



REV A January 2011

Oscilent Controlled Document

| Ordering Code / Part Number | Product Description |
|-----------------------------|--|
| 821-IF74.9875M-10A | 74.6875 MHz IF SAW Filter 10.0 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)



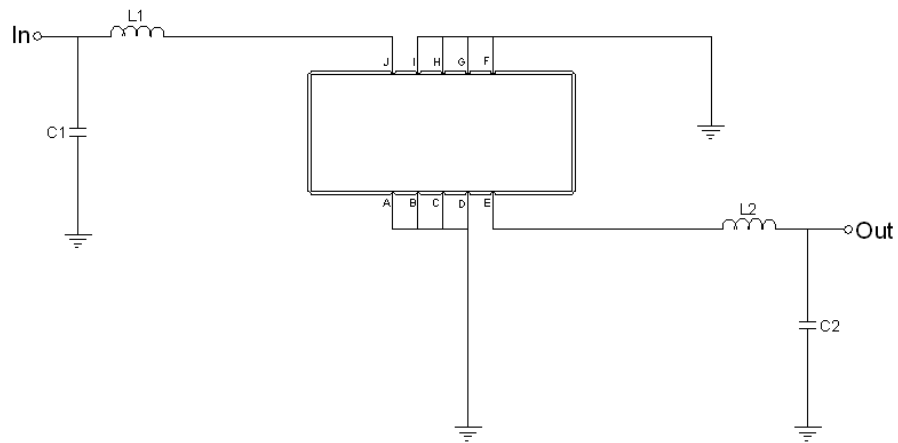


Mechanical Dimensions (mm)



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

Test Circuit



| Test Fixture & Values | |
|-----------------------|------------------|
| Input | L1=56nH, C1=20pF |
| Output | L2=56nH, C2=20pF |
| Source/Load Impedance | 50 Ω |



Maximum Ratings

| Parameters Description | Unit | Minimum | Typical | Maximum |
|--|------|---------|---------|---------|
| Operating Temperature Range | °C | 0 | - | 60 |
| Storage Temperature Range | °C | -20 | - | 70 |
| 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.

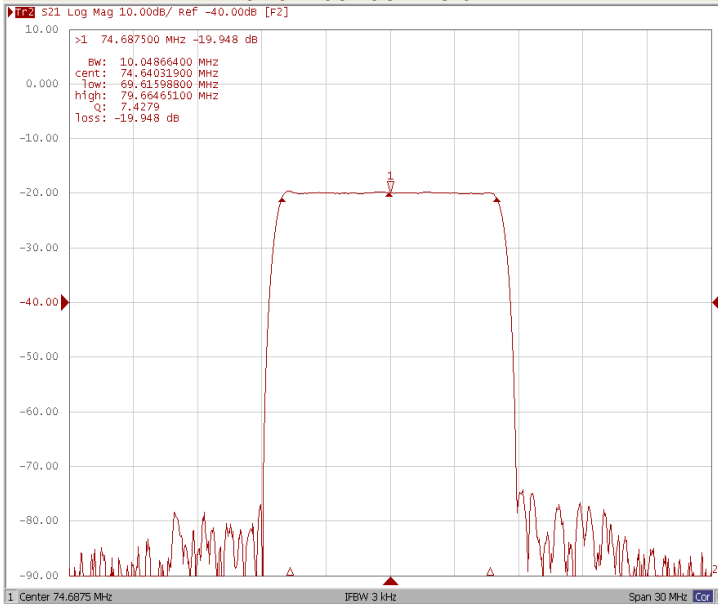
Electrical Specification

| Parameters Description | Unit | Minimum | Typical | Maximum |
|--------------------------------------|------|---------|---------|---------|
| Center Frequency (Fo) | MHz | - | 74.9875 | - |
| Insertion Loss at Fo | dB | - | 20.0 | 23.0 |
| Group Delay Variation (Fo±4.6875MHz) | ns | - | 50 | 100 |
| Absolute Delay | us | - | 2.32 | - |
| Passband Ripple (Fo±4.6875MHz) | dB | - | 0.46 | 1.00 |
| Bandwidth at -1dB | MHz | 9.375 | 10.00 | - |
| Bandwidth at -30dB | MHz | - | 11.50 | - |
| Bandwidth at -40dB | MHz | - | 11.65 | 12.10 |
| Ultimate Rejection | dB | - | 50 | - |
| Relative Attenuation Fo±5.9125MHz | dB | 30 | 50 | - |

