COAXIAL

Adapter

NF-SM50+

50Ω DC to 18 GHz N-Type Female to SMA Male

THE BIG DEAL

- Flat Response
- Excellent VSWR
- Passivated Stainless Steel
- Low Cost Adapters, Available from Stock



Generic photo used for illustration purposes only

Model No.	NF-SM50+
Case Style	DJ826
Connectors	N-Type Female to SMA Male

APPLICATIONS

- Interconnection of RF Cables and Equipment

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

ELECTRICAL SPECIFICATIONS AT 25 °C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		18	GHz
Insertion Loss	DC - 18	—	0.1	—	dB
VSWR	DC - 8	—	—	1.15	:1
	DC - 12.4	—	—	1.20	
	DC - 18	—	—	1.25	

MAXIMUM RATINGS[1]

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

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

REV. F
ECO-012138
NF-SM50+
MCL NY
260618

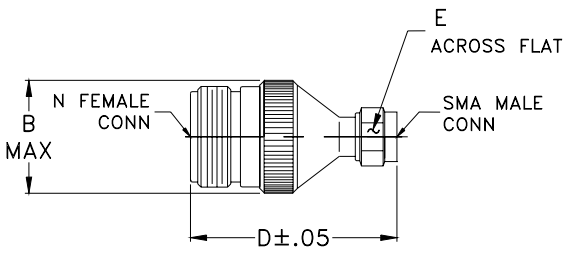
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OUTLINE DRAWING



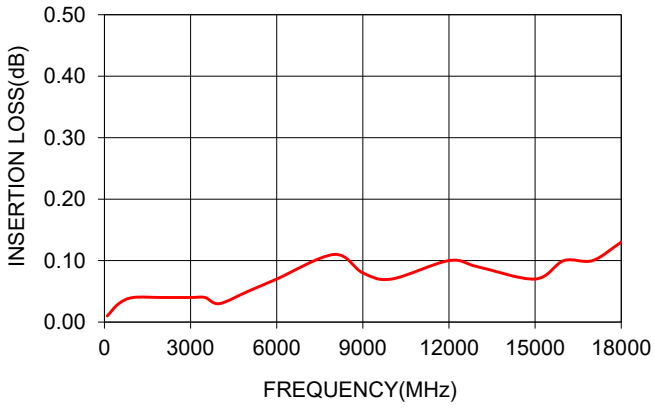
OUTLINE DIMENSIONS (Inch / mm)

A	B	C	D	E	wt
--	.70	--	1.28	.312	grams
--	17.78	--	32.51	7.92	27.4

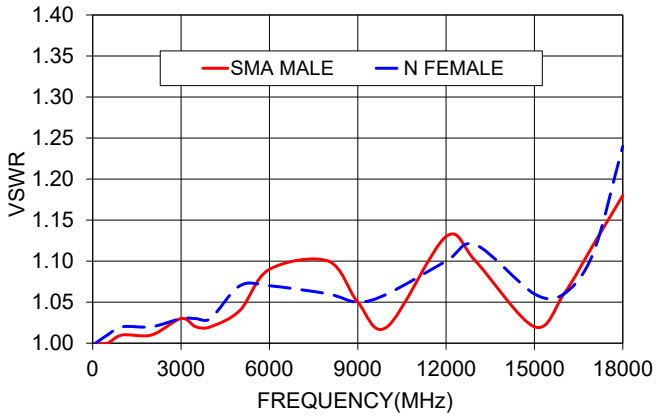
TYPICAL PERFORMANCE DATA

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	
		N-Type Female	SMA Male
10	0.01	1.00	1.00
50	0.01	1.00	1.00
100	0.01	1.00	1.00
500	0.03	1.01	1.00
1000	0.04	1.02	1.01
2000	0.04	1.02	1.01
3000	0.04	1.03	1.03
3500	0.04	1.03	1.02
4000	0.03	1.03	1.02
5000	0.05	1.07	1.04
6000	0.07	1.07	1.09
8000	0.11	1.06	1.10
9000	0.08	1.05	1.05
10000	0.07	1.06	1.02
12000	0.10	1.10	1.13
13000	0.09	1.12	1.10
15000	0.07	1.06	1.02
16000	0.10	1.06	1.06
17000	0.10	1.11	1.12
18000	0.13	1.24	1.18

