

Laboratory RF/Microwave Test Cables

For Network Analyzer and Precision Lab Testing

Semflex Laboratory RF/ Microwave test cables are intended for precision lab test applications and combine the highest performance and long life span at an affordable price. Ultra-flexible HP160 ULTRAFLEX cables and hot molded rubber boots help control breakage under constant flexing of the laboratory environment. Available in standard 18" and 24" lengths or as custom made to any length.

Features

- Uses SUPER FLEXIBLE HP160 ULTRAFLEX cable
- Low insertion loss & VSWR
- Available with SMA and 2.9mm straight, male and female
- Heavy duty hot molded rubber strain relief boots
- Phase matching available for use as network analyzer cables
- High stability, high repeatability
- Up to 40 GHz operation
- Stainless steel connectors designed to MIL-C-39012 specs

Benefits and Applications

- Phase matching option of $\pm 1\%$ GHz
- Up to 10 pcs phase matching quantity
- For use as network analyzer cables or other test and production applications requiring phase matching



Specifications

Frequency	SMA	26GHz max.
	2.92mm	40GHz max.
Insertion Loss 18" Length	SMA @ 26GHz	1.6dB max.
	2.92mm @ 40GHz	2.6dB max.
Insertion Loss 24" Length	SMA @ 26GHz	2.1dB max.
	2.92mm @ 40GHz	2.6dB max.
VSWR	8 GHz	1.10:1
	18 GHz	1.20:1
	26 GHz	1.25:1
	40 GHz	1.40:1 (2.92mm only)
Phase Matching	±1°/GHz	
Shielding	90dB min. 1-18 GHz	
Bend Radius	0.90" min.	
Operating Temperature	-65°C ~ 85°C	

Insertion Loss Calculator

Cable Insertion Loss, dB/ in @ Freq (GHz) =

IL = Cable Loss + Connector Loss + Connector Loss

Cable Loss, dB/ in @ Freq (GHz) =

$L \times [(k1 \times \sqrt{F}) + (k2 \times F)] / 1200$

Connector Loss, dB @ Freq (GHz) =

$k3 \times \sqrt{F}$

IL = Insertion Loss (dB)

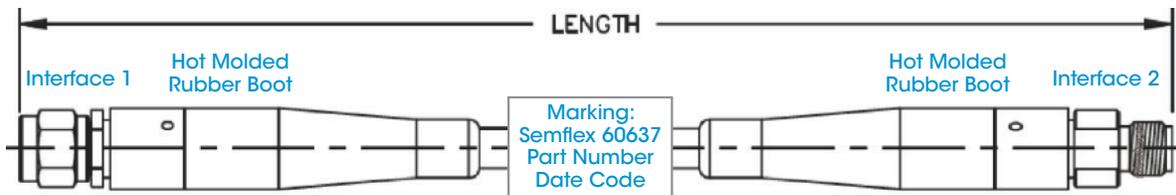
L = Length (in)

F = Frequency (GHz)

Cable Constants	HPT160 Ultraflex
Max, Freq. GHz	40
k1	14.07
k2	0.53

Connector Constants, k3	
2.92mm, SMA	0.03

Construction and Length Definition



For more information on how to order the HPT Series Cable Assembly, visit belfuse.com/product-detail/semflex.

Cinch Connectivity Solutions reserves the right to change specifications without notice.



Asia Pacific
+86 21 5442 7668
ccs.asia.sales@as.cinch.com

Europe, Middle East & Africa
+44 (0) 1245 342060
CinchConnectivity@eu.cinch.com

North America
+1 507.833.8822
ccsorders@us.cinch.com

belfuse.com/cinch