



REV A January 2011

Oscilent Controlled Document

| Ordering Code / Part Number | Product Description |
|-----------------------------|--|
| 813-IF108.8M-03A | 108.8MHz IF SAW Filter 3.93MHz Bandwidth |

Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
- o Frequency Response
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Notes

- o Electrostatic Sensitive Device (ESD) 
- o Avoid excessive ultrasonic exposure
- o Solderability compatible with JEDEC J-STD-020C Pb-free process, 260°C peak reflow temperature
- o This product complies with EU directive 2002/95/EC (RoHS compliance)



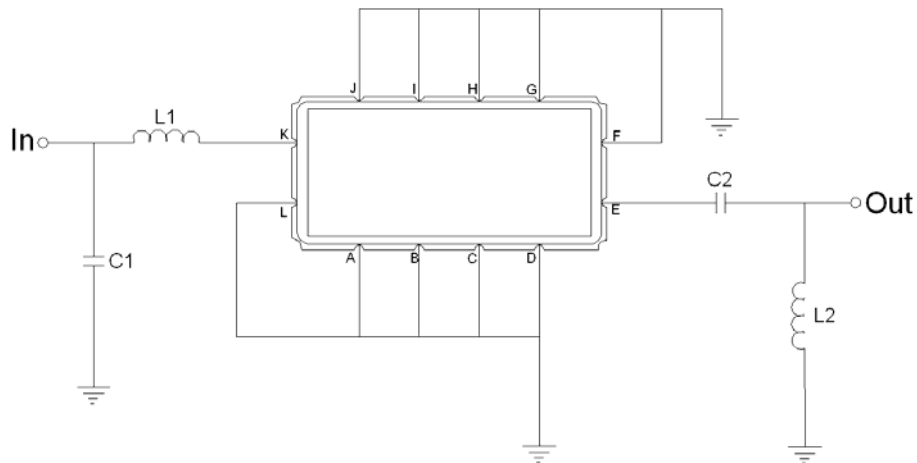


Mechanical Dimensions (mm)



| Pin Description | |
|------------------------------|--------|
| A, B, C, D, F, G, H, I, J, L | Ground |
| K | Input |
| E | Output |

Test Circuit



| Test Fixture & Values | |
|-----------------------|-------------------------|
| Input | L1 = 10 nH, C1 = 36 pF |
| Output | L2 = 18 nH, C2 = 240 pF |
| Source/Load Impedance | 50 Ω |

**Maximum Ratings**

| Parameters Description | Unit | Minimum | Typical | Maximum |
|--|------|---------|---------|---------|
| Operating Temperature Range | °C | -5 | - | 65 |
| Storage Temperature Range | °C | -40 | - | 85 |
| Maximum DC Voltage | V | - | - | 10 |
| Maximum Input Power | dBm | - | - | 10 |
| Source Impedance (single ended) ⁽¹⁾ | Ω | - | 50 | - |
| Load Impedance (single ended) ⁽¹⁾ | Ω | - | 50 | - |

Notes: With Matching Network (Ref. Testing Environment Circuit as shown above).

Those impedances could be modified with different impedance values and/or structures, if necessary.

