



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF70.0M-10B	70.0 MHz IF SAW Filter 10.40 MHz Bandwidth

Specification Contents

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

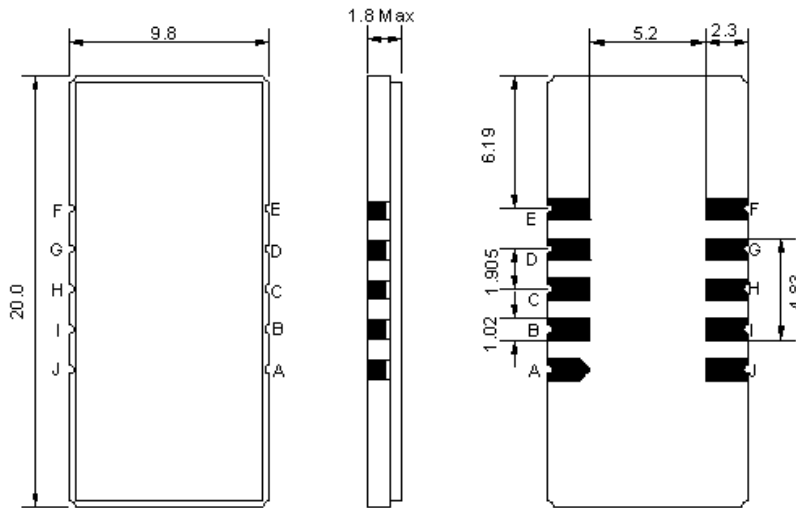
Notes

- 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)



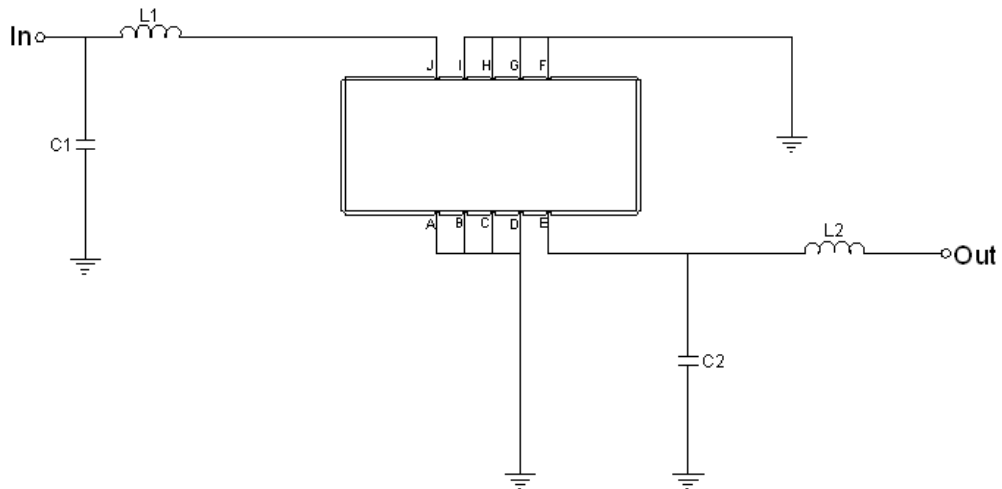


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=68nH, C1=10pF
Output	L2=68nH, C2=15pF
Source/Load Impedance	50 Ω



Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	0	-	50
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.

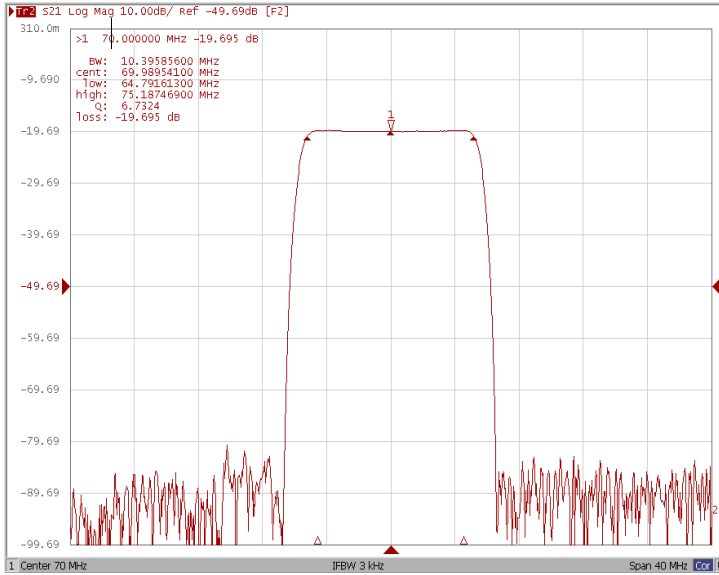
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	70.0	-
Insertion Loss at Fo	dB	-	19.7	22.0
Group Delay Variation (Fo±4.425MHz)	ns	-	48	80
Absolute Delay	us	-	2.0	-
Passband Ripple (Fo±4.425MHz)	dB	-	0.35	0.9
Bandwidth at -1dB	MHz	8.85	10.4	-
Bandwidth at -3dB	MHz	-	10.9	-
Bandwidth at -40dB	MHz	-	12.8	13.4
Relative Attenuation				
Lower Sidelobe	dB	50	57	-
Upper Sidelobe	dB	50	57	-
Temperature coefficient	ppm/°C	-	-20	-

