LUMPED LC COAXIAL

High Pass Filter

ZFHP-0R055-S+

50Ω 0.07 to 1000 MHz SMA Female

KEY FEATURES

- Wideband, 0.07 MHz to 1000 MHz
- Good Return Loss, 26 Typ @ Passband.
- High Rejection
- Rugged Shielded Case

Generic photo used for illustration purposes only

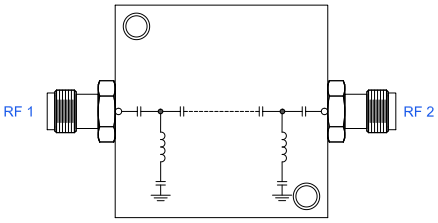
APPLICATIONS

- Wire-Line Broadband Access
- Fiber Optics Network
- Receivers / Transmitters
- Lab Use
- Test Equipment

PRODUCT OVERVIEW

Mini-Circuits' ZFHP-0R055-S+ is a High pass filter in a fabricated using connectorized package. This filter offers low insertion loss and good rejection. This will find its applications in transmitter and receivers.

FUNCTIONAL DIAGRAM



ELECTRICAL SPECIFICATIONS AT +25°C

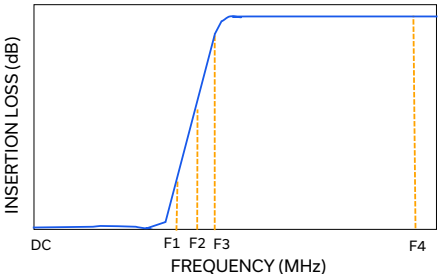
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Passband	Insertion Loss	F3-F4	0.07 - 1000	—	—	1.6	dB
	Freq. Cut-Off	Fc	0.055	—	3	—	dB
	Return Loss	F3-F4	0.07 - 1000	—	26	—	dB
Stopband	Rejection	DC-F1	DC - 0.04	40	—	—	dB
		DC-F2	DC - 0.044	20	—	—	

ABSOLUTE MAXIMUM RATINGS[1]

Parameter	Ratings
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Input Power	1m W @ 25°C

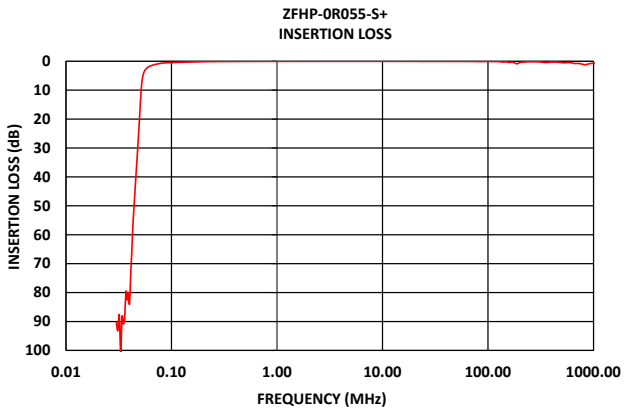
1. Permanent damage may occur if any of these limits are exceeded.

