

## Engineering Development Model

# Band Pass Filter

# BPF-EDU1166-1

## Surface Mount

### 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 : HQ1157**

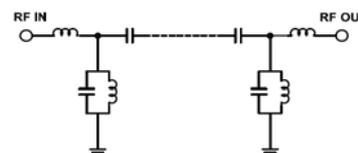
### ELECTRICAL SPECIFICATIONS 50Ω @ +25°C

Parameter	Min.	Typ.	Max.	Units
Passband (Loss < 5 dB)	108		118	MHz
Centre frequency		113		MHz
Low Band (Loss > 40 dB)	DC		85	MHz
Low Band (Loss > 20 dB)	85		95	MHz
High Band (Loss > 20 dB)	135		155	MHz
High Band (Loss > 40 dB)	155		2300	MHz
Passband VSWR		1.5		(: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	0.25 W



### PIN CONNECTIONS

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



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REV. X1

BPF-EDU1166-1+

URJ

100616

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# Band Pass Filter

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## Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
1	90.63	0.45	107	71.28
50	88.65	0.30	108	68.69
85	53.55	0.24	108	65.90
95	34.33	0.44	109	63.22
101	17.86	1.48	109	60.78
104	8.07	5.81	110	58.81
108	3.12	20.66	110	57.08
113	2.61	33.51	111	55.71
118	2.90	18.51	111	54.55
120	3.40	20.46	112	53.67
123	7.20	5.22	112	52.96
125	12.11	2.56	113	52.36
130	23.50	1.05	113	51.91
135	31.86	0.69	114	51.63
150	47.85	0.34	114	51.33
155	51.63	0.32	115	51.27
280	90.32	0.16	115	51.29
320	87.39	0.14	116	51.41
340	93.02	0.14	116	51.71
400	89.58	0.15	117	52.20
600	90.37	0.16	117	52.89
1000	86.46	0.22	118	53.90
1500	69.20	0.32	118	55.16
2000	60.12	0.28	119	56.75
2300	54.27	0.38	119	58.50

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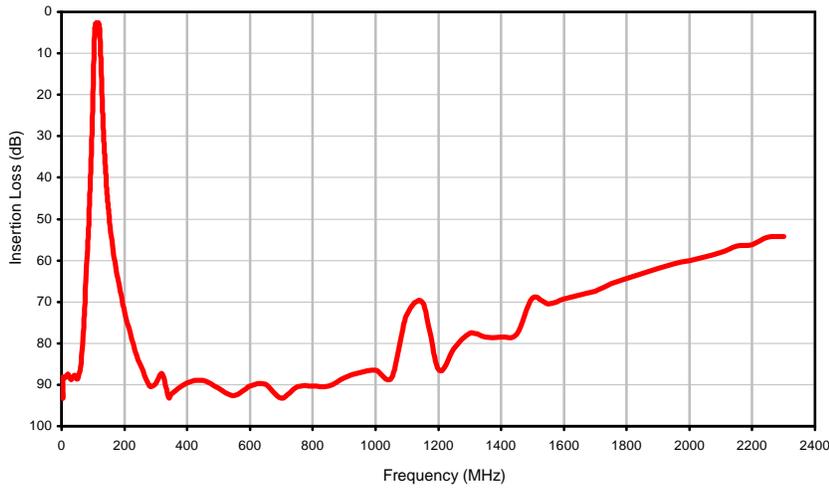


