



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
- o Electrical Specification
- o Frequency Response
- o Smith Chart
- o VSWR

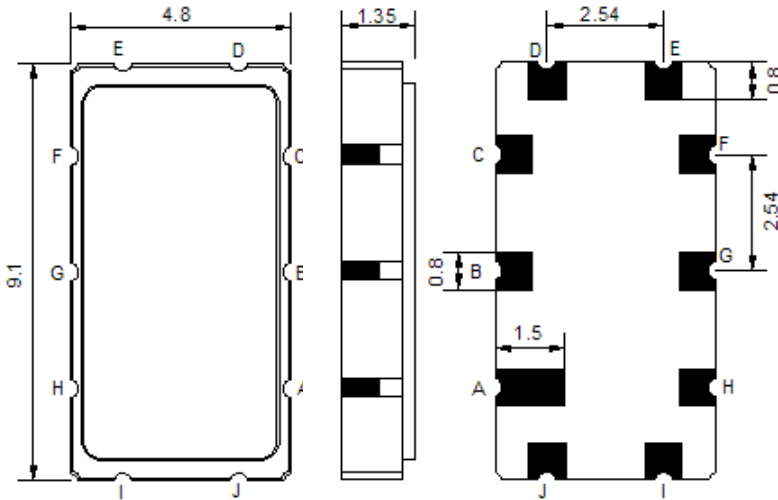
Notes

- 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)



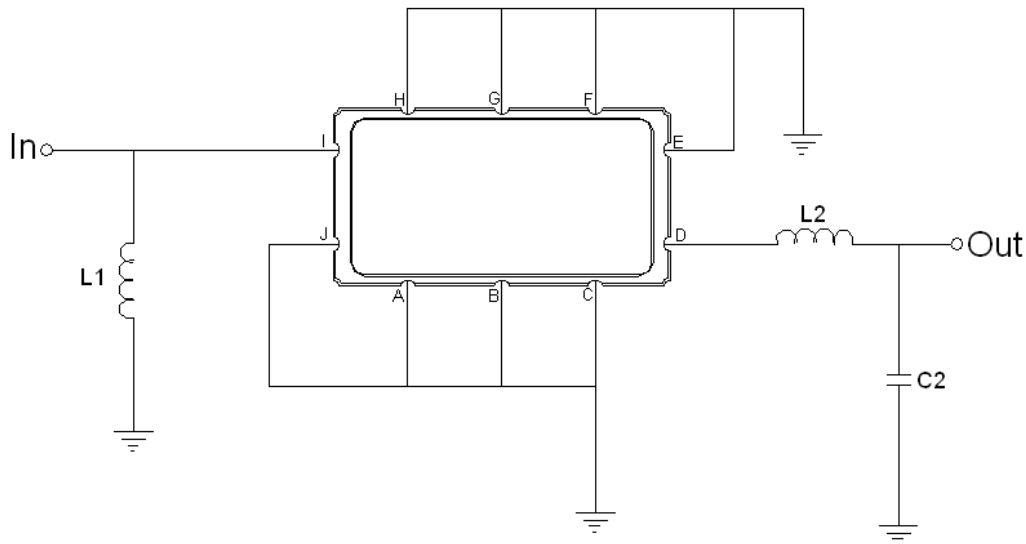


Mechanical Dimensions (mm)



Pin Description	
A, B, C, 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) ⁽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.

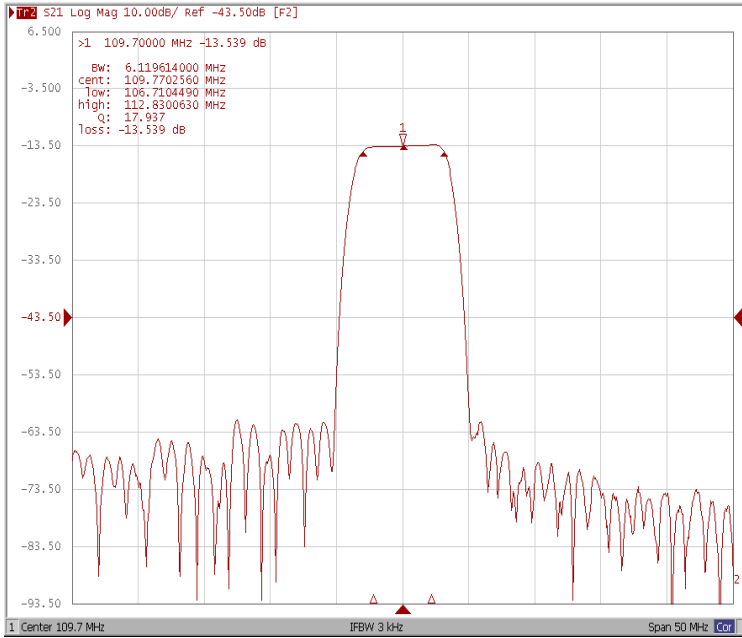
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	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	-

