

Interconnect Cable

50Ω 1M DC to 18 GHz

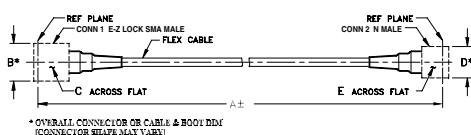
QBL1MSMQ-NM+

Maximum Ratings

Operating Temperature	-55°C to 105°C
Storage Temperature	-55°C to 105°C
Power Handling at 25°C, Sea Level	270W at 1 GHz 180W at 2 GHz 120W at 4 GHz 62W at 12 GHz 47W at 18 GHz

Permanent damage may occur if any of these limits are exceeded.

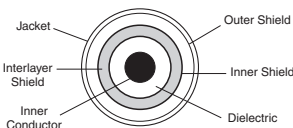
Outline Drawing



Outline Dimensions (inch/mm)

	A	B	C	D	E	T	wt
Feet	3.28	1.00	10.92	0.43	0.85	0.787	grams
Meters				21.59	19.99	+0.79/-0	+20/-0

Cable Cross Section



Cable Construction

Inner Conductor	Solid Silver Plated Copper
Dielectric	Solid PTFE
Shield	Silver-Plated Copper tape under Silver-Plated Copper Braid
Jacket	Blue FEP

Connectors (N)

- passivated stainless steel (coupling nut)
- captive contact
- gold plated brass center contacts
- PTFE dielectric

E-Z Lock SMA

- body & outer contact: gold-plated brass
- center contact: gold-plated CuBe
- PTFE dielectric
- clamping piece: white bronze plated brass
- sleeve: POM

sliding locking sleeve, retracted to the open position



locking sleeve closed and in locked position, securing the SMA connection



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.

Features

- E-Z Lock connector on one end for easy mating & demating
- extra rugged construction with strain relief for longer life
- stainless steel N connector for long mating-cycle life
- useful over temperature range, -55°C to 105°C
- double shield cable for excellent shielding effectiveness
- flexible for easy connection & bend
- excellent stability of insertion loss, VSWR & phase after thousands of flex cycles
- 6 month guarantee*

Applications

- dense RF connect
- commercial and military systems to 18 GHz
- multi-port telecom systems



CASE STYLE: GM1530-3.28

Connectors	Model	Price	Qty.
Conn1 SMA-Male E-Z Lock	Conn2 N-Male	QBL1MSMQ-NM+	Contact Sales Dept

+RoHS Compliant

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

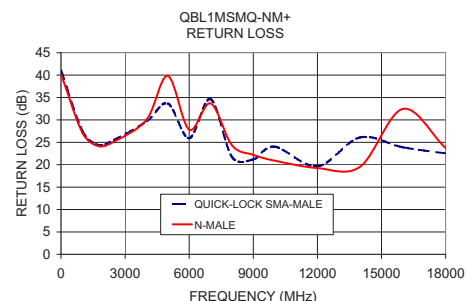
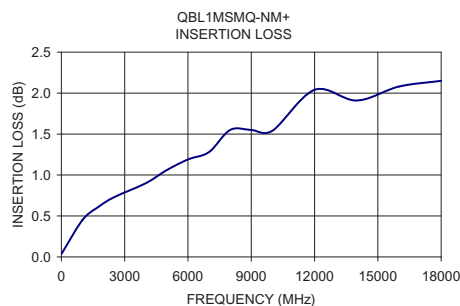
Electrical Specifications at 25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		18	GHz
Length			1		M
Insertion Loss	DC - 2	—	0.4	1.0	
	2 - 6	—	0.8	1.8	
	6 - 12	—	1.4	2.5	dB
	12 - 18	—	1.8	2.9	
Return Loss	DC - 2	20	38	—	
	2 - 6	20	30	—	
	6 - 12	13.5	29	—	dB
	12 - 18	13.5	25	—	

Custom sizes available, consult factory.

