COAXIAL

Adapter

SM-BM50+

50Ω DC to 2 GHz SMA-Male to BNC-Male

FEATURES

- Flat Response
- Excellent VSWR
- Low cost adapters, available from stock
- Brass body, nickel plated

Generic photo used for illustration purposes only

Model No.	SM-BM50+
Case Style	DJ1022
Connectors	SMA-Male to BNC-Male

+RoHS Compliant
The +Suffix identifies RoHS Compliance.
See our website for methodologies and qualifications

APPLICATIONS

- Interconnection of RF cables and equipment
- Testing

ELECTRICAL SPECIFICATIONS T_{AMB}=25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range	-	DC		2	GHz
Insertion Loss	DC - 2	-	.05	-	dB
VSWR	DC - 2	-	-	1.20	:1

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C

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

REV. D
ECO-016727
SM-BM50+
MCL NY
230202

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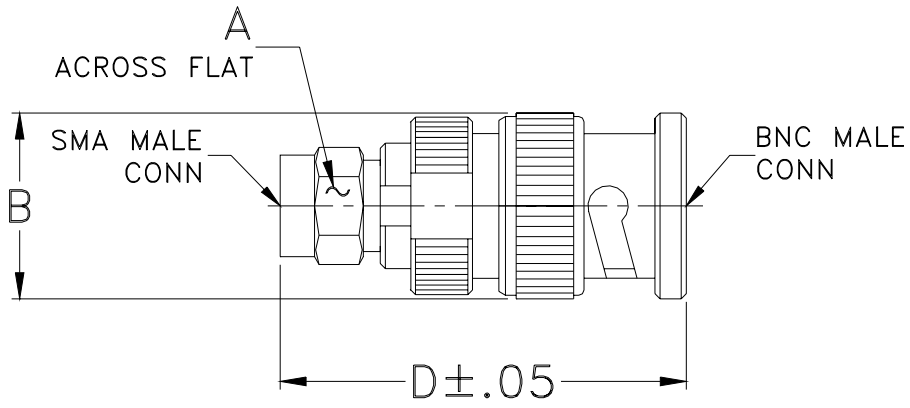
OUTLINE DRAWING



OUTLINE DIMENSIONS (Inch / mm)

A	B	C	D	E	wt
.312	.57	--	1.25	--	grams
7.92	14.48	--	31.75	--	15.0

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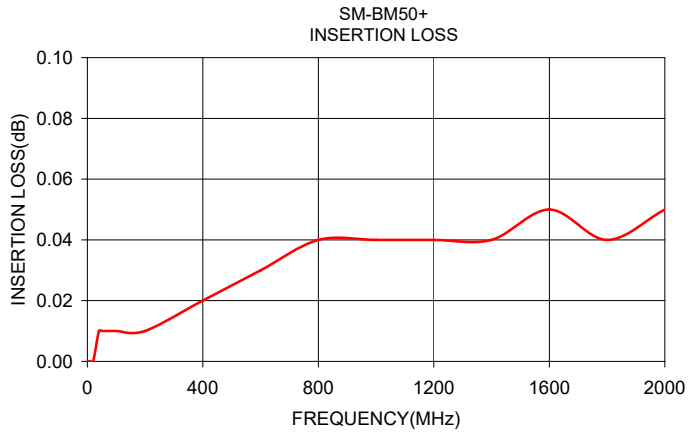
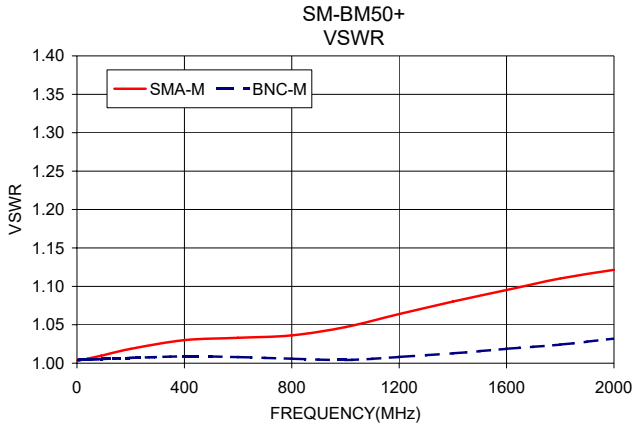
TYPICAL PERFORMANCE DATA

