Engineering Development Model

High Pass Filter HPF-EDU1052

Connectorized filter

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability.
At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.

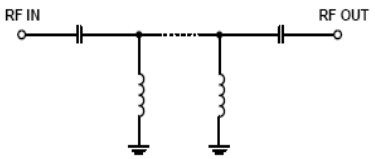
Please click "Back", and then click "Contact Us" for Applications support.

CASE STYLE : H16

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C

Parameter	Min.	Typ.	Max.	Units
Passband (Loss < 1.5 dB)	14		1500	MHz
Insertion loss 3dB		11.6		MHz
Stopband (Loss > 20 dB)	6		8	MHz
(Loss > 40 dB)	0.5		6	MHz
Passband VSWR		1.05	1.2	(:1)
Stopband VSWR		20		(:1)

Functional Schematic



MAXIMUM RATINGS

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	1 W

PIN CONNECTIONS

Input	1
Output	2
Not Connected	-
Case Ground	-

High Pass Filter HPF-EDU1052

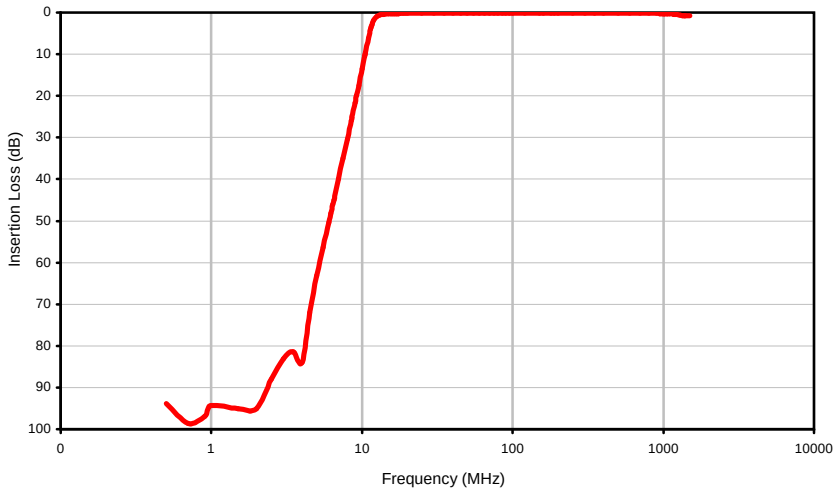
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
0.5	93.91	0.01
5.0	63.16	0.07
6.0	50.42	0.09
8.0	30.45	0.21
9.5	17.53	0.44
10.5	9.65	1.18
11.0	6.22	2.23
11.4	4.00	3.78
11.6	3.11	4.86
12.0	1.82	7.70
12.5	0.96	12.58
13.0	0.59	19.18
13.5	0.45	27.78
14.0	0.39	28.33
19.0	0.20	34.04
50.0	0.11	32.80
100.0	0.10	38.93
200.0	0.11	38.99
400.0	0.13	35.57
600.0	0.16	34.64
800.0	0.19	35.42
1000.0	0.26	41.79
1200.0	0.41	34.71
1500.0	0.75	26.74

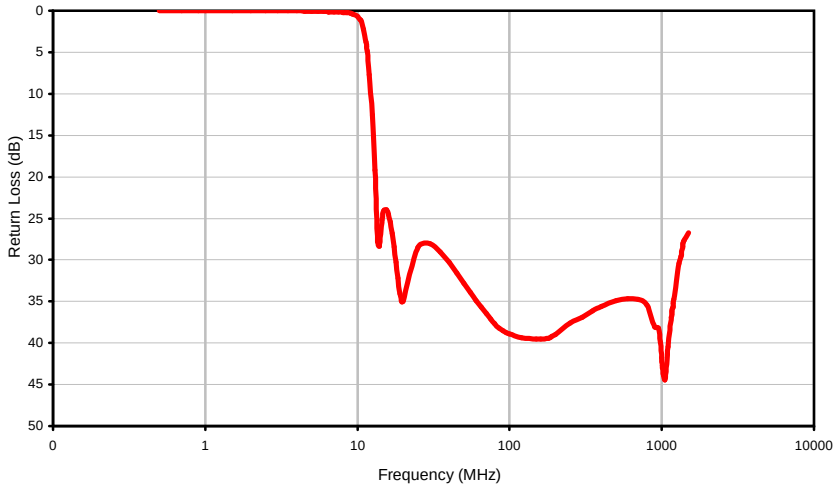
FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	95.55
11.6	89.75
14.0	80.88
25.0	38.64
50.0	4.65
75.0	1.98
100.0	1.14
150.0	0.57
200.0	0.40
250.0	0.32
300.0	0.27
400.0	0.22
500.0	0.19
600.0	0.18
700.0	0.17
800.0	0.17
900.0	0.17
1000.0	0.18
1200.0	0.19
1400.0	0.16
1500.0	0.17
1700.0	0.23
1800.0	0.21
2000.0	0.13

