



REV A January 2011

Oscilent Controlled Document

| Ordering Code / Part Number | Product Description |
|-----------------------------|--|
| 813-SL60.0M-20B | 60.0 MHz IF SAW Filter 20.05 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)



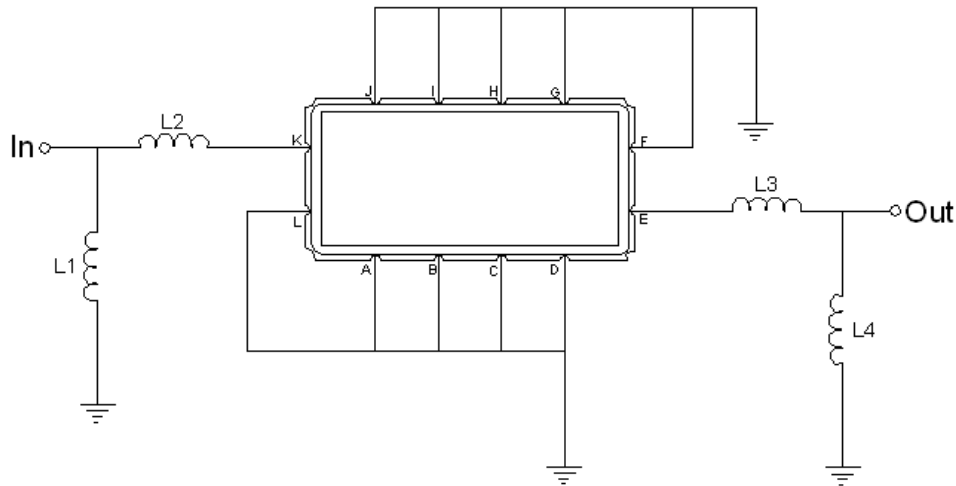


Mechanical Dimensions (mm)



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

Test Circuit



| Test Fixture & Values | |
|-----------------------|---------------------|
| Input | L1=100 nH, L2=22 nH |
| Output | L3=27 nH, L4=150 nH |
| Source/Load Impedance | 50 Ω |



Maximum Ratings

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

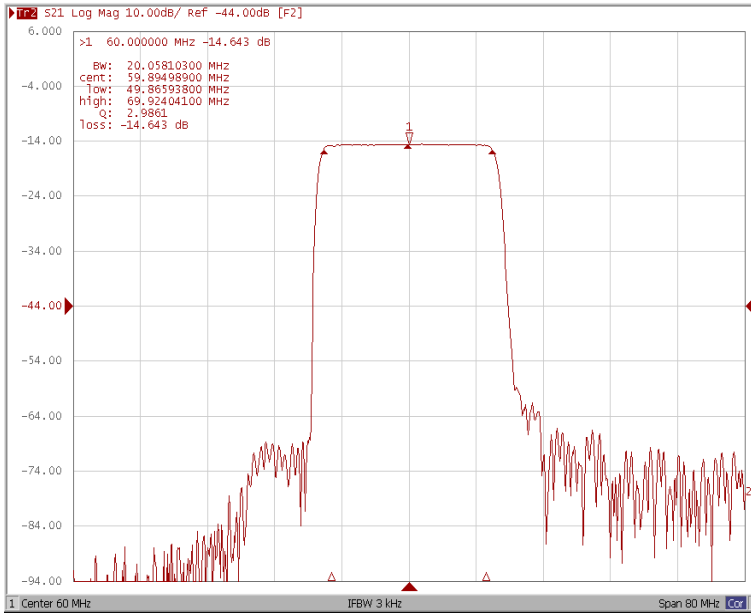
Electrical Specification

| Parameters Description | Unit | Minimum | Typical | Maximum |
|--------------------------------------|--------|---------|---------|---------|
| Center Frequency (Fo) | MHz | - | 60.0 | - |
| Insertion Loss at Fo | dB | - | 14.6 | 16.0 |
| Group Delay Variation (Fo±9.22MHz) | ns | - | 30 | 80 |
| Absolute Delay | us | - | 1.34 | - |
| Passband Ripple (Fo±9.22MHz) | dB | - | 0.4 | 1.0 |
| Bandwidth at -1dB | MHz | 18.44 | 20.05 | - |
| Bandwidth at -10dB | MHz | - | 21.95 | 22.5 |
| Bandwidth at -20dB | MHz | - | 22.75 | 23.1 |
| Bandwidth at -30dB | MHz | - | 23.35 | 23.7 |
| Bandwidth at -40dB | MHz | - | 24.00 | - |
| Ultimate Rejection | dB | 40 | 45 | - |
| Temperature Coefficient of Frequency | ppm/°C | | -86 | |

