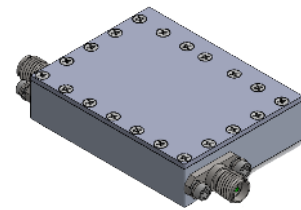


NuWaves
RF Solutions

NuFilter™ 04BPCV-1538.5-SFSF-M01 L-Band Bandpass Filter

1518 MHz to 1559 MHz



P/N: NW-FL-04BPCV-1538.5-SFSF-M01

NuWaves' NuFilter™ 04BPCV-1538.5-SFSF-M01 is a small form bandpass RF filter designed specifically for compatibility with Inmarsat Downlink coms.

The NuFilter 04BPCV-1538.5-SFSF-M01 provides superior harmonic and noise filtering, as demonstrated by the rejection levels of greater than 37 dB at 1450 and 1626 MHz. This high-performance module accepts input power levels up to 50 W, with only a minimal 1.5 dB of insertion loss in the passband frequency range of 1518 to 1559 MHz.

With standard SMA connectors, the NuFilter can be 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
- 41 MHz BW
- 50 W CW RF Power Handling
- Bandpass Filtering
- L-Band Operation
- Small Form Factor
- Lightweight
- Rugged Chassis

Applications

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

NuFilter™ 04BPCV-1538.5-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 |

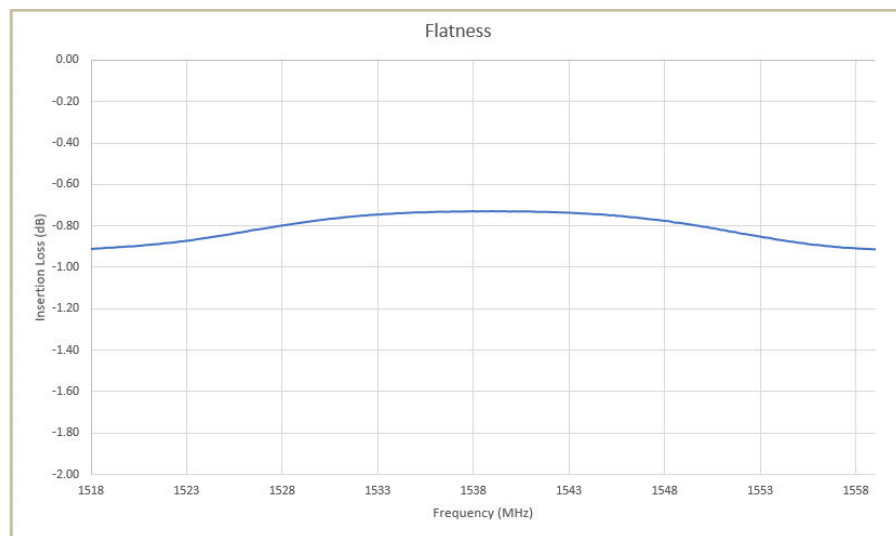
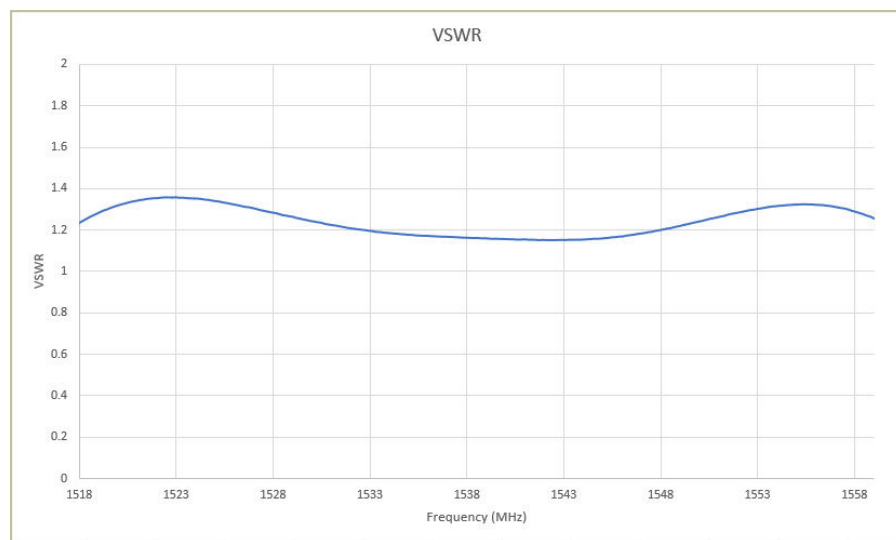
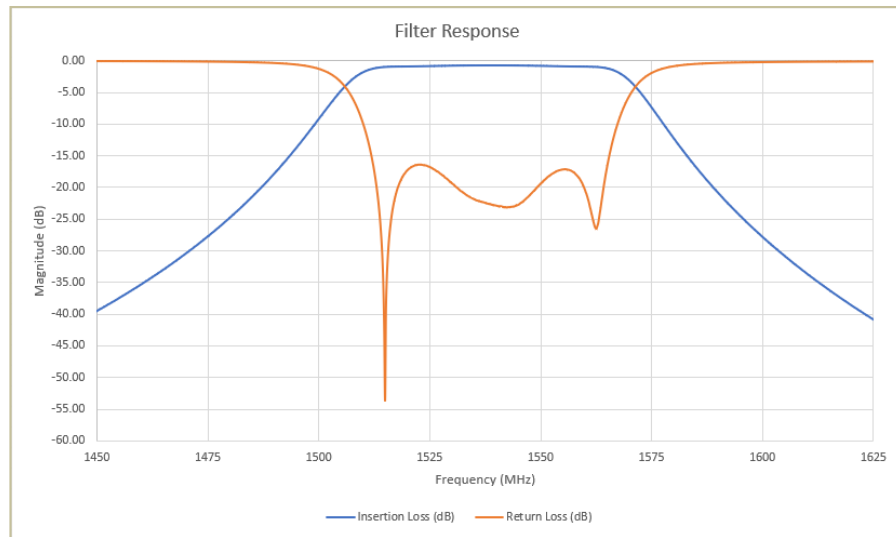
| Export Classification |
|-----------------------|
| EAR99 |

