



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF57.5M-29A	57.5 MHz IF SAW Filter 29.5 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)



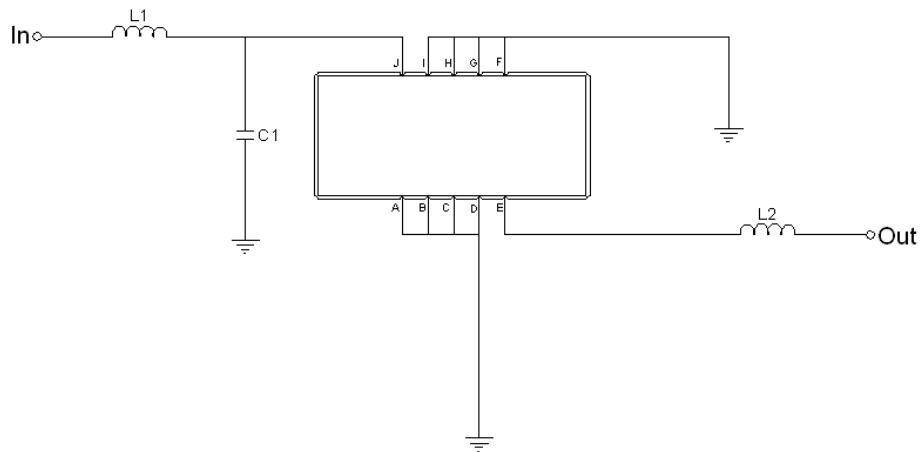


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1 = 220 nH, C1 = 16 pF
Output	L2 = 220 nH
Source/Load Impedance	50 $\Omega$

**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) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	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.

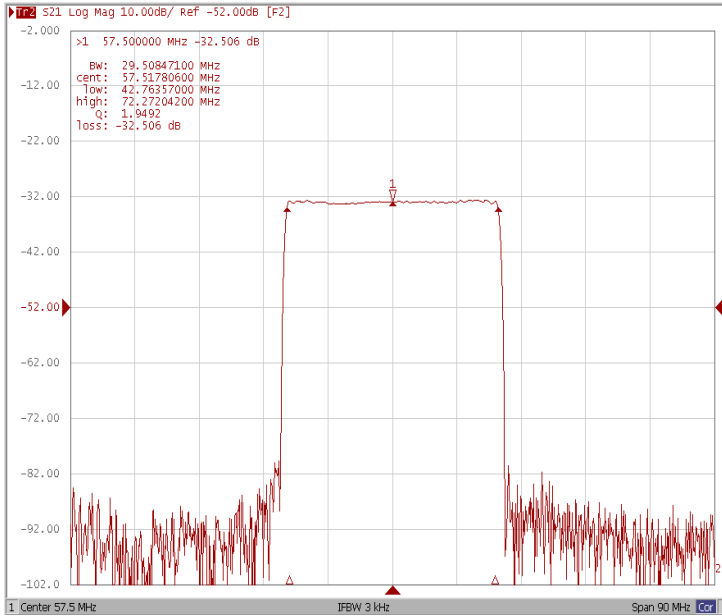
**Electrical Specification**

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	57.5	-
Insertion Loss at Fo	dB	-	32.5	-
Group Delay Variation at Fo ± 14.32 MHz	nsec	-	50	80
Absolute Delay at Fo	usec	-	2.5	-
Passband Ripple Variation at Fo ± 14.32 MHz	dB	-	0.76	1.00
Bandwidth at -1dB	MHz	29.30	29.50	-
Bandwidth at -3dB	MHz	-	29.83	-
Bandwidth at -40dB	MHz	-	31.21	31.40
Ultimate Rejection	dB	45	48	-
Temperature Coefficient	ppm/°C	-	-72	-

