

Engineering Development Model

Band Pass Filter

RBP-EDU0952

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.

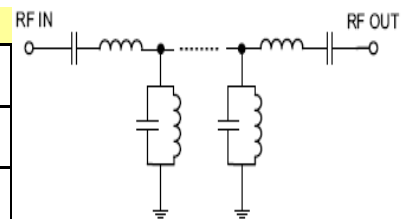
CASE STYLE : GP731

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C

Parameter	Min.	Typ.	Max.	Units
Passband (Loss < 2 dB)	120		180	MHz
Centre frequency		150		MHz
Low Band (Loss > 40 dB)	DC		58	MHz
Low Band (Loss > 20 dB)	58		76	MHz
High Band (Loss > 20 dB)	250		350	MHz
High Band (Loss > 40 dB)	350		2000	MHz
Passband VSWR		1.3		(: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	6
Not Connected	-
Case Ground	1,3,4,5,7,8



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



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RF/IF MICROWAVE COMPONENTS

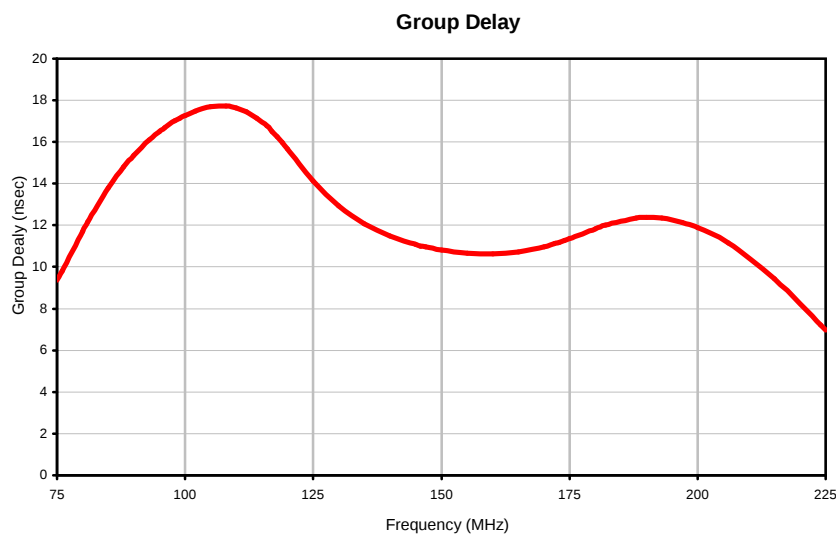
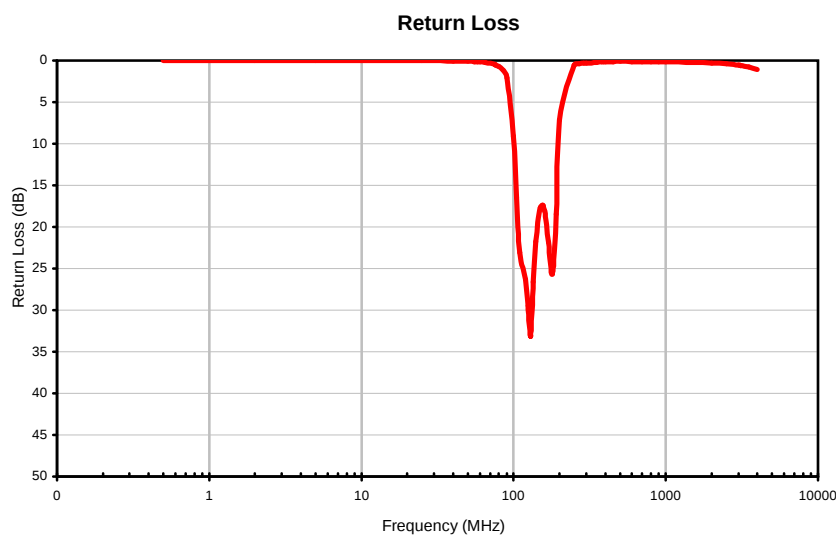


