



COAXIAL

DC Block

BLK-18W-S+

Mini-Circuits

50Ω 0.01 to 18 GHz SMA Female to SMA Male

FEATURES

- Broadband Performance
- Low Insertion Loss
- Rugged Unibody Construction
- Off-the-Shelf Availability



Generic photo used for illustration purposes only

APPLICATIONS

- Test and Measurement Instrumentation
- Communication Systems
- Defense Systems

Model No.	BLK-18W-S+
Case Style	DJ2668
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

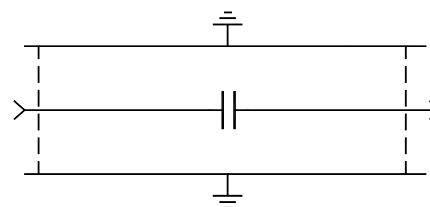
Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		0.01		18	GHz
Insertion Loss	0.01-18	-	0.41	0.75	dB
Return Loss	0.01-18	16.5	23	-	dB

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Case Temperature	-55 °C to +125 °C
Storage Temperature	-55 °C to +125 °C
DC Input Voltage	+200 V
Input Power	+33 dBm

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

ELECTRICAL SCHEMATIC



REV. B
 ECO-017011
 BLK-18W-S+
 MCL NY
 260526



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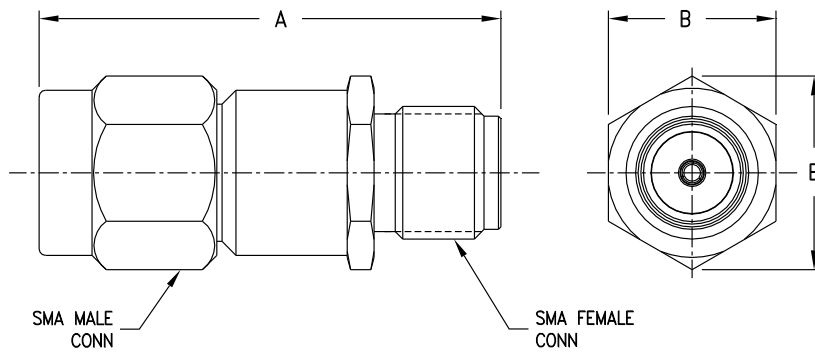
Mini-Circuits

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COAXIAL CONNECTIONS

Port 1	SMA female
Port 2	SMA male

OUTLINE DRAWING



OUTLINE DIMENSIONS (Inches/mm)

	A	B	E	Weight Grams
inches	0.86	0.31	0.36	
mm	21.84	8.00	9.14	5.0



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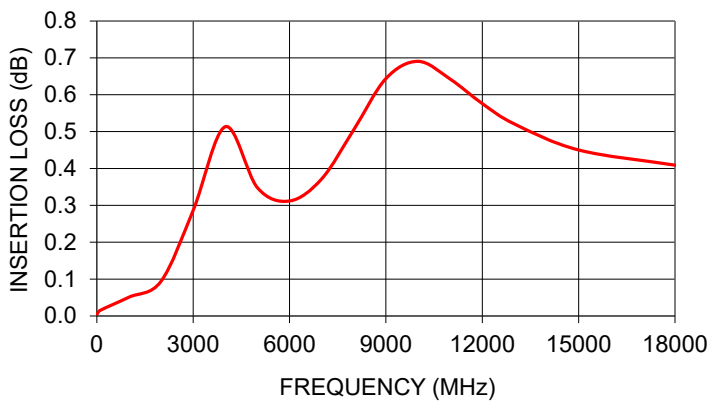
Mini-Circuits

50Ω 0.01 to 18 GHz SMA Female to SMA Male

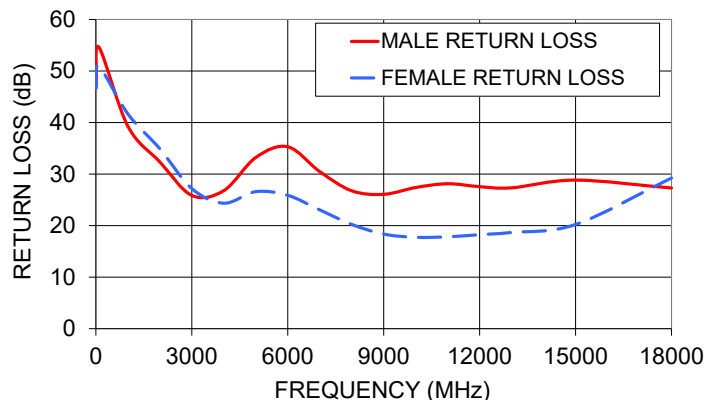
TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		SMA Female	SMA Male
10	0.01	46.63	47.86
100	0.02	50.87	54.57
1000	0.05	41.67	39.28
2000	0.09	34.90	32.35
3000	0.29	27.18	25.85
4000	0.51	24.34	26.78
5000	0.35	26.58	33.21
6000	0.31	25.87	35.30
7000	0.37	23.05	30.47
8000	0.51	20.23	26.75
9000	0.64	18.35	26.06
10000	0.69	17.73	27.39
11000	0.64	17.82	28.12
12000	0.58	18.24	27.55
13000	0.52	18.67	27.32
15000	0.45	20.22	28.82
18000	0.41	29.24	27.29