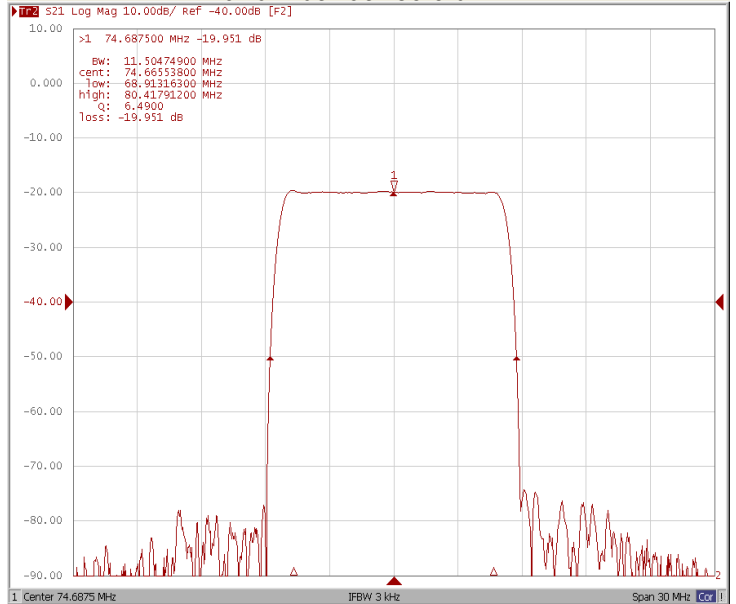


Frequency Response

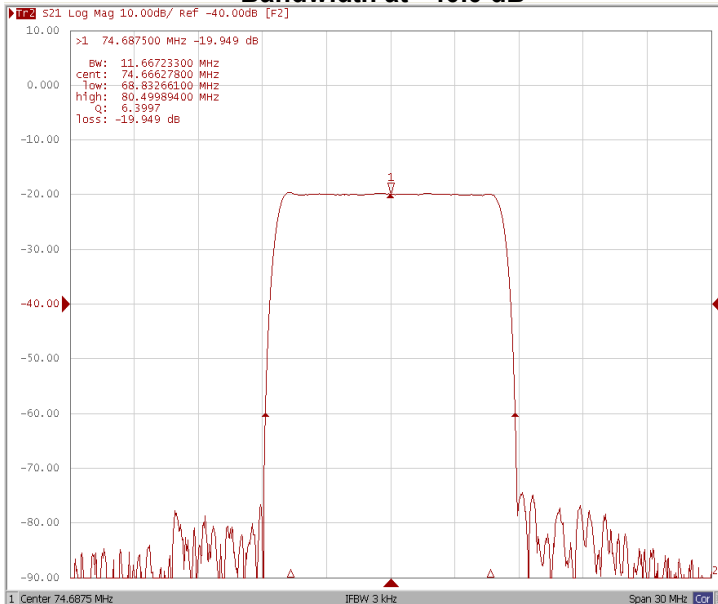
Bandwidth at -1.0 dB



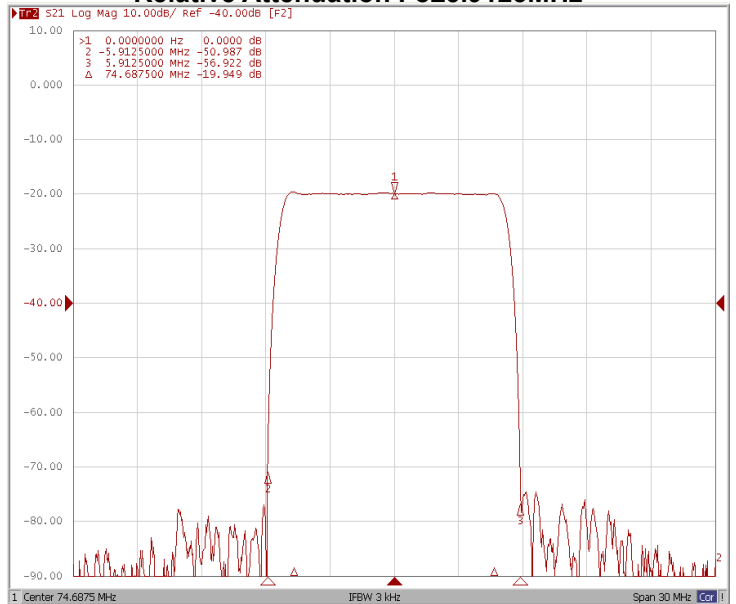
Bandwidth at -30.0 dB



Bandwidth at -40.0 dB