NF-SM50+
INSERTION LOSS



NF-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-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

Adapter, N-Female to SMA-Male NF-SM50+

Typical Performance Data

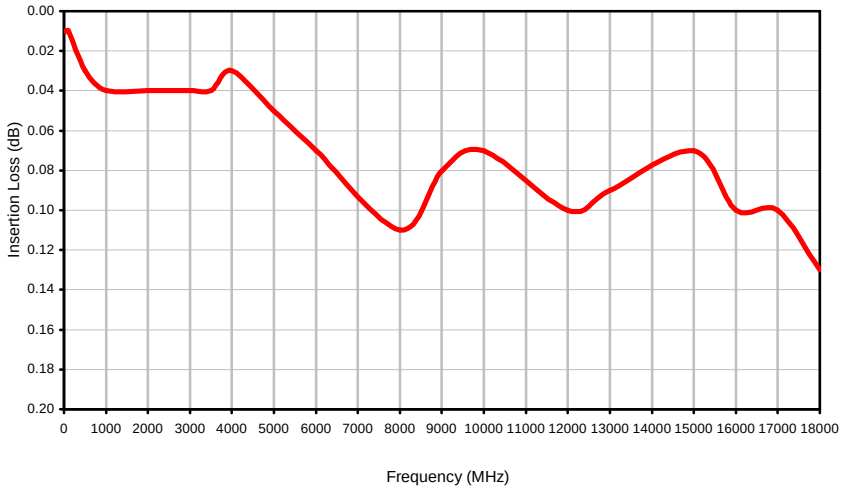
FREQUENCY (MHz)	INSERTION LOSS (dB)	N-FEMALE RETURN LOSS (dB)	SMA-MALE RETURN LOSS (dB)
10	0.01	46.06	46.06
50	0.01	46.06	46.06
100	0.01	46.06	46.06
500	0.03	46.06	46.06
1000	0.04	40.09	46.06
2000	0.04	40.09	46.06
3000	0.04	36.61	36.61
3500	0.04	36.61	40.09
4000	0.03	36.61	40.09
5000	0.05	29.42	34.15
6000	0.07	29.42	27.32
8000	0.11	30.71	26.44
9000	0.08	32.26	32.26
10000	0.07	30.71	40.09
12000	0.10	26.44	24.29
13000	0.09	24.94	26.44
15000	0.07	30.71	40.09
16000	0.10	30.71	30.71
17000	0.10	25.66	24.94
18000	0.13	19.40	21.66

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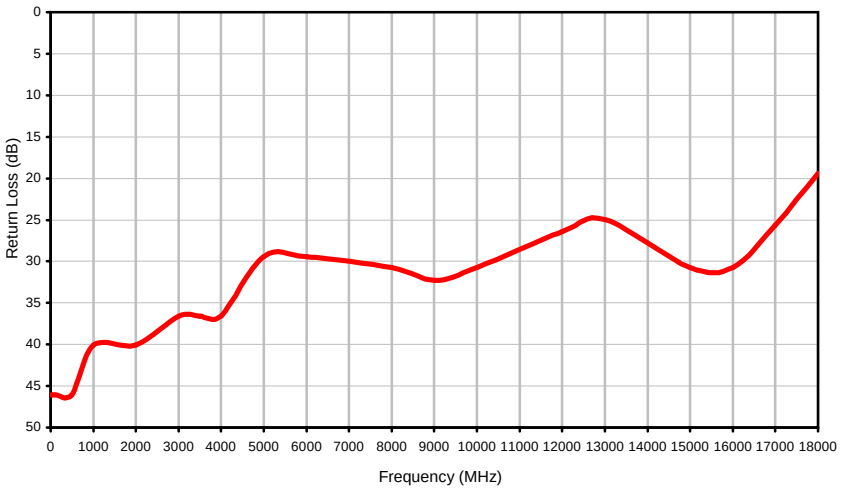
Adapter, N-Female to SMA-Male NF-SM50+

