

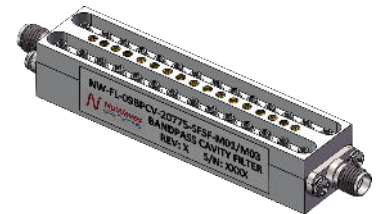
NuWaves

RF Solutions

NuFilter™ 09BPCV-20775-SFSF-M01 K-Band Bandpass Filter

20200 MHz to 21350 MHz

P/N: NW-FL-09BPCV-20775-SFSF-M01



NuWaves' NuFilter™ 09BPCV-20775-SFSF-M01 is a small form bandpass RF filter designed to reduce harmonics at the output of transmitters operating in K-Band.

The NuFilter 09BPCV-20775-SFSF-M01 provides superior harmonic and noise filtering, as demonstrated by the rejection levels of greater than 13 dB at 20060 MHz and 20dB at 21700 MHz. This high-performance module accepts input power levels up to 1W, with only a minimal 0.7 dB of insertion loss in the passband frequency range of 20200 to 21350 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
- 1150 MHz BW
- 1W CW RF Power Handling
- Bandpass Filtering
- K-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™ 09BPCV-20775-SFSF-M01

Specifications

Absolute Maximums

Parameter	Rating	Unit
Max RF Input Power, CW, $Z_L = 50 \Omega$	1	W
Max Operating Temperature	60	°C
Max Storage Temperature	85	°C

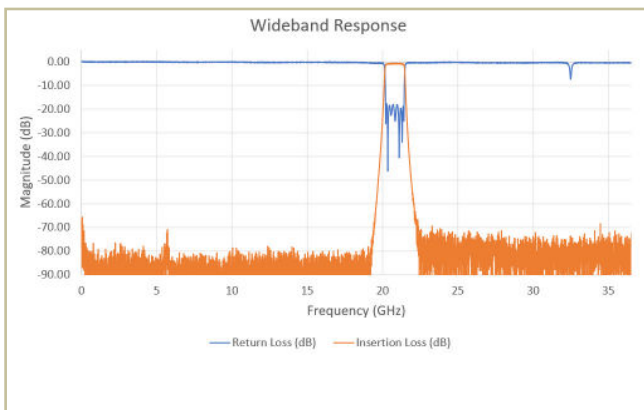
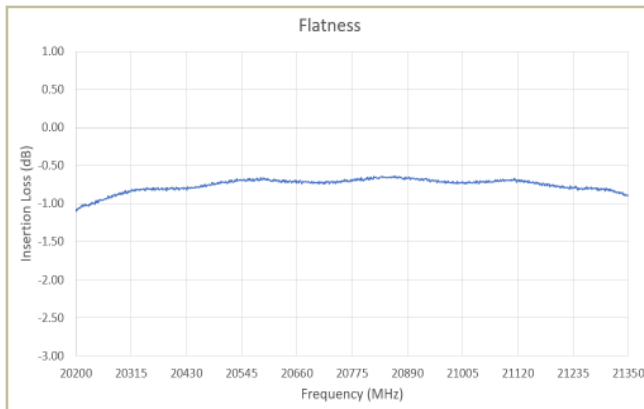
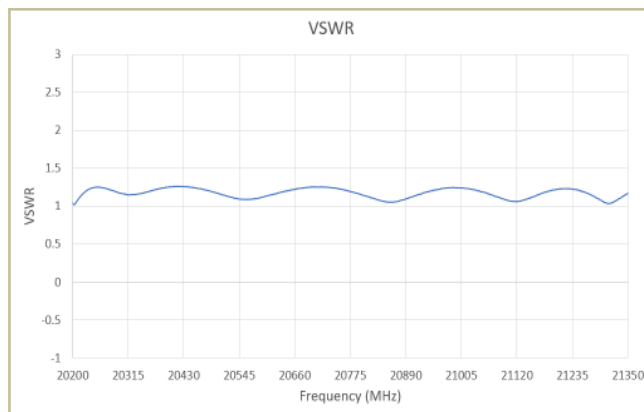
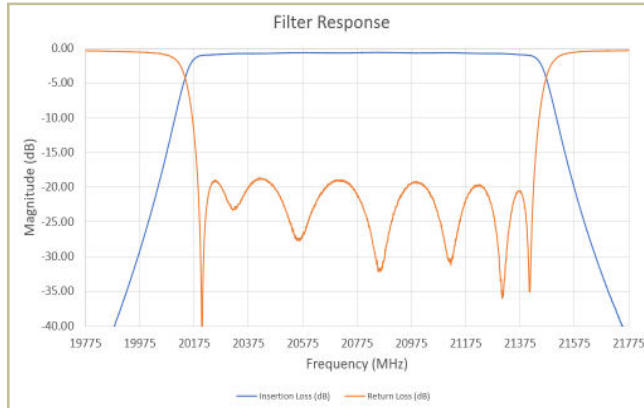
Export Classification
EAR99

