Ceramic

Low Pass Filter

LFCW-272+

50Ω DC[1] to 2690 MHz

Generic photo used for illustration purposes only

CASE STYLE: JC0603C

+RoHS Compliant

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

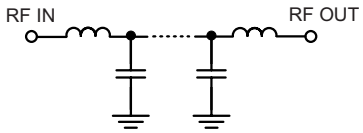
Features

- 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

Functional Schematic



Electrical Specifications[1,2] at 25°C

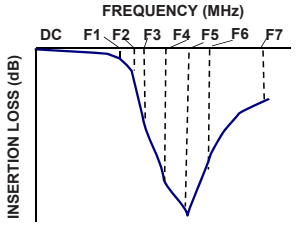
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC - F0	DC - 2300	—	0.8	1.2	dB
		F0 - F1	2300 - 2690	—	0.5	0.8	dB
	Freq. Cut-Off	F2	3200	—	3.0	—	dB
	VSWR	F0 - F1	2300 - 2690	—	1.6	—	:1
Stop Band	Rejection Loss	F3	4400	—	20	—	dB
		F4 - F5	4800 - 5400	25	30	—	dB
		F6	10000	—	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[3]	3W at 25°C

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

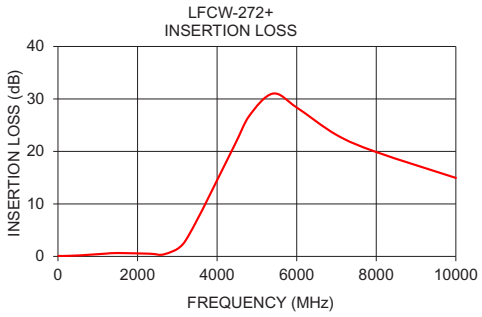
Typical Frequency Response

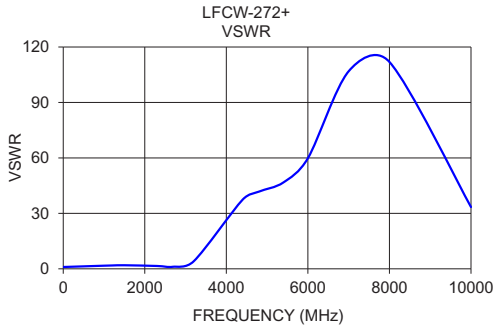


Typical Performance Data[4] at 25°C

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

4. Measured with Agilent E5071B network analyzer using port extension.





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

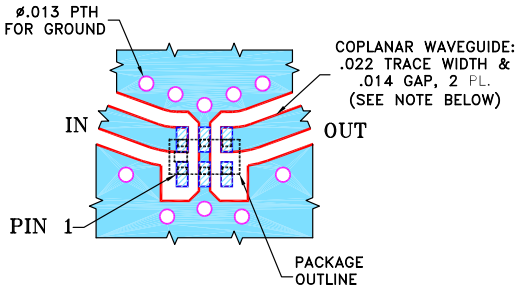
REV. A
M151107
ED-16419/25
LFCW-272+
MY/CP/AM
200513

Pad Connections

INPUT	6
OUTPUT	4
GROUND	2,5
NC	1,3

Product Marking: N/A

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



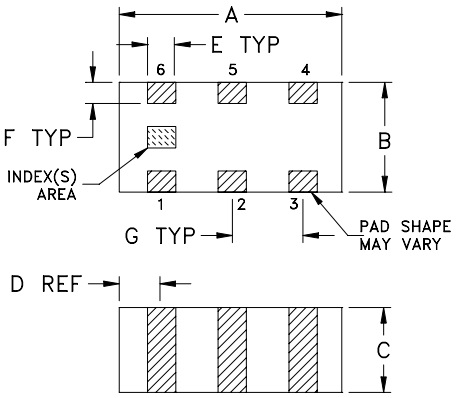
NOTES:

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 Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	wt
.063	.031	.024	.012	.008	.006	.020	grams
1.60	0.79	0.61	0.30	0.20	0.15	0.51	0.005

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