Ceramic

Low Pass Filter

LFCN-1450D+

50Ω DC to 1450 MHz

NON-CATALOG

CASE STYLE: FV1206
PRICE: Contact Sales Dept.

+ 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.

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

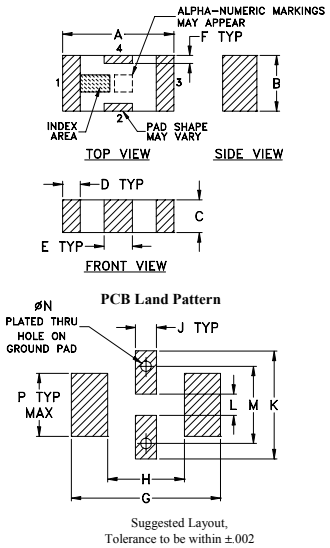
Features

- 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

Outline Drawing



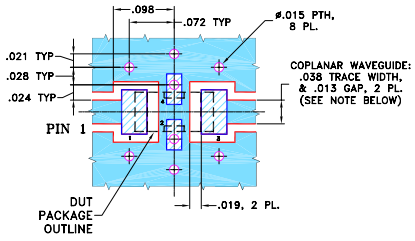
Suggested Layout,
Tolerance to be within ±.002

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	wt
.087	.024	.122	.024	.087	.012	.071	grams
2.21	0.61	3.10	0.61	2.21	0.30	1.80	.020

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



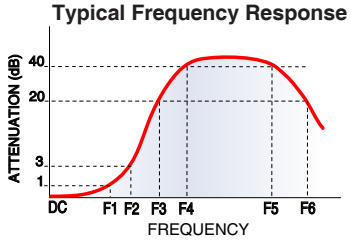
NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Electrical Specifications[1] at 25°C

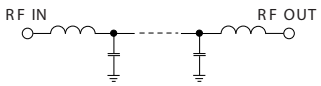
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-1450	—	—	1.0	dB
	Freq. Cut-Off	F2	1700	—	3.0	—	dB
	VSWR	DC-F1	DC-1450	—	1.2	—	:1
Stop Band	Rejection Loss	F3	2100	20	—	—	dB
		F4-F5	2300-6600	—	40	—	dB
		F6	6800	—	20	—	dB
	VSWR	F3-F6	2100-6800	—	20	—	:1

1. DC Resistance to ground is 100 Mohms min.

Typical Frequency Response

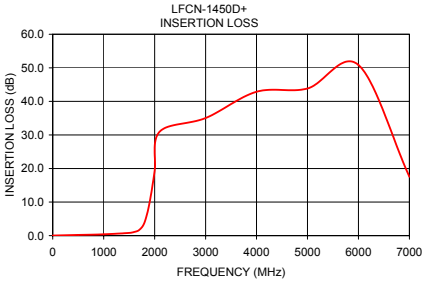


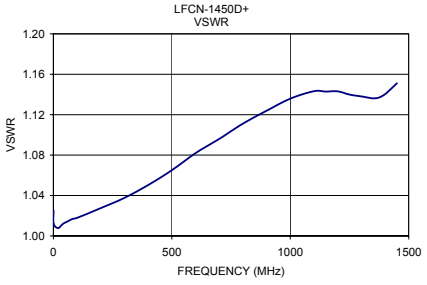
Electrical Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.50	0.02	1.03
500.00	0.21	1.07
1000.00	0.40	1.14
1500.00	0.82	1.17
1600.00	1.09	1.27
1700.00	1.75	1.55
1800.00	3.86	2.62
1900.00	9.73	5.85
2000.00	19.29	10.19
2100.00	31.01	13.49
3000.00	35.03	22.58
4000.00	42.87	31.03
5000.00	43.84	32.79
6000.00	50.84	27.16
7000.00	17.54	6.94





For detailed performance specs & shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. **2.** Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. **3.** The parts covered by this specification sheet 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.

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