



COAXIAL

Adapter

SMPMR-SM50+

50Ω DC to 26.5 GHz Right Angle SMP-Male to SMA-Male

THE BIG DEAL

- Ultra-Wideband, DC to 26.5 GHz
- Low Insertion Loss, 0.1 dB typ.
- Excellent VSWR, 1.1 typ.
- Low cost adapters, available from stock
- Passivated stainless steel body and gold-plated beryllium copper center connector
- SMP-Male with limited detent



Generic photo used for illustration purposes only

Model No.	SMPMR-SM50+
Case Style	DJ2442-5
Connectors	SMP-Male to SMA-Male

+RoHS Compliant

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

APPLICATIONS

- 5G
- KA/KU band
- Satellite Communications

PRODUCT OVERVIEW

Mini-Circuits' SMPMR-SM50+ is a right-angle SMP (Snap-on-Male) to SMA-Male adapter supporting a wide range of applications from DC to 26.5 GHz. This model provides excellent VSWR, low insertion loss, and flat response versus frequency. The SMPMR-SM50+ features passivated stainless steel body and Gold-plated beryllium copper construction center contact.

KEY FEATURES

Feature	Advantages
Wideband, DC to 26.5 GHz	Wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use.
Excellent VSWR, 1.1:1 typ.	Provides good matching for 50Ω systems and minimizes signal reflections across wide frequency range.
Low Insertion Loss, 0.1 dB typ.	Provides excellent signal power transmission from input to output.
Passivated stainless steel body and Gold-plated beryllium copper construction center contact	Stands up to wear and tear in demanding environments and provides excellent reliability.
Very wide operating temperature range, -55 to +100 °C	Withstands extreme operating conditions and is suitable for use near high power componentry where heat rise is common.

REV. A
ECO-016727
SMPMR-SM50+
MCL NY
230206





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ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		26.5	GHz
Insertion Loss	DC - 18	—	0.10	—	dB
	18 - 26.5	—	0.16	—	
VSWR	DC - 18	—	1.07	1.36	:1
	18 - 26.5	—	1.18	1.38	

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.





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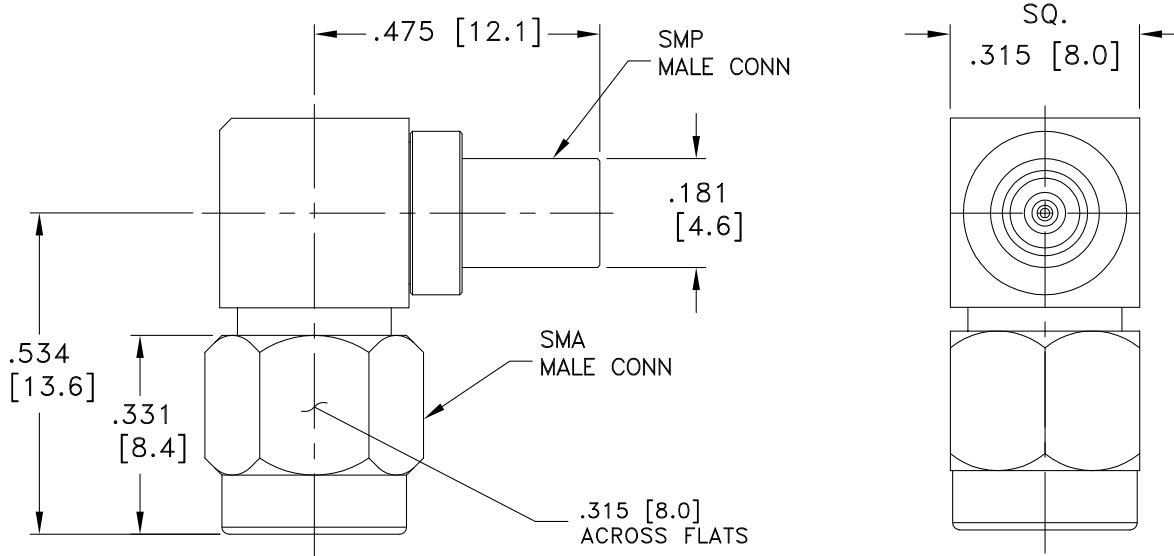
Adapter

SMPMR-SM50+

Mini-Circuits

50Ω DC to 26.5 GHz Right Angle SMP-Male to SMA-Male

OUTLINE DRAWING



Weight: 4.7 grams

Dimensions are in inches [mm].



