Fairview Microwave
an INFINITE brand

FMHFL0001
DATA SHEET

2500 to 6000 MHz SMA Low Pass Harmonic Filter, 50W Pin, C Band, 0.3 dB Loss and > 20 dB Rejection

The FMHFL0001 is a broadband low pass RF filter that's designed to reduce harmonics at the output of transmitters operating at up through C-Band from 2500 to 6000 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 20 dB from 8 GHz to 10 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	2.5		6	GHz
Impedance		50		Ohms
Cutoff Frequency			6	GHz
Passband VSWR		1.5:1		
RF Input Power Passband		50		Watts

Specifications by Frequency

Description	F1	F2	F3
Passband Freq.	3.5 GHz	5 GHz	6 GHz
Rejection Freq.	8 GHz	10 GHz	16 GHz
Insertion Loss	0.3 dB	0.3 dB	0.75 dB
Rejection	20 dB	25 dB	40 dB

Features:

- Miniature Low Pass Harmonic Filter
- Frequency Range: 2500 MHz to 6000 MHz
- Broadband Design covers C-Band
- Rejection levels >20 dB from 8 GHz to 10 GHz
- Pin up to +50 Watts (Passband)
- Passband Insertion Loss: 0.3 dB typ
- VSWR: 1.5:1
- Small Form Factor Rugged 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	50	V
Max RF Input Power Z_L = 10:1 VSWR	50.0	A
Max Operating Temperature (baseplate)	65	°C
Max Storage Temperature	65	°C

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

Mechanical Specifications

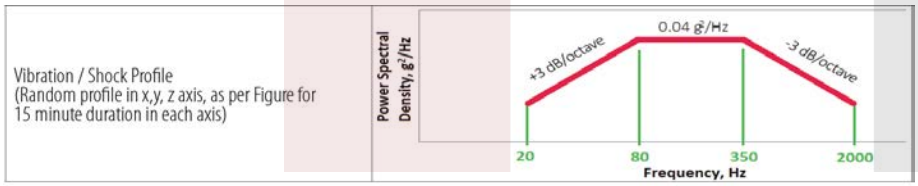
Size

Length	2.56 in [65.02 mm]
Width	0.65 in [16.51 mm]
Height	0.65 in [16.51 mm]
Weight	1.1 lbs [498.95 g]

Configuration

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

Environmental Specifications



Temperature

Operating Range	-40 to +65deg C
Storage Range	-40 to +85deg C

Environment

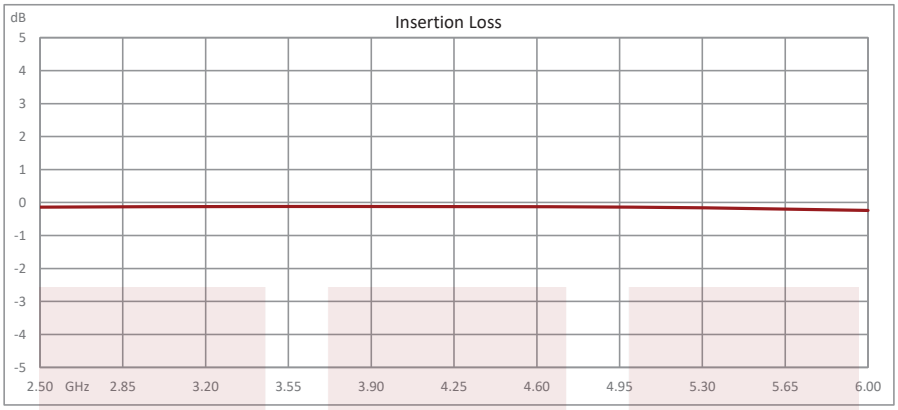
Humidity	95%
Shock	MIL-STD-810
Vibration	MIL-STD-810
Altitude	0 to 30,000 ft

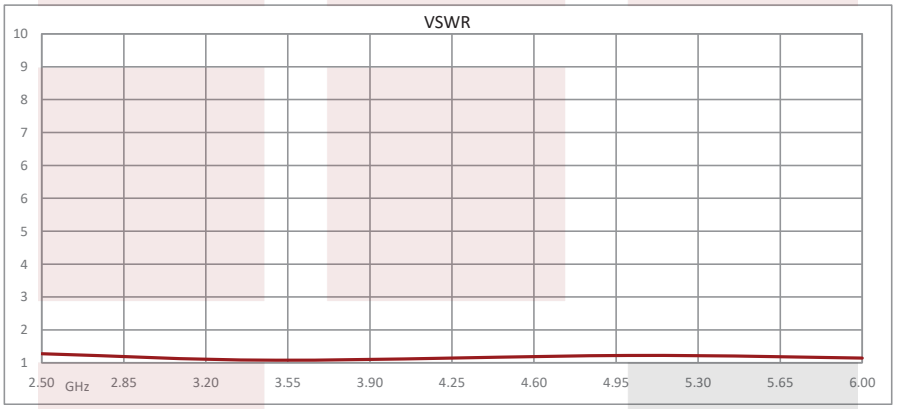
Compliance Certifications (see product page for current document)

