

## Overview

Southwest Antennas Part # 1080-102 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 # 1080-102 features a band pass frequency range of 902 - 928 MHz and a very low <1.0 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 902 - 928 MHz operational frequency range, providing increased performance for radio systems and attached antennas.

## Features:

- Stand-alone filter module with RF connectors
- <1.0 dBa Insertion loss
- 16 dB return loss
- 10W peak power handling
- Small size and lightweight design
- Can be quickly added to existing systems to help improve performance
- 902 - 928 MHz operational frequency range:
  - Federal law enforcement applications
  - DOD / military applications
  - Unlicensed ISM-band use
- RP-TNC(m) non-rotating and RP-TNC(f) RF connectors

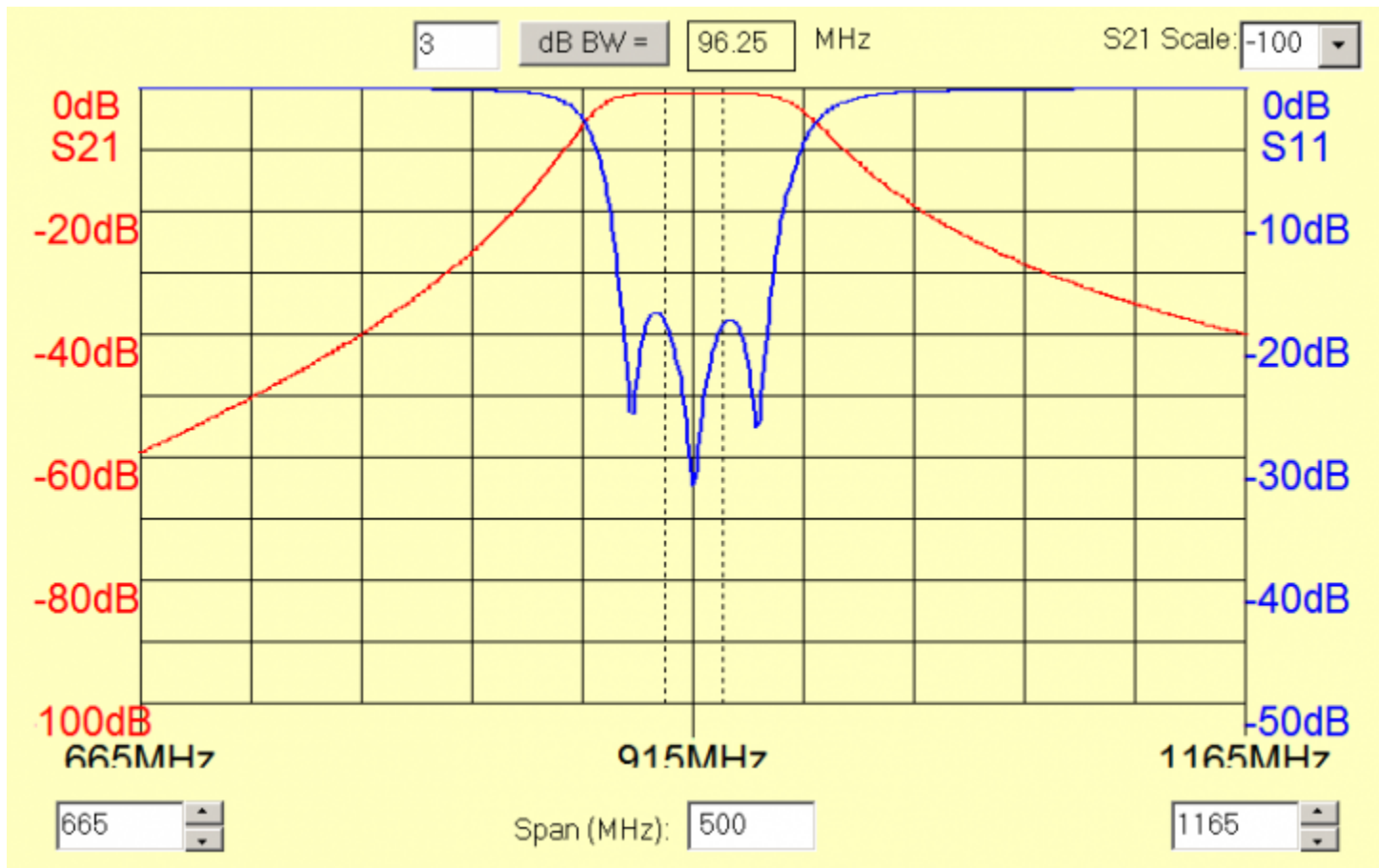


## Applications:

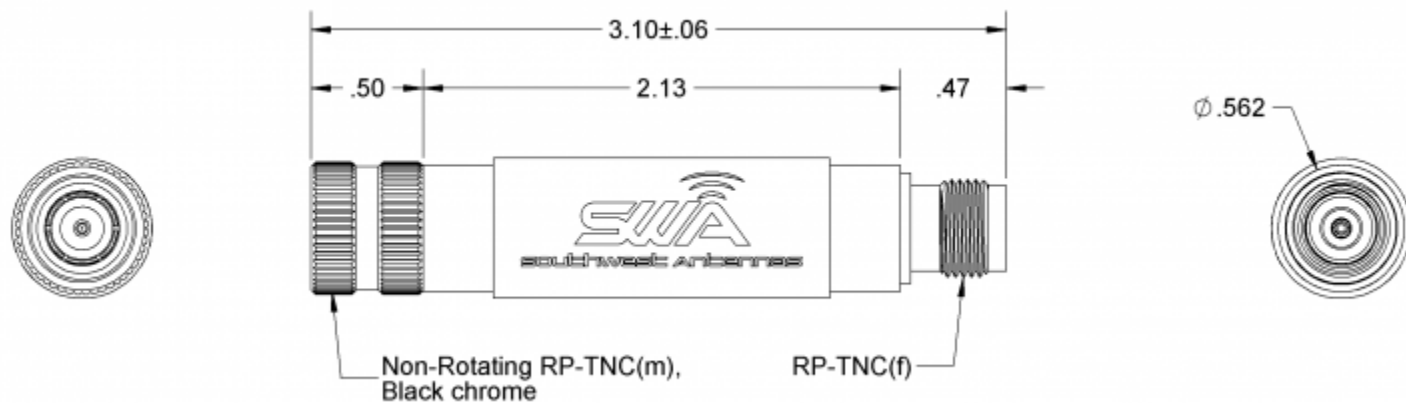
- Tactical radio systems
- Vehicle mounted radios
- Federal government radio systems
- DOD / military communication networks
