



REV A January 2011

Oscilent Controlled Document

| Ordering Code / Part Number | Product Description                      |
|-----------------------------|--|
| 813-IF91.25M-02A            | 91.25MHz IF SAW Filter 2.08MHz Bandwidth |

### Specification Contents

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



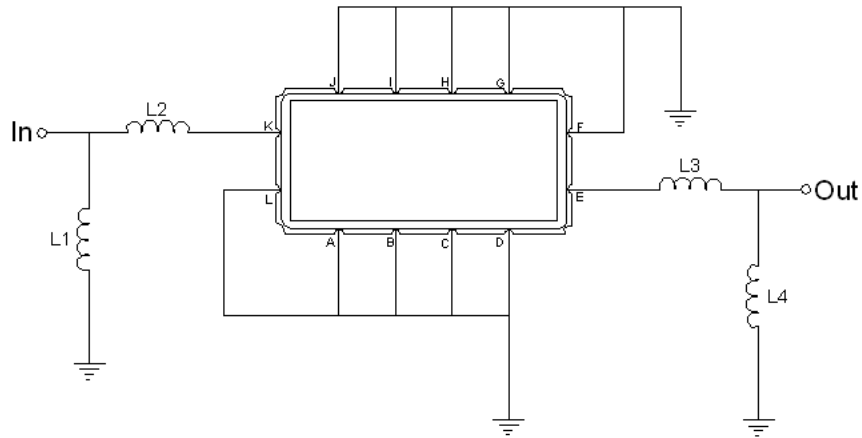


## Mechanical Dimensions (mm)



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

## Test Circuit



| Test Fixture & Values |                   |
|-----------------------|-------------------|
| Input                 | L1=82nH, L2=150nH |
| Output                | L3=120nH, L4=68nH |
| 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) <sup>(1)</sup> | Ω    | -       | 50      | -       |
| Load Impedance (single ended) <sup>(1)</sup>   | 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.

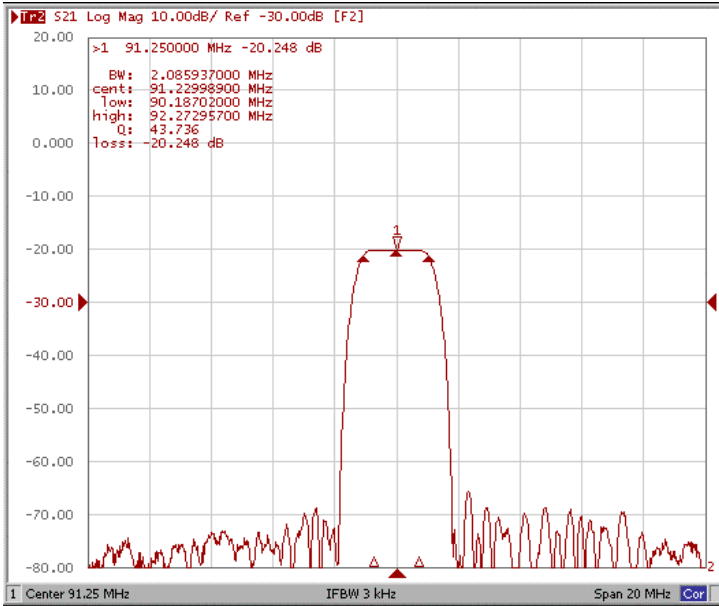
## Electrical Specification

| Parameters Description                      | Unit   | Minimum | Typical | Maximum |
|---|--------|---------|---------|---------|
| Center Frequency (Fo)                       | MHz    | -       | 91.25   | -       |
| Insertion Loss at Fo                        | dB     | -       | 20.3    | 22.5    |
| Group Delay Variation (Fo±0.75MHz)          | ns     | -       | 52      | 100     |
| Absolute Delay                              | us     | -       | 1.80    | -       |
| Temperature Coefficient                     | ppm/°C |         | -0.03   |         |
| Passband Ripple (Fo±0.75MHz)                | dB     | -       | 0.17    | 1.00    |
| Bandwidth at -1dB                           | MHz    | 1.5     | 2.08    | -       |
| Bandwidth at -30dB                          | MHz    | -       | 3.42    | -       |
| Bandwidth at -45dB                          | MHz    | -       | 3.60    | 5.5     |
| Ultimate Rejection                          | dB     | -       | 45      | -       |
| Relative Attenuation Fo±1.75MHz/ Fo±2.75MHz | dB     | -       | 32 / 55 | -       |

