



COAXIAL

# Adapter

## NFFL-NF50+

50Ω DC to 9 GHz N-Type Female to N-Type Female Panel Mount

### THE BIG DEAL

- Wideband, DC–9 GHz
- Low Insertion Loss, 0.05 dB typ. at 6 GHz
- Excellent VSWR at 6 GHz
- Stainless-steel construction



Generic photo used for illustration purposes only

<b>Model No.</b>	NFFL-NF50+
<b>Case Style</b>	DJ1808-3
<b>Connectors</b>	N- Female to N- Female

### +RoHS Compliant

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

### APPLICATIONS

- Interconnection of RF cable and equipment
- Instrumentation
- Rack mount equipment

### PRODUCT OVERVIEW

Mini-Circuits' NFFL-NF50+ is a N-Type female to N-Type female 4-hole flange mount panel adapter supporting a wide range of applications from DC to 9 GHz. This model provides excellent VSWR, low insertion loss, and flat response versus frequency. The NFFL-NF50+ features passivated stainless steel body and gold-plated beryllium copper construction center contact.

### KEY FEATURES

Feature	Advantages
Wideband, DC to 9 GHz	Wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use.
Excellent VSWR <ul style="list-style-type: none"> <li>• 1.11:1 typ. at 6 GHz</li> </ul>	Provides good matching for 50Ω systems and minimizes signal reflections across wide frequency range.
Low Insertion Loss <ul style="list-style-type: none"> <li>• 0.05 dB at 6 GHz</li> </ul>	Provides excellent signal power transmission from input to output.
Panel Mount	Enables use in rack mount equipment
Passivated stainless steel body and gold-plated beryllium copper center contact	Stands up to wear and tear in demanding environments and provides excellent reliability.
Very wide operating temperature range, <ul style="list-style-type: none"> <li>• -55 to +100 °C</li> </ul>	Withstands extreme operating conditions and is suitable for use near high power componentry where heat rise is common or in extreme weather conditions.

REV. A  
ECO-016681  
NFFL-NF50+  
MCL NY  
260506





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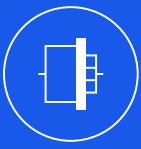
### ELECTRICAL SPECIFICATIONS AT +25 °C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		9	GHz
Insertion Loss	DC-9	–	0.05	–	dB
VSWR	DC-6	–	1.06	1.15	:1
	6-9	–	1.08	1.20	

### ABSOLUTE MAXIMUM RATINGS<sup>2</sup>

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

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



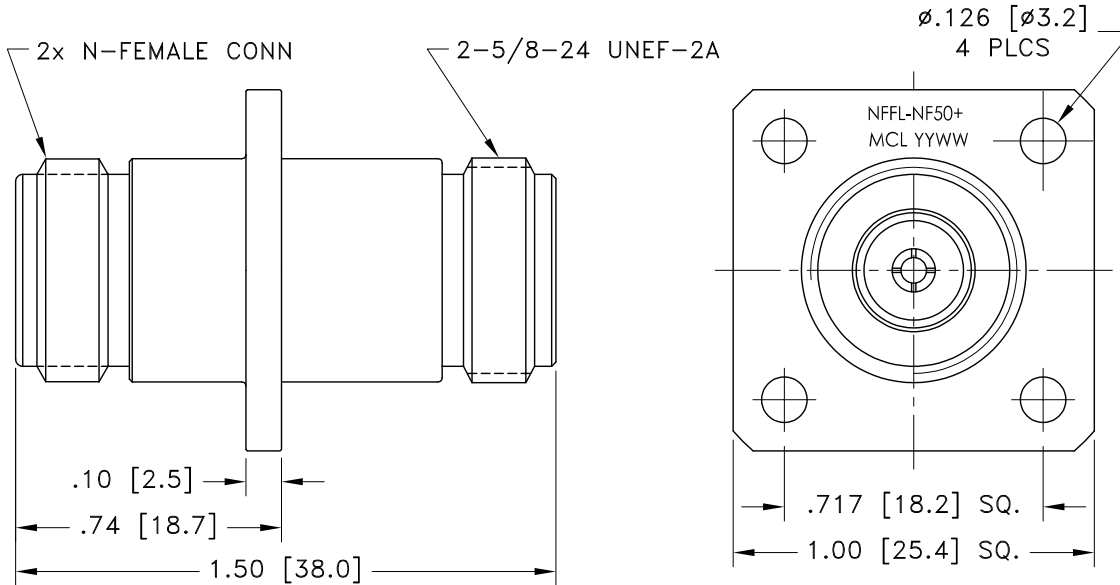
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## NFFL-NF50+

