Coaxial

High Pass Filter

ZFHP-2100-S+

50Ω 2500 to 6800 MHz

Generic photo used for illustration purposes only

CASE STYLE: H16

Connectors	Model
SMA-FEMALE BRACKET (OPTION "B")	ZFHP-2100-S+

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

Maximum Ratings

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

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

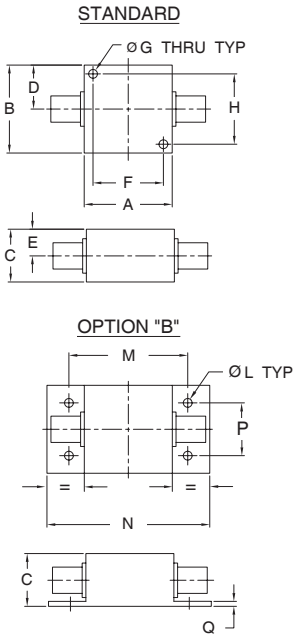
Features

- Wideband, 2500 to 6800 MHz
- Good VSWR, 1.3:1 Typ @ Passband
- High Rejection
- Rugged shielded case

Applications

- Military communications
- Harmonic rejection
- Receivers / Transmitters
- 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

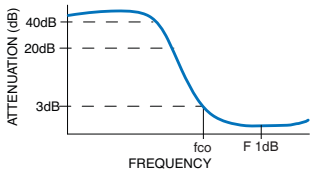
H	L	M	N	P	Q	wt.
1.000	**.125**	**1.688**	**2.18**	**.75**	**.06**	**grams**
25.40	3.18	42.88	55.37	19.05	1.52	70

Note: Please refer to case style drawing for details

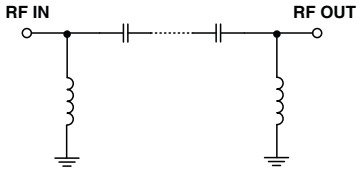
High Pass Filter Electrical Specifications (T_{AMB}= 25ºC)

STOPBAND (MHz) (Loss > 40dB)	STOPBAND (MHz) (Loss > 20dB)	fco, MHz Nom. (Loss 3dB)	PASSBAND (MHz) (Loss < 1dB)	VSWR (:1) Stopband Typ.	VSWR (:1) Passband Typ.
DC - 900	DC - 1925	2100	2500 - 6800	20	1.3

Typical Frequency Response

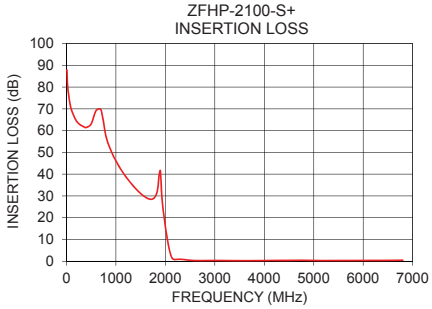


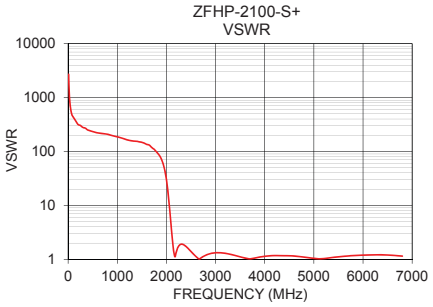
Functional Schematic



Typical Performance Data at 25ºC

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10.0	87.84	2697.13
50.0	75.72	632.17
100.0	69.65	440.38
200.0	64.50	318.68
400.0	61.46	250.19
900.0	50.86	196.78
1100.0	42.20	176.49
1925.0	30.98	62.26
1950.0	24.73	51.93
2025.0	12.23	20.12
2075.0	5.89	6.87
2100.0	3.49	3.78
2125.0	1.90	2.16
2300.0	0.90	1.91
2500.0	0.46	1.40
3000.0	0.34	1.32
4000.0	0.32	1.13
5000.0	0.35	1.04
6800.0	0.45	1.14





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

Coaxial High Pass Filter ZFHP-2100-S+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
10	87.84	0.01
50	75.72	0.03
100	69.65	0.04
200	64.50	0.05
400	61.46	0.07
900	50.86	0.09
1100	42.20	0.10
1925	30.98	0.28
1950	24.73	0.33
2025	12.23	0.86
2075	5.89	2.55
2100	3.49	4.71
2125	1.90	8.71
2300	0.90	10.13
2500	0.45	15.64
3000	0.34	17.19
4000	0.32	24.12
5000	0.35	34.09
6800	0.45	23.45

