

# Coaxial SMP Termination

## SMPF-TERM50+

50Ω DC to 18 GHz

### The Big Deal

- SMP-F connector
- Excellent return loss, 25 dB up to 10 GHz;  
22 dB up to 18 GHz
- Input power handling up to 1W



CASE STYLE: LL2145

### Product Overview

Mini-Circuits' SMPF-TERM50+ is a wideband 50Ω termination capable of absorbing signals up to 1W from DC to 18 GHz. This model provides excellent return loss across its entire operating frequency range, effectively dissipating power with minimal signal reflection. The unit features an SMP-F connector with rugged construction for a long life of use and comes in a gold-plated beryllium copper case measuring only 0.5 (l) x 0.19" (dia.).

### Key Features

Feature	Advantages
Wideband, DC to 18 GHz	Wide frequency range provides application flexibility and makes this model ideal for broad-band and multi-band use.
Good return loss: <ul style="list-style-type: none"><li>• 25 dB up to 10 GHz</li><li>• 22 dB up to 18 GHz</li></ul>	Good return loss minimizes signal reflections across multiple-decade frequency range.
SMP-female connector.	Provides termination for assemblies using SMP connector types without the need for additional adapters.
Power handling up to 1W	SMPF-TERM50+ meets a wide range of system power requirements in a small device size.
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.

#### 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/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)



# Coaxial SMP Termination

50Ω DC to 18000 MHz

## SMPF-TERM50+



CASE STYLE: LL2145

Connector	Model
SMP-FEMALE	SMPF-TERM50+

**+RoHS Compliant**

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

### 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.

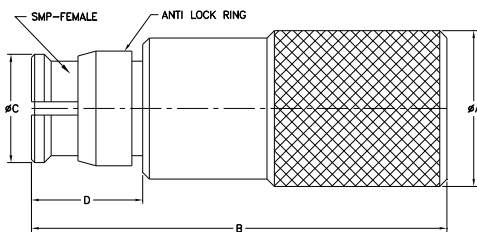
### Features

- wideband coverage, DC to 18000 MHz
- return loss, 25 dB typ. up to 10000 MHz and 22 dB typ. 1000 to 18000 MHz
- rugged construction

### Applications

- cellular communications
- satellite communications
- test set-up
- defense & radar

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	wt
.189	.500	.130	.134	-	grams
4.8	12.7	3.3	3.4	-	0.8

### Electrical Specifications at 25°C

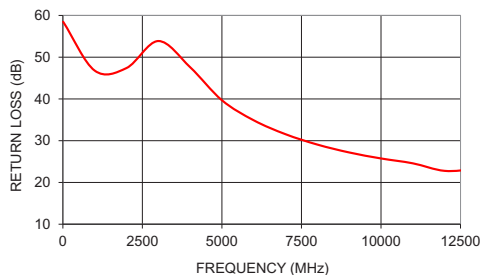
Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
<b>Frequency Range</b>		DC	—	18000	MHz
<b>Impedance</b>			50		Ohms
<b>Return Loss</b>	DC - 4000	30	45	—	dB
	4000 - 8000	25	30	—	
	8000 - 12000	20	24	—	
	12000 - 18000	18	22	—	
<b>Input Power<sup>1</sup></b>	DC - 18000	—	—	1.0	W

1. At 50°C, derate linearly to 350mW at 100°C.

### Typical Performance Data

Frequency (MHz)	Return Loss (dB)
10	58.47
1000	46.79
2000	47.40
3000	53.87
4000	47.61
5000	39.69
6000	34.89
8000	29.07
9000	27.18
10000	25.75
11000	24.58
12000	22.78
14000	23.57
15000	23.72
18000	24.10

SMPF-50+ RETURN LOSS



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