

## Overview

Southwest Antennas Part # 1080-167 is a small, weatherproof bandpass filter designed to be installed in-line into a system when additional RF filtering is required to improve system performance. This product is ideal for tactical radio systems, fixed site infrastructure, or other communication networks that are operating in congested, high-interference RF environments. The ceramic bandpass filter is housed inside a rugged G10 fiberglass housing, with RF connectors on both ends of the product.

Part # 1080-167 features a band pass frequency range of 2.2 - 2.51 GHz and a very low <0.45 dBa insertion loss.

Southwest Antennas bandpass filters can be utilized to help eliminate interference from other co-located radios operating outside of the filter's 2.2 - 2.51 GHz operational frequency range, providing increased performance for radio systems and attached antennas.

## Features:

- Stand-alone filter module with RF connectors
- <0.45 dBa Insertion loss
- 14 dB return loss
- 10W peak power handling
- Small size and lightweight design
- Can be quickly added to existing systems to help improve performance
- 2.2 - 2.51 GHz operational frequency range
  - Federal law enforcement applications
  - DOD / military applications
  - Non-licensed ISM-band use
- TNC(m) non-rotating and TNC(f) RF connectors

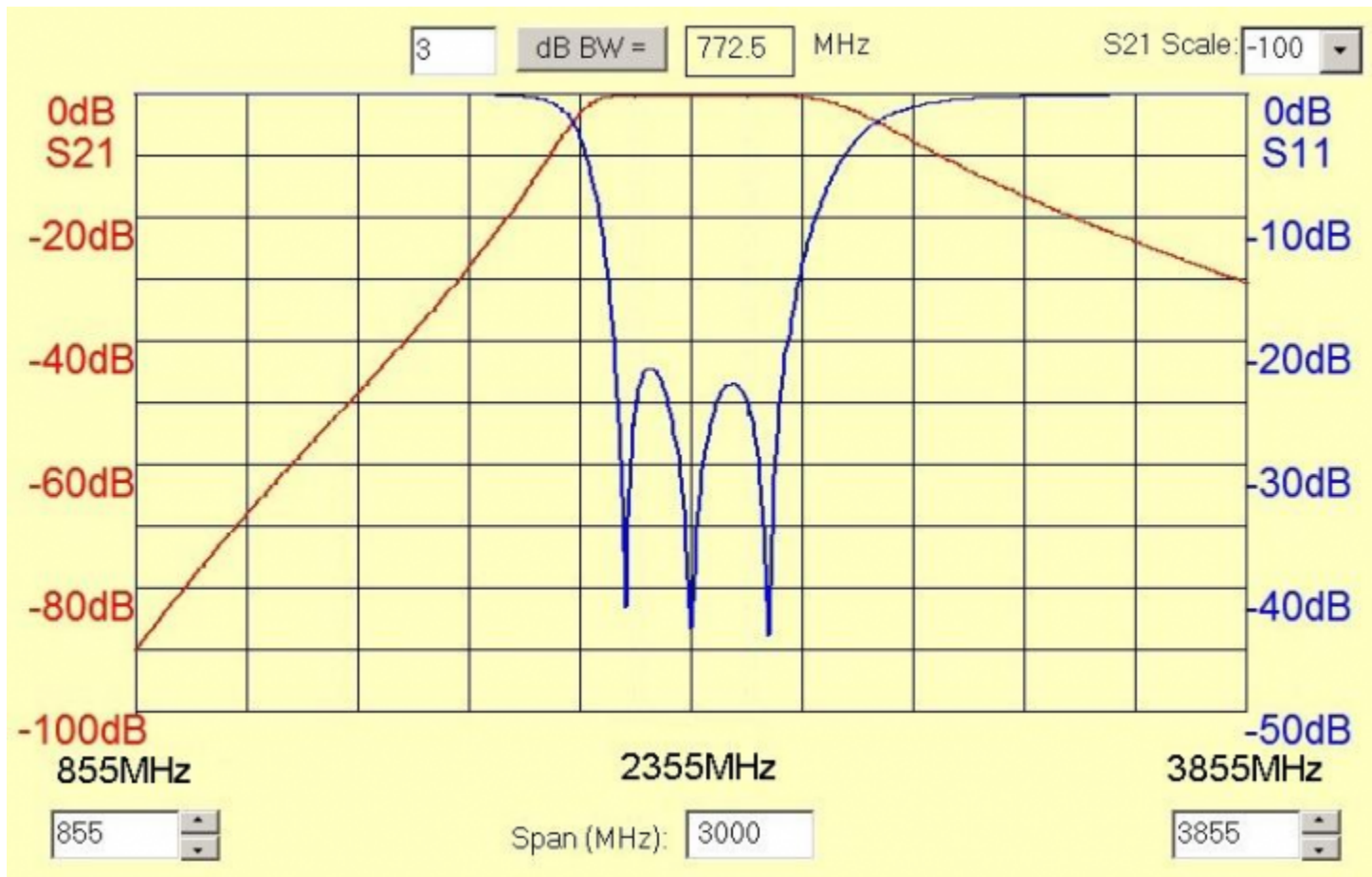


## Applications:

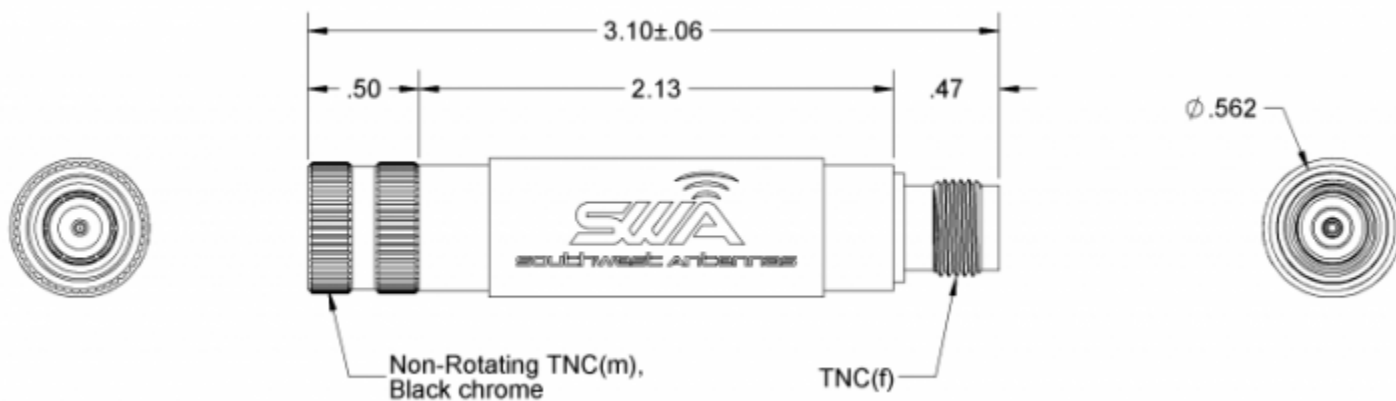
- Tactical radio systems
- Vehicle mounted radios
- Federal government radio systems
- DOD / military communication networks
- Surveillance systems
- Fixed site communication infrastructure
- Unmanned aerial vehicles
- Unmanned ground vehicles
- Unlicensed ISM-band applications

### Filter Specifications

Parameter	Value	Units	Tolerance
<b>Filter Type</b>	3mm 3-Pole Bandpass Filter (ceramic)		
<b>Filter Frequency Band</b>	S Band		
<b>Filter Impedance</b>	50	Ohms	
<b>Filter Min Frequency</b>	2.2 / 2,200	GHz / MHz	
<b>Filter Max Frequency</b>	2.51 / 2,510	GHz / MHz	
<b>Insertion Loss</b>	<0.45	dBa	
<b>Return Loss</b>	14	dB	Over 100% of BW
<b>Rejection 1</b>	-55	dBc	Min @ 600 MHz
<b>Rejection 2</b>	-40	dBc	Min @ 1,390 MHz
<b>Filter Power CW</b>	8	Watts	
<b>Filter Power Peak</b>	10	Watts	
<b>Operating Temp</b>	-40 to +85	C	
<b>Product Length</b>	3.10 / 78.74	inches / mm	±.06" (including RF connector length)
<b>Product Diameter</b>	0.56 / 14.27	inches / mm	
<b>Product Weight</b>	1.1 / 31.8	oz / grams	
<b>RF Connectors</b>	TNC(m) Non-Rotating to TNC(f)		



Filter Response Plot



### Engineering Drawing

All dimensions are in inches