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	
		SMA-Male	BNC-Male
10.00	0.00	1.00	1.00
20.00	0.00	1.00	1.00
40.00	0.01	1.01	1.00
50.00	0.01	1.01	1.00
60.00	0.01	1.01	1.01
70.00	0.01	1.01	1.01
80.00	0.01	1.01	1.01
90.00	0.01	1.01	1.01
100.00	0.01	1.01	1.01
200.00	0.01	1.02	1.01
400.00	0.02	1.03	1.01
600.00	0.03	1.03	1.01
800.00	0.04	1.04	1.01
1000.00	0.04	1.05	1.00
1200.00	0.04	1.06	1.01
1400.00	0.04	1.08	1.01
1600.00	0.05	1.10	1.02
1800.00	0.04	1.11	1.02
2000.00	0.05	1.12	1.03





NOTES

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/terms/viewterm.html

Adapter, SMA-Male to BNC-Male SM-BM50+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	SMA-MALE RETURN LOSS (dB)	BNC-MALE RETURN LOSS (dB)
1	0.01	55.76	53.82
10	0.01	54.60	53.25
20	0.01	53.18	52.90
40	0.01	50.74	52.46
50	0.01	49.61	52.34
60	0.01	48.61	52.06
70	0.01	47.75	51.84
80	0.01	46.97	51.61
90	0.01	46.29	51.28
100	0.01	45.65	51.04
200	0.01	40.66	49.14
400	0.02	36.58	47.04
600	0.03	35.79	47.96
800	0.04	35.00	50.70
1000	0.04	32.78	53.60
1200	0.04	30.17	47.75
1400	0.04	28.27	43.82
1600	0.05	26.85	40.61
1800	0.04	25.64	38.40
2000	0.05	24.84	36.00

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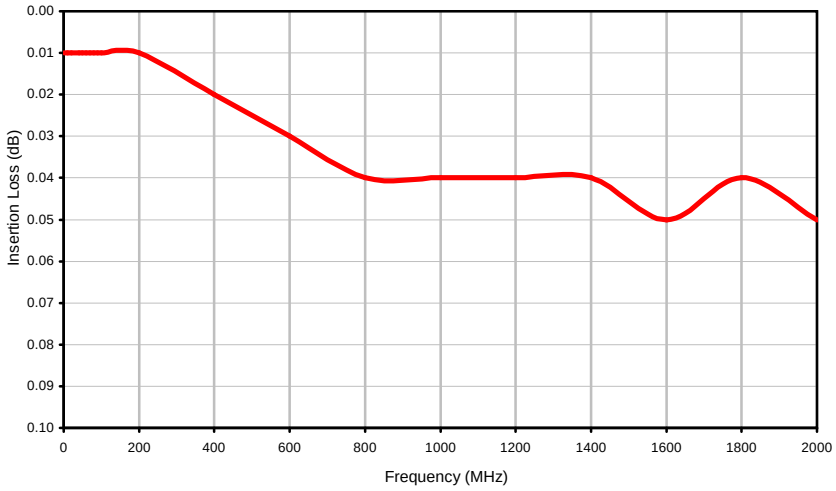
The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see minicircuits.com

