

# Coaxial RF Transformer

75Ω 0.5 to 500 MHz

## FTB-1-1-75+



Generic photo used for illustration purposes only

CASE STYLE: H16-1

BNC Connectors	Model
FEMALE/FEMALE	FTB-1-1-75*A15+
MALE/FEMALE	FTB-1-1-75*C15+
<b>BRACKET (OPTION "B")</b>	

**+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
RF Power	250mW
DC Current	30mA

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

### Coaxial Connections

	Marking
PRIMARY	BAL
SECONDARY	UNBAL

### Features

- wideband, 0.5 to 500 MHz
- balanced to single-ended
- balanced port: isolated Female BNC

### Applications

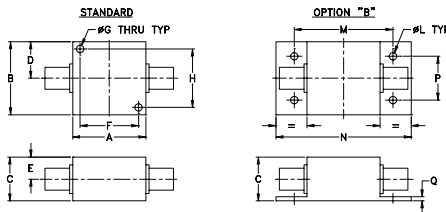
- DC Block

### Transformer Electrical Specifications

Ω RATIO	FREQUENCY (MHz)	INSERTION LOSS*		
		3 dB MHz	2 dB MHz	1 dB MHz
1	0.5-500	0.5-500	5-300	10-100

\* Insertion Loss is referenced to mid-band loss, 0.6 dB typ.

### Outline Drawing

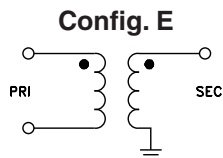


### Outline Dimensions (inch/mm)

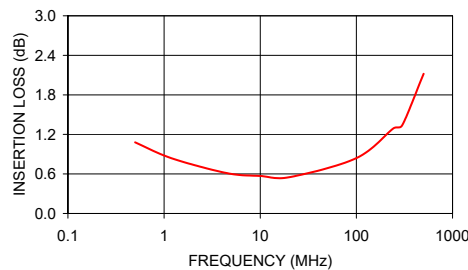
A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	wt
1.25	1.25	.81	.63	.41	1.000	.125	1.000	--	--	.125	1.688	2.19	.750	.06	grams
31.75	31.75	20.57	16.00	10.41	25.40	3.18	25.40	--	--	3.18	42.88	55.63	19.05	1.52	70.0

### Typical Performance Data

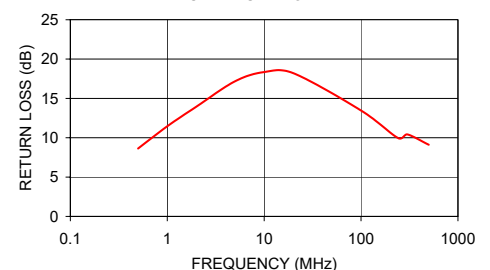
FREQUENCY (MHz)	INSERTION LOSS (dB)	INPUT R. LOSS (dB)
0.50	1.08	8.63
1.00	0.88	11.46
2.00	0.74	13.95
5.00	0.60	17.18
10.00	0.57	18.35
20.00	0.55	18.21
100.00	0.84	13.46
242.19	1.29	9.95
300.00	1.34	10.43
500.00	2.12	9.11



FTB-1-1-75+  
INSERTION LOSS



FTB-1-1-75+  
INPUT 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.
- 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)



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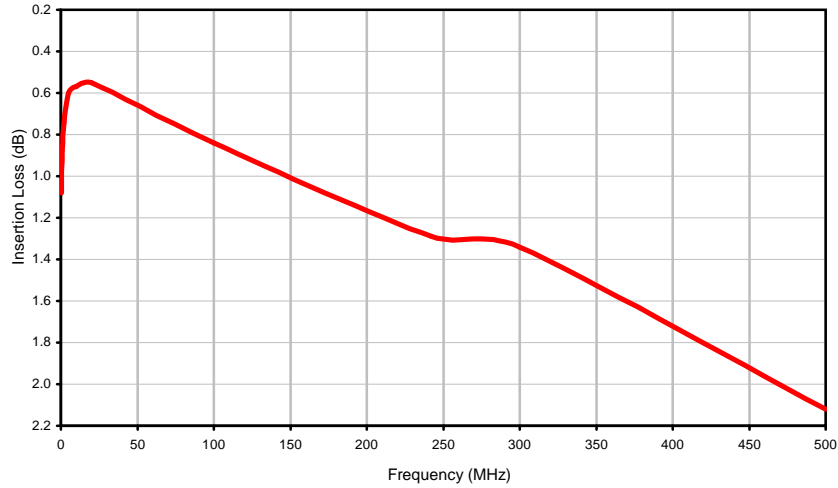
REV. E  
M151107  
FTB-1-1-75+  
IG/CP/AM  
200528

