

Overview

Southwest Antennas Part # 1080-109 is a small, weatherproof bandpass filter designed to be installed in-line when additional RF filtering is required to improve system performance. This product is ideal for tactical radio systems, fixed site infrastructure, unmanned systems, 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 # 1080-109 features a band pass frequency range of 1.7 - 1.9 GHz and a very low <0.9 dBa insertion loss.

Southwest Antennas bandpass filters can be utilized to help eliminate interference by rejecting out-of-band noise from other co-located radios operating outside of the filter's 1.7 - 1.9 GHz operational bandpass range, providing increased performance for radio systems and attached antennas.

Features:

- Stand-alone filter module with RF connectors
- <0.9 dBa Insertion loss
- 15 dB return loss
- 10W peak power handling
- Small size and lightweight design
- Can be quickly added to existing systems to help improve performance
- 1.7 - 1.9 GHz operational frequency range
- SMA(m) non-rotating and SMA(f) RF connectors
- The connector should be torqued to 3 - 5 in-lbs maximum

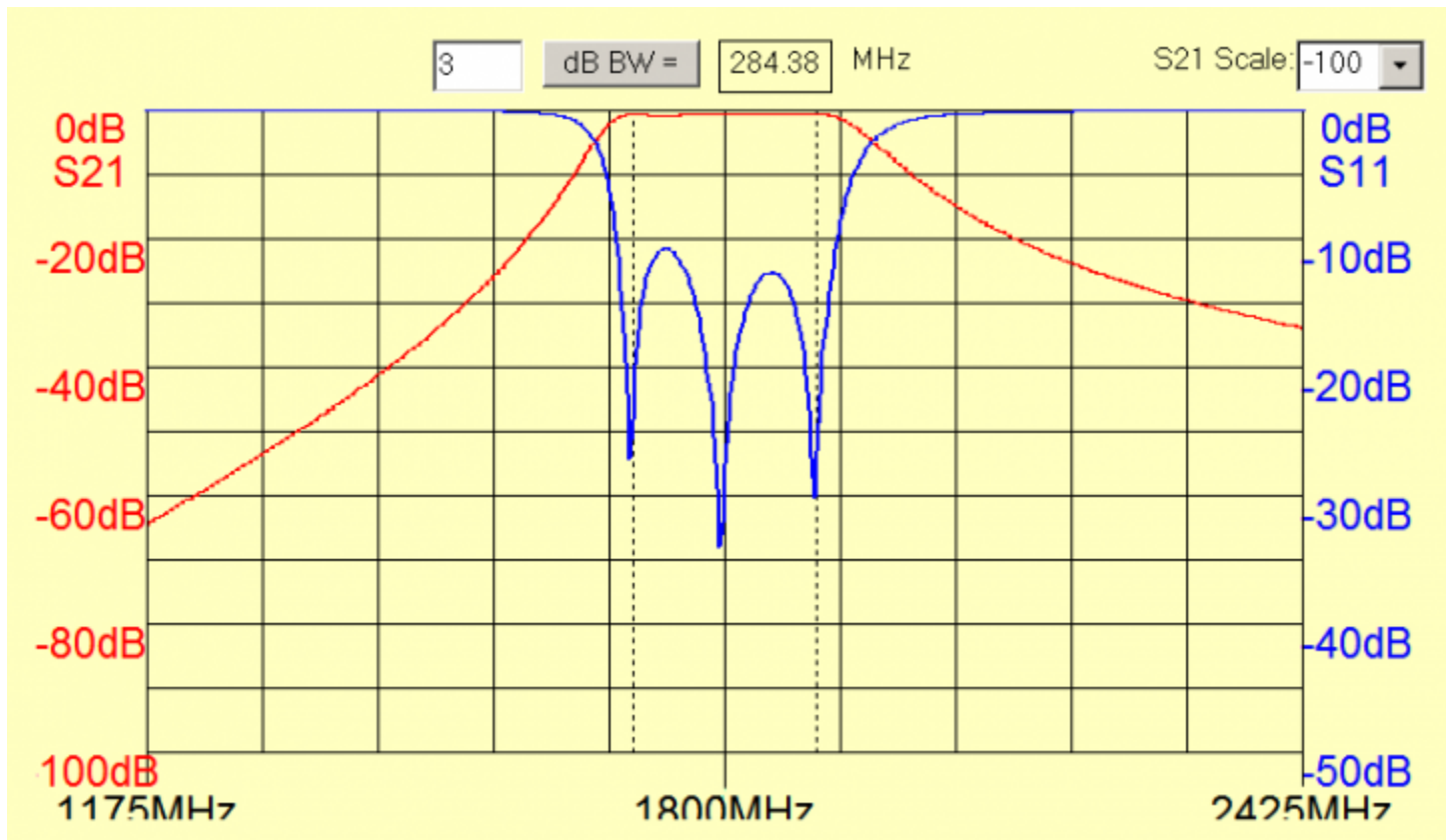


Applications:

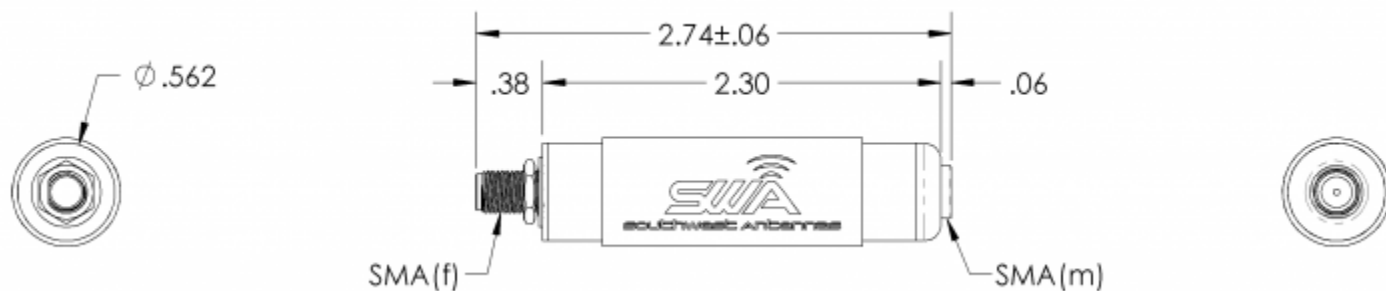
- Tactical radio systems
- Vehicle mounted radios
- Federal government radio systems
- Fixed site communication infrastructure
- Unmanned aerial vehicles
- Unmanned ground vehicles

Filter Specifications

Parameter	Value	Units	Tolerance
Filter Type	3mm 3-Pole Bandpass Filter (ceramic)		
Fo	1.8 / 1,800	GHz / MHz	
Filter Frequency Band	L Band		
Filter Impedance	50	Ohms	
Filter Min Frequency	1.7 / 1,700	GHz / MHz	
Filter Max Frequency	1.9 / 1,900	GHz / MHz	
Insertion Loss	<0.9	dBa	Maximum @ 1,800 MHz
Return Loss	15	dB	Over 100% of Bandwidth
Rejection 1	-50	dBc	Min @ DC - 698 MHz
Rejection 2	-28	dBc	Min 1,400 MHz
Rejection 3	-18	dBc	Min @ 2,400 MHz
Rejection 4	-30	dBc	Min @ 3,000 MHz
Filter Power CW	8	Watts	
Filter Power Peak	10	Watts	
Operating Temp	-40 to +85	C	
Product Length	2.74 / 69.60	inches / mm	±.06" (including RF connector length)
Product Diameter	0.56 / 14.27	inches / mm	
Product Weight	0.8 / 23.1	oz / grams	
RF Connectors	SMA(m) Non-Rotating to SMA(f) Non-Rotating		



Filter Response Plot



Engineering Drawing

All dimensions are in inches