



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-SL160.0M-10B	160.0MHz IF SAW Filter 10.07MHz Bandwidth

Specification Contents

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



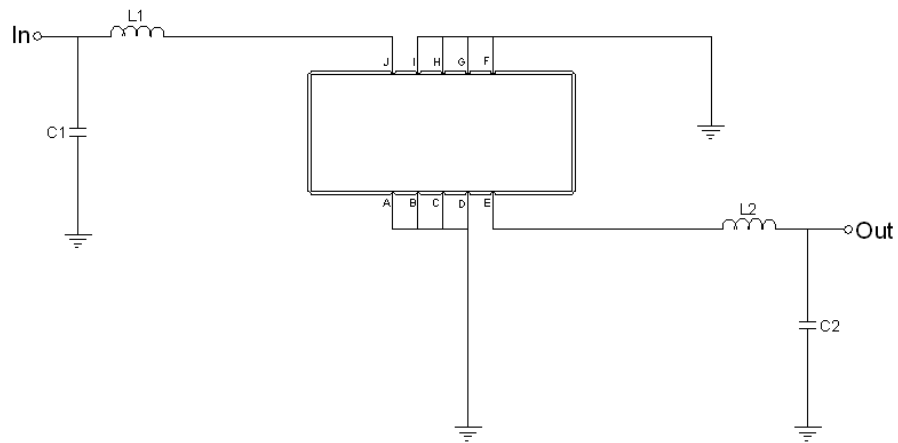


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=33nH, C1=36pF
Output	L2=27nH, C2=53pF
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.

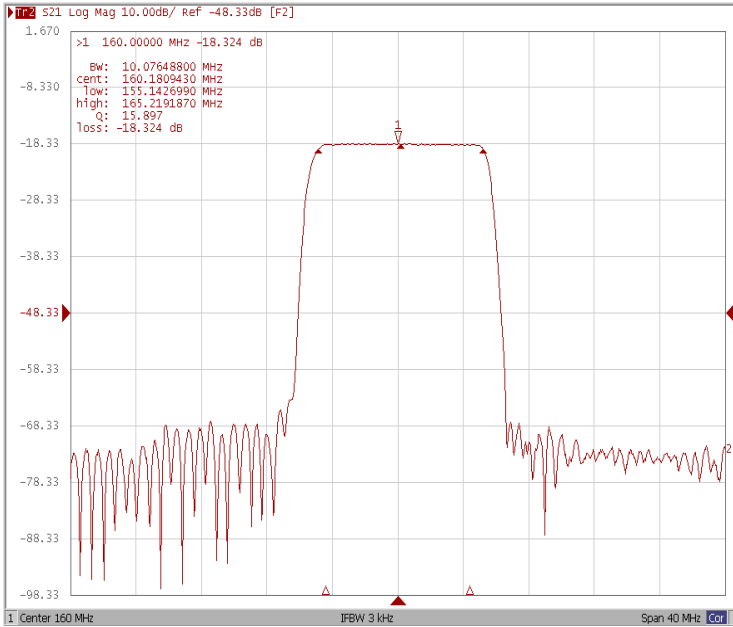
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	160.0	-
Insertion Loss at Fo	dB	-	18.5	22.0
Group Delay Variation (Fo±4.425 MHz)	nsec	-	62	100
Absolute Delay	μsec	-	1.45	-
Passband Ripple (Fo±4.425 MHz)	dB	-	0.35	0.9
Bandwidth at -1.0 dB	MHz	8.85	10.07	-
Bandwidth at -3.0 dB	MHz	-	10.6	-
Bandwidth at -40.0 dB	MHz	-	12.8	13.4
Relative Attenuation				
Lower Sidelobe	dB	40	45	-
Upper Sidelobe	dB	40	45	-
Temperature Coefficient	ppm/°C	-	-20	-