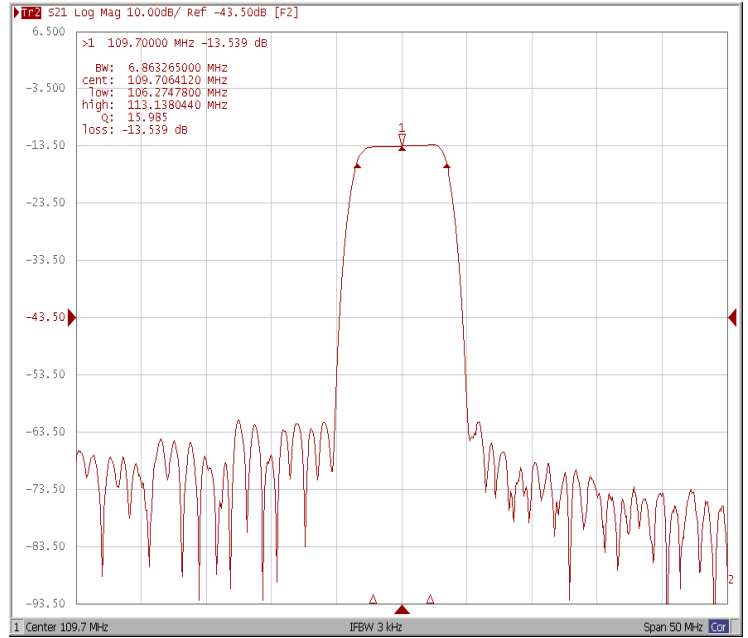


Frequency Response

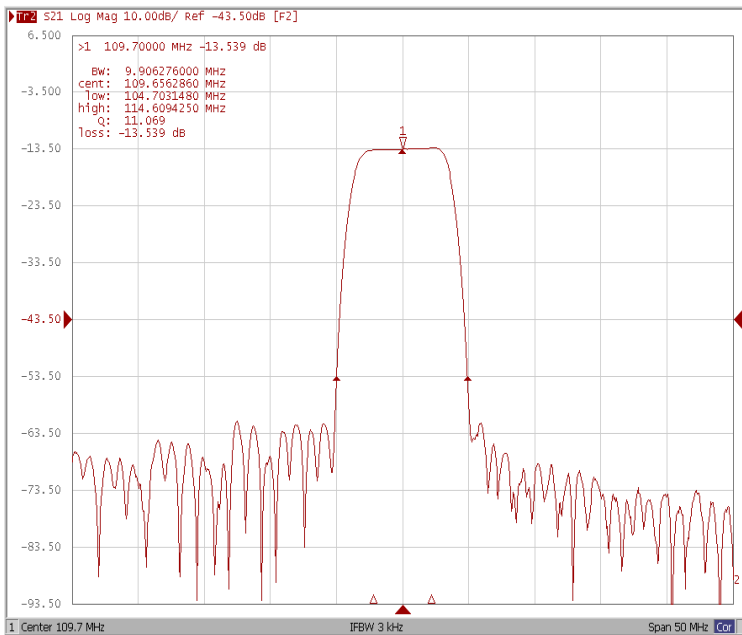
Bandwidth at -1.0 dB



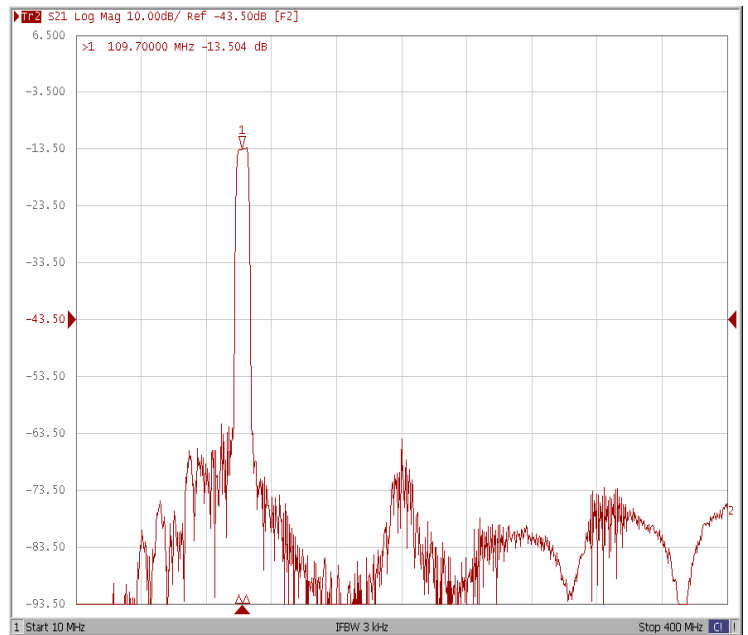
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

