



COAXIAL

# Adapter, N-F to N-M

## NF-NM50+

50Ω DC to 11 GHz

### THE BIG DEAL

- Excellent VSWR, 1.03:1 typ. at 6 GHz
- Low insertion loss, 0.04 dB typ. at 6 GHz
- Tri metal finish

### APPLICATIONS

- Interconnection of RF cables and equipment
- Connector saver



Generic photo used for illustration purposes only

<b>Model No.</b>	NF-NM50+
<b>Case Style</b>	DJ1028-1
<b>Connectors</b>	N-Fem to N-Male

#### +RoHS Compliant

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

### PRODUCT OVERVIEW

Mini-Circuits' NF-NM50+ is a coaxial N-Female to N-Male adapter supporting a wide range of applications from DC to 11 GHz. This model provides excellent VSWR, low insertion loss, and flat response versus frequency. The NF-NM50+ features a tri-metal finish construction and measures only 1.58" in length.

### KEY FEATURES

Feature	Advantages
Excellent VSWR, 1.03:1 typ. at 6 GHz	Provides good matching for 50Ω systems and minimizes signal reflections across wide Frequency Range.
Very low insertion loss, 0.04 dB typ. at 6 GHz	Provides excellent signal power transmission from input to output.
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. OR  
ECO-009990  
NF-NM50+  
MCL NY  
220228





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NF-NM50+

Mini-Circuits

### MAXIMUM RATINGS

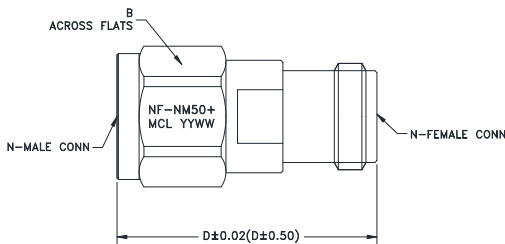
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

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

### ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
		DC		11	
Frequency Range		DC		11	GHz
Insertion Loss	DC-6	—	0.04	0.2	dB
	6-11	—	0.07	0.3	
VSWR	DC-6	—	1.02	1.1	:1
	6-11	—	1.06	1.2	

### OUTLINE DRAWING



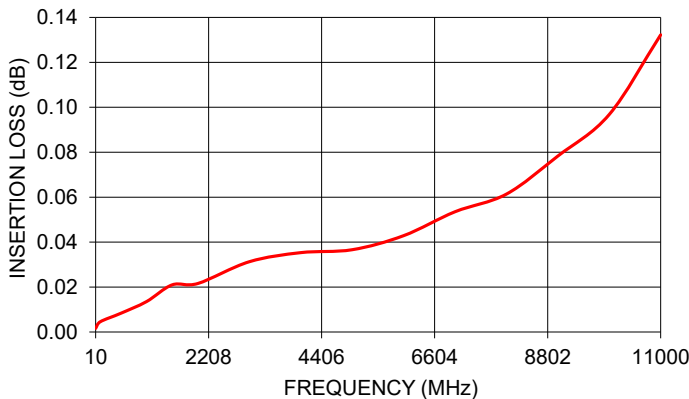
### OUTLINE DIMENSIONS (Inches/mm)

A	B	C	D	E	wt
--	0.748	--	1.580	--	grams
--	19.0	--	40.1	--	52

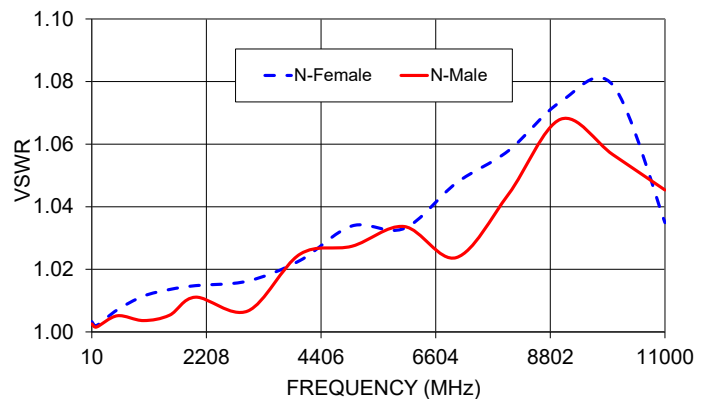
### TYPICAL PERFORMANCE DATA

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	
		N-Female	N-Male
10	< 0.01	< 0.01	< 1.01
100	< 0.01	< 0.01	< 1.01
500	0.01	1.01	1.01
1000	0.01	1.01	< 1.01
1500	0.02	1.01	1.01
2000	0.02	1.01	1.01
3000	0.03	1.02	1.01
4000	0.04	1.02	1.02
5000	0.04	1.03	1.03
6000	0.04	1.03	1.03
7000	0.05	1.05	1.02
8000	0.06	1.06	1.04
9000	0.08	1.07	1.07
10000	0.10	1.08	1.06
11000	0.13	1.03	1.05