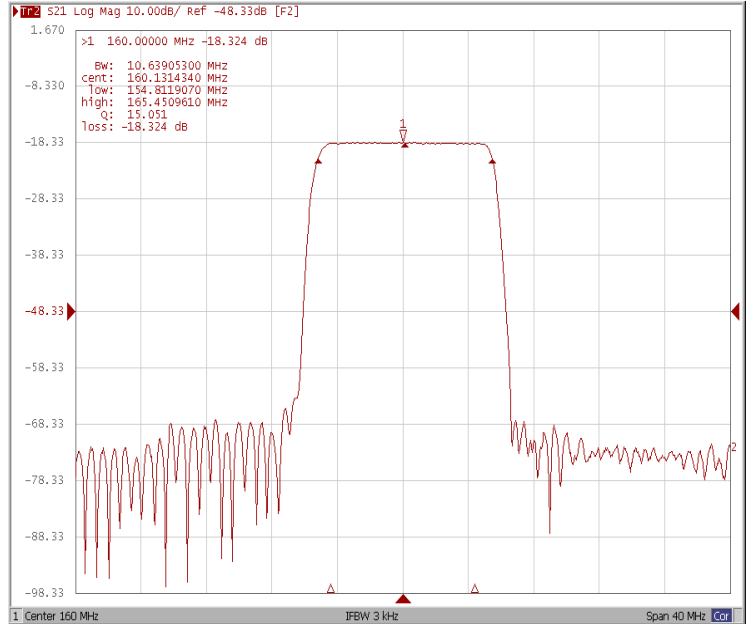


Frequency Response

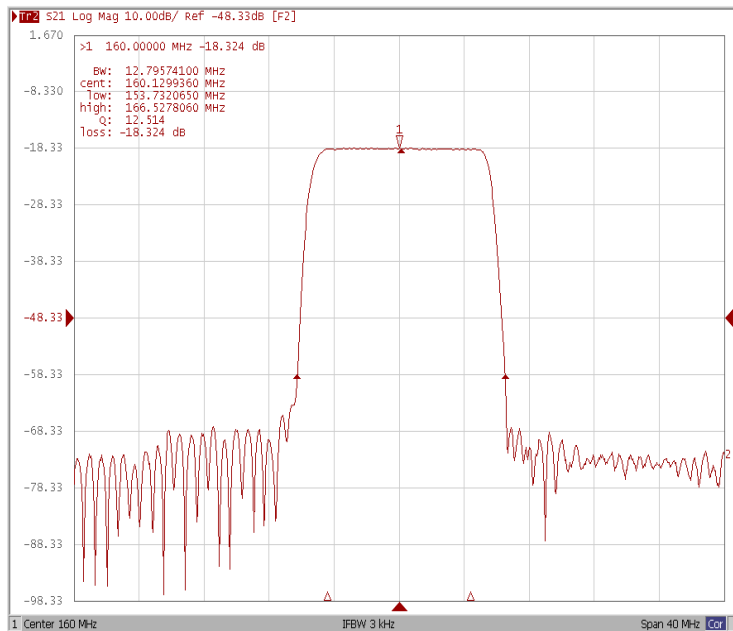
Bandwidth at -1.0 dB



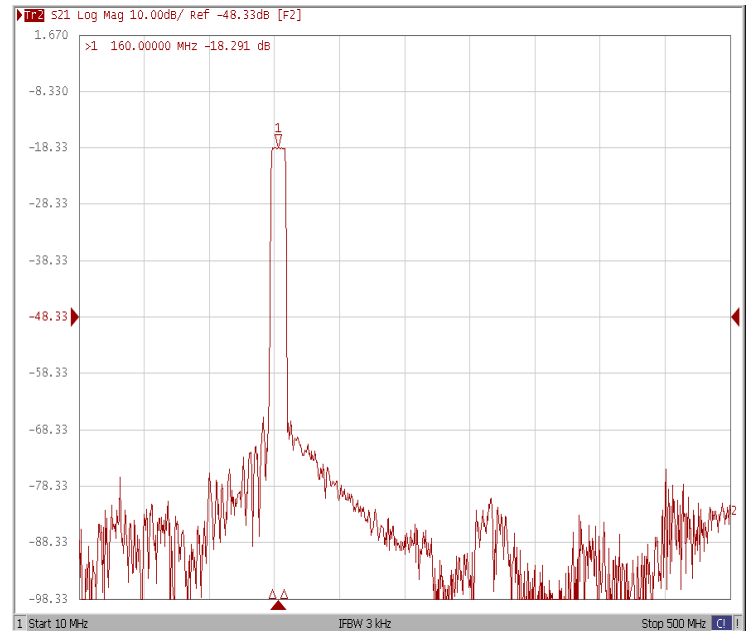
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

