Fairview Microwave
an INFINITE brand

FMHFL0000
DATA SHEET

DC to 2500 MHz SMA Low Pass Harmonic Filter, 50W Pin, L & S Bands, 0.3 dB Loss and > 25 dB Rejection

The FMHFL0000 is a broadband low pass RF filter that's designed to reduce harmonics at the output of transmitters operating at up through L and S-bands from DC to 2500 MHz. The filter package has a miniature form factor and lightweight that's ideal for applications that involve Amplifier Harmonic Filtering, Military Communications, Avionics, Point-to-Point Communications, Software Defined Radios (SDRs), RF filtering, and Test and Measurement. The filter provides rejection levels of greater than 25 dB from 3.25 GHz to 5 GHz and accepts input power levels up to 50 watts with typical passband insertion loss of 0.3 dB and low VSWR of 1.5:1. The rugged Mil-Grade assembly supports female SMA RF input/output connectors. The operating baseplate temperature range is -40°C to +85°C and the unit is guaranteed to withstand up to 95% relative humidity, altitude levels up to 30,000 ft, and random vibration and shock profiles (see chart below).

Electrical Specifications

Description	Min	Typ	Max	Units
Passband Frequency	DC		2.5	GHz
Impedance		50		Ohms
Cutoff Frequency			2.5	GHz
Passband VSWR		1.5:1		
RF Input Power Passband		50		Watts

Specifications by Frequency

Description	F1	F2	F3
Passband Freq.	1000 MHz	2 GHz	2.5 GHz
Rejection Freq.	3.25 GHz	5 GHz	6 GHz
Insertion Loss	0.3 dB	0.3 dB	0.6 dB
Rejection	-27 dB	-25 dB	-21 dB

Features:

- Miniature Low Pass Harmonic Filter
- Frequency Range: DC to 2500 MHz
- Broadband Design covers L&S Bands
- Rejection levels > 25 dB from 3.25 GHz to 5 GHz
- Pin up to +50 Watts (Passband)
- Passband Insertion Loss 0.3 dB typ
- VSWR: 1.5:1
- Small Form Factor Rugged and Lightweight Mil-Grade Package
- 50 Ohm Design
- Female SMA RF Connectors
- -40°C to +85°C Operating Temperature
- EAR99 Export Compliance

Applications:

- Amplifier Harmonic Filtering
- Military Communications
- Avionics
- Point-to-Point Communications
- Software Defined Radios(SDRs)
- RF Filtering
- Test & Measurement

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Absolute Maximum Rating

Parameter	Rating	Unit
Max RF Input Power Z_L = 50 Ω	100	V
Max RF Input Power Z_L = 10:1 VSWR	50	A
Max Operating Temperature (baseplate)	85	°C
Max Storage Temperature	85	°C

ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

Mechanical Specifications

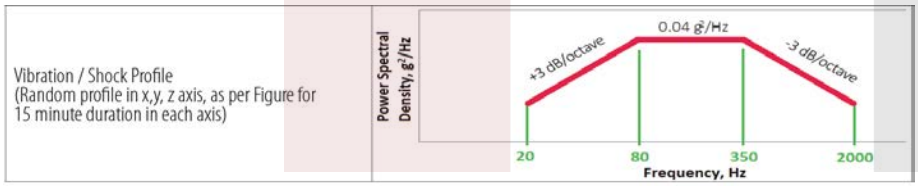
Size

Length	0.75 in [19.05 mm]
Width	0.68 in [17.27 mm]
Height	0.4 in [10.16 mm]
Weight	0.1 lbs [45.36 g]

Configuration

Design	Low Pass Harmonic
Number of Sections	
Connector 1	SMA Female
Connector 2	SMA Female

