

Termination

TERM-25W-183N+

Mini-Circuits 50 Ω 25W DC to 18 GHz N-type Male

THE BIG DEAL

- Ultra-Wideband Operation, DC to 18 GHz
- Input Power Handling, 25W
- Excellent Return Loss, 22 dB Typ. up to 18 GHz



Generic photo used for illustration purposes only

Model No.	TERM-25W-183N+
Case Style	LL2798
Connectors	N-type Male

+RoHS Compliant The +Suffix identifies RoHS Compliance. See our website for methodologies and <u>qualifications</u>

APPLICATIONS

- Cellular Communications
- Satellite Communications
- Test set-up
- Defense and Radar

PRODUCT OVERVIEW

Mini-Circuits' TERM-25W-183N+ is an ultra-wideband 50Ω high power termination capable of absorbing signals up to 25W from DC to 18 GHz. It provides excellent return loss across its entire operating frequency range, effectively dissipating signal power with minimal reflections. This model has N-type male connectors, allowing connections with N-type female connectors. The unit features rugged construction for a long life of use and comes in passivated stainless steel connector with black anodized aluminum housing.

KEY FEATURES

Features	Advantages	
Wideband, DC to 18 GHz	Extremely wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use.	
Good Return Loss: • 22 dB typ. up to 18 GHz	Good return loss minimizes signal reflections across multiple-decade frequency range	
Power Handling up to 25W	Meets a wide range of system power requirements.	
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.	

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ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Condition (GHz)	Min.	Тур.	Max.	Units
Frequency Range	-	DC	-	18	GHz
	DC - 6	20.8	32	-	
Return Loss	6-12.4	17.7	30	-	dB
	12.4 - 18	15.5	29	-	
Input Power ¹	DC - 18	-	-	25	W

1. At 25°C, derate linearly to 10W at 100°C.

ABSOLUTE MAXIMUM RATINGS²

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.



Termination 50Ω 25W DC to 18 GHz N-

N-type Male

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COAXIAL CONNECTIONS

Input

N-Male

OUTLINE DRAWING



Dimensions are in inches [mm]. Tolerances: 2 PL. ± .03; 3 PL ± .010

COAXIAL HIGH POWER

Termination



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25W DC

50Ω

DC to 18 GHz N-type Male

TYPICAL PERFORMANCE DATA / GRAPHS

Frequency (MHz)	Return Loss (dB)
10	56.30
600	36.90
1000	33.30
2000	35.70
3000	33.90
4000	25.20
5000	24.70
6000	30.80
8000	29.50
10000	29.10
12000	35.60
12400	30.90
14000	23.40
16000	35.90
18000	22.10



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

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High Power Termination 50Ω, N-Male

Typical Performance Data

FREQUENCY	RETURN LOSS
(MHz)	(dB)
10	56.31
20	55.19
30	53.82
40	52.52
50	50.94
60 70	50.32
70 80	49.49
90	48.24
100	47.67
200	44.32
300	41.81
400	39.85
500	38.24
600	36.90
700	35.74
800	34.75
1000	33.92
1500	32.36
2000	35.72
2500	56.78
3000	33.86
3500	27.88
4000	25.15
4500	24.18
5000	24.74
5500 6000	20.99
6500	34.02
7000	34.24
7500	32.08
8000	29.47
8500	27.67
9000	26.32
9500	26.13
10000	29.15
10500	39.34 31.33
11500	29.12
12000	35.56
12500	28.71
13000	22.74
13500	21.61
14000	23.45
14500	26.87
15000	30.22
10000	35.81
16500	31.65
17000	32.63
17500	28.05
18000	22.15



IF/RF MICROWAVE COMPONENTS

minicircuits.com

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

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Typical Performance Curves







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Case Style

Outline Dimensions



Weight: 500 grams

Dimensions are in inches (mm). Tolerances: 2Pl. ±.03; 3Pl. ±.010

Notes:

2.

- Case Material: 1.
- Aluminum alloy. Case Finish: Black anodize.





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Mini-Circuits Environmental Specifications ENV106

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 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, conditionB-3,except over - 55° to 100°C
Connector Durability	500 mating/unmating cycles	MIL-PRF-39012E, PARAGRAPH 4.6.12

ENV106 Rev: OR 03/12/19 M173139 File: ENV106.pdf

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