



Oscilent Corporation

# PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

| Ordering Code / Part Number | Product Description                       |
|-----------------------------|---|
| 819-IF70.0M-U               | 70.0 MHz IF SAW Filter 0.39 MHz Bandwidth |

## Specification Contents

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

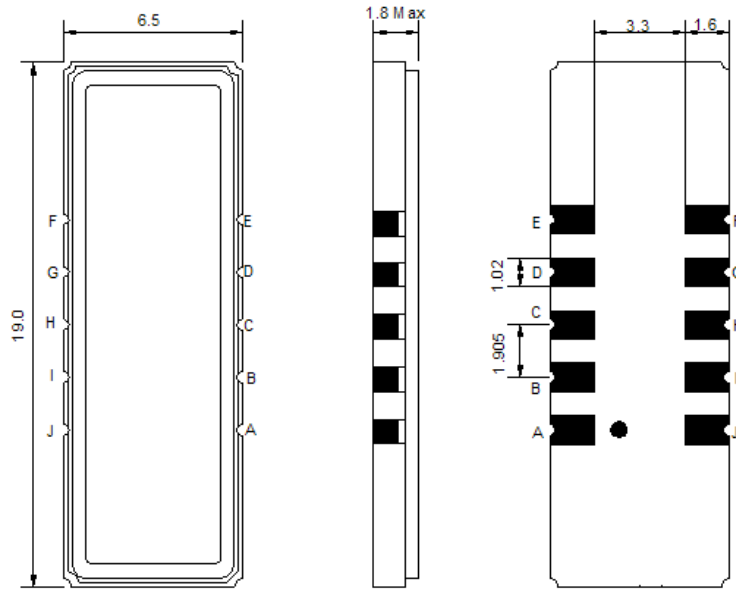
## Notes

- 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)



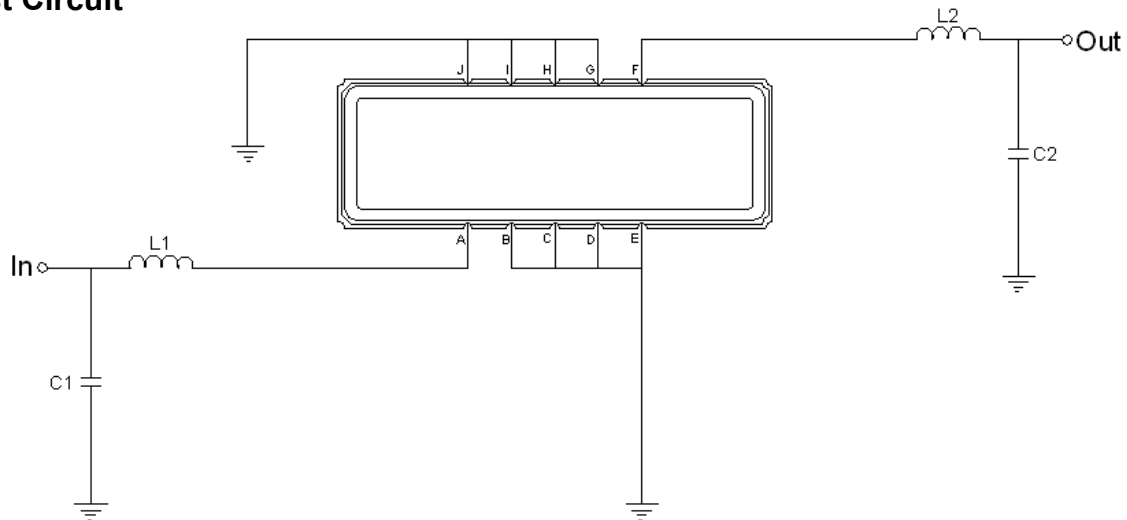


## Mechanical Dimensions (mm)



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

## Test Circuit



| Test Fixture & Values |                         |
|-----------------------|-------------------------|
| Input                 | L1 = 462 nH, C1 = 47 pF |
| Output                | L2 = 348 nH, C2 = 56 pF |
| Source/Load Impedance | 50 $\Omega$             |



## Maximum Ratings

| Parameters Description                         | Unit | Minimum | Typical | Maximum |
|--|------|---------|---------|---------|
| Operating Temperature Range                    | °C   | -30     | -       | 80      |
| 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      | -       |