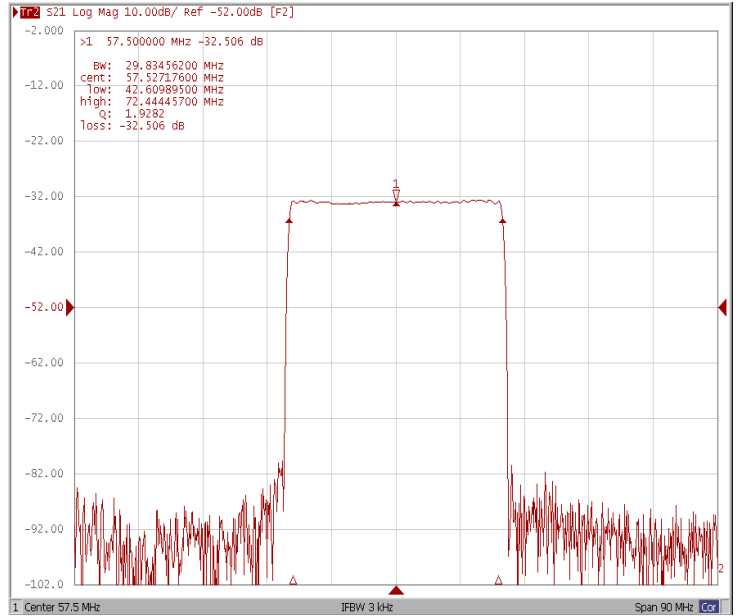


### Frequency Response

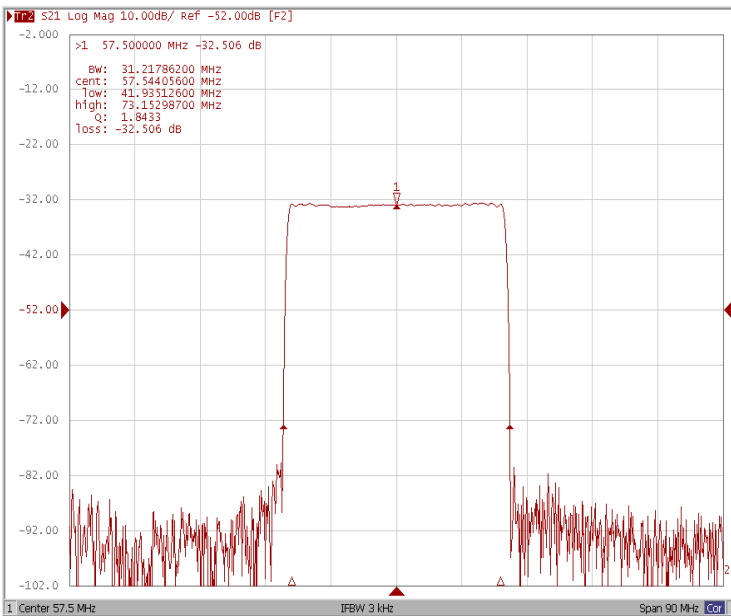
Bandwidth at -1.0 dB



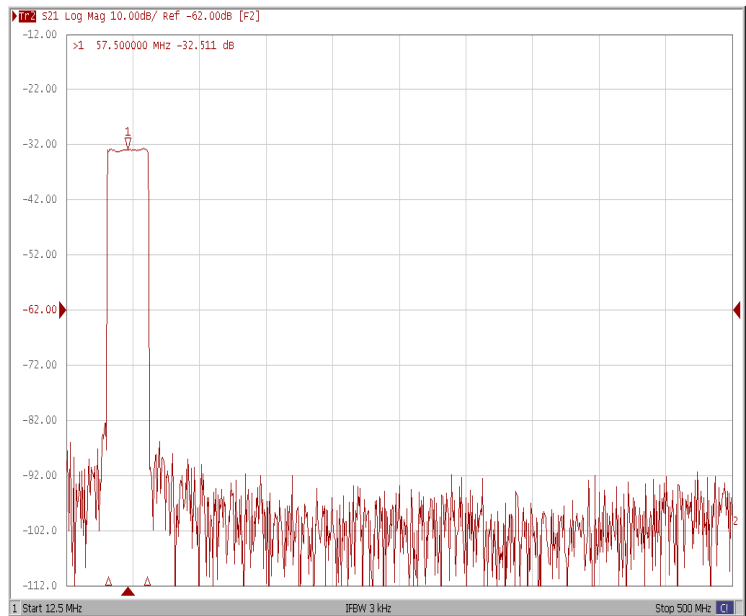
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