Environmental Specifications



Temperature

Operating Range	-40 to +85deg C
Storage Range	-40 to +85deg C

Environment

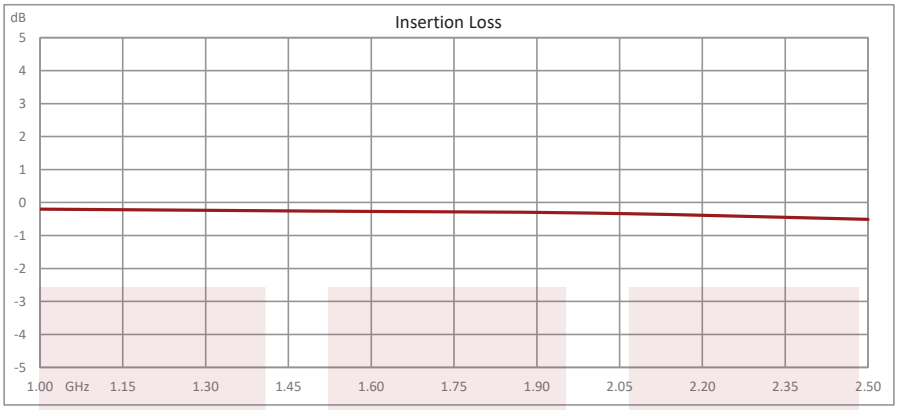
Humidity	95%
Shock	MIL-STD-810
Vibration	MIL-STD-810
Altitude	0 to 30,000 ft

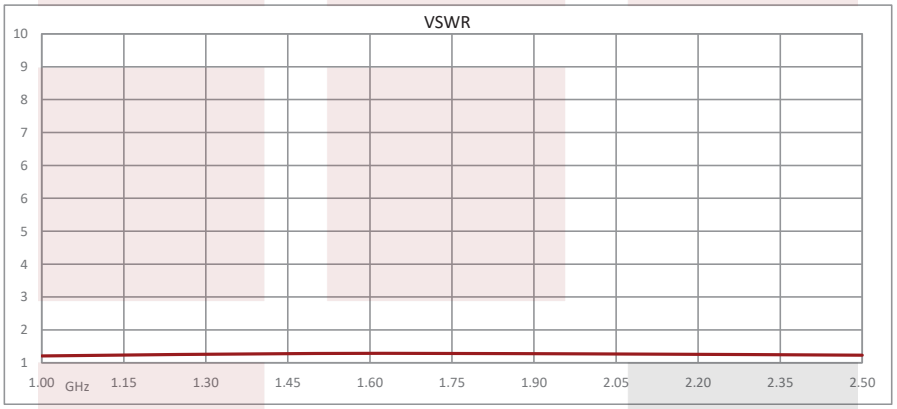
Compliance Certifications (see product page for current document)

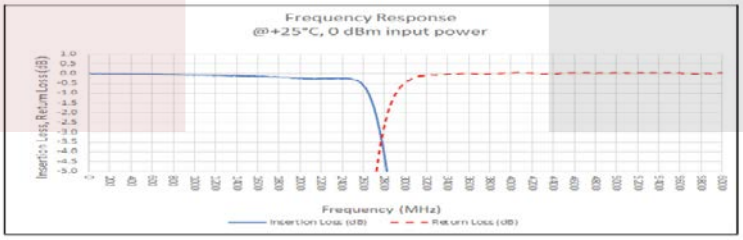
Plotted and Other Data

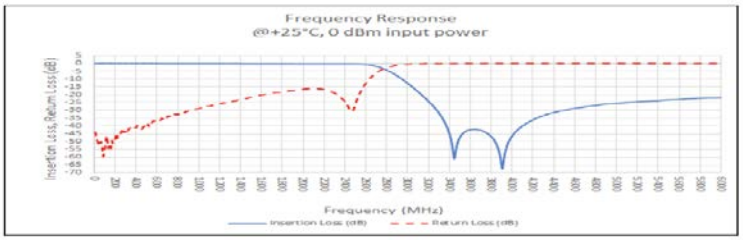
Notes:

