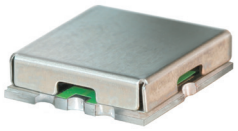
Metal Shield

Bandpass Filter

RBP-275+

50Ω 268 to 282 MHz



CASE STYLE: GP731

Maximum Ratings

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

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

Pin Connections

RF IN	2
RF OUT	6
GROUND	1,3,4,5,7,8

Features

- linear phase, up to ±8deg typ. @ Fc ±30MHz
- good VSWR, 1.2:1 typ. @ passband
- small size 0.35" x 0.35"
- shielded case
- aqueous washable

Applications

- harmonic rejection
- transmitters / receivers

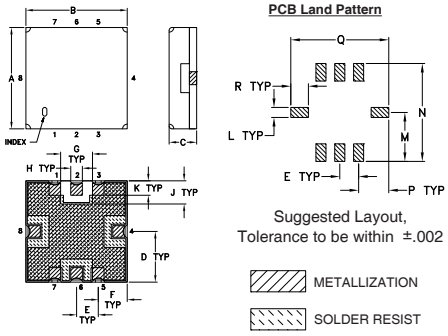
+RoHS Compliant

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

Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500,1000

Outline Drawing



Outline Dimensions (inch / mm)

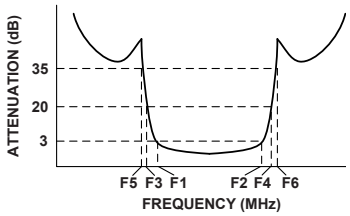
A	B	C	D	E	F	G	H	J
.350	.350	.100	.175	.075	.100	.110	.040	.080
8.89	8.89	2.54	4.45	1.93	2.54	2.79	1.02	2.03

K	L	M	N	P	Q	R	wt
.050	.040	.195	.390	.120	.390	.070	grams
1.27	1.02	4.95	9.91	3.05	9.91	1.78	0.25

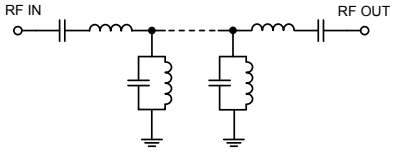
Bandpass Filter Electrical Specifications (T_{AMB}= 25ºC)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3dB)	STOPBANDS (MHz) Loss > 20dB		Loss > 35dB		MAXIMUM DEVIATION FROM LINEAR PHASE (deg.)	VSWR (:1) Passband	Stopband
Fc	F1 - F2	F3	F4	F5	F6	Fc ± 30MHz	Max.	Typ.
275	268 - 282	209	350	120	370-1000	±15	1.7	18

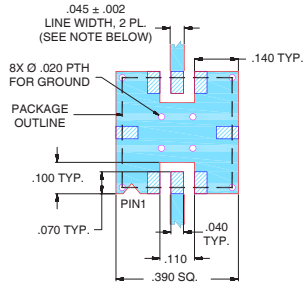
Typical Frequency Response



Functional Schematic



Demo Board MCL P/N: TB-332
Suggested PCB Layout (PL-176)



NOTES:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025" ± .002", COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

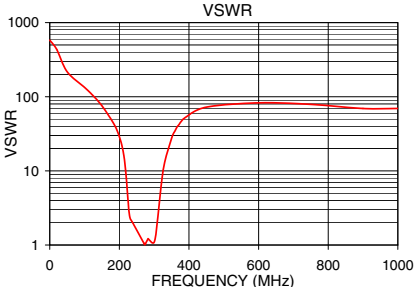
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Deviation from Linear Phase (deg.)
0.3	76.04	579.06	245.0	1.98
120.0	42.54	108.58	248.0	0.32
209.0	29.34	20.22	250.0	-0.44
220.0	11.85	7.94	254.0	-1.35
225.0	6.57	3.95	258.0	-1.58
245.0	2.29	1.77	260.0	-1.54
268.0	1.73	1.11	262.0	-1.36
270.0	1.73	1.07	268.0	-0.45
275.0	1.75	1.04	270.0	-0.07
280.0	1.82	1.16	275.0	0.94
282.0	1.85	1.21	280.0	1.86
305.0	3.31	1.38	282.0	2.16
320.0	10.72	6.32	286.0	2.58
330.0	17.48	12.99	290.0	2.57
350.0	29.80	27.59	294.0	1.78
370.0	41.72	41.37	296.0	0.95
450.0	63.62	72.39	300.0	-1.94
1000.0	54.60	69.49	305.0	-8.40

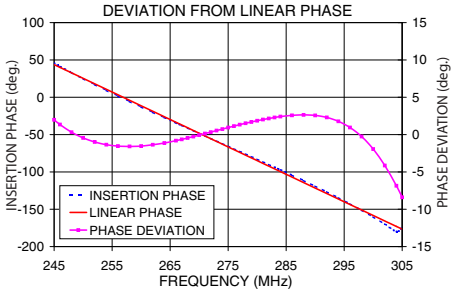
RBP-275+
INSERTION LOSS



RBP-275+
VSWR



RBP-275+
INSERTION PHASE &
DEVIATION FROM LINEAR PHASE



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