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Adapter

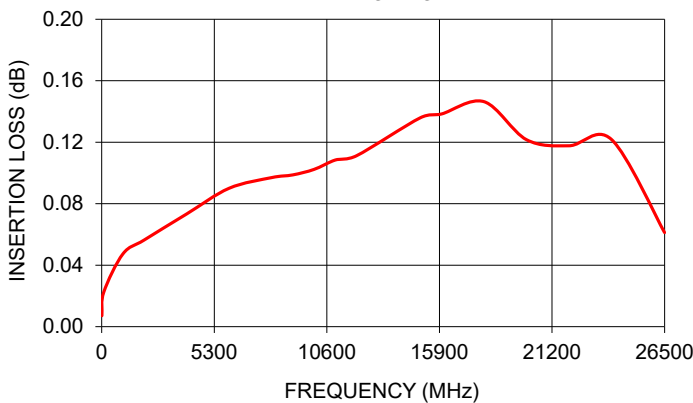
SMPMR-SM50+

50Ω DC to 26.5 GHz Right Angle SMP-Male to SMA-Male

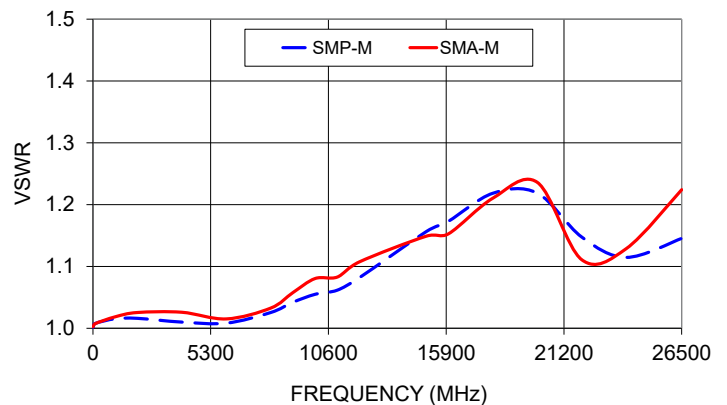
TYPICAL PERFORMANCE DATA

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	
		SMP-Male	SMA-Male
10	0.01	1.00	1.00
100	0.02	1.01	1.01
1000	0.05	1.02	1.02
2000	0.06	1.02	1.03
4000	0.07	1.01	1.03
6000	0.09	1.01	1.02
8000	0.10	1.03	1.03
9000	0.10	1.04	1.06
10000	0.10	1.05	1.08
11000	0.11	1.06	1.08
12000	0.11	1.08	1.11
15000	0.14	1.16	1.15
16000	0.14	1.17	1.15
18000	0.15	1.22	1.21
20000	0.12	1.22	1.24
22000	0.12	1.15	1.11
24000	0.12	1.11	1.13
26500	0.06	1.15	1.22