## Typical Performance Data

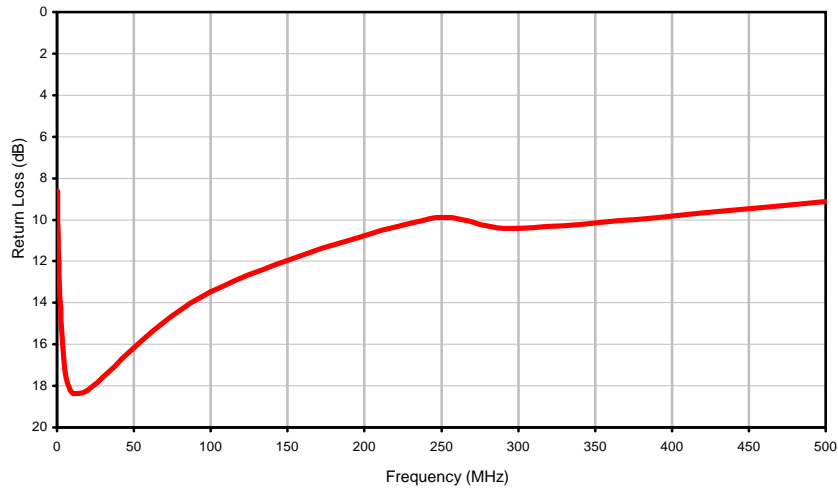
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500.00	2.12	9.11

## Typical Performance Curves

### Insertion Loss

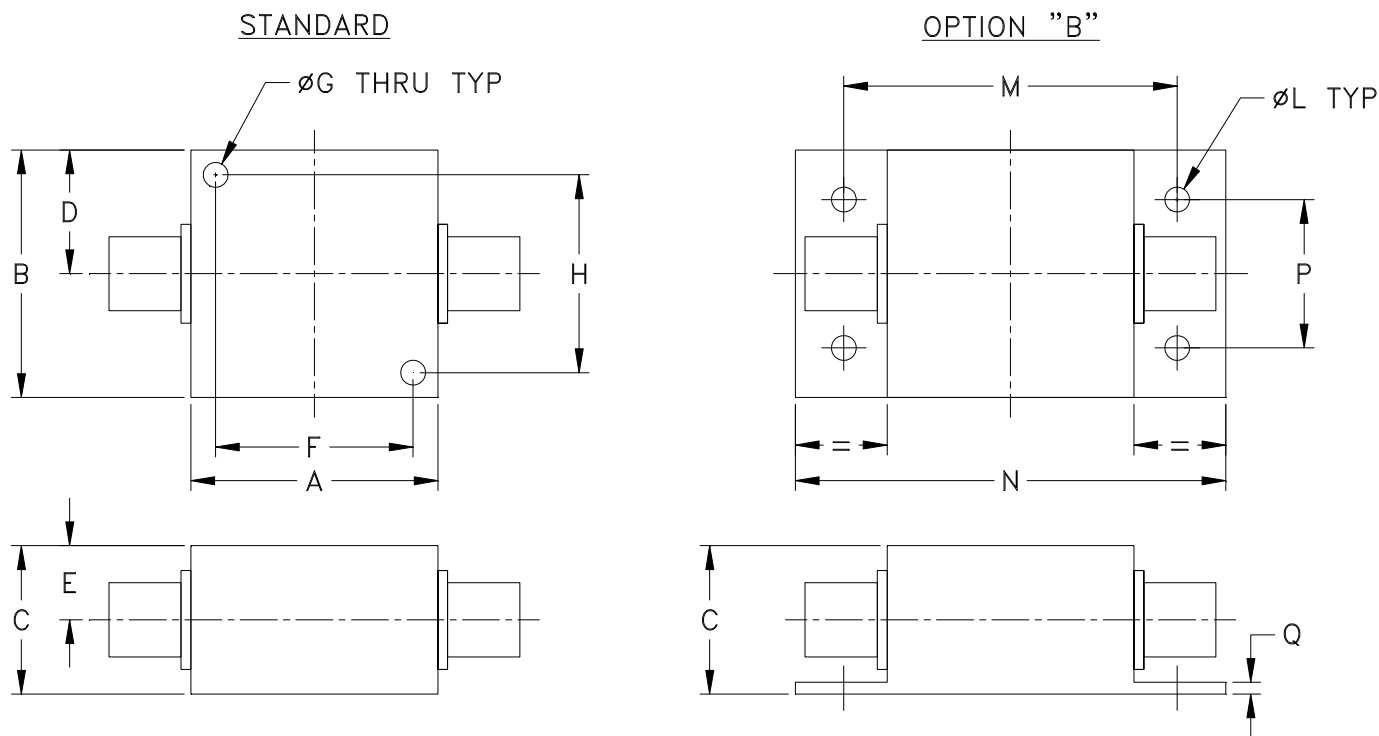


### Return Loss



## Outline Dimensions

H16-1



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
H16-1	1.25 (31.75)	1.25 (31.75)	.81 (20.57)	.63 (16.00)	.41 (10.41)	1.000 (25.40)	.125 (3.18)	1.000 (25.40)	--	--	.125 (3.18)	1.688 (42.88)	2.19 (55.63)

CASE#	P	Q	WT.GRAMS
H16-1	.750 (19.05)	.06 (1.52)	70

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

### Notes:

1. Case material: Aluminum alloy.
2. Case finish:  
For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
3. Mounting bracket available on request. Add suffix B to part number.
4. Bracket version, option B, dimension "C" changes from .81 to 1.00 inches when connectors are type N.
5. Refer to the individual model data sheet for the type of connectors available.

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RF/IF MICROWAVE COMPONENTS



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.

<b>Specification</b>	<b>Test/Inspection Condition</b>	<b>Reference/Spec</b>
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