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
		E-Z Lock SMA-M N-MALE
10.0	0.04	41.0 40.1
1000.0	0.45	27.5 27.2
1750.0	0.61	24.4 24.2
2500.0	0.73	25.6 25.2
4000.0	0.90	29.7 30.1
5000.0	1.06	33.7 39.8
6000.0	1.19	25.9 27.8
7000.0	1.28	34.6 33.7
8000.0	1.55	21.8 24.4
9000.0	1.55	21.2 22.2
10000.0	1.54	24.0 20.9
12000.0	2.04	19.7 19.3
14000.0	1.91	26.1 19.6
16000.0	2.08	23.9 32.5
18000.0	2.15	22.5 23.7

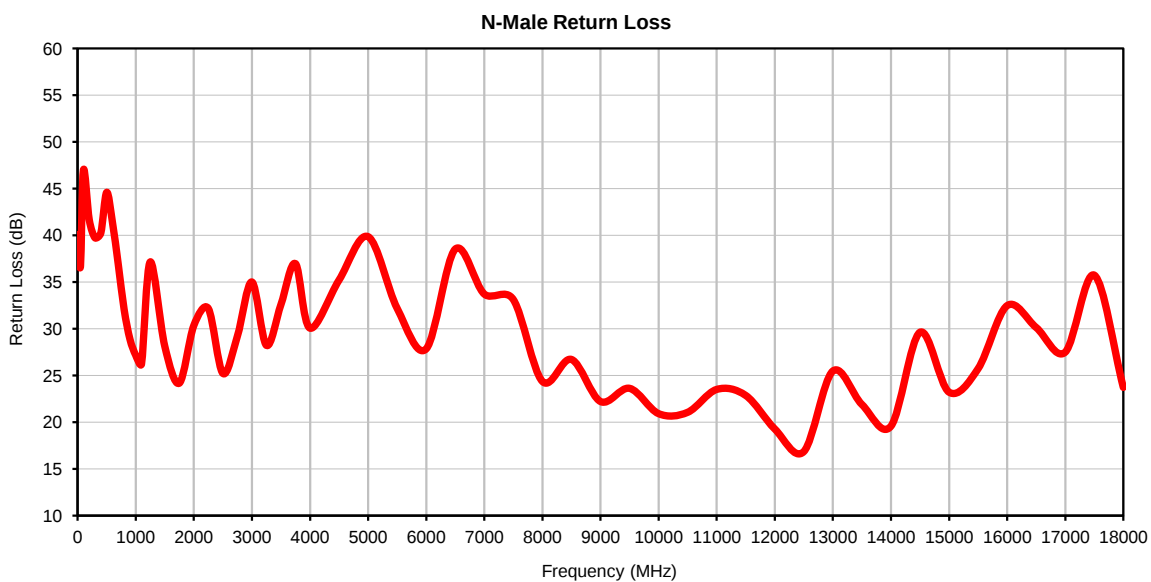
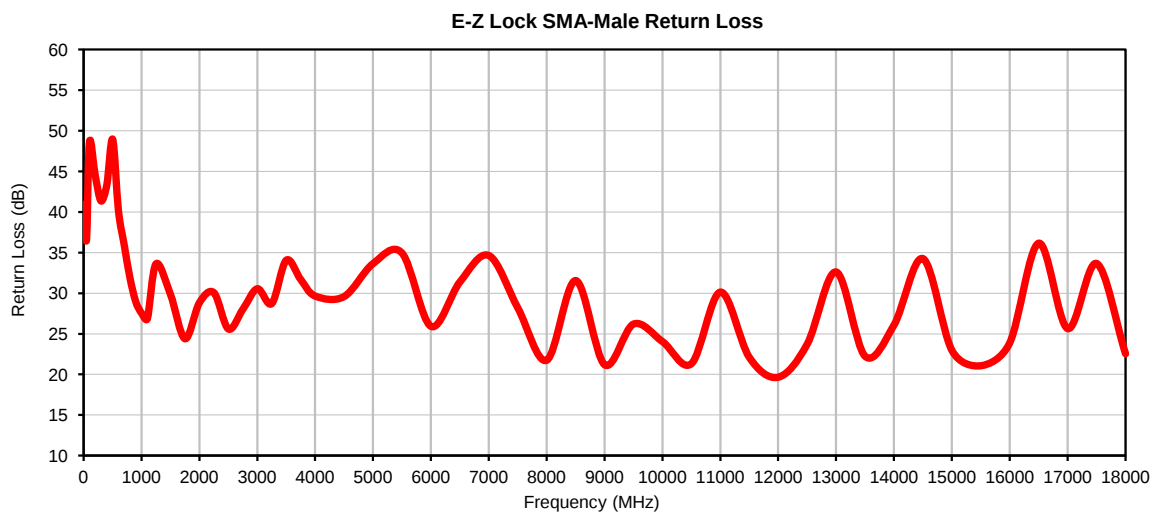
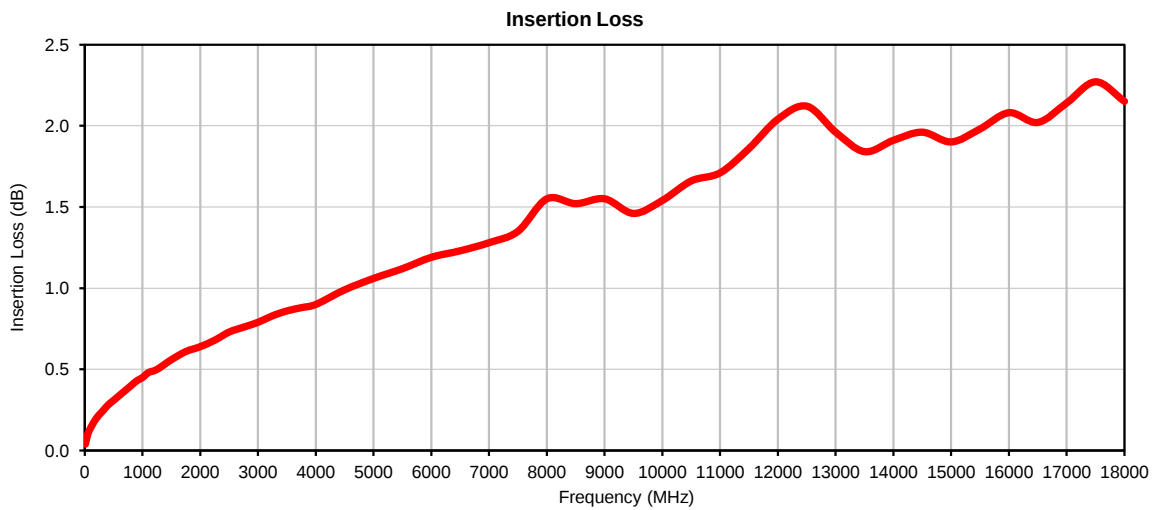