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Typical Performance Data

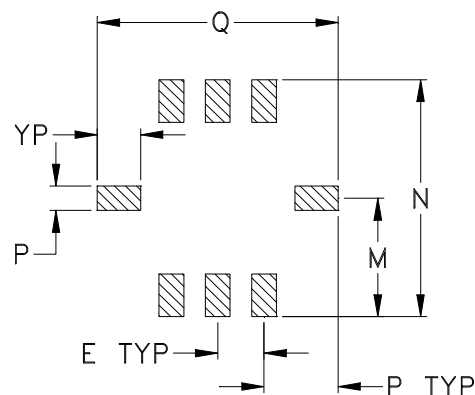
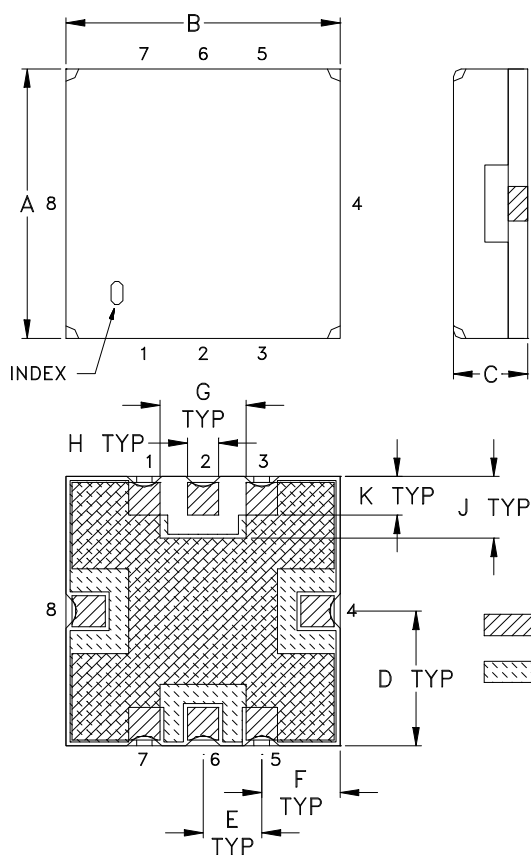
FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
0.5	99.48	0.00	75.0	9.37
1.0	92.25	0.00	76.0	9.79
2.0	112.07	0.00	80.0	11.70
5.0	101.26	0.00	81.0	12.15
10.0	91.35	0.00	85.0	13.79
25.0	88.16	0.01	88.0	14.80
40.0	70.93	0.04	90.0	15.36
50.0	57.29	0.09	93.0	16.09
55.0	51.56	0.13	95.0	16.50
58.0	48.13	0.15	96.0	16.68
60.0	45.90	0.16	98.0	17.01
65.0	40.38	0.23	99.0	17.14
75.0	29.39	0.47	100.0	17.28
76.0	28.27	0.50	102.0	17.48
80.0	23.79	0.69	105.0	17.68
85.0	18.08	1.12	108.0	17.72
90.0	12.41	2.05	110.0	17.63
100.0	3.92	9.11	112.0	17.45
105.0	2.41	16.45	114.0	17.16
110.0	1.85	23.08	116.0	16.76
120.0	1.47	26.30	117.0	16.51
125.0	1.37	29.46	118.0	16.26
130.0	1.33	33.06	119.0	15.97
135.0	1.32	26.62	120.0	15.67
140.0	1.34	21.73	125.0	14.14
150.0	1.38	17.65	130.0	12.92
155.0	1.39	17.39	135.0	12.07
160.0	1.37	18.07	140.0	11.49
170.0	1.40	21.81	145.0	11.08
180.0	1.53	25.62	146.0	11.01
190.0	1.95	18.48	147.0	10.96
200.0	3.63	7.17	150.0	10.82
250.0	26.61	0.51	155.0	10.67
271.0	33.38	0.40	160.0	10.64
288.0	37.92	0.34	165.0	10.73
290.0	38.41	0.33	170.0	10.97
300.0	40.64	0.30	172.0	11.12
350.0	49.10	0.21	173.0	11.19
380.0	52.73	0.14	174.0	11.28
390.0	53.97	0.18	175.0	11.37
400.0	54.85	0.18	180.0	11.83
450.0	61.02	0.13	182.0	12.00
500.0	63.14	0.10	188.0	12.35
600.0	70.62	0.13	190.0	12.38
700.0	80.96	0.12	193.0	12.34
800.0	77.96	0.14	197.0	12.15
900.0	71.91	0.15	200.0	11.89
1000.0	69.57	0.16	206.0	11.14
1500.0	70.79	0.23	215.0	9.44
2000.0	53.09	0.31	224.0	7.22
2500.0	43.69	0.38	225.0	6.98
3000.0	37.52	0.53		
3100.0	35.36	0.60		
3500.0	30.69	0.73		
4000.0	23.39	1.11		

