



THE BIG DEAL

- Low Insertion Loss, 0.16 dB typ. up to 18 GHz
- Excellent VSWR, 1.23 typ. up to 18 GHz
- Low cost adapters, available from stock
- Passivated stainless steel body and gold-plated beryllium copper center connector



Generic photo used for illustration purposes only

Model No.	NF-NMR50-18+
Case Style	DJ2575
Connectors	N- Female to N- Male

+RoHS Compliant

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

APPLICATIONS

- Interconnection of RF cables and equipment
- Rack mounted test system

PRODUCT OVERVIEW

Mini-Circuits' NF-NMR50-18+ is a right-angle N-Female to N-Male adapter supporting a wide range of applications from DC to 18 GHz. This model provides excellent VSWR, low insertion loss, and flat response versus frequency. The NF-NMR50-18+ features passivated stainless steel body, nickel plated brass housing and Gold-plated beryllium copper center contact.ct.

KEY FEATURES

Feature	Advantages
Wideband, DC to 18 GHz	Wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use.
Excellent VSWR, 1.23:1 typ. up to 18 GHz	Provides good matching for 50 Ω systems and minimizes signal reflections across wide frequency range.
Low Insertion Loss, 0.16 dB typ. up to 18 GHz	Provides excellent signal power transmission from input to output.
Passivated stainless steel body and Gold-plated beryllium copper construction center contact	Stands up to wear and tear in demanding environments and provides excellent reliability.
Wide operating temperature range, -55 to +100 °C	Withstands tough operating conditions and is suitable for use near high power componentry where heat rise is common.



COAXIAL

Adapter

NF-NMR50-18+

50Ω DC to 18 GHz Right Angle N-Female to N-Male

ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		18	GHz
Insertion Loss	DC - 6	—	0.06	0.20	dB
	6 - 12	—	0.09	0.28	
	12 - 18	—	0.12	0.34	
VSWR	DC - 18	—	1.06	1.3	:1

ABSOLUTE 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.



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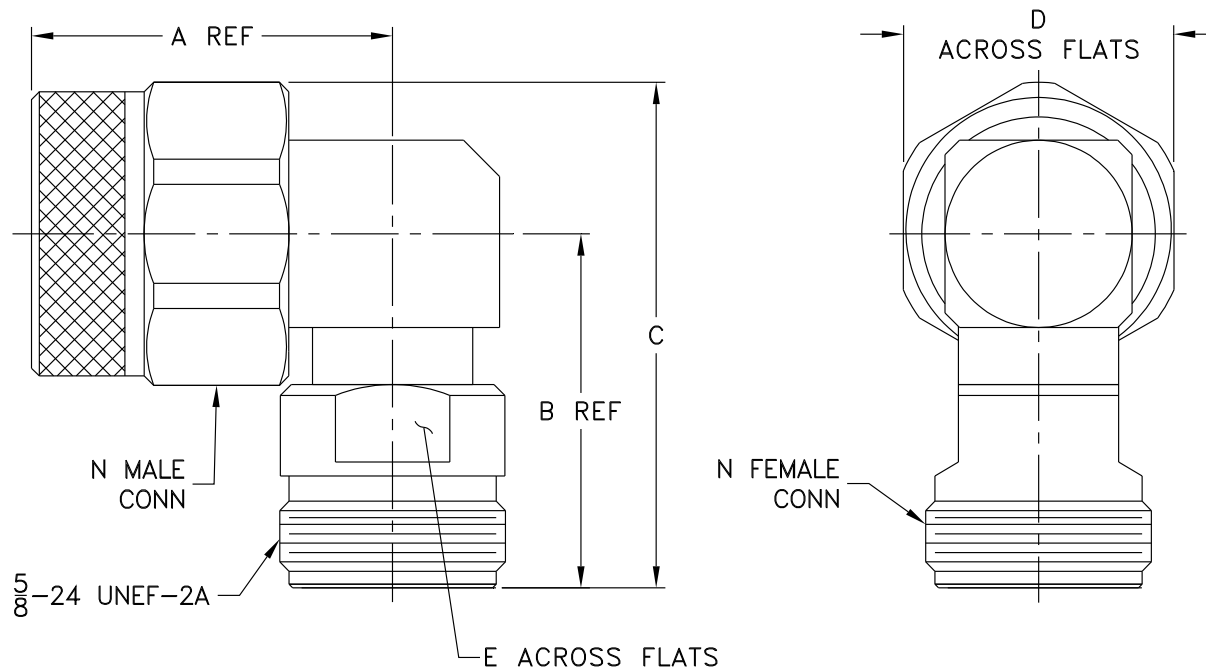
Adapter

