



REV A January 2011

Oscilent Controlled Document

| Ordering Code / Part Number | Product Description |
|-----------------------------|--|
| 813-IF115.0M-16B | 15.0 MHz IF SAW Filter 16.20 MHz 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)



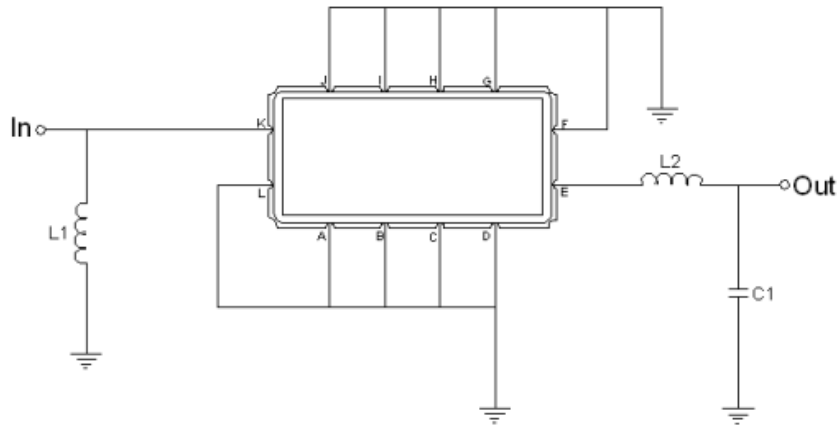


Mechanical Dimensions (mm)



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

Test Circuit



| Test Fixture & Values | |
|-----------------------|-----------------------|
| Input | L1 = 120 nH |
| Output | L2 = 56 nH, C1 = 5 pF |
| Source/Load Impedance | 50 Ω |

**Maximum Ratings**

| Parameters Description | Unit | Minimum | Typical | Maximum |
|--|------|---------|---------|---------|
| Operating Temperature Range | °C | -5 | - | 70 |
| 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.

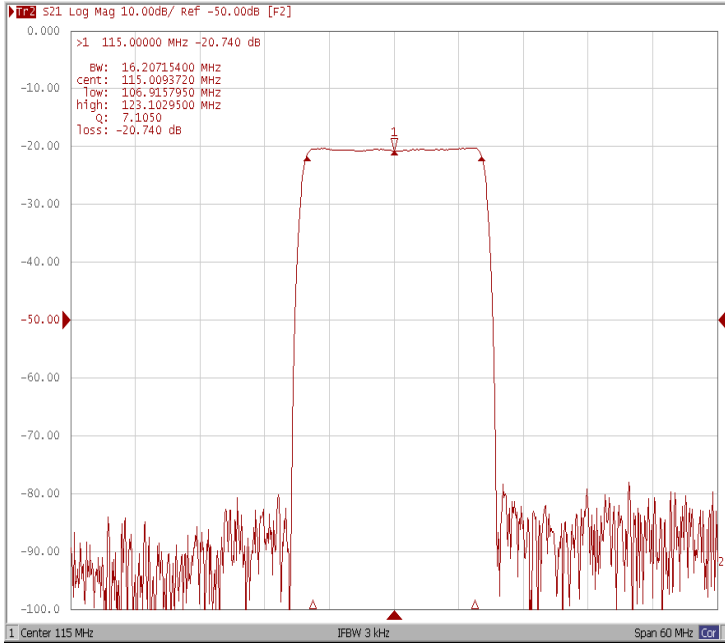
Electrical Specification

| Parameters Description | Unit | Minimum | Typical | Maximum |
|--|--------|---------|---------|---------|
| Center Frequency (Fo) | MHz | - | 115.0 | - |
| Insertion Loss at Fo | dB | - | 20.5 | 23.0 |
| Group Delay Variation at Fo ± 7.50 MHz | nsec | - | 34 | 70 |
| Absolute Delay at Fo | usec | - | 1.63 | - |
| Passband Ripple Variation at Fo ± 7.50 MHz | dB | - | 0.53 | 1.0 |
| Bandwidth at -1dB | MHz | 16.05 | 16.20 | - |
| Bandwidth at -3dB | MHz | - | 16.67 | - |
| Bandwidth at -40dB | MHz | - | 18.70 | 18.85 |
| Ultimate Rejection | dB | 50 | 58 | - |
| Temperature Coefficient | ppm/°C | - | -72 | - |



