



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF120.0M-14A	120.0 MHz IF SAW Filter 14.0MHz Bandwidth

Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
- o Frequency Response
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- 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)



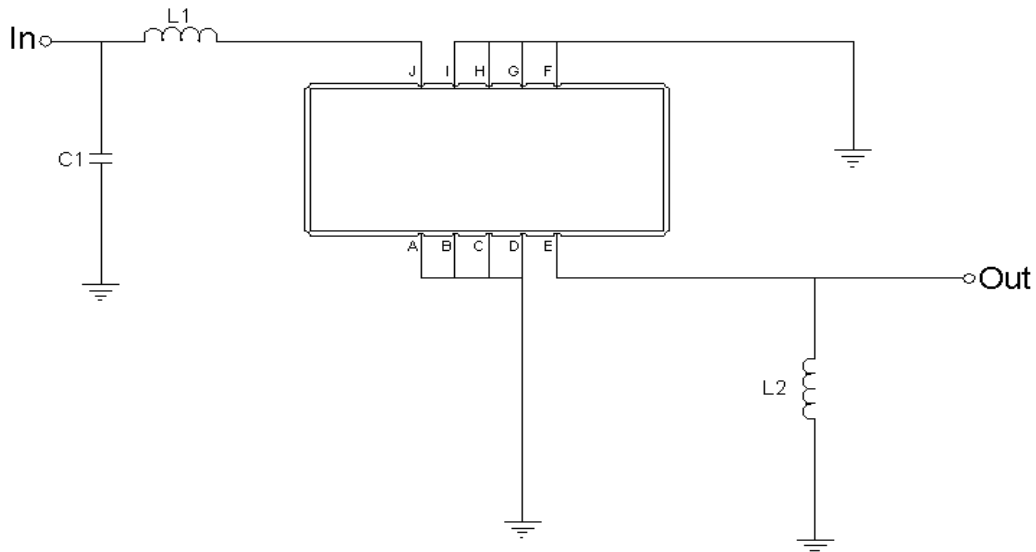


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=39nH, C1=24pF
Output	L2=150nH
Source/Load Impedance	50 Ω

**Maximum Ratings**

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-30	-	+80
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	119.85	120.00	120.15
Insertion Loss at Fo	dB	-	23.3	25.5
Amplitude Ripple Variation at Fo ±7.0 MHz	dB _{p-p}	-	0.5	1.0
Group Delay Variation at Fo ±7.0 MHz	nsec	-	45	100
Absolute Delay at Fo	μsec	-	2.34	-
Temperature Coefficient	ppm/°C	-	-72	-
Bandwidth at -1.0 dB	MHz	-	14.73	-
Bandwidth at -3.0 dB	MHz	14.80	15.00	-
Bandwidth at -40.0 dB	MHz	-	16.30	16.60
Lower Sidelobe	dB	50	55	-
Upper Sidelobe	dB	50	55	-



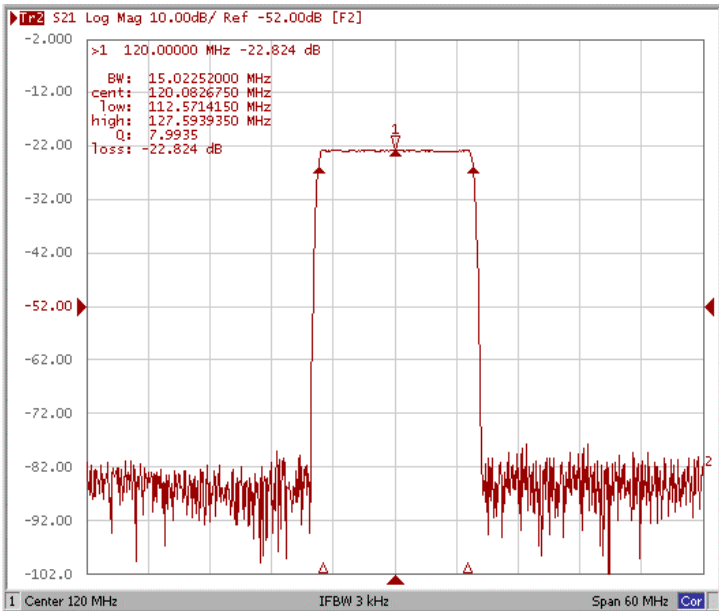
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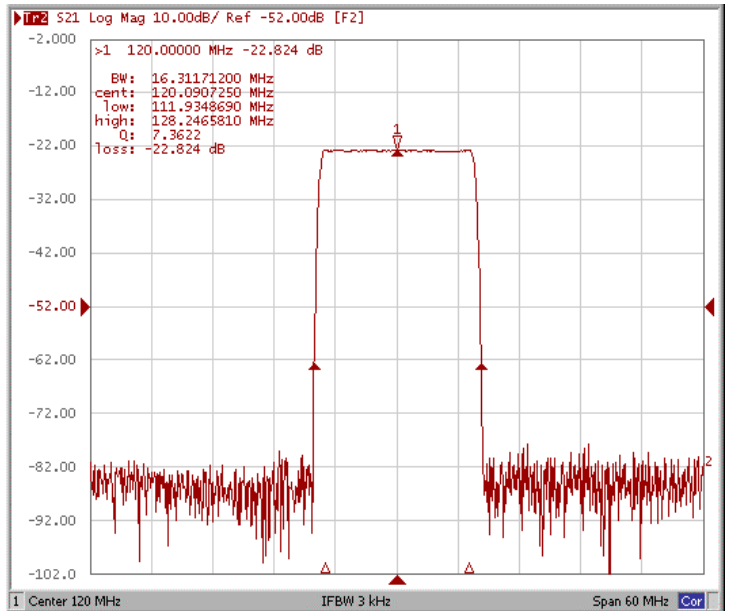
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Frequency Response