# Band Pass Filter

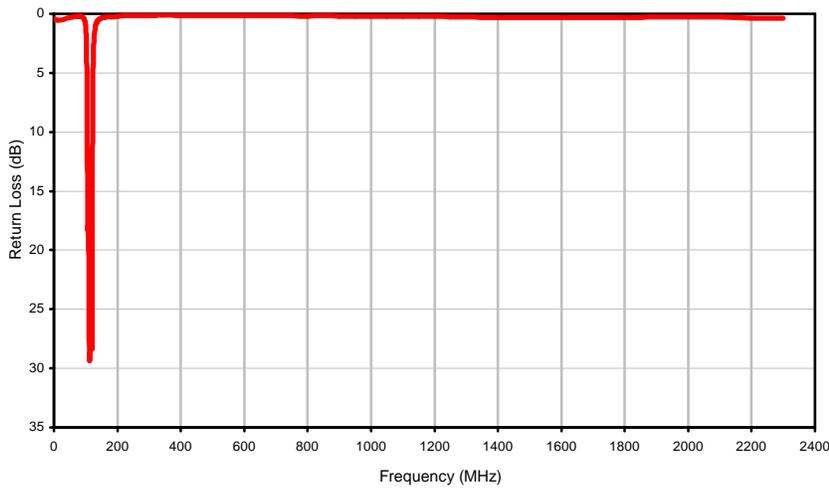
# BPF-EDU1166-1

## Typical Performance Curves

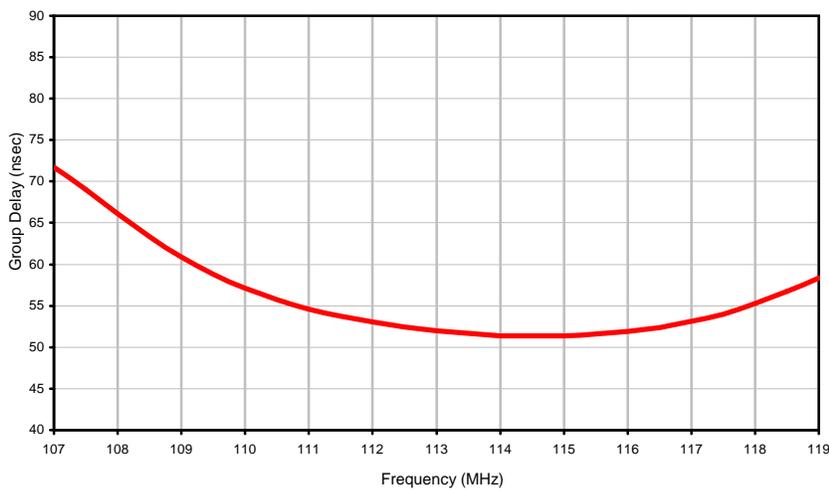
Insertion Loss



Return Loss



Group Delay



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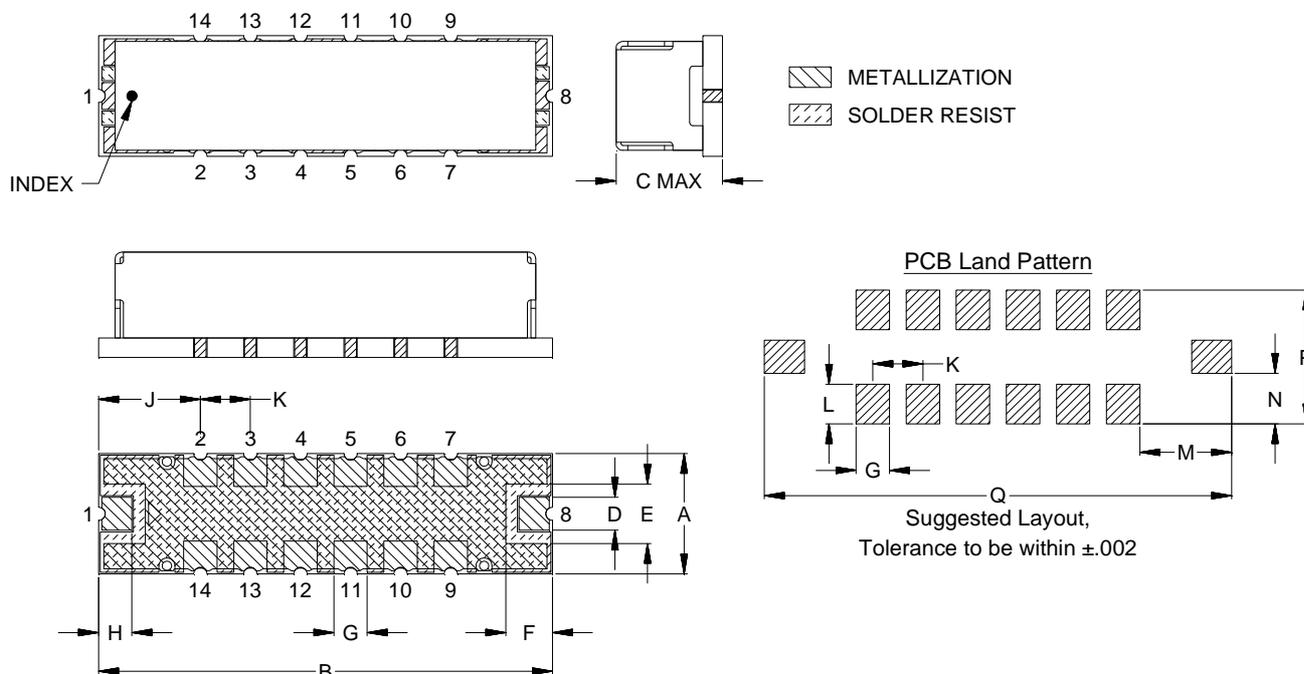


