

Overview

Southwest Antennas Part # 1001-127 is a half wave dipole omni-directional antenna with a frequency range of 2.2 to 2.5 GHz and 3.0 dBi of peak gain. This product features an integrated RF bandpass filter to help eliminate interference from other co-located radios operating outside of the antenna's 2.2 - 2.5 GHz operational frequency range, providing increased performance for attached radios.

Part # 1001-127 features an integrated 3" RF Gooseneck with black chrome RP-TNC(m) RF connector, which contributes to the improvement of RF link margin and overall antenna performance. Our proprietary antenna design and manufacturing process ensures optimum antenna RF performance.

The RP-TNC(m) RF connector can be easily secured or removed from equipment in the field by a single gloved hand, no tools required.

Antennas with integrated RF Goosenecks are ideal for handheld video receivers, portable radio systems, or any other mobile communication platform. The RF Gooseneck can be threaded through MOLLE gear or other tactical vest hardware for added security while moving.

A rugged flat black fiberglass radome provides protection from damage and gives the antenna a low visibility finish. The integrated RF Gooseneck allows the antenna to bend and deflect away from impacts during indoor or outdoor operations.

Features

- Broad Band Coverage
- Half Wave Dipole
- 2.2 - 2.5 GHz
- 3.0 dBi Peak Gain
- Integrated 3-Pole RF Bandpass Filter
- 8W Power Handling
- Integrated RF Co-Axial Gooseneck
- Rugged Flat Black Fiberglass Radome
- Black Chrome Non-Rotating RP-TNC(m) RF Connector