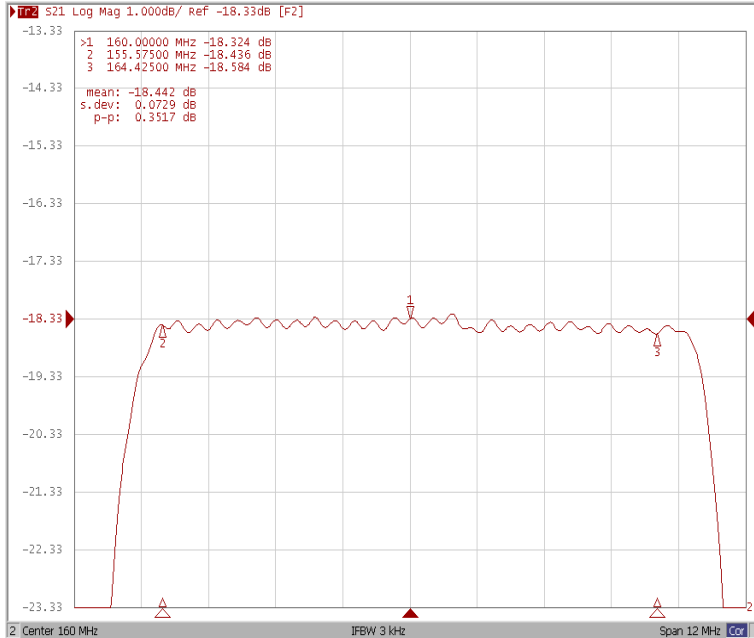


Wide Band

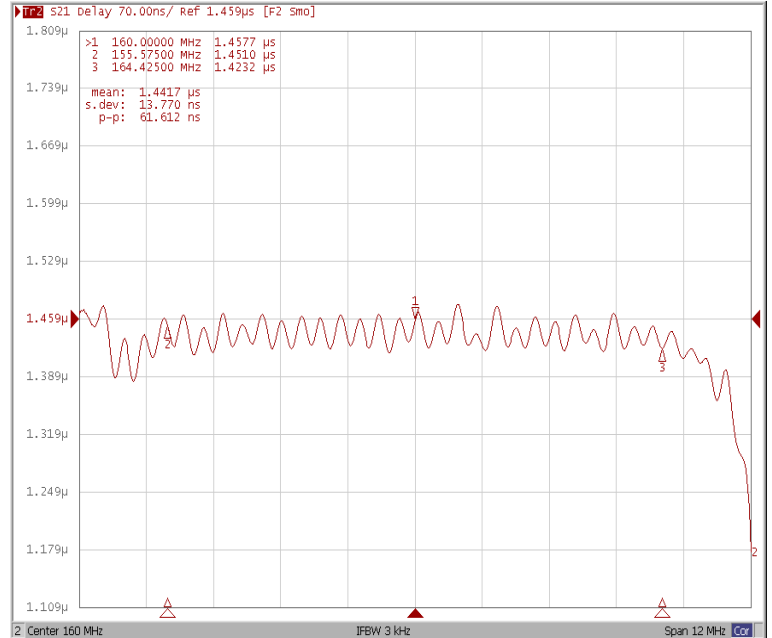




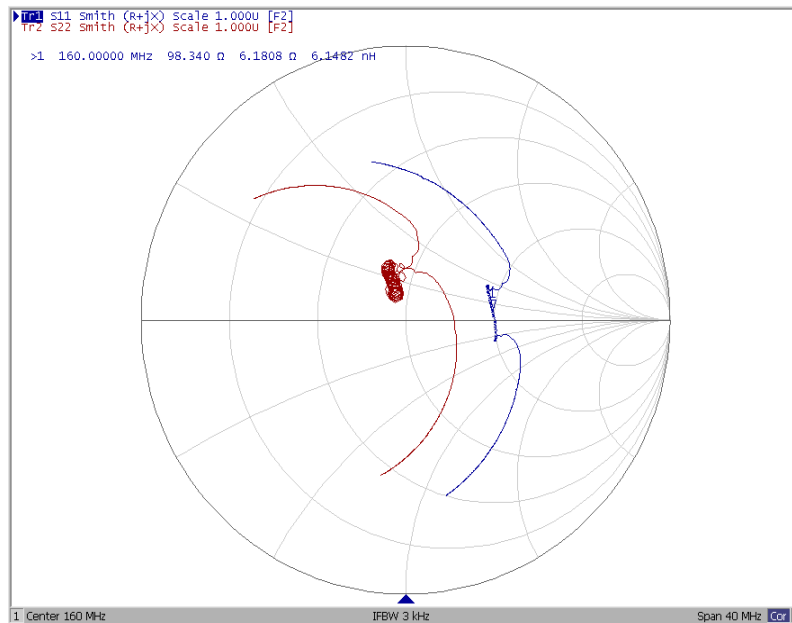
Ripple Variation ($F_o \pm 4.425$ MHz)



Group Delay Variation ($F_o \pm 4.425$ MHz)



Smith Chart





VSWR