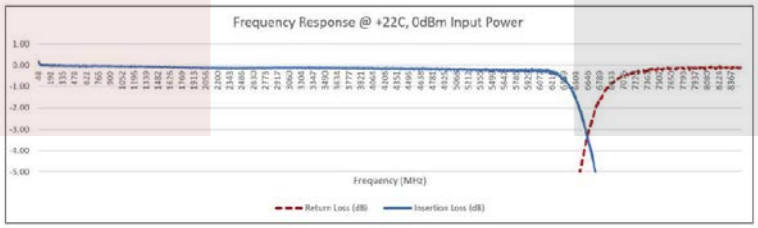
Plotted and Other Data

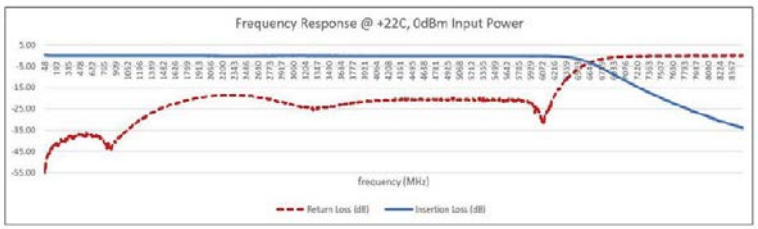
Notes:

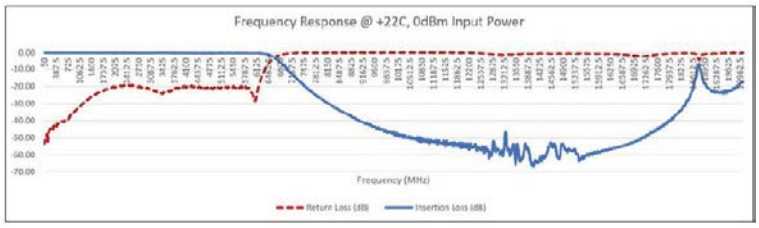
Typical Performance Data

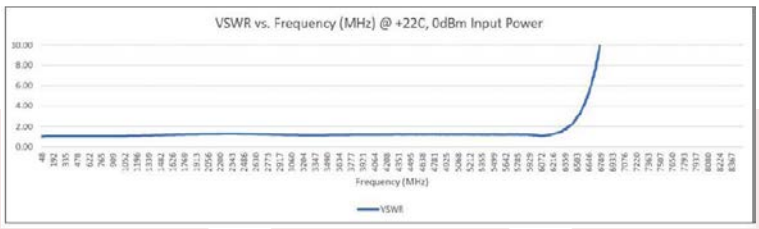










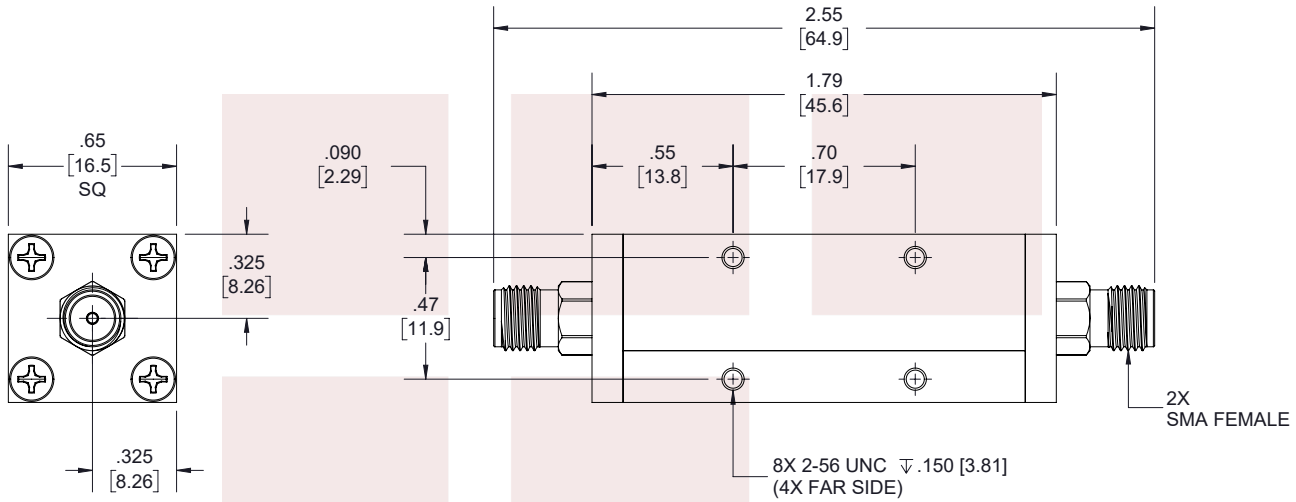


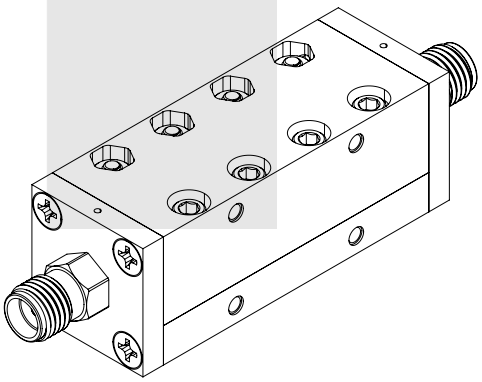
2500 to 6000 MHz SMA Low Pass Harmonic Filter, 50W Pin, C Band, 0.3 dB Loss and > 20 dB Rejection from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: 2500 to 6000 MHz SMA Low Pass Harmonic Filter, 50W Pin, C Band, 0.3 dB Loss and > 20 dB Rejection FMHFL0001

URL: https://www.fairviewmicrowave.com/miniature-harmonic-filter-2500-to-6000-mhz-c-band-50-w-pin-20-db-rejection-03-db-loss-sma-fmhfl0001-p.aspx

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





LABEL

Fairview Microwave
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www.fairviewmicrowave.com
FMHFL0001
V002162YYYYMMDDXXXX

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TITLE

2500 to 6000 MHz SMA Low Pass Harmonic Filter, 50W Pin, C Band, 0.3 dB Loss and > 20 dB Rejection

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	SCALE
1	1	N/A

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	3FKR5	K.DANG	FMHFL0001	A

T-Rev.D