

**THE BIG DEAL**

- TNC-Male Connector
- Excellent Return Loss, 26 dB
- Input Power Handling up to 2W



Generic photo used for illustration purposes only

Model No.	TTRM-50+
Case Style	LL1178
Connectors	TNC-Male

**+RoHS Compliant**

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

**APPLICATIONS**

- Cellular Communications
- Satellite Communications
- Test Setup

**PRODUCT OVERVIEW**

Mini-Circuits' TTRM-50+ is a wideband 50Ω termination capable of absorbing signals up to 2W from DC to 6000 MHz. This model provides excellent return loss across its entire operating frequency range, effectively dissipating power with minimal signal reflection. The unit features a TNC-Male connector with rugged construction for a long life of use and comes in a Cu-Sn-Zn plated brass case measuring only 1.10 (l) x 0.48" (dia.).

**KEY FEATURES**

Feature	Advantages
Wideband, DC to 6000 GHz	Wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use.
Good Return Loss, 26 dB	Good return loss minimizes signal reflections across multiple-decade frequency range.
TNC-Male Connector	Provides termination for assemblies using TNC connector types without the need for additional adapters.
Power Handling up to 2W	TTRM-50+ 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 components where heat rise is common.



## ELECTRICAL SPECIFICATIONS

Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	—	6000	MHz
Impedance		50			Ohms
Return Loss	DC - 2000	24	—	—	dB
	DC - 4000	22	—	—	
	DC - 6000	21	—	—	
Input Power <sup>1</sup>	DC - 6000	—	—	2.0	W

1. At 25°C, derate linearly at 1Watt at 100°C

ABSOLUTE MAXIMUM RATINGS<sup>1</sup>

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

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



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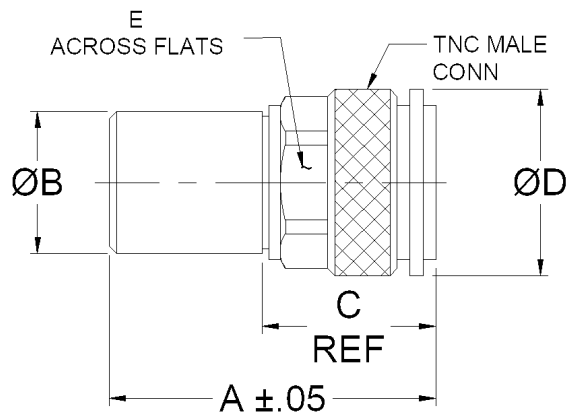
# Termination

**TTRM-50+**

Mini-Circuits®

50Ω DC to 6000 MHz TNC-Male

## OUTLINE DRAWING



## OUTLINE DIMENSIONS (Inch/mm)

A	B	C	D	E	wt
1.10	0.48	0.58	0.63	0.551	grams
27.94	12.19	14.73	16.00	14.00	24.0



COAXIAL

# Termination

**TTRM-50+**

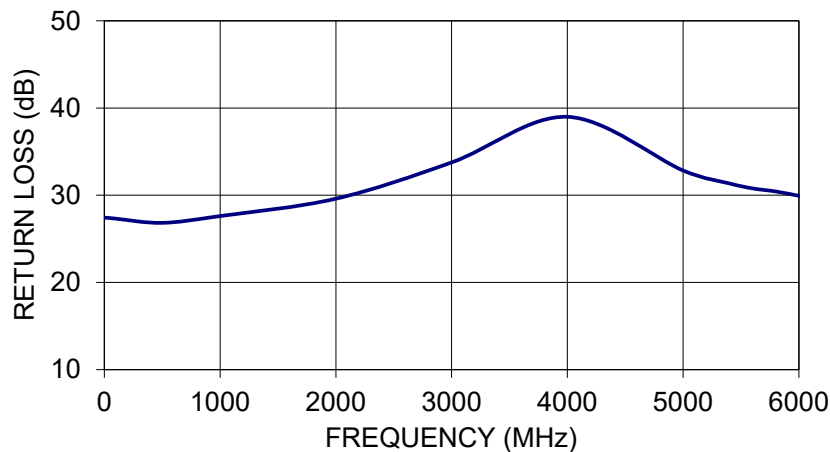
Mini-Circuits®

50Ω DC to 6000 MHz TNC-Male

## TYPICAL PERFORMANCE DATA

Frequency (MHz)	Return Loss (dB)
1.00	27.44
5.00	27.43
10.00	27.42
50.00	27.38
100.00	27.31
500.00	26.83
1000.00	27.61
2000.00	29.60
3000.00	33.76
4000.00	38.99
5000.00	32.83
5400.00	31.35
5600.00	30.78
5800.00	30.43

TTRM-50+  
RETURN LOSS



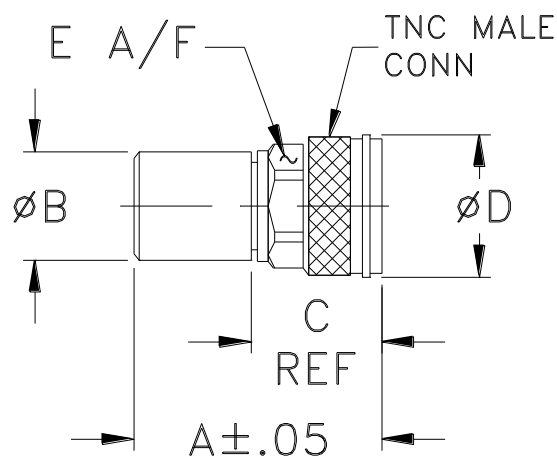
### NOTES

- 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.
- 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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## Outline Dimensions

LL1178



CASE #.	A	B	C	D	E	WT GRAMS
LL1178	1.10 (27.94)	.48 (12.20)	.58 (14.73)	.63 (16.00)	.551 (14.00)	24.0

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

### Notes:

1. Case material: Brass.
2. Case Finish: Tri-metal (Cu-Sn-Zn) plate.



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The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)

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