

# FLEX TEST Quick-Connect Test Cable

50Ω 6FT DC to 18 GHz

## CBL6NMQ-NM+



### 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

### Features

- RoHS compliant
- wideband coverage, DC to 18 GHz
- extra rugged construction with strain relief for longer life
- stainless steel N-Male 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

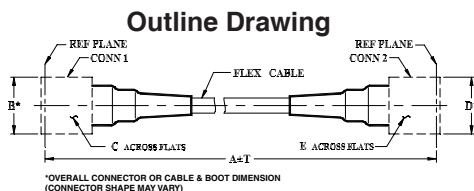
- high volume production test stations
- research & development labs
- environmental & temperature test chambers
- replacement for OEM test port cables
- field RF testing
- cellular infrastructure site testing

CASE STYLE: GM1106-6

Connectors	Model
Conn1 N-MALE**	Conn2 N-MALE CBL6NMQ-NM+

### +RoHS Compliant

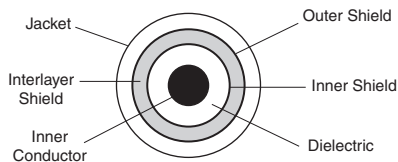
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications



### Outline Dimensions (inch/mm)

A	B	C	D	E	T	wt
Feet	Meters	Feet	Meters	Feet	Meters	grams
6	1.83	22.35	19.05	22.35	19.05	0.18
						0.05
						215

### 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)

### Electrical Specifications at 25°C

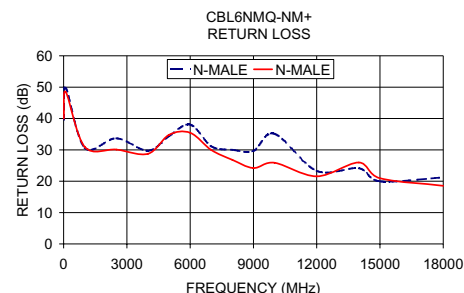
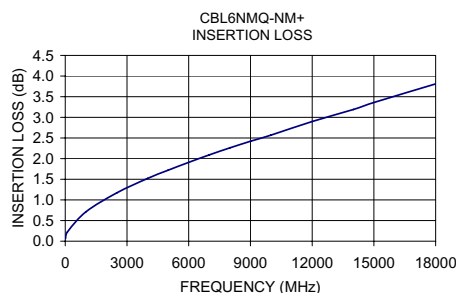
FREQ. (GHz)	LENGTH (FT)	INSERTION LOSS (dB)								RETURN LOSS (dB)							
		DC-2.5 GHz		2.5-6 GHz		6-12 GHz		12-18 GHz		DC-2.5 GHz		2.5-6 GHz		6-12 GHz		12-18 GHz	
		Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
f <sub>L</sub> -f <sub>U</sub>																	
DC-18	6	1.2	1.4	2.0	2.4	3.0	3.55	3.8	4.6	30	23	30	20	27	17	22	17

Custom sizes available, consult factory.

\*\* Quick-turn connector, 1½T to mate on one side only (marking: 1T)

### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		N-MALE	N-MALE
10.00	0.06	39.61	39.95
100.00	0.22	49.72	48.44
1000.00	0.71	30.66	30.97
2500.00	1.17	33.70	30.08
4000.00	1.52	29.75	28.75
5000.00	1.72	34.39	34.80
6000.00	1.91	38.06	35.45
7000.00	2.09	31.15	29.96
8000.00	2.26	30.03	26.80
9000.00	2.42	29.66	24.21
10000.00	2.57	35.13	25.90
12000.00	2.90	23.31	21.56
14000.00	3.19	24.14	25.96
15000.00	3.36	19.98	20.94
18000.00	3.81	21.20	18.54