Typical Performance Curves



Outline Dimensions

GP731



CASE #	A	B	C	D	E	F	G	H	J	K	L	M
GP731	.350 (8.89)	.350 (8.89)	.100 (2.54)	.175 (4.45)	.075 (1.91)	.100 (2.54)	.110 (2.79)	.040 (1.02)	.080 (2.03)	.050 (1.27)	.040 (1.02)	.195 (4.95)

CASE #	N	P	Q	R	WT. GRAM
GP731	.390 (9.91)	.120 (3.05)	.390 (9.91)	.070 (1.78)	.4 +0.3 -0.0

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

Notes:

- Case material: Nickel-Silver alloy.
- Base: Printed wiring laminate.
- Termination finish:

For RoHS Case Styles: 3-5 μ inch (.08-.13 microns) Gold over 120-240 μ inch (3.05-6.10 microns) Nickel plate.
For RoHS-5 Case Styles: Tin-Lead plate.



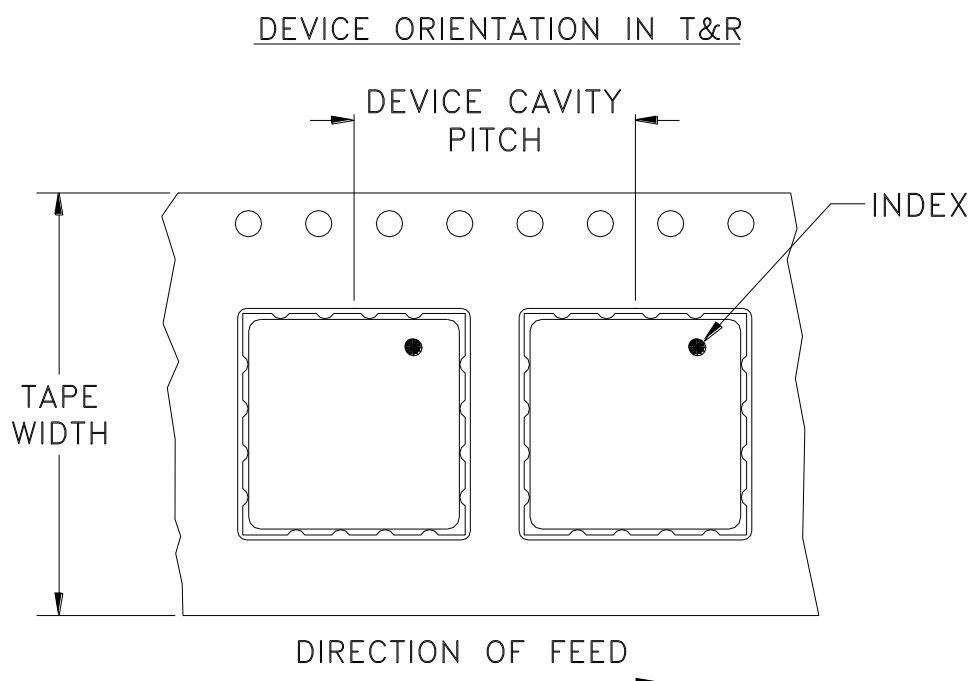
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RF/IF MICROWAVE COMPONENTS

Tape & Reel Packaging TR-F78



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel see note
16	12	7	10
			20
			50
			100
			200
		13	500, 1000

Note: Please consult individual model data sheet to determine device per reel availability.

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

Go to: www.minicircuits.com/pages/pdfs/tape.pdf



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Mini-Circuits ISO 9001 & ISO 14001 Certified



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 Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
HAST	130°C, 85% RH, 96 hours	JESD22-A110
Humidity	90 to 95% RH, 240 hours, 50°C	MIL-STD-202, Method 103, Condition A, Except 50°C and end-point electrical test done within 12 hours
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Solder Reflow Heat	Sn-Pb Eutectic Process: 225°C peak Pb-Free Process, 245°C peak	J-STD-020, Table 4-1, 4-2 and 5-2, Figure 5-1
Solderability	10X Magnification	J-STD-002, Para 4.2.5, Test S, 95% Coverage
Vibration (High Frequency)	20g peak, 20-2000 Hz, 4 times in each of three axes (total 12)	MIL-STD-883, Method 2007.3, Condition A
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215