Typical Performance Curves

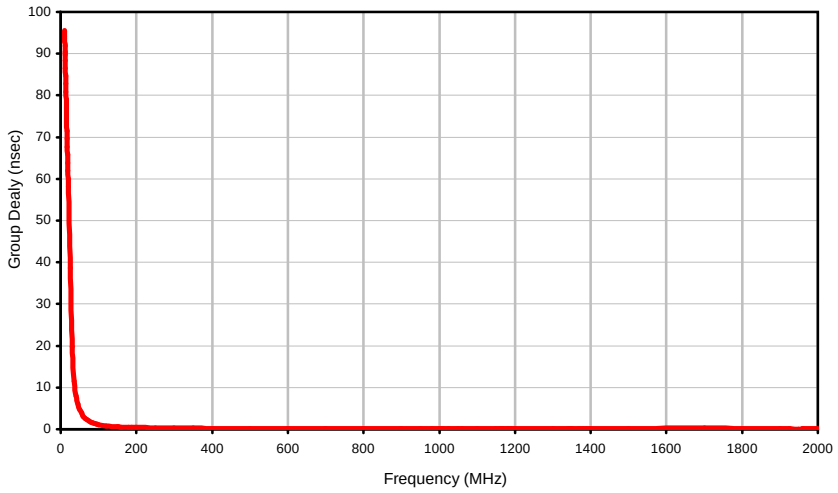
Insertion Loss



Return Loss



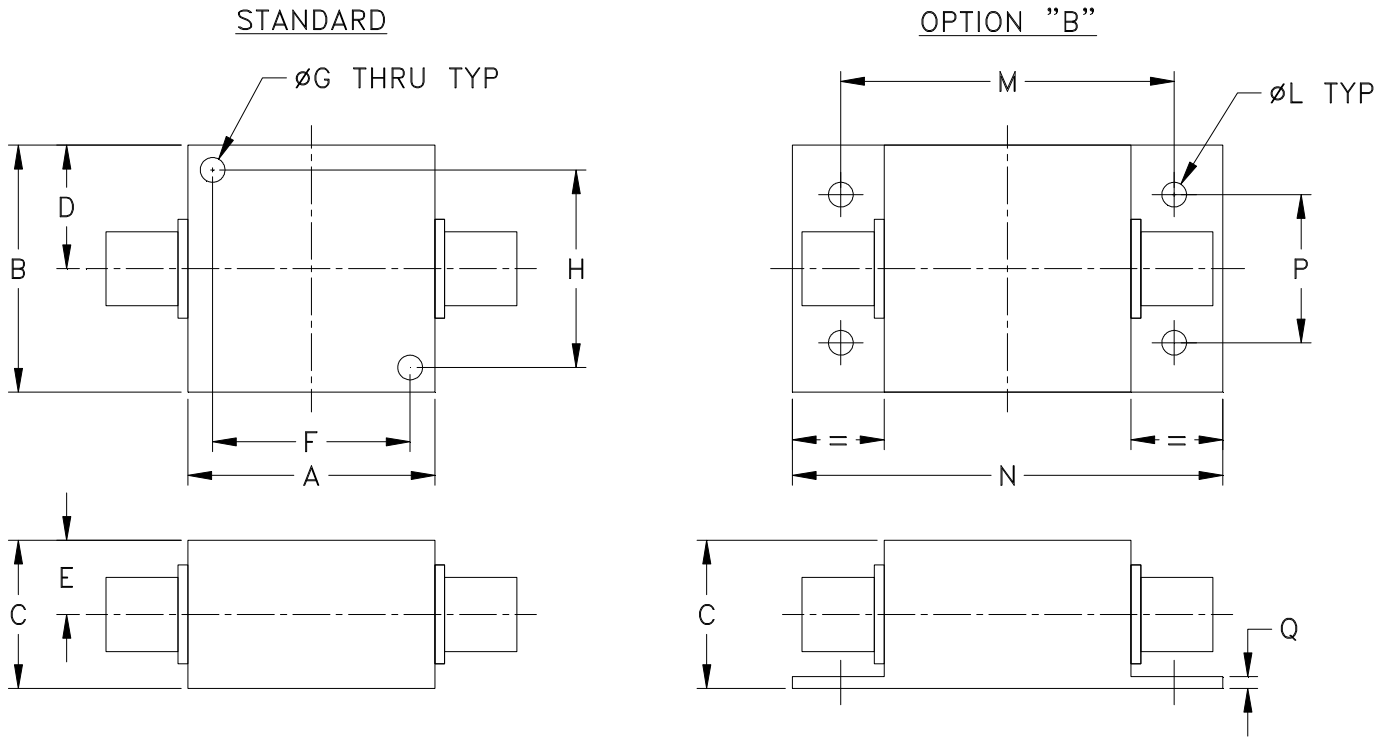
Group Delay



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.

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