Ceramic

Low Pass Filter

LFCW-272+

50Ω DC[1] to 2690 MHz

CASE STYLE: JC0603C

+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"	20, 50, 100, 200, 500,1000, 4000

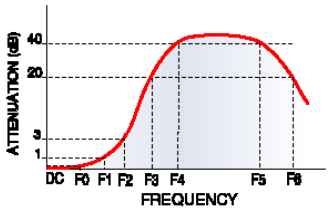
Features

- Low loss, 0.8 dB typ.
- Small size 0603 (1.6 x 0.8 mm)
- Temperature stable
- LTCC construction

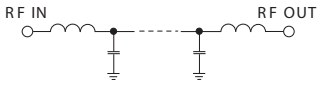
Applications

- Wireless communication
- Harmonic Rejection
- VHF/UHF transmitters / receivers
- Lab use

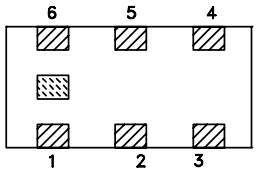
Specification Definition



Functional Schematic



Top View



Pad Connections

Input	6
Output	4
Ground	2,5
NC	1,3

Electrical Specifications[1,2] at 25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC - F0	DC - 2300	—	0.8	1.2	dB
		F0 - F1	2300 - 2690	—	0.5	0.8	dB
	Freq. cut-off	F2	3200	—	3.0	—	dB
	VSWR	F0 - F1	2300 - 2690	—	1.6	—	:1
Stop Band	Rejection Loss	F3	4400	—	20	—	dB
		F4 - F5	4800 - 5400	25	30	—	dB
		F6	10000	—	20	—	dB

[1] *In Application where DC voltage is present at either input or output port, coupling capacitors are required.*
[2] *Measured on Mini-Circuits Characterization Test Board TB-797+*

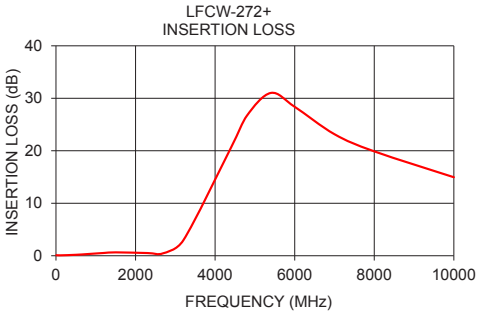
Maximum Ratings

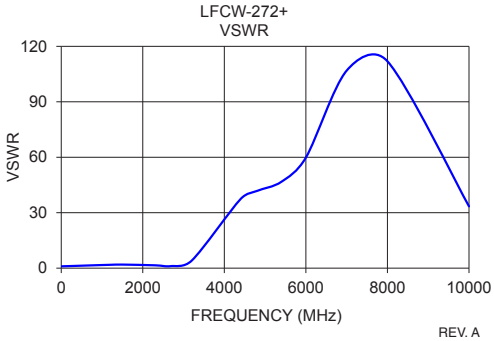
Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C
RF Power Input*	3W at 25°C

*Passband rating, derate linearly to 1.5W at 100°C ambient
Permanent damage may occur if any of these limits are exceeded.

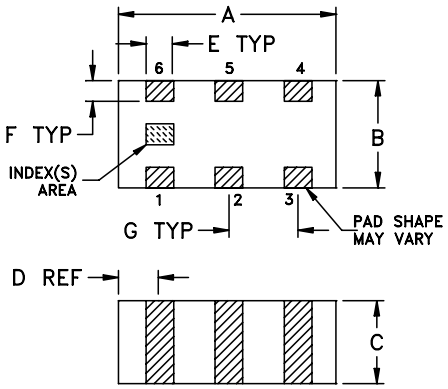
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	0.11	1.01
100	0.07	1.06
500	0.18	1.33
800	0.32	1.55
1200	0.53	1.81
1500	0.64	1.93
2300	0.51	1.54
2690	0.46	1.11
3200	2.93	4.08
4400	20.61	37.43
4800	26.69	41.77
5400	31.02	46.74
6000	28.38	59.83
7000	23.15	106.88
8000	19.89	111.91
10000	14.96	33.43





Outline Drawing



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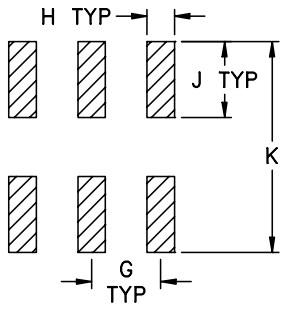
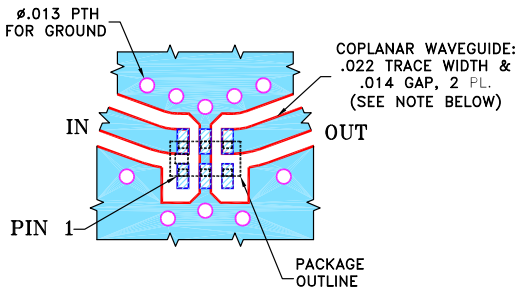
PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

Demo Board MCL P/N: TB-797+
Suggested PCB Layout (PL-426)



NOTES:
1. COPLANAR WAVEGIDE IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .010" ± .001". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP 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.

Outline Dimensions (inch / mm)

A	B	C	D	E	F
.063	.031	.024	.012	.008	.006
1.60	0.79	0.61	0.30	0.20	0.15

G	H	J	K	wt
.020	.010	.022	.053	grams
0.51	0.25	0.56	1.35	0.005

Additional 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