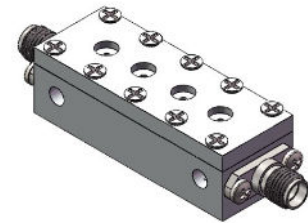


NuWaves
RF Solutions

NuFilter™ 04BPCV-12643-SFSF-M01 Ku-Band Bandpass Filter

12593 MHz to 12693 MHz



P/N: NW-FL-04BPCV-12643-SFSF-M01

NuWaves' NuFilter™ 04BPCV-12643-SFSF-M01 is a small form bandpass RF filter designed to reduce harmonics at the output of transmitters operating in Ku-Band.

The NuFilter 04BPCV-12643-SFSF-M01 provides superior harmonic filtering and noise, as demonstrated by the rejection levels of greater than 30 dB at 12508 and 12778 MHz. This high-performance module accepts input power levels up to 50 W, with only a minimal 1.4 dB of insertion loss in the passband frequency range of 12593 to 12693 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
- 100MHz BW
- 50 W CW RF Power Handling
- Bandpass Filtering
- Ku-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-12643-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

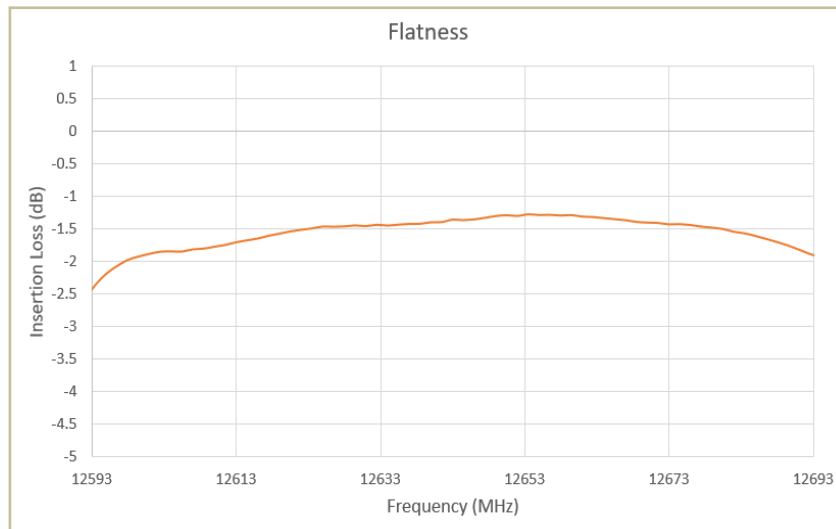
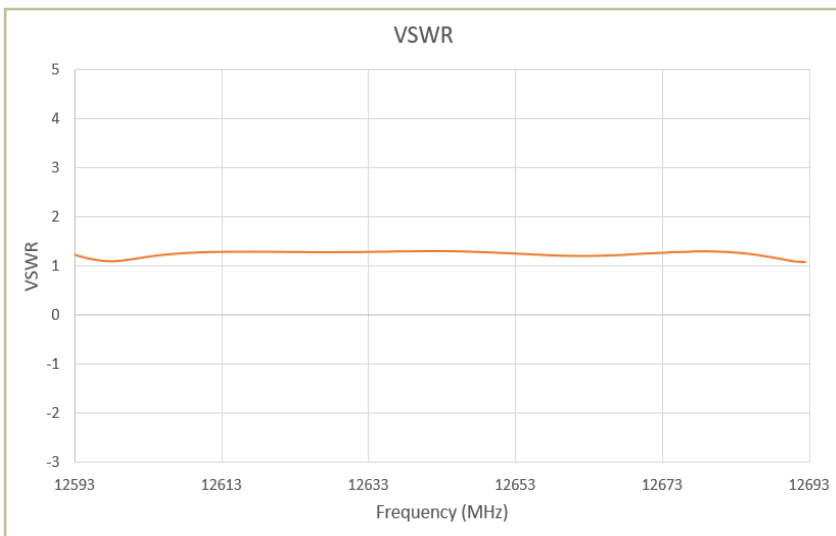
Export Classification
EAR99

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

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Operating Frequency	BW	12593		12693	MHz	
Passband Insertion Loss	IL		2.4	5.4	dB	12593 MHz
			1.4	2.4		12643 MHz
			2.4	5.4		12693 MHz
Rejection			-30		dB	12508 MHz
			-30			12778 MHz
Passband Flatness			1	3	dB	
VSWR (within passband)	VSWR		≤ 1.5			

