NuWaves
RF Solutions

NuFilter™ 05LPLE-2500-SFSF-M02 Miniature Harmonic Filter

Low Pass Filter
DC to 2500 MHz Passband



P/N: NW-FL-05LPLE-2500-SFSF-M02

NuWaves' NuFilter™ 05LPLE-2500-SFSF-M02 is a low-cost, miniature, low-pass RF filter designed to reduce harmonics at the output of transmitters operating at up through S-Band.

The NuFilter 05LPLE-2500-SFSF-M02 provides superior harmonic filtering, as demonstrated by the rejections levels of greater than 25 dB from 4 GHz to 10 GHz. This high-performance module accepts input power levels up to 50 W, with only a 0.5 dB (typical) of insertion loss in the passband frequency range of DC to 2500 MHz.

With standard SMA connectors, the NuFilter can quickly and easily be added to any RF system. NuWaves' NuFilter™ removes the time and cost burden of creating a design, laying out a PCB, buying parts, assembling, and testing. Allow NuWaves to save you time and money by outsourcing your filtering needs.

Features

- Minimal Passband Insertion Loss
- 50 W RF Power Handling
- Low Pass Filtering
- Broadband Operation
- Miniature Form Factor
- Lightweight
- Rugged Chassis

Applications

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

132 Edison Drive, Middletown, OH 45044 | 513.360.0800 | sales@nuwaves.com | www.nuwaves.com

NuFilter™ 05LPLE-2500-SFSF-M02

Specifications

Absolute Maximums

Parameter	Rating	Unit
Max RF Input Power, $Z_L = 50\ \Omega$	50	W
Max RF Input Power, Z_L = 10:1 VSWR	20	W
Max Operating Temperature	85	°C
Max Storage Temperature	85	°C

Export Classification
EAR99

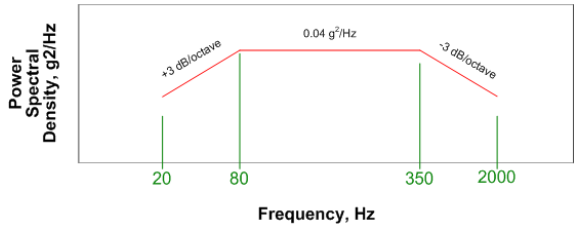
Electrical Specifications @ 25 °C, Z_S=Z_L=50 Ω

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Operating Frequency	BW	DC		2500	MHz	
Passband Insertion Loss	IL		0.3		dB	1 GHz
			0.3			2 GHz
			0.8			2.5 GHz
Cutoff Frequency		2500			MHz	
Rejection		-16	-20		dB	3.25 GHz
		-20	-25			4 - 10 GHz
		-15	-20			10 - 15 GHz
RF Power Handling (passband)			50		W	
VSWR (within passband)	VSWR		1.5			

Mechanical Specifications

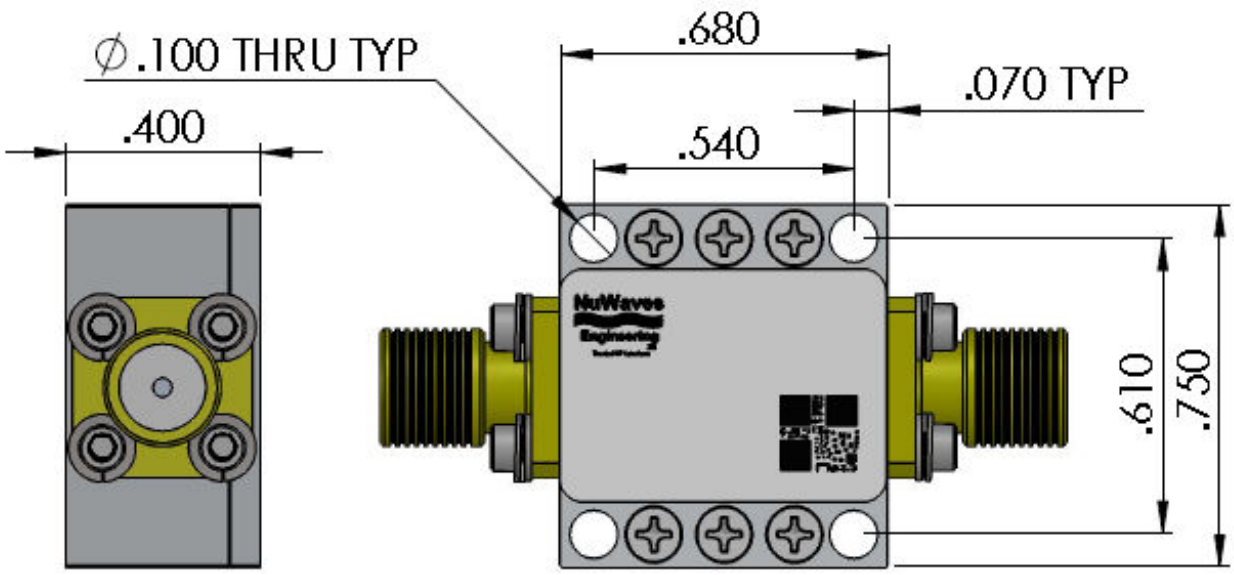
Parameter	Value	Unit	Limits
Dimensions	0.75 x 0.68 x 0.40	in	Max
Weight	1	oz	Max
RF Connectors, Input/Output	SMA Female		

Environmental Specifications

Parameter	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_C	-40		+85	°C
Storage Temperature	T_{STG}	-40		+85	°C
Relative Humidity (non-condensing)	RH			95	%
Altitude MIL-STD-810F - Method 500.4	ALT			30,000	ft
Vibration / Shock Profile (Random profile in x,y, z axis, as per Figure for 15 minute duration in each axis)					

NuFilter™ 05LPLE-2500-SFSF-M02

Mechanical Outline



Part Numbering Format

Part Number Example:

NW-FL-10BPCV-2450.5-SMSM-M01

Product Type	# of Poles	Filter Response	Filter Type	Center/Cutoff Frequency (MHz)	Cnctr #1 Type	Cnctr #1 Gender	Cnctr #2 Type	Cnctr #2 Gender	Configuration Number
NW	FL	10	BPCV	2450.5	S	M	S	F	M01

Number of Poles:	01 to 12 (2 digits)	Connector Type:	S (SMA) B (BNC) T (TNC)
Filter Response:	BP (Bandpass) LP (Lowpass) HP (Highpass) BR (Band Reject-Notch)	Connector Gender:	M (Male) F (Female)
Filter Type:	CV (Cavity) LE Lumped Element SL (Stripline)	Configuration #:	Mxx (defines additional mechanical & spec elements)

For information on product disposal (end-of-life), please refer to this document:
https://nuwaves.com/wp-content/uploads/Product-Disposal-End-of-Life.pdf

Contact NuWaves

NuWaves RF Solutions
132 Edison Drive
Middletown, OH 45044

www.nuwaves.com
sales@nuwaves.com
513.360.0800

NuWaves RF Solutions

Rev 032224 ©2019 NuWaves Ltd. Specifications subject to change without notice. Export of NuWaves Ltd. products are subject to U.S. export controls. U.S. export licenses may be required.