# Test Cable, N-Male/N-Male

# CBL6NMQ-NM+

## Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	N-MALE 1 RETURN LOSS (dB)	N-MALE 2 RETURN LOSS (dB)
10	0.06	39.61	39.95
50	0.13	52.72	54.72
100	0.22	49.72	48.44
200	0.31	43.76	46.65
300	0.38	40.26	40.23
400	0.44	36.77	37.28
500	0.50	52.16	47.60
600	0.55	34.81	35.44
700	0.59	33.10	33.58
800	0.63	40.34	40.85
900	0.67	34.76	35.11
1000	0.71	30.66	30.97
1500	0.88	41.21	39.13
2000	1.04	28.57	27.97
2500	1.17	33.70	30.08
3000	1.29	28.53	27.32
3500	1.41	34.26	30.53
4000	1.52	29.75	28.75
4500	1.62	38.21	35.27
5000	1.72	34.39	34.80
5500	1.81	37.67	34.49
6000	1.91	38.06	35.45
6500	2.00	34.54	33.05
7000	2.09	31.15	29.96
7500	2.17	42.26	32.29
8000	2.26	30.03	26.80
8500	2.34	36.08	26.82
9000	2.42	29.66	24.21
9500	2.49	28.44	24.84
10000	2.57	35.13	25.90
10500	2.65	27.42	24.17
11000	2.73	26.04	22.53
11500	2.81	43.12	24.81
12000	2.90	23.31	21.56
12500	2.98	23.65	21.23
13000	3.03	30.75	28.55
13500	3.15	20.12	20.03
14000	3.19	24.14	25.96
14500	3.27	22.79	24.44
15000	3.36	19.98	20.94
15500	3.40	26.13	35.49
16000	3.50	21.87	23.95
16500	3.57	22.37	24.98
17000	3.62	29.80	25.89
17500	3.71	26.51	29.62
18000	3.81	21.20	18.54

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CBL6NMQ-NM+  
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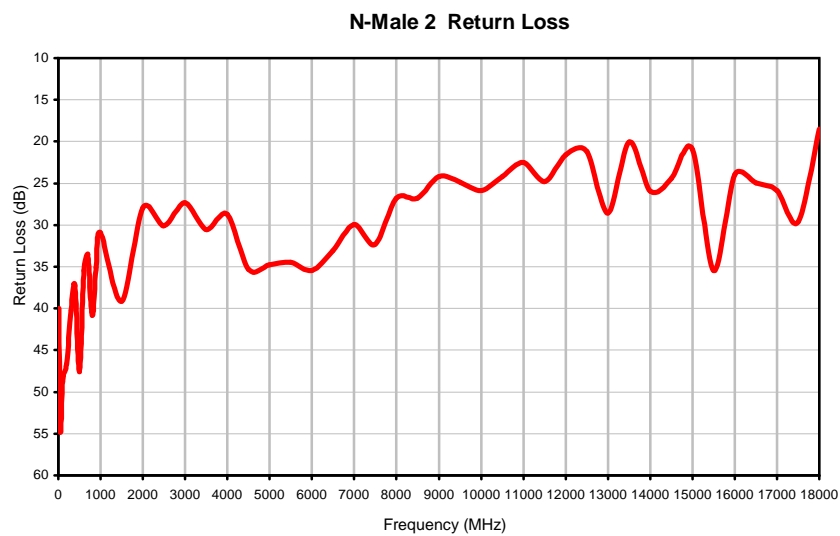
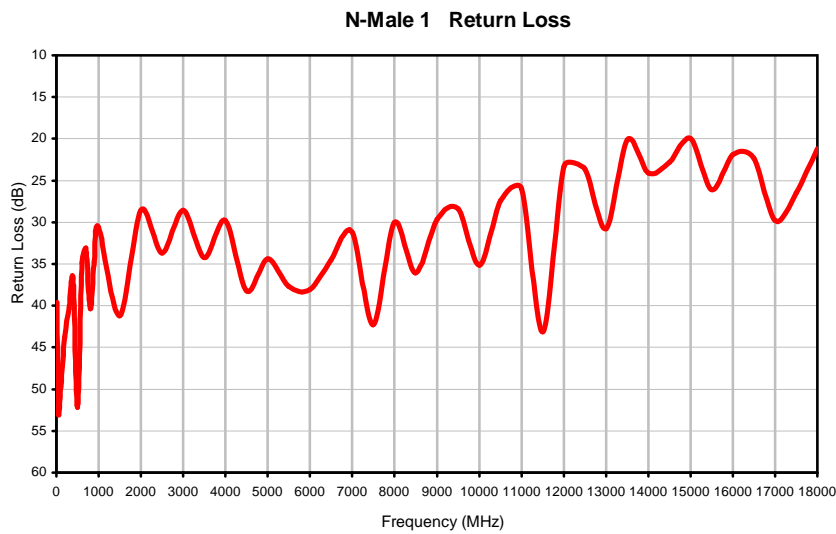
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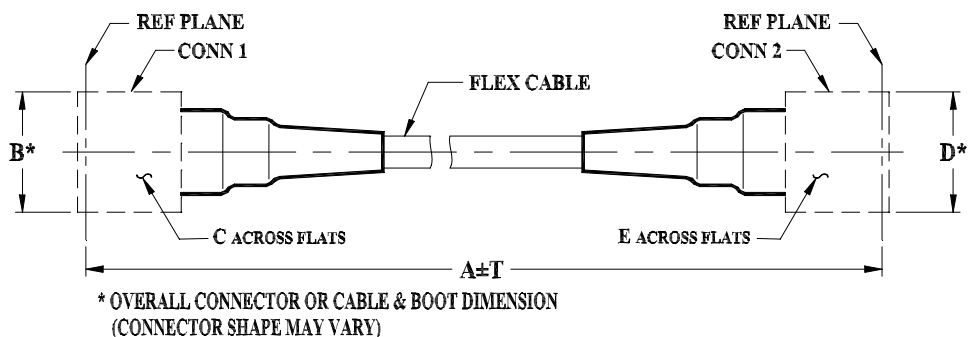
The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