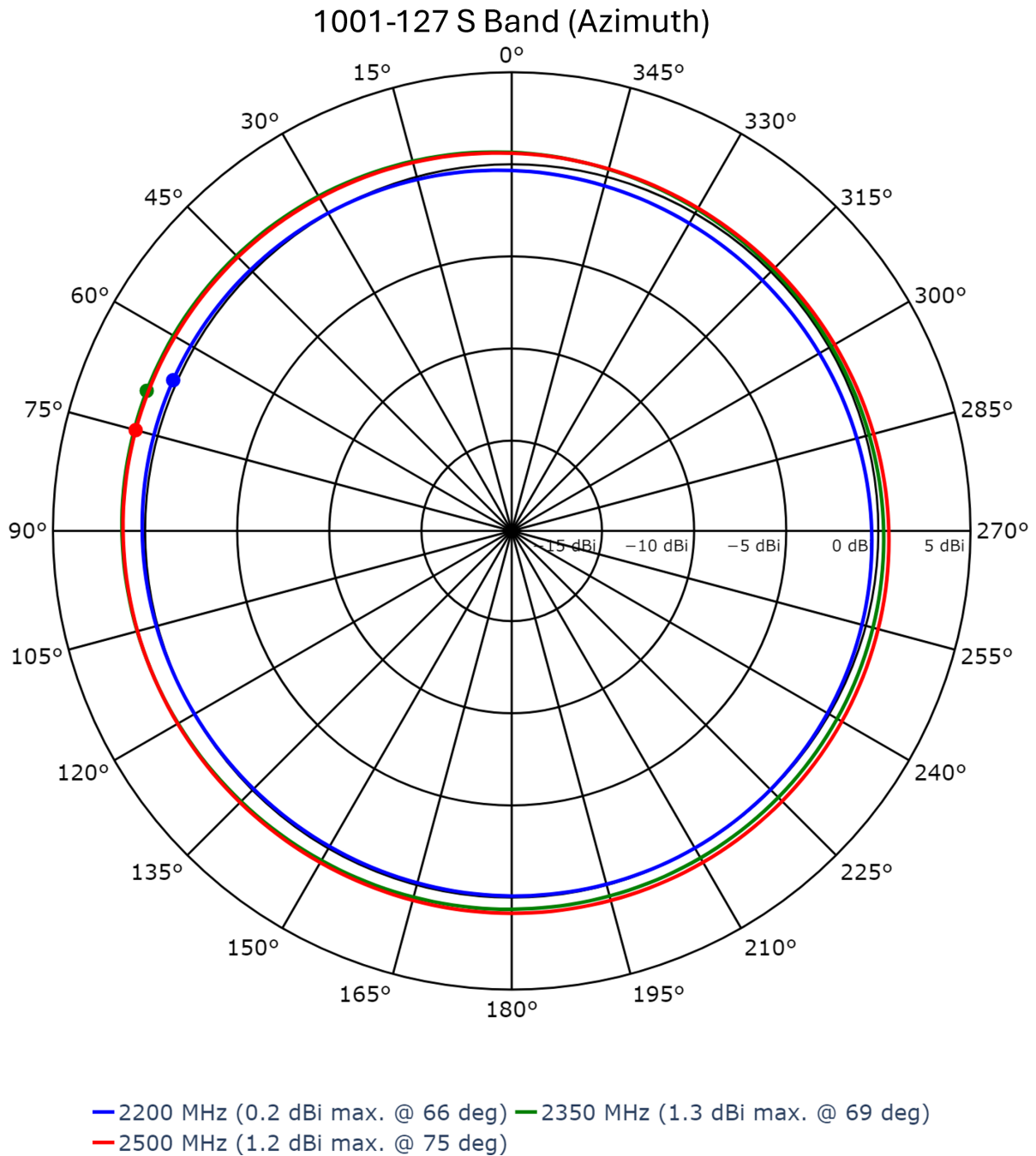


Product Specifications

Parameter	Value	Units	Tolerance
Antenna Pattern	Omni		
Frequency Band	S		
Impedance	50	Ohms	
Minimum Frequency	2.2 / 2,200	GHz / MHz	
Maximum Frequency	2.5 / 2,500	GHz / MHz	
Frequency Bandwidth	0.4 / 400	GHz / MHz	
Maximum VSWR	2:1	Ratio	
Maximum Gain	3.0	dBi	@ 2,320 MHz
Polarization	Vertical		
Color	Black		
Maximum RF Input Power	8	Watts	
Horizontal AZ Beamwidth	360	Degrees	
Vertical EL Beamwidth	78	Degrees	
Gooseneck Length	3 / 76	inches / mm	±0.09"
Gooseneck Diameter	0.35 / 8.89	inches / mm	+0.010" / -0.005"
Ground Plane Required	No		
RF Connector Type	RP-TNC(m)		
RF Connector Finish	Black Chrome		
Product Height	8.32 / 211.33	inches / mm	±.15"
Product Diameter	0.562 / 14.275	inches / mm	+.020" / -.000"
Product Weight	2.02 / 57.27	oz / g	