BLK-18W-S+
INSERTION LOSS



BLK-18W-S+
RETURN LOSS



NOTES

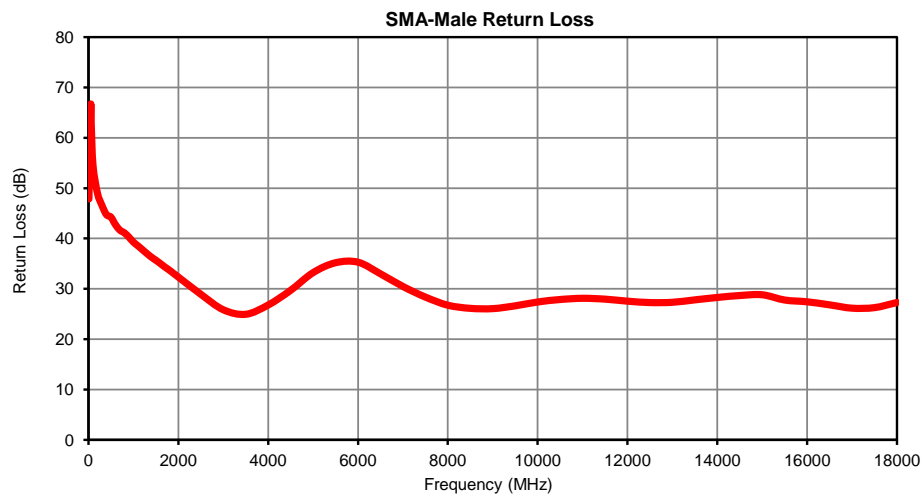
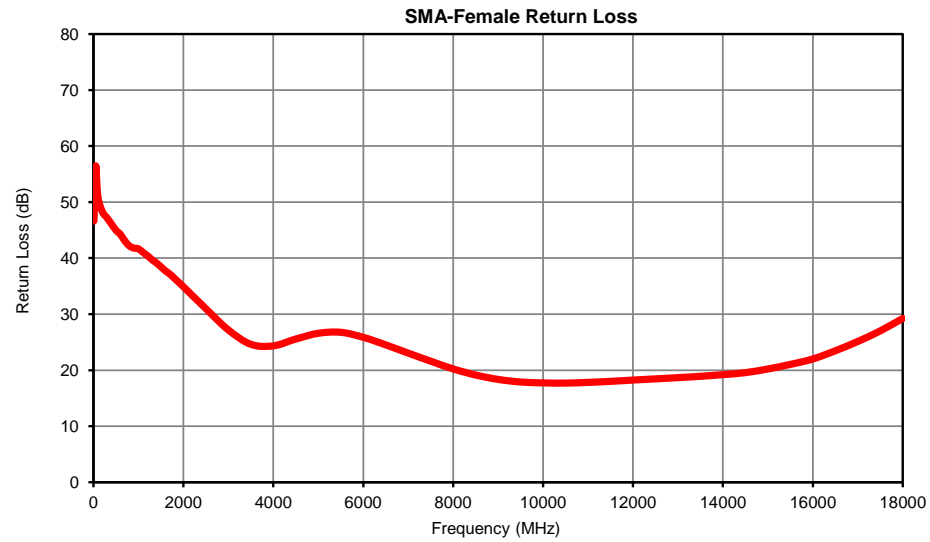
- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' 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