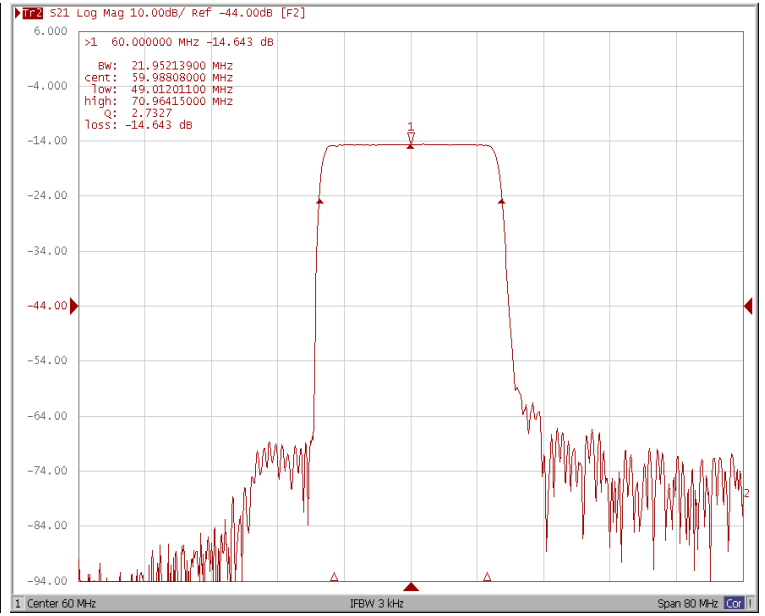


Frequency Response

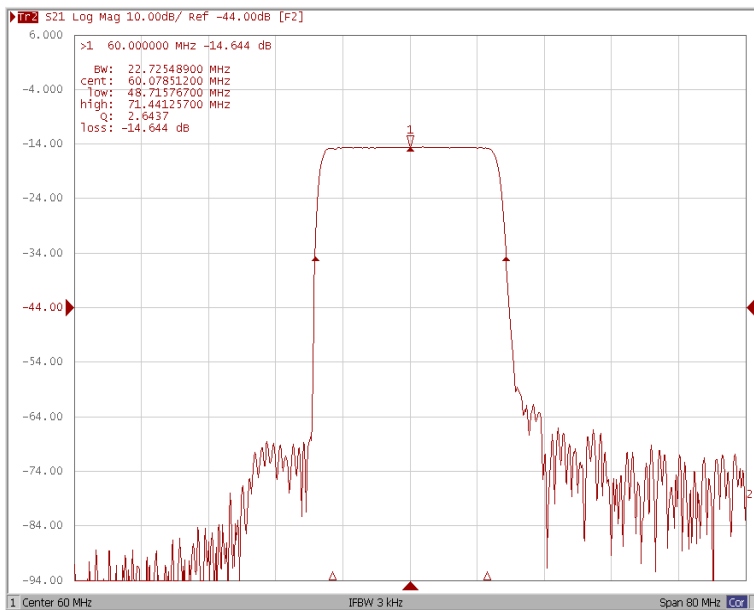
Bandwidth at -1.0 dB



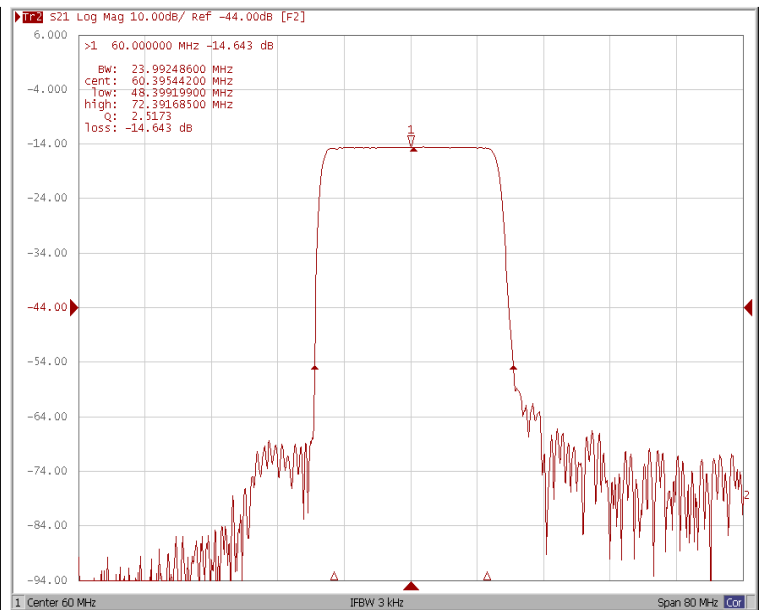
Bandwidth at -10.0 dB



Bandwidth at -20.0 dB

