



REV A January 2011

Oscilent Controlled Document

| Ordering Code / Part Number | Product Description |
|-----------------------------|---|
| 821-IF112.5M-14A | 112.5 MHz IF SAW Filter 14.45 MHz Bandwidth |

Specification Contents

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

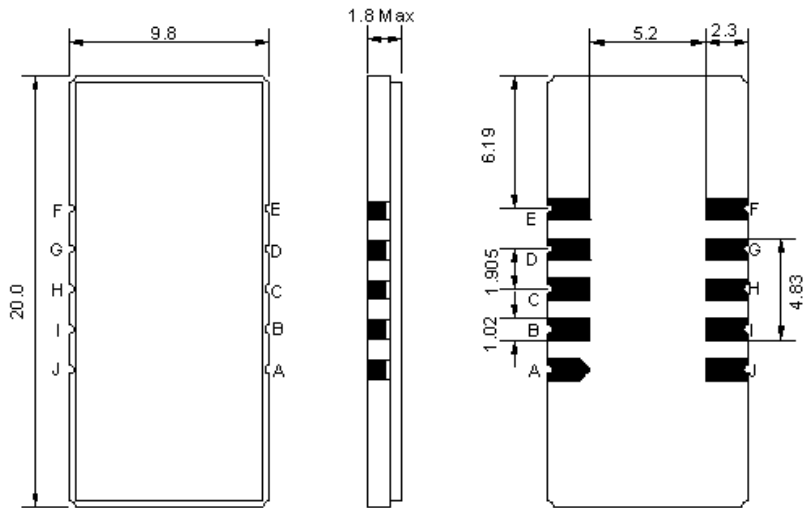
Notes

- 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)



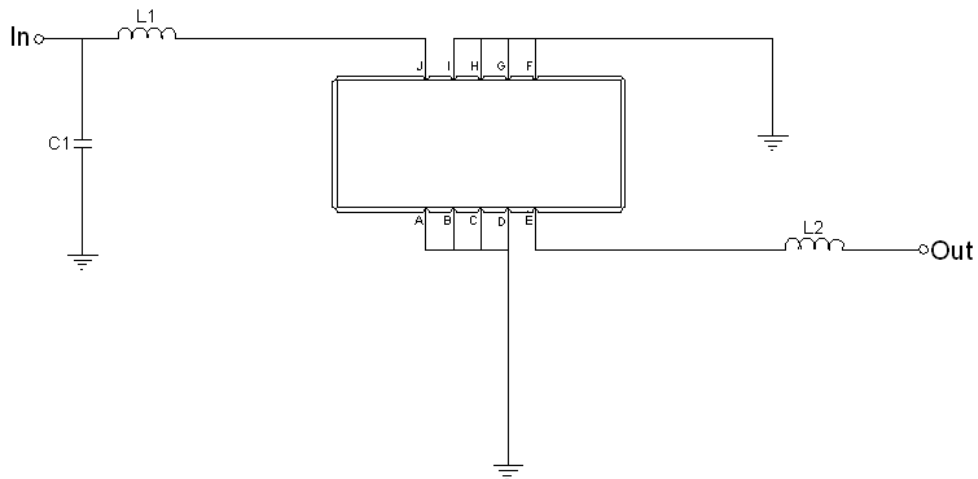


Mechanical Dimensions (mm)



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

Test Circuit



| Test Fixture & Values | |
|-----------------------|------------------|
| Input | L1=27nH, C1=22pF |
| Output | L2=27nH |
| Source/Load Impedance | 50 Ω |



Maximum Ratings

| Parameters Description | Unit | Minimum | Typical | Maximum |
|--|------|---------|---------|---------|
| Operating Temperature Range | °C | -30 | - | +80 |
| 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.

