



REV A January 2011

Oscilent Controlled Document

| Ordering Code / Part Number | Product Description |
|-----------------------------|--|
| 813-IF79.9M-20B | 79.9 MHz IF SAW Filter 20.25 MHz Bandwidth |

Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
- o Frequency Response
- o Smith Chart
- 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)



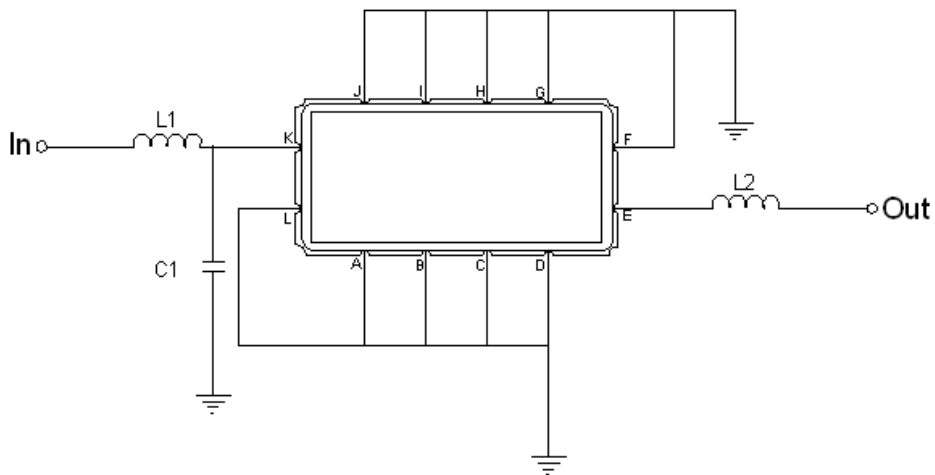


Mechanical Dimensions (mm)



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

Test Circuit



| Test Fixture & Values | |
|-----------------------|---------------------|
| Input | L1=150 nH, C1=10 pF |
| Output | L2=100nH |
| 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.

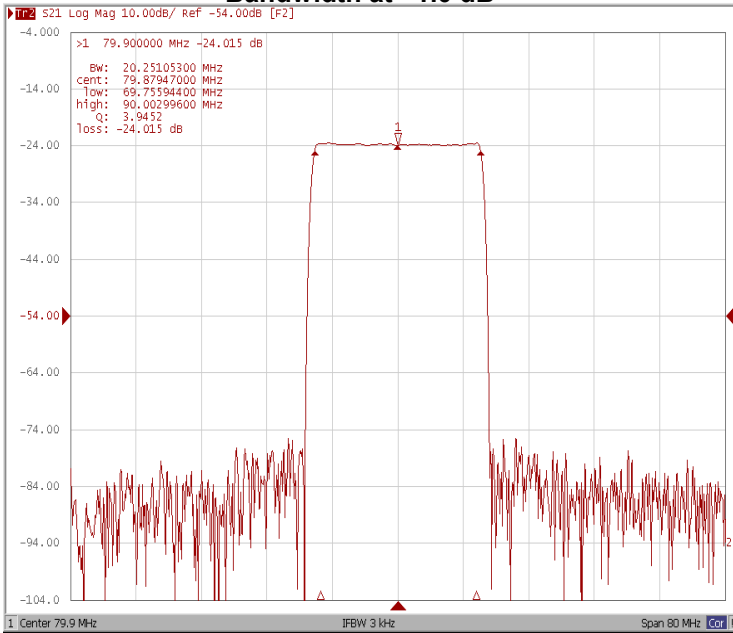
Electrical Specification

| Parameters Description | Unit | Minimum | Typical | Maximum |
|---|-------------------|---------|---------|---------|
| Center Frequency (Fo) | MHz | 79.80 | 79.90 | 80.00 |
| Insertion Loss at Fo | dB | - | 24.0 | 25.5 |
| Temperature Coefficient | ppm/°C | - | -72 | - |
| Amplitude Ripple within fo ±9.65 MHz | dB _{p-p} | - | 0.55 | 1.00 |
| Group Delay Variation within fo ±9.65 MHz | nsec | - | 25 | 50 |
| Absolute Delay at Fo | µsec | - | 1.60 | - |
| Bandwidth at -1.0 dB | MHz | 20.10 | 20.25 | - |
| Bandwidth at -3.0 dB | MHz | - | 20.60 | - |
| Bandwidth at -40.0 dB | MHz | - | 22.20 | 22.40 |
| Ultimate Rejection | dB | 45 | 50 | - |

