



REV A January 2011

Oscilent Controlled Document

| Ordering Code / Part Number | Product Description                        |
|-----------------------------|--|
| 813-SL135.0M-20A            | 35.0 MHz IF SAW Filter 20.12 MHz Bandwidth |

### Specification Contents

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



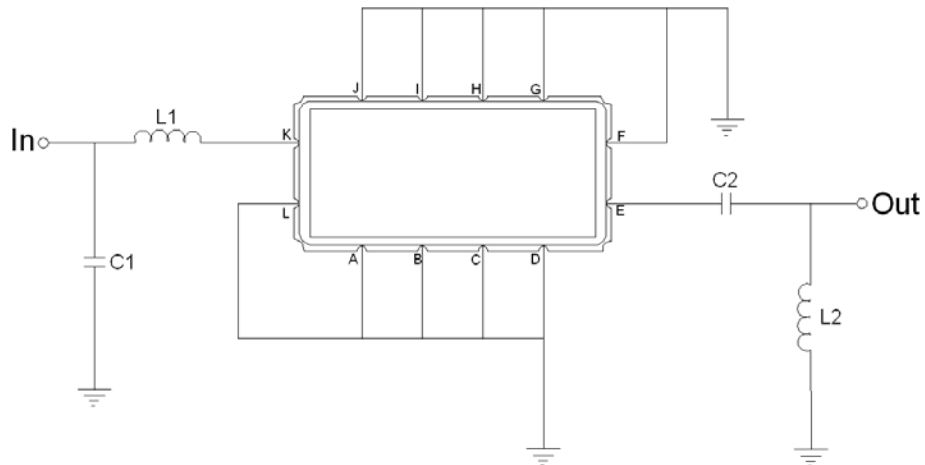


## Mechanical Dimensions (mm)



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

## Test Circuit



| Test Fixture & Values |                        |
|-----------------------|------------------------|
| Input                 | L1 = 33 nH, C1 = 51 pF |
| Output                | L2 = 33 nH, C2 = 62 pF |
| Source/Load Impedance | 50 Ω                   |

**Maximum Ratings**

| Parameters Description                         | Unit | Minimum | Typical | Maximum |
|--|------|---------|---------|---------|
| Operating Temperature Range                    | °C   | -20     | -       | 70      |
| Storage Temperature Range                      | °C   | -40     | -       | 85      |
| 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.

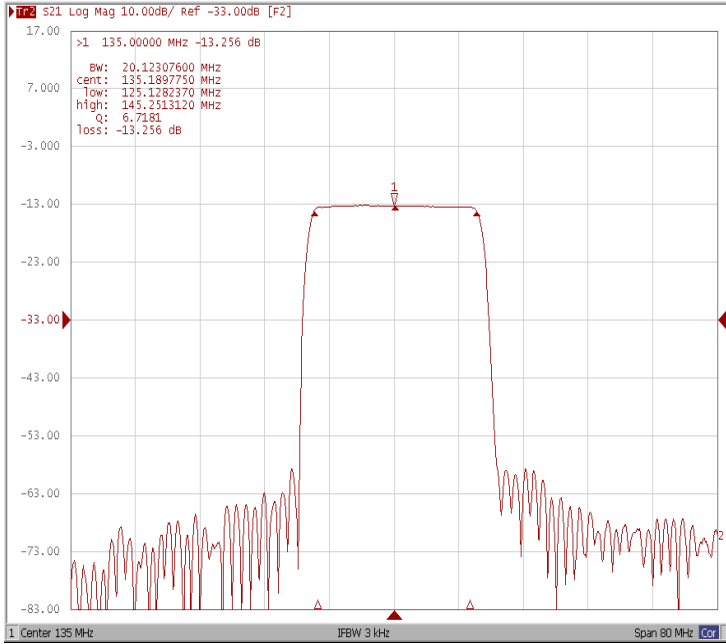
**Electrical Specification**

| Parameters Description                     | Unit   | Minimum | Typical | Maximum |
|--|--------|---------|---------|---------|
| Center Frequency (Fo)                      | MHz    | 134.80  | 135.00  | 135.20  |
| Insertion Loss at Fo                       | dB     | -       | 13.2    | 16.0    |
| Group Delay Variation at Fo ± 9.42 MHz     | nsec   | -       | 23      | 70      |
| Absolute Delay at Fo                       | usec   | -       | 0.91    | -       |
| Passband Ripple Variation at Fo ± 9.42 MHz | dB     | -       | 0.34    | 1.00    |
| Bandwidth at -1dB                          | MHz    | 20.00   | 20.12   | -       |
| Bandwidth at -3dB                          | MHz    | -       | 20.94   | -       |
| Bandwidth at -40dB                         | MHz    | -       | 24.17   | 24.90   |
| Ultimate Rejection                         | dB     | 40      | 46      | -       |
| Temperature Coefficient                    | ppm/°C | -       | -86     | -       |

