

# **Armored Test Cable**

### DC to 40 GHz Phase Stable

#### Maximum Ratings

maximum mating	3			
Operating Temperature	-55°C to +85°C			
Storage Temperature	-55°C to +85°C			
Power Handling at 25°C,	39W	at	2 GHz	
Sea Level	10W	at	18 GHz	
	6W	at 2	26.5 GHz	
	3.5W	at	40 GHz	
Coupling Nut Torque		1	.09 N·M	
Permanent damage may occur if any of these limits are exceeded.				

#### **Features**

- · outstanding phase stability
- · extra rugged construction includes protective shield and strain relief for longer life
- stainless steel 40 GHz connector for long mating-cycle life
- double shield cable for excellent shielding effectiveness
- 40 GHz connector mates with 2.92 mm, K\*, 3.5mm, SMA

#### **Applications**

- military and defense applications
- research & development labs

## **KBL-4FT-PHS+**



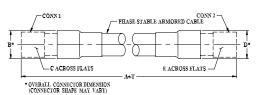
CASE STYLE: MB1629-4

Connectors	Model
2.92mm Male	KBL-4FT-PHS+

#### +RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

#### **Outline Drawing**



#### Outline Dimensions (inch )

	A	В	С	D	E		T	wt
Feet	Meters	.36	.312	.36	.312	Inch	mm	grams
4.00	1.22	9.14	7.92	9.14	7.92	+.96/-0	+24.4/-0	113

**Cable Construction** 

Dielectric: PTFE

FEP Internal Jacket Stainless Steel Spiral Armor Stainless Steel Braid Blue PVC External Jacket

Center Conductor: Solid Silver Plated Copper Clad Stee

Inner Braid: Spiral Strip of Silver Plated Copper Strip Outer Conductor: Round Silver Plated Copper

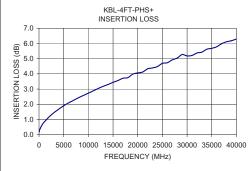
#### Electrical Specifications at 25°C

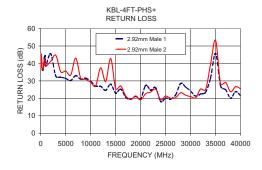
Parameter	Condition (GHz)	Min.	Тур.	Max.	Units	
Frequency Range		DC		40	GHz	
Length			4		FT	
	DC - 6	_	2.24	2.6	-ID	
Insertion Loss	6 - 18	_	3.91	4.9		
	18 - 26.5	_	5.15	6.1	dB	
	26.5 - 40	_	6.41	7.7	1	
	DC - 6	17	30	_	dB	
Return Loss	6 - 18	17	19	_		
	18 - 26.5	14	18	_	uБ	
	26.5 - 40	14	17	_	-	
Phase Change with Flexure**	DC - 6	_	0.5	_	Degree	
	6 - 18	_	1.0	_		
	18 - 26.5	_	2.0	_		
	26.5 - 40	_	3.0	_		

<sup>\*</sup>K Connector is a trademark of Anritsu

#### **Typical Performance Data**

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		MALE 1 MALE	
50.0	0.17	37.9	37.7
2000.0	1.16	45.5	41.2
4000.0	1.68	32.2	35.2
6000.0	2.09	30.3	33.3
10000.0	2.73	29.7	29.2
15000.0	3.44	23.0	25.5
18000.0	3.75	19.5	19.5
20000.0	4.06	19.8	19.2
26000.0	4.73	19.7	20.0
28000.0	5.04	28.5	23.2
30000.0	5.18	24.1	21.0
32000.0	5.37	22.5	25.4
36000.0	5.78	27.0	28.2
38000.0	6.11	20.1	23.8
40000.0	6.29	21.6	25.5





#### **Product Guarantee**

Mini-Circuits® will repair or replace your test cable at its option if the connector attachment fails within  $\underline{six}$ months of shipment. This guarantee excludes cable or connector interface damage from misuse or abuse.

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.

  B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.

  C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

<sup>\*\*</sup>Phase change versus flexure with cable 360° about a 3 inch mandrel