SMPMR-SM50+ INSERTION LOSS



SMPMR-SM50+ VSWR



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

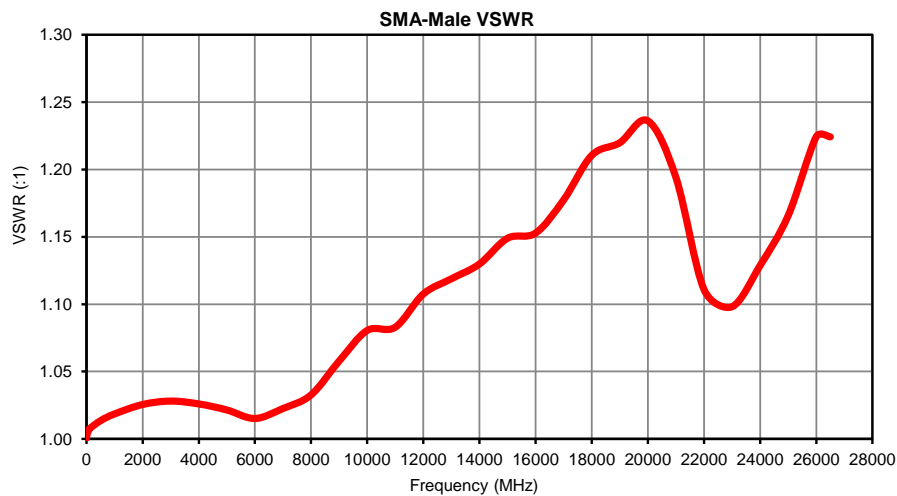
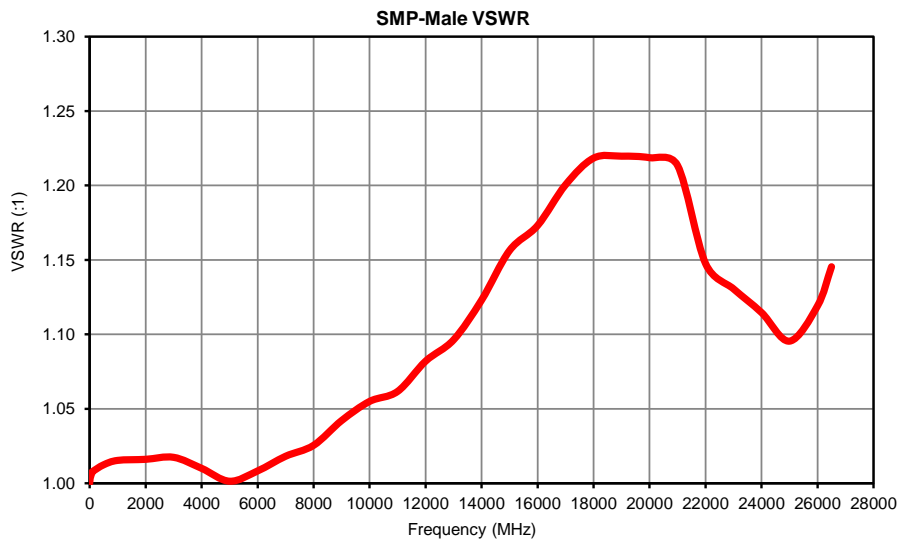


Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	SMP-MALE VSWR (:1)	SMA MALE VSWR (:1)
1	0.00	1.00	1.00
10	0.00	1.00	1.00
20	0.00	1.00	1.00
30	0.01	1.00	1.00
40	0.01	1.00	1.00
50	0.02	1.01	1.01
60	0.02	1.01	1.01
70	0.02	1.01	1.01
80	0.02	1.01	1.01
90	0.02	1.01	1.01
100	0.02	1.01	1.01
500	0.04	1.01	1.01
1000	0.05	1.02	1.02
2000	0.06	1.02	1.03
3000	0.07	1.02	1.03
4000	0.08	1.01	1.03
5000	0.09	1.00	1.02
6000	0.10	1.01	1.02
7000	0.10	1.02	1.02
8000	0.11	1.03	1.03
9000	0.10	1.04	1.06
10000	0.11	1.05	1.08
11000	0.11	1.06	1.08
12000	0.12	1.08	1.11
13000	0.12	1.10	1.12
14000	0.13	1.12	1.13
15000	0.14	1.16	1.15
16000	0.14	1.17	1.15
17000	0.15	1.20	1.18
18000	0.14	1.22	1.21
19000	0.13	1.22	1.22
20000	0.12	1.22	1.24
21000	0.14	1.21	1.19
22000	0.12	1.15	1.11
23000	0.13	1.13	1.10
24000	0.12	1.11	1.13
25000	0.09	1.10	1.17
26000	0.06	1.12	1.22
26500	0.06	1.15	1.22

