PASTERNACK
an INFINITE brand

Low Pass Harmonic Filter, DC to 2500 MHz, L&S Band, 50W Pin, > 21 dB Rejection, 0.3 dB loss, SMA

Harmonic Filters Technical Data Sheet PEHFL0000

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

Description

The PEHFL0000 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	Minimum	Typical	Maximum	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

Performance by Frequency

Description	F1	F2	F3
Passband Frequency	1000 MHz	2 GHz	2.5 GHz
Rejection Frequency	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

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: Low Pass Harmonic Filter, DC to 2500 MHz, L&S Band, 50W Pin, > 21 dB Rejection, 0.3 dB loss, SMA PEHFL0000

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
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Absolute Maximum Rating

Parameter	Rating	Unit
Max RF Input Power, Z_L = 50 Ω	100	W
Max RF Input Power, Z_L = 10:1 VSWR	50	W
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

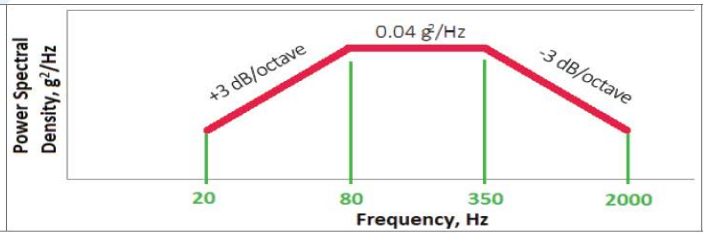
Size

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

Vibration / Shock Profile (Random profile in x,y, z axis, as per Figure for 15 minute duration in each axis)	

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Temperature

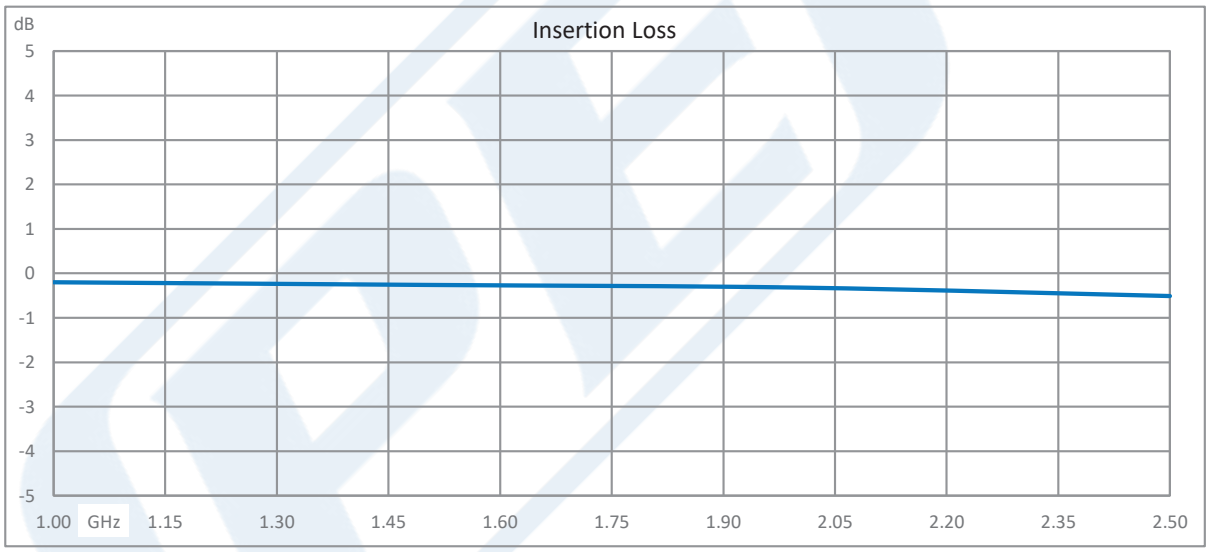
Operating Range	-40 to +85deg C
Storage Range	-40 to +85deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

