



# PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF120.0M-09A	120.0 MHz IF SAW Filter 9.70 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)



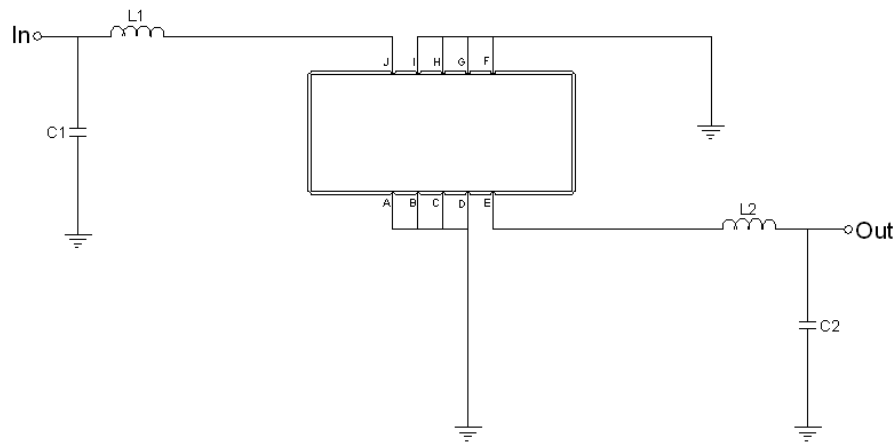


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1=56nH, C1=47pF
Output	L2=68nH, C1=36pF
Source/Load Impedance	50 Ω



## Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-20	-	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.

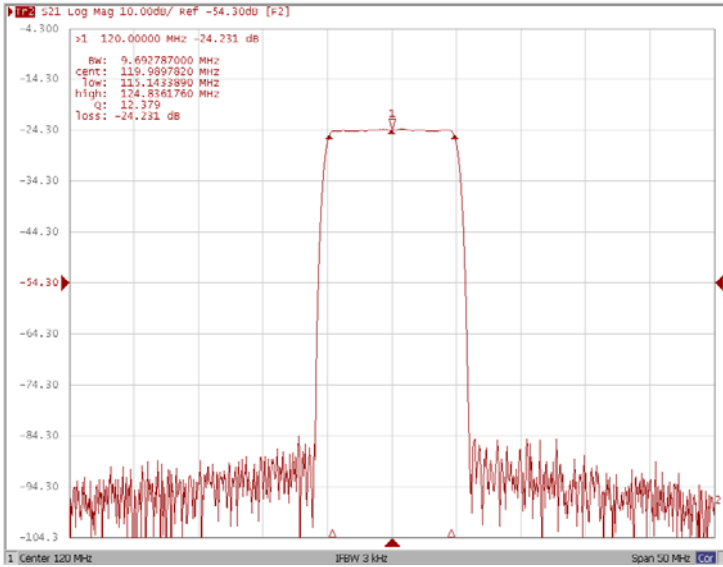
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	120.0	-
Insertion Loss at Fo	dB	-	24.3	27.00
Passband Ripple (fo ±4.6 MHz)	dB <sub>p-p</sub>	-	0.45	0.90
Group Delay Variation (fo ±4.6 MHz)	nsec	-	38	90
Absolute Delay at Fo	μsec	-	3.17	-
Bandwidth at -1.0 dB	MHz	-	9.70	-
Bandwidth at -55 dB	MHz	-	11.81	-
Ultimate Attenuation (110.1MHz~114MHz)	-	50	60	-
Ultimate Attenuation (126MHz~129.9MHz)	-	50	60	-
Temperature Coefficient	ppm/°C	-	-20	-