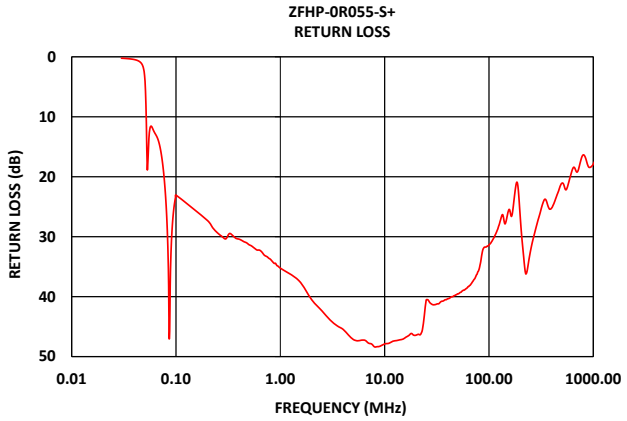
TYPICAL FREQUENCY RESPONSE



REV. C
ECO-031106
ZFHP-0R055-S+
MCINU
260910

TYPICAL PERFORMANCE GRAPHS





High Pass Filter

ZFHP-0R055-S+

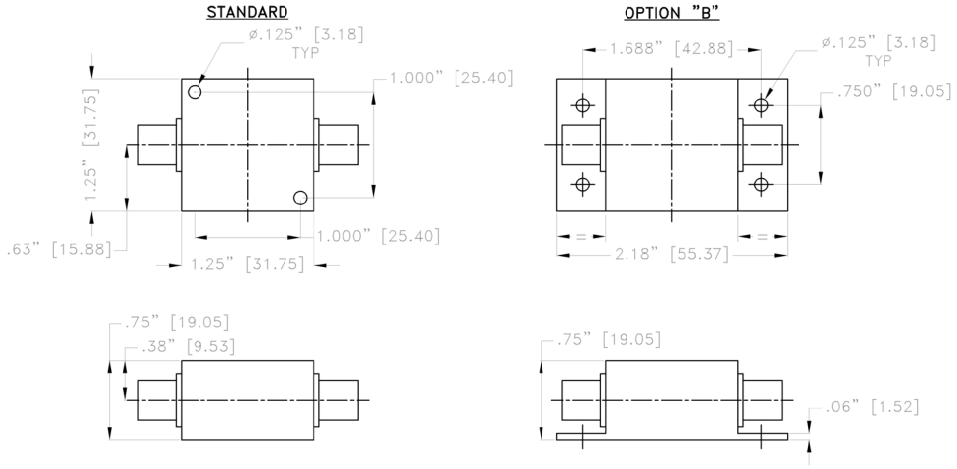
50Ω 0.07 to 1000 MHz SMA Female

CONNECTOR DESCRIPTION

Function	Connector
RF1[2]	SMA Female
RF2[2]	SMA Female

2. This filter is bi-directional, RF1 and RF2 ports may be interchanged, see S-Parameters for actual performance.

CASE STYLE DRAWING



Weight: 70g
Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015

PRODUCT MARKING*: ZFHP-0R055-S+

*Marking may contain other features or characters for internal lot control.

ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD CLICK HERE

Performance Data & Graphs	Data Graphs S-Parameter (S2P Files) Data Set (.zip file)
Case Style	H16
RoHS Status	Compliant
Environmental Ratings	ENV46

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-Circuits' 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

Coaxial High Pass Filter ZFHP-0R055-S+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
0.009	80.97	0.02
0.012	86.90	0.04
0.015	85.48	0.06
0.020	88.75	0.09
0.040	73.86	0.63
0.042	60.68	1.84
0.043	54.10	2.45
0.044	47.51	3.06
0.045	40.92	3.67
0.046	34.33	4.28
0.048	21.16	5.50
0.049	14.57	6.11
0.050	7.99	6.71
0.052	6.68	12.61
0.055	4.73	21.44
0.057	3.42	27.34
0.058	2.77	30.28
0.060	1.47	36.17
0.065	1.17	32.03
0.070	0.87	27.88
0.080	0.66	19.72
0.100	0.43	20.57
0.200	0.17	22.29
0.500	0.08	23.96
0.800	0.05	27.30
1.000	0.04	29.01
1.500	0.03	32.18
2.000	0.03	34.35
5.000	0.02	40.45
10.000	0.02	42.91
20.000	0.04	43.59
50.000	0.05	38.95
100.000	0.07	31.40
120.000	0.12	28.42
140.000	0.18	28.82
160.000	0.32	25.54
180.000	0.55	26.35
200.000	0.20	39.60
250.000	0.18	30.19
300.000	0.33	28.61
350.000	0.21	29.52
400.000	0.20	26.26
500.000	0.46	22.67
600.000	0.74	21.72
700.000	0.48	26.45
800.000	0.65	22.25
900.000	0.61	22.23
1000.000	0.96	24.10

