



Mini-Circuits®

COAXIAL

Precision Fixed Attenuator **BW-S20W2+**

50Ω 2 W 20 dB DC to 18 GHz SMA-Female to SMA-Male

FEATURES

- DC to 18 GHz
- Precision Attenuation
- Excellent VSWR, 1.20 Typ.
- Stainless Steel SMA Male and Female Connectors



Generic photo used for illustration purposes only

APPLICATIONS

- Impedance Matching
- Instrumentation
- Test Setups

Model No.	BW-S20W2+
Case Style	FF659
Connectors	SMA-Female to SMA-Male

+RoHS Compliant

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

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC		18	GHz
Attenuation, Nominal			20		dB
Attenuation, Accuracy ¹	DC - 18		-0.5, +0.8		dB
VSWR ²	DC - 4			1.20	:1
	4 - 8			1.25	
	8 - 12.4			1.30	
Input Power ³				2.0	W

1. At +25°C, accuracy includes frequency and power variations. Temperature coefficient for attenuation: .0004 dB/dB/°C typ.

2. VSWR from 12.4 to 18 GHz, 1.6:1 typ.

3. Average power at +25°C ambient, derate linearly to 0.5 W at +100°C. Peak Power 125 W max. 5 μsec. pulse width, 100 Hz PRF.

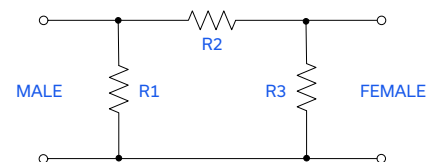
ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-55°C to +100°C
Storage Temperature ⁴	-55°C to +100°C

4. With mated connectors. Unmated, +85°C max.

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

ELECTRICAL SCHEMATIC



REV. F
ECO-024322
BW-S20W2+
MCL NY
250127





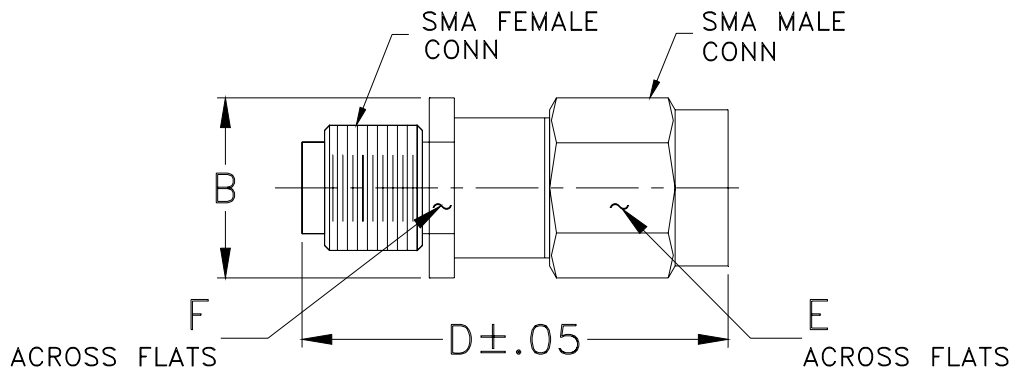
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OUTLINE DRAWING



OUTLINE DIMENSIONS (Inch mm)

B	D	E	F	wt
.36	.99	.312	.312	grams
9.14	25.15	7.92	7.92	5.1



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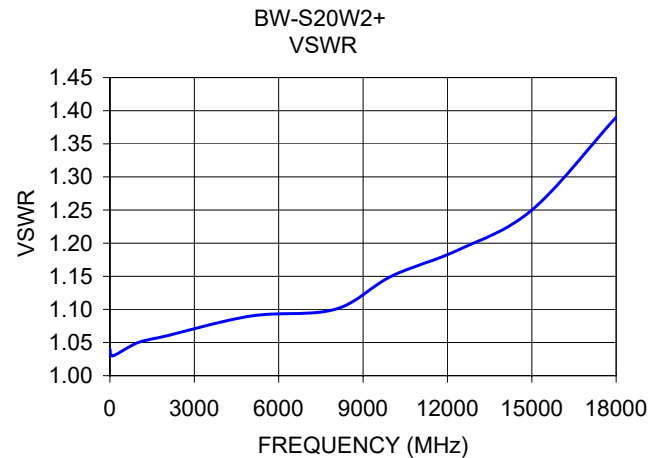
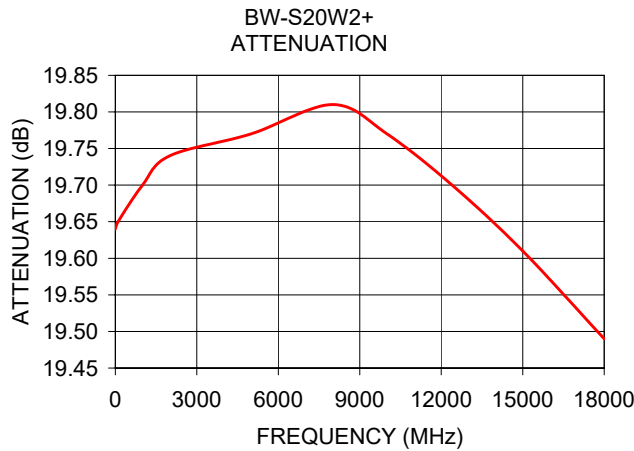
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TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
1.00	19.64	1.04
100.00	19.65	1.03
1000.00	19.70	1.05
1999.90	19.74	1.06
5000.00	19.77	1.09
7999.90	19.81	1.10
9999.90	19.77	1.15
12400.10	19.70	1.19
15000.00	19.61	1.25
18000.00	19.49	1.39



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-Circuits' 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/terms/viewterm.html

