



PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF70.0M-R	70.0MHz IF SAW Filter 0.3 MHz Bandwidth

Specification Contents

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

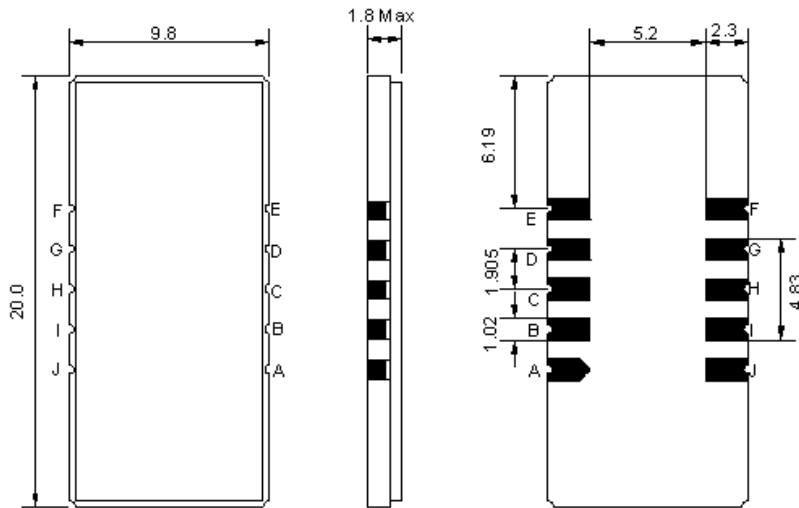
Notes

- 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)



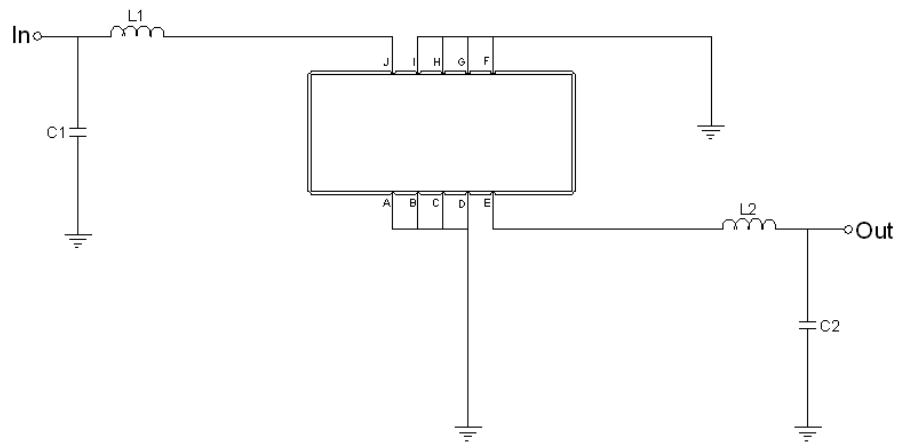


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=180nH, C1=33pF
Output	L2=180nH, C2=33pF
Source/Load Impedance	50 Ω



Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-55	-	85
Storage Temperature Range	°C	-55	-	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.

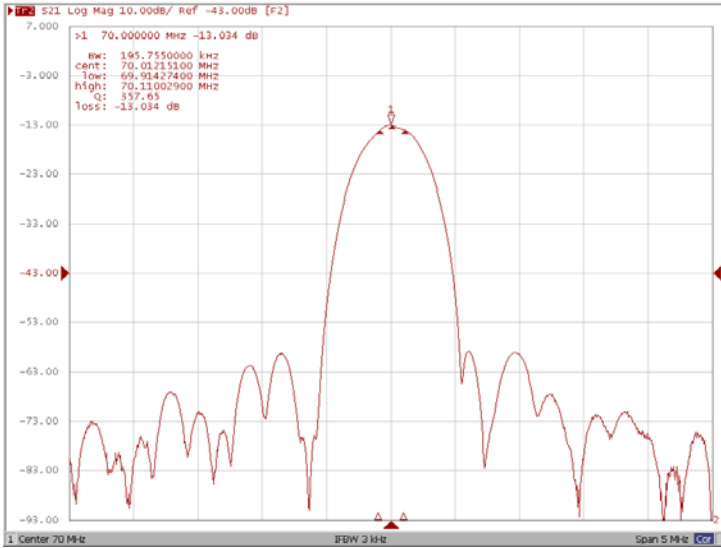
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	69.9	70.0	70.1
Insertion Loss at Fo	dB	-	13.5	16.0
Amplitude Ripple Variation at Fo±100KHz	dB _{p-p}	-	1.2	1.5
Group Delay Variation	nsec	-	300	1000
Absolute Delay at Fo	μsec	-	2.63	-
Temperature Coefficient	ppm/°C	-	-0.03	-
Bandwidth at -1.0 dB	MHz	0.12	0.18	-
Bandwidth at -3.0 dB	MHz	0.20	0.34	-
Bandwidth at -40.0 dB	MHz	-	1.10	1.20
Ultimate Attenuation	dB	60	65	-
Ultimate Rejection	dB	45	50	-

