

Ceramic High Pass Filter

HFCN-740+ HFCN-740

50Ω 780 to 2800 MHz



Maximum Ratings

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

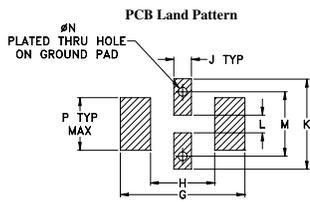
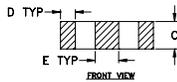
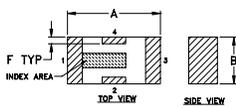
* Passband rating, derate linearly to 3W at 100°C ambient.

Pin Connections

RF IN	1**
RF OUT	3**
GROUND	2,4

** RF IN & RF OUT can be interchanged

Outline Drawing

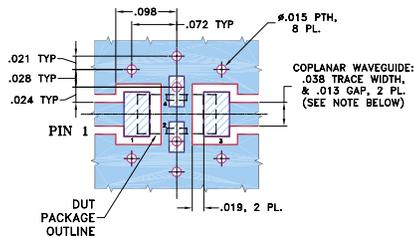


Suggested Layout, Tolerance to be within ±.002

Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
.126	.063	.037	.020	.032	.009	.169	.087	.024	.122	.024	.087	.012	.071	grams
3.20	1.60	0.94	0.51	0.81	0.23	4.29	2.21	0.61	3.10	0.61	2.21	0.30	1.80	.020

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 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

Features

- low cost
- small size
- 7 sections
- temperature stable
- dc block in/out, breakdown voltage, 1kV typ.
- excellent power handling, 7W
- hermetically sealed

Applications

- sub-harmonic rejection and dc blocking
- transmitters/receivers
- lab use

CASE STYLE: FV1206

Model	Price	Qty.
HFCN-740+	\$1.99	(10-49)
HFCN-740	\$1.99	(10-49)
HFCN-740D+	\$2.49	(10-49)
HFCN-740D	\$2.49	(10-49)

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

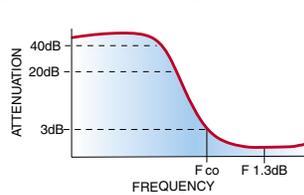
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications¹ (T_{AMB}=25°C)

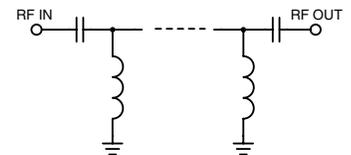
STOP BAND (MHz) Min.	f _{co} , MHz Nom.	PASSBAND (MHz)	VSWR (:1) Typ.	POWER INPUT (W)	NO. OF SECTIONS
(loss > 40 dB) (loss > 20 dB)	(loss 3 dB) Typ.	(loss < 1.3 dB) (loss < 2 dB) Max. Typ.	Frequency (MHz) Stopband 1.5:1		
430 550	740	900-2200 780-2800	20:1 480-1900	7	7

1. For applications requiring DC voltage to be applied to the Input or output, use HFCN-740D (DC Resistance to ground is 100 Mohms min.)

typical frequency response

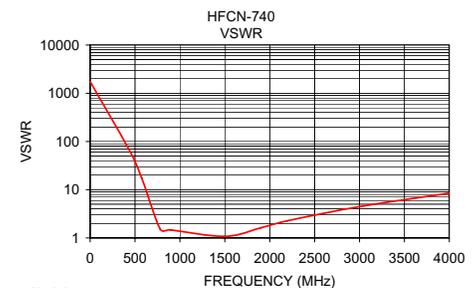
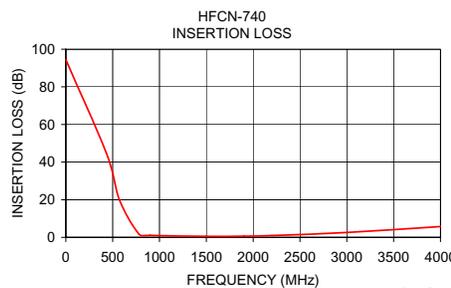


electrical schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	94.42	1737.18
435.00	44.43	66.82
575.00	19.61	17.22
780.00	1.77	1.52
900.00	1.03	1.47
1500.00	0.50	1.07
1900.00	0.62	1.62
2200.00	0.94	2.27
3000.00	2.57	4.45
4000.00	5.72	8.47



designers kit available

Kit No.	No. of Units in Kit	Description	Price \$ per Kit
K1-HFCN	40	5 of each: HFCN-650,-740,-1200,-1500,-1760,-2000,-2275,-2700	79.95

Mini-Circuits®
ISO 9001 ISO 14001 CERTIFIED

ALL NEW
minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS

REV. D
M102713
HFCN-740
EDR-6251/2
AD/RS/CP/AM
070514