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

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Operating Frequency	BW	20200		21350	MHz	
Passband Insertion Loss	IL		1	2	dB	20200 MHz
			0.6	1.0		20775.5 MHz
			1	2		21350 MHz
Rejection			-13		dB	20060 MHz
			-20			21700 MHz
Passband Flatness			0.4	1	dB	
VSWR (within passband)	VSWR		1.25:1	1.4:1		

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Performance Plots

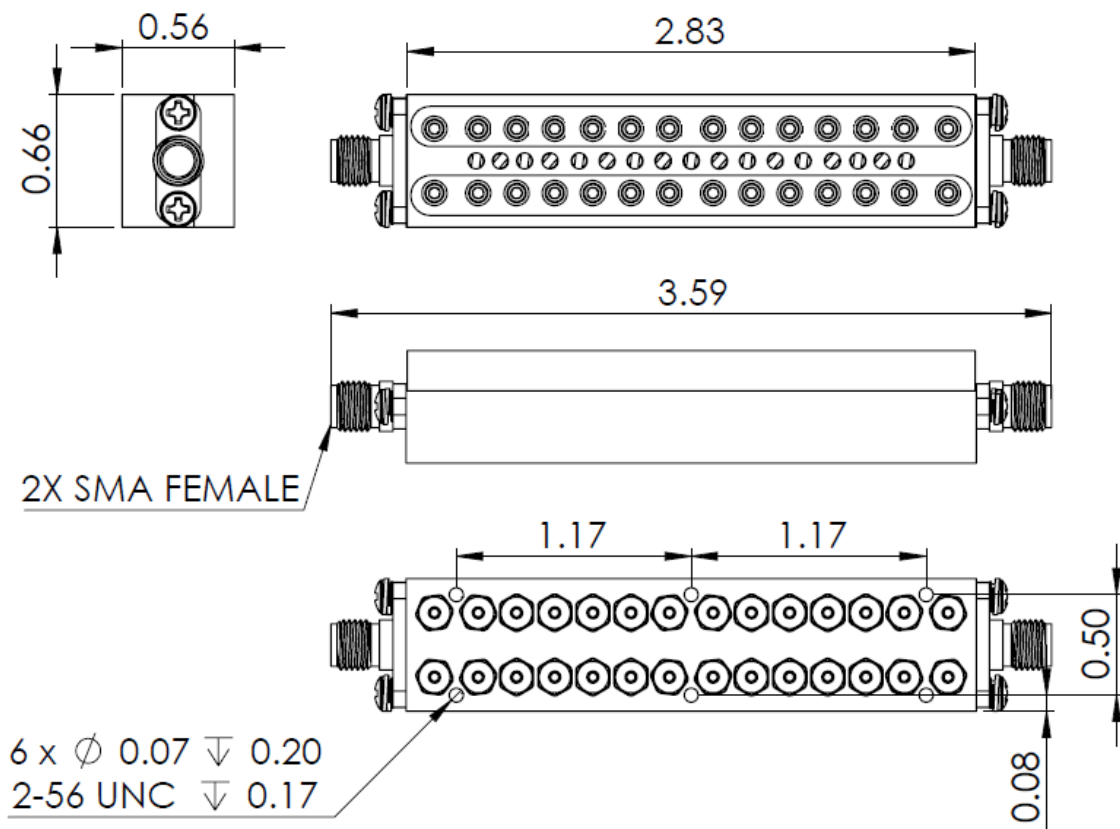


NuFilter™ 09BPCV-20775-SFSF-M01

Mechanical Specifications

Parameter	Value	Unit	Limits
Dimensions	2.84 x 0.66 x 0.49	in	Max
Weight	TBD	oz	Max
RF Connectors, Input/Output	SMA Female		
Finish	Silver Plating		

Mechanical Outline



NuFilter™ 09BPCV-20775-SFSF-M01

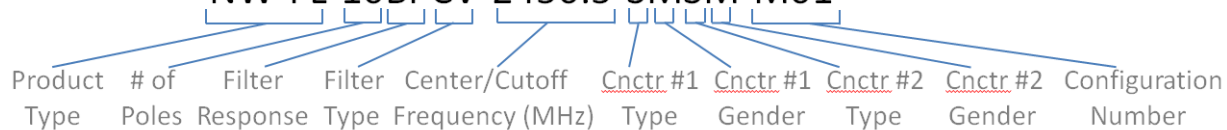
Environmental Specifications

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:

NW-FL-10BPCV-2450.5-SMSM-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