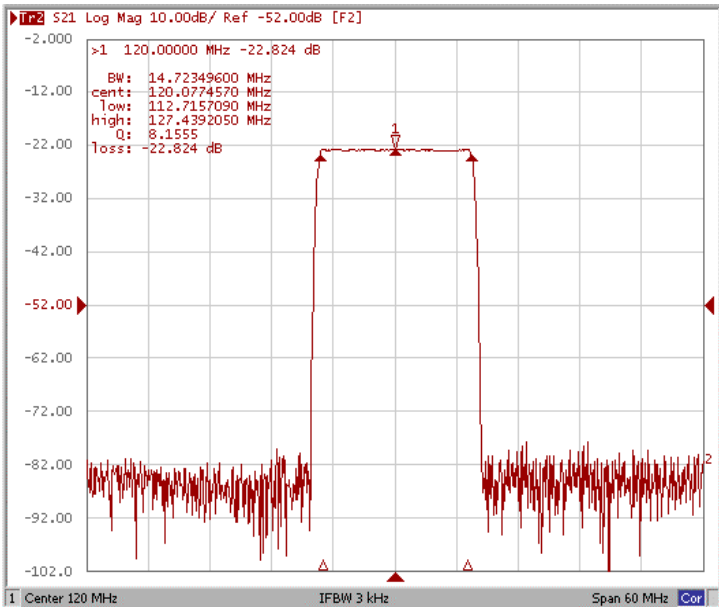
Bandwidth at -3.0 dB



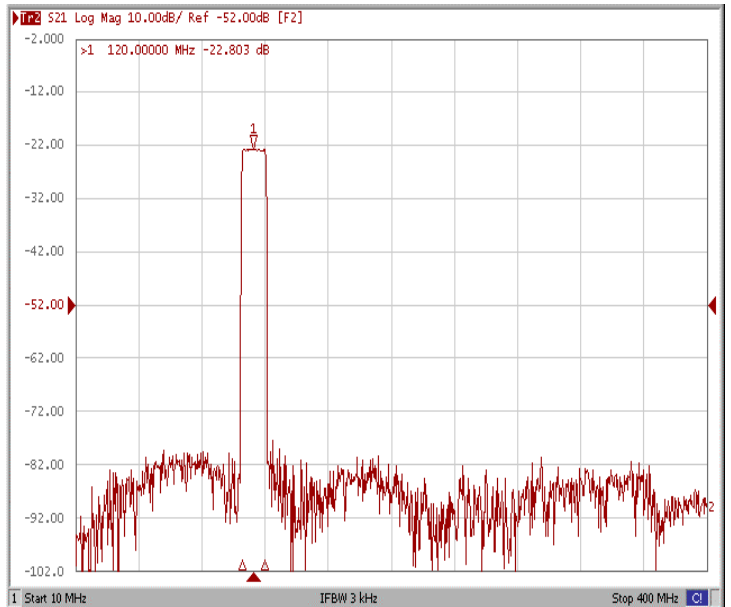
Bandwidth at -40.0 dB



Bandwidth at -1.0 dB

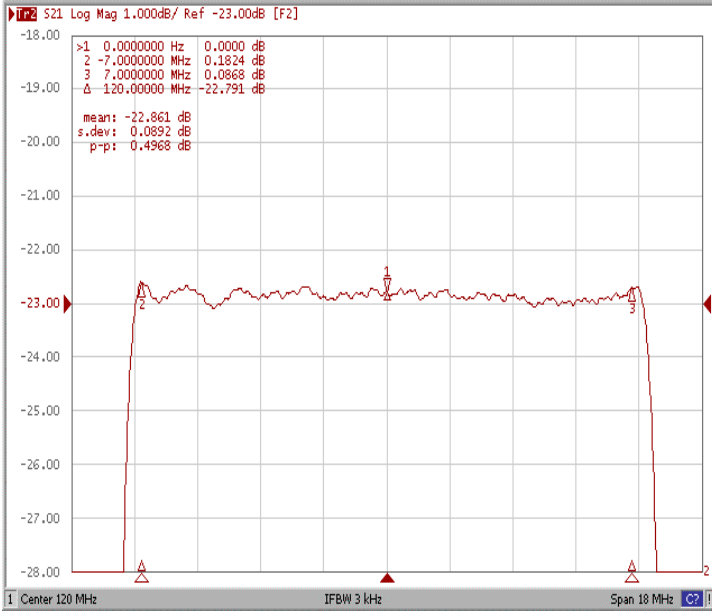


