



**Electrical Specifications**

**Center Frequency:** 510 MHz  
**0.5 dB Bandwidth:** 4 MHz  
**3 dB Bandwidth:** 8 MHz  
**Passband:** 506-514 MHz  
**Insertion Loss @ Fo:** 9.5 dB Max  
**Ripple:** ±0.25 dB @ 508-512 MHz  
**VSWR:** 1.5:1 Max  
**Phase Linearity:** 1.5° Max @ 506-514 MHz  
                           1° Max @ 508-512 MHz  
**Rejection:** >10 dB @ 495 & 530 MHz  
                   >20 dB @ 490 & 540 MHz  
                   >30 dB @ 480 & 550 MHz  
                   >40 dB @ 470 & 575 MHz  
                   >60 dB @ 450 & 600 MHz  
**Average Power:** 1 Watt

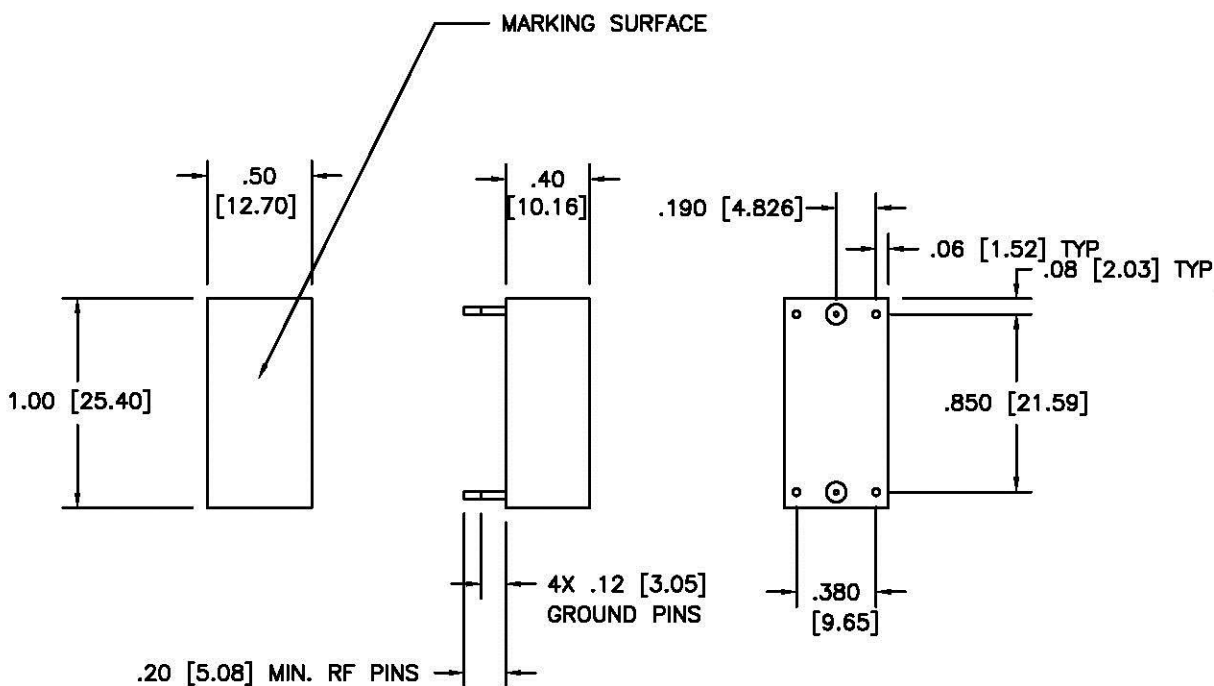