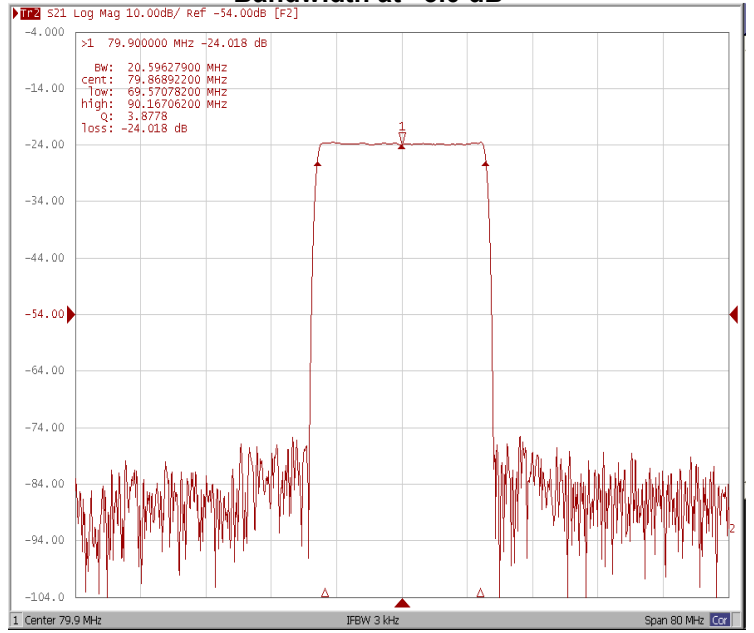


Frequency Response

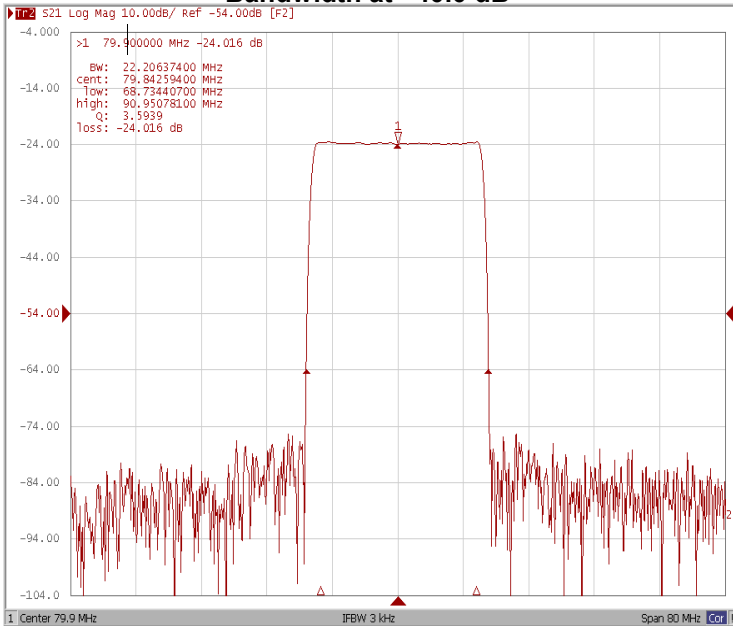
Bandwidth at -1.0 dB



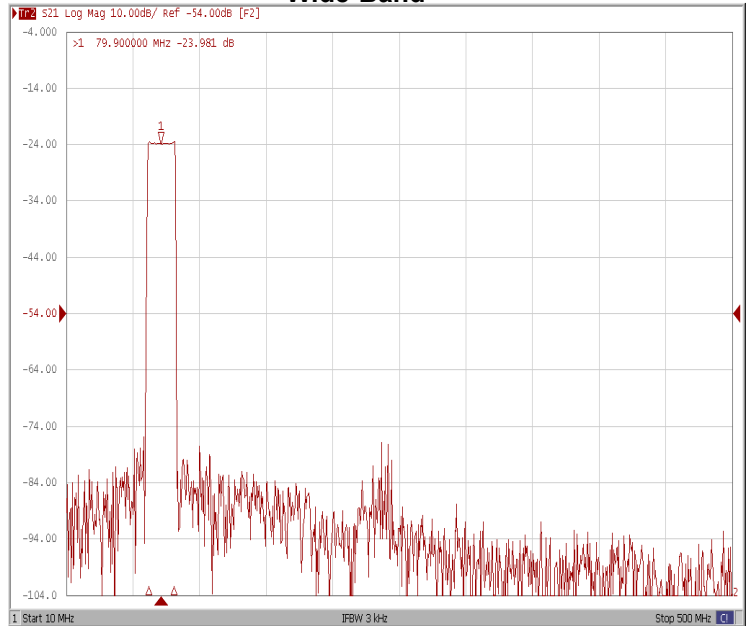
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