Wide Band

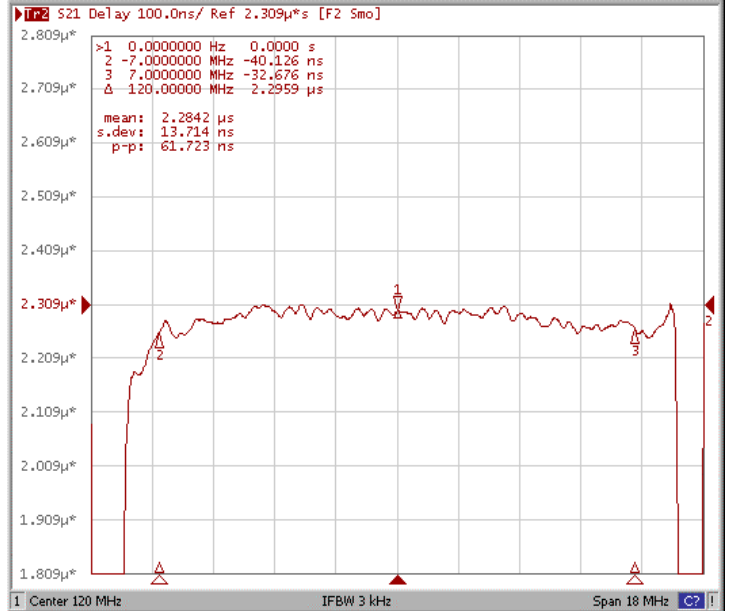




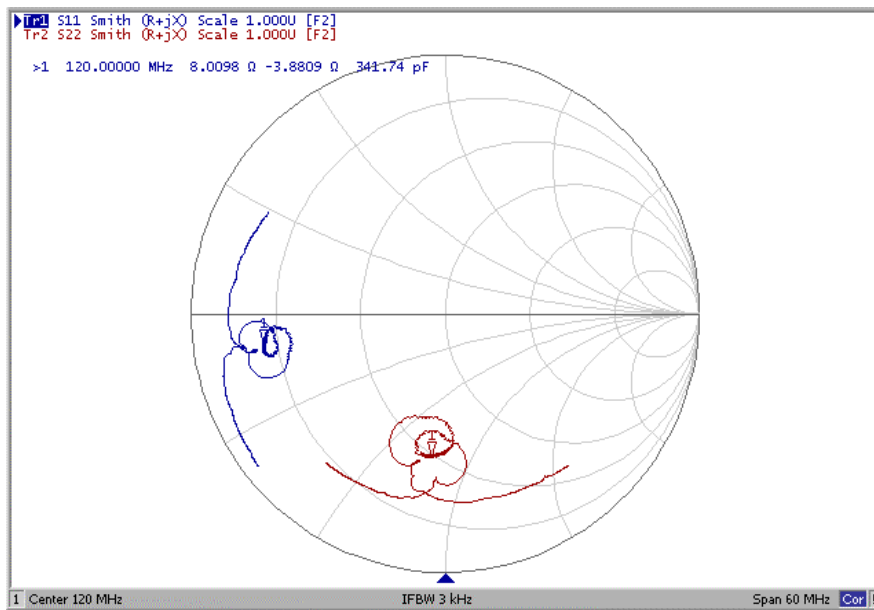
Ripple Variation



Group Delay Variation



Smith Chart





VSWR