## Typical Performance Curves



### Outline Dimensions



GM1106 SERIES  
N MALE (CONN-1)  
N MALE (CONN-2)

CASE STYLE #	A		B	C	D	E	T		WEIGHT GRAMS
	FEET	METERS					FEET	METERS	
GM1106-1	1.00	.30	.88 (22.35)	.750 (19.05)	.88 (22.35)	.750 (19.05)	.06	.02	117
GM1106-1.5	1.50	.46					.06	.02	127
GM1106-1.64	1.64	.50					.06	.02	129
GM1106-2	2.00	.61					.06	.02	137
GM1106-3	3.00	.91					.09	.03	156
GM1106-3.28	3.28	1.00					.10	.03	161
GM1106-4	4.00	1.22					.12	.04	176
GM1106-4.92	4.92	1.50					.15	.05	193
GM1106-5	5.00	1.52					.15	.05	195
GM1106-6	6.00	1.83					.18	.05	215
GM1106-6.56	6.56	2.00					.20	.06	225
GM1106-7	7.00	2.13					.21	.06	221
GM1106-7.5	7.50	2.29					.23	.07	244
GM1106-8	8.00	2.44					.24	.07	240
GM1106-9	9.00	2.74					.27	.08	273
GM1106-9.84	9.84	3.00					.30	.09	289
GM1106-10	10.00	3.05					.30	.09	293
GM1106-12	12.00	3.66					.36	.11	332
GM1106-13.1	13.12	4.00					.39	.12	353
GM1106-15	15.00	4.57					.45	.14	390
GM1106-16.4	16.40	5.00	.49	.15	417				
GM1106-20	20.00	6.10	.60	.18	488				
GM1106-25	25.00	7.62	.75	.23	585				
GM1106-30	30.00	9.14	.90	.27	683				
GM1106-50	50.00	15.24	1.50	.46	1073				
GM1106-131	131.23	40.00	3.94	1.20	2656				

Unless otherwise specified dimensions are in inches (mm).

Tolerances: 2Pl. ±.03; 3Pl. ±.015

**Note:**

1. Flexible Coaxial Cable.



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Mini-Circuits ISO 9001 & ISO 14001 Certified



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 105°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 105°C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 105°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except -105°C
Mechanical Flexing	20,000 cycles During each cycle, cable flexed from 90° through 0° to -90° and back with a Radii of 3 inches	- - -