



# PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF87.5M-29A	87.50 MHz IF SAW Filter 29.55 MHz Bandwidth

## Specification Contents

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

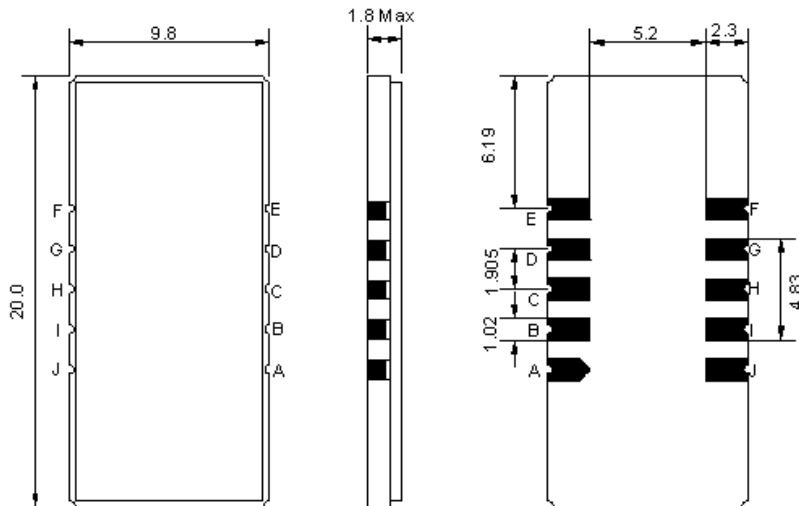
## Notes

- 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)



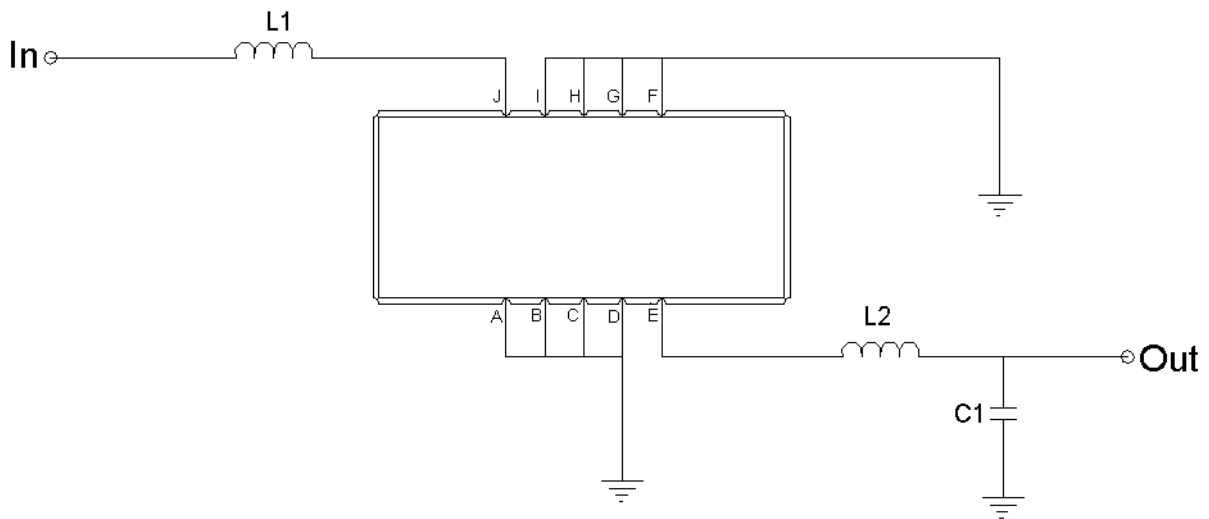


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1 = 120 nH
Output	L2 = 120 nH, C1 = 24 pF
Source/Load Impedance	50 Ω



## Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-5	-	+70
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.

