



PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF50.0M-19A	50.00 MHz IF SAW Filter 19.47 MHz 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)



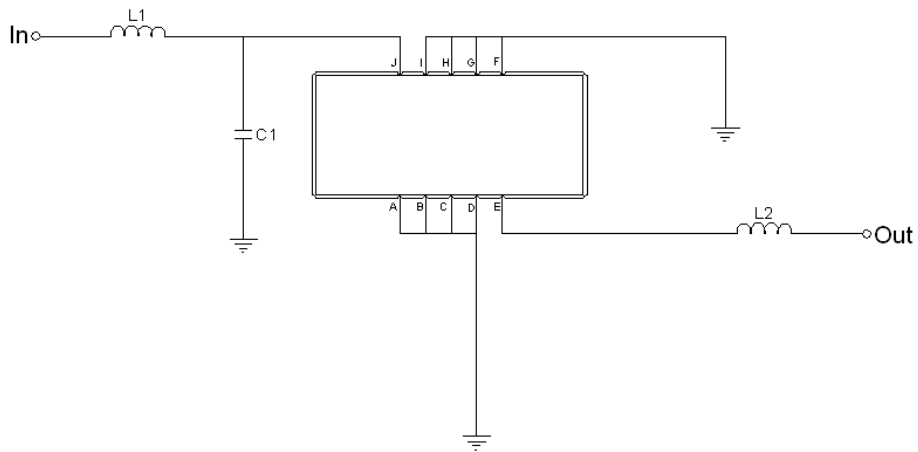


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1 = 390 nH, C1 = 7.5 pF
Output	L2 = 220 nH
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.

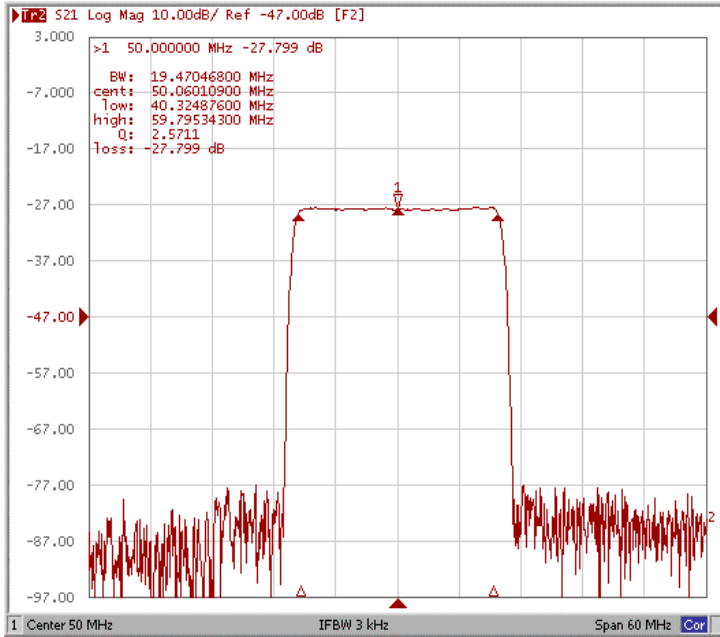
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	50.00	-
Insertion Loss at Fo	dB	-	27.7	29.5
Group Delay Variation (Fo±9.32MHz)	nsec	-	26	60
Absolute Delay at Fo	usec	-	1.95	-
Passband Ripple Variation (Fo±9.32MHz)	dB	-	0.58	1.00
Bandwidth at -1dB	MHz	19.30	19.47	-
Bandwidth at -3dB	MHz	-	19.99	-
Bandwidth at -20dB	MHz	-	21.34	-
Bandwidth at -40dB	MHz	-	21.94	22.10
Ultimate Rejection	dB	45	48	-
Temperature Coefficient	ppm/°C	-	-72	-

