



Mini-Circuits®

CERAMIC

High Pass Filter

HFCN-1500+

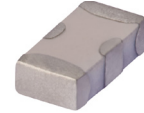
50Ω 1600 to 5500 MHz

THE BIG DEAL

- Small size
- 7 sections
- Temperature stable
- Excellent power handling, 7 W
- Hermetically sealed
- LTCC construction
- Low cost

APPLICATIONS

- Sub-harmonic rejection
- Transmitters/receivers
- Lab use



Generic photo used for illustration purposes only

CASE STYLE: FV1206-15

+RoHS Compliant

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

ELECTRICAL SPECIFICATIONS^{1,2} AT +25 °C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Units
Stop Band	Rejection Loss	1060	40	—	dB
		1250	20	—	
	Freq. Cut-Off	1550	—	3.0	dB
	VSWR	1060–1250	—	20	
Pass Band	Insertion Loss	1600–5500	—	2.0	dB
		1850–4400	—	1.3	
	VSWR	1620–3450	—	1.5	:1

1. In Application where DC voltage is present at either input or output ports, coupling capacitors are required. Alternatively, Mini-Circuits' "D" suffix version of this model will provide >100 MOhm isolation to ground.

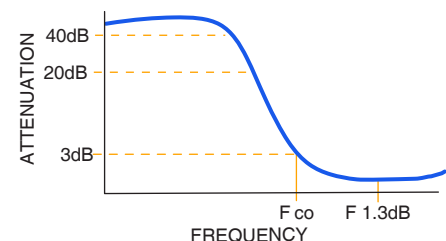
2. Measured on Mini-Circuits Characterization Test Board TB-270.

MAXIMUM RATINGS

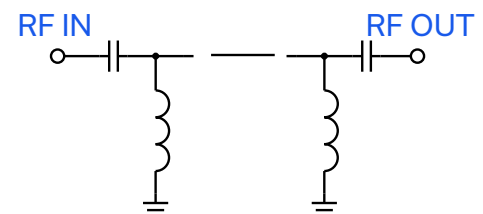
Parameter	Ratings
Operating temperature	-55°C to +100°C
Storage temperature	-55°C to +100°C
RF Power Input ³	7 W max. at +25°C

3. Passband rating, derate linearly to 3 W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

TYPICAL FREQUENCY RESPONSE



FUNCTIONAL SCHEMATIC



REV. Q
ECO-030200
HFCN-1500+
MCL NY
260626





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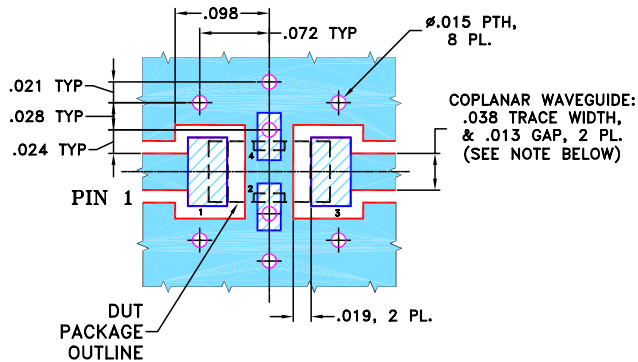
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PIN CONNECTIONS

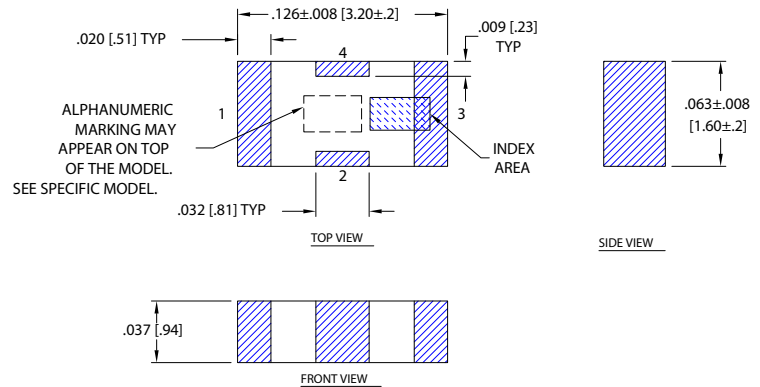
RF IN	1
RF OUT	3
GROUND	2,4

PRODUCT MARKING: B1

DEMO BOARD MCL P/N: TB-270
SUGGESTED PCB LAYOUT (PL-137)


- NOTES:**
1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS $.020'' \pm .0015''$. 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

OUTLINE DRAWING



Weight: .020 grams.

Dimensions are in inches [mm]. Tolerances: 2 Pl. $\pm .01$; 3 Pl. $\pm .005$

TAPE & REEL INFORMATION: F71



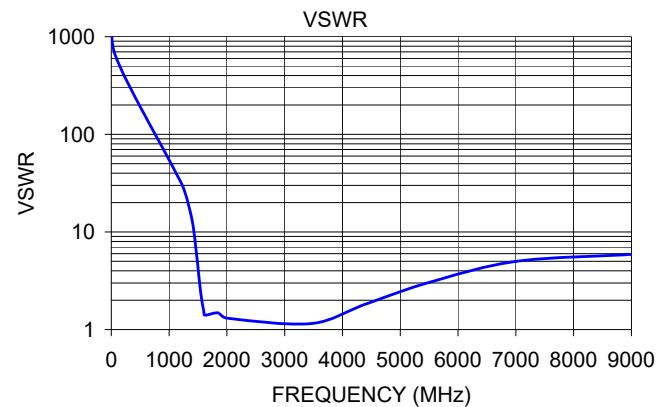
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TYPICAL PERFORMANCE DATA AT +25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	105.45	1737.18
100.00	63.65	579.06
1060.00	48.22	46.96
1250.00	31.52	28.03
1400.00	14.81	12.89
1480.00	7.64	5.56
1550.00	3.50	2.35
1600.00	2.13	1.54
1620.00	1.83	1.41
1850.00	1.00	1.49
2000.00	0.76	1.31
3450.00	0.45	1.15
4400.00	0.94	1.82
5500.00	2.10	3.04
7000.00	3.85	4.99
9000.00	5.89	5.89



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

