

# Test Cable

50Ω 1M DC to 18 GHz

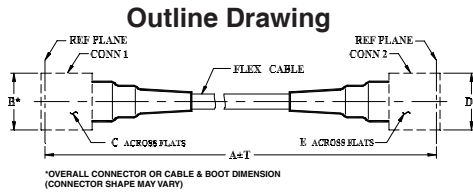
## CBL-1M-SMSM+



### Maximum Ratings

Operating Temperature	-55°C to 105°C
Storage Temperature	-55°C to 105°C
Permanent damage may occur if any of these limits are exceeded.	

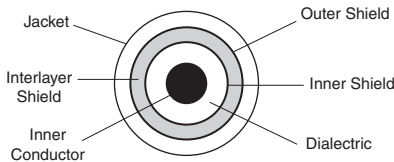
Shielding Effectiveness	>100 dB
Power Handling at 25°C	891W Max. at 0.4 GHz
	539W Max. at 1 GHz
	363W Max. at 2 GHz
	180W Max. at 6 GHz
	117W Max. at 12 GHz
	88W Max. at 18 GHz
Jacket	Blue FEP



### Outline Dimensions (inch/mm)

A	B	C	D	E	T	wt		
Feet	Meters				Feet	Meters	grams	
3.28	1.00	0.42	0.312	0.42	0.312	0.1	0.03	92

### Cable Cross Section



Cable Construction	
Inner Conductor	Solid Silver Plated Copper Clad Steel
Dielectric	Solid PTFE
Shield	Silver-Plated Copper Flat Ribbon Braid Aluminum-Polyimide Tape Interlayer 36 GA Silver-Plated Copper Braid (90%k)
Jacket	Blue FEP
Connectors	
<ul style="list-style-type: none"> <li>passivated stainless steel</li> <li>captive contact</li> <li>thick wall interface (SMA)</li> <li>gold plated beryllium copper center contacts</li> <li>PTFE dielectric</li> </ul>	

### 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/WCLStore/terms.jsp](http://www.minicircuits.com/WCLStore/terms.jsp)

### Features

- RoHS compliant
- wideband coverage, DC to 18 GHz
- extra rugged construction with strain relief for longer life
- stainless steel SMA connectors for long mating-cycle life
- useful over temperature range, -55°C to 105°C
- triple shield cable for excellent shielding effectiveness
- flexible for easy connection & bend radius
- superior stability of insertion loss, VSWR & phase vs. flexing
- 6 month guarantee\*

### Applications

- high volume production test stations
- research & development labs
- environmental & temperature test chambers
- replacement for OEM test port cables
- field RF testing
- cellular infrastructure site testing

CASE STYLE: GM1006-3.28

Connectors	Model
Conn1 SMA-MALE	Conn2 SMA-MALE
CBL-1M-SMSM+	

### +RoHS Compliant

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

### Electrical Specifications at 25°C

FREQ. (GHz)	LENGTH (M)	INSERTION LOSS (dB)				RETURN LOSS (dB)											
		DC-2.5 GHz	2.5-6 GHz	6-12 GHz	12-18 GHz	DC-2.5 GHz	2.5-6 GHz	6-12 GHz	12-18 GHz								
$f_L-f_U$		Typ. Max.	Typ. Max.	Typ. Max.	Typ. Max.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.								
DC-18	1	0.7	0.8	1.1	1.4	1.6	2.1	2.0	2.6	30	23	30	20	27	17	27	17

Custom sizes available, consult factory.

### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		SMA-MALE	SMA-MALE
0.30	0.00	55.69	59.07
100.00	0.12	45.16	44.94
1000.00	0.41	44.44	44.78
2000.00	0.59	37.01	34.29
2500.00	0.67	36.60	33.40
3000.00	0.74	36.22	35.43
4000.00	0.87	45.15	54.80
5000.00	0.99	33.47	32.11
6000.00	1.10	36.12	33.68
8000.00	1.31	30.12	28.65
10000.00	1.51	28.54	28.47
12000.00	1.68	26.11	25.72
14000.00	1.82	29.84	28.46
16000.00	1.99	28.23	25.40
18000.00	2.09	38.61	33.21