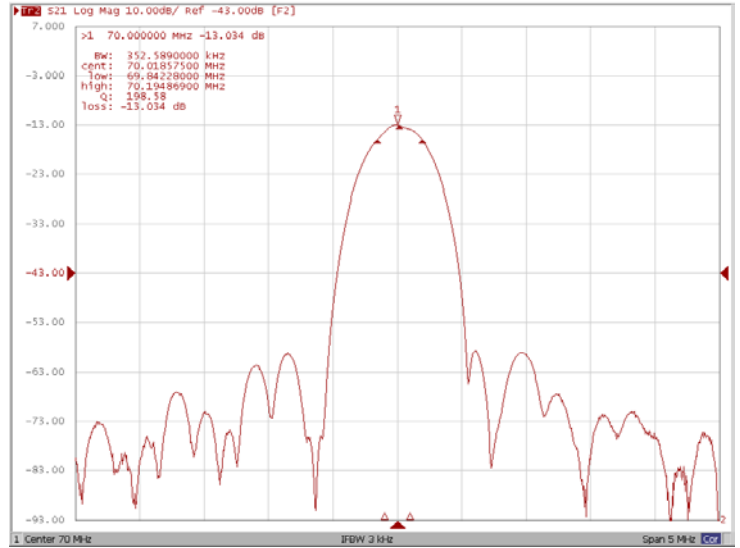


Frequency Response

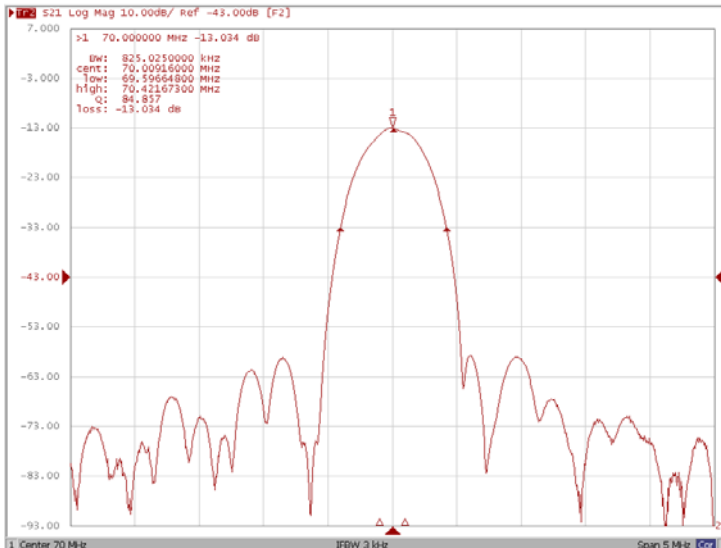
Bandwidth at -1.0 dB



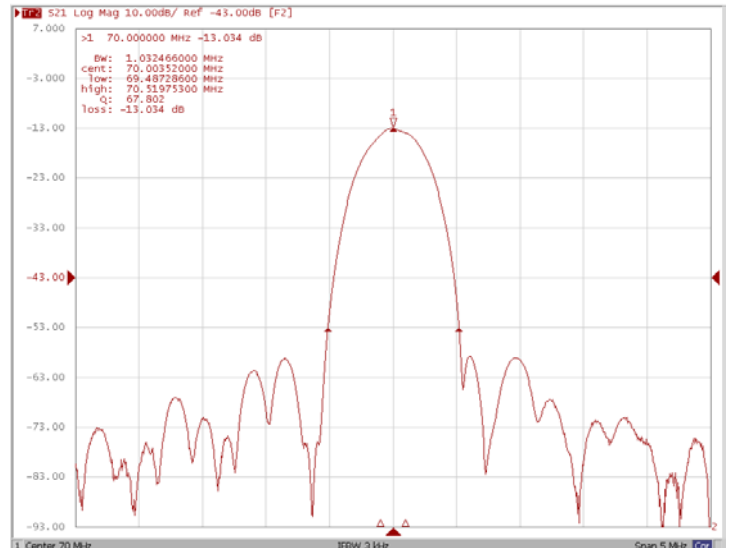
Bandwidth at -3.0 dB



Bandwidth at -20.0 dB