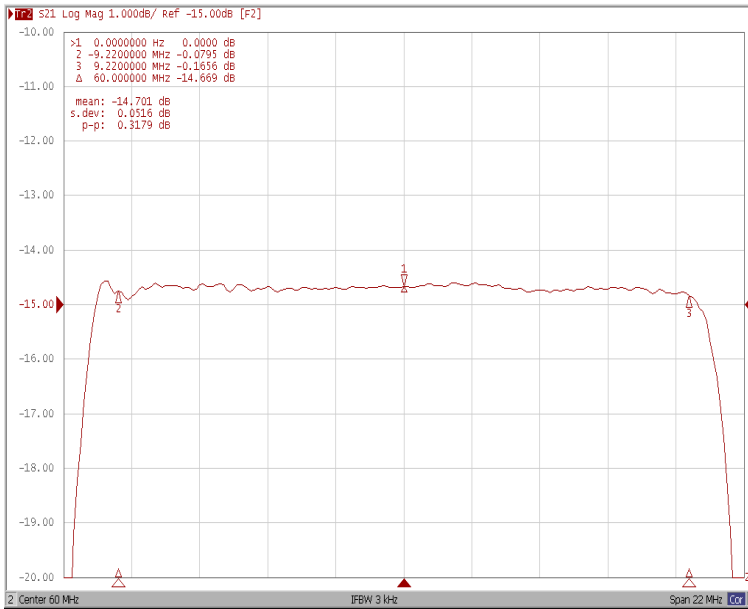


Bandwidth at -40.0 dB

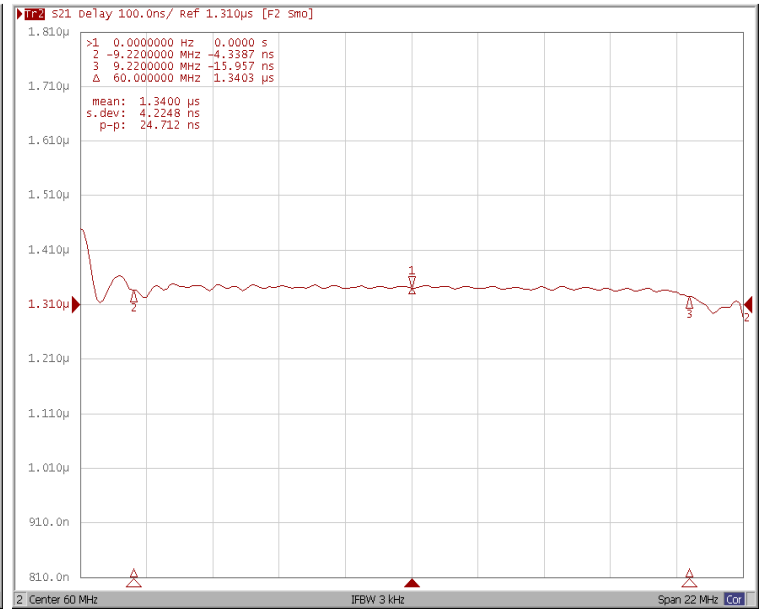




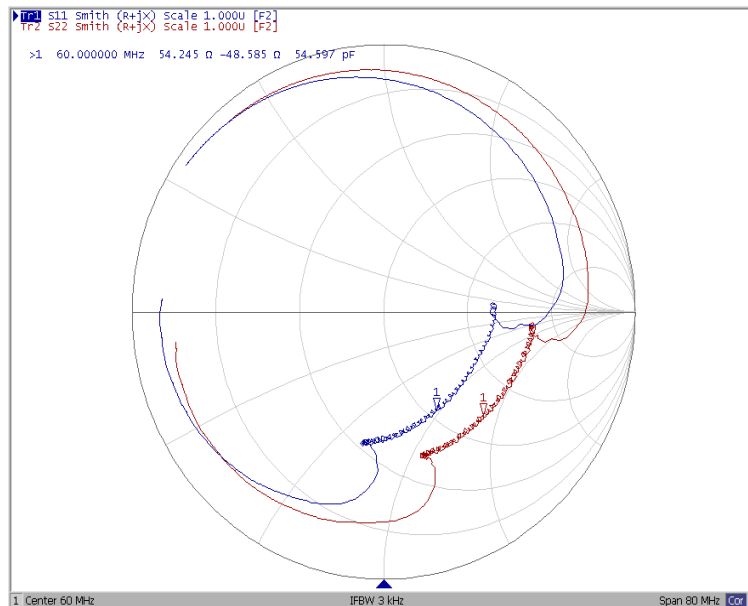
Ripple Variation Fo±9.22MHz



Group Delay Variation Fo±9.22MHz



Smith Chart





VSWR