Frequency Response

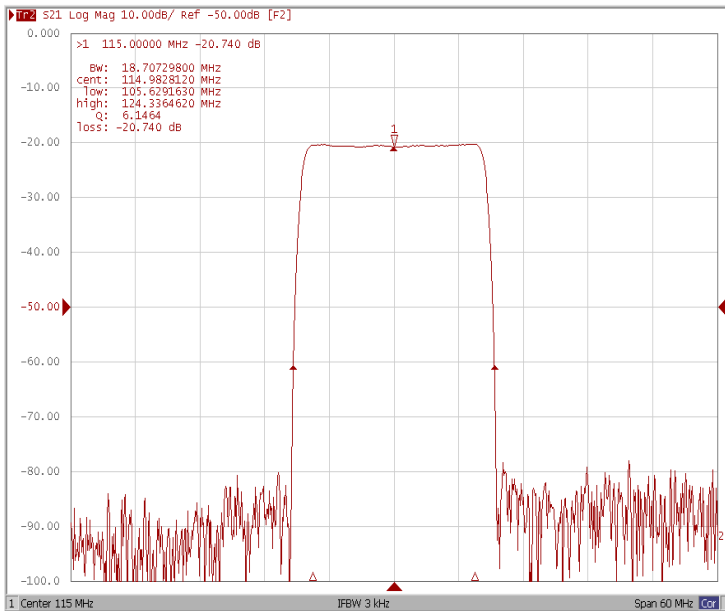
Bandwidth at -1.0 dB



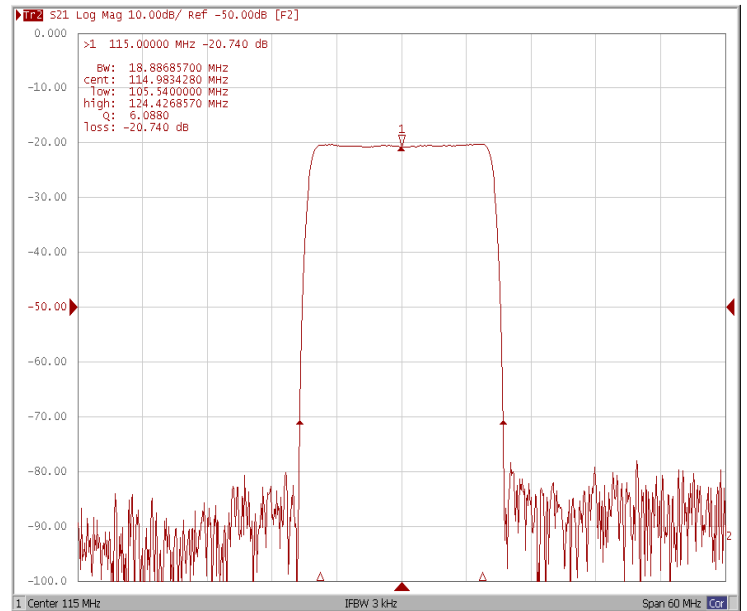
Bandwidth at -3.0 dB



Bandwidth at -40 dB

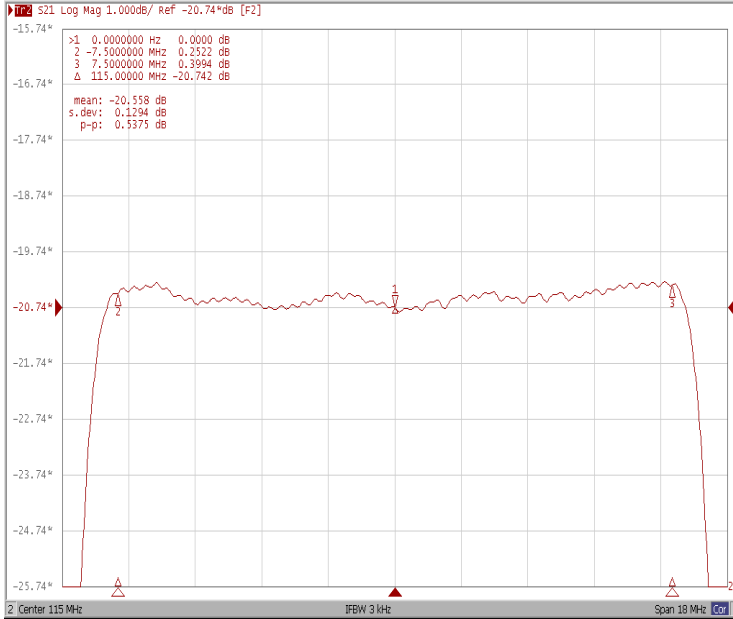


