

Ceramic

Low Pass Filter

LPGE-592R+

50 4900 to 5900 MHz



CASE STYLE: GE0805C-4

+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, 0.7 dB typ.
- Small size 0805 (2.0 x 1.25 mm)
- Temperature stable
- LTCC construction

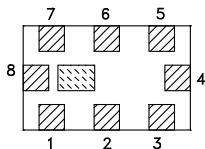
Applications

- ISM Bond
- WLAN
- Bluetooth
- Zigbee

Functional Schematic



Top View



Pad Connections

Input	8
Output	4
Ground	1,2,3,5,6,7

Electrical Specifications^{1,2} at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	—	0.7	1.0	dB
	VSWR	—	—	2	:1
Stop Band	Rejection Loss	40	42	—	dB
		14700-17700	34	54	—

1. In Application where DC voltage is present at either input or output port, coupling capacitors are required.
2. Measured on Mini-Circuits Evaluation Board TB-LPGE-592R+

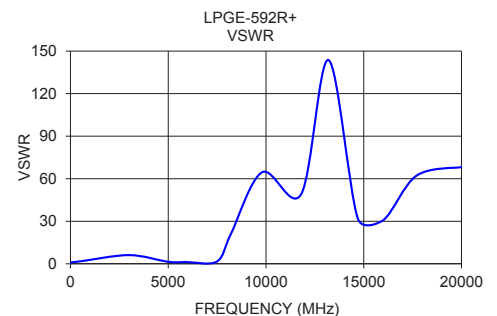
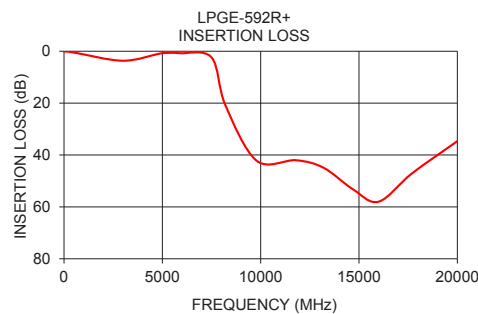
Maximum Ratings

Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C
RF Power Input*	1W

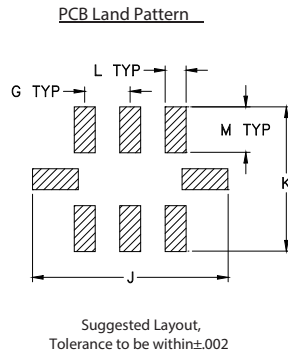
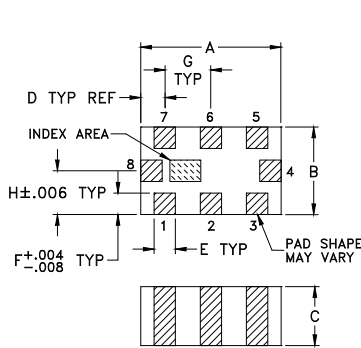
*Refer to product storage temperature after installation
Suggestion for T&R unused product storage condition:
+5 ~ +35 °C, Humidity 45~75%RH, 12 month Max

Typical Performance Data at 25°C

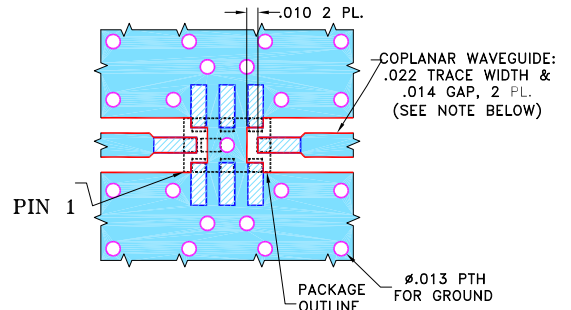
Frequency (GHz)	Insertion Loss (dB)	VSWR (:1)
10	0.14	1.04
200	0.16	1.26
600	0.62	1.95
3000	3.66	6.15
4900	0.85	1.62
5400	0.62	1.07
5900	0.76	1.29
7500	2.35	1.69
8200	20.70	20.88
9800	42.24	64.57
11800	42.01	49.11
13200	44.92	143.69
14700	53.27	31.82
16000	57.98	30.79
17700	47.05	62.18
20000	34.65	68.20



Outline Drawing



Evaluation Board MCL P/N: TB-LPGE-592R+ Suggested PCB Layout (PL-429)



- NOTES:**
1. COPLANAR WAVEGUIDE IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS $.010'' \pm .001''$. 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.

Pad Connections

Input	8
Output	4
Ground	1,2,3,5,6,7

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.079	.049	.027	.014	.012	.012	.026
2.01	1.24	0.69	0.36	0.30	0.30	0.66
H	J	K	L	M	wt	
.025	.134	.110	.014	.039	grams	
0.64	3.40	2.80	0.36	0.99	.008	

Additional Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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