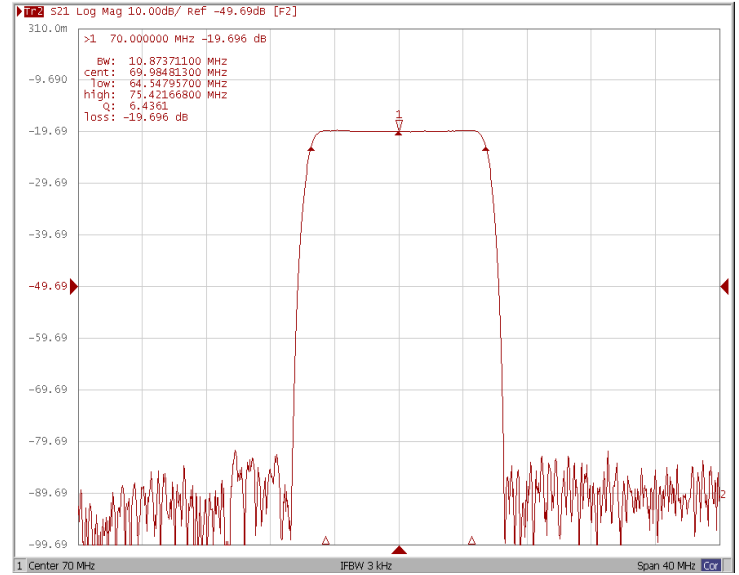


Frequency Response

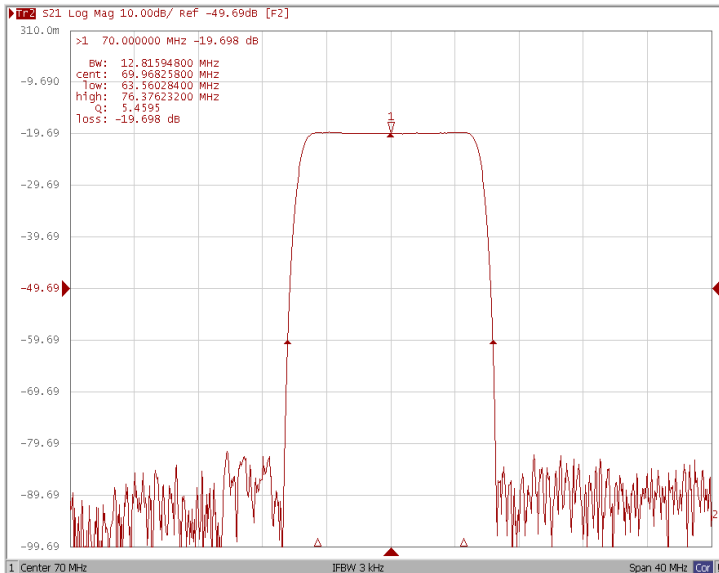
Bandwidth at -1.0 dB



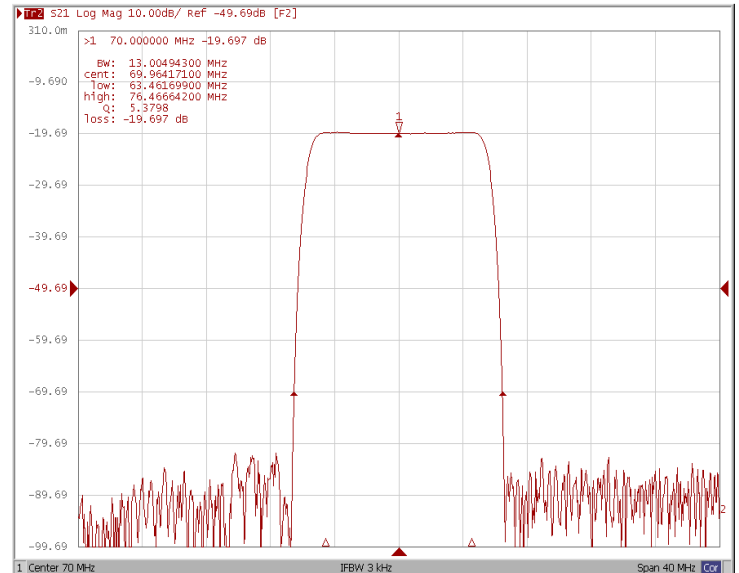
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

