

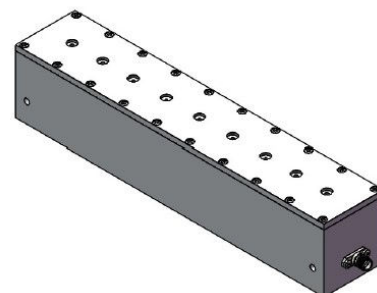
NuWaves

RF Solutions

NuFilter™ 05BPCV-1176-SFSF-M01 GPS L5 Bandpass Filter

1161 MHz to 1191 MHz

P/N: NW-FL-05BPCV-1176-SFSF-M01



NuWaves' NuFilter™ 05BPCV-1176-SFSF-M01 is a small form bandpass RF filter designed to reduce harmonics at the output of transmitters operating at GPS L5.

The NuFilter05BPCV-1176-SFSF-M01 provides superior harmonic filtering and noise, as demonstrated by the rejection levels of greater than 45 dB at 1126 and 1226 MHz. This high-performance module accepts input power levels up to 50W, with only a minimal 0.6 dB of insertion loss in the passband frequency range of 1161 to 1191 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
- 30 MHz BW
- 50 W CW RF Power Handling
- Bandpass Filtering
- GPS L5 Operation
- Rugged Chassis

Applications

- Amplifier Harmonic Filtering
- GPS L5
- Military Communications
- Avionics
- Point-to-Point Communications
- Software Defined Radios (SDRs)
- RF Filtering
- Test and Measurement

NuFilter™ 05BPCV-1176-SFSF-M01

Specifications

Absolute Maximums

Parameter	Rating	Unit
Max RF Input Power, CW, $Z_L = 50 \Omega$	50	W
Max Operating Temperature	60	°C
Max Storage Temperature	85	°C

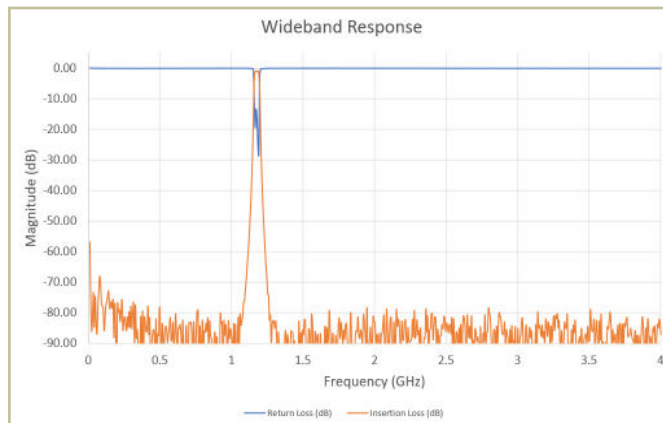
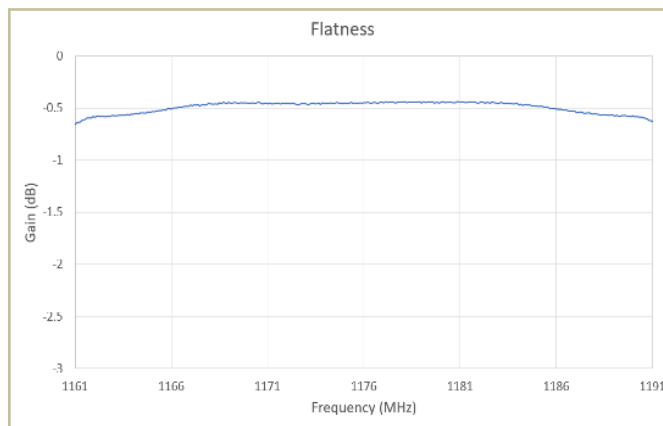
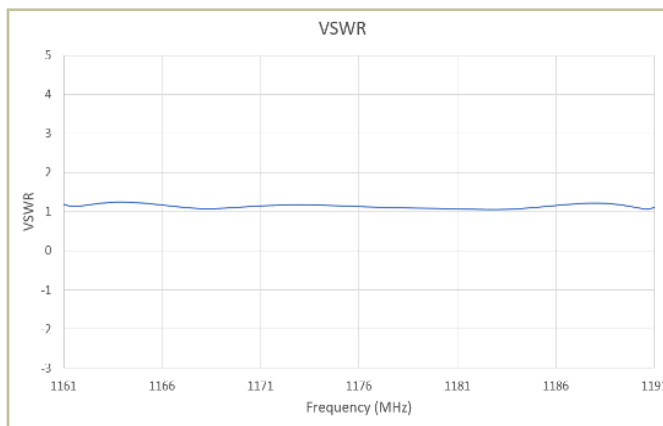
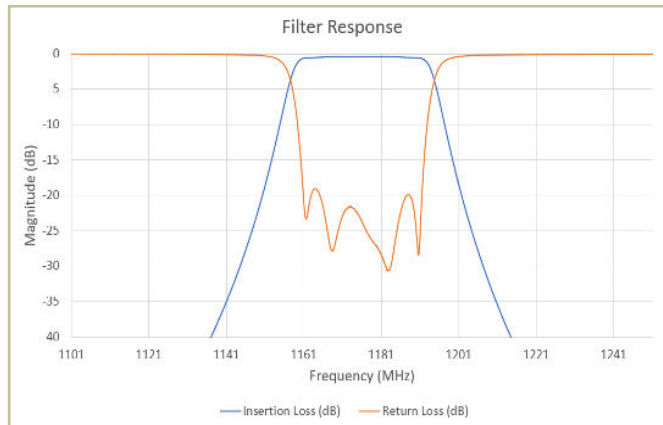
Export Classification
EAR99