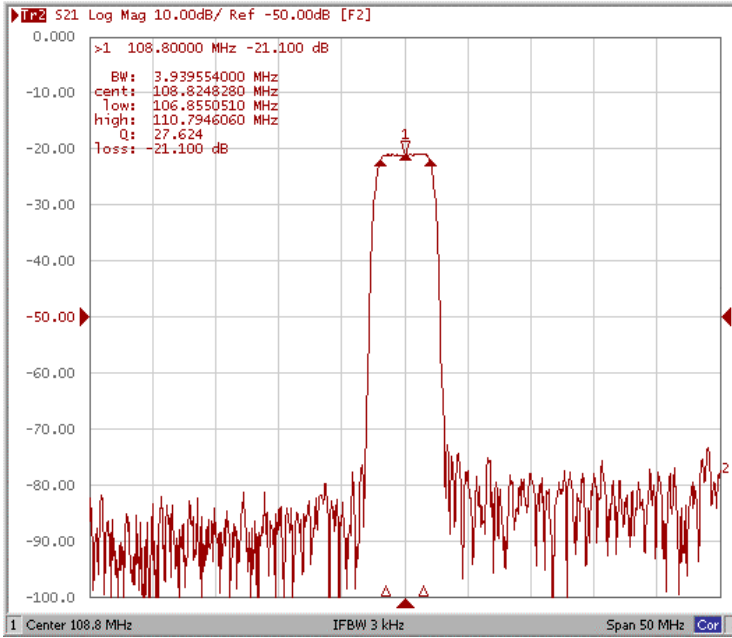
Electrical Specification

| Parameters Description | Unit | Minimum | Typical | Maximum |
|------------------------------------|--------|---------|---------|---------|
| Center Frequency (Fo) | MHz | 108.70 | 108.80 | 108.90 |
| Insertion Loss at Fo | dB | - | 21.10 | 23.00 |
| Group Delay Variation (Fo±1.50MHz) | ns | - | 80 | 130 |
| Absolute Delay Time at Fo | us | - | 1.41 | 1.60 |
| Temperature Coefficient | ppm/°C | - | -18 | - |
| Amplitude Ripple (Fo±1.50MHz) | dB | - | 0.35 | 0.90 |
| Bandwidth at -1dB | MHz | 3.60 | 3.93 | - |
| Bandwidth at -3dB | MHz | 4.00 | 4.33 | - |
| Bandwidth at -25dB | MHz | - | 5.55 | 5.70 |
| Bandwidth at -40dB | MHz | - | 5.88 | 6.10 |
| Ultimate Rejection | dB | 45 | 52 | - |