Typical Performance Data



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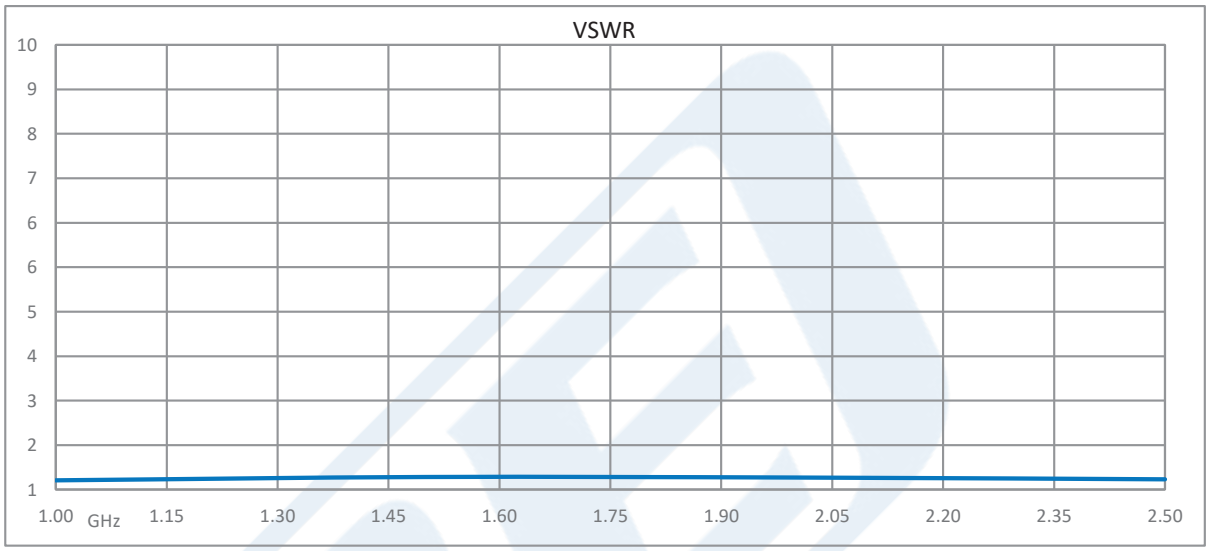

