# **High Pass Filter**

#### 1900 to 5500 MHz $50\Omega$

# **Maximum Ratings**

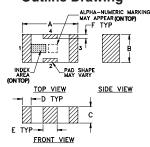
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7W max at 25°C

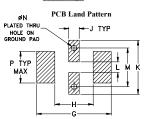
<sup>\*</sup> Passband rating, derate linearly to 3W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

#### **Pin Connections**

RF IN	1
RF OUT	3
GROUND	2.4

# **Outline Drawing**



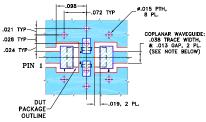


Suggested Layout.

Outline Dimensions (	(inch mm)
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	G	F	E	D	С	В	Α
	.169	.009	.032	.020	.037	.063	.126
	4.29	0.23	0.81	0.51	0.94	1.60	3.20
wt	Р	N		L	K	J	Н
grams	.071	.012	.087	.024	.122	.024	.087
020		0.30		0.61	3.10	0.61	2.21

#### 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 0.7 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

#### **Features**

- low cost
- small size
- 7 sections • temperature stable
- hermetically sealed
- LTCC construction
- excellent power handling, 7W

# **Applications**

- sub-harmonic rejection
- transmitters/receivers
- lab use

#### 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

HFCN-1760+



20, 50, 100, 200, 500,1000, 3000

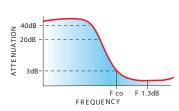
# Electrical Specifications(1,2) at 25°C

STOP (MI	Hz)	fco, MHz Nom.	PASSBAND (MHz)		_	R (:1) /p.	POWER INPUT (W)	NO. OF SECTIONS
l lvii		(loss 3 dB)	(loss < 1.3 dB)	(loss < 2 dB)		Frequency (MHz)	(**)	
(loss > 40 dB)	(loss > 20 dB)	Тур.	Max.	Typ.	Stopband	1.5:1		
950	1230	1760	2100-5200	1900-5500	20:1	2200-4500	7	7

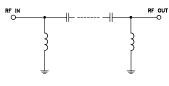
(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

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

## typical frequency response

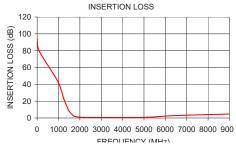


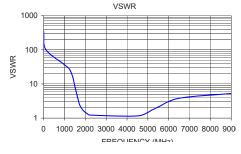
### electrical schematic



# Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	94.01	347.44
100.00	79.27	102.19
950.00	44.24	38.61
1230.00	23.99	27.59
1400.00	13.10	15.67
1500.00	7.92	8.43
1700.00	2.49	2.72
1760.00	1.87	2.24
1900.00	1.18	1.67
2100.00	0.79	1.34
2200.00	0.67	1.23
4500.00	0.58	1.16
5200.00	0.98	1.73
5500.00	1.31	2.12
6500.00	2.90	3.81
9000.00	4.70	5.27





- 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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