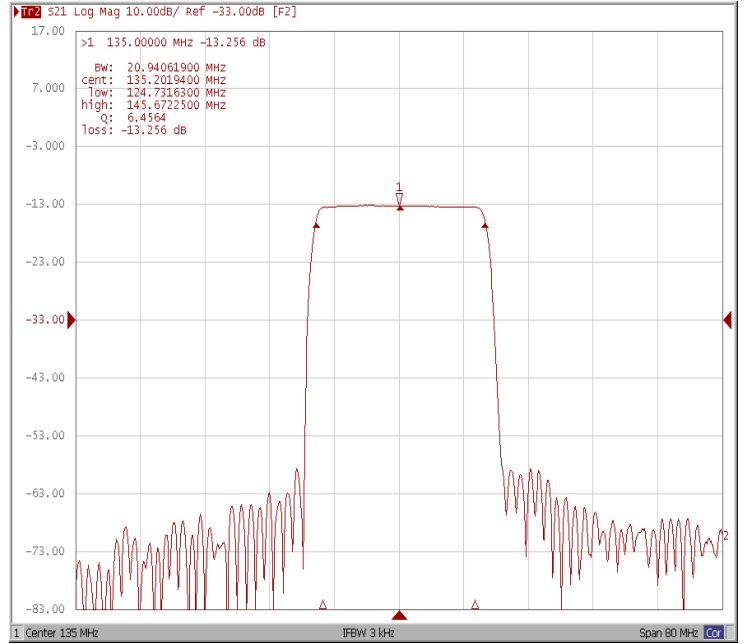


## Frequency Response

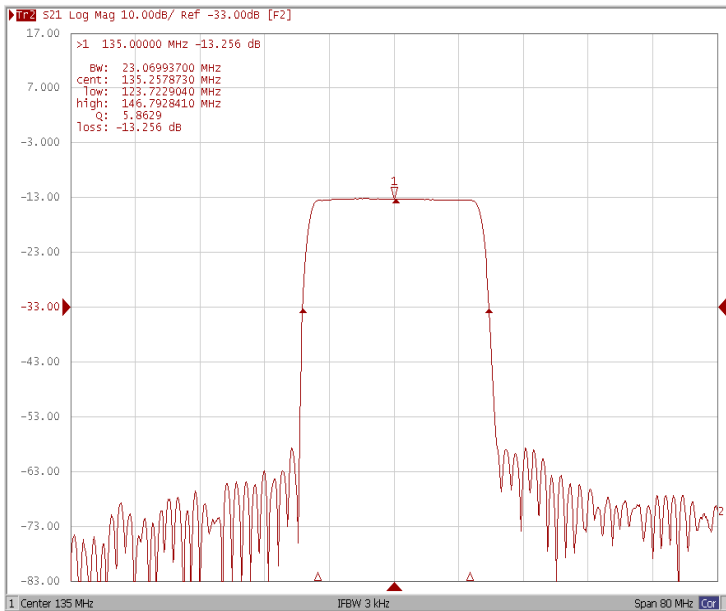
### Bandwidth at -1.0 dB



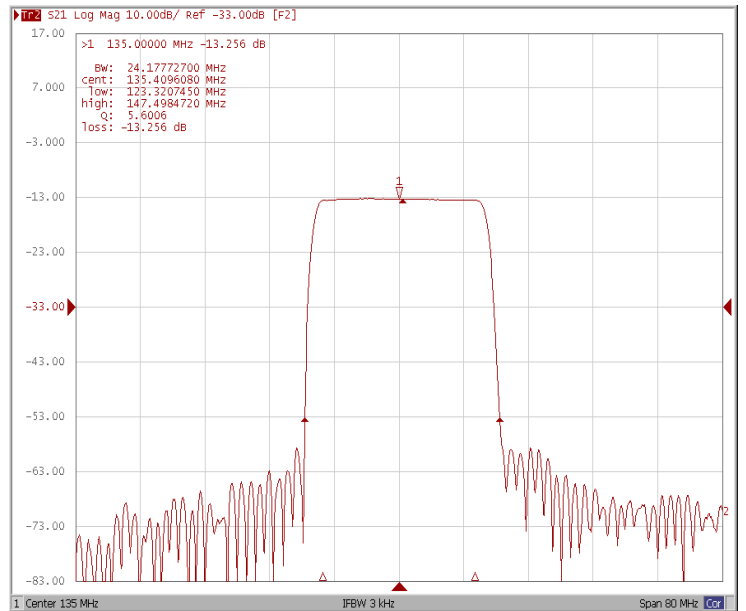
### Bandwidth at -3.0 dB



### Bandwidth at -20 dB

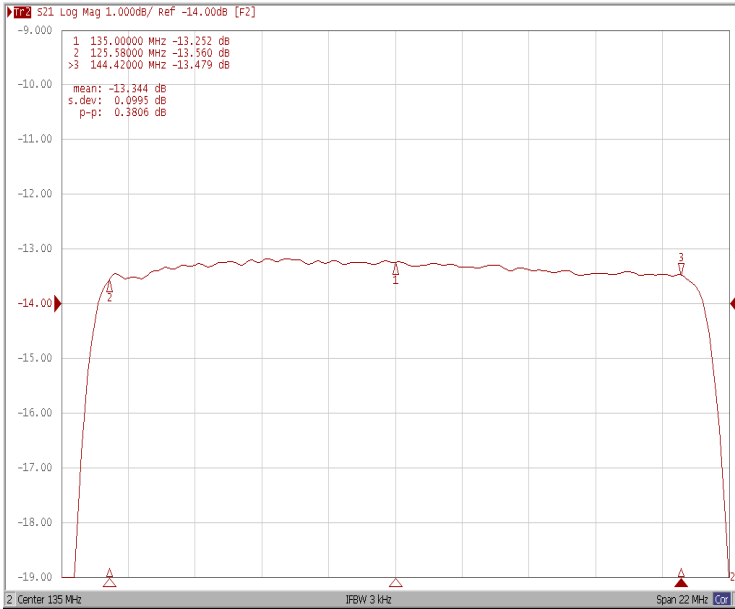