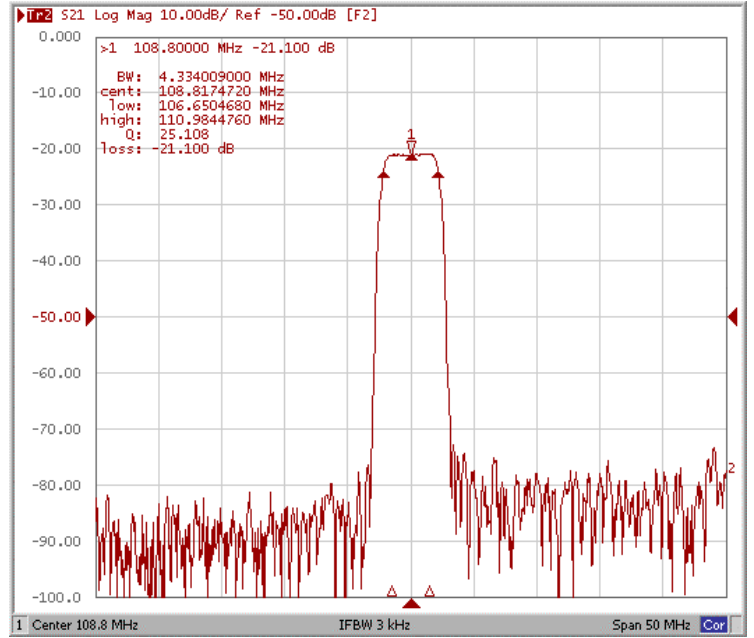


Frequency Response

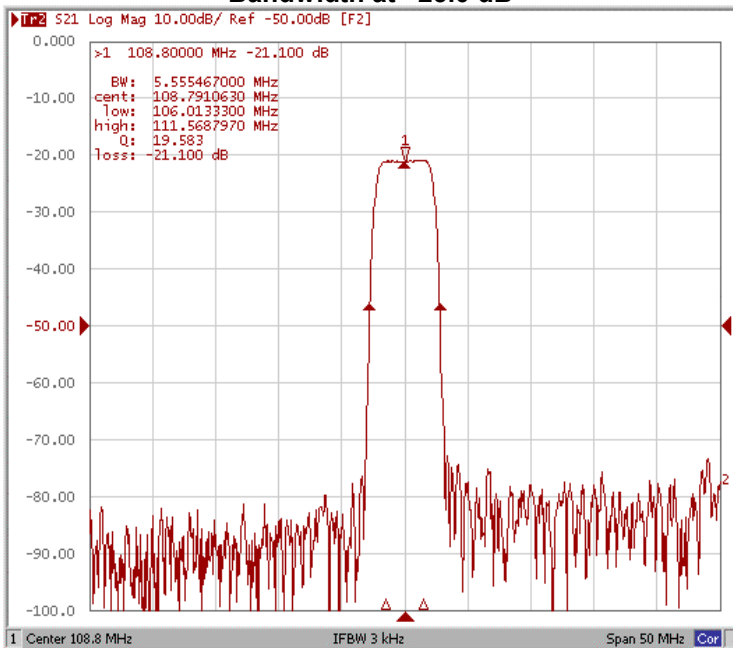
Bandwidth at -1.0 dB



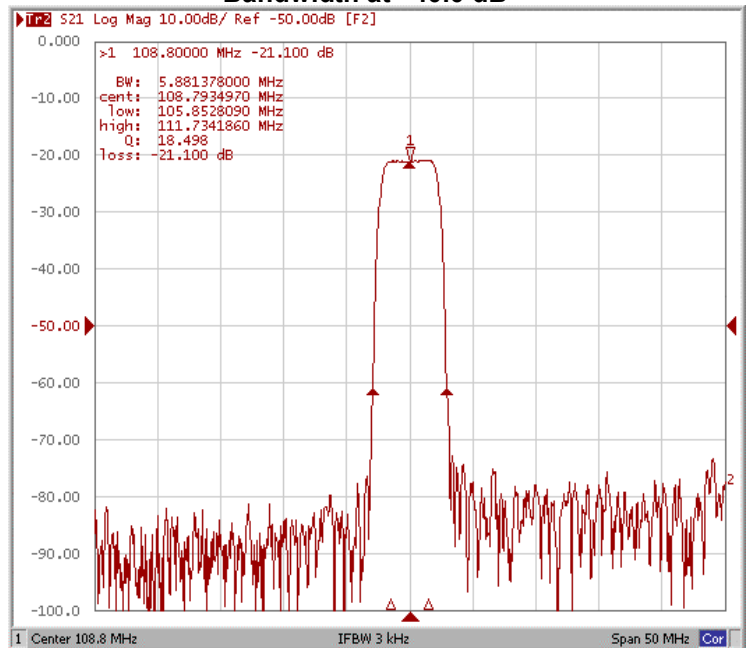
Bandwidth at -3.0 dB



Bandwidth at -25.0 dB