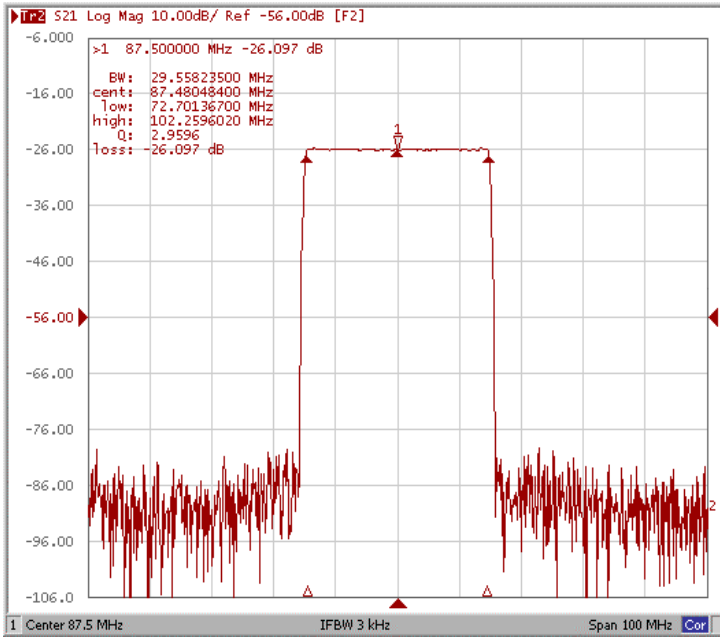
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	87.50	-
Insertion Loss at Fo	dB	-	26.00	28.00
Group Delay Variation (Fo±14.32MHz)	nsec	-	29	70
Absolute Delay at Fo	usec	-	2.08	-
Passband Ripple Variation (Fo±14.32MHz)	dB	-	0.55	1.00
Bandwidth at -1dB	MHz	29.30	29.55	-
Bandwidth at -3dB	MHz	-	29.90	-
Bandwidth at -50dB	MHz	-	31.50	31.70
Ultimate Rejection	dB	50	53	-
Temperature Coefficient	ppm/°C	-	-72	-

