Metal Shield

Low Pass Filter

RLP-470+

50Ω DC to 470 MHz

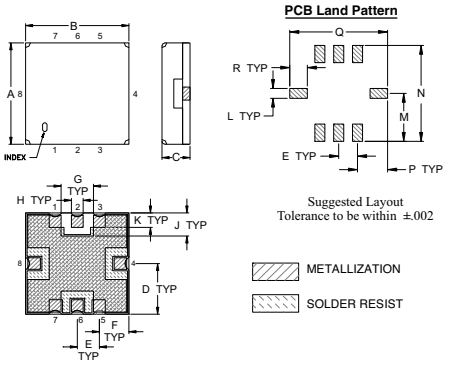
Maximum Ratings

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

Pin Connections

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

Outline Drawing

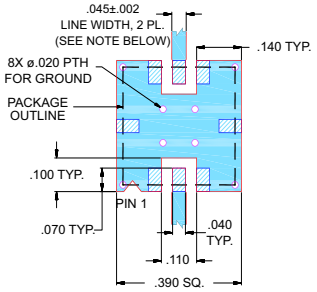


Outline Dimensions (inch / mm)

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

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)

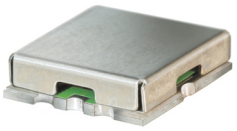
DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- High rejection
- Sharp Insertion Loss roll off
- Excellent VSWR, 1.15:1 typ.@ Passband
- Aqueous washable

Applications

- Wireless communications
- Receivers / Transmitters



CASE STYLE: GP731
PRICE: $7.95 ea. QTY (10-49)

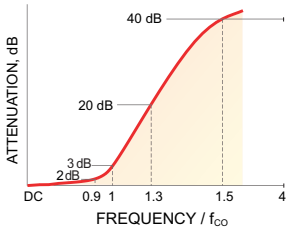
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

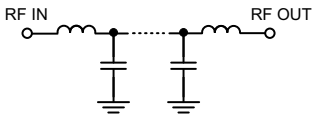
Low Pass Filter Electrical Specifications (T_{AMB}= 25°C)

PASSBAND (MHz) (Loss < 2dB)	fco, MHz Nom. (Loss 3dB)	STOPBAND (MHz) (Loss > 20dB)	STOPBAND (MHz) (Loss > 40dB)	VSWR (:1) Passband Typ.	VSWR (:1) Stopband Typ.
DC - 470	510	650 - 780	780 - 2000	1.15	20

Typical Frequency Response



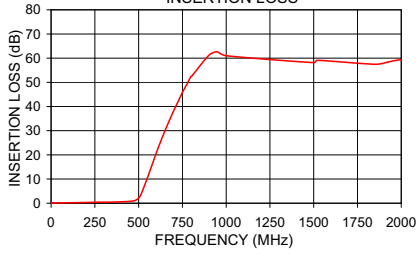
Functional Schematic



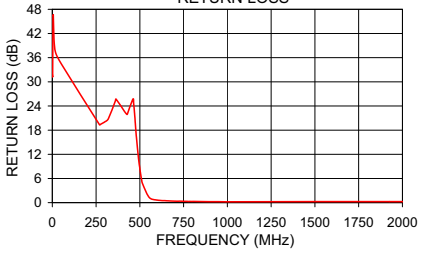
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
0.5	0.11	0.02	42.90	2.0	0.83
50.0	0.10	0.01	34.55	5.0	1.15
270.0	0.40	0.01	19.30	10.0	1.35
425.0	0.67	0.01	21.95	40.0	1.33
470.0	0.94	0.03	22.09	80.0	1.32
500.0	2.14	0.15	8.44	100.0	1.33
510.0	3.18	0.22	5.76	140.0	1.40
515.0	3.82	0.26	4.76	160.0	1.41
553.0	11.00	0.42	1.32	200.0	1.45
594.0	19.44	0.42	0.67	220.0	1.51
650.0	29.87	0.42	0.47	250.0	1.54
690.0	36.62	0.44	0.39	270.0	1.59
780.0	49.62	0.73	0.29	320.0	1.74
800.0	52.53	1.16	0.29	360.0	2.02
1000.0	61.01	2.97	0.20	400.0	2.27
1500.0	58.15	3.69	0.26	420.0	2.47
1850.0	57.47	2.55	0.26	470.0	3.35
2000.0	59.38	4.12	0.25	500.0	5.25

RLP-470+
INSERTION LOSS



RLP-470+
RETURN LOSS



RLP-470+
GROUP DELAY