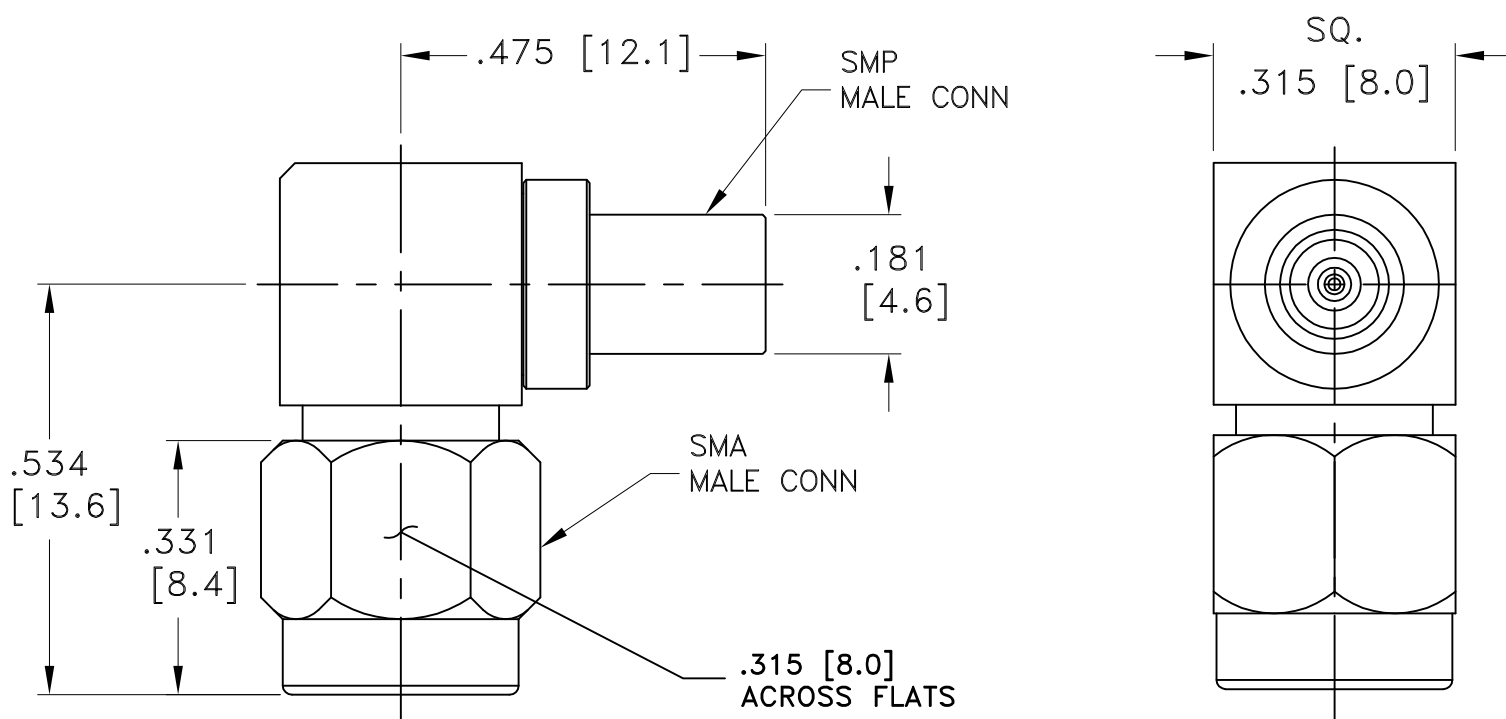
Right Angle Adapter, SMP Male to SMA Male SMPMR-SM50+

Typical Performance Curves



Outline Dimensions

DJ2442-5



Weight: 4.7 grams

Dimensions are in inches [mm]. Tolerances: 2 Pl.±.03; 3 Pl. ±.015

Notes:

1. Case material: Stainless steel.
2. Finish: Passivating.

Mini-Circuits
ISO 9001 ISO 14001 CERTIFIED

ALL NEW
minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



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RF/IF MICROWAVE COMPONENTS

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