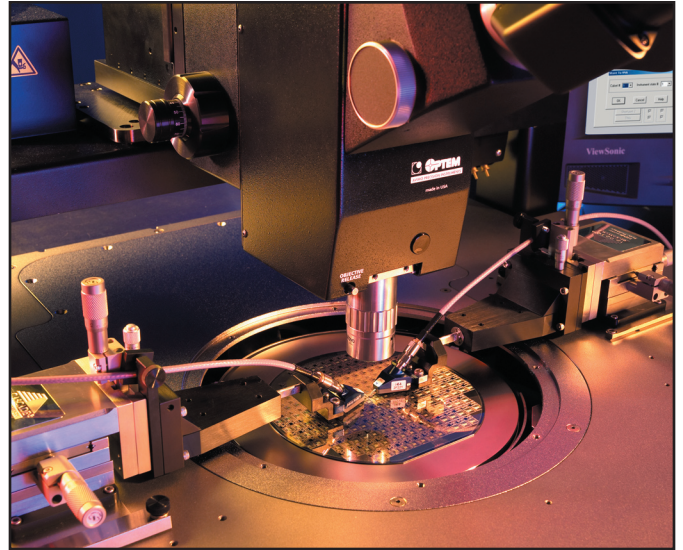
Gore's ePTFE dielectric offers low loss tangent, low coefficient of thermal expansion and low dielectric constant. As a result, over temperature GORE™ Assemblies are up to five times more stable than cables using full-density PTFE dielectric (see page 2), and provide highly stable and repeatable performance (see page 2). Stability with flexure is equally impressive. Stability and repeatability equate to increased measurement accuracy and precision. The electrically-conductive grounding ferrule works with the MicroChamber® top hat to improve shielding effectiveness and minimize light leakage, enhancing probe station performance.

Mechanical Performance

Extended ground ferrule connectors, available only on these GORE™ Assemblies, optimally balance the electrical and mechanical needs of all test set-ups, even those that utilize the MicroChamber® top hat. The low-profile design allows the probe heads to traverse their full range of motion without optical scope interference. Additionally, there is no need for costly adapters, which degrade electrical performance.



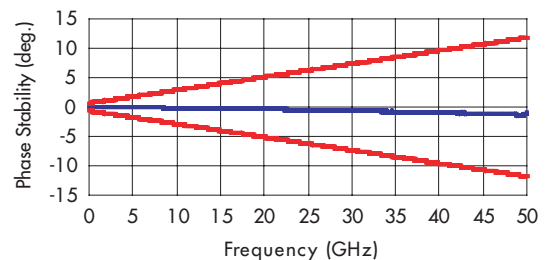
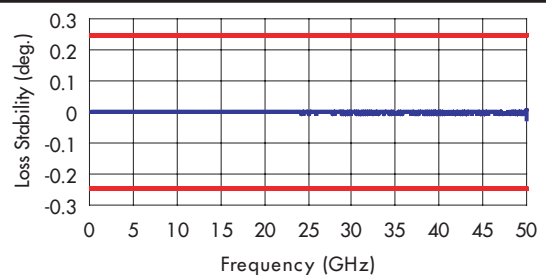
Extended ground ferrule cable exiting the MicroChamber® top hat.



Cascade Microtech provides complete, high performance on-wafer test solutions. Photo courtesy of Cascade Microtech, Inc.

Assemblies are individually serialized and 100% tested. A copy of the test data and the "GORE™ Microwave Assemblies Care and Handling" guide are provided. Standard assembly lengths are available from Cascade. Assemblies are also available in: phase/time-matched assemblies, custom lengths (3 inches minimum), and a full range of connectors.

Amplitude and Phase Stability with Flexure



W. L. Gore & Associates

North America:

1 (800) 445-4673

International:

1 (302) 292-5100

Europe:

