Coaxial

Bandpass Filter

ZFBP13-75+

75Ω 12.3 to 13.8 MHz

CASE STYLE: H16

Connectors	Model
BNC	ZFBP13-75+
BRACKET (OPTION "B")	

+RoHS Compliant

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

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W at 25°C

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

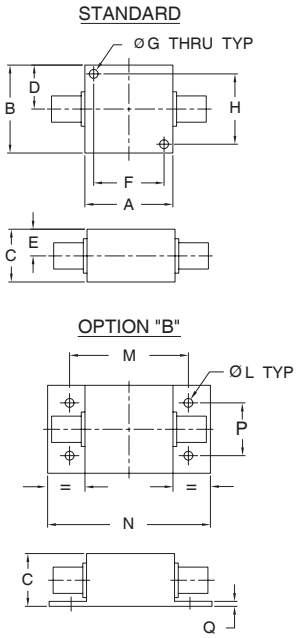
Features

- Good VSWR, 1.25:1 Typ @ Passband
- Excellent Rejection in the Stopband

Applications

- IF Signal Processing
- High Rejection Application
- Wire-Line Broadband Access
- Lab Use

Outline Drawing



Outline Dimensions (inch / mm)

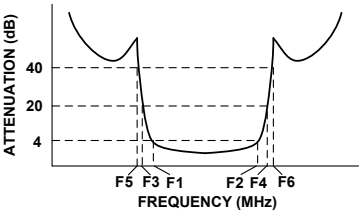
A	B	C	D	E	F	G
1.25	**1.25**	**.75**	**.63**	**.38**	**1.000**	**.125**
31.75	31.75	19.05	16.00	9.65	25.40	3.18

H	L	M	N	P	Q	wt.
1.000	**.125**	**1.688**	**2.18**	**.75**	**.06**	**grams**
25.40	3.18	42.88	55.37	19.05	1.52	70

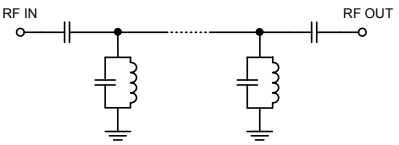
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 4dB) F1 - F2	STOPBANDS (MHz) Loss > 20dB F3	F4	Loss > 40dB F5	F6	VSWR (:1) Passband Max.	Stopband Typ.
13	12.3 - 13.8	10.6	16	10	17.5 - 300	1.4	18

Typical Frequency Response



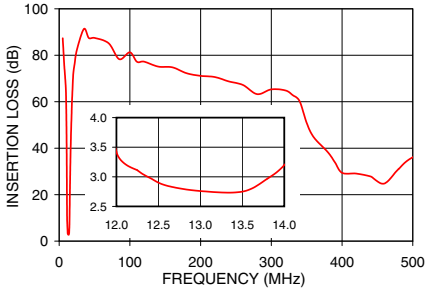
Functional Schematic



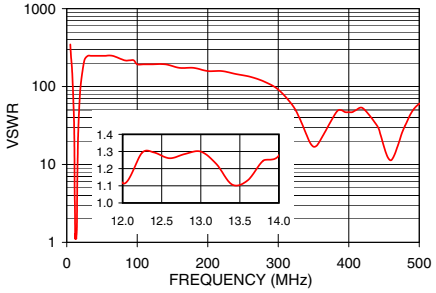
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
5.0	87.34	347.44
10.0	57.83	45.72
10.6	39.87	25.94
10.8	30.57	18.90
11.0	19.01	10.13
11.2	9.35	4.25
12.3	3.11	1.29
13.0	2.76	1.30
13.8	2.97	1.25
14.0	3.20	1.28
14.6	7.73	2.87
15.0	16.86	6.91
15.5	27.53	12.80
16.0	36.14	20.95
17.0	49.40	39.49
17.5	54.55	48.26
20.0	72.27	108.58
50.0	87.48	248.17
100.0	81.25	193.02
200.0	71.14	157.93
300.0	65.31	91.43