Electrical Specifications @ 25 °C, $Z_S=Z_L=50 \Omega$

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Operating Frequency	BW	1161		1191	MHz	
Passband Insertion Loss	IL		0.65	1.5	dB	1161 MHz
			0.5	1		1176 MHz
			0.65	1.5		1191 MHz
Rejection			-45		dB	1126 MHz
			-45			1226 MHz
Passband Flatness			0.2	0.5	dB	
VSWR (within passband)	VSWR		≤ 1.5			

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Performance Plots

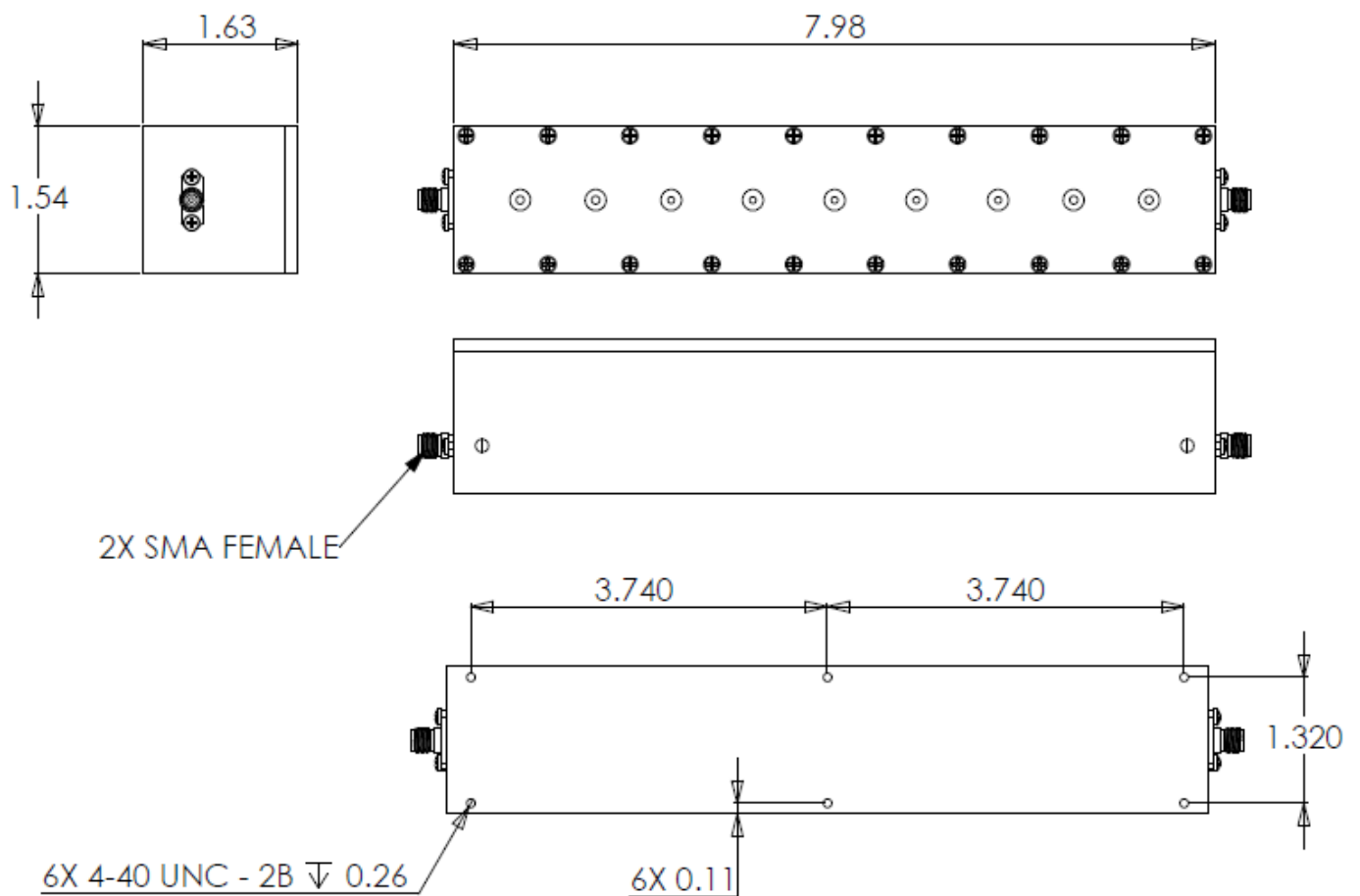


NuFilter™ 05BPCV-1776-SFSF-M01

Mechanical Specifications

Parameter	Value	Unit	Limits
Dimensions	7.98 x 1.63 x 1.54	in	Max
Weight	TBD	oz	Max
RF Connectors, Input/Output	SMA Female		
Finish	Silver Plating		

Mechanical Outline



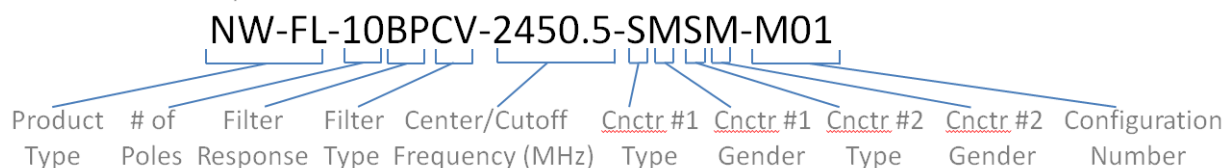
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Environmental Specifications

Parameter	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_C	-40		+60	°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)					

Part Numbering Format

Part Number Example:



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



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