**Mechanical**

**Mounting Method:** SMT  
**Dimensions:** 1.00 x 0.5 x 0.4 Inches

**Environmental**

**Operating Temperature:** -55 to +85° C  
**Shock:** 20 G's  
**Vibration:** 10 G's  
**Humidity:** 95% Relative

**Outline Drawing:**





# 510 MHz Bandpass Filter

## Part Number: AE510B11165

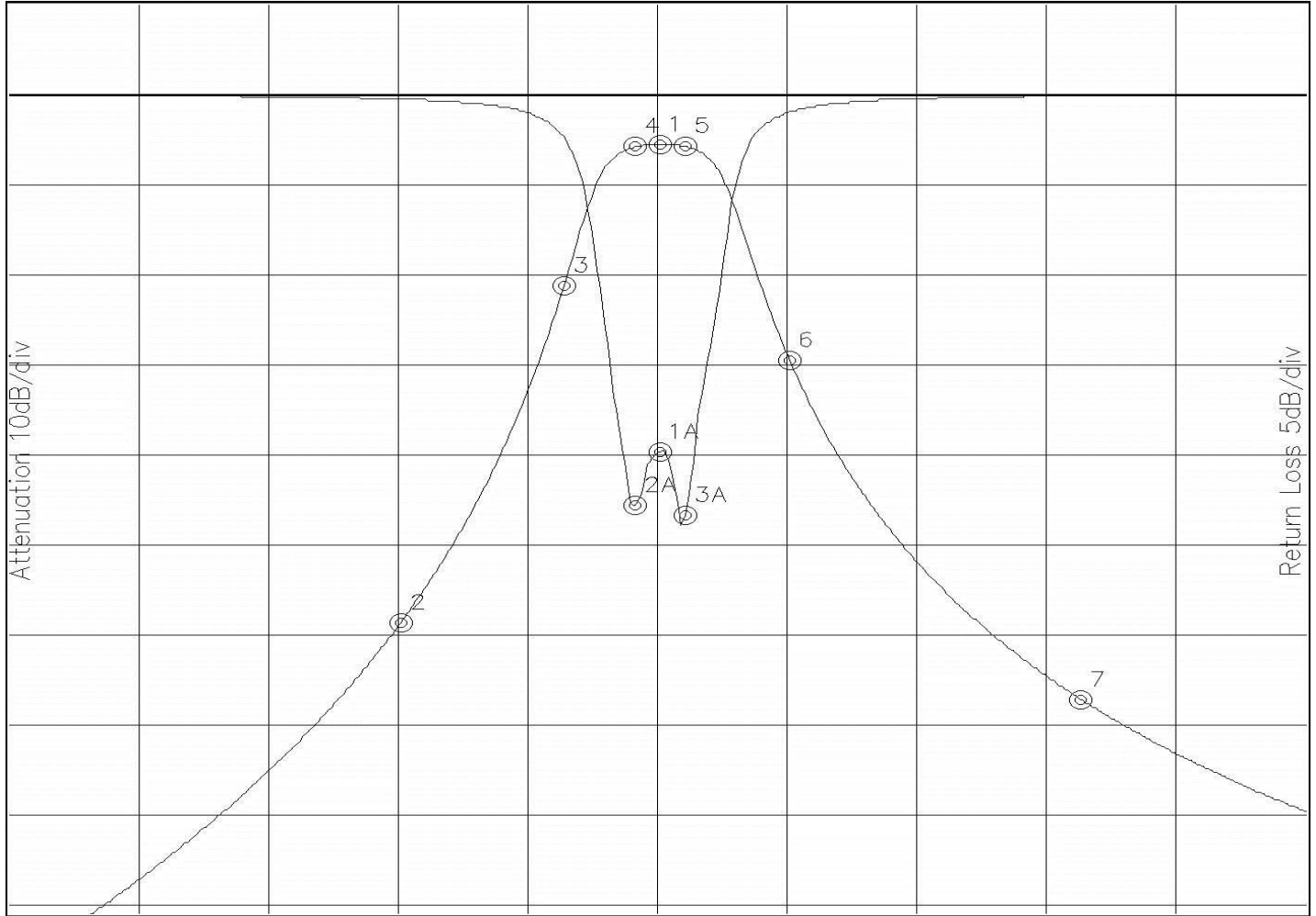


### Response Plot:

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Attenuation/Return Loss



Attenuation Start: 410.0MHz Stop: 610.0MHz

Return Loss Start: 410.0MHz Stop: 610.0MHz

Marker 1 Freq 510.16MHz Atten -5.393dB  
 Marker 2 Freq 470.09MHz Atten -58.447dB  
 Marker 3 Freq 495.29MHz Atten -21.097dB  
 Marker 4 Freq 506.28MHz Atten -5.741dB  
 Marker 5 Freq 514.03MHz Atten -5.652dB  
 Marker 6 Freq 530.19MHz Atten -29.338dB  
 Marker 7 Freq 575.10MHz Atten -66.885dB

