



Phaseflex®

110GHz TEST ASSEMBLIES

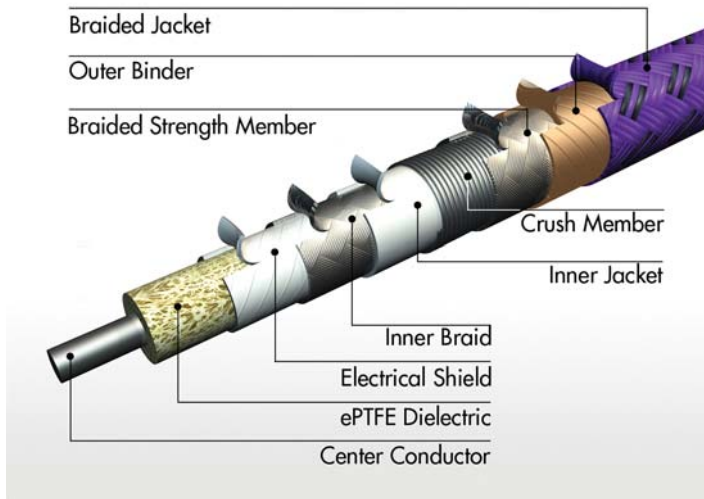
Summary

Gore now offers microwave test assemblies with performance to 110 GHz. GORE™ PHASEFLEX 110 GHz Test Assemblies are designed to optimize the performance of your test system while reducing your cost of test and ownership. The assemblies have been designed with the user in mind: they offer torque and crush resistance and stability with flexure and temperature, all while remaining very flexible.

MECHANICAL CHARACTERISTICS

Crush and torque resistance help ensure a long service life for your assemblies. GORE™ PHASEFLEX 110 GHz Test Assemblies are flexible with no springback allowing for easy test set-up and minimizing stress on devices under test, probe tips, and adapters. The assemblies can be flexed, reformed, or repositioned while virtually eliminating the chance of damaging the assembly or your test components. If a connector is damaged, it can typically be repaired for less than the price of a new assembly.

CABLE DESIGN



GORE™ PHASEFLEX 110 GHz Test Assemblies offer excellent phase stability and robustness.

FEATURES AND BENEFITS

- Performance through 110 GHz
- Low loss
- Crush and torque resistant
- Flexible and formable
- Phase and amplitude stable with flexure and temperature

SPECIFICATIONS

Impedance	50 ohms
Frequency Range	DC-110 GHz
Mating Cycles	500 minimum
Nominal Cable O.D.	0.167 in. (4.2 mm)
Coupling Torque	4 ±0.5 in-lb (45 ±5.4 N-cm)
Temperature Range	-55 to +125°C

CONNECTOR MATERIALS

Center Contact	Gold-plated BeCu
Bead	Ultem™
Body	Stainless steel 303, passivated
Coupling nut	Stainless steel 303, passivated



Phaseflex[®]

110GHz TEST ASSEMBLIES

STABILITY

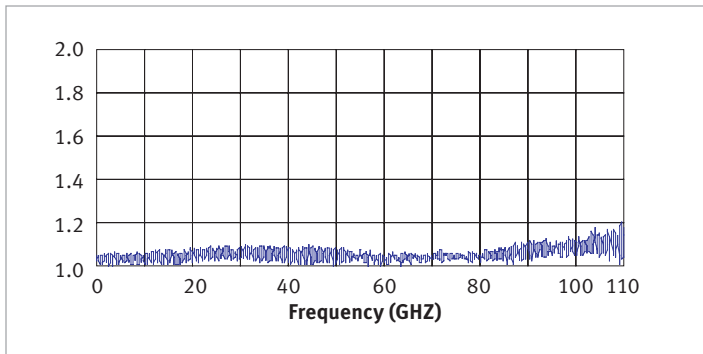
GORE™ PHASEFLEX 110 GHz Test Assemblies offer excellent stability with flexure and temperature. An assembly was bent 90 degrees around a 1 inch radius mandrel and there was only 4.3 degrees and 0.05 dB change at 110 GHz. When the assembly was returned to its original configuration, phase and amplitude returned to their original values. The assemblies also offer very low loss; typical insertion loss of a 16 cm assembly at 110 GHz is 2.1 dB.