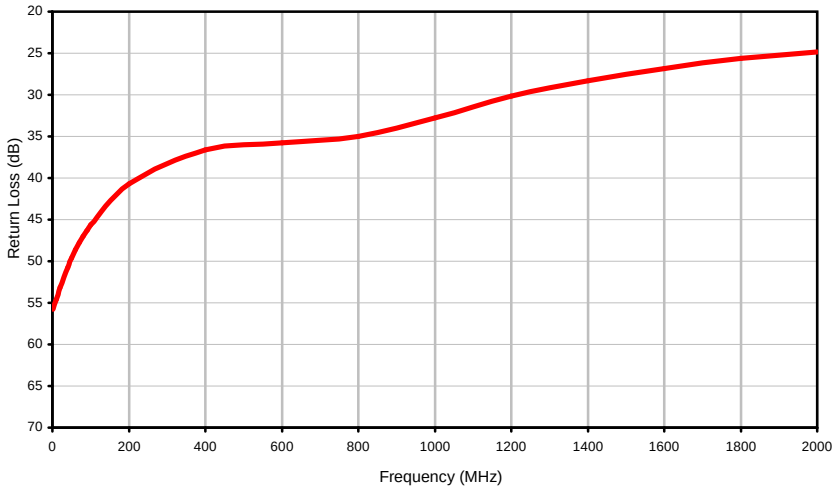
Adapter, SMA-Male to BNC-Male SM-BM50+

Typical Performance Curves

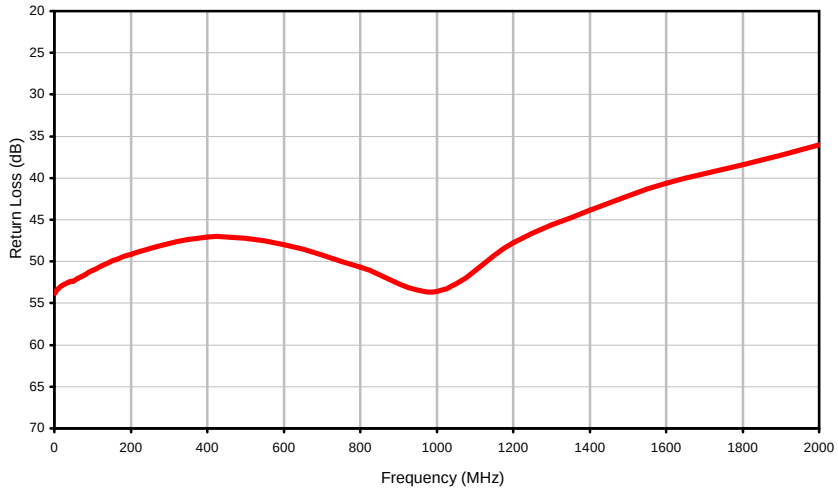
Insertion Loss



SMA-Male Return Loss



BNC-Male Return Loss



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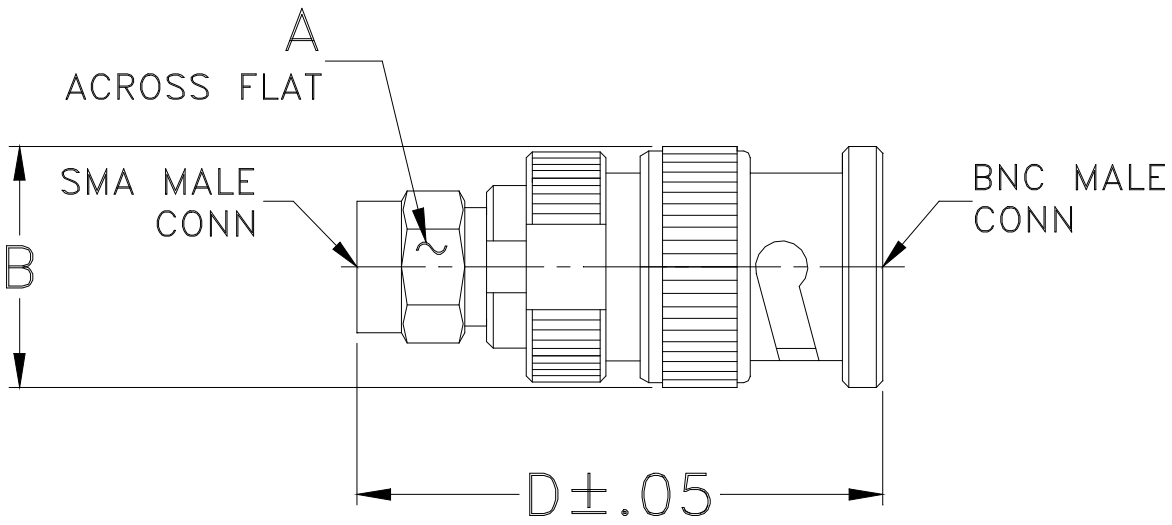
Case Style DJ

DJ1022

Outline Dimensions



CASE#	A	B	C	D	E	WT. GRAM
DJ1022	.312 (7.92)	.57 (14.48)	-- --	1.25 (31.75)	-- --	15.0

Dimensions are in inches (mm). Tolerances: 2 Pl. ± .03; 3 Pl. ± .015

Notes:

1. Case material: Brass.
2 Finish: Nickel plate.

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Mini-Circuits

Environmental Specifications ENV28

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 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I

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