# Case Style

# HQ

## Outline Dimensions

## HQ1157



CASE#	A	B	C	D	E	F	G	H	J	K	L	M
HQ1157	.365 (9.27)	1.360 (34.54)	.350 (8.89)	.100 (2.54)	.180 (4.57)	.140 (3.56)	.100 (2.54)	.100 (2.54)	.305 (7.75)	.150 (3.81)	.120 (3.05)	.275 (6.99)

CASE#	N	P	Q	WT.GRAM
HQ1157	.152 (3.87)	.405 (10.29)	1.400 (35.56)	4.0

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  $\mu$  inch (.08-.13 microns) Gold over 120-240  $\mu$  inch (3.05-6.10 microns) Nickel plate.
  - For RoHS-5 Case Styles: Tin-Lead plate.

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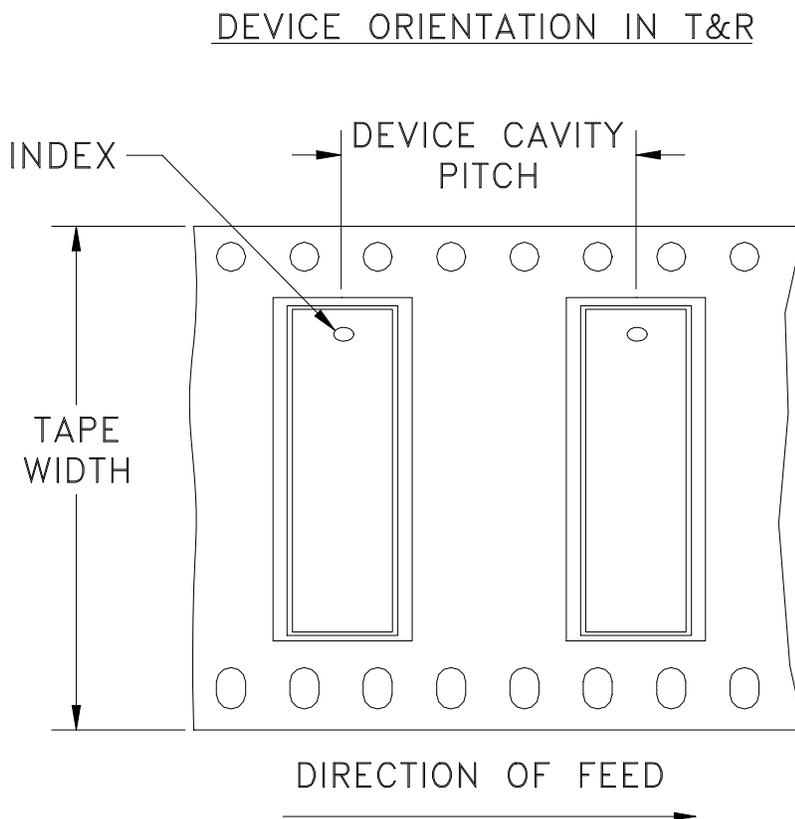
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# Tape & Reel Packaging TR-F83



<b>Tape Width, mm</b>	<b>Device Cavity Pitch, mm</b>	<b>Reel Size, inches</b>	<b>Devices per Reel</b>
56	16	13	100

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