

Band Pass Filter

Surface Mount

BPF-EDU1043

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.

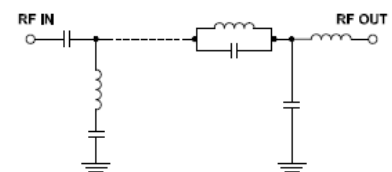
CASE STYLE :HP1156

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C

Parameter	Min.	Typ.	Max.	Units
Passband (Loss < 3 dB)	470		690	MHz
Centre frequency		580		MHz
Low Band (Loss > 40 dB)	DC		320	MHz
Low Band (Loss > 20 dB)	320		425	MHz
High Band (Loss > 20 dB)	758		940	MHz
High Band (Loss > 40 dB)	940		1000	MHz
Passband VSWR		1.3	2.3	(: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	0.5 W



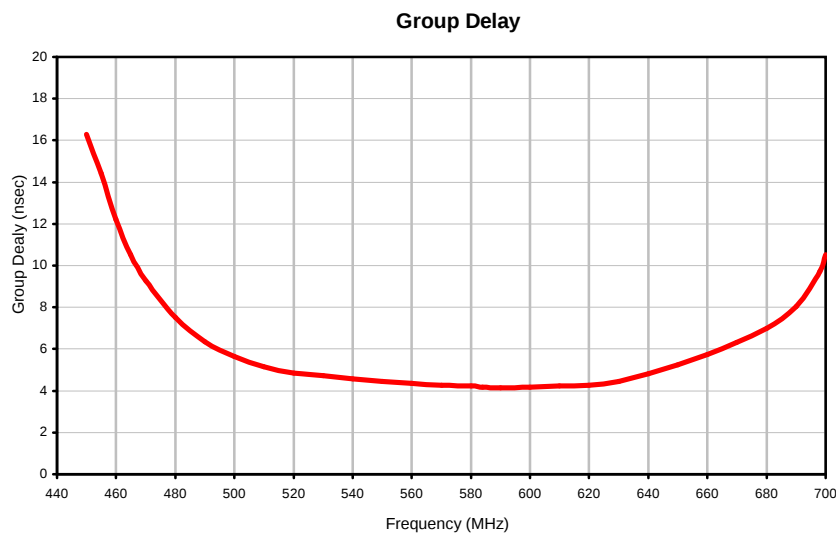
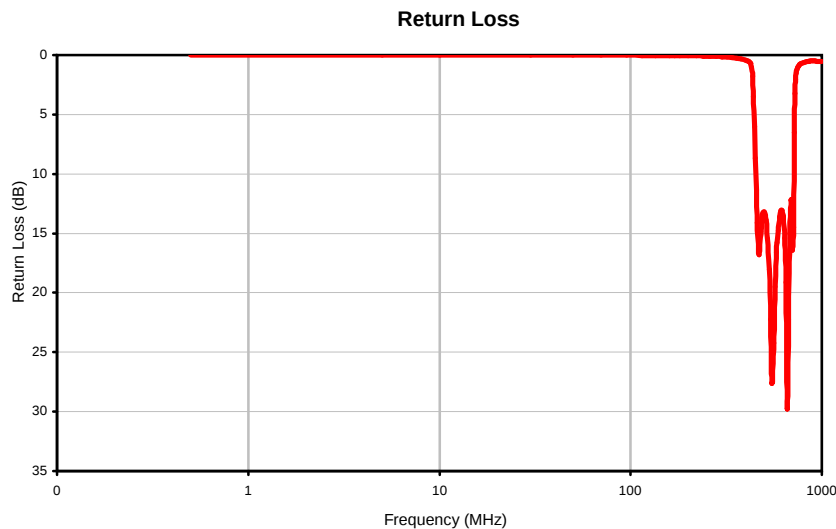
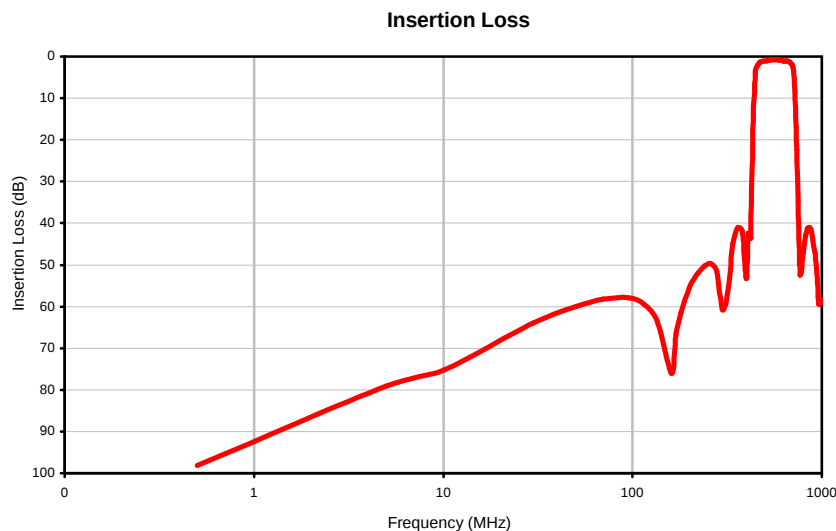
PIN CONNECTIONS

