COAXIAL

Termination

BTRM-50+

50Ω DC to 4 GHz BNC Male

THE BIG DEAL

- BNC-Male Connector
- Excellent Return Loss, 26 dB typ.
- Wide Frequency Range, up to 4 GHz

Generic photo used for illustration purposes only

Model No.	BTRM-50+
Case Style	LL85
Connectors	BNC-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' BTRM-50+ is a wideband 50Ω termination capable of absorbing signals up to 0.5W from DC to 4 GHz. This model provides excellent return loss across its entire operating frequency range, effectively dissipating power with minimal signal reflection. The unit features and BNC-Male connector with rugged construction for a long life of use and comes in a Tri-metal plated brass case measuring only 1.46 (l) x 0.58" (dia.)

KEY FEATURES

Features	Advantages
Wideband, DC to 4 GHz	Wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use.
Good Return Loss, 26 dB typ.	Good return loss minimizes signal reflections across multiple-decade frequency range.
BNC-Male Connector	Provides termination for assemblies using BNC connector types without the need for additional adapters.
Power Handling up to 0.5W	BTRM-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 componentry where heat rise is common.

REV. F
ECO-016435
BTRM-50+
MCL NY
230110

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ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	—	4	GHz
Impedance			50		Ohms
Return Loss	DC - 0.5	40	—	—	dB
	0.5 - 1	30	—	—	
	1 - 2	21	—	—	
	2 - 4	20	—	—	
Input Power[1]	DC - 4	—	0.5	—	W

1. At 70°C, derate linearly at 5mW/°C to 350mW at 100°C.

ABSOLUTE MAXIMUM RATINGS[1]

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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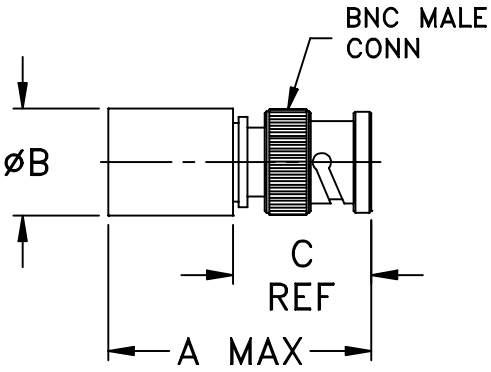
OUTLINE DRAWING



OUTLINE DIMENSIONS (Inch / mm)

A	B	D	wt
1.46	.58	.75	grams
37.08	14.73	19.05	21.5

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TYPICAL PERFORMANCE DATA

Frequency (MHz)	Return Loss (dB)
10	43.19
100	43.29
500	43.09
800	40.40
1000	38.89
1500	37.29
1800	35.50
2000	33.36
2500	29.03
2800	26.96
3000	25.76
3500	23.23
4000	21.32

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

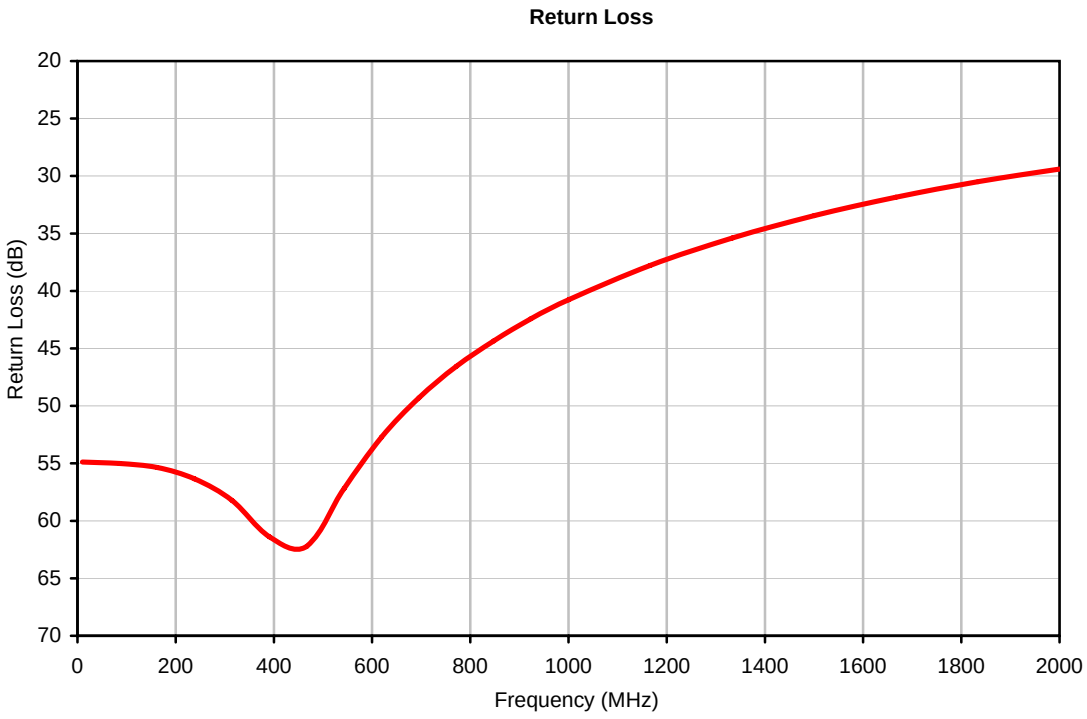
Termination 50 Ω , BNC

BTRM-50+

Typical Performance Data

FREQUENCY (MHz)	RETURN LOSS (dB)
10	54.89
86	55.01
162	55.35
238	56.34
315	58.22
391	61.38
467	62.22
543	57.18
619	52.72
695	49.30
772	46.56
848	44.35
924	42.41
1000	40.77
1167	37.77
1333	35.39
1500	33.45
1667	31.85
1833	30.50
2000	29.40

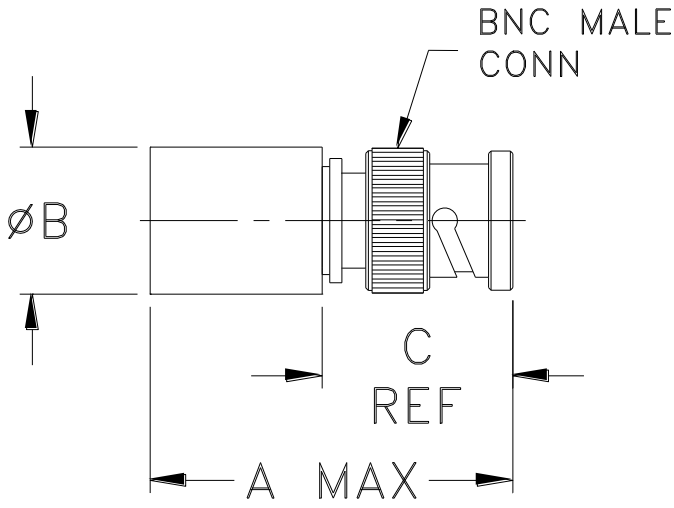
Typical Performance Curves



Case Style LL

Outline Dimensions

LL85



CASE #.	A	B	C	WT GRAMS
LL85	1.46 (37.08)	.58 (14.73)	.75 (19.05)	21.5

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

Notes:

1. Case material: Brass.
2. BTRM-50+ and BTRM-75+ are catalog models. The material of unit is Brass.

Mini-Circuits

Environmental Specifications ENV28

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 Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I