



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF70.0M-HB	70MHz IF SAW Filter 26.0MHz 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)



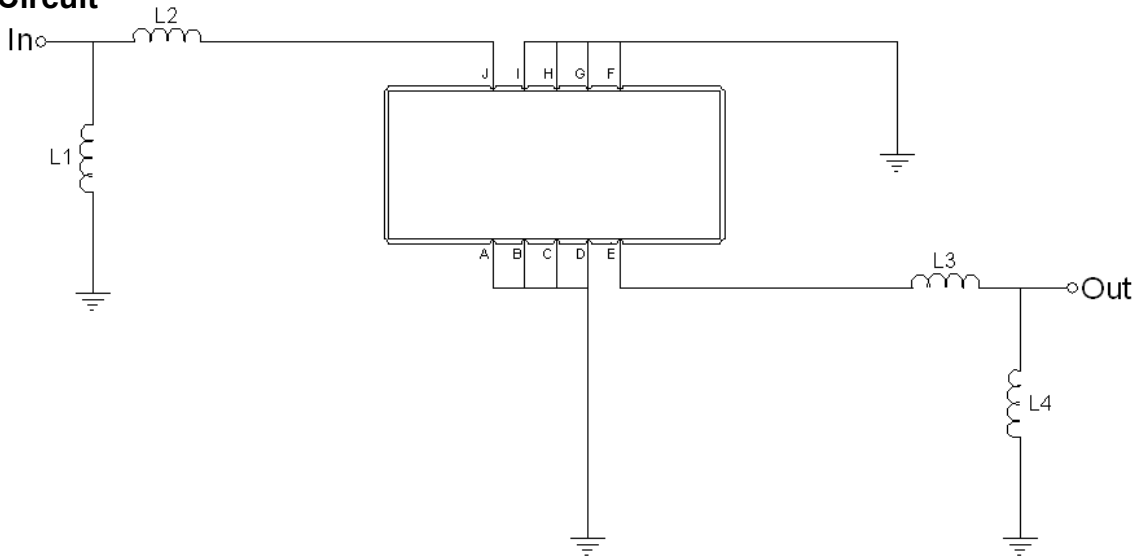


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1= 680 nH, L2= 270 nH
Output	L3= 150 nH, L4= 680 nH
Source/Load Impedance	50 Ω

**Maximum Ratings**

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-30	-	+80
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.

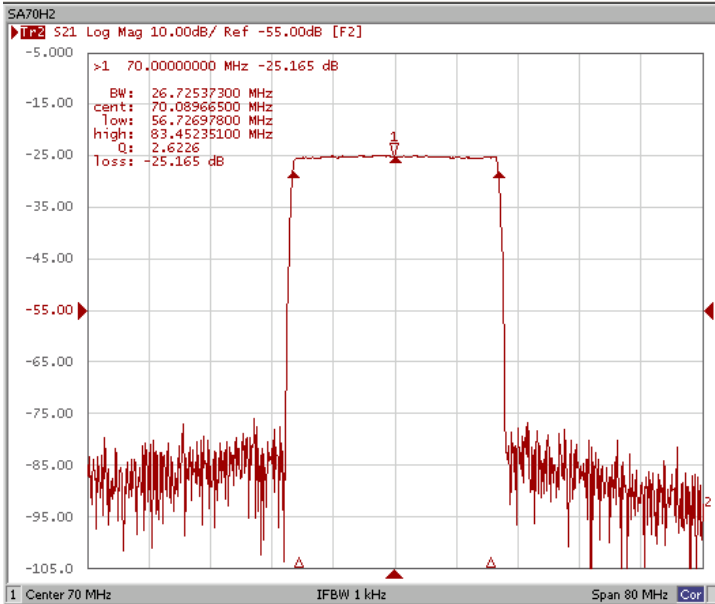
**Electrical Specification**

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	69.92	70.0	70.08
Insertion Loss at Fo	dB	-	25.2	26.5
Amplitude Ripple Variation at Fo ±12.49 MHz	dB <sub>p-p</sub>	-	0.7	1.0
Group Delay Variation at Fo ±12.49 MHz	nsec	-	35	100
Absolute Delay at Fo	μsec	-	2.0	-
Temperature Coefficient	ppm/°C	-	-72	-
Bandwidth at -1.0 dB	MHz	-	26.3	-
Bandwidth at -3.0 dB	MHz	26.6	26.7	-
Bandwidth at -40.0 dB	MHz	-	28.3	28.8
Lower Sidelobe	dB	50	-	-
Upper Sidelobe	dB	50	-	-

