



PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

| Ordering Code / Part Number | Product Description |
|-----------------------------|--|
| 821-SL70.0M-20B | 70.0 MHz IF SAW Filter 20.05 MHz Bandwidth |

Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
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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)



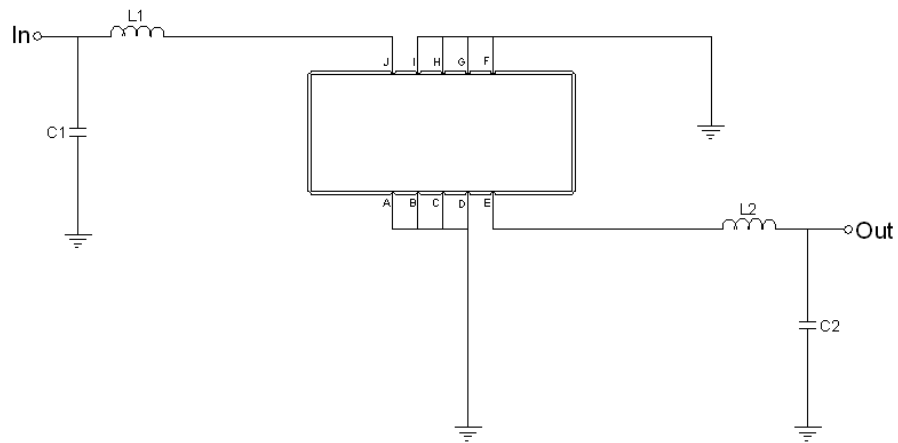


Mechanical Dimensions (mm)



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

Test Circuit



| Test Fixture & Values | |
|-----------------------|------------------|
| Input | L1=68nH, C1=91pF |
| Output | L2=82nH, C2=75pF |
| Source/Load Impedance | 50 Ω |

**Maximum Ratings**

| Parameters Description | Unit | Minimum | Typical | Maximum |
|--|------|---------|---------|---------|
| Operating Temperature Range | °C | 0 | - | 60 |
| Storage Temperature Range | °C | -30 | - | 80 |
| 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.

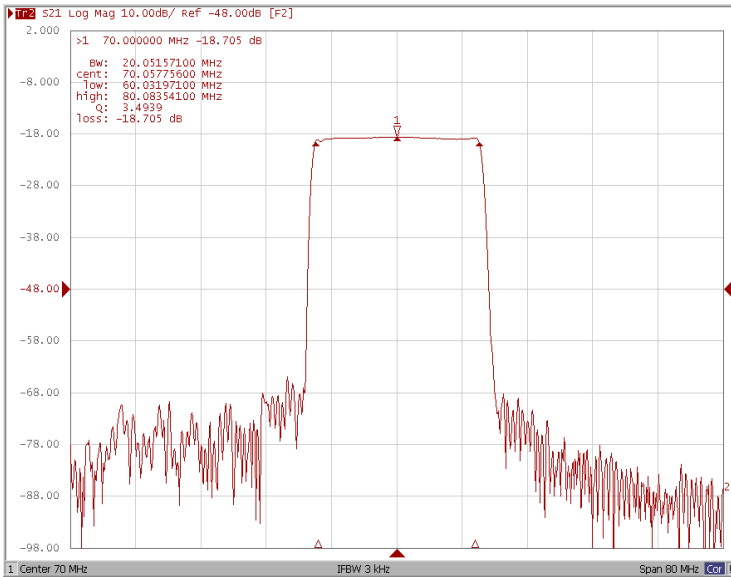
Electrical Specification

| Parameters Description | Unit | Minimum | Typical | Maximum |
|------------------------------------|--------|---------|---------|---------|
| Center Frequency (Fo) | MHz | 69.90 | 70.00 | 70.10 |
| Insertion Loss at Fo | dB | - | 18.75 | 20.0 |
| Group Delay Variation (Fo±9.65MHz) | ns | - | 70 | 150 |
| Absolute Delay | us | - | 1.64 | - |
| Passband Ripple (Fo±9.65MHz) | dB | - | 0.80 | 1.00 |
| Bandwidth at -1dB | MHz | 19.80 | 20.05 | - |
| Bandwidth at -3dB | MHz | - | 20.50 | - |
| Bandwidth at -20dB | MHz | - | 21.75 | - |
| Bandwidth at -40dB | MHz | - | 22.70 | 22.95 |
| Ultimate Rejection | dB | - | 48 | - |
| Temperature coefficient | ppm/°C | - | -86 | - |

