



REV A January 2011

Oscilent Controlled Document

| Ordering Code / Part Number | Product Description |
|-----------------------------|---|
| 835-IF85.0M-29A | 85.0MHz IF SAW Filter 29.12 MHz Bandwidth |

Specification Contents

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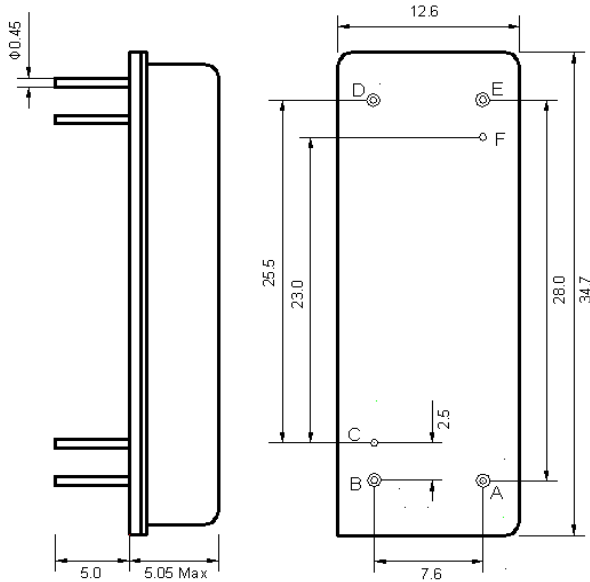
Notes

- 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)



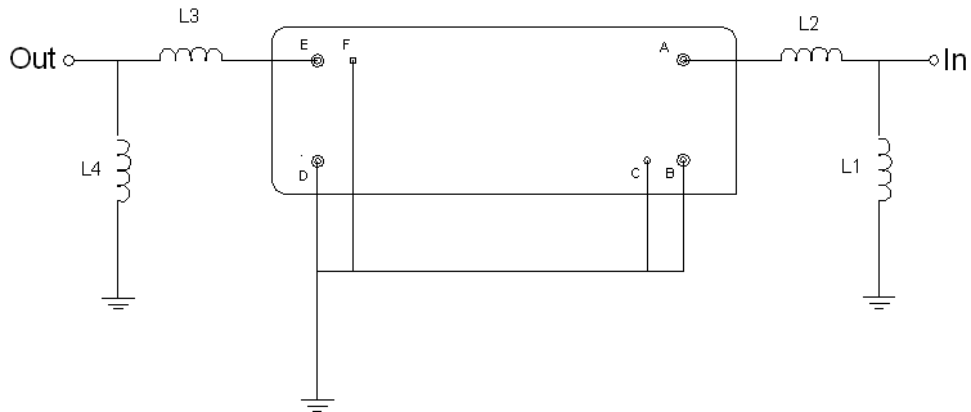


Mechanical Dimensions (mm)



| Pin Description | |
|-----------------|--------|
| B, C, D, F | Ground |
| A | In |
| E | Out |

Test Circuit



| Test Fixture & Values | |
|-----------------------|---------------------|
| Input | L1=100 nH, L2=33 nH |
| Output | L3=39 nH, L4=150 nH |
| Source/Load Impedance | 50 Ω |



Maximum Ratings

| Parameters Description | Unit | Minimum | Typical | Maximum |
|--|------|---------|---------|---------|
| Operating Temperature Range | °C | - | 25 | - |
| 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.