50Ω DC to 9 GHz N-Type Female to N-Type Female Panel Mount

### OUTLINE DRAWING



Weight: 50 grams

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



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# Adapter

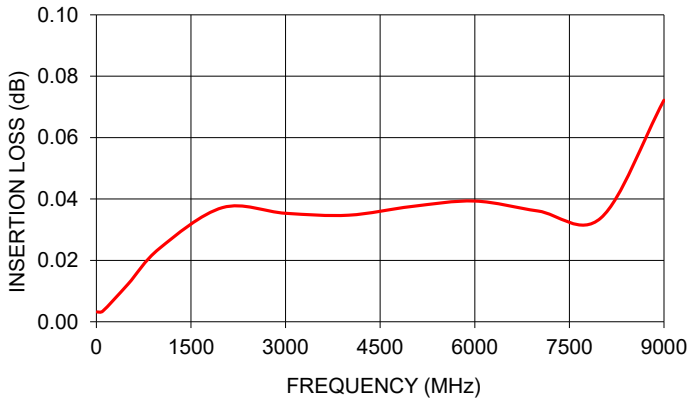
## NFFL-NF50+

50Ω DC to 9 GHz N-Type Female to N-Type Female Panel Mount

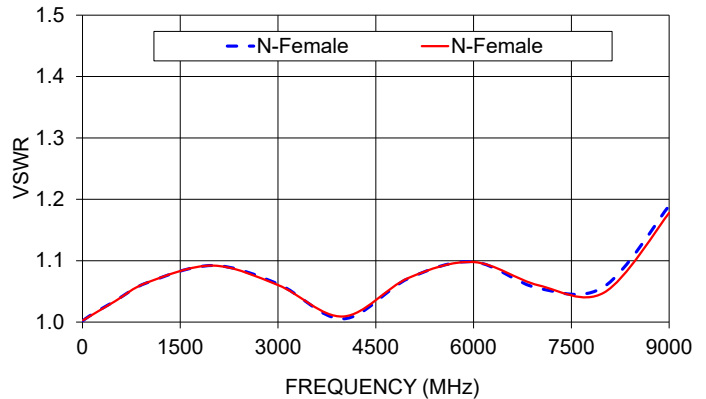
### TYPICAL PERFORMANCE DATA

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	
		N- Female	N-Female
10	0.00	1.00	1.00
100	0.00	1.01	1.01
500	0.01	1.03	1.03
1000	0.02	1.06	1.06
2000	0.04	1.09	1.09
3000	0.04	1.06	1.06
4000	0.03	1.01	1.01
5000	0.04	1.07	1.07
6000	0.04	1.10	1.10
7000	0.04	1.05	1.06
8000	0.03	1.06	1.05
9000	0.07	1.19	1.18

NFFL-NF50+  
INSERTION LOSS



NFFL-NF50+  
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-Circuit's 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](http://www.minicircuits.com/terms/viewterm.html)