Input	2
Output	11
Not Connected	9,18
Case Ground	1,3,4,5,6,7,8,10,12,13,14,15,16,17

Typical Performance Data

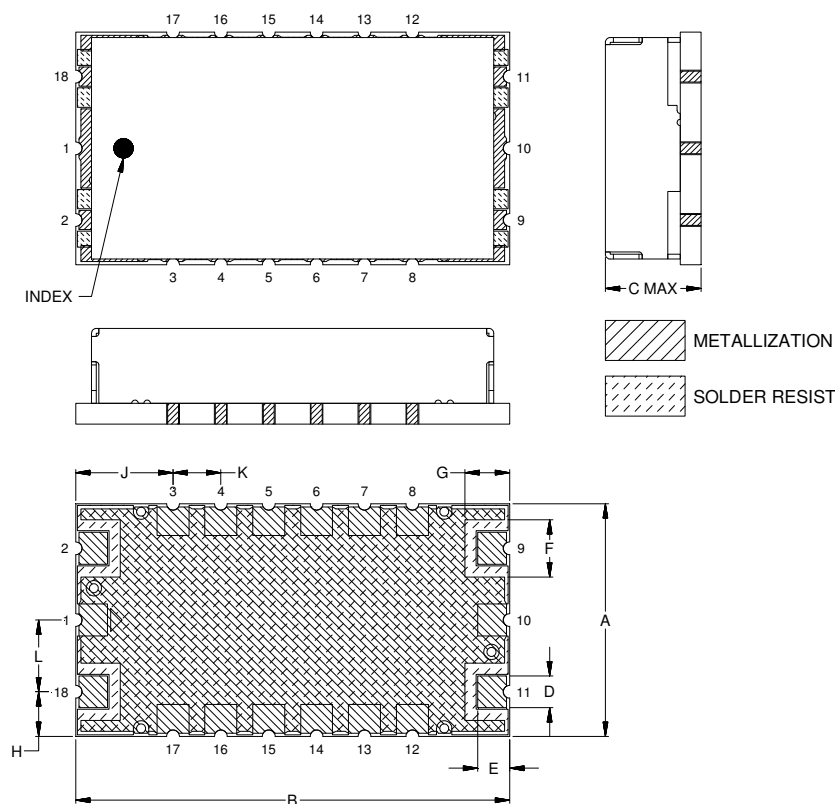
FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
0.5	98.18	0.01	450.0	16.29
10.0	75.33	0.00	460.0	12.20
50.0	60.05	0.01	470.0	9.27
115.0	59.40	0.03	480.0	7.51
320.0	55.53	0.18	490.0	6.36
425.0	32.19	0.71	500.0	5.64
430.0	21.81	1.00	520.0	4.86
435.0	13.60	1.77	530.0	4.71
440.0	7.53	3.52	540.0	4.57
445.0	4.21	6.01	550.0	4.45
450.0	2.90	8.68	560.0	4.36
460.0	1.93	14.12	570.0	4.26
470.0	1.42	16.82	580.0	4.24
520.0	1.00	15.45	584.0	4.18
584.0	0.79	15.77	590.0	4.13
640.0	1.06	15.42	600.0	4.17
698.0	2.02	12.71	610.0	4.22
710.0	3.36	14.50	620.0	4.26
716.0	5.28	6.51	640.0	4.81
722.0	8.29	3.24	650.0	5.26
728.0	12.28	2.02	660.0	5.73
740.0	22.50	1.23	670.0	6.31
758.0	40.83	0.89	680.0	6.99
920.0	46.84	0.50	690.0	8.04
940.0	50.99	0.54	698.0	9.71
1000.0	58.39	0.56	700.0	10.51