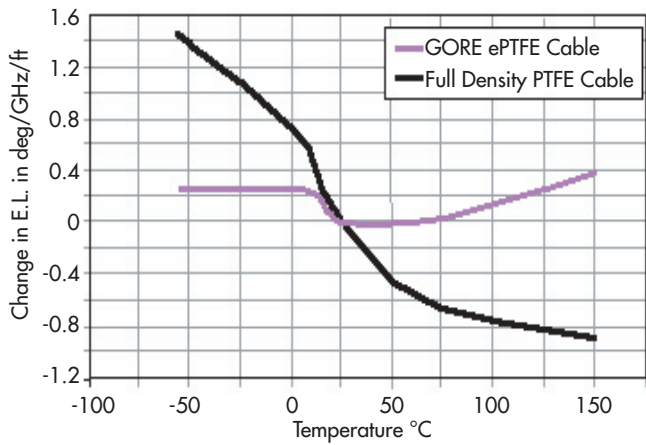
+49/91 44/6010

+44/1382-561511

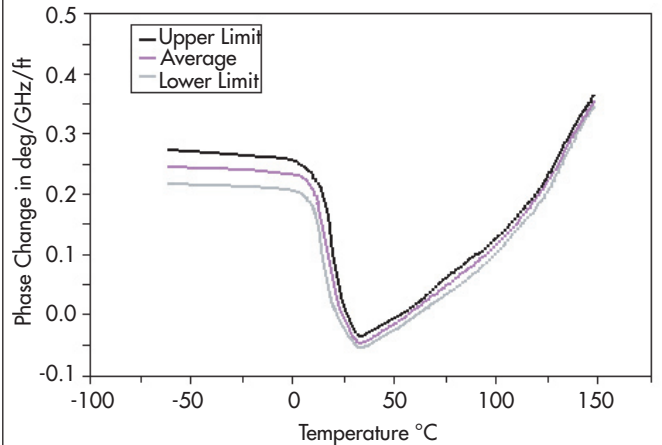
www.gore.com



Change in Electrical Length with Temperature

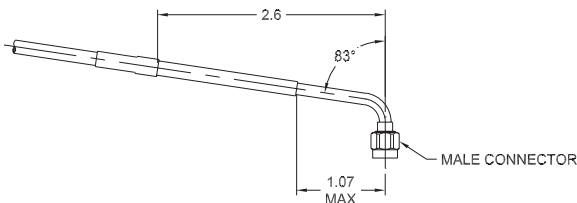
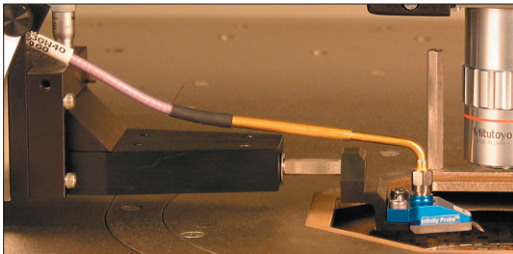


Phase Stability Over Temperature



Extended Grounding Ferrule- Vertical Launch Connector

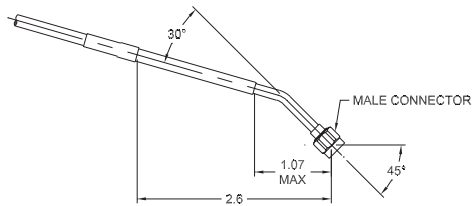
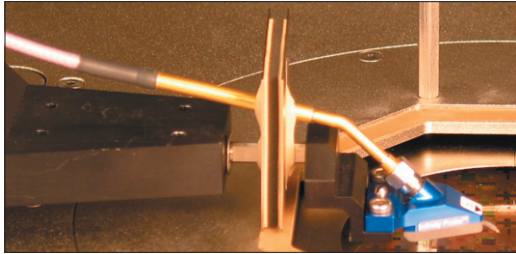
Compatible with MicroChamber® "top hat" assembly.
For use with Cascade Microtech probe stations:
Summit™ 11/12K, and S300.



Cascade part number	132-420	134-421	132-422
Frequency (GHz)	40	50	67
Probe body connector launch	90°	90°	90°
Connectors: DUT (pin)	2.92mm	2.4mm	1.85mm
Connectors: System (socket)	2.92mm	2.4mm	1.85mm
Assembly length	48in.	48in.	36in.
Insertion loss @ max. freq.	<4.26dB	<6.0dB	<6.85dB
VSWR @ max. frequency	<1.45:1	<1.45:1	<1.5:1
Stability: amplitude (typ)	±0.02dB	±0.03dB	±0.03dB
Stability: phase (typ)	±8°	±1°	±4°

Extended Grounding Ferrule- Angled Launch Connector

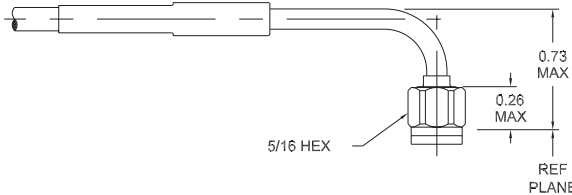
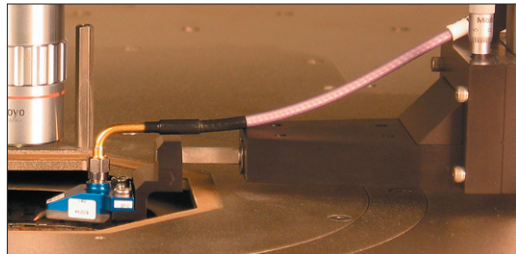
Compatible with MicroChamber® "top hat" assembly.
For use with Cascade Microtech probe stations:
Summit™ 11/12K, and S300.