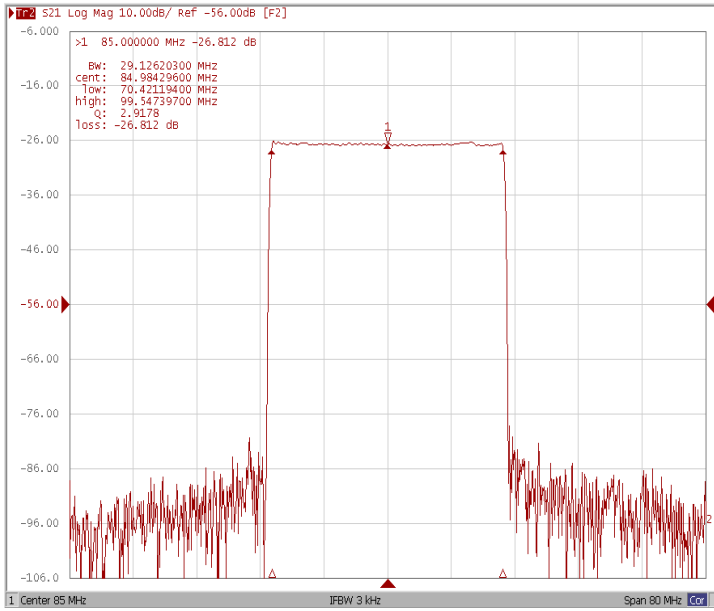
Electrical Specification

| Parameters Description | Unit | Minimum | Typical | Maximum |
|-------------------------------------|--------|---------|---------|---------|
| Center Frequency (Fo) | MHz | - | 85.0 | - |
| Insertion Loss at Fo | dB | - | 26.8 | 30.0 |
| Group Delay Variation (Fo±14.52MHz) | ns | - | 38.5 | 80 |
| Absolute Delay Time at Fo | us | - | 3.3 | - |
| Temperature Coefficient | ppm/°C | - | -72 | - |
| Amplitude Ripple (Fo±14.52MHz) | dB | - | 0.93 | - |
| Bandwidth at -1dB | MHz | 29.00 | 29.12 | - |
| Bandwidth at -3dB | MHz | - | 29.31 | - |
| Bandwidth at -40dB | MHz | - | 30.2 | 30.5 |
| Relative Attenuation | | | | |
| Fo ±15.1MHz~ Fo ± 15.9MHz | dBc | 24 | 45 | - |
| Fo ± 15.9MHz~ Fo ± 19.9MHz | dBc | 39 | 50 | - |
| Fo ± 19.9MHz~ Fo ± 24.9MHz | dBc | 39 | 50 | - |
| Fo ± 24.9MHz~ Fo ± 30.0MHz | dBc | 49 | 55 | - |
| Ultimate Rejection | dB | - | 50 | - |

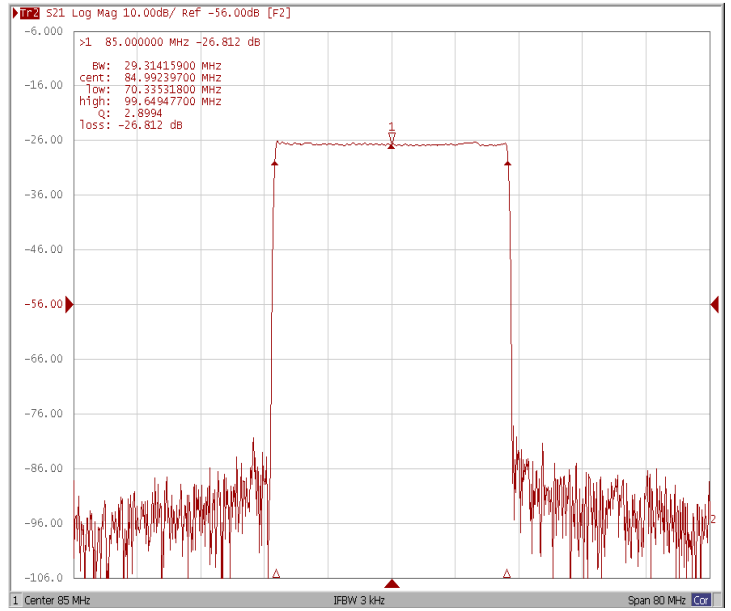


Frequency Response

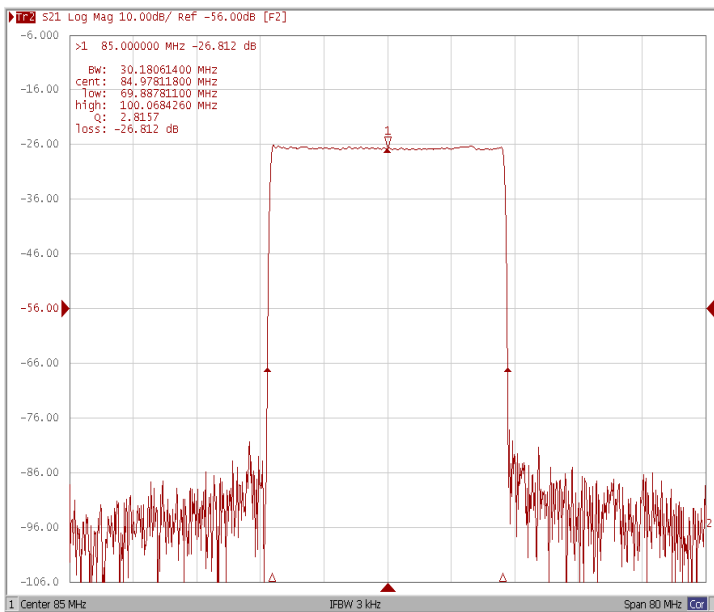
Bandwidth at -1.0 dB



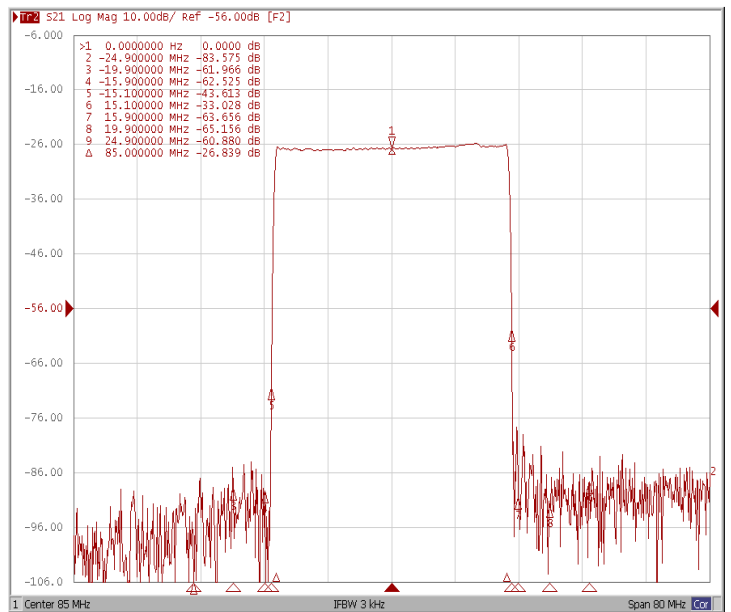
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