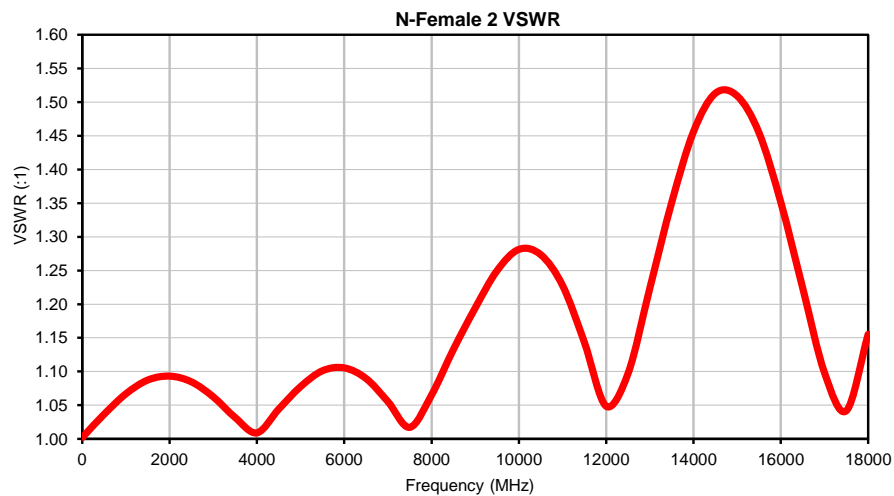
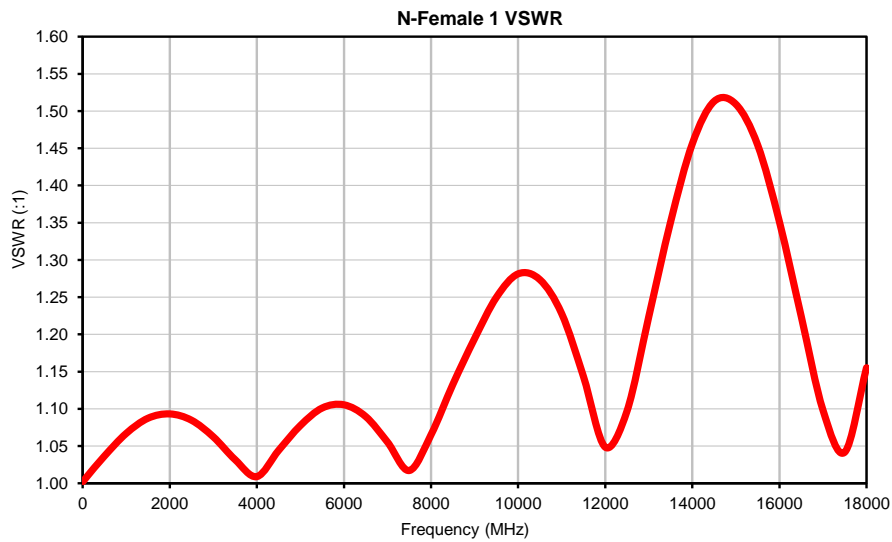
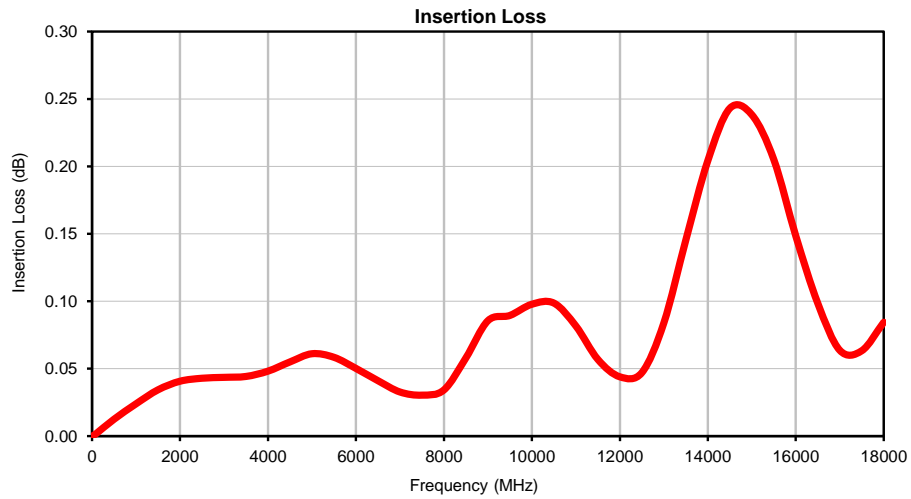
# Adapter, N Female to N Female