ZFBP13-75+
INSERTION LOSS



ZFBP13-75+
VSWR



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

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Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
0.3	97.25	0.01
1	102.14	0.01
5	87.34	0.05
7	76.63	0.09
8	72.29	0.13
9	67.70	0.21
10	57.83	0.38
11	39.87	0.67
12	3.11	17.86
13	2.76	17.71
14	2.97	19.18
15	16.86	2.53
16	36.14	0.83
17	49.40	0.44
18	54.55	0.36
20	72.27	0.16
25	82.32	0.08
35	91.36	0.07
50	87.48	0.07
100	81.25	0.09
120	77.26	0.09
140	75.14	0.09
160	74.81	0.10
180	72.29	0.10
200	71.14	0.11
220	70.64	0.11
240	68.73	0.12
260	67.21	0.13
280	63.25	0.15
300	65.31	0.19
320	64.84	0.30
330	62.90	0.44
340	60.22	0.72
350	50.93	1.03
360	44.71	0.84
380	38.23	0.40
390	33.89	0.35
400	29.40	0.37
420	29.08	0.33
440	27.87	0.55
450	25.71	1.03
460	24.80	1.54
470	27.55	0.97
480	31.05	0.55
500	36.09	0.29
550	42.16	0.20
600	44.71	0.18
650	45.87	0.18
700	46.37	0.19
750	46.61	0.20
800	46.45	0.21
850	46.40	0.22
900	45.99	0.24
950	45.68	0.26
1000	45.23	0.31

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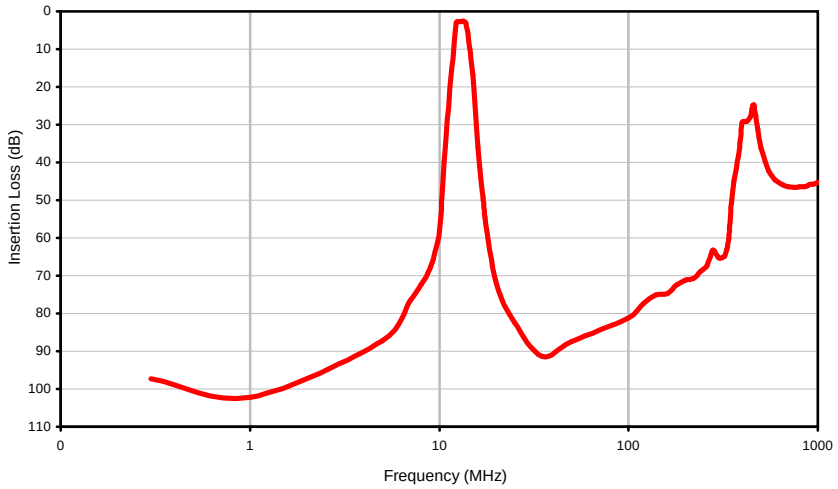
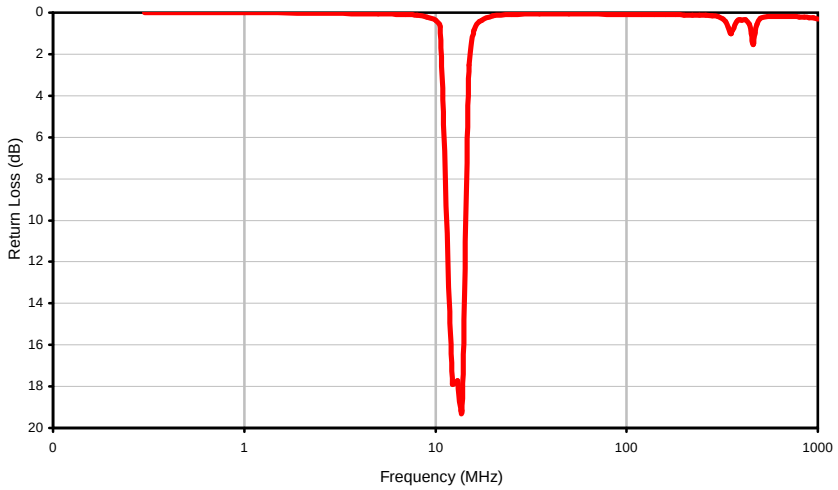
Typical Performance Curves