NF-NMR50-18+

Mini-Circuits

50Ω DC to 18 GHz Right Angle N-Female to N-Male

OUTLINE DRAWING



OUTLINE DIMENSIONS (Inch/mm)

A	B	C	D	E	wt
1.00	0.98	1.400	0.748	.472	grams
25.40	24.89	35.54	19.00	12.00	56.3



COAXIAL

Adapter

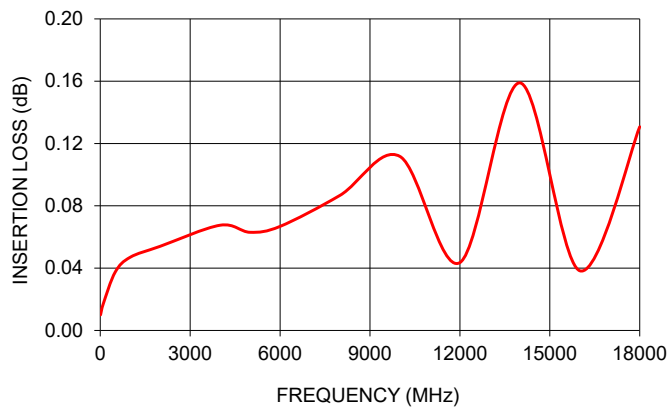
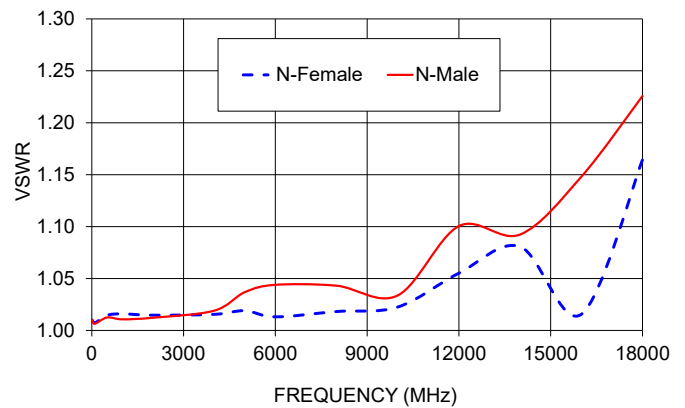
NF-NMR50-18+

Mini-Circuits

50Ω DC to 18 GHz Right Angle N-Female to N-Male

TYPICAL PERFORMANCE DATA

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	
		N- Female	N- Male
10	0.01	1.01	1.01
100	0.02	1.01	1.01
500	0.04	1.01	1.01
1000	0.05	1.02	1.01
2000	0.05	1.01	1.01
4000	0.07	1.02	1.02
5000	0.06	1.02	1.04
6000	0.07	1.01	1.04
8000	0.09	1.02	1.04
10000	0.11	1.02	1.03
12000	0.04	1.06	1.10
14000	0.16	1.08	1.09
16000	0.04	1.02	1.15
18000	0.13	1.16	1.23

