

Ceramic

High Pass Filter

50Ω 8560 to 12800 MHz

Features

- Low cost
- Small size
- Temperature stable
- Excellent power handling, 7W
- Hermetically sealed
- LTCC construction
- Protected by US Patent 7,760,485

Applications

- Point-to-point radio
- Sub-harmonic rejection
- Transmitters / receivers

HFCN-7971+



CASE STYLE: FV1206-1

+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

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

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Stop Band	Rejection Loss	DC-F1	25	30	—	dB
		F1-F2	17	22	—	dB
	Freq. Cut-Off	F3	—	3.4	—	dB
	VSWR	DC-F2	—	40	—	:1
Pass Band	Insertion Loss	F4-F7	—	1.4	4.0	dB
		F5-F6	—	1.0	2.0	dB
	VSWR	F4-F7	—	1.7	—	:1

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

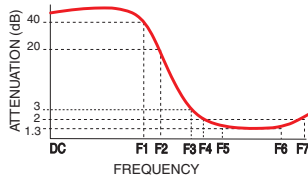
(2) Measured on Mini-Circuits Characterization Test Board TB-285.

Maximum Ratings

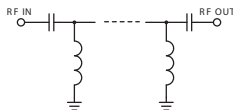
Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C
RF Power Input*	7W at 25°C

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

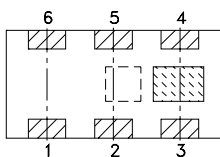
Specification Definition



Functional Schematic



Top View



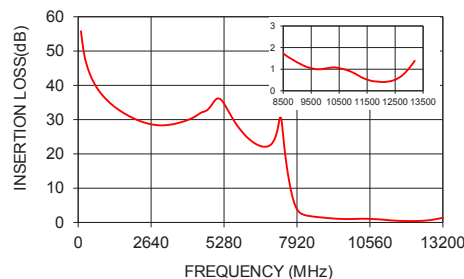
Pad Connections

Input	1
Output	3
Ground	2,4,5,6

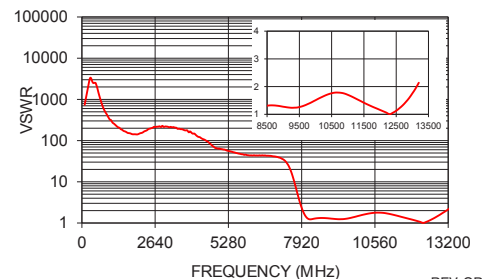
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
100	55.79	739.28
500	41.87	2462.98
1000	36.02	326.19
2000	30.39	141.40
3000	28.32	220.17
4000	30.01	147.06
5500	31.60	51.55
6500	22.61	43.87
6900	22.32	41.48
7000	22.90	40.62
8000	3.02	1.73
8500	1.73	1.31
11500	0.52	1.42
13000	1.05	1.75
13200	1.39	2.14

HFCN-7971+ INSERTION LOSS



HFCN-7971+ VSWR



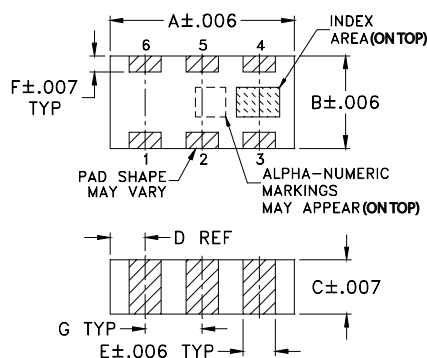
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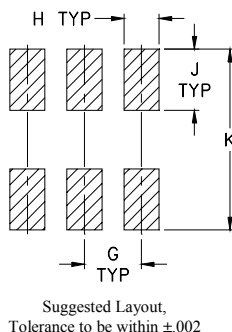
High Pass Filter

HFCN-7971+

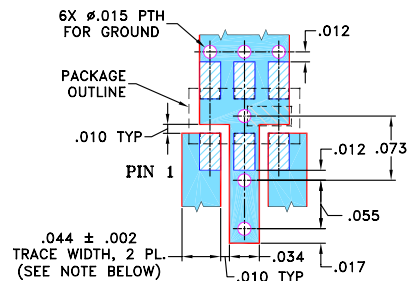
Outline Drawing



PCB Land Pattern



Demo Board MCL P/N: TB-285+ Suggested PCB Layout (PL-158)



Pad Connections

Input	1
Output	3
Ground	2,4,5,6

Product Marking: FW

Outline Dimensions ($\frac{\text{inch}}{\text{mm}}$)

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

Additional 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

