

Ceramic

Low Pass Filter

50Ω

DC to 1400 MHz

LFCN-1400D+



CASE STYLE: FV1206

Maximum Ratings

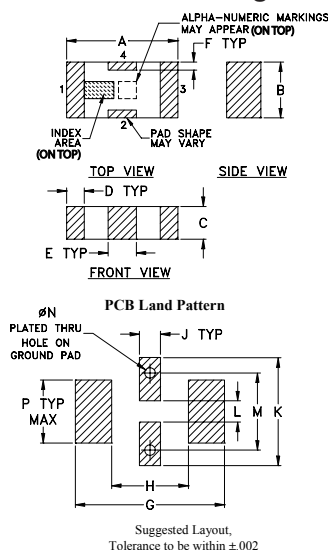
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C
Max. DC Voltage at pins 1&3	25 VDC
DC Current Input to Output	0.5A max. at 25°C

* Derate linearly to 3.5W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

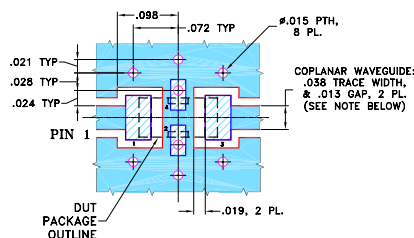
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.126	.063	.037	.020	.032	.009	.169
3.20	1.60	0.94	0.51	0.81	0.23	4.29
H	J	K	L	M	N	P
.087	.024	.122	.024	.087	.012	.071
2.21	0.61	3.10	0.61	2.21	0.30	1.80
wt						grams
						.020

Demo Board MCL P/N: TB-270 Suggested PCB Layout (PL-137)



NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.

2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

COPLANAR WAVEGUIDE: .038 TRACE WIDTH, & .013 GAP, 2 PL. (SEE NOTE BELOW)

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Features

- excellent power handling, 10W
- small size
- 7 sections
- temperature stable
- LTCC construction
- protected by U.S. Patent 6,943,646

Applications

- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

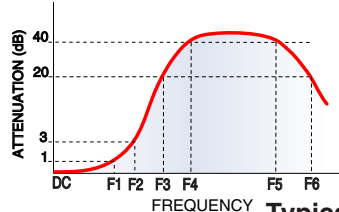
Electrical Specifications^{1,2} at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-1400	—	—	dB
	Freq. Cut-Off	F2	1700	—	3.0	dB
	VSWR	DC-F1	DC-1400	—	1.2	:1
Stop Band	Rejection Loss	F3	2100	—	—	dB
		F4-F5	2200-6600	—	40	dB
	VSWR	F6	6800	—	20	dB
		F3-F6	2100-6800	—	20	:1

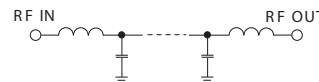
(1) DC Resistance to ground is 100 Mohms min.

(2) Measured on Mini-Circuits Characterization Test Board TB-270.

Typical Frequency Response

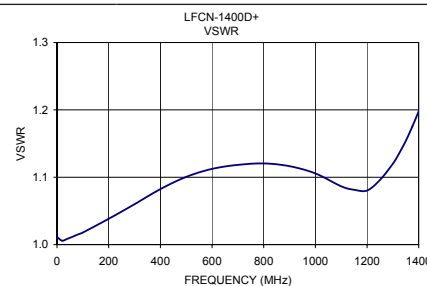
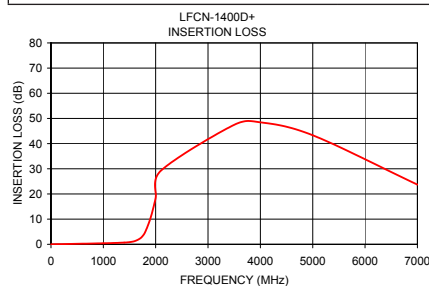


Electrical Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.01	1.01
1000.00	0.39	1.11
1400.00	0.68	1.20
1500.00	0.88	1.31
1600.00	1.28	1.52
1700.00	2.28	2.07
1750.00	3.29	2.65
1800.00	4.89	3.59
1900.00	10.28	6.83
2000.00	18.39	10.56
2100.00	29.25	13.39
3500.00	47.47	27.16
4000.00	48.45	32.18
5000.00	43.31	32.79
7000.00	23.70	18.30



REV. E
M151107
LFCN-1400D+
ED-11960
AD/CP/AM
150817