- Surveillance systems and border security applications
- Fixed site communication infrastructure
- Unmanned aerial vehicles
- Unmanned ground vehicles
- Unlicensed ISM-band applications
- Low powered voice, data, and video communication

### Filter Specifications

Parameter	Value	Units	Tolerance
<b>Filter Type</b>	3mm 3-Pole Bandpass Filter (ceramic)		
<b>Filter Frequency Band</b>	UHF Band		
<b>Filter Impedance</b>	50	Ohms	
<b>Filter Min Frequency</b>	0.902 / 902	GHz / MHz	
<b>Filter Max Frequency</b>	0.928 / 928	GHz / MHz	
<b>Insertion Loss</b>	<1.0	dBa	
<b>Return Loss</b>	16	dB	Over 100% of BW
<b>Rejection 1</b>	-6	dBc	Min @ 850 MHz
<b>Rejection 2</b>	-24	dBc	Min @ 800 MHz
<b>Rejection 3</b>	-50	dBc	Min @ 450 MHz
<b>Rejection 4</b>	-35	dBc	Min @ 1,227 MHz
<b>Rejection 5</b>	-50	dBc	Min @ 1,575 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>	RP-TNC(m) Non-Rotating to RP-TNC(f) Non-Rotating		



Filter Response Plot



**Engineering Drawing**

All dimensions are in inches