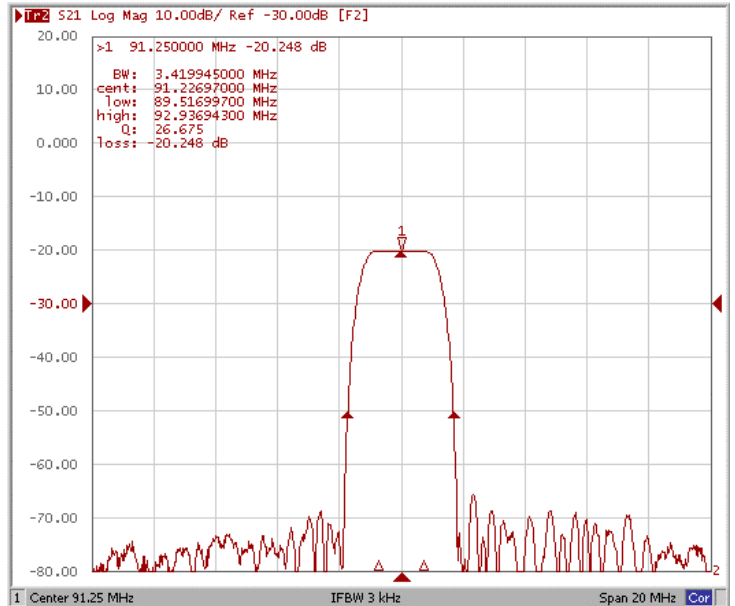


## Frequency Response

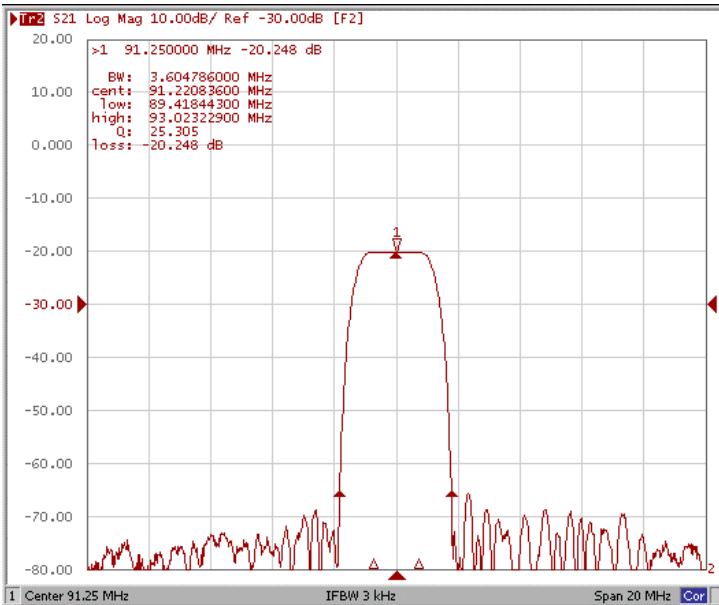
### Bandwidth at -1.0 dB



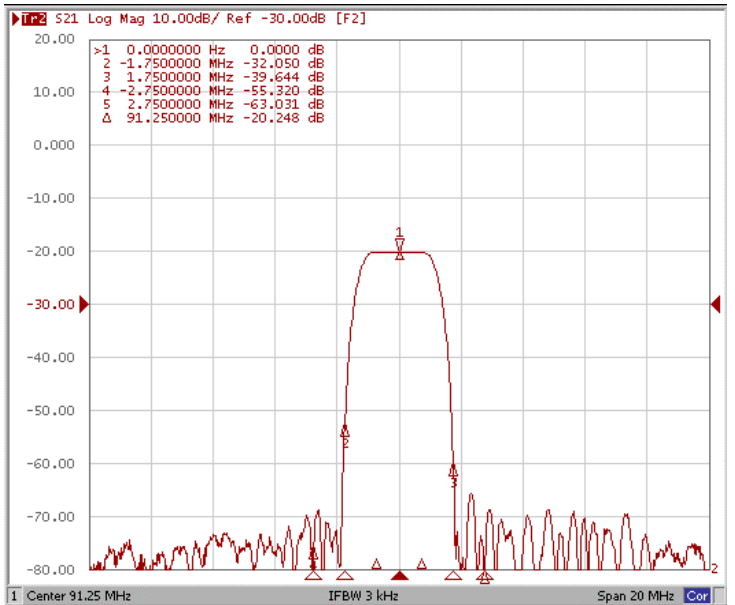
### Bandwidth at -30.0 dB



### Bandwidth at -45.0 dB

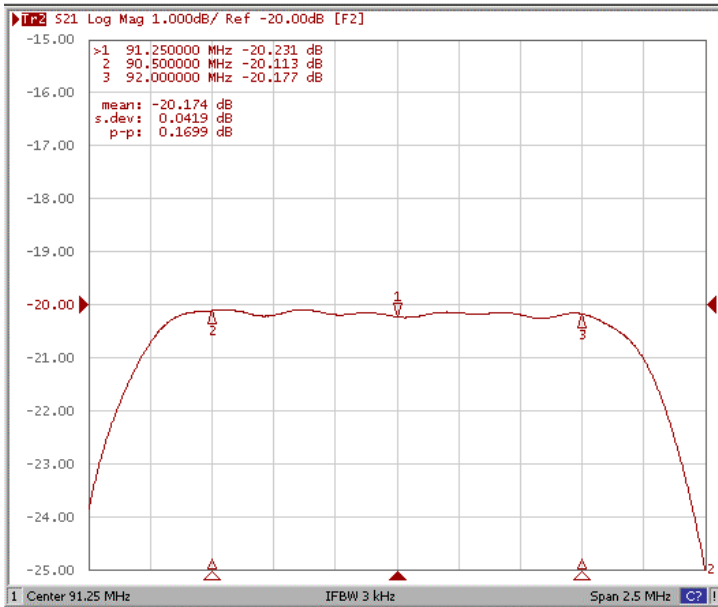