Typical Performance Curves

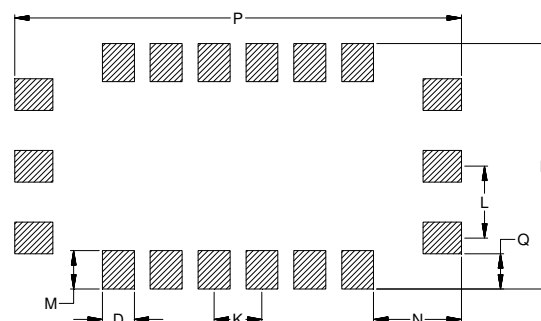


Outline Dimensions

HP1156



PCB Land Pattern



Suggested Layout,
Tolweance to be within $\pm .002$

CASE#	A	B	C	D	E	F	G	H	J	K	L	M
HP1156	.730 (18.54)	1.360 (34.54)	.350 (8.89)	.100 (2.54)	.100 (2.54)	.180 (4.57)	.140 (3.56)	.140 (3.56)	.305 (7.75)	.150 (3.81)	.225 (5.72)	.120 (3.05)

CASE#	N	P	Q	R	WT.GRAM
HP1156	.275 (6.99)	1.400 (35.56)	.110 (2.79)	.770 (19.56)	6.0

Dimensions are in inches (mm). Tolerances: 2Pl. $\pm .03$; 3Pl. $\pm .015$

Notes:

- Case material: Nickel-Silver alloy.
- Base: Printed wiring laminate.
- Termination finish:
For RoHS Case Styles: 3-5 μ inch (.08-.13microns) Gold over 120-240 μ inch (3.05-6.10microns) Nickel plate.
For RoHS-5 Case Styles: Tin-Lead plate.

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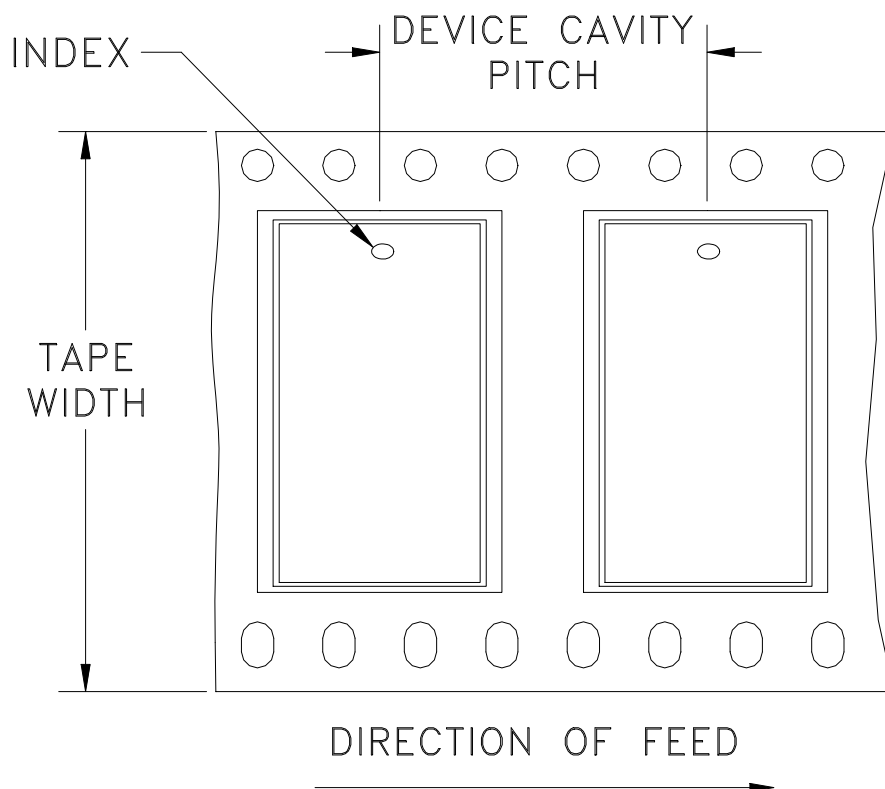


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Tape & Reel Packaging TR-F89

DEVICE ORIENTATION IN T&R



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel
56	32	13	100

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Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-65° to 150° C Ambient Environment	Individual Model Data Sheet
Autoclave	15 psig, 100% RH, 121°C, 96 hours	JESD22-A102-C, Condition C
Temperature Cycling	-65° to 150°C, 100 cycles	JESD22-A104
Temperature Humidity	85°C/ 85% RH, 168 hours	JESD22-113
Solder Reflow Heat	Sn-Pb Eutetic Process: 240°C peak Pb-Free Process: 260°C peak	J-STD-020, Table 4-1, 4-2 and 5-2; Figure 5-1
Moisture Sensitivity: Level 1	Bake at 125°C for 24 hours Soak at 85°C/85% RH for 168 hours, Reflow 3 cycles at 240°C peak (Non-RoHS) or 260°C (RoHS)	J-STD-020
Solderability	10X magnification, 95% coverage	JESD22-B102, Method 1: Dip and Look Test
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
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