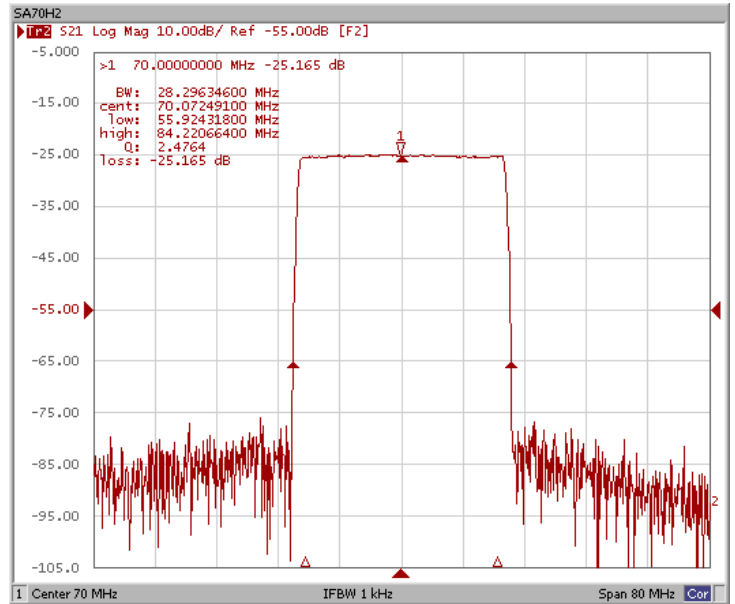


## Frequency Response

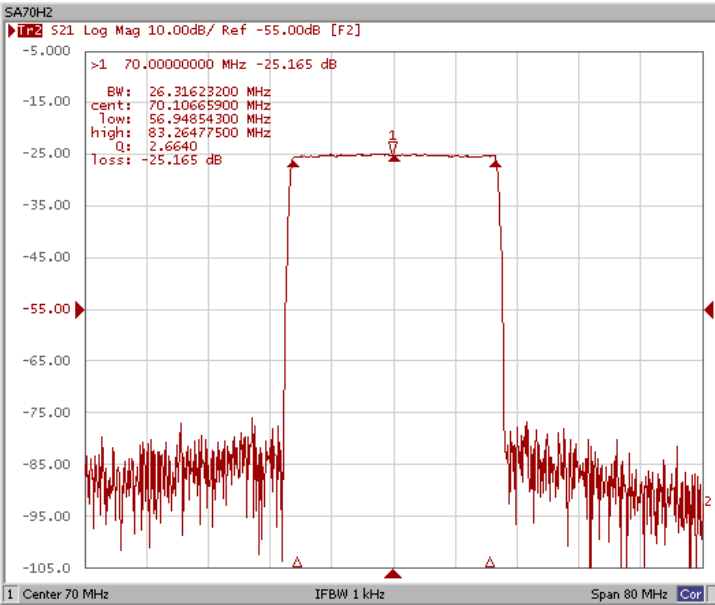
### Bandwidth at -3.0 dB



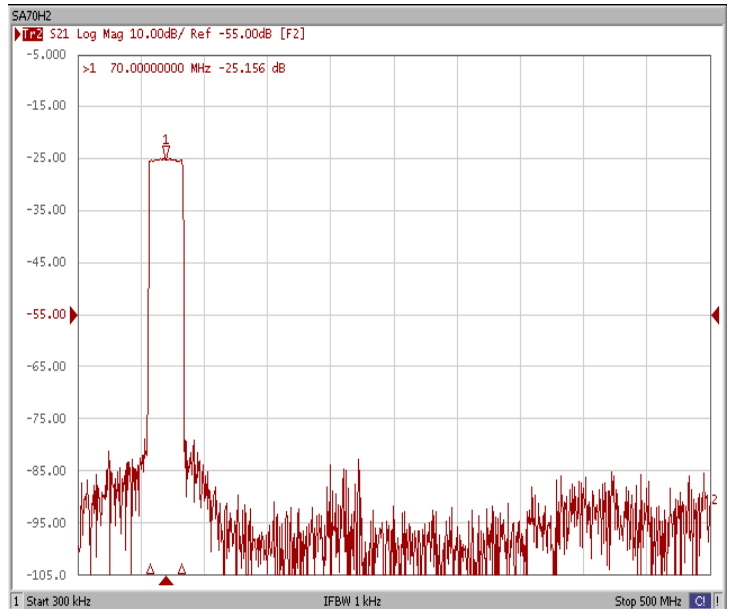
### Bandwidth at -40.0 dB



### Bandwidth at -1.0 dB