ELECTRICAL PERFORMANCE

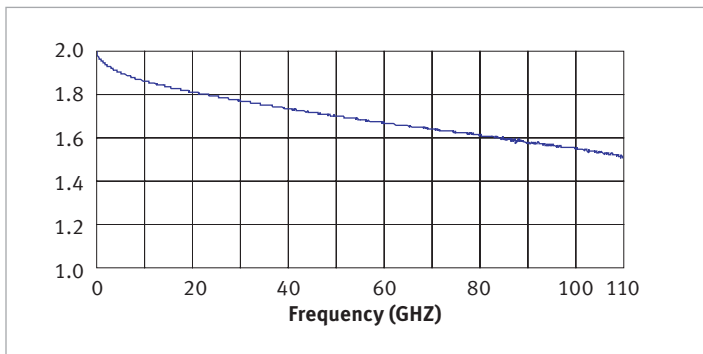
Length	Typical Loss	Guar. Loss	VSWR
10 cm	1.34 dB	1.74 dB	1.50:1
13 cm	1.74 dB	2.23 dB	1.50:1
16 cm	2.14 dB	2.74 dB	1.50:1
20 cm	2.67 dB	3.37 dB	1.50:1
24 cm	3.21 dB	4.03 dB	1.50:1

TYPICAL PERFORMANCE

Typical VSWR for a 18 cm assembly



Typical insertion loss for a 18 cm assembly



ULTEM is a trademark of General Electric Company.
TORLON is a trademark of E.I. du Pont de Nemours and Company, Inc.

W. L. Gore & Associates, Inc.

North America
1 (800) 445-GORE (4673)

Europe
+49 9144 6010
+44 1382 561511

International
1 (302) 292-5100

China: Beijing
+86 10 6510 2980

China: Shanghai
+86 21 6247 1999

China: Shenzhen
+86 755 8359 8262

gore.com

More international phone numbers can be found at gore.com/phone

Japan
+81 33 570 8712

Korea
+82 2 393-3411

Taiwan
+886 2 8771 7799

Singapore
+65 6 733 2882



ORDERING INFORMATION

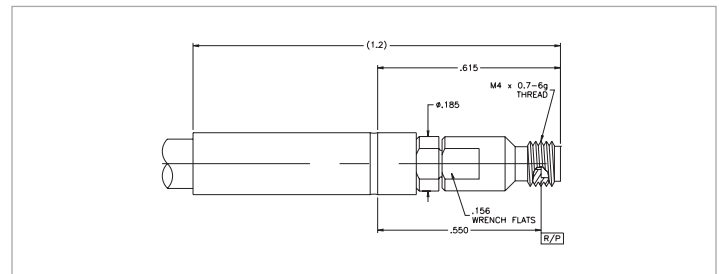
Part numbers for GORE™ PHASEFLEX 110 GHz Test Assemblies consists of 12 alphanumeric characters. The length of 110 GHz assemblies are measured in centimeters.

Select the cable type (CX). Characters 3, 4, and 5 define connector “A”. Characters 6, 7, and 8 define connector “B”. Connector options are OAB or OAA. Select the length of the assembly. Character 9 is “C” for centimeters. Characters 10, 11 and 12 define the assembly length in centimeters.

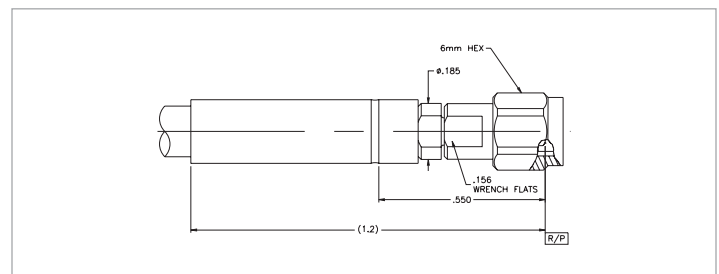
C X	3 4 5	6 7 8	C 10 11 . 12
Cable Type	Connector A	Connector B	Assembly Length

CONNECTOR DRAWINGS

1.0 mm Straight Socket, Connector Part Number: OAA



1.0 mm Straight Pin, Connector Part Number: OAB



SUPPORT TOOLING

Part Number	Description
100-123-0660	Digital contact height gage for 1.0mm pin contact
100-123-0661	Digital contact height gage for 1.0mm pin contact
100-123-0662	Break-away torque wrench for 6mm hex, preset at 4 ±0.5 lbf-in.
100-123-0663	Support wrench, 5/32" open end

GORE and designs are trademarks of W. L. Gore & Associates, Inc. ©2006 W. L. Gore & Associates, Inc.