

Coaxial

# Adapter, N-FEM to SMA-FEM

## NF-SF50+

50Ω

DC to 18 GHz



Generic photo used for illustration purposes only

CASE STYLE: DJ827

Connectors	Model	
Conn1	Conn2	
N-FEM	SMA-FEM	NF-SF50+

**+RoHS Compliant**

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

### Maximum 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.	

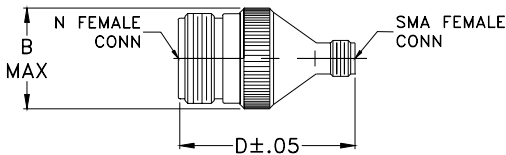
### Features

- flat response
- excellent VSWR
- passivated stainless steel
- low cost adapters, available from stock

### Applications

- interconnection of RF cables and equipment

### Outline Drawing



### Outline Dimensions (inch/mm)

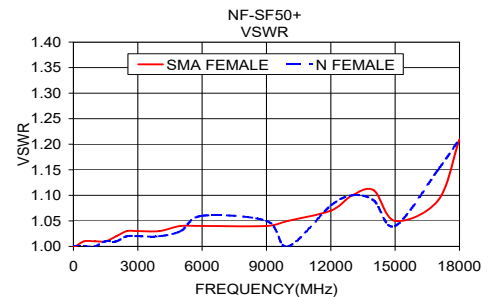
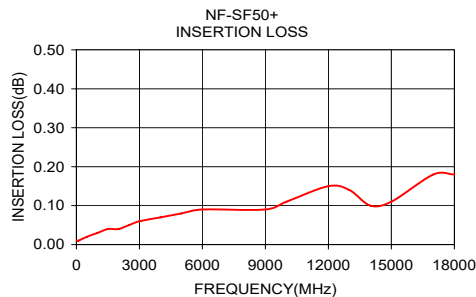
A	B	C	D	E	wt
					grams
--	.70	--	1.23	--	26.0
--	17.78	--	31.24	--	

### Electrical Specifications T<sub>AMB</sub>=25°C

FREQUENCY (GHz)	INSERTION LOSS (dB)	VSWR (:1) Max.		
		DC-8 GHz	DC-12.4 GHz	DC-18 GHz
f <sub>L</sub> -f <sub>U</sub>	Typ.			
DC-18	0.1	1.15	1.20	1.25

### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	
		N-FEM	SMA-FEM
10.00	0.01	1.00	1.00
50.00	0.01	1.00	1.00
100.00	0.01	1.00	1.00
500.00	0.02	1.00	1.01
1000.00	0.03	1.00	1.01
1500.00	0.04	1.01	1.01
2000.00	0.04	1.01	1.02
2500.00	0.05	1.02	1.03
3000.00	0.06	1.02	1.03
4000.00	0.07	1.02	1.03
5000.00	0.08	1.03	1.04
6000.00	0.09	1.06	1.04
9000.00	0.09	1.05	1.04
10000.00	0.11	1.00	1.05
12000.00	0.15	1.08	1.07
13000.00	0.14	1.10	1.10
14000.00	0.10	1.09	1.11
15000.00	0.11	1.04	1.05
17000.00	0.18	1.15	1.09
18000.00	0.18	1.21	1.21



### 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-Circuit's 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/WCLStore/terms.jsp](http://www.minicircuits.com/WCLStore/terms.jsp)



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REV. E  
M151107  
NF-SF50+  
EE-9107  
RS/TD/CP/AM  
200507

# Adapter, N-Female to SMA-Female

# NF-SF50+

## Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	N-FEMALE RETURN LOSS (dB)	SMA-FEMALE 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	0.02	46.06	46.06
1000	0.03	46.06	46.06
1500	0.04	46.06	46.06
2000	0.04	46.06	40.09
2500	0.05	40.09	36.61
3000	0.06	40.09	36.61
4000	0.07	40.09	36.61
5000	0.08	36.61	34.15
6000	0.09	30.71	34.15
9000	0.09	32.26	34.15
10000	0.11	46.06	32.26
12000	0.15	28.30	29.42
13000	0.14	26.44	26.44
14000	0.10	27.32	25.66
15000	0.11	34.15	32.26
17000	0.18	23.13	27.32
18000	0.18	20.44	20.44