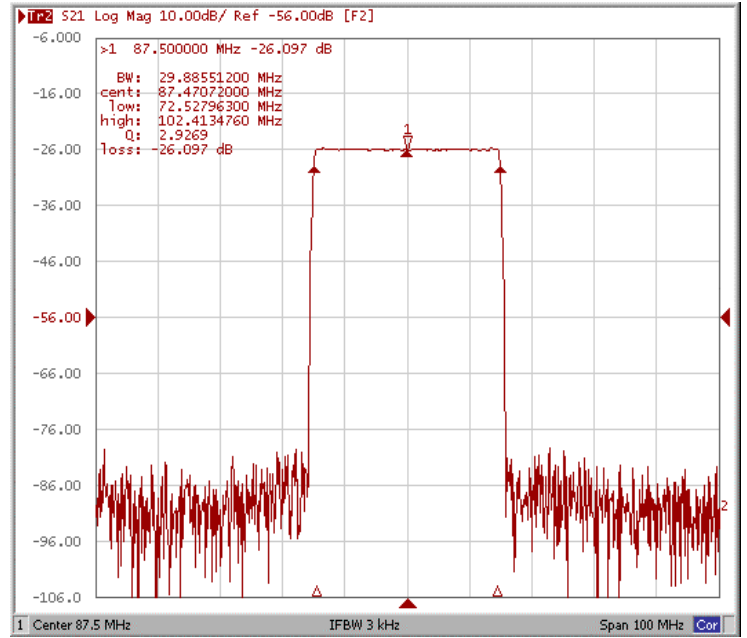


## Frequency Response

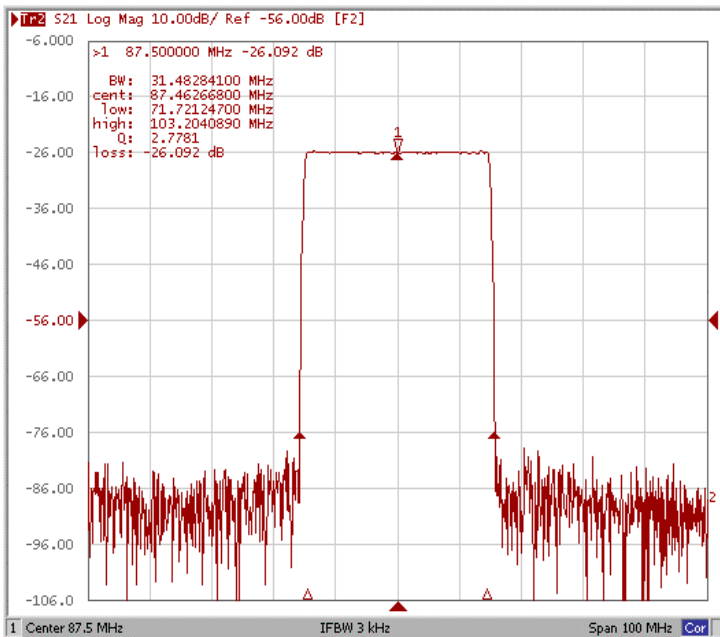
### Bandwidth at -1.0 dB



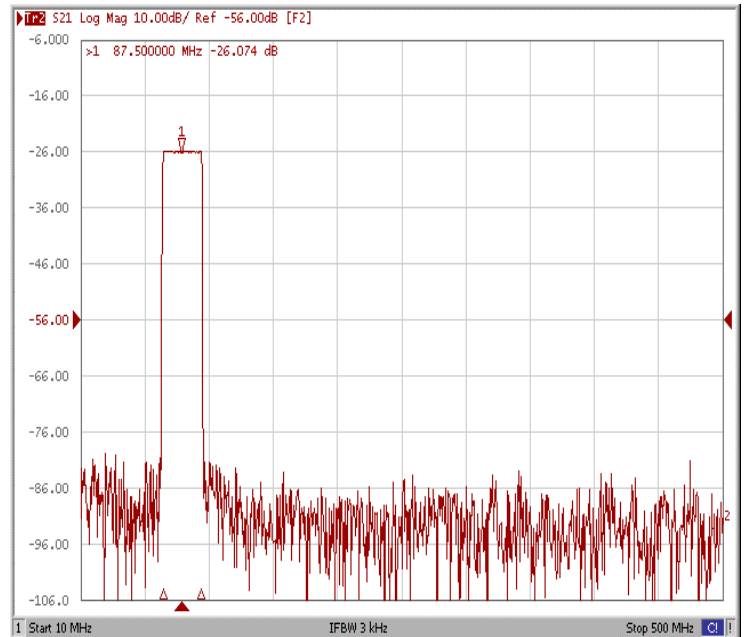
### Bandwidth at -10.0 dB



### Bandwidth at -50.0 dB

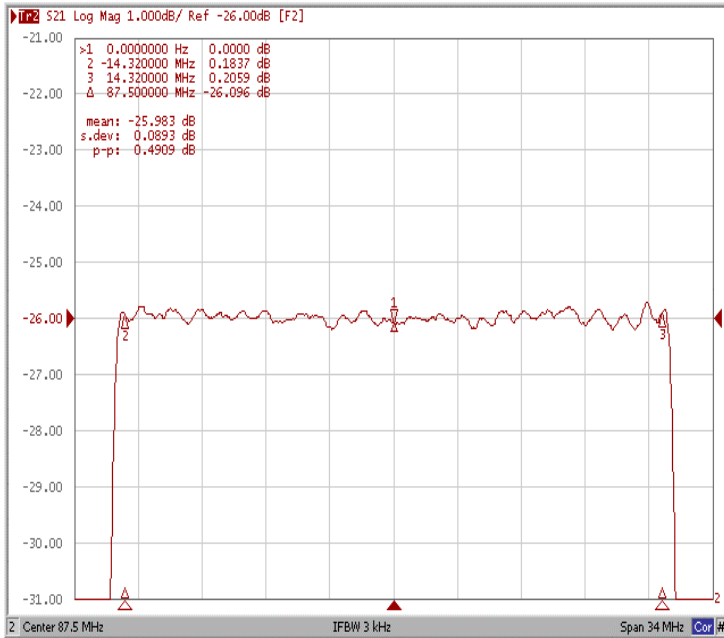


