



PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF70.0M-07A	70.0 MHz IF SAW Filter 7.28 MHz Bandwidth

Specification Contents

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

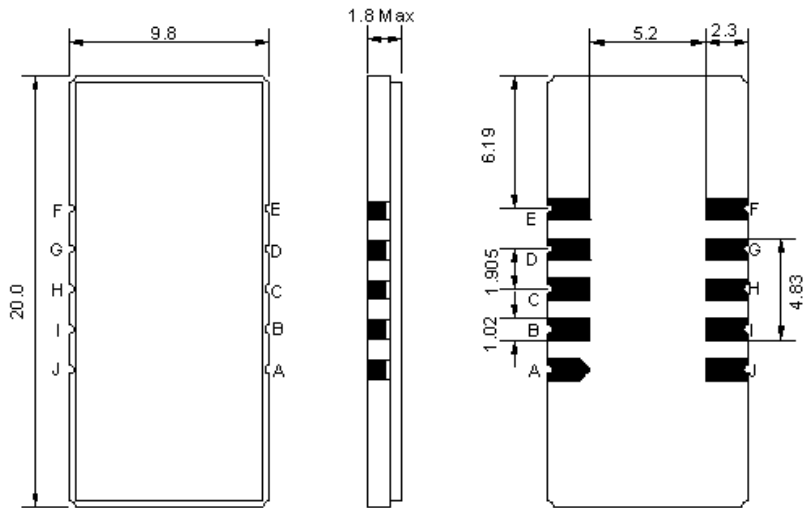
- o Electrostatic Sensitive Device (ESD) 
- o Avoid excessive ultrasonic exposure
- o Solderability compatible with JEDEC J-STD-020C Pb-free process, 260°C peak reflow temperature
- o This product complies with EU directive 2002/95/EC (RoHS compliance)



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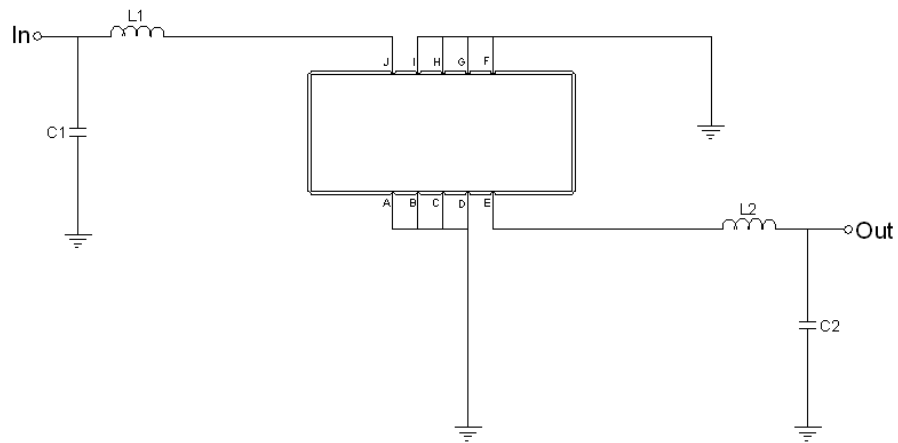


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1 = 180 nH, C1 = 43 pF
Output	L2 = 220 nH, C2 = 36 pF
Source/Load Impedance	50 Ω



Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-	25	-
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.

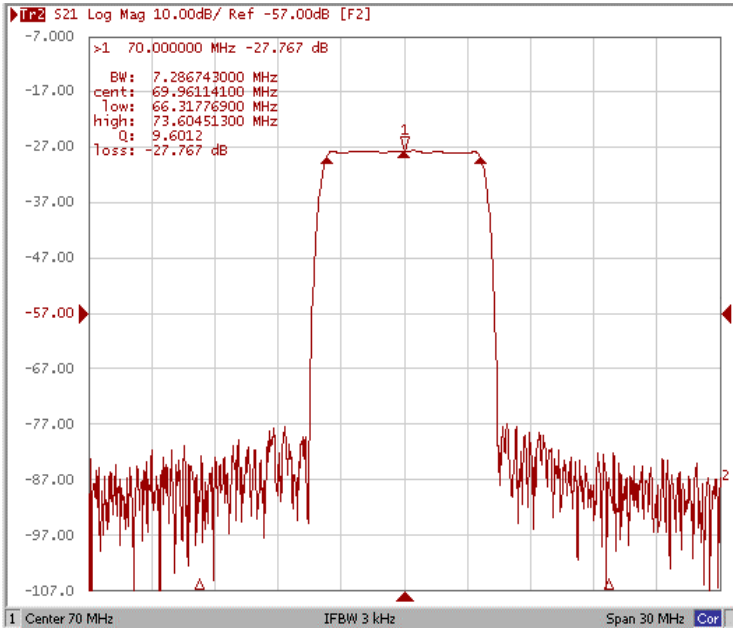
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	70.0	-
Insertion Loss at Fo	dB	-	27.7	29.0
Group Delay Variation at Fo ±3.5 MHz	nsec	-	50	100
Absolute Delay at Fo	usec	-	3.36	-
Passband Ripple Variation at Fo ±3.5 MHz	dB	-	0.55	1.0
Bandwidth at -1dB	MHz	-	7.28	-
Bandwidth at -10dB	MHz	-	8.09	-
Bandwidth at -20dB	MHz	-	8.46	-
Bandwidth at -25dB	MHz	-	8.59	-
Bandwidth at -35dB	MHz	-	8.78	-
Ultimate Rejection	dB	45	50	-
Temperature Coefficient	ppm/°C	-	-20	-