Insertion Loss



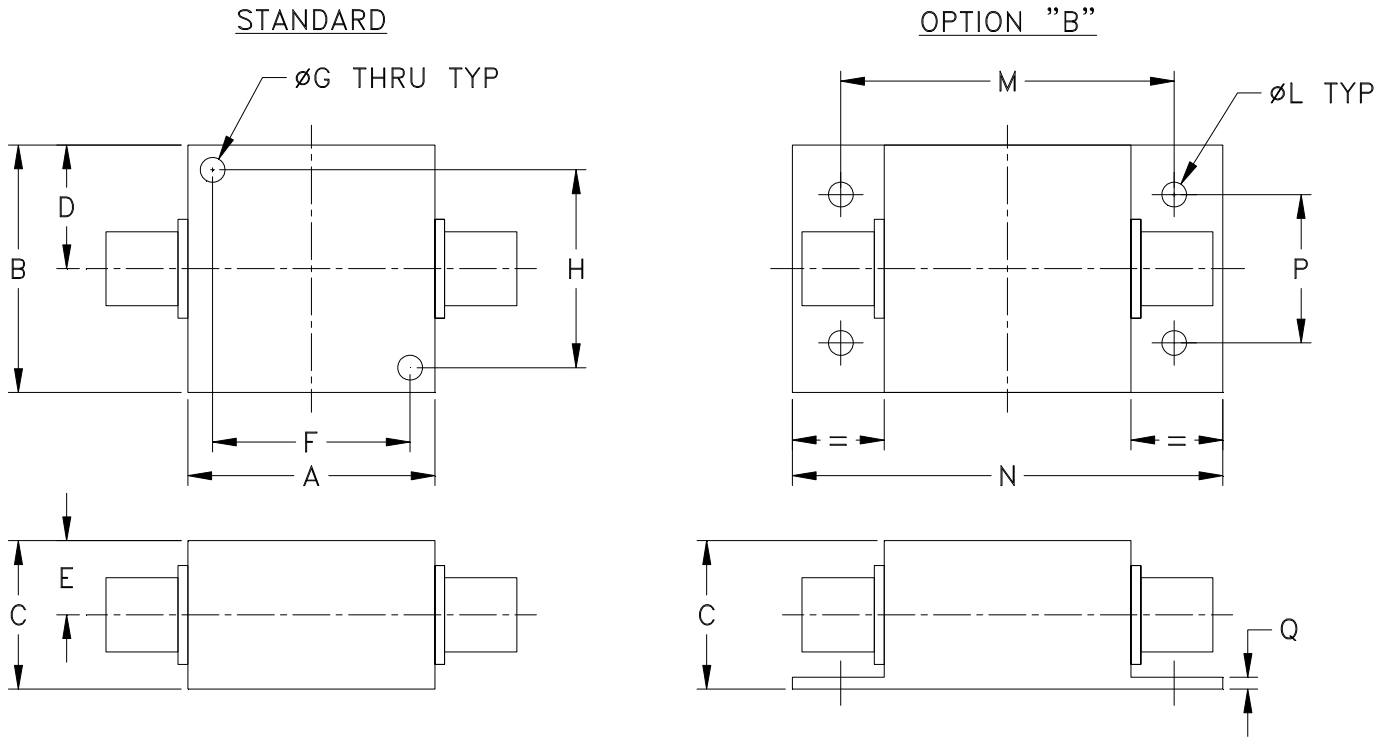
Return Loss



Case Style H

Outline Dimensions

H16



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
H16	1.25 (31.75)	1.25 (31.75)	.750 (19.05)	.63 (16.00)	.38 (9.65)	1.000 (25.40)	.125 (3.18)	1.000 (25.40)	--	--	.125 (3.18)	1.688 (42.88)	2.18 (55.37)

CASE#	P	Q	WT.GRAMS
H16	.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 .75 to .94 inches when connectors are type N.
5. Refer to the individual model data sheet for the type of connectors available.

Mini-Circuits

Environmental Specifications **ENV28T5**

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	-40° to 85°C	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