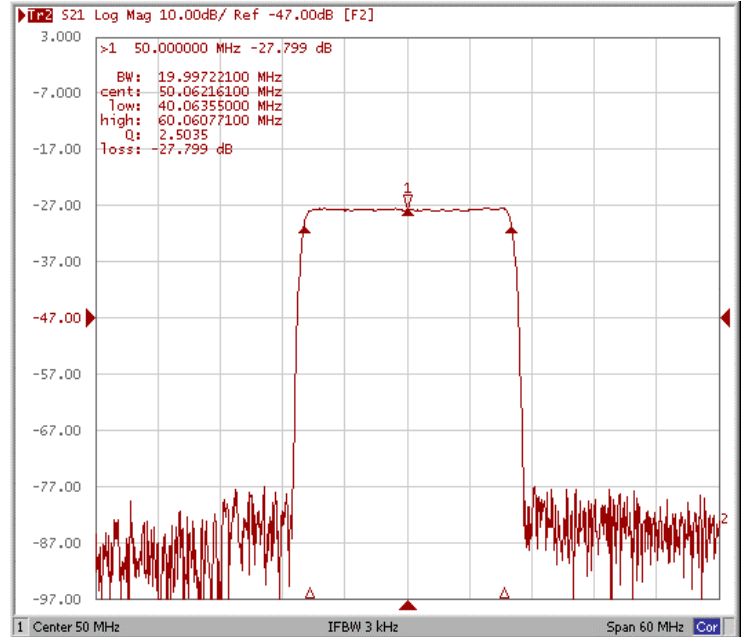


Frequency Response

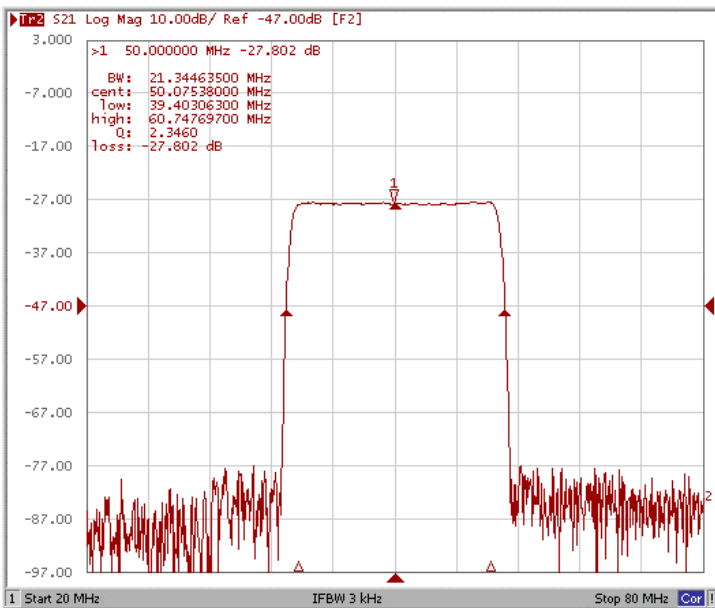
Bandwidth at -1.0 dB



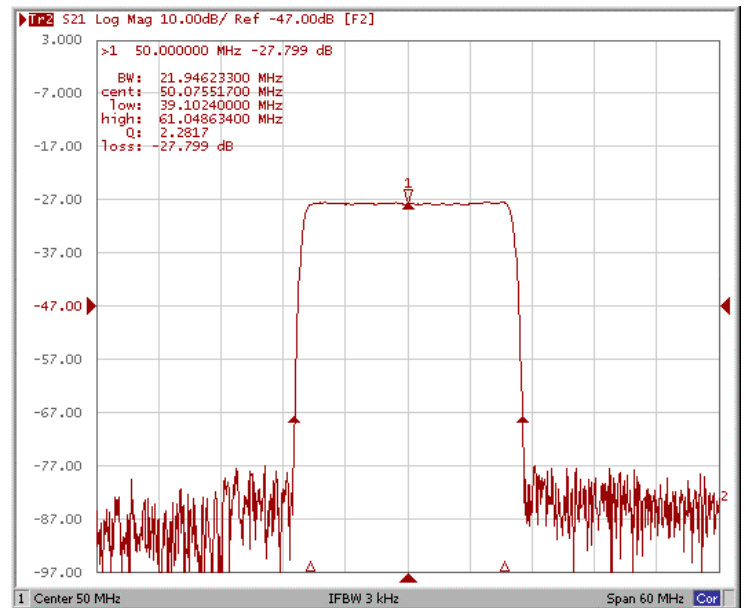
Bandwidth at -3.0 dB



Bandwidth at -20.0 dB