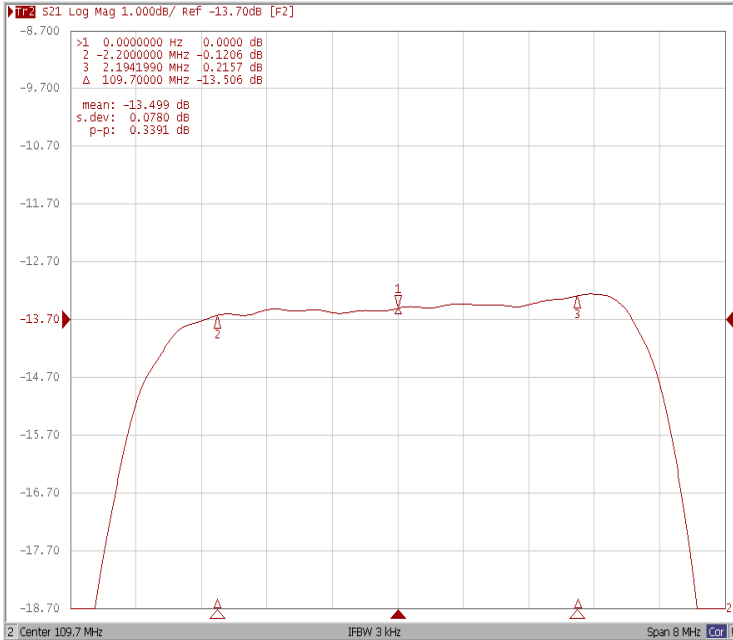


WIDE

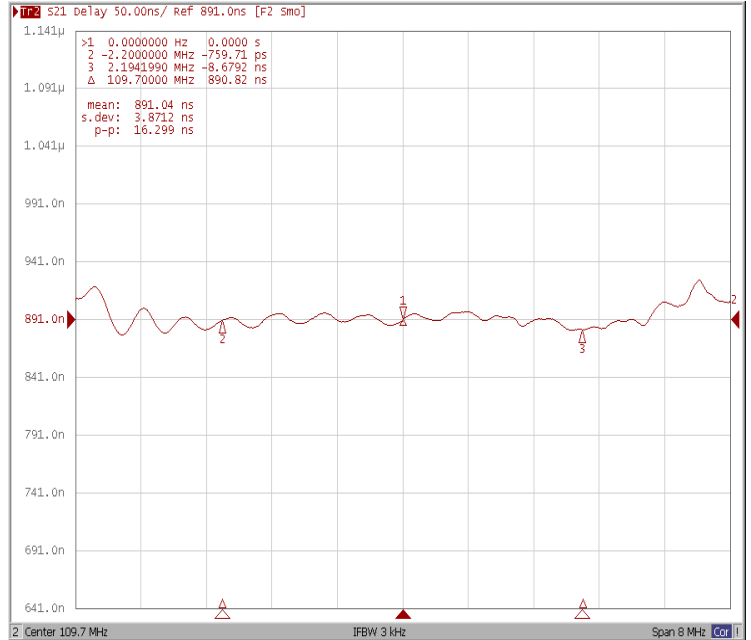




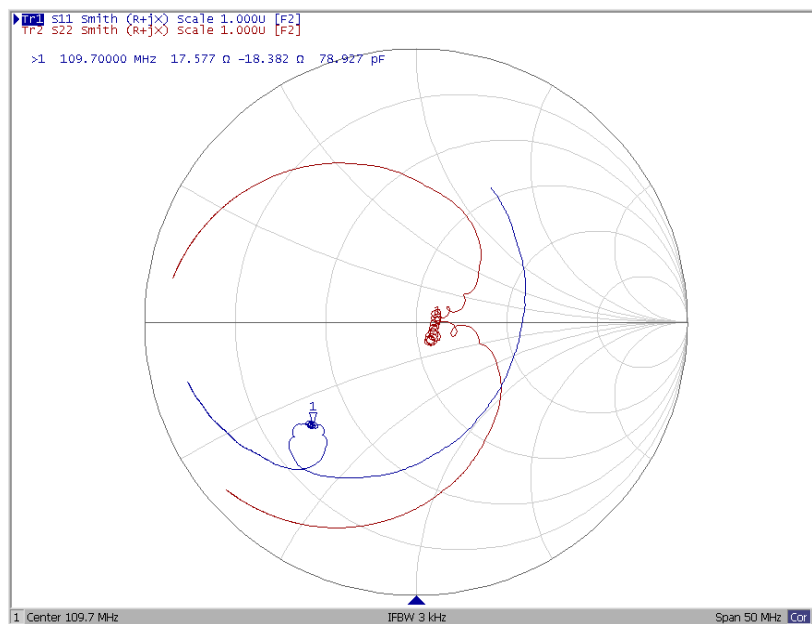
Ripple Variation Fo \pm 2.2MHz



Group Delay Variation Fo \pm 2.2MHz



Smith Chart





VSWR

