



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
809-SL109.7M-05A	109.70 MHz IF SAW Filter 6.10 MHz Bandwidth

### Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
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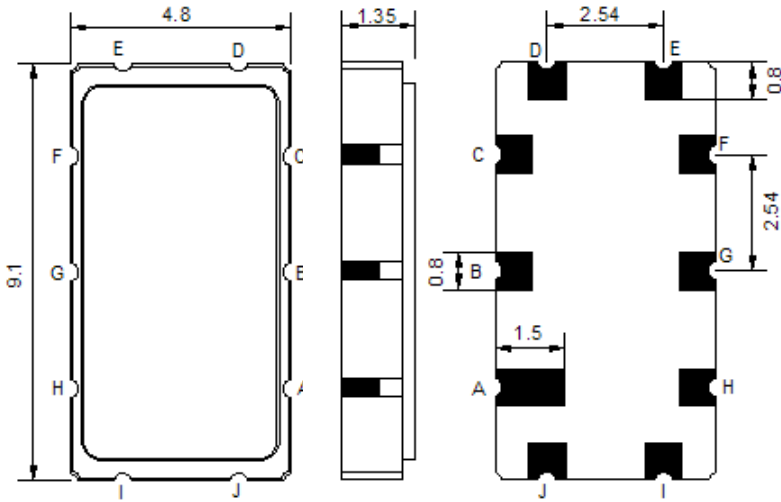
### Notes

- 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)



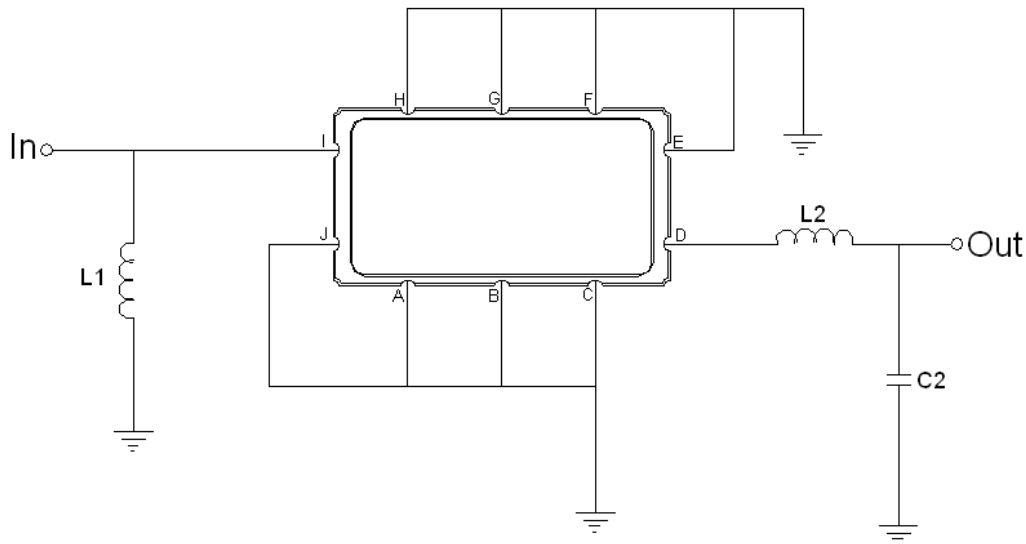


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1 = 27 nH
Output	L2 = 47 nH, C1 = 82 pF
Source/Load Impedance	50 Ω



## Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-5	-	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.