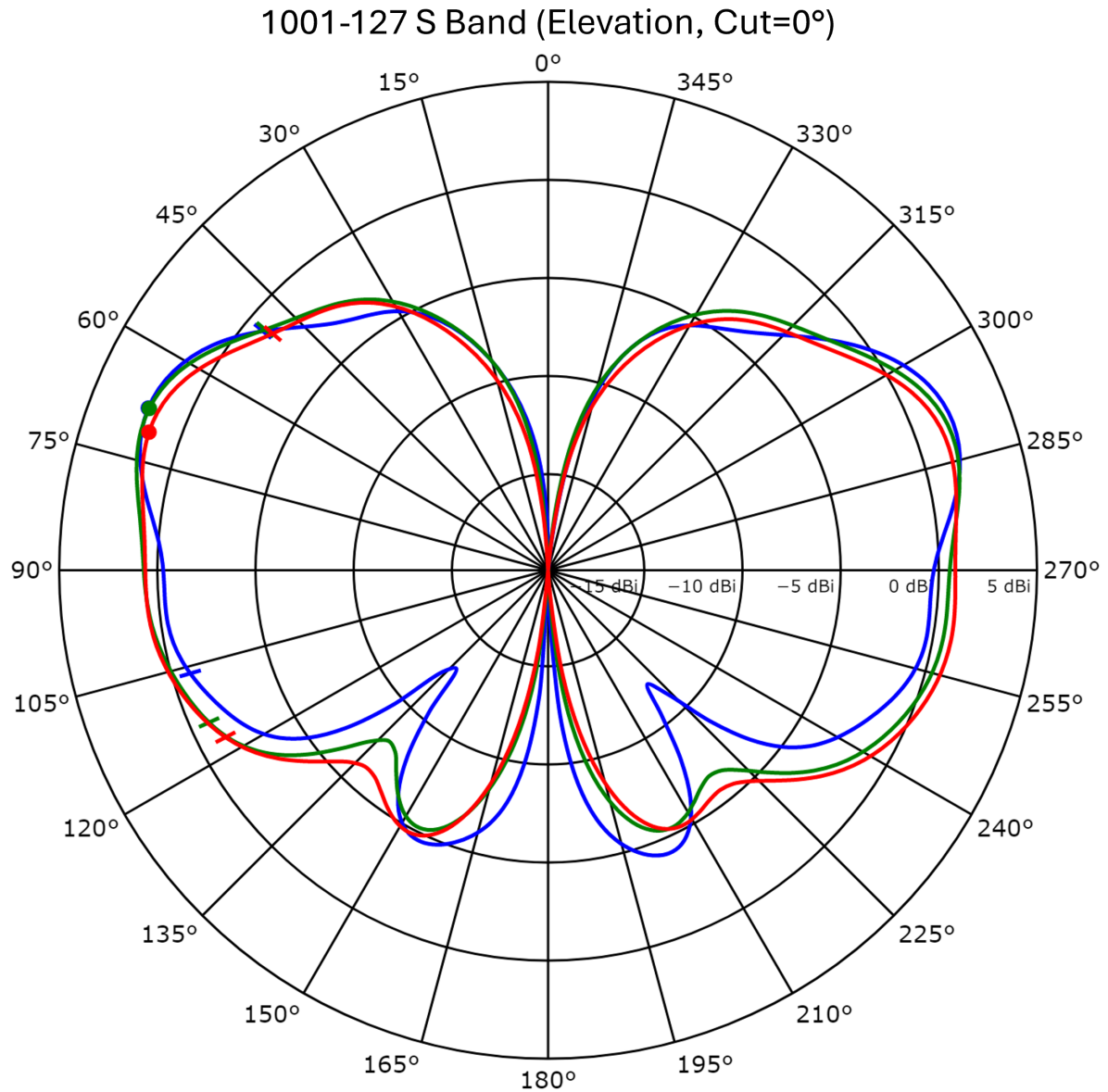
Filter Specifications

Parameter	Value	Units	Tolerance
Filter Type	3mm 3-Pole Bandpass Filter (ceramic)		
Filter Frequency Band	S Band		
Filter Impedance	50	Ohms	
Filter Minimum Frequency	2.2 / 2,200	GHz / MHz	
Filter Maximum Frequency	2.51 / 2,510	GHz / MHz	
Insertion Loss	0.65	dB	Typical
Return Loss	14	dB	Over 100% of BW
Rejection 1	-55	dBc	Min @ 600 MHz
Rejection 2	-40	dBc	Min @ 1,390 MHz
Filter Power CW	8	Watts	
Filter Power Peak	10	Watts	
Filter Operating Temp	-40 to +85	C	



