



# Armored Test Cable

50Ω 1M DC to 40 GHz Phase Stable

## KBL-1M-PHS+



CASE STYLE: MB1629-3.28

### Maximum Ratings

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 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

Connectors	Model	Price	Qty.
2.92mm Male	KBL-1M-PHS+	\$160.95 ea.	(1-9)

### +RoHS Compliant

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

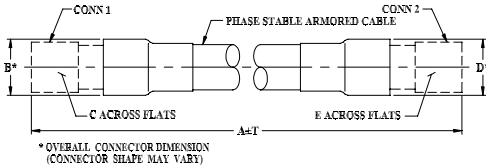
### Electrical Specifications at 25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		40	GHz
Length			1		M
Insertion Loss	DC - 6	—	1.93	2.15	dB
	6 - 18	—	3.53	3.65	
	18 - 26.5	—	4.41	4.75	
	26.5 - 40	—	5.65	6.15	
Return Loss	DC - 6	17	30	—	dB
	6 - 18	17	21	—	
	18 - 26.5	14	19	—	
	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	—	

\*K Connector is a trademark of Anritsu

\*\*Phase change versus flexure with cable 360° about a 3 inch mandrel

### Outline Drawing

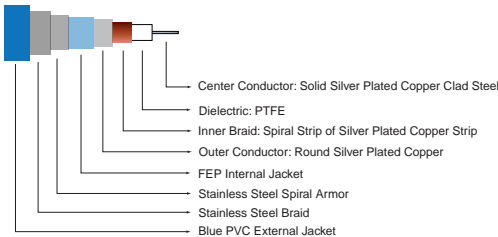


\* OVERALL CONNECTOR DIMENSION (CONNECTOR SHAPE MAY VARY)

### Outline Dimensions (inch mm)

A	B	C	D	E	T	wt
Feet	Meters	.36	.312	.36	.312	Inch mm grams
3.28	1.00	9.14	7.92	9.14	7.92	+79/-0 +20.0/-0 97

### Cable Construction



### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		MALE 1	MALE 2
50.0	0.07	35.0	34.7
2000.0	0.91	45.5	40.5
4000.0	1.31	43.4	39.4
6000.0	1.64	44.7	45.4
10000.0	2.17	34.8	34.1
15000.0	2.72	27.9	36.3
18000.0	3.02	24.1	27.9
20000.0	3.24	24.1	29.5
26000.0	3.80	25.3	25.2
28000.0	3.99	22.4	24.7
30000.0	4.16	28.3	23.5
32000.0	4.35	22.0	21.3
36000.0	4.66	27.4	21.3
38000.0	4.84	32.3	19.6
40000.0	4.98	26.4	20.8

### Product Guarantee

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

### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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](http://www.minicircuits.com/MCLStore/terms.jsp)