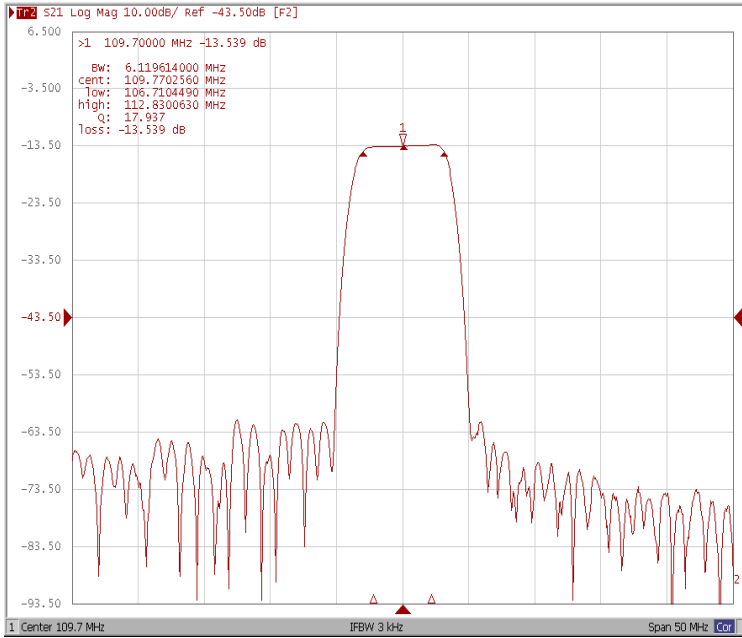
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	109.70	-
Insertion Loss at Fo	dB	-	13.50	15.00
Temperature Coefficient	ppm/°C	-	-20	-
Group Delay Variation at Fo±2.2MHz	nsec	-	16	60
Absolute Delay at Fo	usec	-	0.89	-
Passband Ripple at Fo±2.2MHz	dB	-	0.35	0.70
Bandwidth at -1dB	MHz	5.00	6.10	-
Bandwidth at -3dB	MHz	-	6.85	-
Bandwidth at -40dB	MHz	-	9.90	10.50
Ultimate Rejection	dB	45	50	-