### Bandwidth at -40 dB

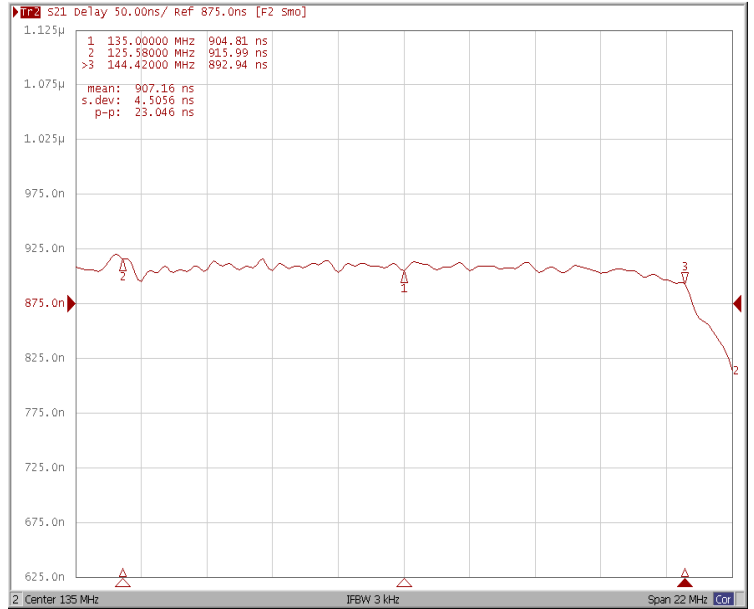




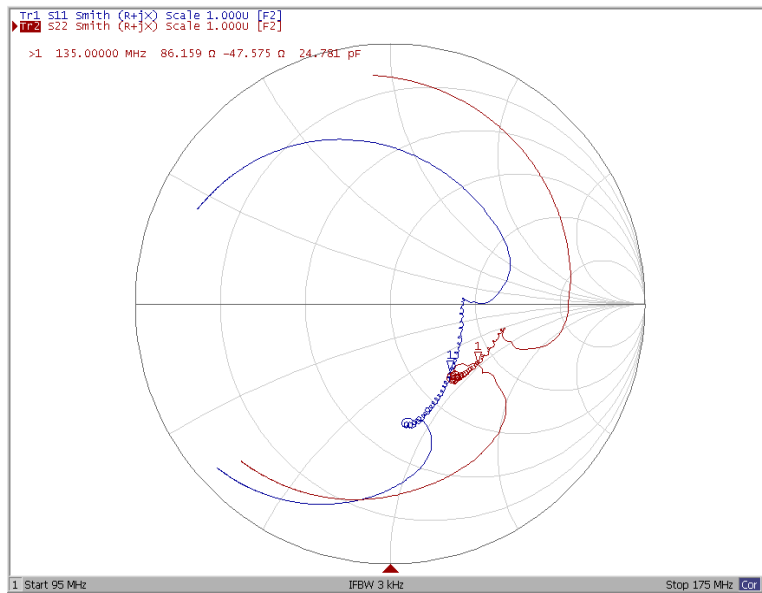
### Ripple Variation $F_o \pm 9.42\text{MHz}$



### Group Delay Variation $F_o \pm 9.42\text{MHz}$



### Smith Chart





### VSWR