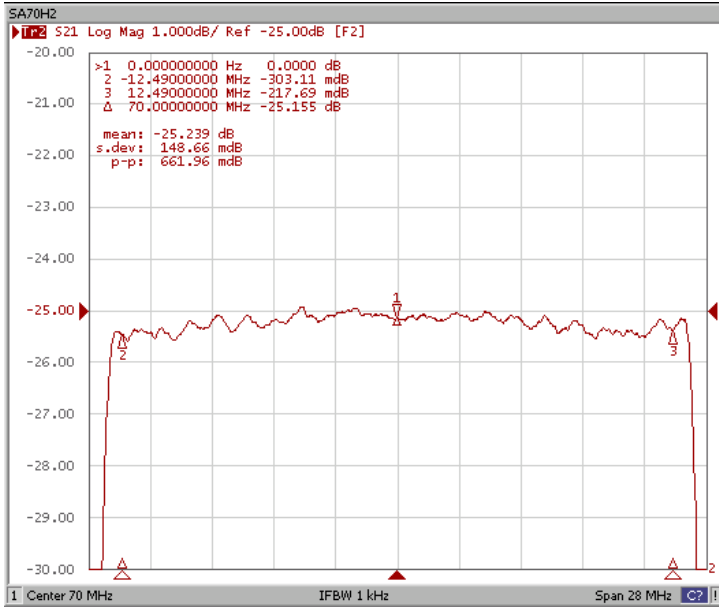


### Wide Band

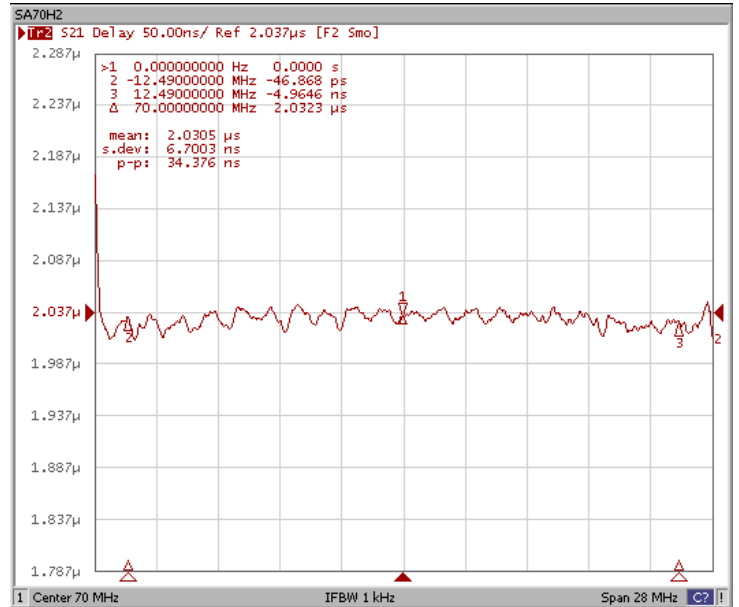




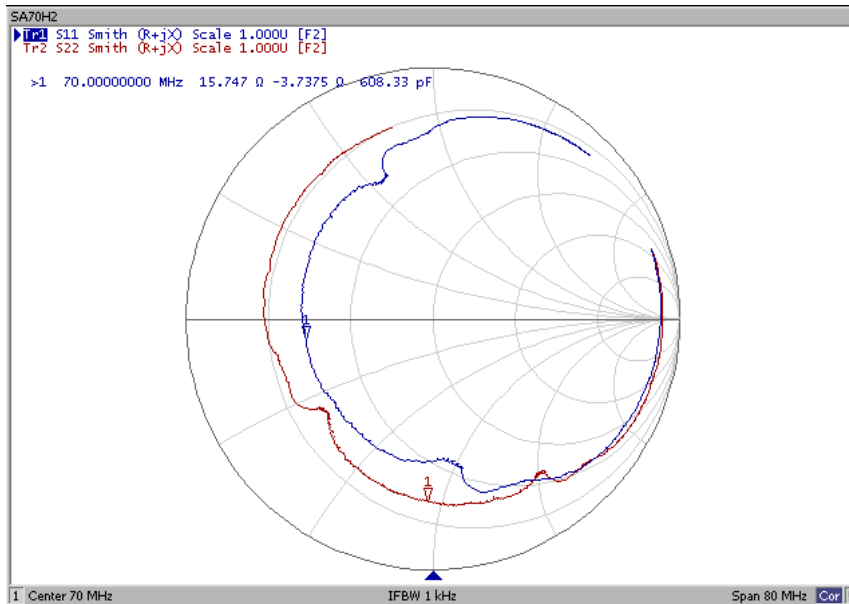
### Ripple Variation



### Group Delay Variation



### Smith Chart





### VSWR