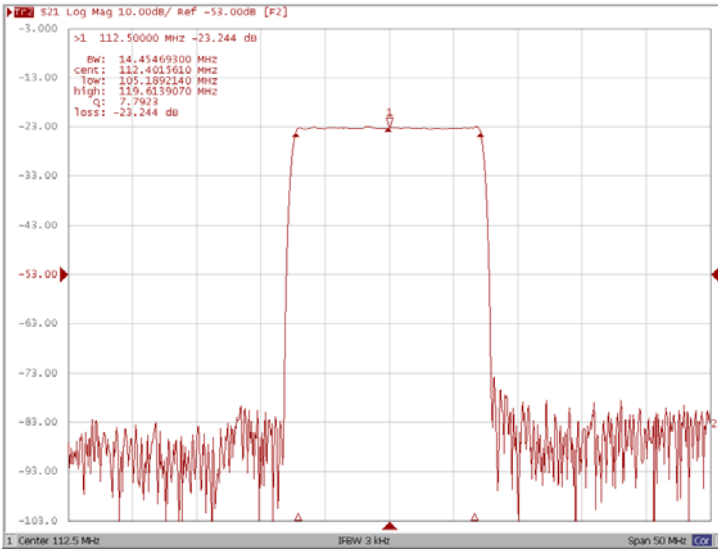
Electrical Specification

| Parameters Description | Unit | Minimum | Typical | Maximum |
|---------------------------|--------|---------|---------|---------|
| Center Frequency (Fo) | MHz | 112.40 | 112.50 | 112.60 |
| Insertion Loss at Fo | dB | - | 23.20 | 24.00 |
| Group Delay Variation | ns | - | 40 | 100 |
| Absolute Delay at Fo | us | - | 2.29 | - |
| Passband Ripple Variation | dB | - | 0.60 | 0.95 |
| Bandwidth at -1dB | MHz | - | 14.45 | - |
| Bandwidth at -3dB | MHz | 14.60 | 14.72 | - |
| Bandwidth at -50dB | MHz | - | 16.10 | 16.25 |
| Ultimate Rejection | dB | 50 | 55 | - |
| Temperature coefficient | ppm/°C | - | -72 | - |

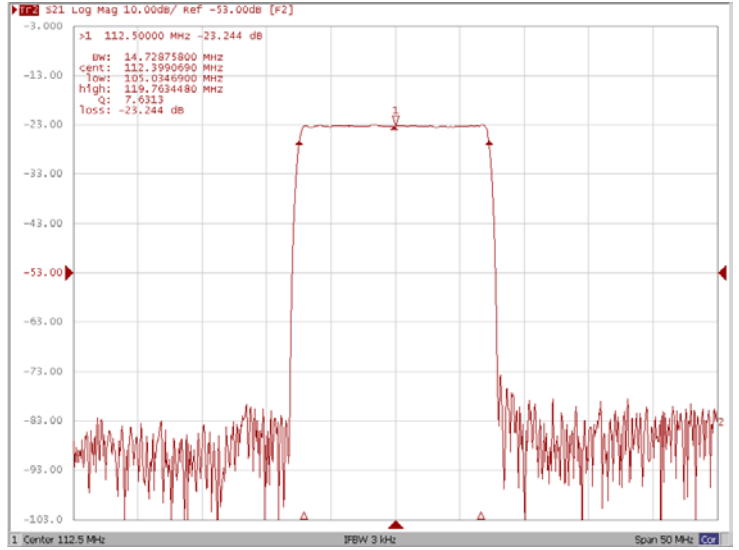


Frequency Response

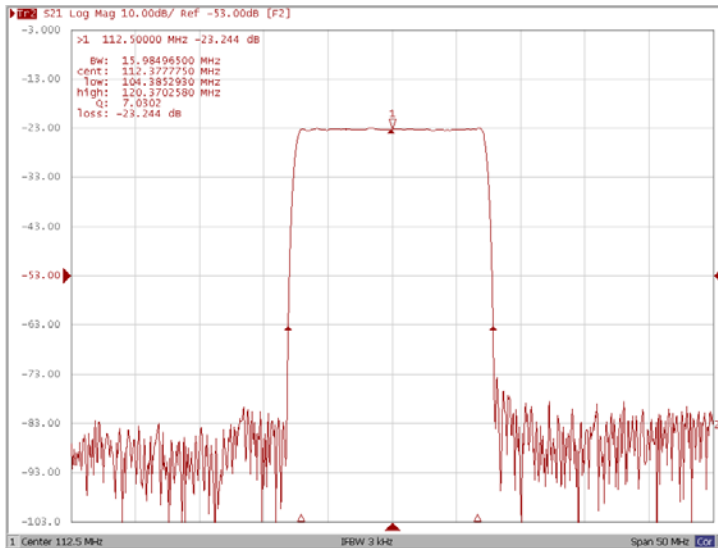
Bandwidth at -1.0 dB



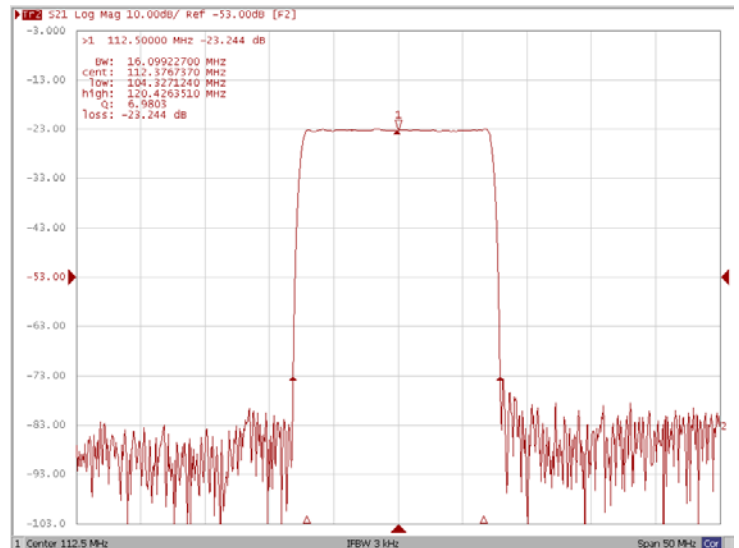
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