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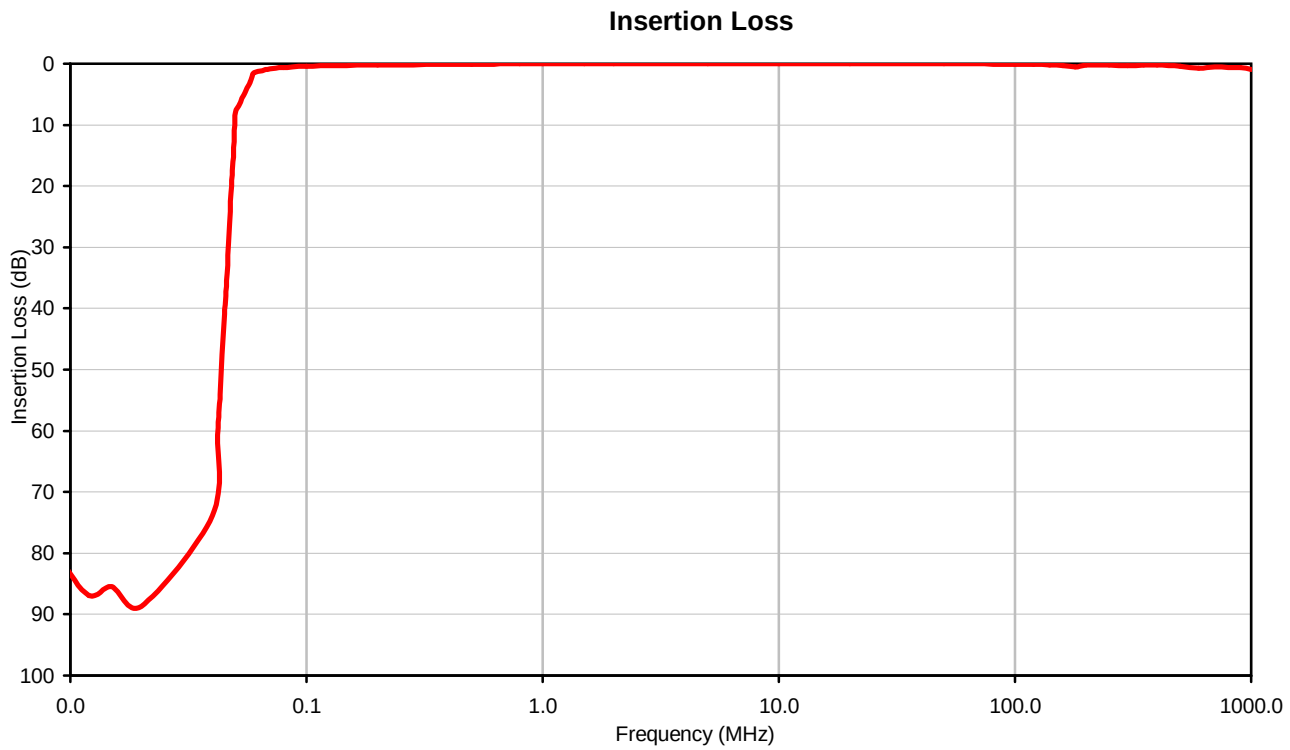
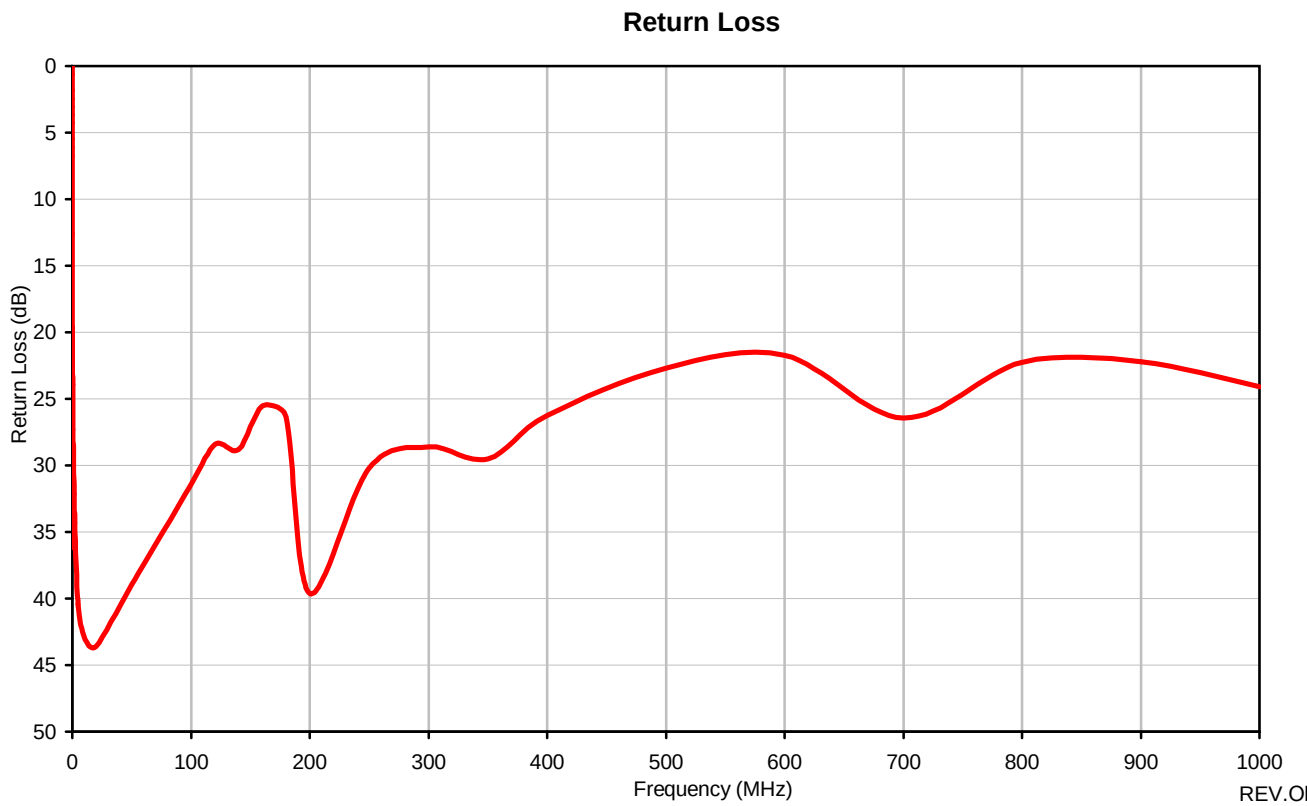
Typical Performance Curves