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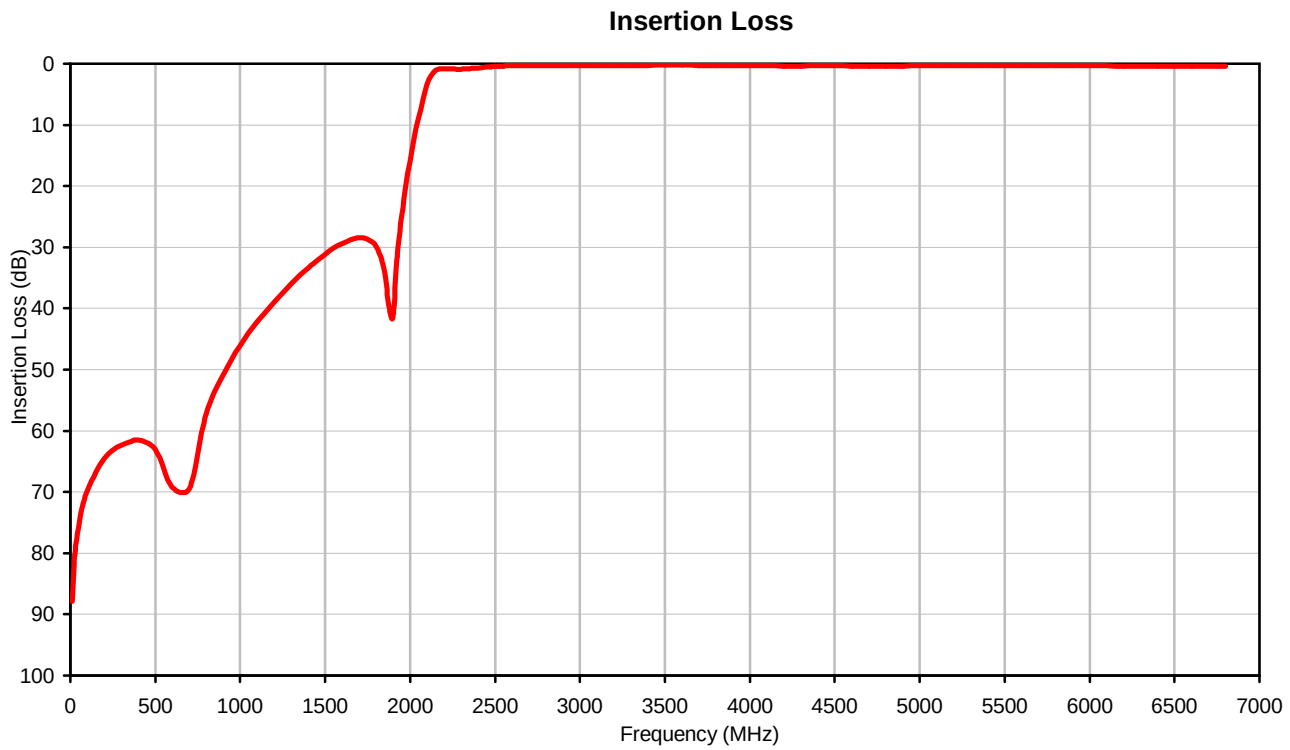
Typical Performance Curves



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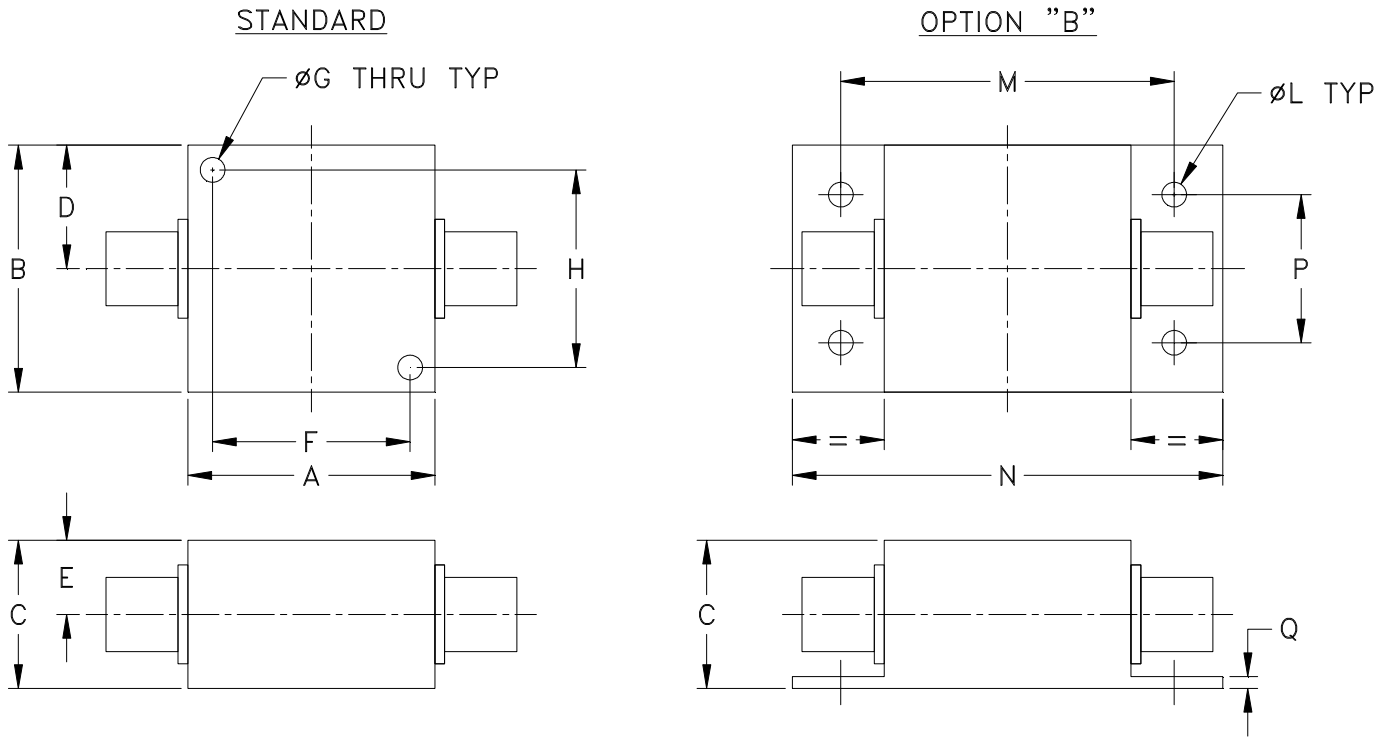
Case Style H

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 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

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