### Wide-Band

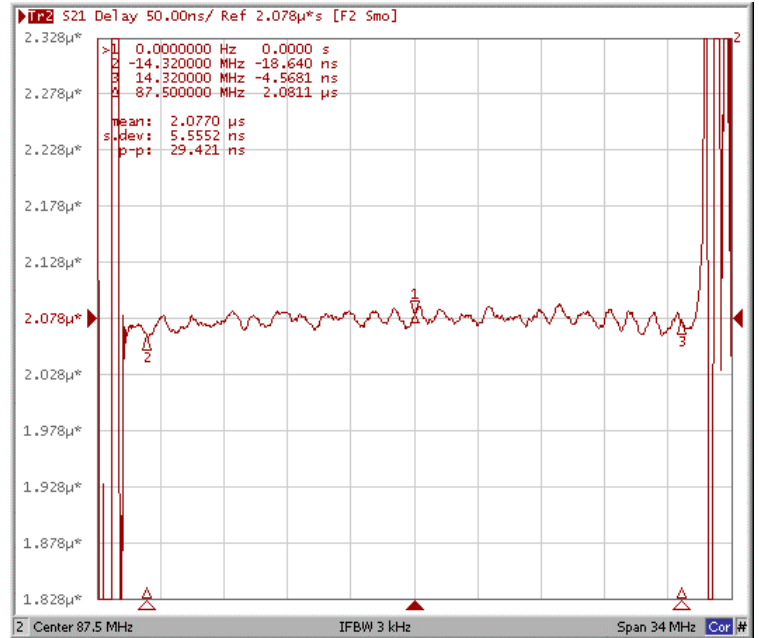




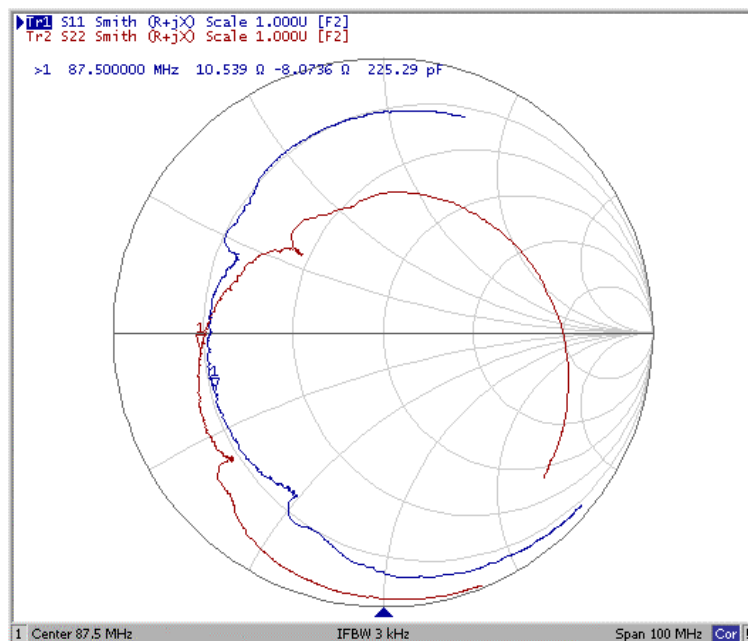
### Ripple Variation Fo±14.32MHz



### Group Delay Variation Fo±14.32MHz



### Smith Chart





## VSWR