### Relative Attenuation Fo±1.75MHz/ Fo±2.75MHz

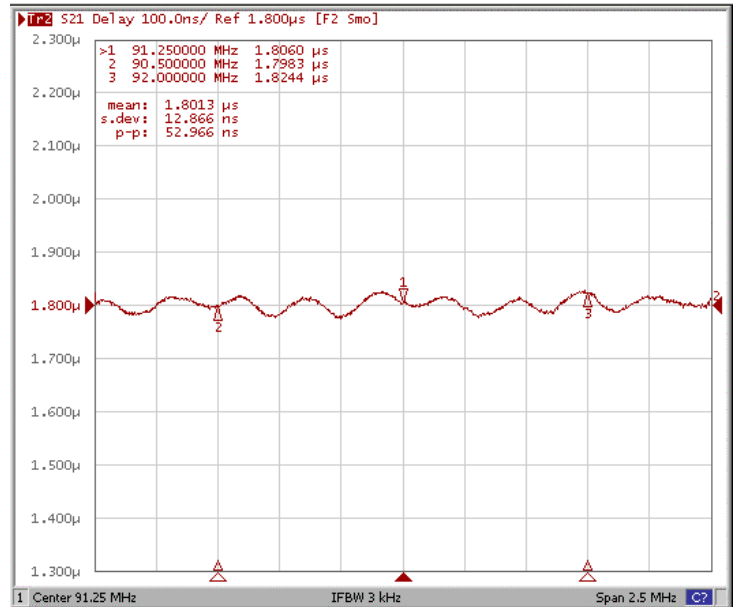




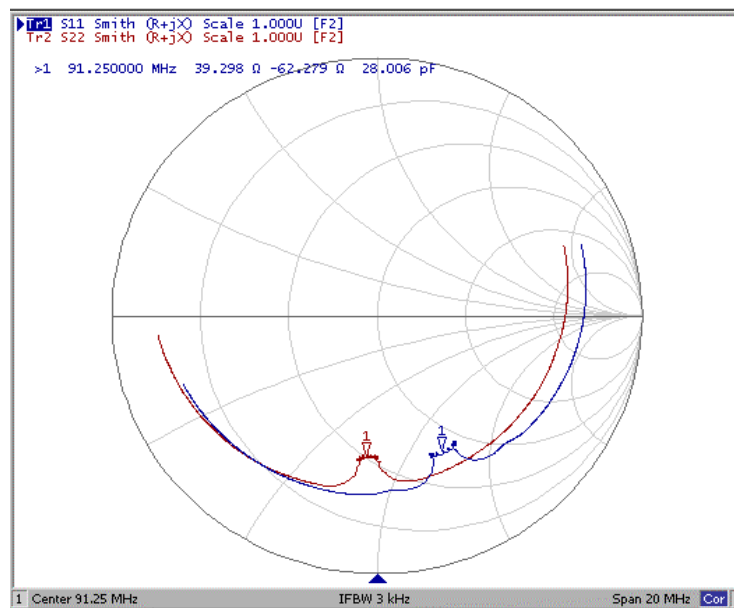
### Ripple Variation Fo±0.75



### Group Delay Variation Fo±0.75



### Smith Chart





### VSWR

