

NuWaves

RF Solutions

NuFilter™ 04BPCV-4965-SFSF-M01 C-Band Bandpass Filter

4915 MHz to 5015 MHz

P/N: NW-FL-04BPCV-4965-SFSF-M01



NuWaves' NuFilter™ 04BPCV-4965-SFSF-M01 is a small form bandpass RF filter designed to reduce harmonics at the output of transmitters operating in C-Band.

The NuFilter 04BPCV-4965-SFSF-M01 provides superior harmonic and noise filtering as demonstrated by the rejection levels of greater than 30dB at 4830 and 5100 MHz. This high-performance module accepts input power levels up to 50W with only a minimal 0.8dB of insertion loss in the passband frequency range of 4915 to 5015 MHz.

With standard SMA connectors, the NuFilter™ can be quickly and easily 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
- 100 MHz BW
- 50W CW RF Power Handling
- Bandpass Filtering
- C-Band Operation
- Small 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

NuFilter™ 04BPCV-4965-SFSF-M01

Specifications

Absolute Maximums

Parameter	Rating	Unit
Max RF Input Power, CW, $Z_L = 50 \Omega$	50	W
Max Operating Temperature	70	°C
Max Storage Temperature	85	°C

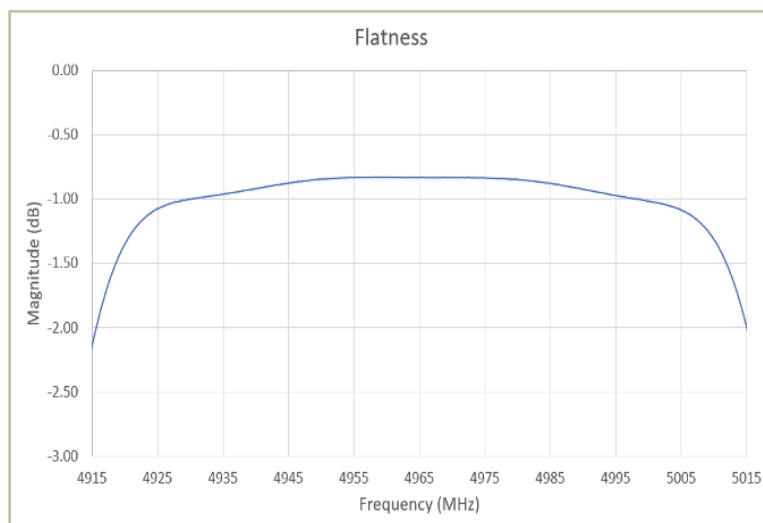
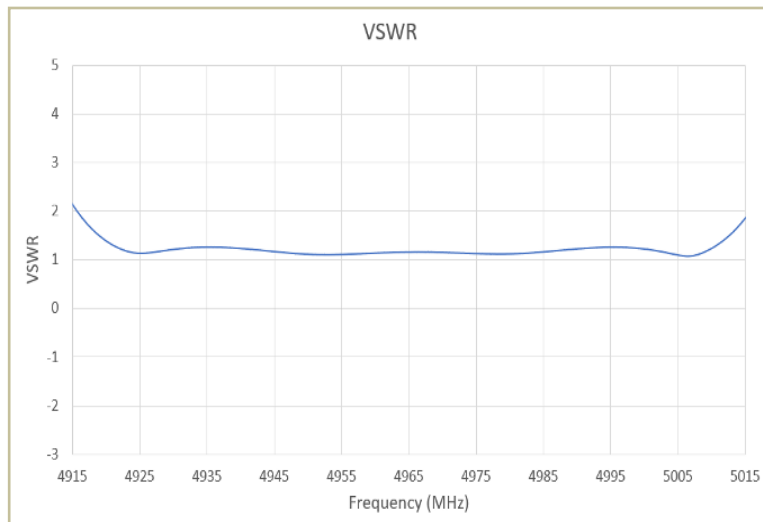
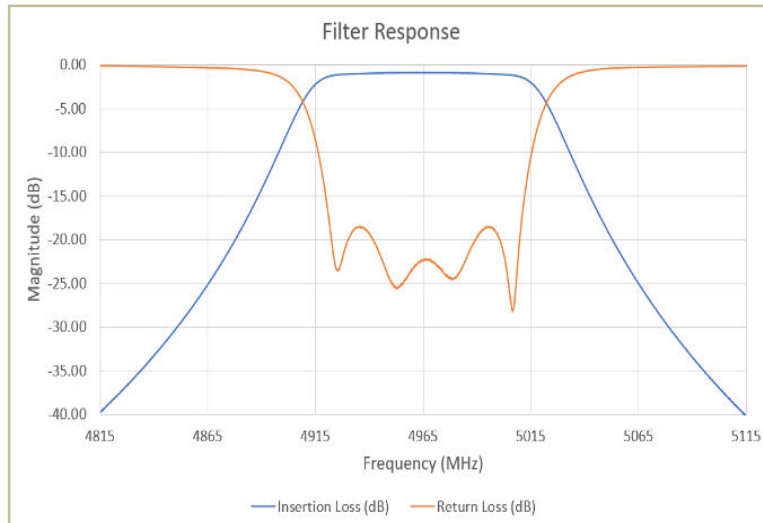
Export Classification
EAR99

