Maximum Ratings

Operating Temperature

Pin Connections

Storage Temperature

RF Power Input*

RF IN

RF OUT

GROUND

Low Pass Filter

-55°C to 100°C

-55°C to 100°C

3

2,4

10W max. at 25°C

DC⁽¹⁾ to 1500 MHz 50Ω

LFCN-1500+

Generic photo used for illustration purposes only CASE STYLE: FV1206

+RoHS Compliant

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



Reel Size Devices/Reel 20, 50, 100, 200, 500,1000, 3000

- · excellent power handling, 10W
- 7 sections
- temperature stable
- LTCC construction

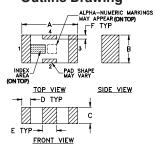
Applications

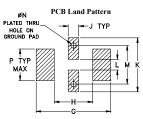
- VHF/UHF transmitters/receivers
- lab use

Outline Drawing

* Passband rating, derate linearly to 3.5W at 100°C ambient.

Permanent damage may occur if any of these limits are exceeded





Suggested Layout, Tolerance to be within ±.002

Features

- small size

- protected by U.S Patent 6,943,646

• harmonic rejection

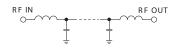
Electrical Specifications(1,2) at 25°C

Pa	Parameter		Frequency (MHz)	Min.	Тур.	Max.	Unit
	Insertion Loss	DC-F1	DC-1500	_	_	1.0	dB
Pass Band	Freq. Cut-Off	F2	1825	_	3.0	_	dB
	VSWR	DC-F1	DC-1500	_	1.2	_	:1
			2100	20	_	_	dB
Cton Bond	Rejection Loss	F4-F5	2150-6600	_	30	_	dB
Stop Band		F6	6800	_	20	_	dB
	VSWR	F3-F6	2100-6800	_	20	_	:1

(1) In Applications where DC isolation to ground is required, coupling capacitors are recommended to avoid DC leakage. Alternatively, if DC pass IN-OUT is required, Mini-Circuits' "D" suffix version of this model will support DC IN-OUT, and provide>100 MOhm isolation to ground. (2) Measured on Mini-Circuits Characterization Test Board TB-270.

Typical Frequency Response ATTENUATION

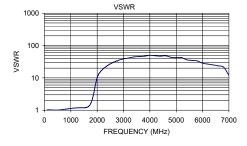
Electrical Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
100.00	0.09	1.03
1000.00	0.41	1.13
1500.00	0.77	1.19
1700.00	1.31	1.38
1825.00	2.99	2.33
2000.00	16.47	10.13
2100.00	34.49	14.62
2150.00	35.94	16.56
2500.00	37.94	27.16
3000.00	31.80	38.61
4000.00	42.25	49.64
5000.00	43.54	42.38
6000.00	36.93	28.49
6800.00	28.71	21.46
7000.00	16.97	12.01

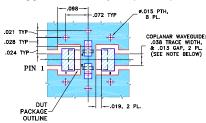




Outline Dimensions (inch)

	.169	.009	.032	.020	.037	.063	.126
wt	4.29 P	0.23 N	0.81 M		0.94 K	1.60 J	3.20 H
grams .020	.071 1.80	.012 0.30	.087 2.21	.024 0.61	.122 3.10	.024 0.61	.087 2.21

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



COPLANAR WAYEGUIDE PARAMETERS ARE SHOWN FOR ROGERS ROA\$50B WITH THICKNESS .020" ± .0015". COPPER: 1/2 02. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.

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

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

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