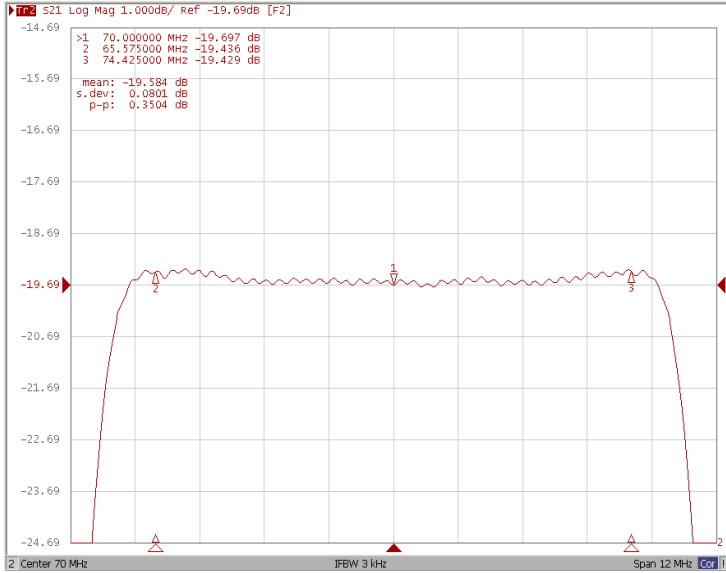


Bandwidth at -50.0 dB

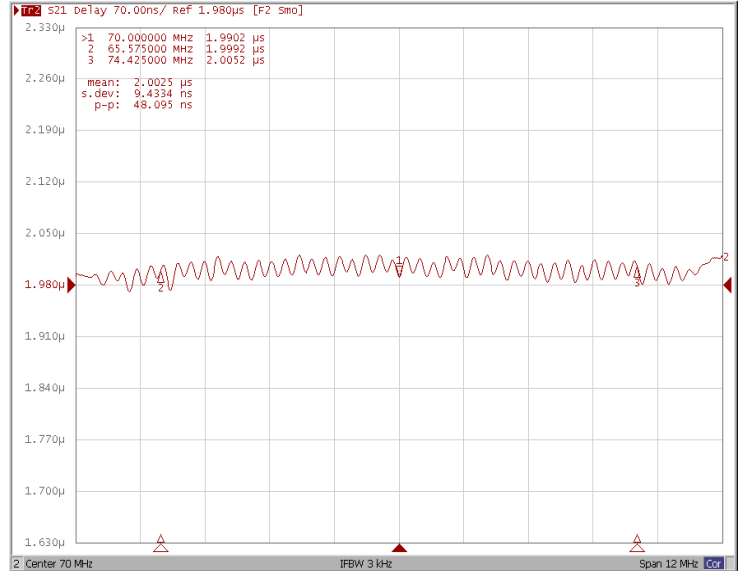




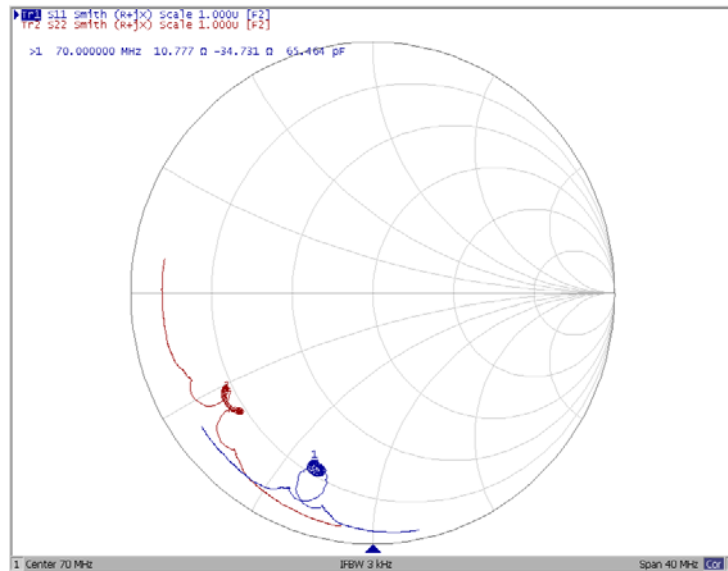
Ripple Variation Fo±4.425MHz



Group Delay Variation Fo±4.425MHz



Smith Chart





VSWR