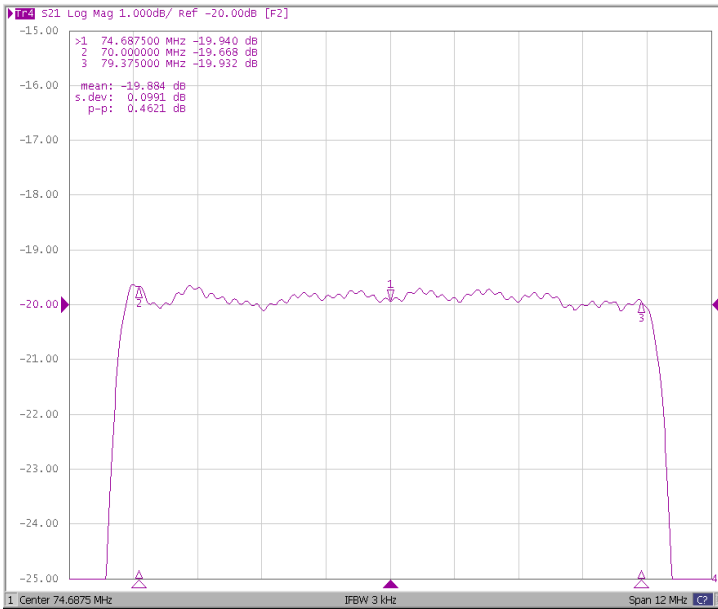


Relative Attenuation Fo±5.9125MHz

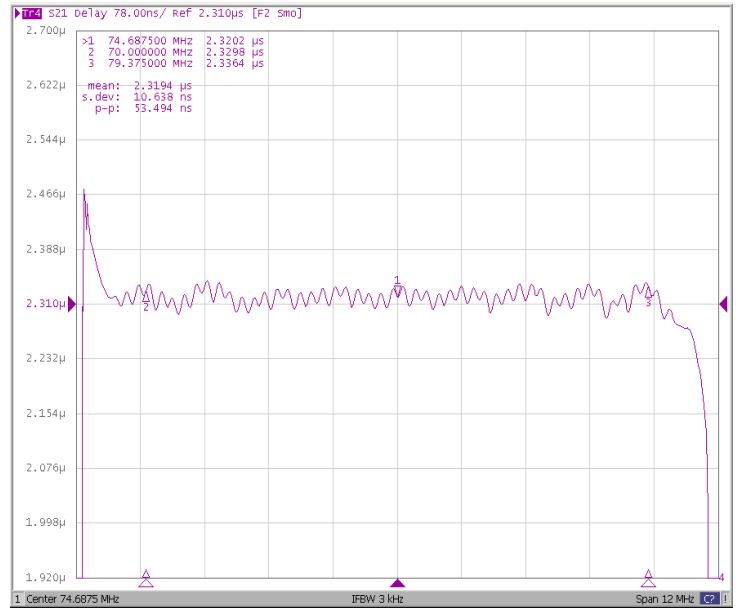




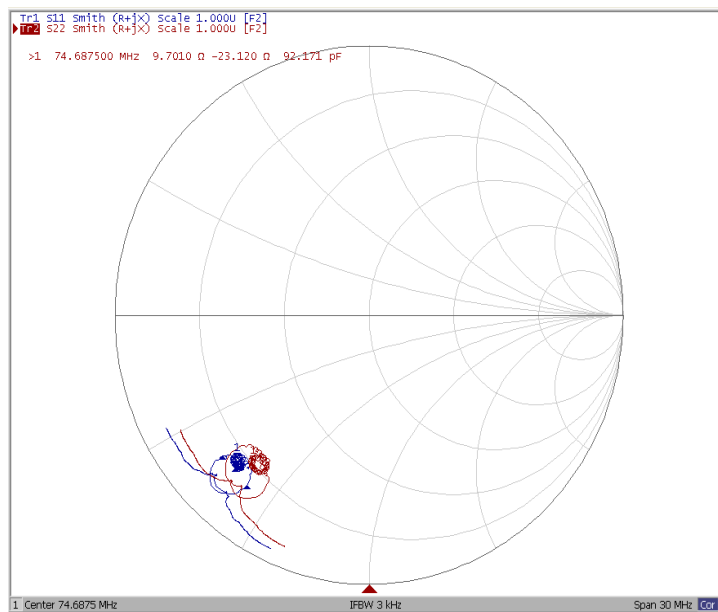
Ripple Variation Fo±4.6875MHz



Group Delay Variation Fo±4.6875MHz



Smith Chart





VSWR