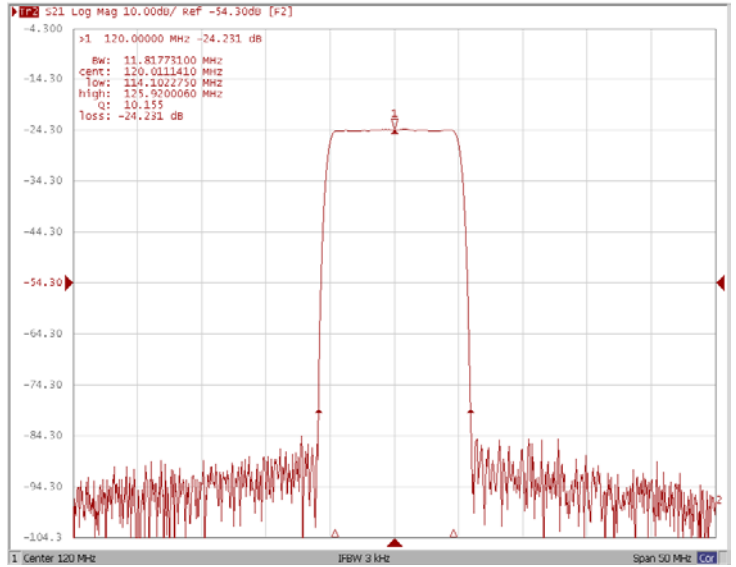


### Frequency Response

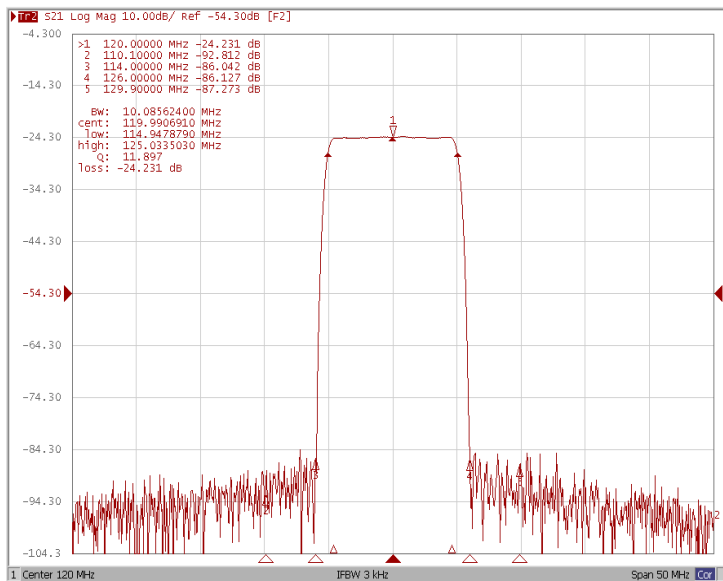
#### Bandwidth at -1.0 dB



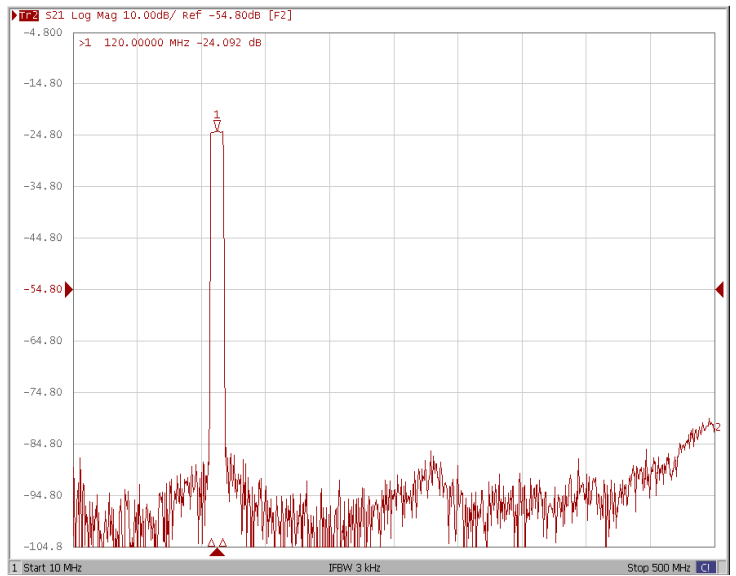
#### Bandwidth at -55 dB



#### Ultimate Attenuation

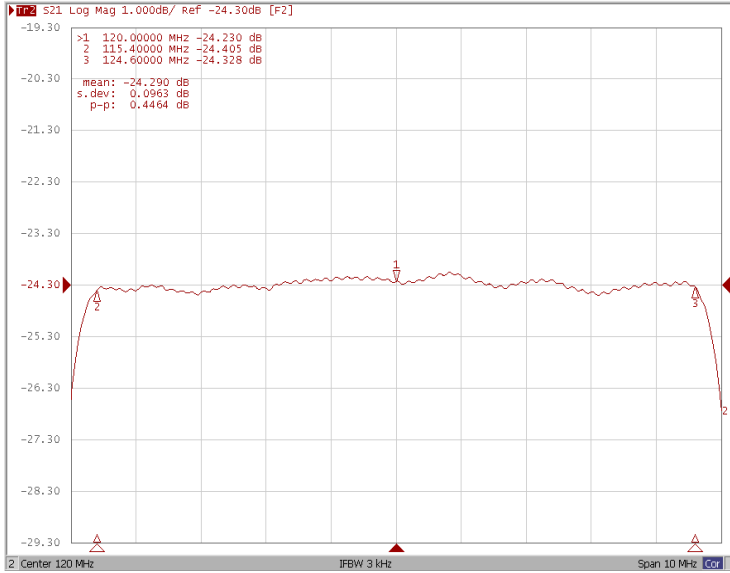