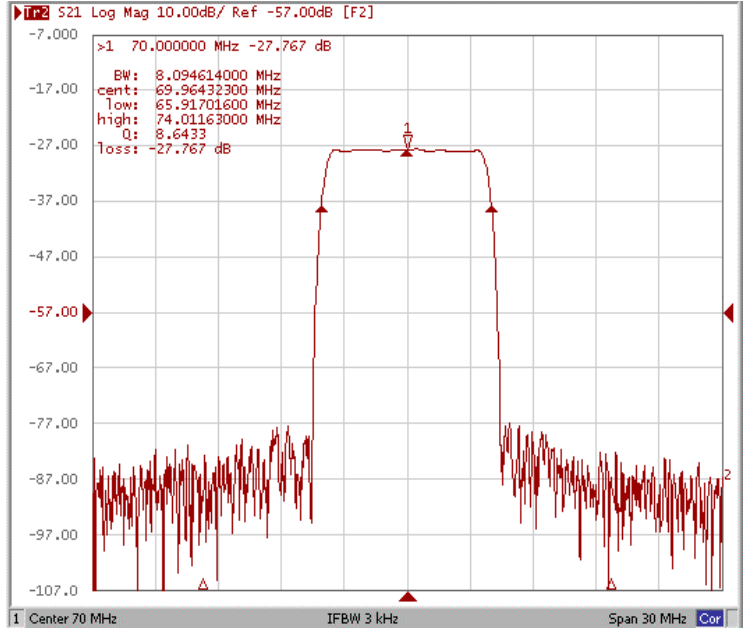


Frequency Response

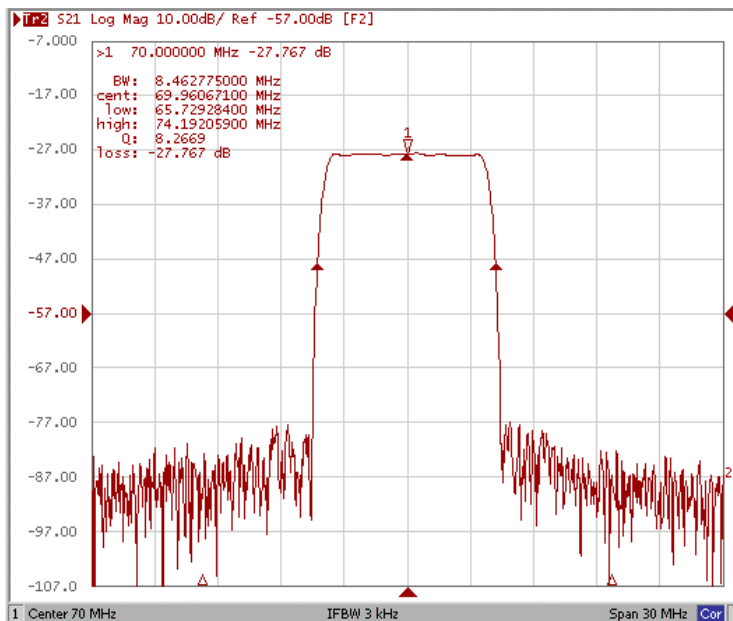
Bandwidth at -1.0 dB



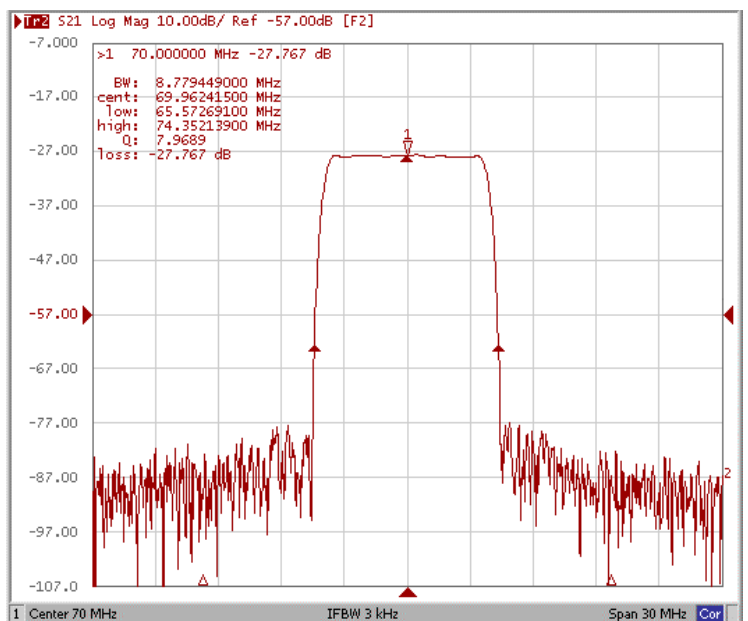
Bandwidth at -10.0 dB



Bandwidth at -20.0 dB