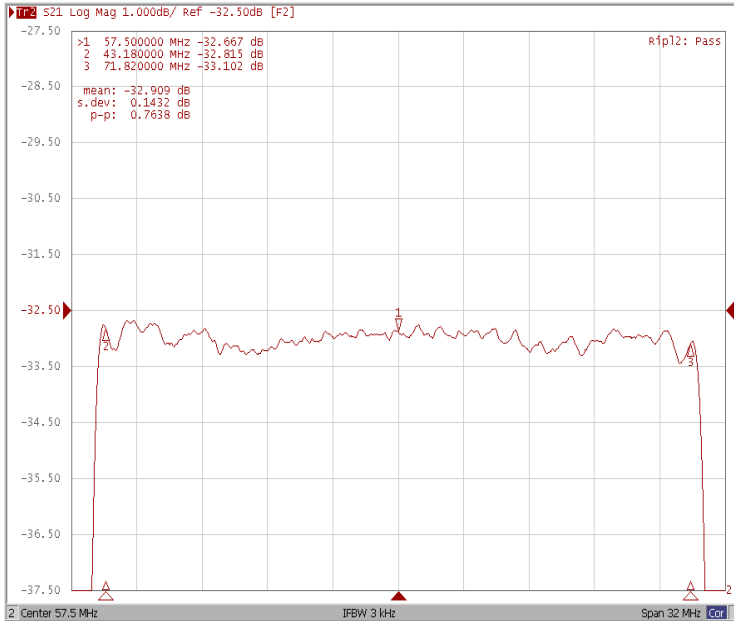


Wide-Band

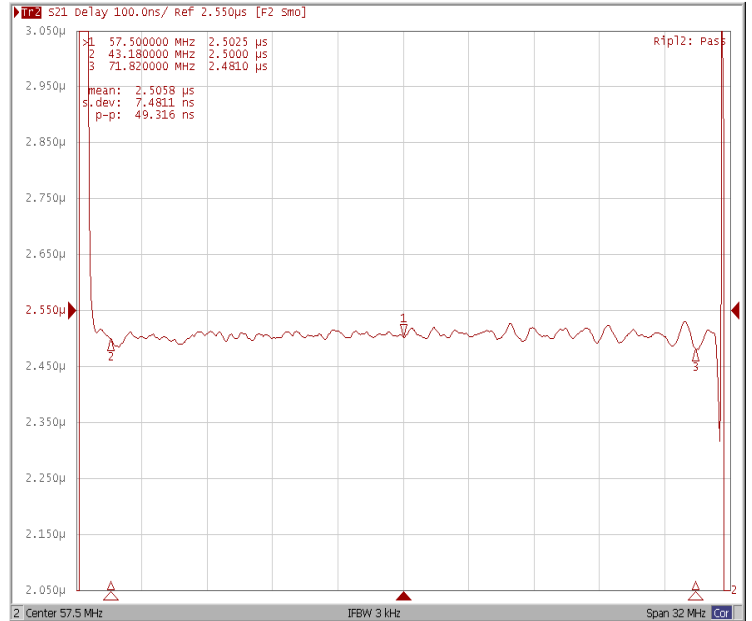




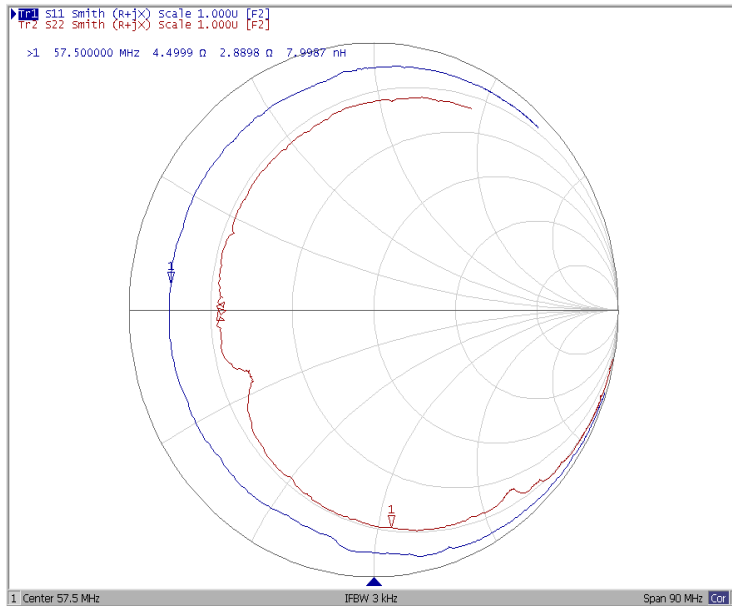
### Ripple Variation Fo±14.32 MHz



### Group Delay Variation Fo±14.32MHz



### Smith Chart





### VSWR

