



COAXIAL

# Adapter, N-M to N-M

## NM-NM50+

50Ω DC to 6 GHz

### THE BIG DEAL

- Ultra-wideband, DC-6 GHz
- Flat response
- Low insertion loss, 0.12 dB
- Excellent VSWR, 1.03:1 typ.

### APPLICATIONS

- Interconnection of RF cables and equipment
- Test setup



Generic photo used for illustration purposes only

Model No.	NM-NM50+
Case Style	DJ2460
Connectors	N-Male to N-Male

#### +RoHS Compliant

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

### PRODUCT OVERVIEW

Mini-Circuits' NM-NM50+ is a coaxial N-Male to N-Male adapter supporting a wide range of applications from DC to 6 GHz. This model provides excellent VSWR, low insertion loss, and flat response versus frequency. The NM-NM50+ features passivated stainless steel construction and measures only 0.72" (l) x 0.80" (dia.).

### KEY FEATURES

Feature	Advantages
Wideband, DC to 6 GHz	Wide Frequency Range provides application flexibility and makes this model ideal for broadband and multi-band use.
Excellent VSWR, 1.03:1 typ.	Provides good matching for 50Ω systems and minimizes signal reflections across wide Frequency Range.
Low insertion loss, 0.12 dB	Provides excellent signal power transmission from input to output.
Passivated stainless steel construction.	Stands up to wear and tear in demanding environments and provides excellent reliability.
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. A  
ECO-012138  
NM-NM50+  
MCL NY  
220221





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**NM-NM50+**

## MAXIMUM RATINGS

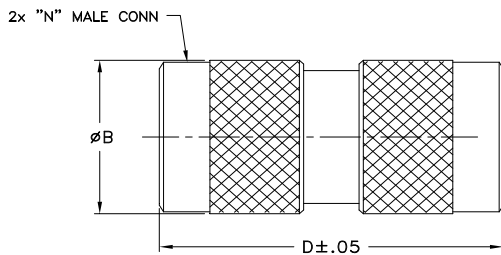
Parameter	Ratings
Operating temperature	-55°C to 100°C
Storage temperature	-55°C to 100°C

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

## ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		6	GHz
Insertion Loss	DC - 6	—	0.12	—	dB
	DC - 2	—	1.01	1.2	
	DC - 4	—	1.02	1.2	
VSWR	DC - 6	—	1.03	1.2	:1

## OUTLINE DRAWING



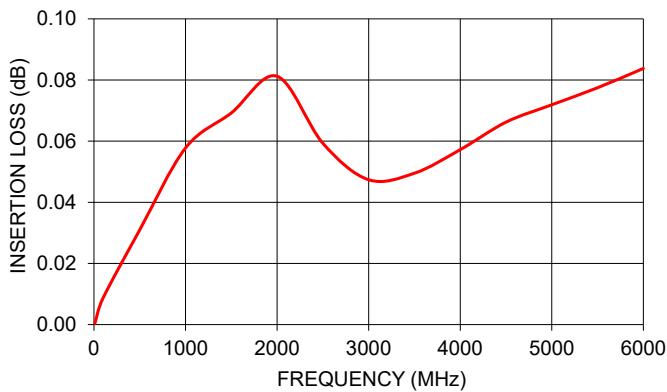
## OUTLINE DIMENSIONS (Inch/mm)

A	B	C	D	E	wt
--	0.791	--	1.470	--	grams
--	20.1	--	37.35	--	48.4

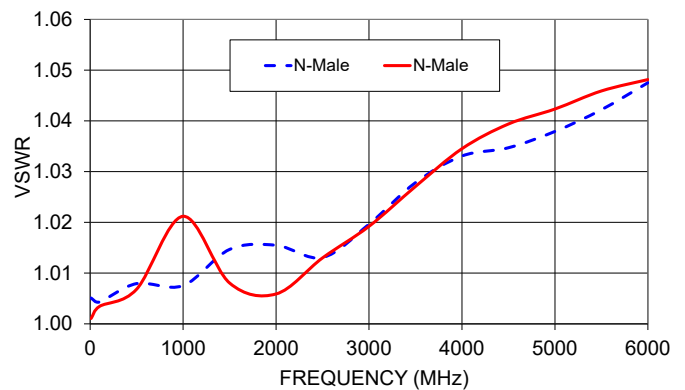
## TYPICAL PERFORMANCE DATA

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	
		N-Male	N-Male
10	0.00	1.01	1.00
100	0.01	1.00	1.00
500	0.03	1.01	1.01
1000	0.06	1.01	1.02
1500	0.07	1.01	1.01
2000	0.08	1.02	1.01
2500	0.06	1.01	1.01
3000	0.05	1.02	1.02
3500	0.05	1.03	1.03
4000	0.06	1.03	1.03
4500	0.07	1.03	1.04
5000	0.07	1.04	1.04
5500	0.08	1.04	1.05
6000	0.08	1.05	1.05