Marker 1A Freq 510.16MHz Ret Loss -19.730dB  
 Marker 2A Freq 506.28MHz Ret Loss -22.751dB  
 Marker 3A Freq 514.03MHz Ret Loss -23.219dB

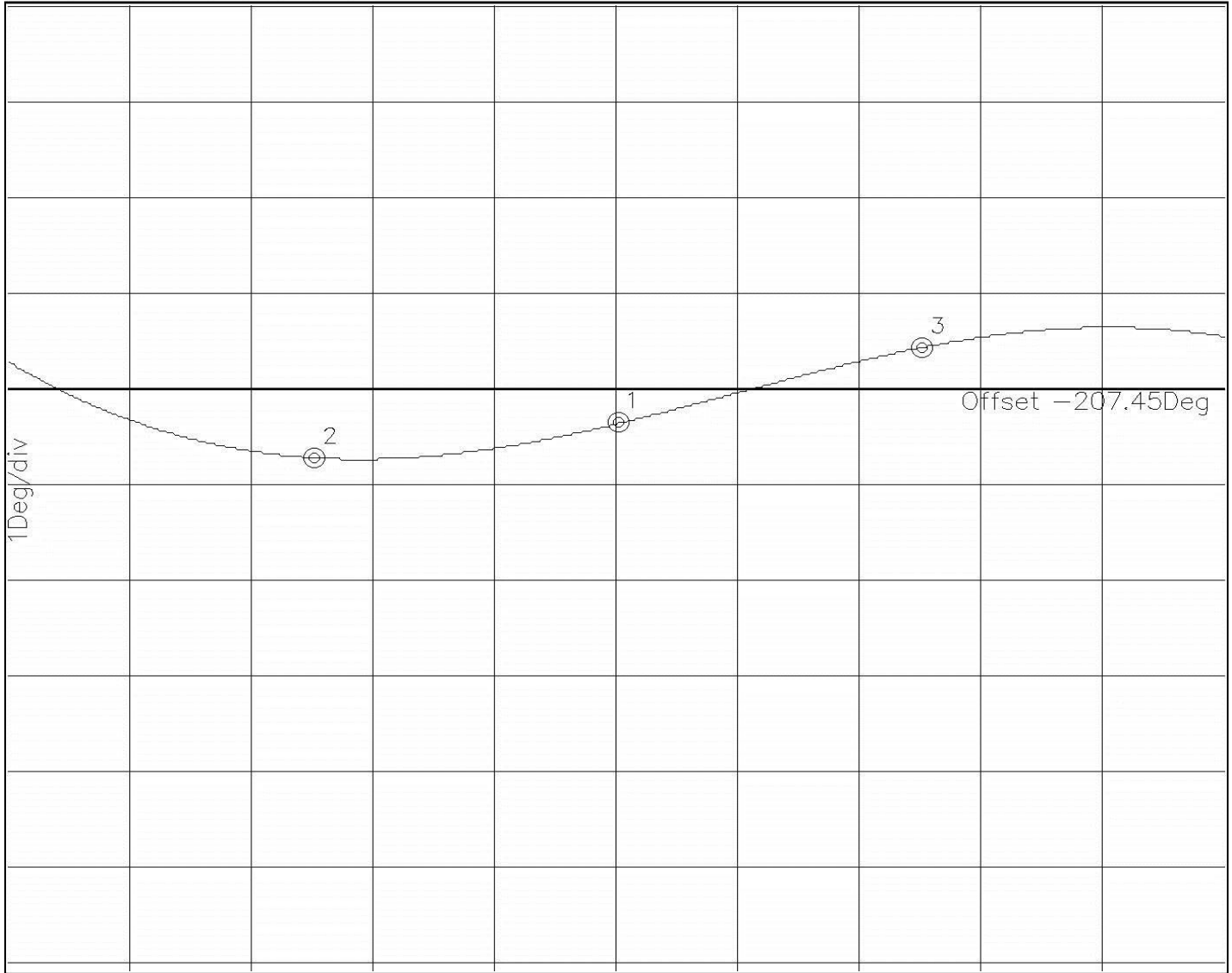


**Phase Linearity:**

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Phase



Phase Start: 506.0MHz Stop: 514.0MHz

Marker 1 Freq 510.00MHz Phase -0.357Deg

Marker 2 Freq 508.00MHz Phase -0.716Deg

Marker 3 Freq 512.01MHz Phase 0.436Deg