NF-NMR50-18+
INSERTION LOSSNF-NMR50-18+
VSWR

NOTES

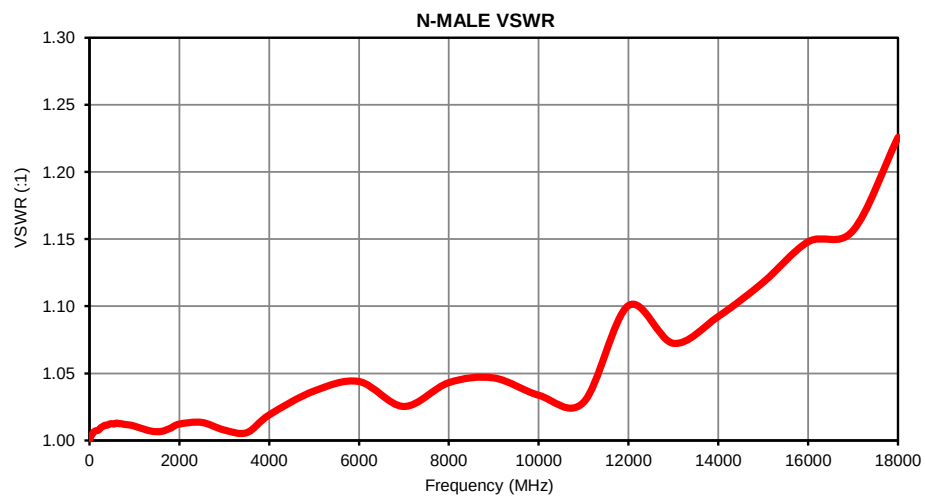
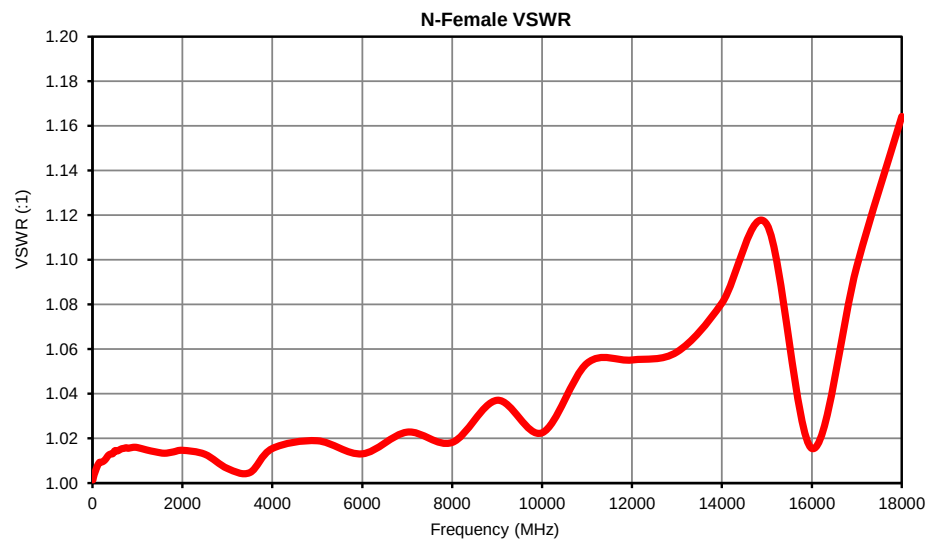
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- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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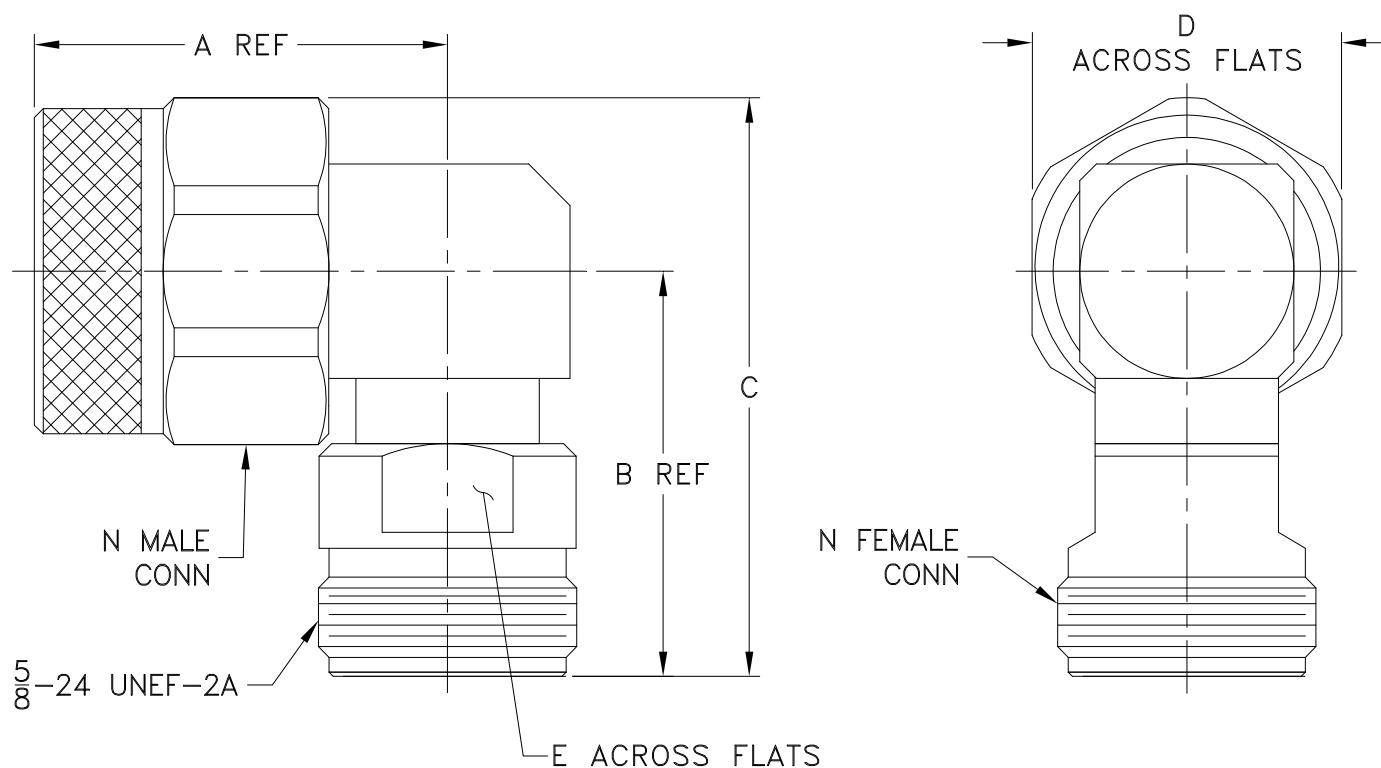
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	N-FEMALE VSWR (:1)	N-MALE VSWR (:1)
10	0.003	1.00	1.00
20	0.004	1.00	1.00
30	0.007	1.00	1.00
40	0.008	1.00	1.00
50	0.009	1.00	1.00
60	0.010	1.01	1.00
70	0.012	1.01	1.01
80	0.014	1.01	1.01
90	0.015	1.01	1.01
100	0.017	1.01	1.01
100	0.017	1.01	1.01
150	0.023	1.01	1.01
200	0.027	1.01	1.01
250	0.029	1.01	1.01
300	0.032	1.01	1.01
350	0.033	1.01	1.01
400	0.035	1.01	1.01
450	0.036	1.01	1.01
500	0.038	1.01	1.01
550	0.038	1.01	1.01
600	0.041	1.01	1.01
650	0.041	1.02	1.01
700	0.042	1.02	1.01
750	0.042	1.02	1.01
800	0.043	1.02	1.01
900	0.045	1.02	1.01
1000	0.047	1.02	1.01
1200	0.049	1.01	1.01
1400	0.052	1.01	1.01
1600	0.052	1.01	1.01
1800	0.053	1.01	1.01
2000	0.054	1.01	1.01
2500	0.055	1.01	1.01
3000	0.062	1.01	1.01
3500	0.063	1.00	1.01
4000	0.068	1.02	1.02
5000	0.063	1.02	1.04
6000	0.067	1.01	1.04
7000	0.071	1.02	1.03
8000	0.087	1.02	1.04
9000	0.101	1.04	1.05
10000	0.112	1.02	1.03
11000	0.093	1.05	1.03
12000	0.044	1.06	1.10
13000	0.111	1.06	1.07
14000	0.159	1.08	1.09
15000	0.116	1.12	1.12
16000	0.038	1.02	1.15
17000	0.193	1.10	1.16
18000	0.131	1.16	1.23

Typical Performance Curves



Outline Dimensions



CASE #	A	B	C	D	E	WT. GRAM
DJ2575	1.00 (25.40)	.98 (24.89)	1.40 (35.54)	.748 (19.00)	.472 (12.00)	56.3

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

Note:

1. Case material: **Brass**
2. Coupling material: **Stainless Steel**
3. Case Finish: **Nickel plate**
4. Coupling 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



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
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