Azimuth Pattern

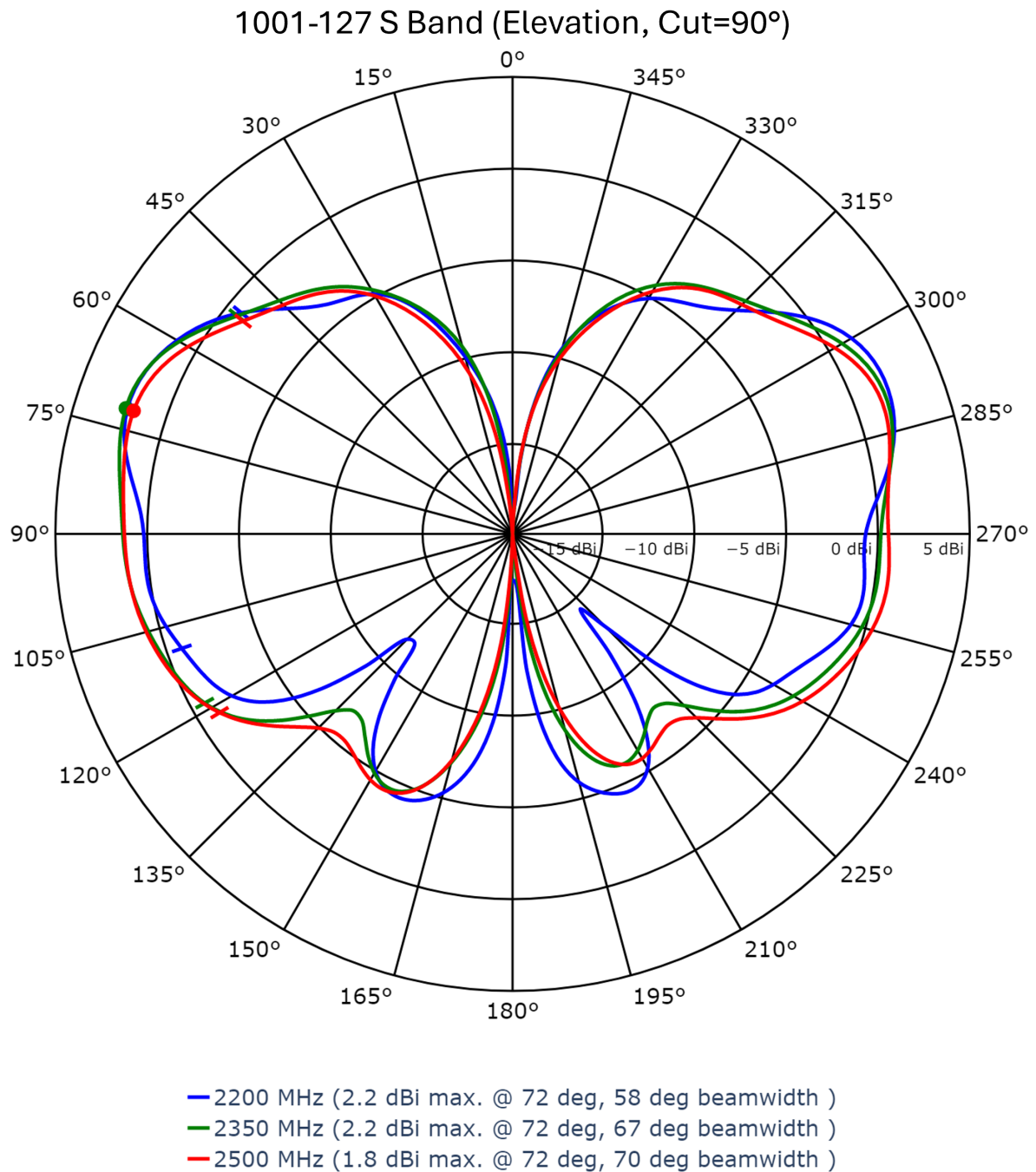
S Band (2,200 - 2,500 MHz)



- 2200 MHz (2.1 dBi max. @ 68 deg, 56 deg beamwidth)
- 2350 MHz (2.0 dBi max. @ 68 deg, 65 deg beamwidth)
- 2500 MHz (1.6 dBi max. @ 71 deg, 68 deg beamwidth)