REV. X1  
NF-SF50+  
061114  
Page 1 of 1



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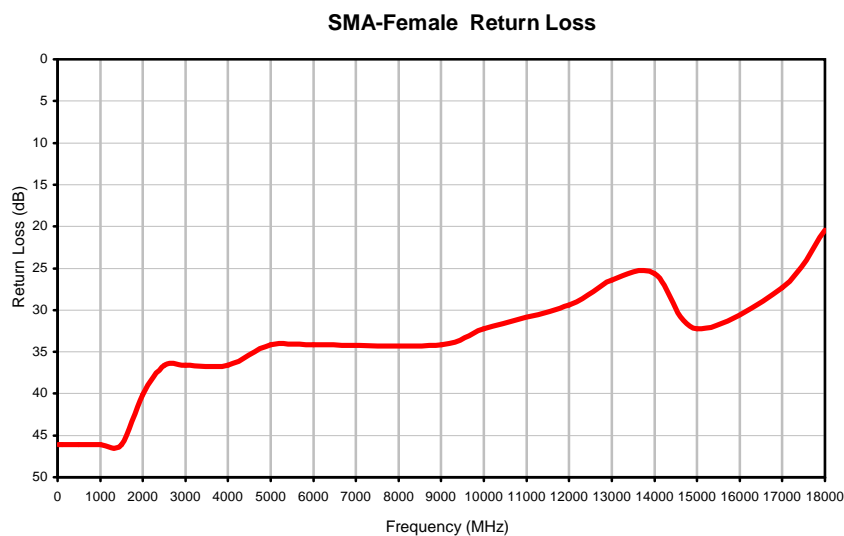
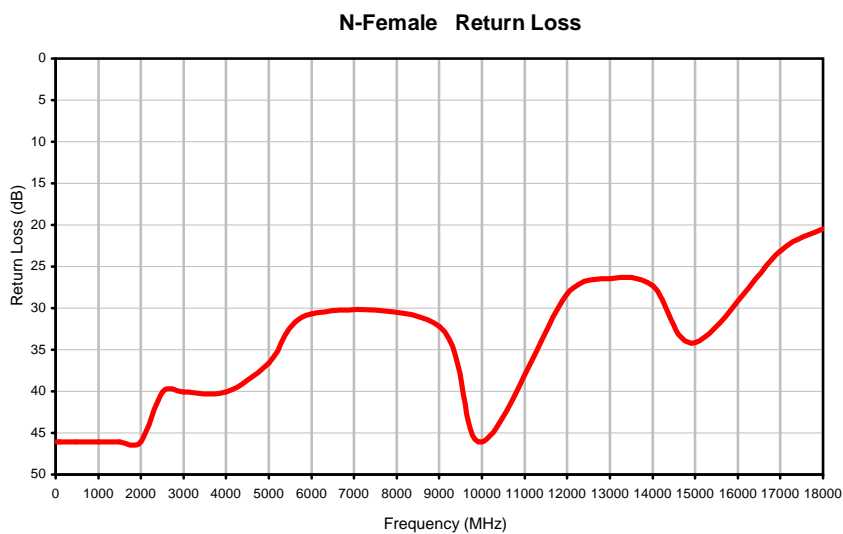
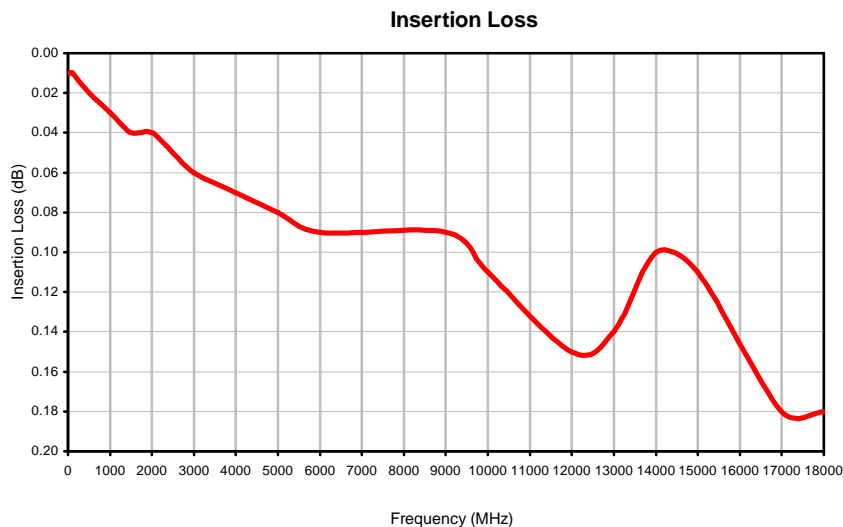
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# Adapter, N-Female to SMA-Female

# NF-SF50+

## Typical Performance Curves



REV. X1  
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Page 1 of 1

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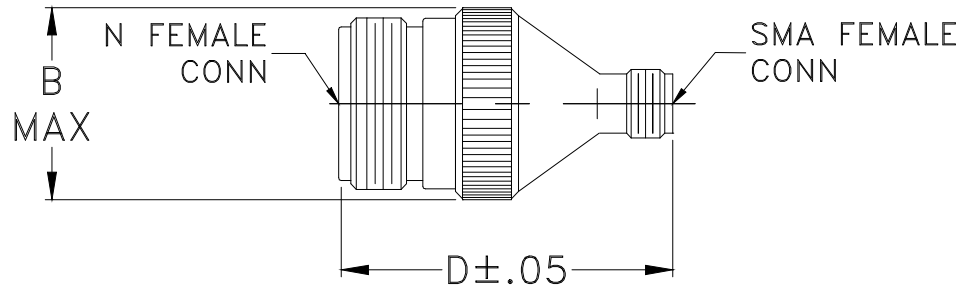
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### Outline Dimensions



CASE#	A	B	C	D	E	WT. GRAM
DJ827	--	.70 (17.78)	--	1.23 (31.24)	--	26.0

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

#### Note:

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



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.

<b>Specification</b>	<b>Test/Inspection Condition</b>	<b>Reference/Spec</b>
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