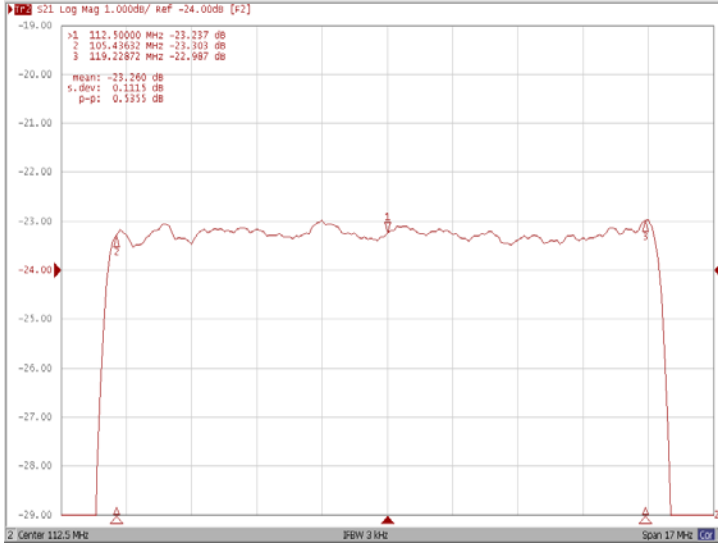


Bandwidth at -50.0 dB

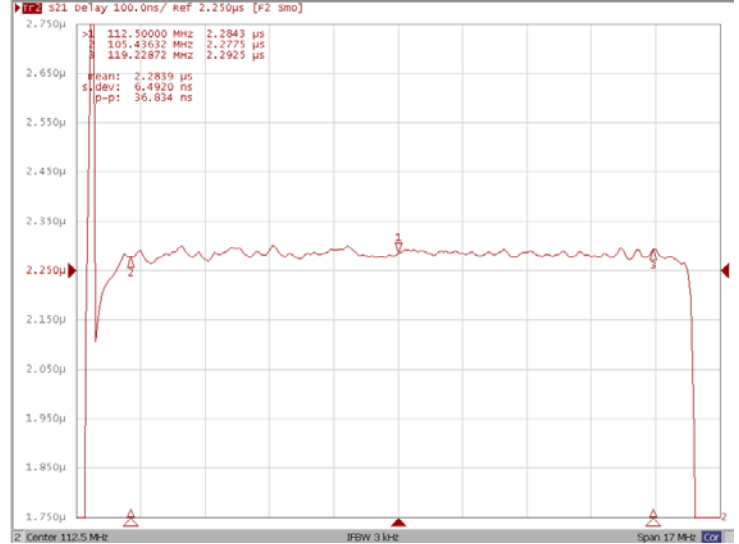




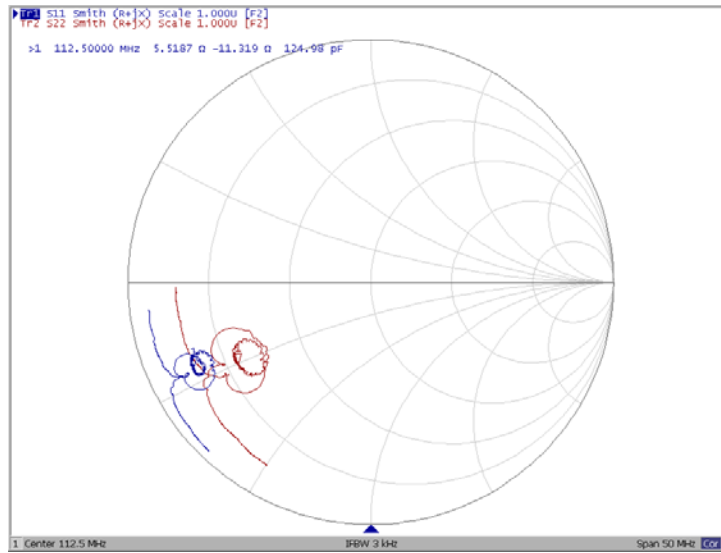
Ripple Variation



Group Delay Variation



Smith Chart





VSWR