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

| Parameter | Symbol | Min | Typ | Max | Unit | Condition |
|-------------------------|--------|------|-----|------|------|-----------------|
| Operating Frequency | BW | 1518 | | 1559 | MHz | |
| Passband Insertion Loss | IL | | 0.9 | 1.5 | dB | 1518 MHz |
| | | | 0.7 | 1 | | 1538.5 MHz |
| | | | 0.9 | 1.5 | | 1559 MHz |
| Rejection | | -37 | -40 | | dB | 1450 MHz |
| | | -37 | -40 | | | 1626 MHz |
| Passband Flatness | | | 0.5 | 1 | dB | |
| VSWR | VSWR | | 1.5 | | | Within Passband |

NuFilter™ 04BPCV-1538.5-SFSF-M01

Performance Plots

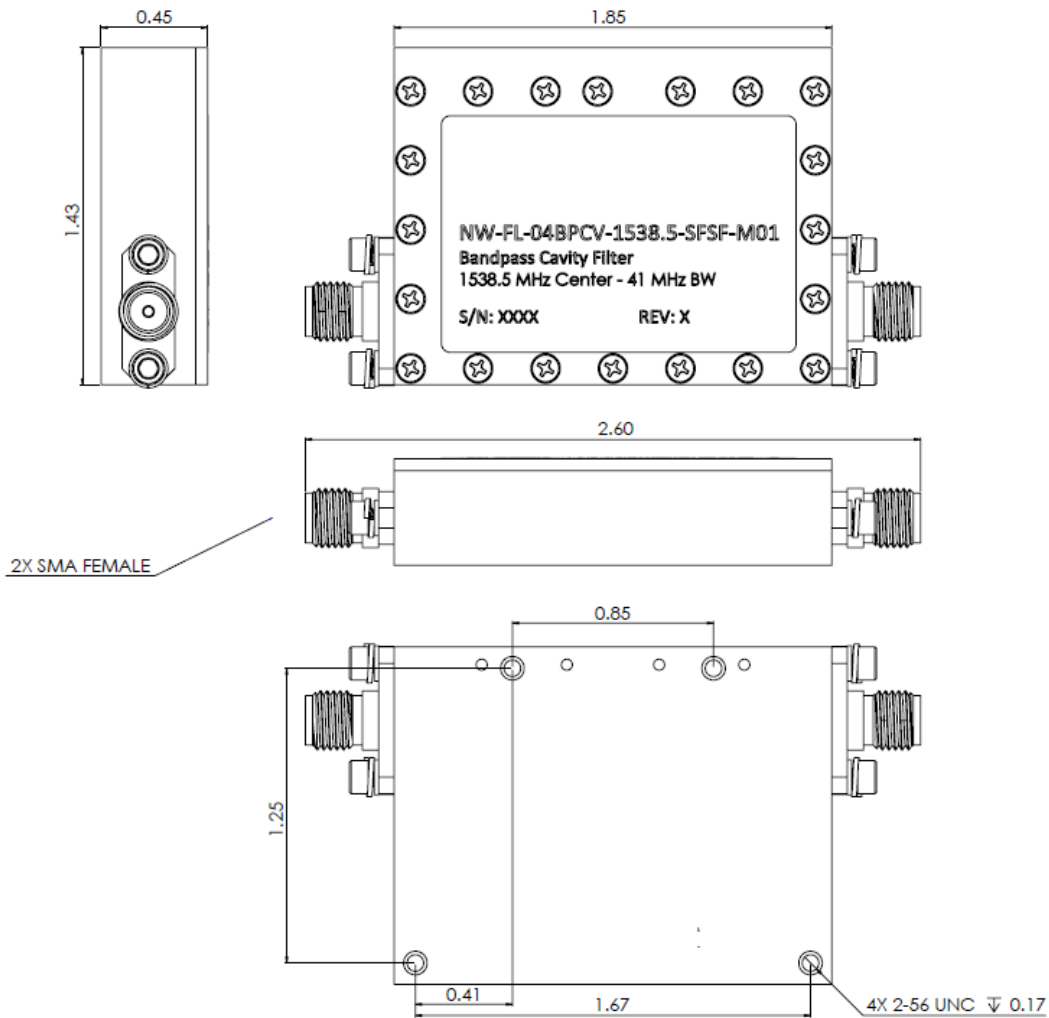


NuFilter™ 04BPCV-1538.5-SFSF-M01

Mechanical Specifications

| Parameter | Value | Unit | Limits |
|-----------------------------|--------------------|------|--------|
| Dimensions | 1.85 x 1.42 x 0.45 | in | Max |
| Weight | TBD | oz | Max |
| RF Connectors, Input/Output | SMA Female | | |
| Finish | Silver Plating | | |

Mechanical Outline



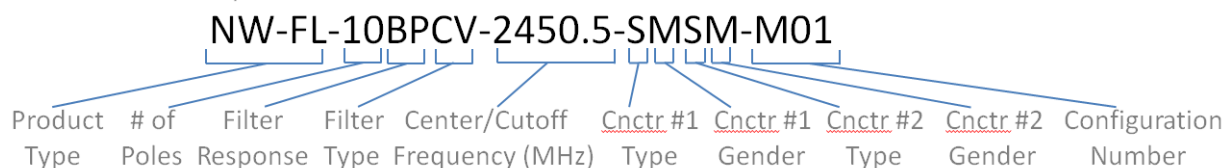
NuFilter™ 04BPCV-1538.5-SFSF-M01

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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