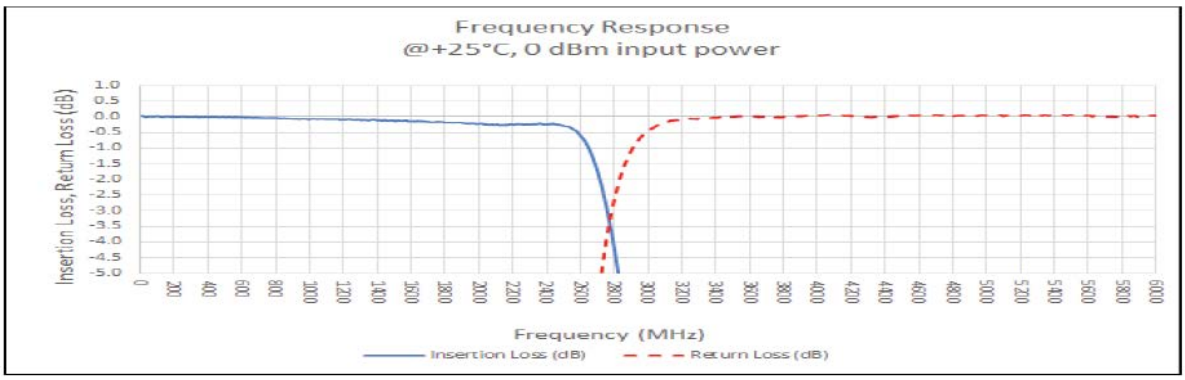

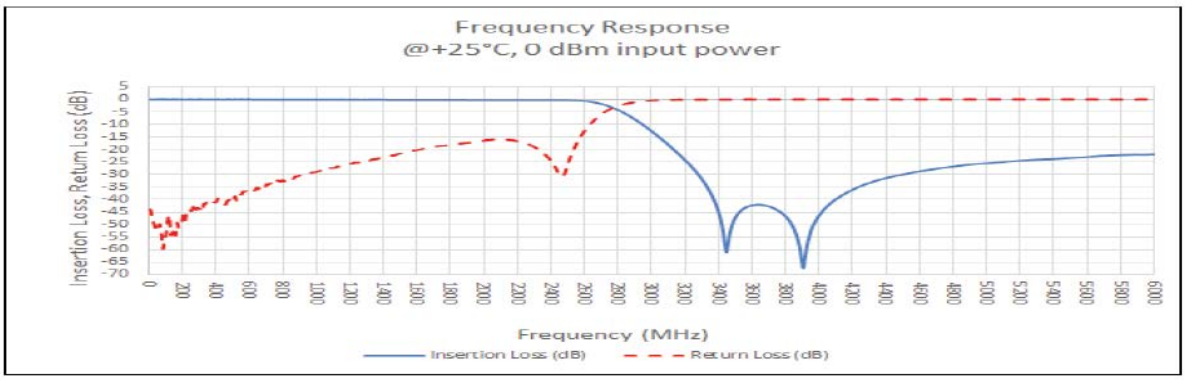

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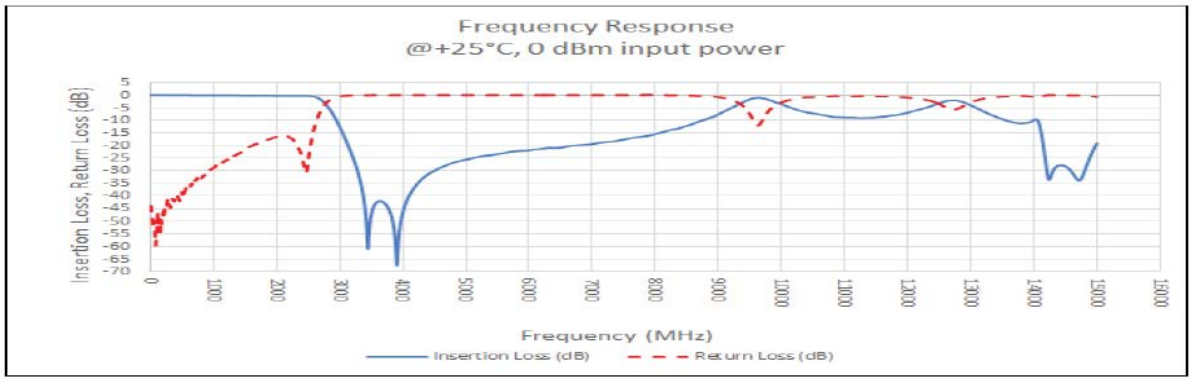

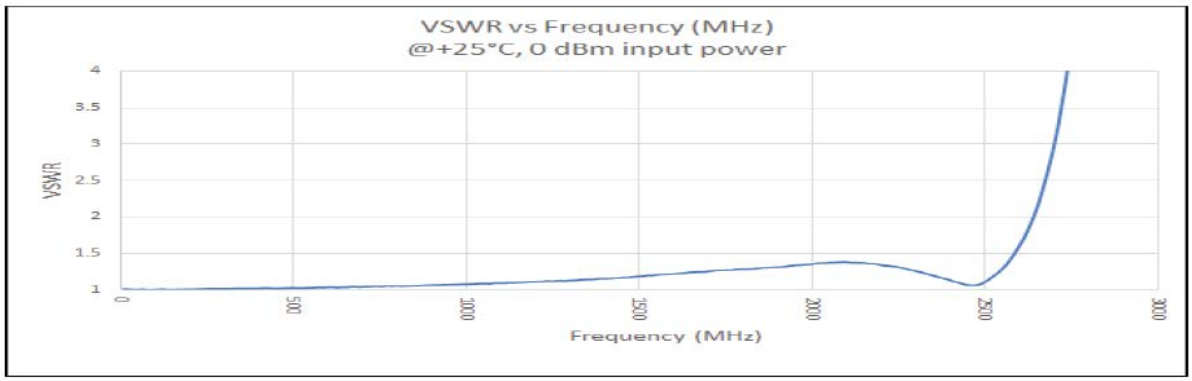

Low Pass Harmonic Filter, DC to 2500 MHz, L&S Band, 50W Pin, > 21 dB Rejection, 0.3 dB loss, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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URL: https://www.pasternack.com/low-pass-harmonic-filter-dc-to-2500-mhz-l&s-band-50w-pin-21-db-rejection-03-db-loss-sma-pehfl0000-p.aspx

