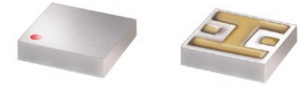


# Ceramic High Pass Filter

## HFTC-16+

50Ω 1900 to 2700 MHz



### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 125°C

Permanent damage may occur if any of these limits are exceeded.

### Pin Connections

RF IN	2
RF OUT	5
GROUND	1,3,4,6

### Features

- miniature size, 0.15"X0.15"
- low profile, 0.028" height
- low pass-band insertion loss, 1.0 dB typ.
- excellent input power handling, 14W
- hermetically sealed

CASE STYLE: FR933  
PRICE: \$3.75 ea. QTY. (10-49)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### Applications

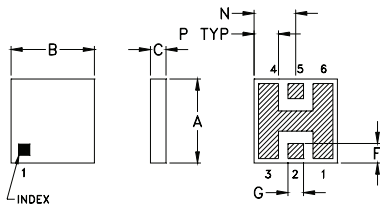
- sub-harmonic rejection
- transmitters/receivers
- dc blocking

### Electrical Specifications (T<sub>AMB</sub>=25°C)

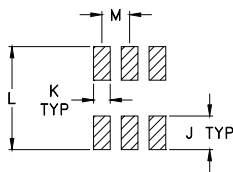
STOP BAND (MHz)	f <sub>co</sub> , MHz Nom.	PASSBAND (MHz)	VSWR (:1)	POWER INPUT* (W)	MARKING	NO. OF SECTIONS
(loss > 40 dB)	(loss 3 dB) Typ.	(loss < 1.3 dB)	Stopband Passband Typ. Typ.			
DC-1030	1300	1580	18	14	HF2	7

\* Derate linearly to 6W at 100°C ambient.

### Outline Drawing



### PCB Land Pattern

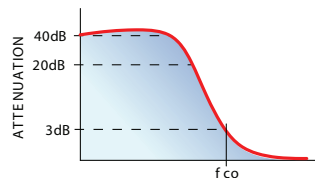


Suggested Layout,  
Tolerance to be within ±0.02

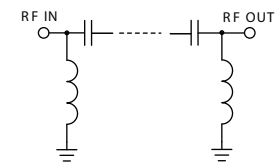
### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
.150	.150	.028	--	--	.035	.028	--
3.81	3.81	0.71	--	--	0.89	0.71	--
J	K	L	M	N	P	wt	
.060	.030	.184	.050	.075	.044	grams	
1.52	0.76	4.67	1.27	1.91	1.12	0.15	

### typical frequency response



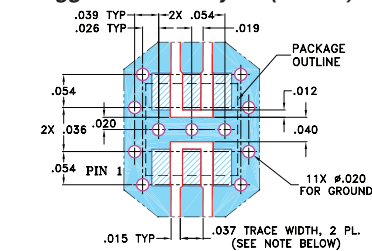
### electrical schematic



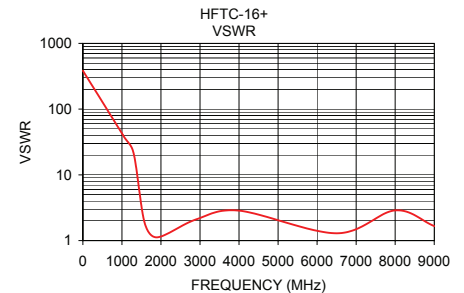
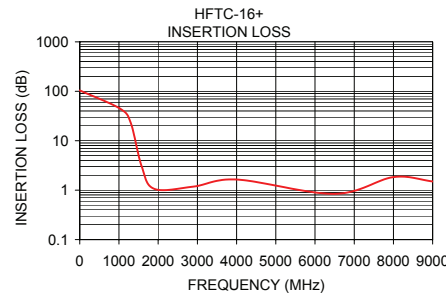
### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	104.25	384.41
1030.00	44.43	40.06
1300.00	23.10	21.36
1580.00	3.03	1.89
1900.00	1.06	1.12
2900.00	1.18	2.10
4000.00	1.64	2.86
6500.00	0.84	1.29
8000.00	1.84	2.88
9000.00	1.50	1.66

### Demo Board MCL P/N: TB-233 Suggested PCB Layout (PL-112)



- 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.  
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK



**Mini-Circuits®**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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](http://www.minicircuits.com/MCLStore/terms.jsp).

REV. M  
M121640  
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AD/YB/CP/AM  
090219