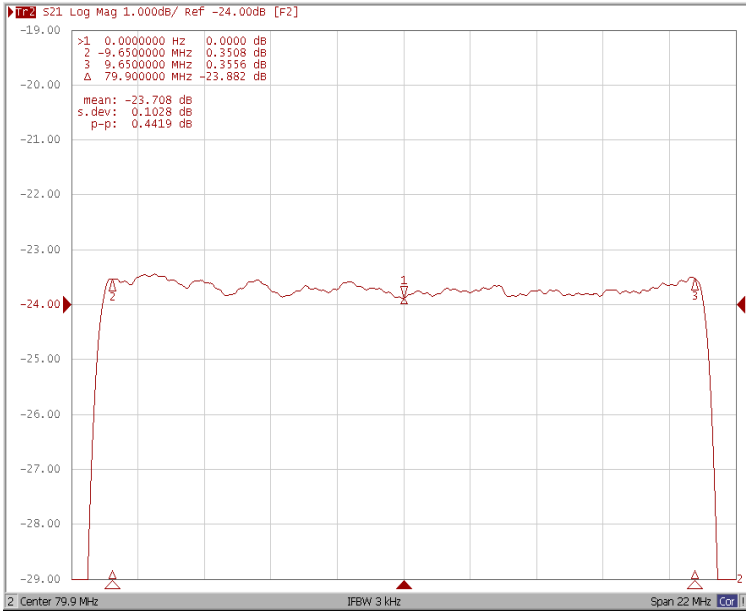


Wide-Band

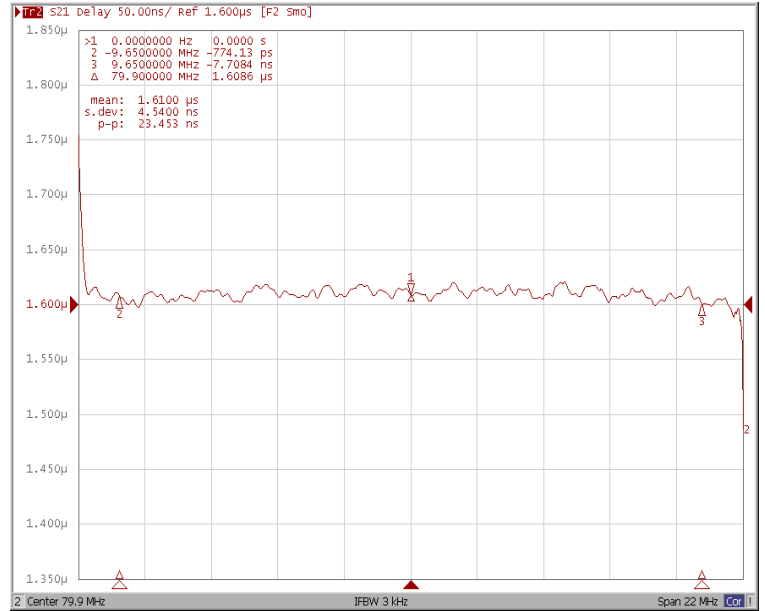




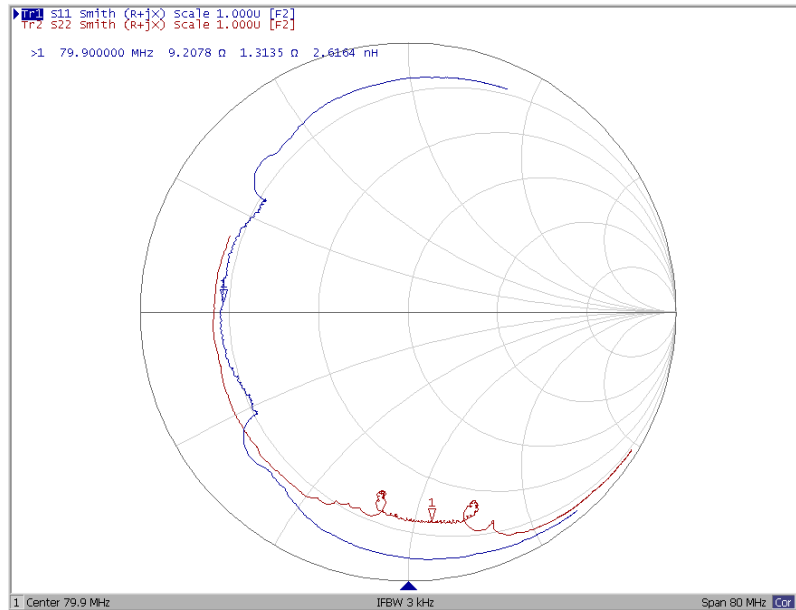
Ripple Variation Fo±9.65MHz



Group Delay Variation Fo±9.65MHz



Smith Chart





VSWR