NM-NM50+  
INSERTION LOSS



NM-NM50+  
VSWR



### NOTES

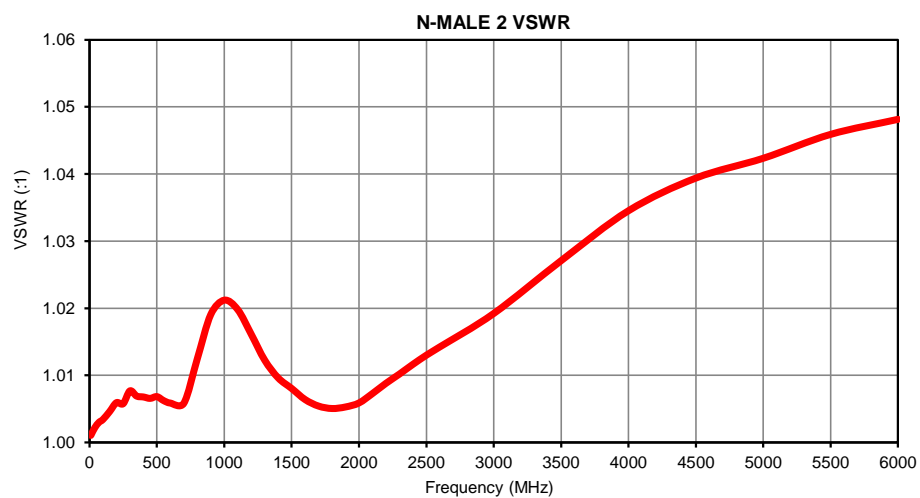
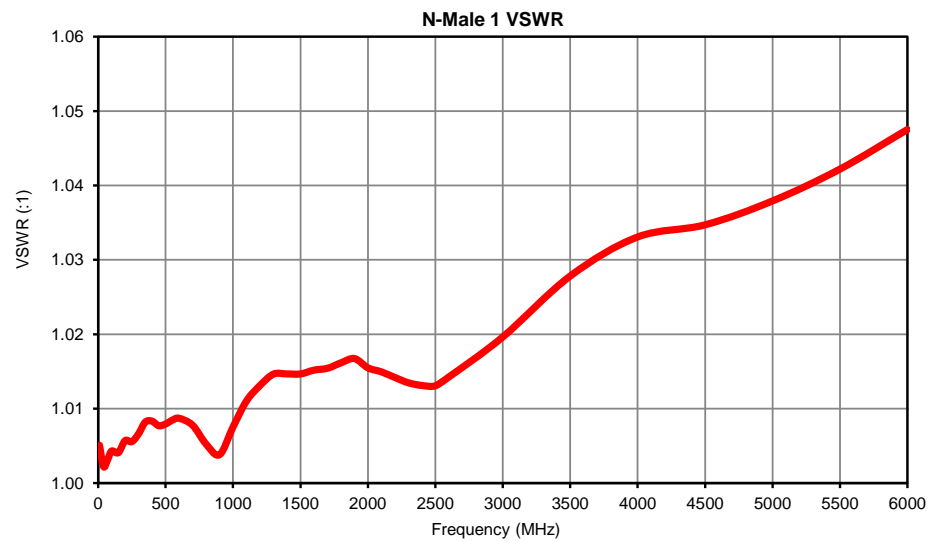
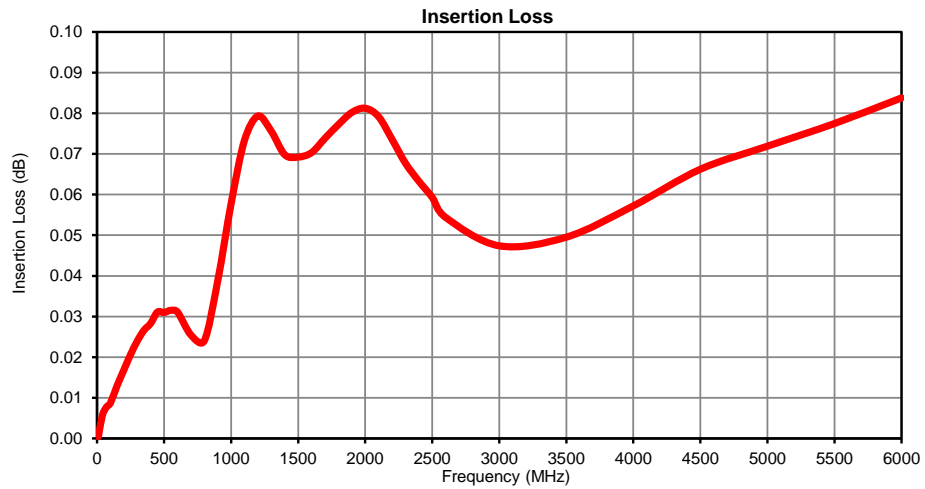
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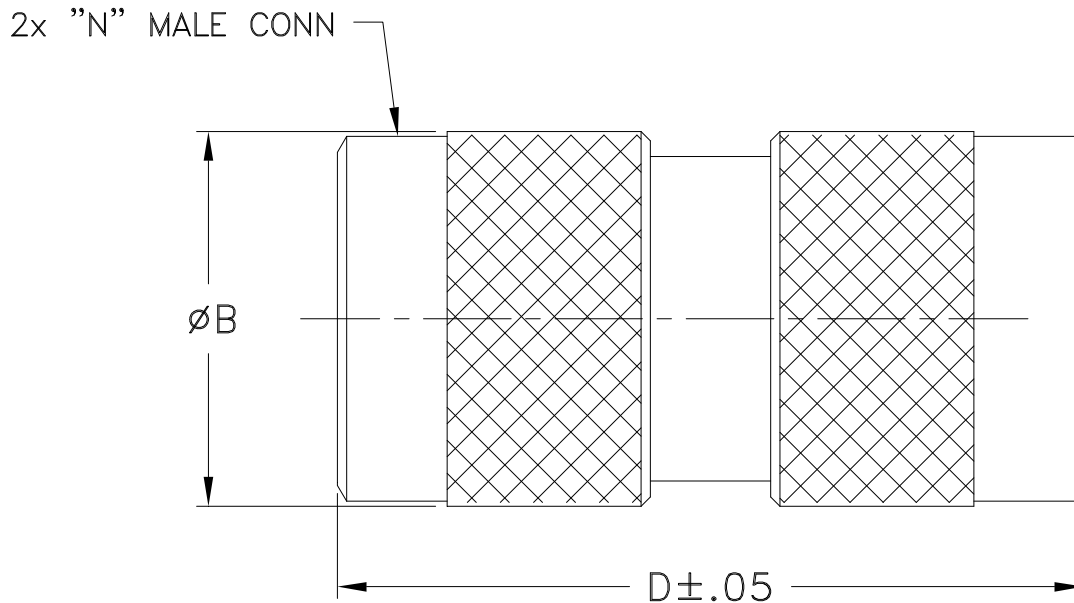
## Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	N-MALE 1 VSWR (:1)	N-MALE 2 VSWR (:1)
10	0.00	1.01	1.00
40	0.01	1.00	1.00
70	0.01	1.00	1.00
100	0.01	1.00	1.00
150	0.01	1.00	1.00
200	0.02	1.01	1.01
250	0.02	1.01	1.01
300	0.02	1.01	1.01
350	0.03	1.01	1.01
400	0.03	1.01	1.01
450	0.03	1.01	1.01
500	0.03	1.01	1.01
550	0.03	1.01	1.01
600	0.03	1.01	1.01
700	0.03	1.01	1.01
800	0.02	1.01	1.01
900	0.04	1.00	1.02
1000	0.06	1.01	1.02
1100	0.07	1.01	1.02
1200	0.08	1.01	1.02
1300	0.08	1.01	1.01
1400	0.07	1.01	1.01
1500	0.07	1.01	1.01
1600	0.07	1.02	1.01
1700	0.07	1.02	1.01
1800	0.08	1.02	1.01
1900	0.08	1.02	1.01
2000	0.08	1.02	1.01
2100	0.08	1.01	1.01
2200	0.07	1.01	1.01
2300	0.07	1.01	1.01
2400	0.06	1.01	1.01
2500	0.06	1.01	1.01
2600	0.05	1.01	1.01
3000	0.05	1.02	1.02
3500	0.05	1.03	1.03
4000	0.06	1.03	1.03
4500	0.07	1.03	1.04
5000	0.07	1.04	1.04
5500	0.08	1.04	1.05
6000	0.08	1.05	1.05

## Typical Performance Curves



### Outline Dimensions



CASE#	A	B	C	D	E	WT. GRAM
DJ2460	--	.791 (20.1)	--	1.471 (37.35)	--	50.0

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](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	