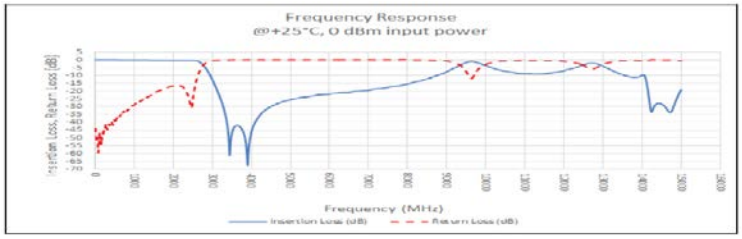
Typical Performance Data

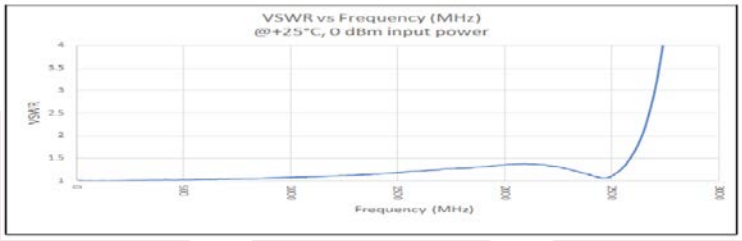










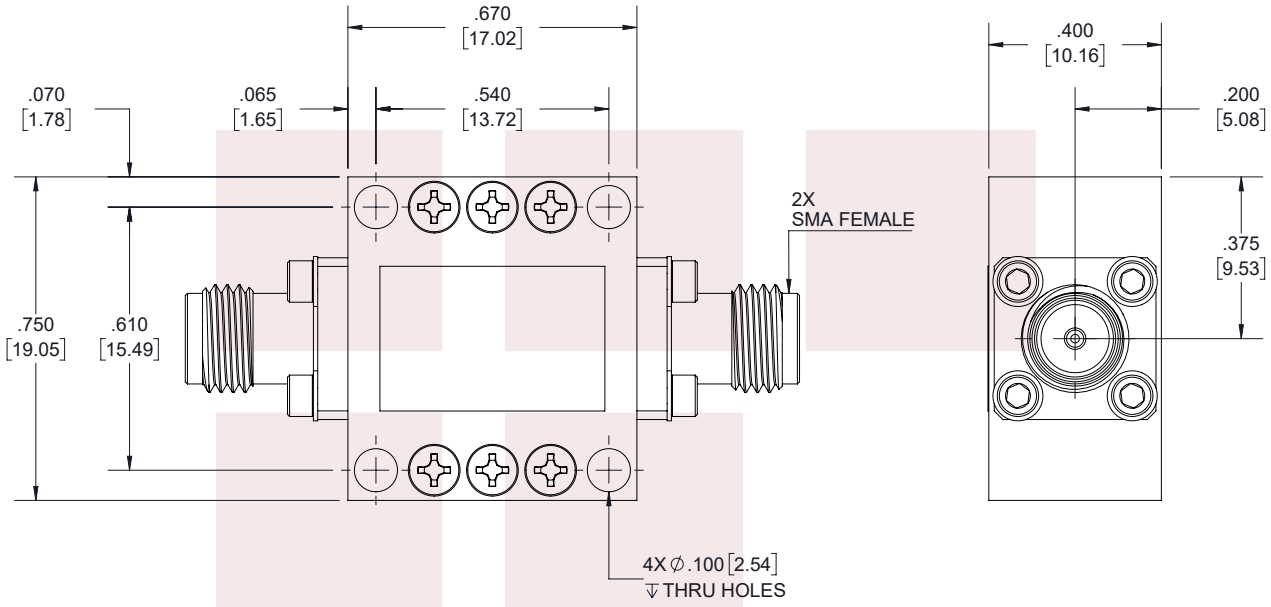


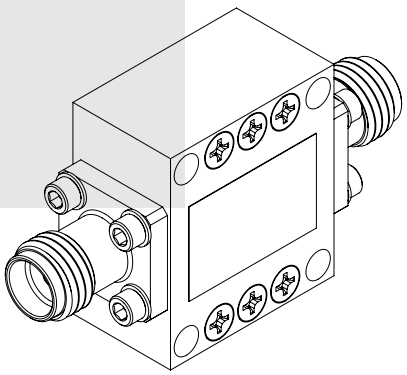
DC to 2500 MHz SMA Low Pass Harmonic Filter, 50W Pin, L & S Bands, 0.3 dB Loss and > 25 dB Rejection from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: DC to 2500 MHz SMA Low Pass Harmonic Filter, 50W Pin, L & S Bands, 0.3 dB Loss and > 25 dB Rejection FMHFL0000

URL: https://www.fairviewmicrowave.com/low-pass-harmonic-filter-dc-to-2500-mhz-l-s-band-50w-pin-21-db-rejection-03-db-loss-sma-fmhfl0000-p.aspx

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	6/15/2020	T.GALLA





LABEL

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TITLE

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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:

.X = ±.2 [5.08]
.XX = ±.02 [.51]
.XXX = ±.005 [.13]
FRACTIONS ± 1/32
ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305] = +1 [25] / -0
12 [305] < L ≤ 60 [1524] = +2 [51] / -0
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
300 [7620] < L = +5%L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

SHEET	OF
1	1

SCALE: N/A

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	3FKR5	K.DANG	FMHFL0000	A

T-Rev.D