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

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Operating Frequency	BW	4915		5015	MHz	
Passband Insertion Loss	IL		1.9	3.4	dB	4915 MHz
			0.8	1.4		4965 MHz
			1.9	3.4		5015 MHz
Rejection			-30		dB	4830 MHz
			-30			5100 MHz
Passband Flatness			1.1	3.0	dB	
VSWR	VSWR		≤ 1.5 MAX across 85% BW			Within Passband

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Performance Plots

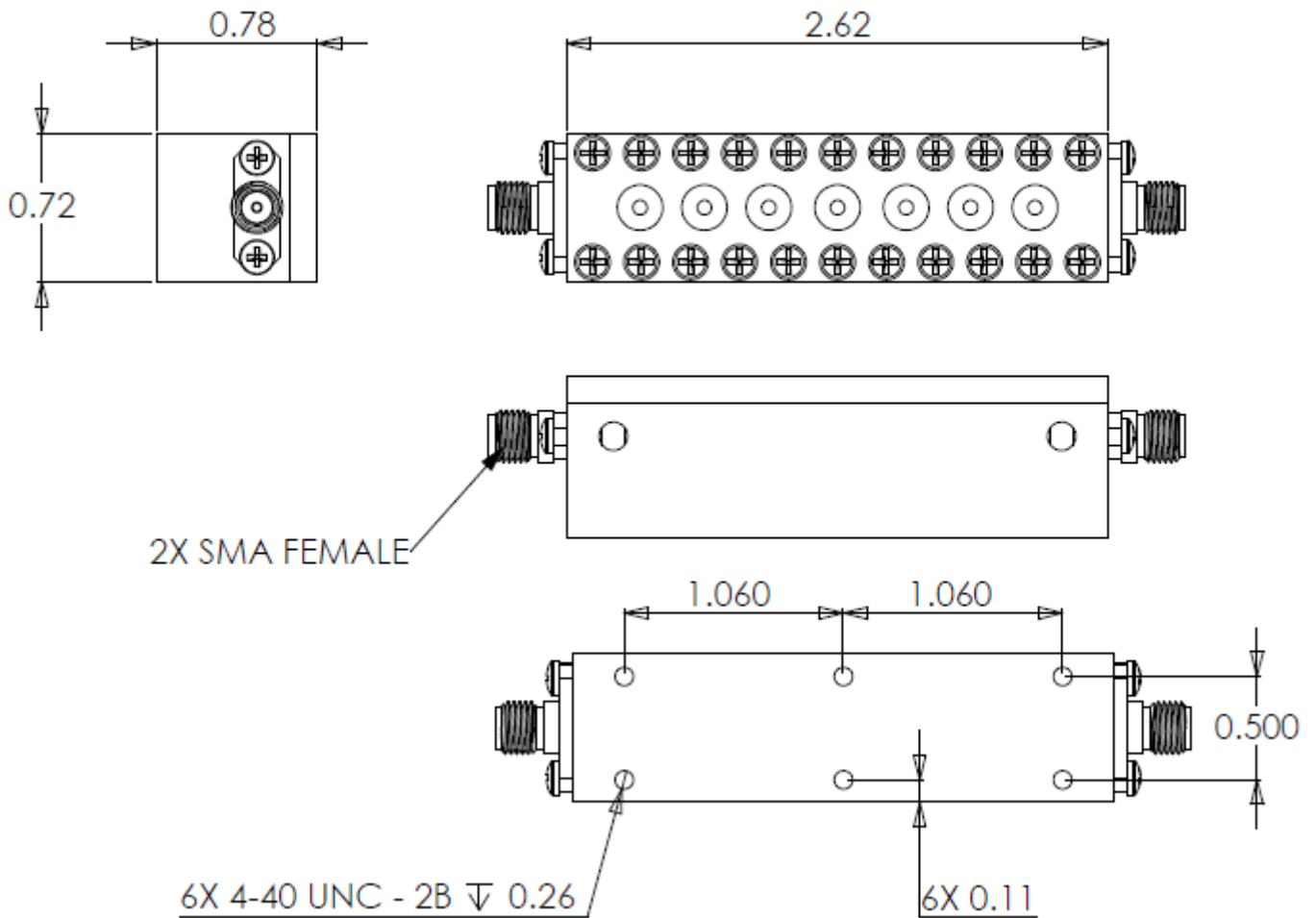


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Mechanical Specifications

Parameter	Value	Unit	Limits
Dimensions	2.62x0.78x0.72	in	Max
Weight	TBD	oz	Max
RF Connectors, Input/Output	SMA Female		
Finish	Silver Plating		

Mechanical Outline



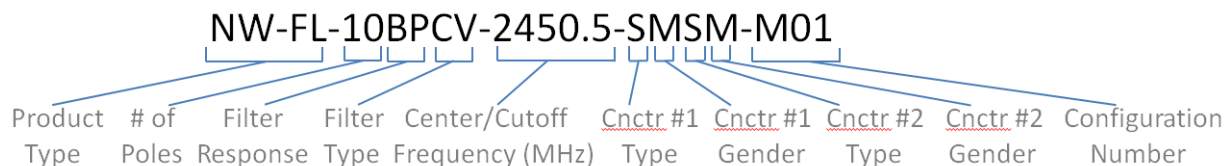
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Environmental Specifications

Parameter	Symbol	Min	Typ	Max	Unit
Operating Temperature	T _C	-40		+70	°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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