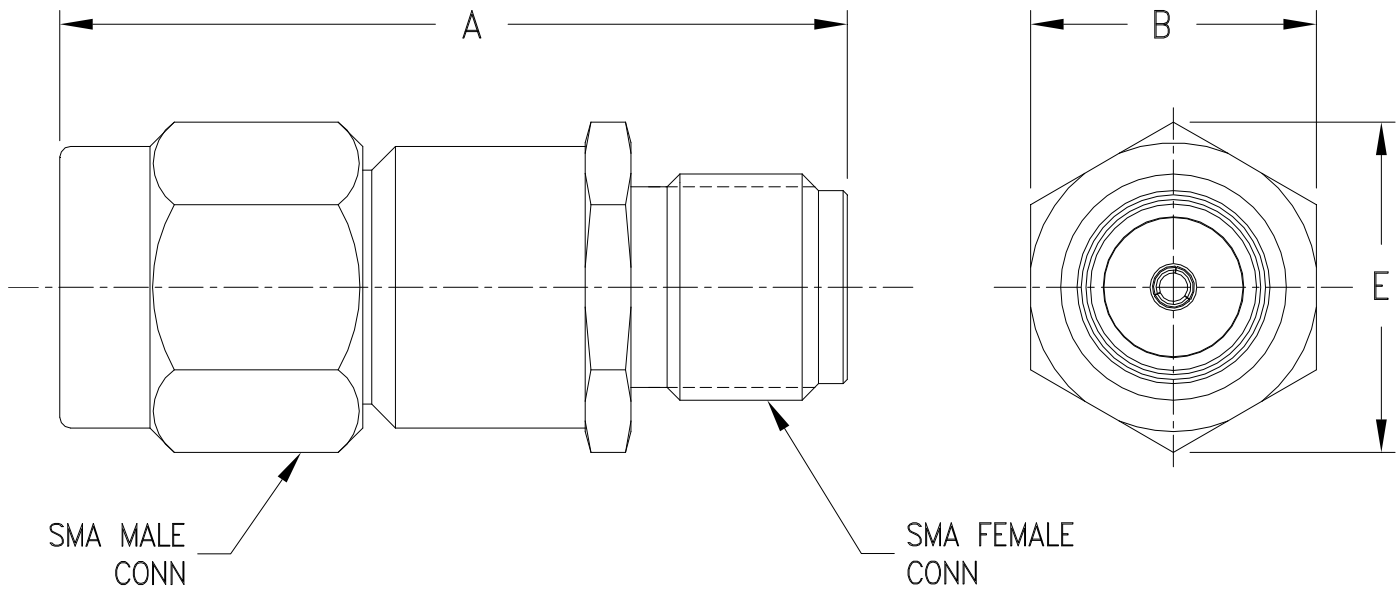
FREQUENCY (MHz)	INSERTION LOSS (dB)	SMA-FEMALE Return Loss (dB)	SMA-MALE Return Loss (dB)
10	0.01	46.63	47.86
50	0.01	56.48	66.28
60	0.01	55.76	63.01
100	0.02	50.87	54.57
200	0.02	48.24	49.00
300	0.03	47.21	46.56
400	0.03	46.10	44.74
500	0.04	44.98	44.23
600	0.04	44.22	42.75
700	0.04	43.04	41.66
800	0.04	42.17	41.11
900	0.05	41.79	40.27
1000	0.05	41.67	39.28
1100	0.05	41.04	38.55
1200	0.06	40.45	37.78
1300	0.06	39.74	37.02
1400	0.06	39.14	36.29
1500	0.07	38.45	35.68
1600	0.07	37.74	35.02
1700	0.08	37.15	34.34
1800	0.08	36.39	33.72
1900	0.09	35.66	33.02
2000	0.09	34.90	32.35
2500	0.16	30.97	28.93
3000	0.29	27.18	25.85
3500	0.48	24.62	24.94
4000	0.51	24.34	26.78
4500	0.42	25.56	29.70
5000	0.35	26.58	33.21
5500	0.32	26.76	35.18
6000	0.31	25.87	35.30
6500	0.33	24.52	32.99
7000	0.37	23.05	30.47
7500	0.43	21.61	28.36
8000	0.51	20.23	26.75
8500	0.58	19.14	26.12
9000	0.64	18.35	26.06
9500	0.68	17.89	26.62
10000	0.69	17.73	27.39
10500	0.67	17.69	27.88
11000	0.64	17.82	28.12
11500	0.61	18.01	27.95
12000	0.58	18.24	27.55
12500	0.54	18.45	27.27
13000	0.52	18.67	27.32
13500	0.50	18.91	27.81
14000	0.48	19.21	28.28
14500	0.46	19.56	28.67
15000	0.45	20.22	28.82
15500	0.44	21.03	27.78
16000	0.43	22.00	27.42
16500	0.43	23.47	26.82
17000	0.43	25.13	26.16
17500	0.42	27.02	26.27
18000	0.41	29.24	27.29

Typical Performance Curves



Outline Dimensions

DJ2668



CASE#	A	B	C	D	E	WT. GRAMS
DJ2668	.86 (21.84)	.312 (8.00)	-	-	.36 (9.14)	5.0

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

Notes:

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



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



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

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
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Connector Durability	500 Mating / Unmating Cycles	MIL-PRF-390 / 2E, Paragraph 4, 6, 12