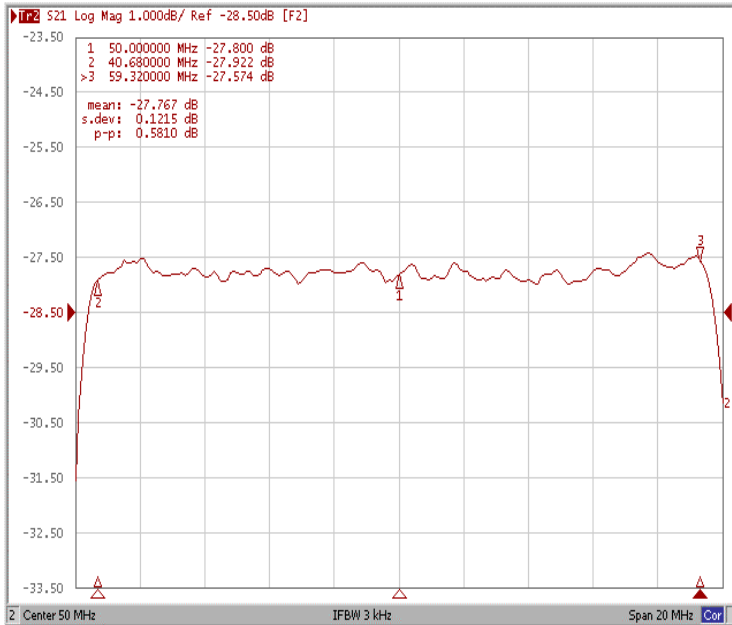


Bandwidth at -40.0 dB

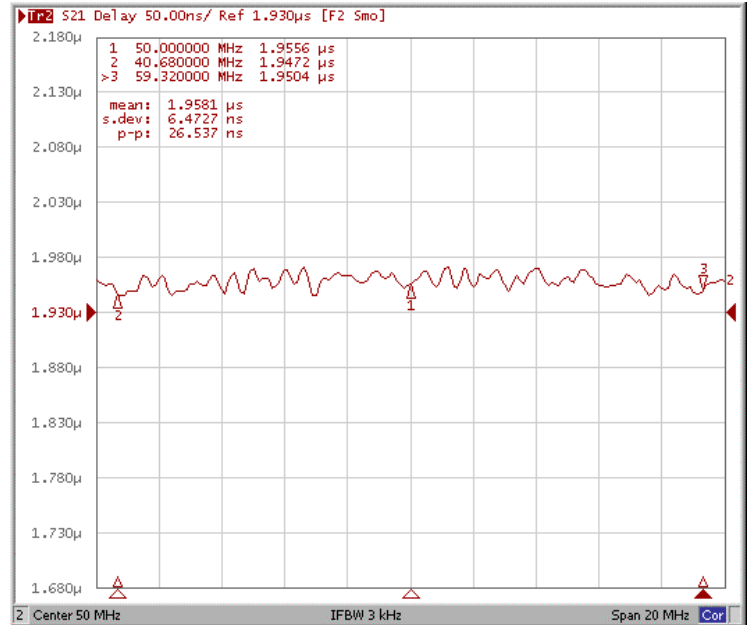




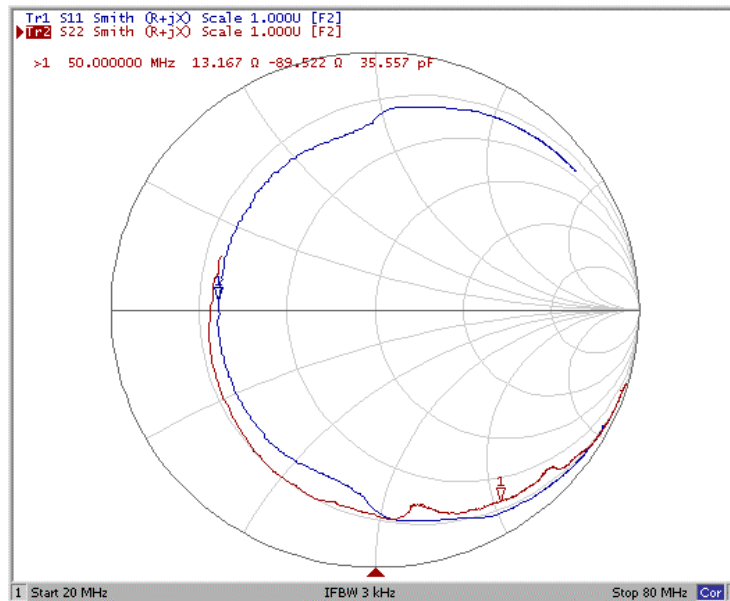
Ripple Variation Fo±9.32MHz



Group Delay Variation Fo±9.32MHz



Smith Chart





VSWR