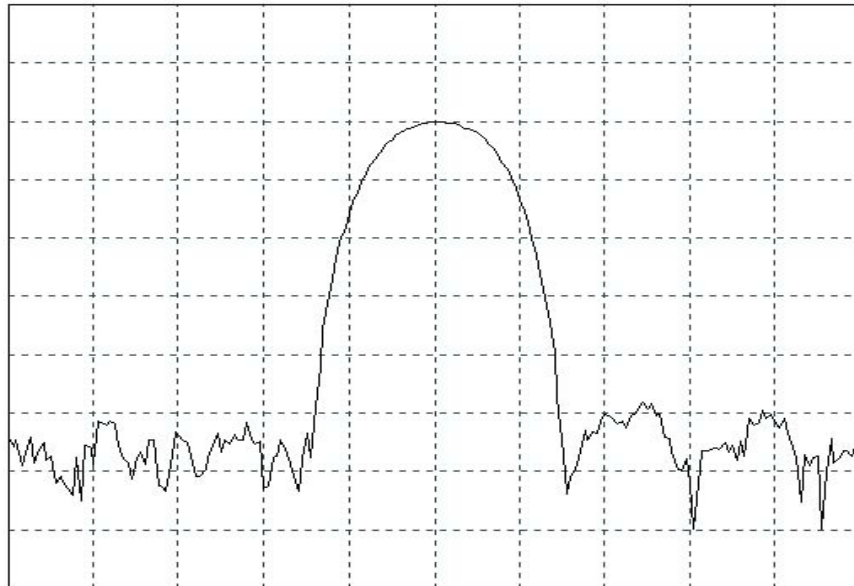
Notes: With Matching Network (Ref. Testing Environment Circuit as shown above).  
Those impedances could be modified with different impedance values and/or structures, if necessary.

## Electrical Specification

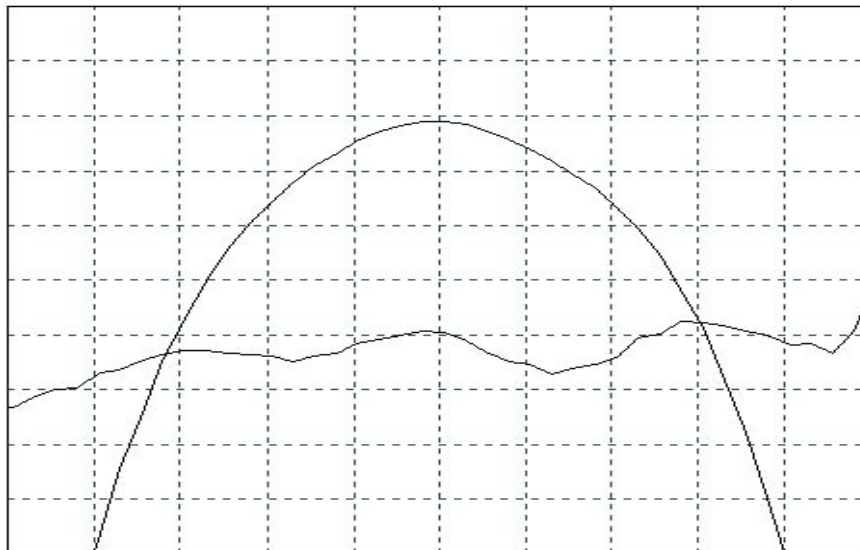
| Parameters Description    | Unit   | Minimum | Typical | Maximum |
|---------------------------|--------|---------|---------|---------|
| Center Frequency (Fo)     | MHz    | 69.95   | 70.00   | 70.05   |
| Insertion Loss at Fo      | dB     | -       | 13.7    | 15.0    |
| Group Delay Variation     | nsec   | -       | 300     | 500     |
| Absolute Delay at Fo      | usec   | -       | 2.5     | -       |
| Phase Linearity           | degc   | -       | 3.0     | 6.0     |
| Passband Ripple Variation | dB     | -       | 0.8     | 1.5     |
| Bandwidth at -1dB         | MHz    | 0.30    | 0.39    | -       |
| Bandwidth at -3dB         | MHz    | 0.47    | 0.59    | -       |
| Bandwidth at -40dB        | MHz    | -       | 1.395   | 1.42    |
| Ultimate Rejection        | dB     | 40      | 50      | -       |
| Temperature Coefficient   | ppm/°C | -       | -0.03   | -       |



## Frequency Response



Horizontal: 0.5 MHz/Div  
Vertical: 10 dB/Div



Horizontal: 0.1MHz/Div  
Vertical: 1 dB/Div  
Vertical: 100 ns/Div