Elevation Pattern

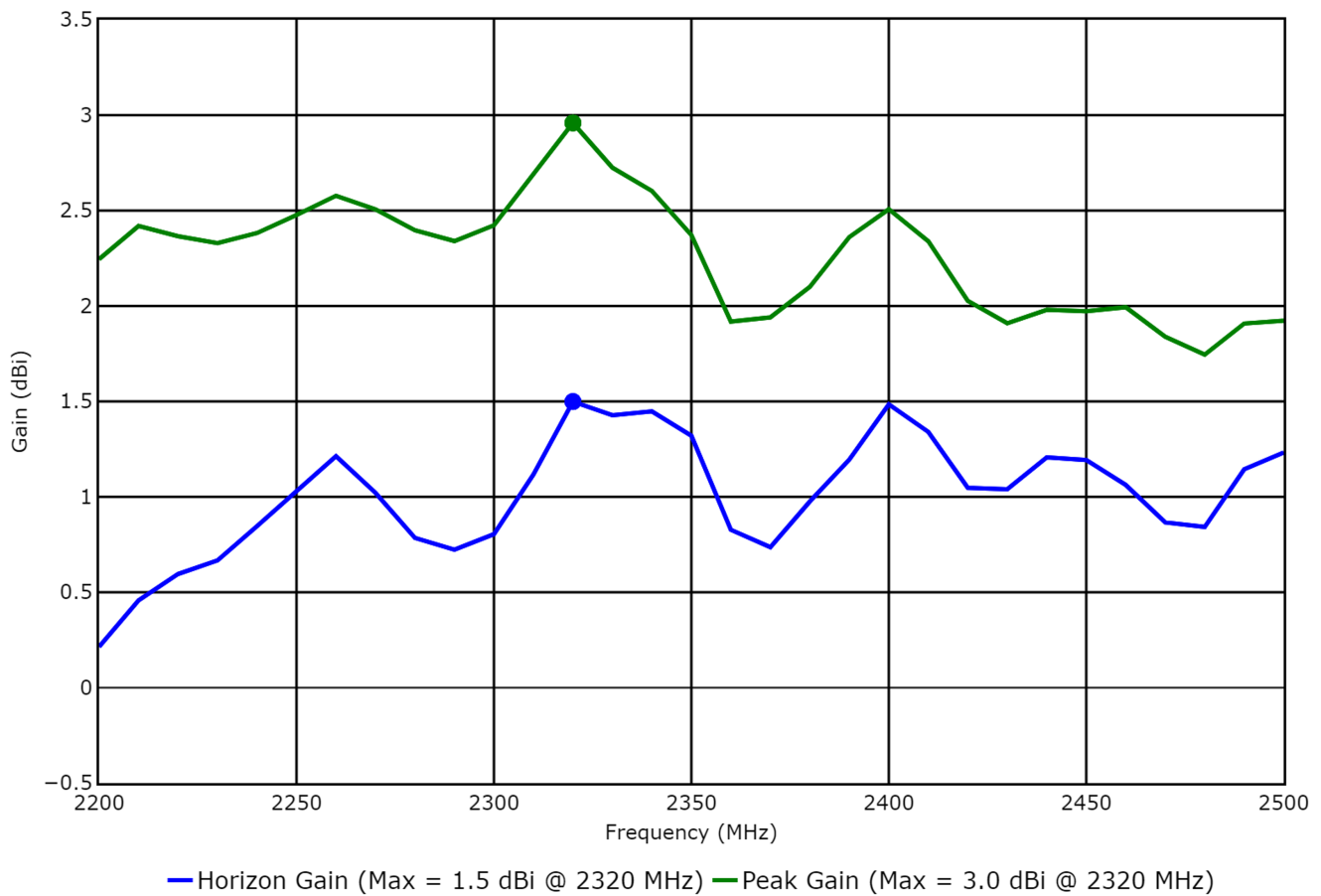
S Band (2,200 - 2,500 MHz)



Elevation Pattern

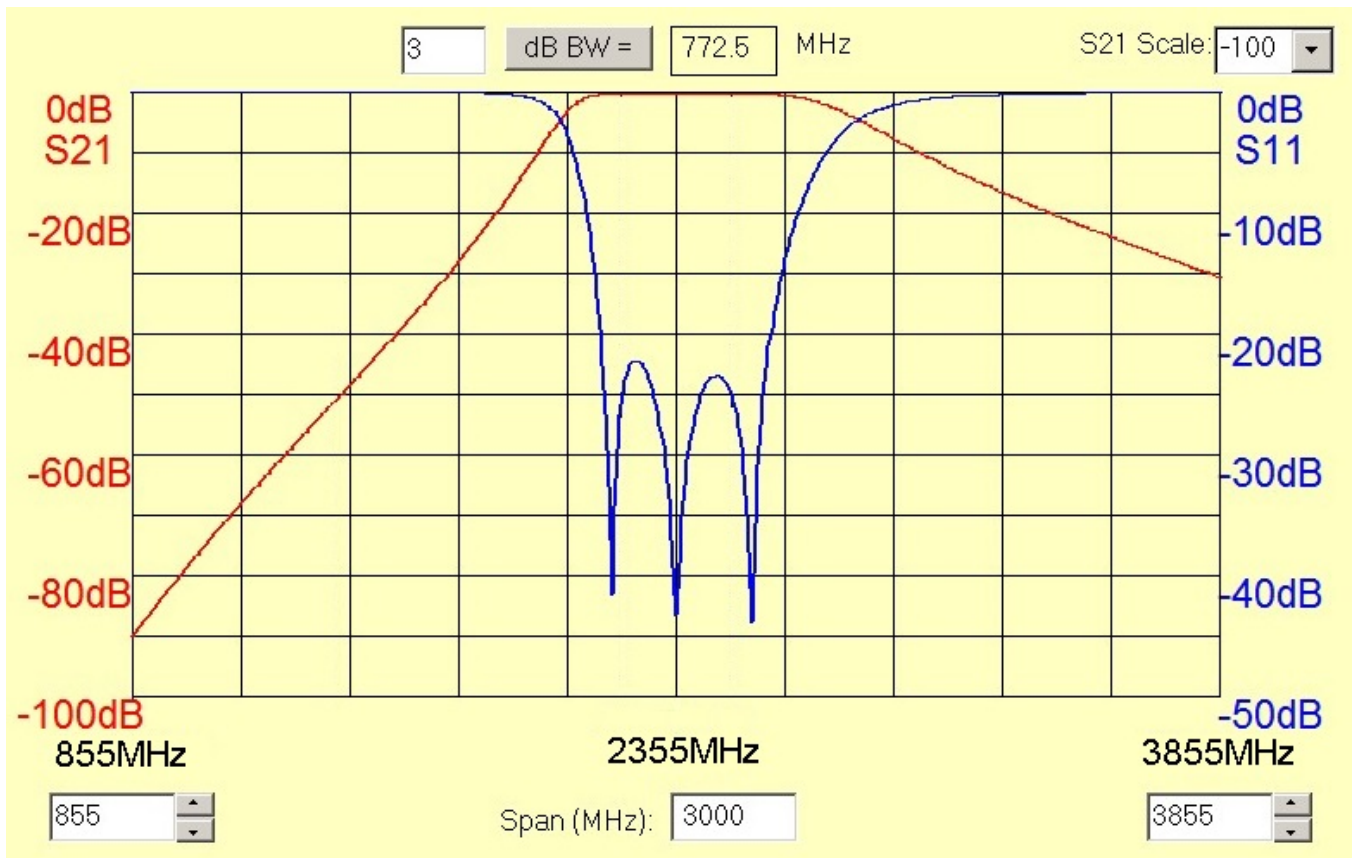
S Band (2,200 - 2,500 MHz)