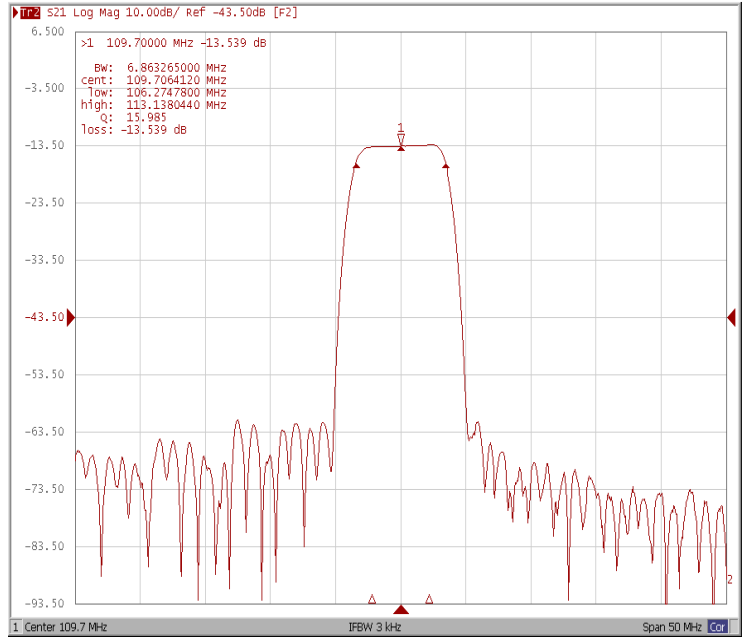


## Frequency Response

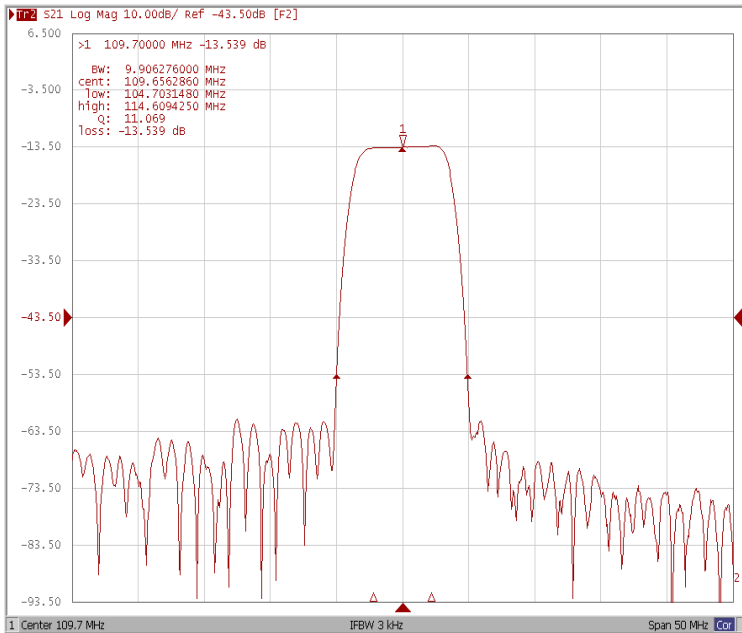
### Bandwidth at -1.0 dB



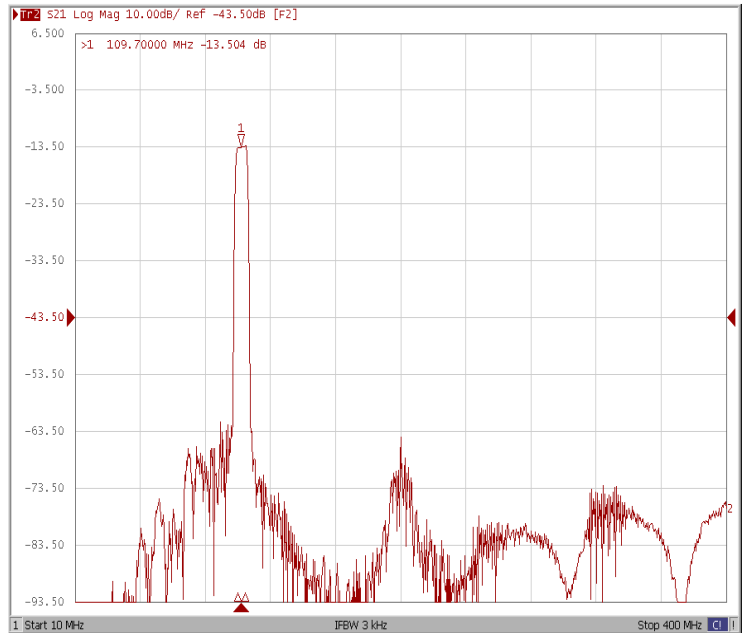
### Bandwidth at -3.0 dB



### Bandwidth at -40.0 dB

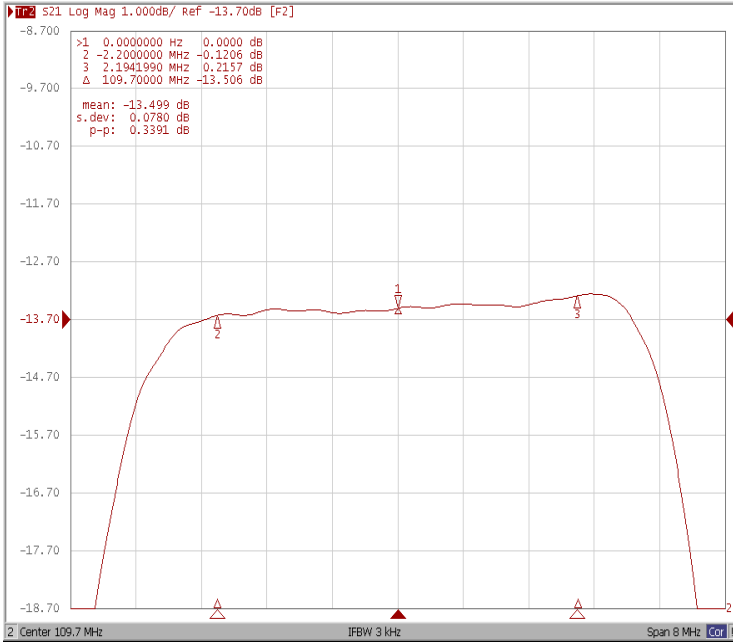