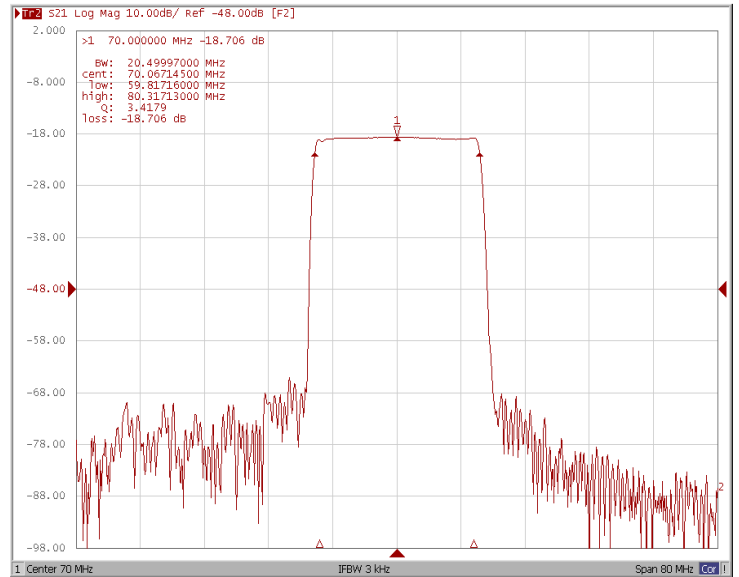


Frequency Response

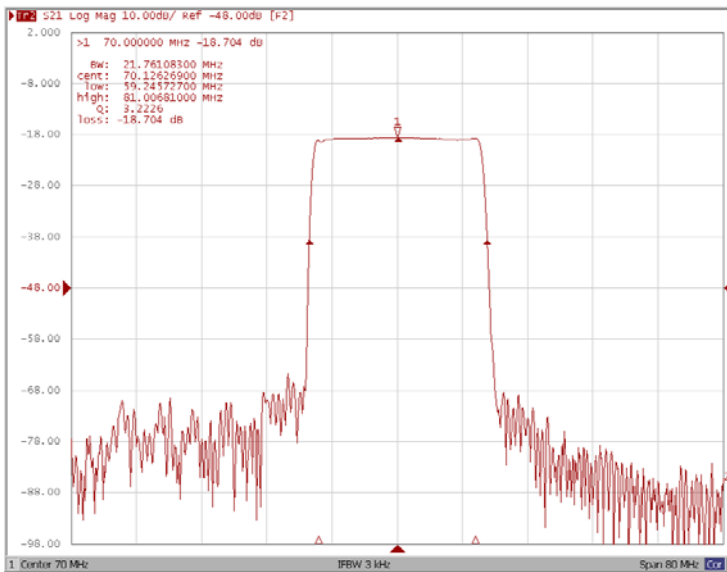
Bandwidth at -1.0 dB



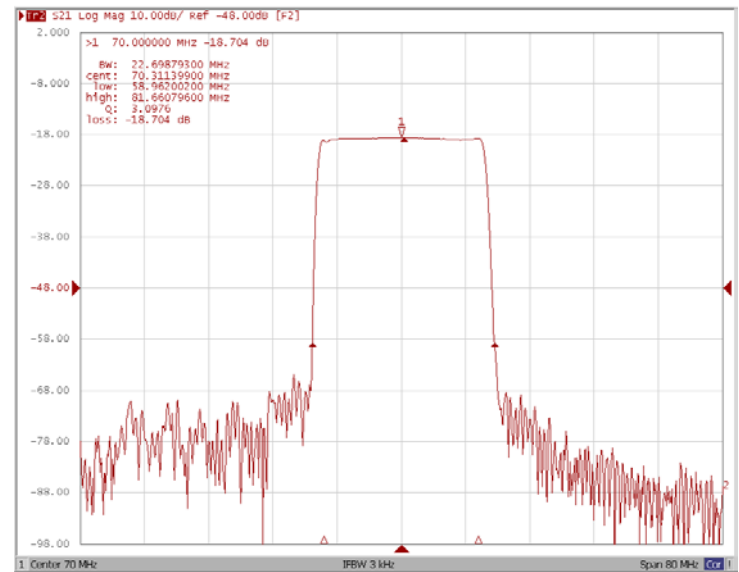
Bandwidth at -3.0 dB



Bandwidth at -20.0 dB