1001-127 S Band (Gain vs. Frequency Plot)

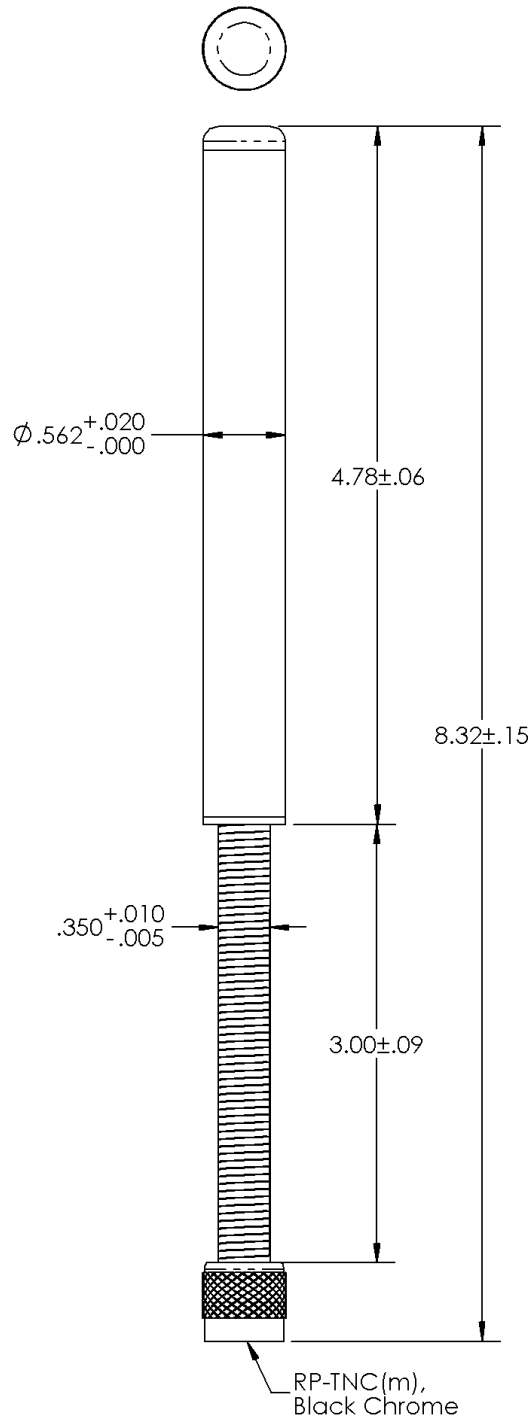


Gain vs. Frequency Plot

S Band (2,200 - 2,500 MHz)



Filter Response Plot



Engineering Drawing

All dimensions are in inches