### WIDE

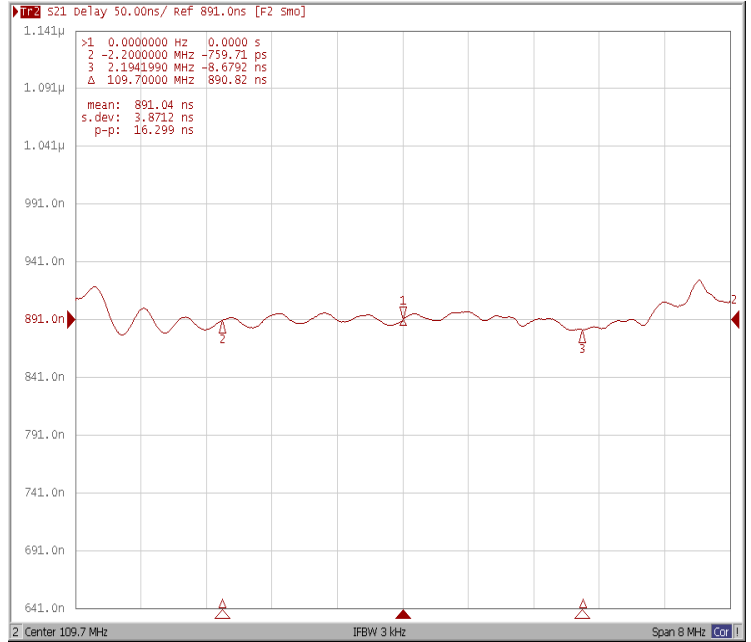




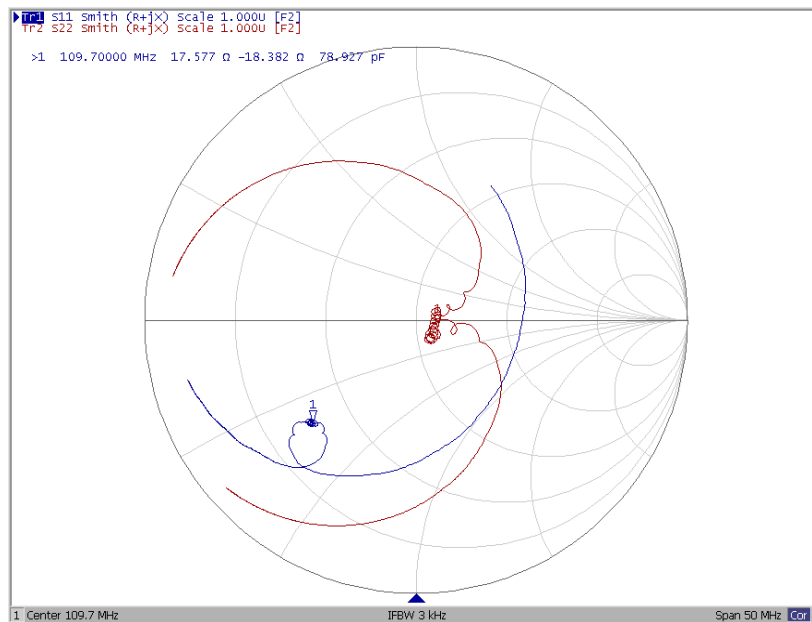
### Ripple Variation Fo $\pm$ 2.2MHz



### Group Delay Variation Fo $\pm$ 2.2MHz



### Smith Chart





## VSWR