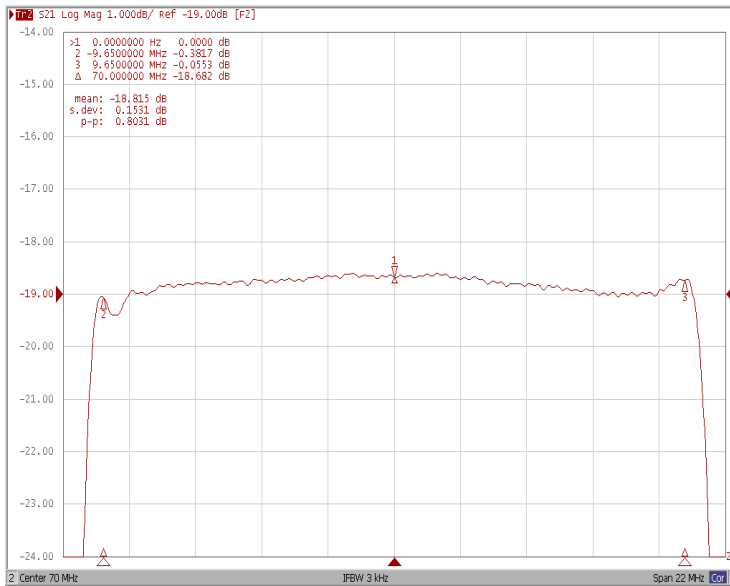


Bandwidth at -40.0 dB

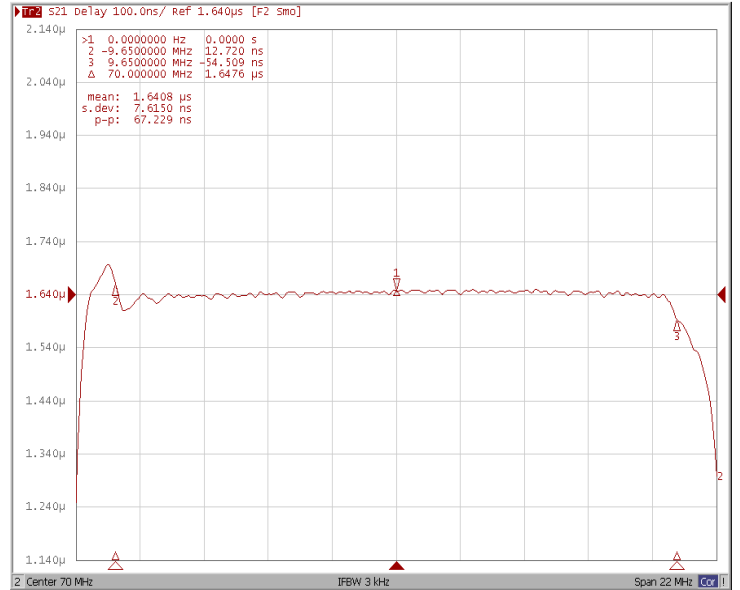




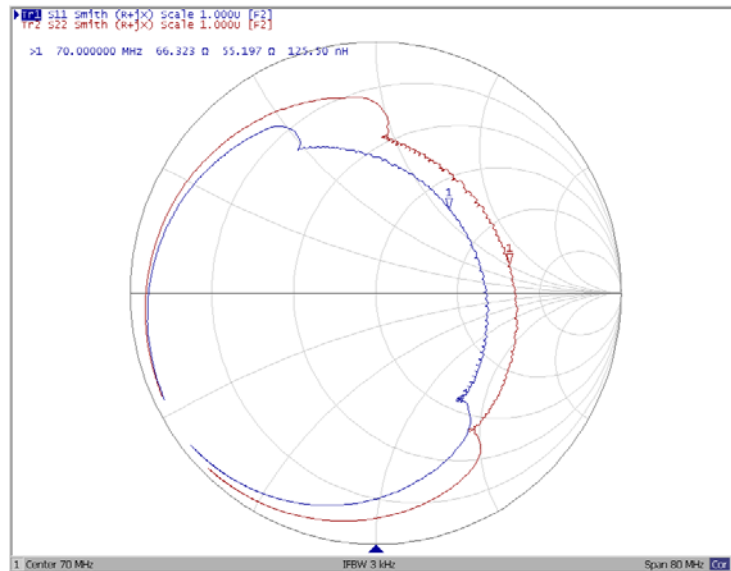
Ripple Variation Fo±9.65MHz



Group Delay Variation Fo±9.65MHz



Smith Chart





VSWR