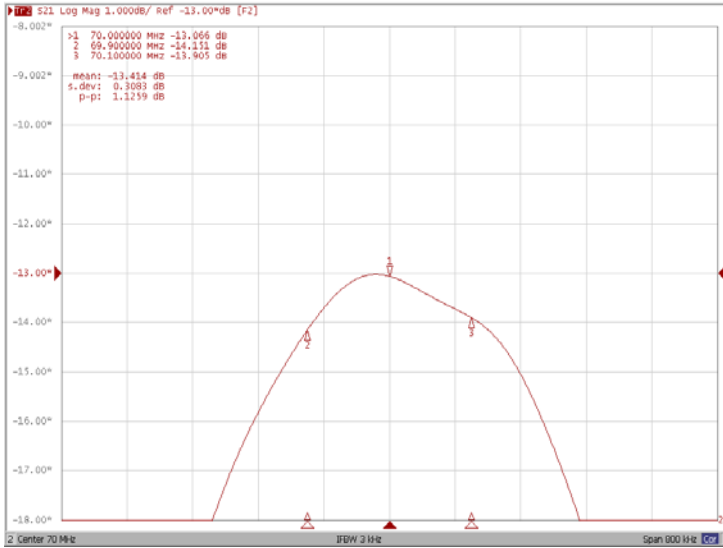


Bandwidth at -40.0 dB

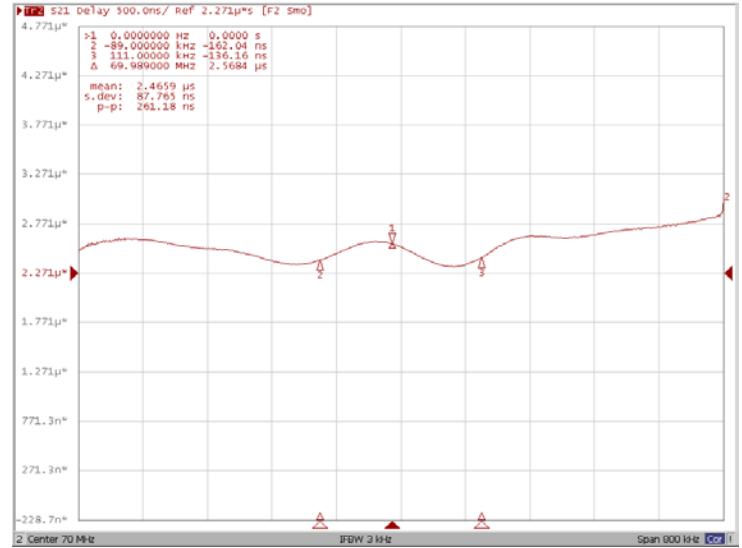




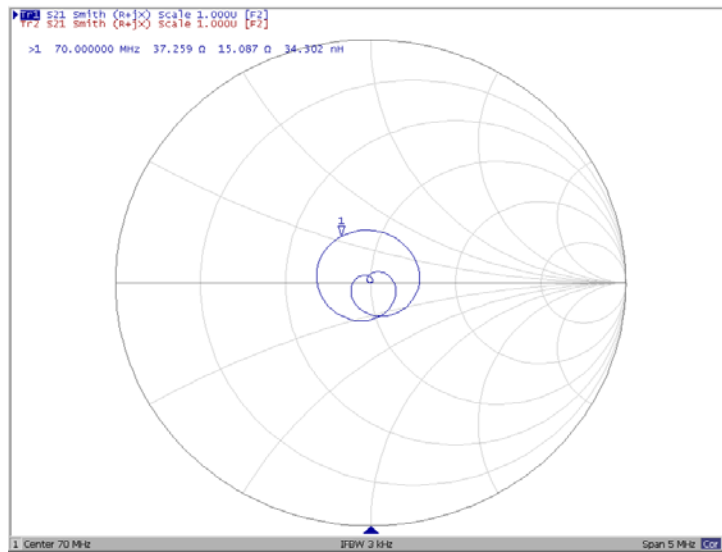
Ripple Variation Fo ± 1.1 MHz



Group Delay Variation Fo ± 1.1 MHz



Smith Chart





VSWR