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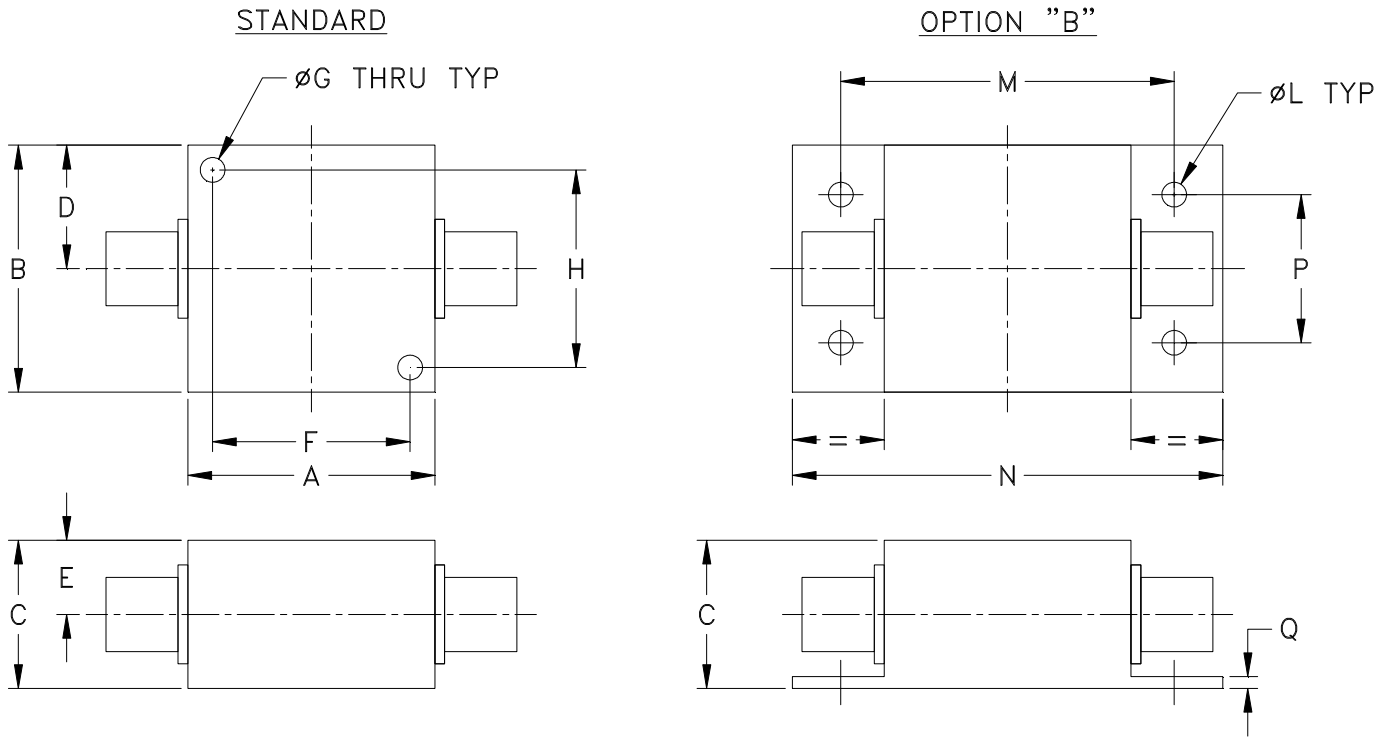
Case Style H

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)	.75 (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.

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Environmental Specifications ENV46

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
Humidity	90 to 95% RH, 40°C, 96 hours; Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103, Condintion B
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
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	50g, 11ms half-sine, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition A

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