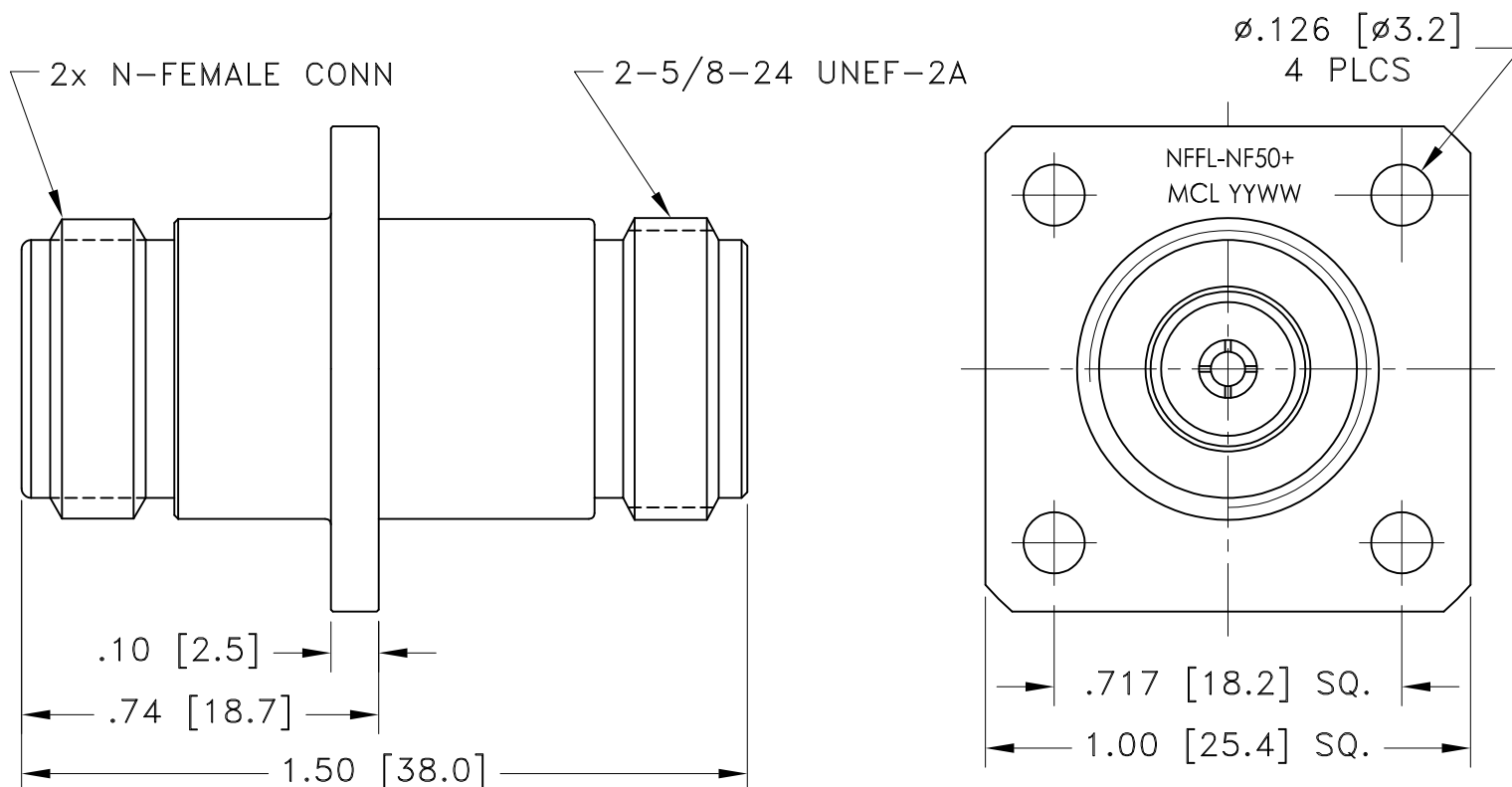
# NFFL-NF50+

## Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	N-FEMALE 1 VSWR (:1)	N-FEMALE 2 VSWR (:1)
10	0.000	1.00	1.00
100	0.002	1.01	1.01
500	0.013	1.04	1.04
1000	0.024	1.07	1.07
1500	0.034	1.09	1.09
2000	0.041	1.09	1.09
2500	0.043	1.08	1.08
3000	0.044	1.06	1.06
3500	0.044	1.03	1.03
4000	0.048	1.01	1.01
4500	0.055	1.04	1.04
5000	0.061	1.08	1.08
5500	0.058	1.10	1.10
6000	0.050	1.11	1.11
6500	0.041	1.09	1.09
7000	0.033	1.06	1.06
7500	0.030	1.02	1.02
8000	0.034	1.07	1.07
8500	0.058	1.13	1.13
9000	0.086	1.19	1.19
9500	0.089	1.25	1.25
10000	0.098	1.28	1.28
10500	0.099	1.27	1.27
11000	0.082	1.23	1.23
11500	0.057	1.14	1.14
12000	0.044	1.05	1.05
12500	0.047	1.10	1.10
13000	0.084	1.22	1.22
13500	0.145	1.35	1.35
14000	0.204	1.46	1.46
14500	0.243	1.51	1.51
15000	0.238	1.51	1.51
15500	0.205	1.45	1.45
16000	0.148	1.35	1.35
16500	0.098	1.22	1.22
17000	0.064	1.10	1.10
17500	0.063	1.04	1.04
18000	0.084	1.16	1.16

## Typical Performance Curves





Weight: 50 grams

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