Bandwidth at -50 dB

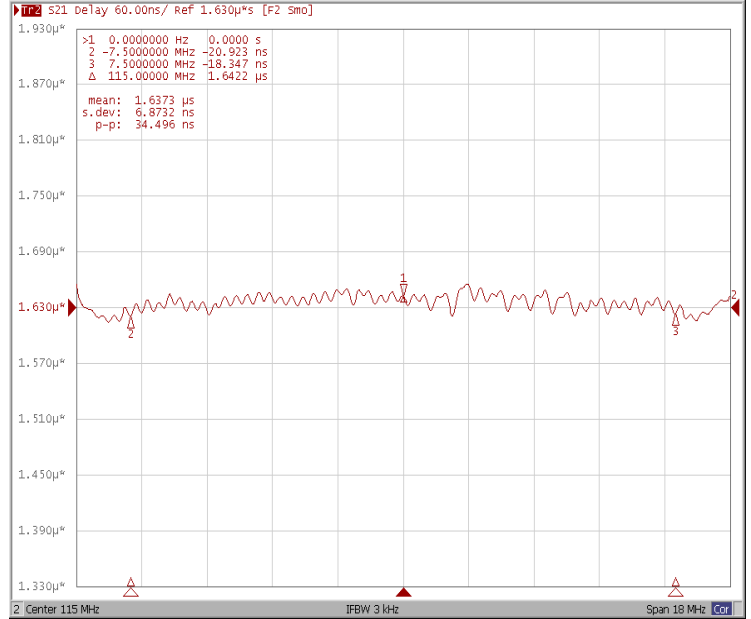




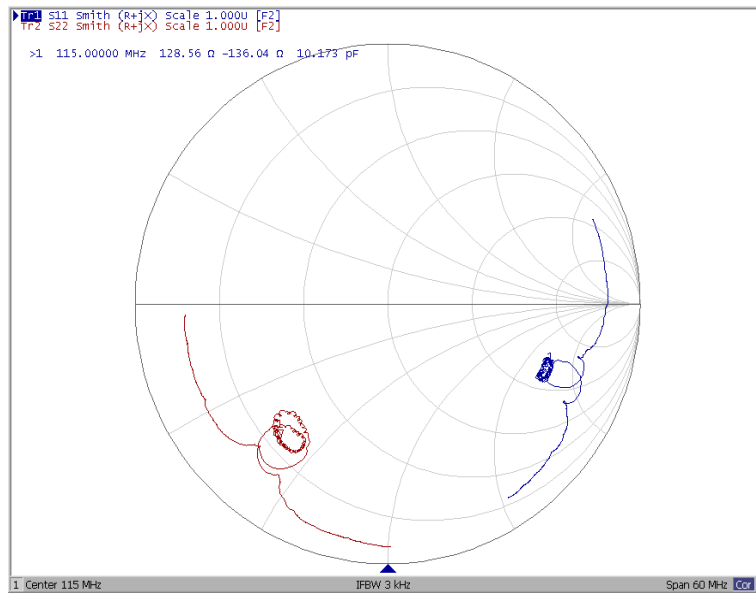
Ripple Variation Fo±7.50 MHz



Group Delay Variation Fo±7.50 MHz



Smith Chart





VSWR