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PEHFL0000 CAD Drawing

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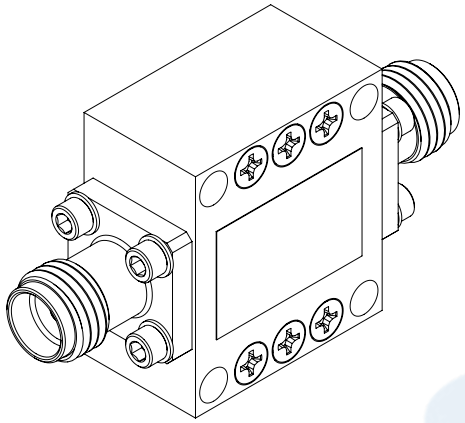
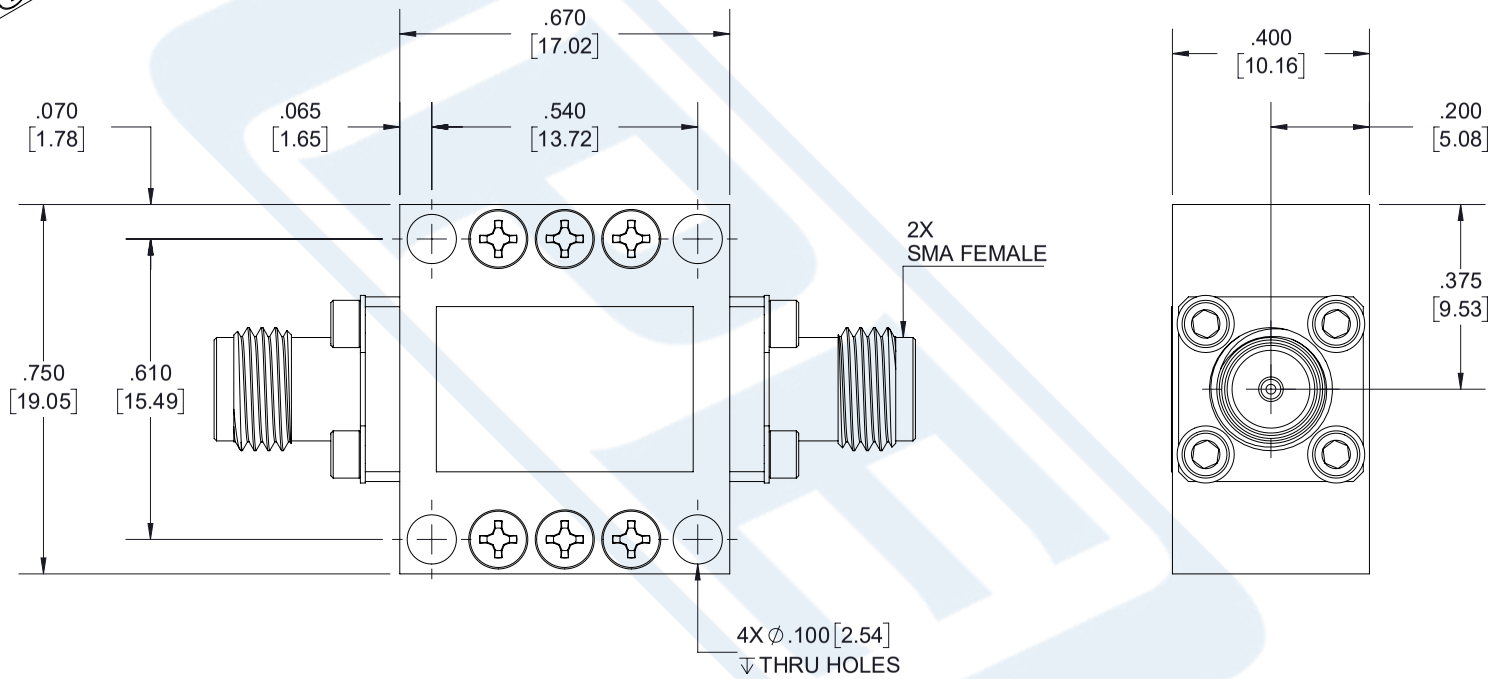
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	6/15/2020	T.GALLA





LABEL

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

TOLERANCES:

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

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.

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Fax: 1.949.261.7451
Website: www.pasternack.com
E-mail: sales@pasternack.com

THIRD-ANGLE PROJECTION

SHEET 1 OF 1
SCALE N/A

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	K.DANG	PEHFL0000	A