NF-NM50+  
INSERTION LOSS



NF-NM50+  
VSWR



### NOTES

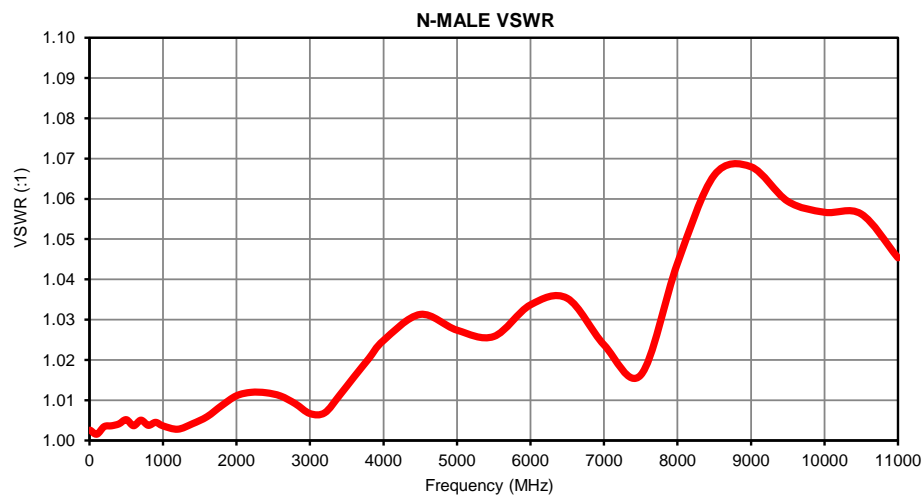
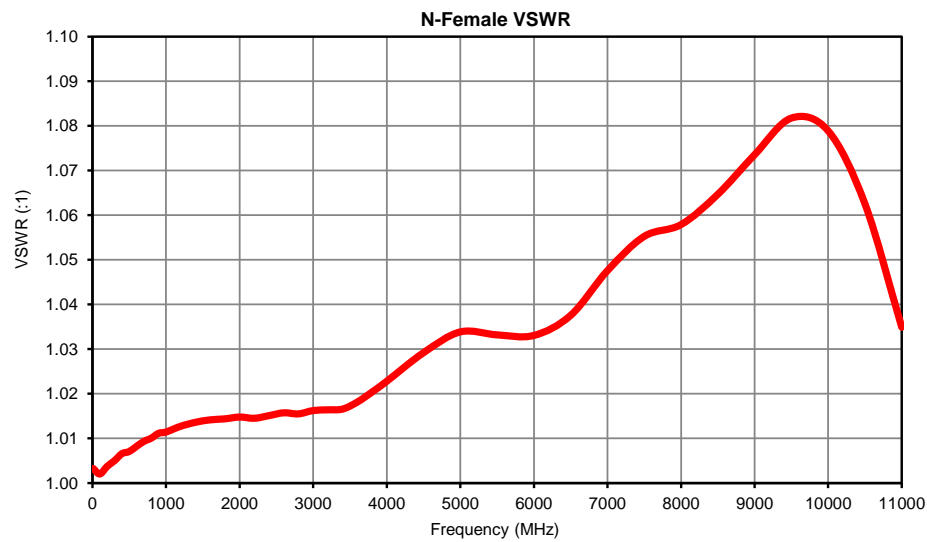
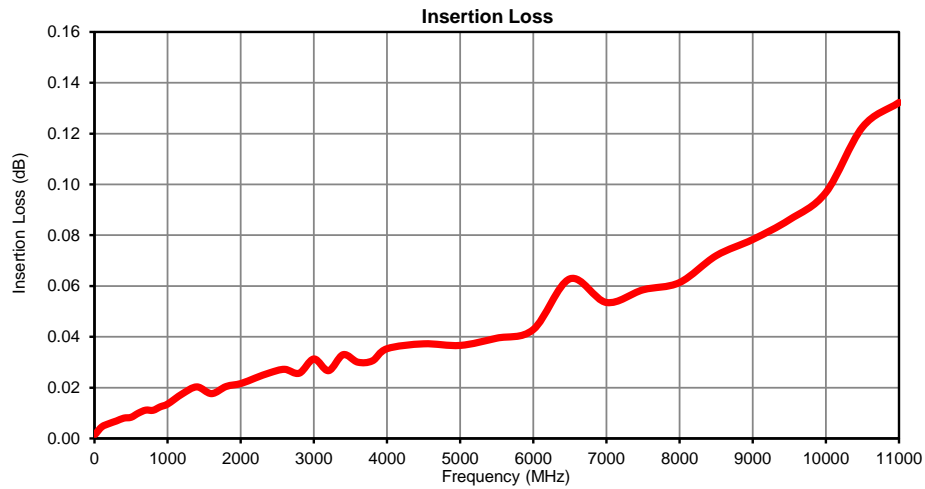
- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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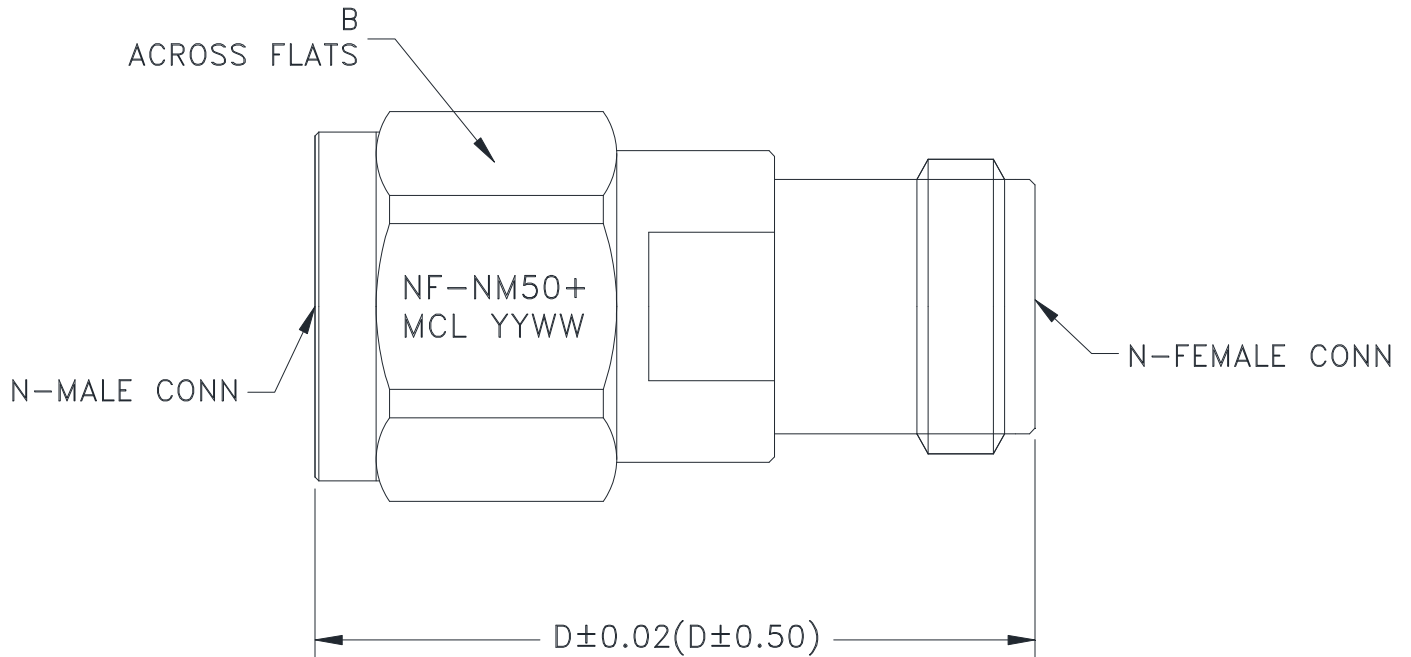
## Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	N-FEMALE VSWR (:1)	N-MALE VSWR (:1)
10	0.00	1.00	1.00
100	0.00	1.00	1.00
200	0.01	1.00	1.00
300	0.01	1.01	1.00
400	0.01	1.01	1.00
500	0.01	1.01	1.01
600	0.01	1.01	1.00
700	0.01	1.01	1.01
800	0.01	1.01	1.00
900	0.01	1.01	1.00
1000	0.01	1.01	1.00
1200	0.02	1.01	1.00
1400	0.02	1.01	1.00
1600	0.02	1.01	1.01
1800	0.02	1.01	1.01
2000	0.02	1.01	1.01
2200	0.02	1.01	1.01
2400	0.03	1.02	1.01
2600	0.03	1.02	1.01
2800	0.03	1.02	1.01
3000	0.03	1.02	1.01
3200	0.03	1.02	1.01
3400	0.03	1.02	1.01
3600	0.03	1.02	1.02
3800	0.03	1.02	1.02
4000	0.04	1.02	1.02
4500	0.04	1.03	1.03
5000	0.04	1.03	1.03
5500	0.04	1.03	1.03
6000	0.04	1.03	1.03
6500	0.06	1.04	1.04
7000	0.05	1.05	1.02
7500	0.06	1.06	1.02
8000	0.06	1.06	1.04
8500	0.07	1.06	1.07
9000	0.08	1.07	1.07
9500	0.09	1.08	1.06
10000	0.10	1.08	1.06
10500	0.12	1.06	1.06
11000	0.13	1.03	1.05

## Typical Performance Curves



### Outline Dimensions



CASE#	A	B	C	D	E	WT. GRAMS
DJ1028-1	--	.748 (19.0)	--	1.58 (40.1)	--	52

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

#### Notes:

1. Case material: Free Machining Brass (C3604 BD).
2. Finish: Tri Metal Alloy PLATING.



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



Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://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 or -55° to 85° C or -45° to 100° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 100°C, 5 cycles	MIL-STD-202, Method 107, Condition B except over -55° to 100°C
Connector Durability	500 mating/unmating cycles	MIL-PRF-39012E, PARAGRAPH 4.6.12
Drop Test	1 meter height, 5 times	