Cascade part number	132-423	132-424	132-425
Frequency (GHz)	40	50	67
Probe body connector launch	45°	45°	45°
Connectors: DUT (pin)	2.92mm	2.4mm	1.85mm
Connectors: System (socket)	2.92mm	2.4mm	1.85mm
Assembly length	48in.	48in.	36in.
Insertion loss @ max. freq.	<4.26dB	<6.0dB	<6.85dB
VSWR @ max. frequency	<1.45:1	<1.45:1	<1.5:1
Stability: amplitude (typ)	±0.02dB	±0.03dB	±0.03dB
Stability: phase (typ)	±8°	±1°	±4°

Classic- Vertical Launch Connector

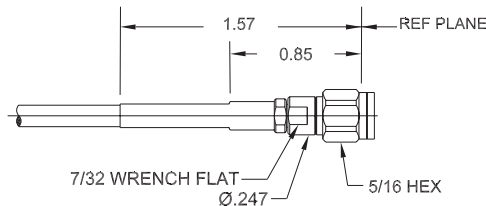
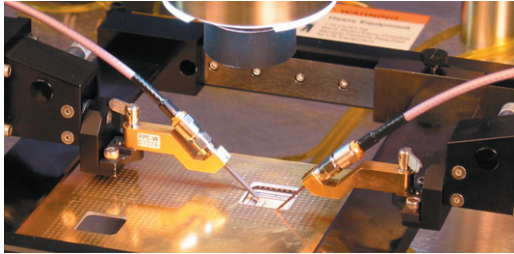
For use with Cascade Microtech probe station: RF-1,
Summit™ 9101, Summit™ 11K/12K, and S300. Not
compatible with MicroChamber® "top hat" assembly.



Cascade part number	101-162B	103-202B	124-605B
Frequency (GHz)	40	50	67
Probe body connector launch	90°	90°	90°
Connectors: DUT (pin)	2.92mm	2.4mm	1.85mm
Connectors: System (socket)	2.92mm	2.4mm	1.85mm
Assembly length	48in.	48in.	36in.
Insertion loss @ max. freq.	<4.26dB	<6.0dB	<6.85dB
VSWR @ max. frequency	<1.45:1	<1.45:1	<1.5:1
Stability: amplitude (typ)	±0.02dB	±0.03dB	±0.03dB
Stability: phase (typ)	±8°	±1°	±4°

Classic- Straight Launch Connector

For use with Cascade Microtech probe station: RF-1, Summit™ 9101, Summit™ 11K/12K, and S300. Not compatible with MicroChamber® "top hat" assembly.



Cascade part number	124084B	124085B	124606B	132-458
Frequency (GHz)	40	50	67	110*
Probe body connector launch	45°	45°	45°	45°
Connectors: DUT (pin)	2.92mm	2.4mm	1.85mm	1.0mm
Connectors: System (socket)	2.92mm	2.4mm	1.85mm	1.0mm
Assembly length	48in.	48in.	36in.	18cm
Insertion loss @ max. freq.	<4.26dB	<6.0dB	<6.85dB	<3.06dB
VSWR @ max. frequency	<1.45:1	<1.45:1	<1.5:1	<1.5:1
Stability: amplitude (typ)	±0.02dB	±0.03dB	±0.03dB	0.05dB
Stability: phase (typ)	±8°	±1°	±4°	4.3°

* Photo of 110 GHz assembly is not shown. Support tooling for 110 GHz assemblies is available, contact factory for details.

To order any of these assemblies please contact:

Cascade Microtech, Inc.
 Worldwide: (503) 601-1122
 US Only: 1-800-550-3279
 Fax: (503) 601-1002
 Email: sales@cmicro.com

Cascade Microtech Europe
 Phone: +44 1295-812828
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Cascade Microtech Japan
 Phone: 03 5478 6100
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 Email: sales@cmj.co.jp
 http://www.cmicro.com/jp



About W. L. Gore & Associates

Founded in 1958, W. L. Gore & Associates, Inc. has parlayed its unique technical capabilities into hundreds of diverse products and is world-renowned for its expertise in configuring the remarkably versatile polymer PTFE. This has resulted in numerous products for electronic signal transmission; fabric laminates; medical implants; as well as membrane, filtration, sealant, and fiber technologies for diverse industries. With sales in excess of \$1 billion, the company is headquartered in Delaware in the US and employs approximately 7,000 associates at 45 facilities throughout the world. Gore is one of only five companies included in every selection of Fortune Magazine's "100 Best Companies to Work For" since the list began in 1984. During the last two years, Gore has also been cited among the "Best Places to Work" in Germany, Italy and Scotland.

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