NuFilter™ 04BPCV-12643-SFSF-M01

Performance Plots

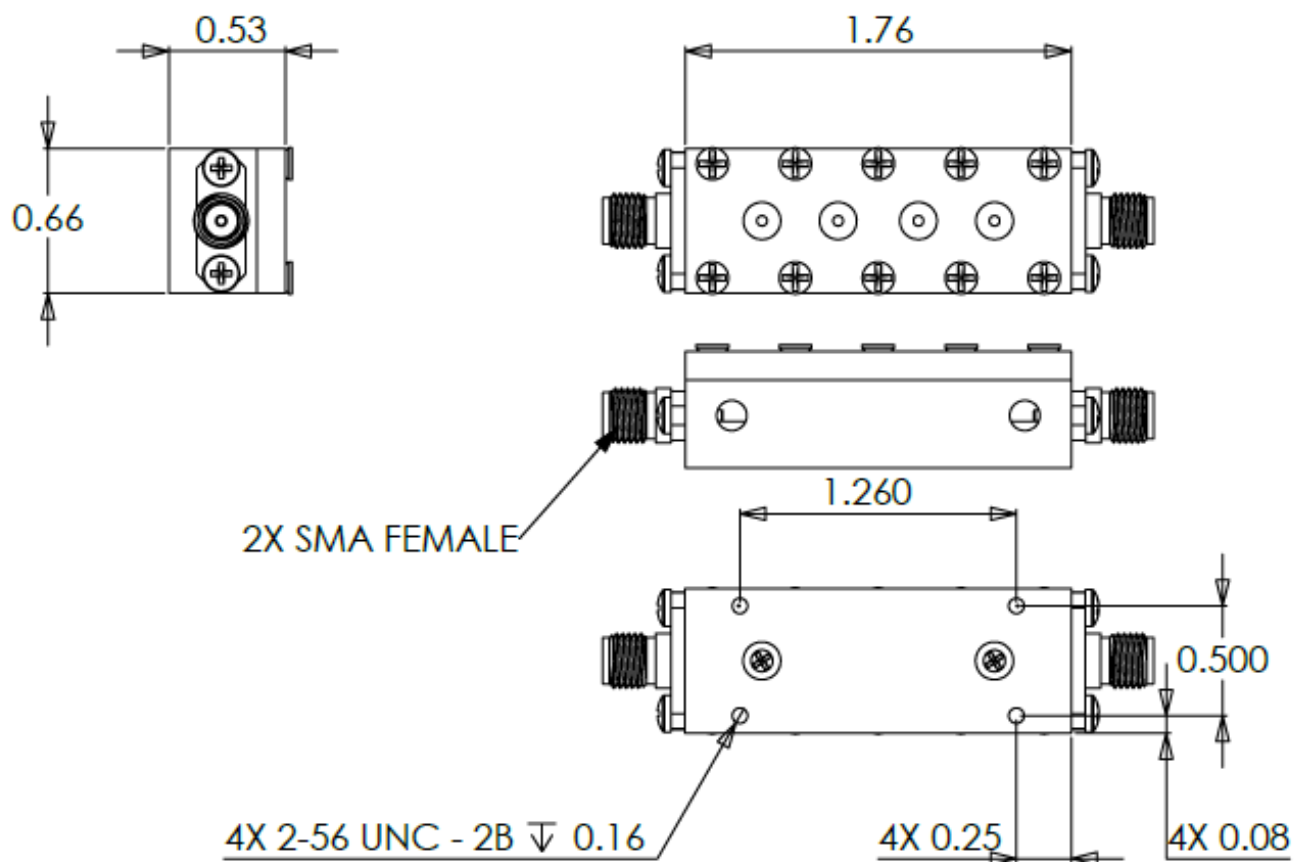


NuFilter™ 04BPCV-12643-SFSF-M01

Mechanical Specifications

Parameter	Value	Unit	Limits
Dimensions	1.76 x 0.66 x 0.53	in	Max
Weight	TBD	oz	Max
RF Connectors, Input/Output	SMA Female		
Finish	Silver Plating		

Mechanical Outline



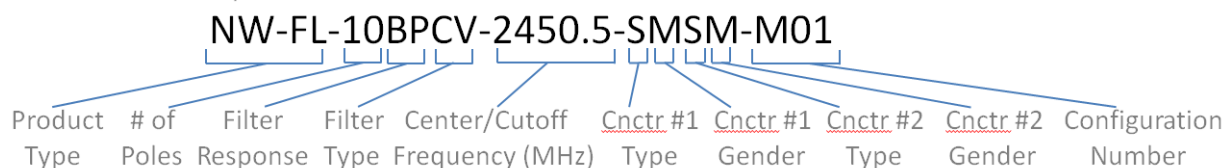
NuFilter™ 04BPCV-12643-SFSF-M01

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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