Notes

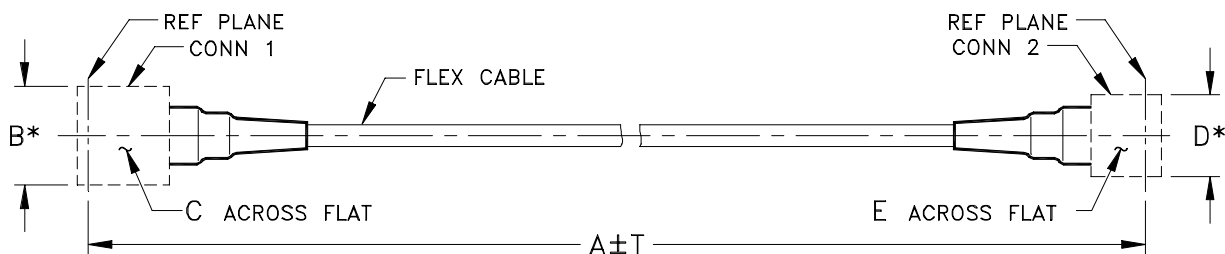
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FREQUENCY (MHz)	INSERTION LOSS (dB)	E-Z Lock SMA-MALE RETURN LOSS (dB)	N-MALE RETURN LOSS (dB)
10.0	0.04	41.0	40.1
50.0	0.10	36.6	36.7
100.0	0.14	48.6	47.0
200.0	0.20	44.5	41.7
300.0	0.24	41.4	39.7
400.0	0.28	43.4	40.3
500.0	0.31	49.0	44.6
600.0	0.34	40.2	41.4
700.0	0.37	35.9	36.9
800.0	0.40	31.9	32.1
900.0	0.43	28.9	28.9
1000.0	0.45	27.5	27.2
1100.0	0.48	26.9	26.2
1250.0	0.50	33.6	37.1
1500.0	0.56	29.8	28.1
1750.0	0.61	24.4	24.2
2000.0	0.64	28.8	30.3
2250.0	0.68	30.1	32.2
2500.0	0.73	25.6	25.2
2750.0	0.76	28.0	29.2
3000.0	0.79	30.6	35.0
3250.0	0.83	28.7	28.2
3500.0	0.86	34.1	32.6
3750.0	0.88	31.7	37.0
4000.0	0.90	29.7	30.1
4500.0	0.99	29.6	35.2
5000.0	1.06	33.7	39.8
5500.0	1.12	34.9	32.2
6000.0	1.19	25.9	27.8
6500.0	1.23	31.4	38.5
7000.0	1.28	34.6	33.7
7500.0	1.35	28.2	33.1
8000.0	1.55	21.8	24.4
8500.0	1.52	31.6	26.7
9000.0	1.55	21.2	22.2
9500.0	1.46	26.2	23.6
10000.0	1.54	24.0	20.9
10500.0	1.66	21.3	21.0
11000.0	1.71	30.1	23.5
11500.0	1.86	22.1	22.9
12000.0	2.04	19.7	19.3
12500.0	2.12	23.7	16.8
13000.0	1.96	32.6	25.5
13500.0	1.84	22.2	21.9
14000.0	1.91	26.1	19.6
14500.0	1.96	34.3	29.6
15000.0	1.90	23.0	23.2
15500.0	1.98	21.1	25.7
16000.0	2.08	23.9	32.5
16500.0	2.02	36.2	30.1
17000.0	2.14	25.6	27.5
17500.0	2.27	33.7	35.7
18000.0	2.15	22.5	23.7

Typical Performance Curves

Outline Dimensions



* OVERALL CONNECTOR OR CABLE & BOOT DIM
[CONNECTOR SHAPE MAY VARY]

GM1530 SERIES
E-Z LOCK SMA MALE (CONN-1)
N MALE (CONN-2)

CASE STYLE #	A		B	C	D	E	T		WEIGHT GRAMS
	FEET	METERS					INCHES	MM	
GM1530-1.5	1.50	.46	.43 (10.92)	- -	.85 (21.59)	.787 (19.99)	+.50/-0	+12.7/-0	61
GM1530-1.64	1.64	.50					+.50/-0	+12.7/-0	63
GM1530-2	2.00	.61					+.50/-0	+12.7/-0	68
GM1530-3	3.00	.91					+.72/-0	+18.3/-0	82
GM1530-3.28	3.28	1.00					+.79/-0	+20.0/-0	85
GM1530-4	4.00	1.22					+.96/-0	+24.4/-0	95
GM1530-6	6.00	1.83					+1.44/-0	+36.6/-0	122
GM1530-6.56	6.56	2.00					+1.57/-0	+40.0/-0	130

Unless otherwise specified dimensions are in inches (mm).

Tolerances: 2Pl. ± .03; 3Pl. ± .015

Note:

1. Flexible Coaxial Cable.



INTERNET <http://www.minicircuits.com>

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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	- - -