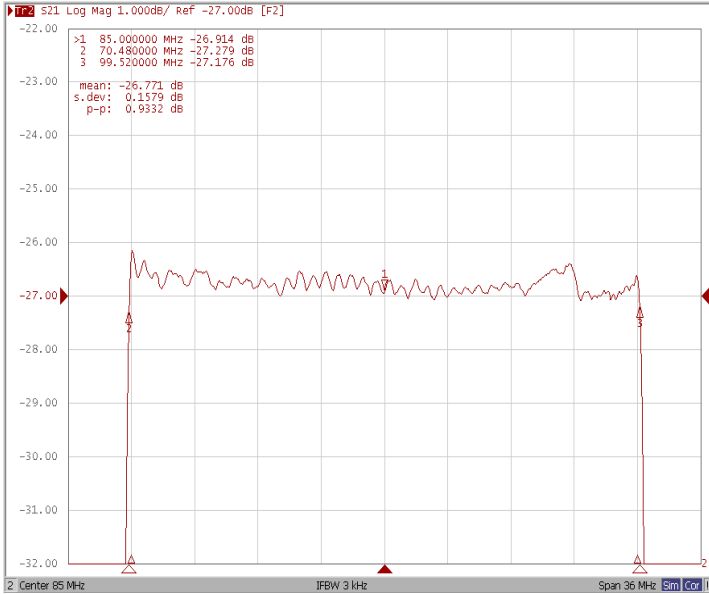


Relative Attenuation

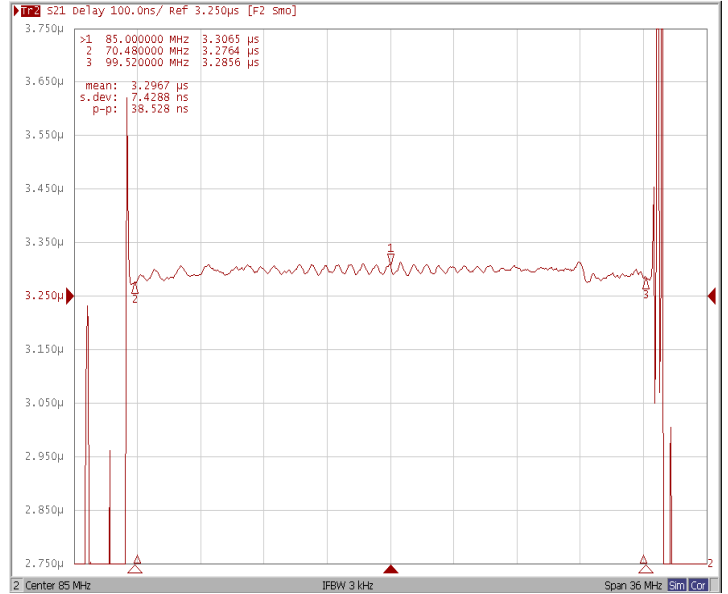




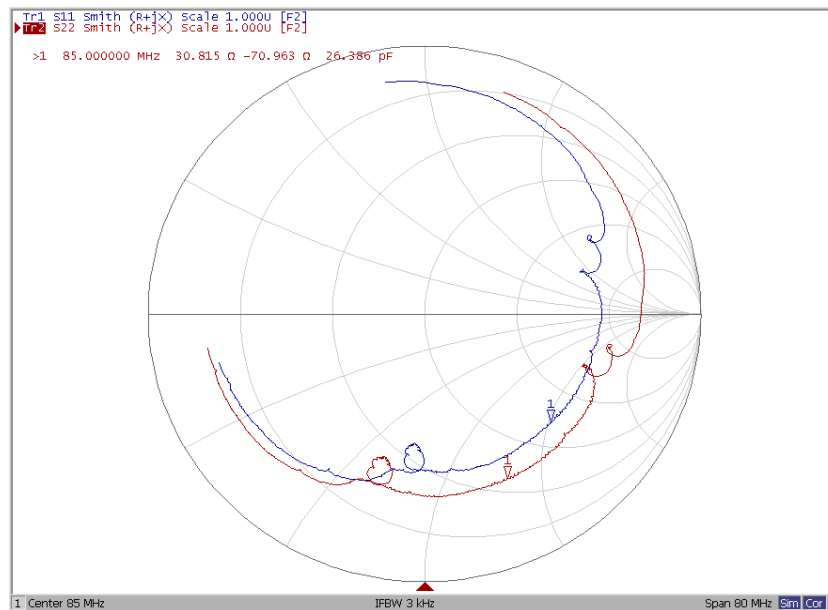
Ripple Variation Fo±14.52MHz



Group Delay Variation Fo±14.52MHz



Smith Chart





VSWR