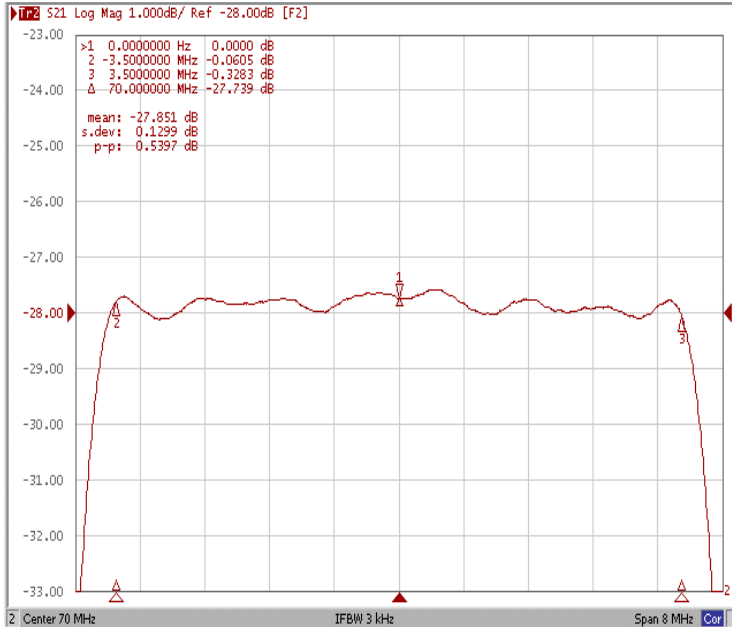


Bandwidth at -35.0 dB

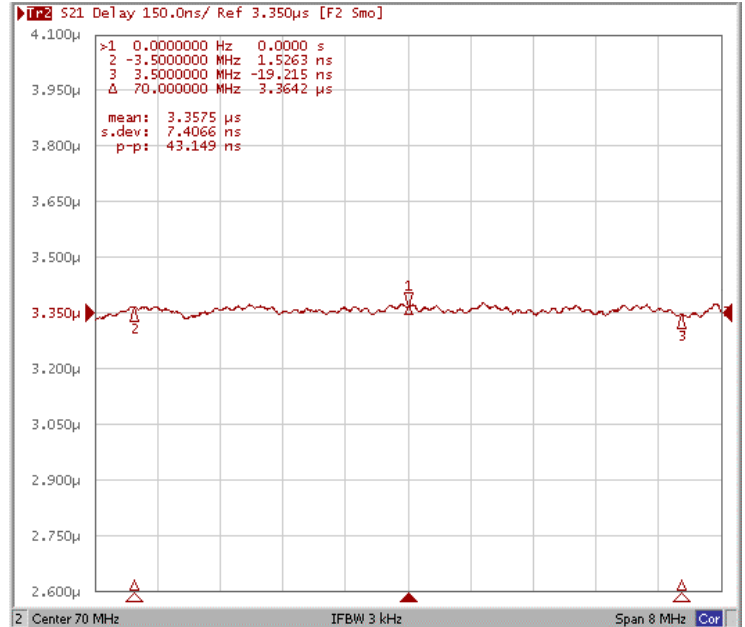




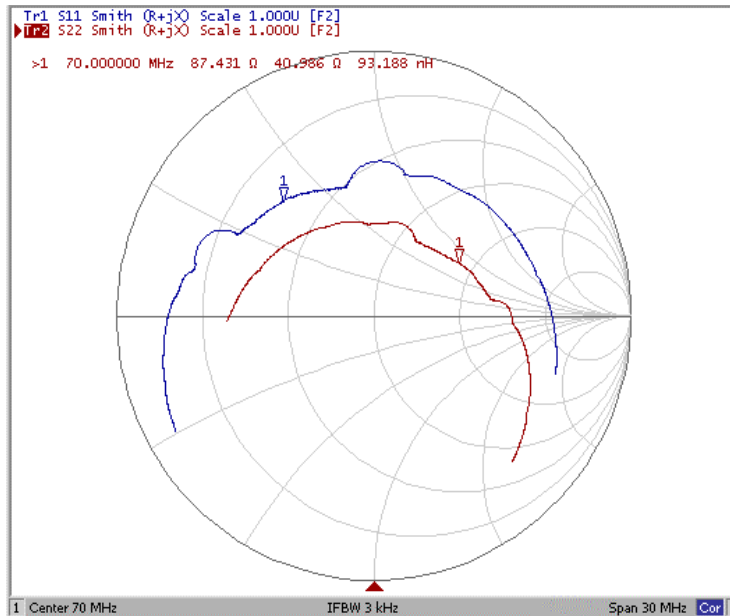
Ripple Variation Fo±3.5MHz



Group Delay Variation Fo±3.5MHz



Smith Chart





VSWR