Typical Performance Curves

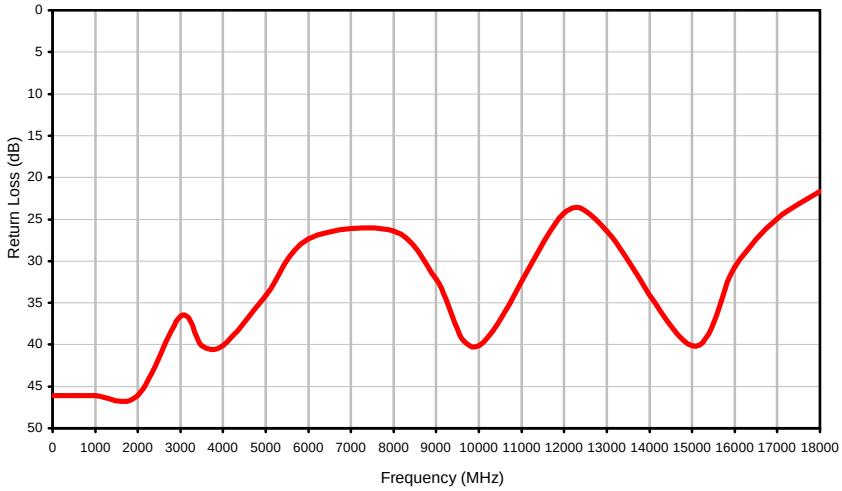
Insertion Loss



N-Female Return Loss



SMA-Male Return Loss

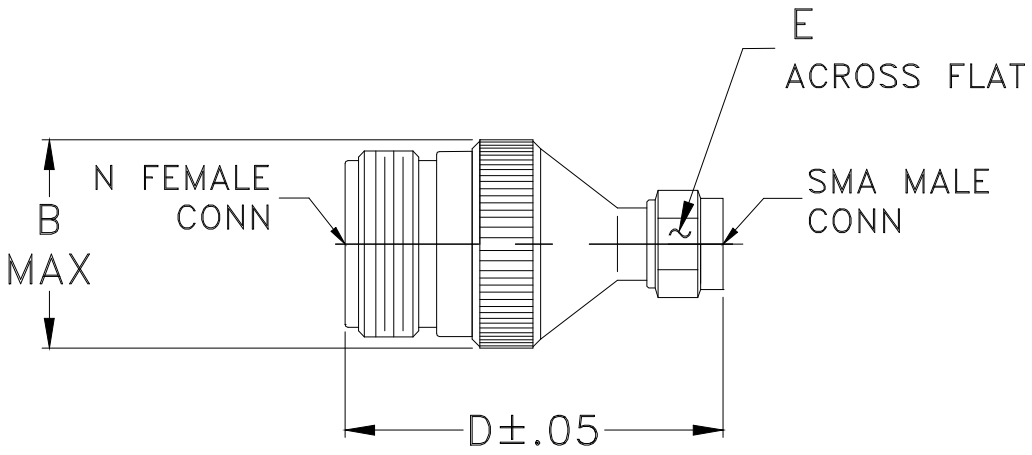


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Case Style DJ

DJ826

Outline Dimensions



CASE#	A	B	C	D	E	WT. GRAM
DJ826	-- --	.70 (17.78)	-- --	1.28 (32.51)	.312 (7.92)	27.4

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

Note:

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

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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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