Ceramic

Dual Low Pass

LFCN-291-1PM+

50Ω DC[1] to 290 MHz

CASE STYLE: FV1206-1
PRICE: $2.95 ea. QTY. (100)

+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, 3000

Maximum Ratings

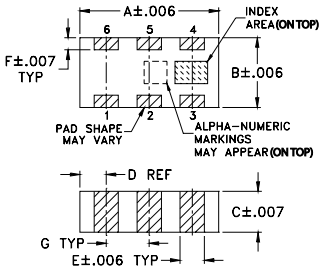
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8.5W max. at 25°C

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

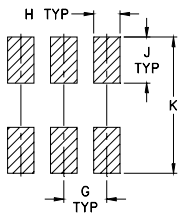
Pin Connections

RF IN1, RF IN2	1,6
RF OUT1, RF OUT2	3,4
GROUND	2,5

Outline Drawing



PCB Land Pattern



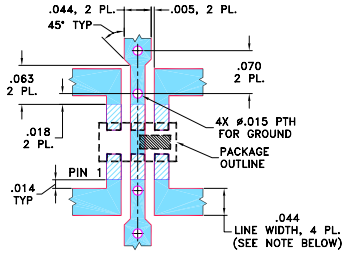
Suggested Layout,

Outline Dimensions (inch / mm)

A	B	C	D	E	F
.126	.063	.035	.024	.022	.011
3.20	1.60	0.89	0.61	0.56	0.28

G	H	J	K	wt
.039	.024	.042	.123	grams
0.99	0.61	1.07	3.12	.020

Demo Board MCL P/N: TB-255+
Suggested PCB Layout (PL-131)



NOTES: 1.TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH 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

Features

- very good power handling, 8.5W
- small size
- balanced input-balanced output
- temperature stable
- LTCC construction
- differential 8th order BUTTERWORTH with common mode rejection

Applications

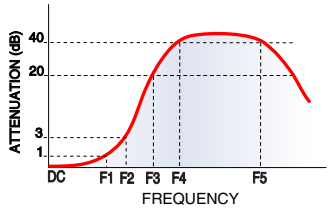
- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

Electrical Specifications[1,2,3] at 25°C

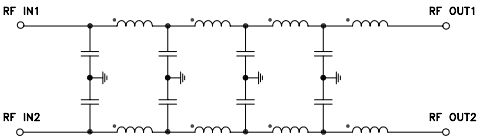
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	290	—	2.0	3.5	dB
	Freq. Cut-Off	F2	325	—	3.0	—	dB
	VSWR	DC-F1	290	—	1.22	—	:1
Stop Band	Rejection Loss	F3	460	20	—	—	dB
		F4-F5	600-2000	37	45	—	dB
	VSWR	F3-F5	460-2000	—	20	—	:1

(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required.
(2) Measured differentially both at input and output (100Ω across input and output)
(3) Measured on Mini-Circuits Characterization Test Board TB-255

Typical Frequency Response



Electrical Schematic

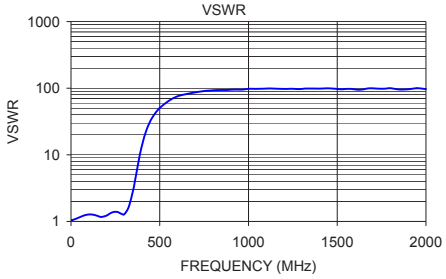


Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.30	0.24	1.05
0.50	0.25	1.05
1.00	0.25	1.05
10.00	0.26	1.05
30.00	0.33	1.10
50.00	0.41	1.16
110.00	0.67	1.28
200.00	1.02	1.22
300.00	1.92	1.28
400.00	14.52	13.92
500.00	34.17	50.62
700.00	44.41	86.59
1005.00	46.95	97.99
1525.00	69.63	96.37
2000.00	44.75	96.93

LFCN-291-1PM+
INSERTION LOSS

LFCN-291-1PM+
VSWR



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. OR
M144223
LFCN-291-1PM+
ED-14477/3
AVB/CP/AM
140321