#### Wide Band

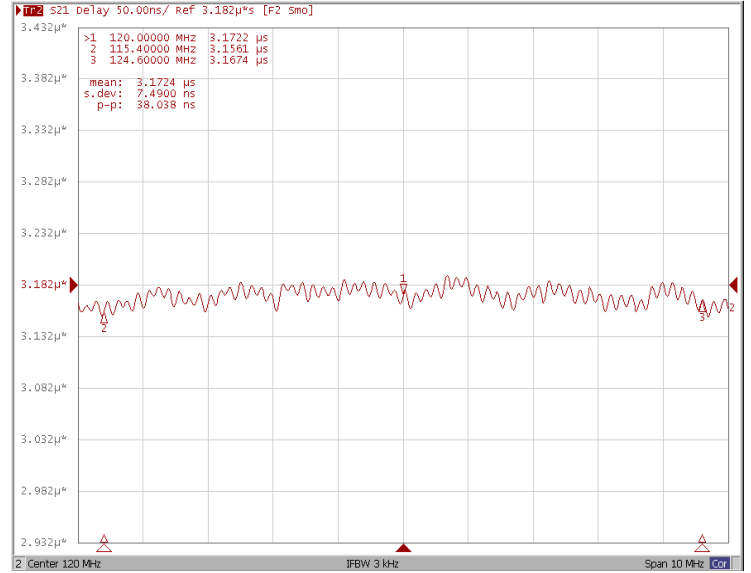




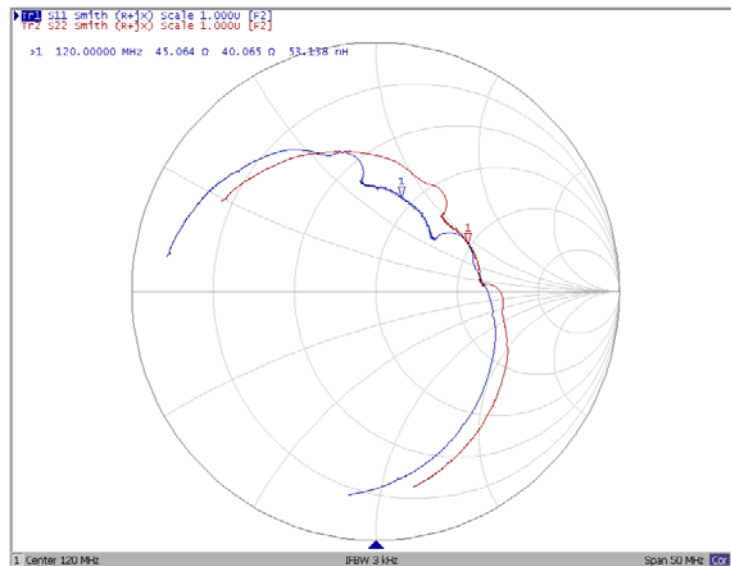
### Ripple Variation (fo $\pm 4.6$ MHz)



### Group Delay Variation (fo $\pm 4.6$ MHz)



### Smith Chart





### VSWR