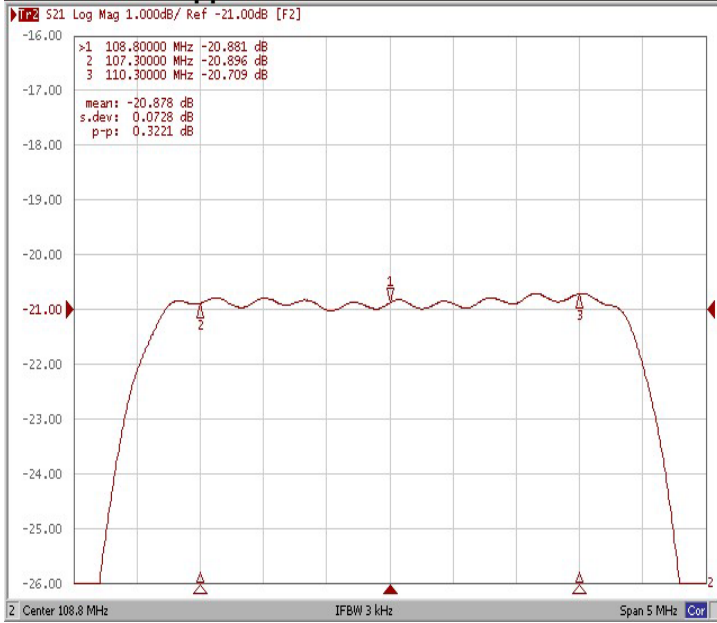


Bandwidth at -40.0 dB

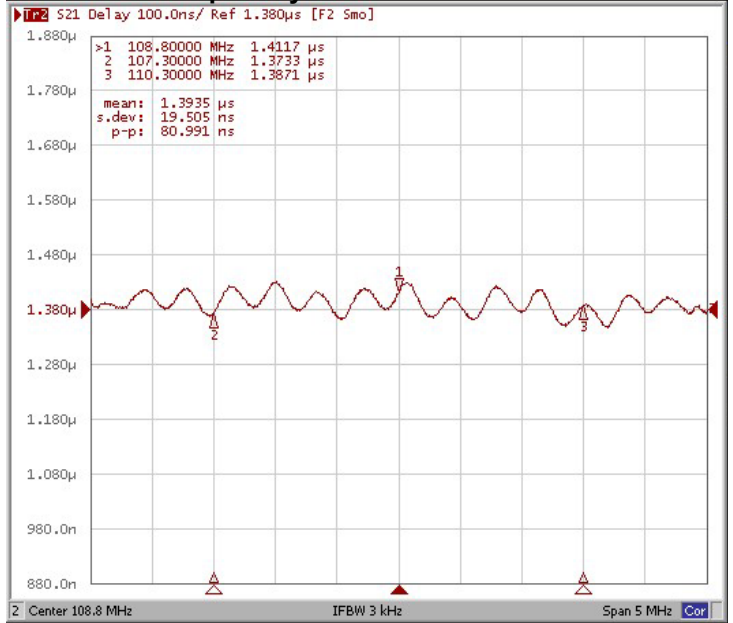




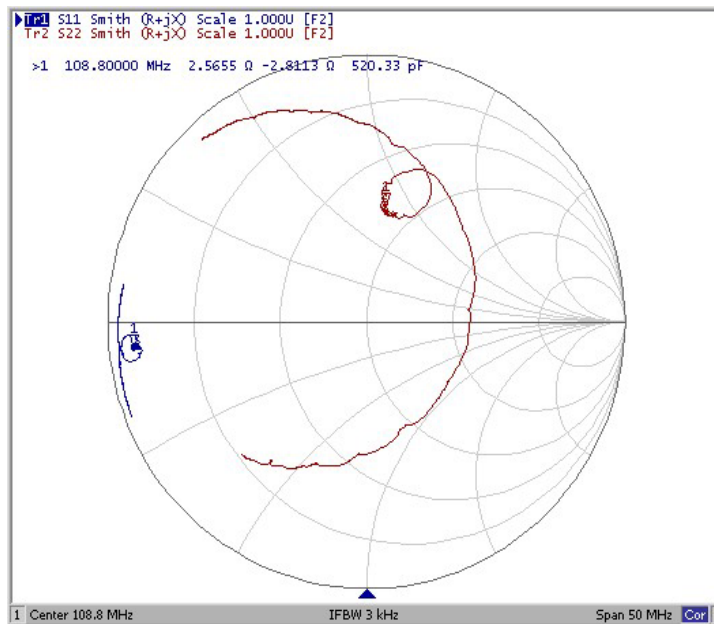
Ripple Variation Fo±1.50MHz



Group Delay Variation Fo±1.50MHz



Smith Chart





VSWR

