## THE BIG DEAL

- Ultra-wideband, DC-18 GHz
- Low Insertion Loss, 0.14 dB typ.
- Excellent VSWR, 1.17:1 typ.


Generic photo used for illustration purposes only

| Model No. | NFFL-SM50+ |
| :---: | :---: |
| Case Style | DJ1808-1 |
| Connectors | N- Female to SMA- Male |

## APPLICATIONS

- Interconnection of RF cable and equipment
- Instrumentation


## +RoHS Compliant

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

## PRODUCT OVERVIEW

Mini-Circuits' NFFL-SM50+ is a N-Female to SMA-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 NFFL-SM50+ features tri-metal plated brass housing and Gold-plated beryllium copper construction center contact.

## KEY FEATURES

| Feature |  |
| :--- | :--- |
| Wideband, DC to 18 GHz | Wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band <br> use. |
| Excellent VSWR <br> 1.17:1 typ. | Provides good matching for $50 \Omega$ systems and minimizes signal reflections across wide frequency range. |
| Low Insertion Loss <br> 0.14 dB typ. | Provides excellent signal power transmission from input to output. |
| Tri-metal plated brass housing and Gold- <br> plated beryllium copper center contact | Stands up to wear and tear in demanding environments and provides excellent reliability. |
| Very wide operating temperature range, | Withstands extreme operating conditions and is suitable for use near high power componentry where heat rise is <br> common. |

ELECTRICAL SPECIFICATIONS AT $25^{\circ} \mathrm{C}$

| Parameter | Condition (GHz) | Min. |  | Typ. |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Max. | Units |  |  |  |  |
| Frequency Range |  | DC |  | 18 | GHz |
| Insertion Loss | DC-18 | - | 0.05 | - | dB |
| VSWR | DC-8 | - | 1.05 | 1.30 |  |
|  | $8-12$ | - | 1.19 | 1.30 | $: 1$ |
|  | $12-18$ | - | 1.17 | 1.30 |  |

## ABSOLUTE MAXIMUM RATINGS

| Parameter | Ratings |
| :--- | :---: |
| Operating Temperature | $-45^{\circ} \mathrm{C}$ to $100^{\circ} \mathrm{C}$ |
| Storage Temperature | $-45^{\circ} \mathrm{C}$ to $100^{\circ} \mathrm{C}$ |

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

## OUTLINE DRAWING



Weight: 36 gram.
Dimensions are in inches [mm]

TYPICAL PERFORMANCE DATA

| $\begin{aligned} & \text { Frequency } \\ & \text { (MHz) } \end{aligned}$ | Insertion Loss (dB) | N- Female | SMA- Male |
| :---: | :---: | :---: | :---: |
| 10 | 0.03 | 1.01 | 1.01 |
| 50 | 0.04 | 1.01 | 1.02 |
| 500 | 0.03 | 1.01 | 1.02 |
| 1000 | 0.03 | 1.03 | 1.02 |
| 2000 | 0.01 | 1.04 | 1.06 |
| 4000 | 0.02 | 1.02 | 1.02 |
| 6000 | 0.02 | 1.01 | 1.05 |
| 9000 | 0.09 | 1.12 | 1.18 |
| 10000 | 0.03 | 1.22 | 1.23 |
| 12000 | 0.01 | 1.07 | 1.16 |
| 14000 | 0.02 | 1.20 | 1.19 |
| 15000 | 0.02 | 1.15 | 1.18 |
| 17000 | 0.05 | 1.12 | 1.12 |
| 18000 | 0.06 | 1.15 | 1.21 |



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

## $\square$ Mini-Circuits

