



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF70.0M-20A	70.0 MHz IF SAW Filter 20.1MHz 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)



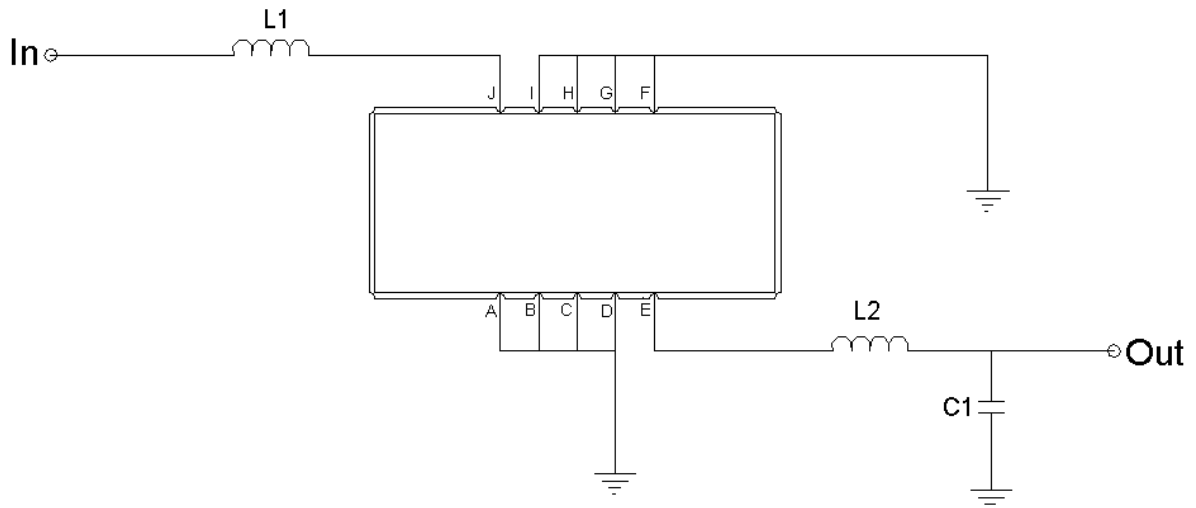


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1=120nH
Output	L2=220nH, C2=6pF
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.

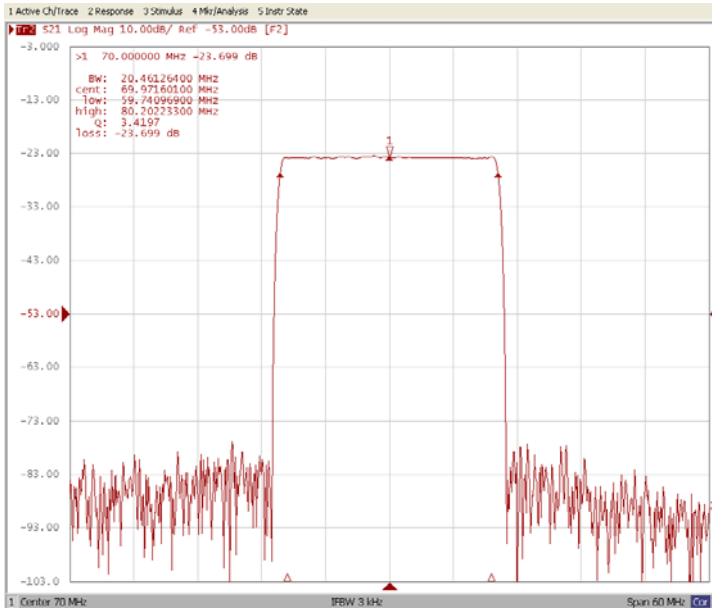
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	69.90	70.00	70.10
Insertion Loss at Fo	dB	-	23.5	25.0
Amplitude Ripple Variation at Fo ±9.75 MHz	dB <sub>p-p</sub>	-	0.6	1.0
Group Delay Variation at Fo ±9.75 MHz	nsec	-	40	80
Absolute Delay at Fo	μsec	-	2.26	-
Temperature Coefficient	ppm/°C	-	-72	-
Bandwidth at -1.0 dB	MHz	-	20.10	-
Bandwidth at -3.0 dB	MHz	20.30	20.46	-
Bandwidth at -40.0 dB	MHz	-	21.78	21.90
Lower Sidelobe	dB	50	54	-
Upper Sidelobe	dB	50	54	-

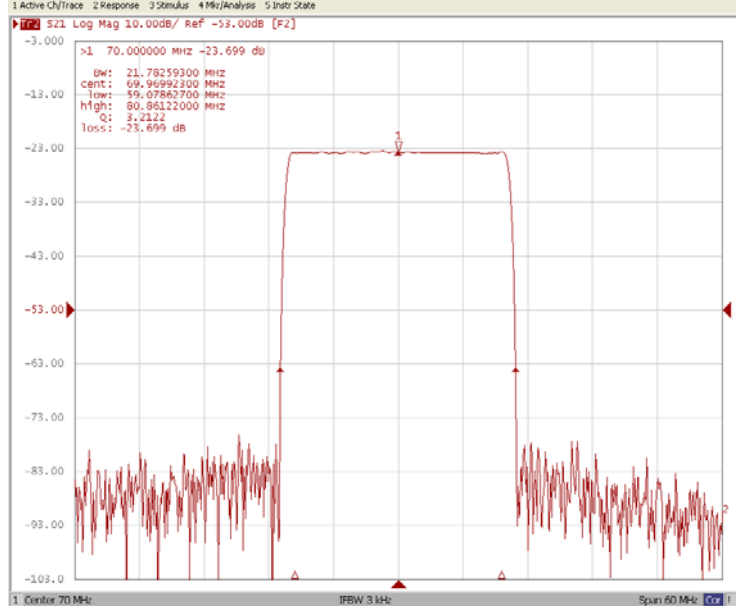


## Frequency Response

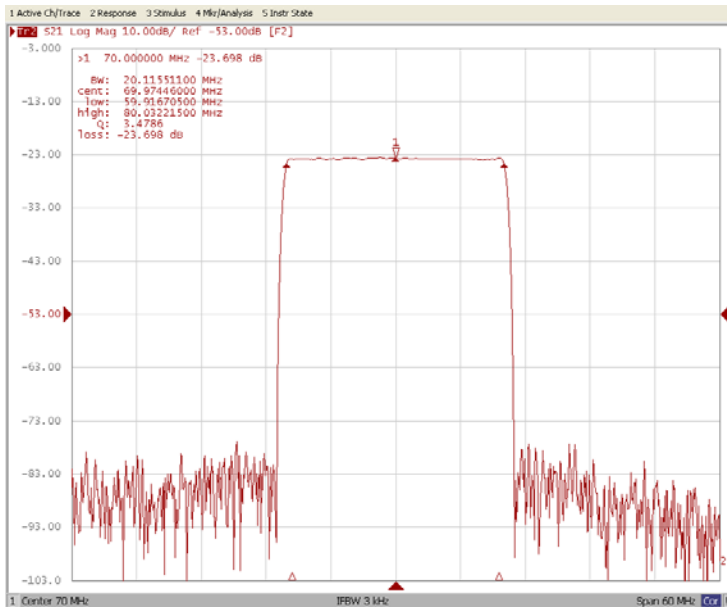
### Bandwidth at -3.0 dB



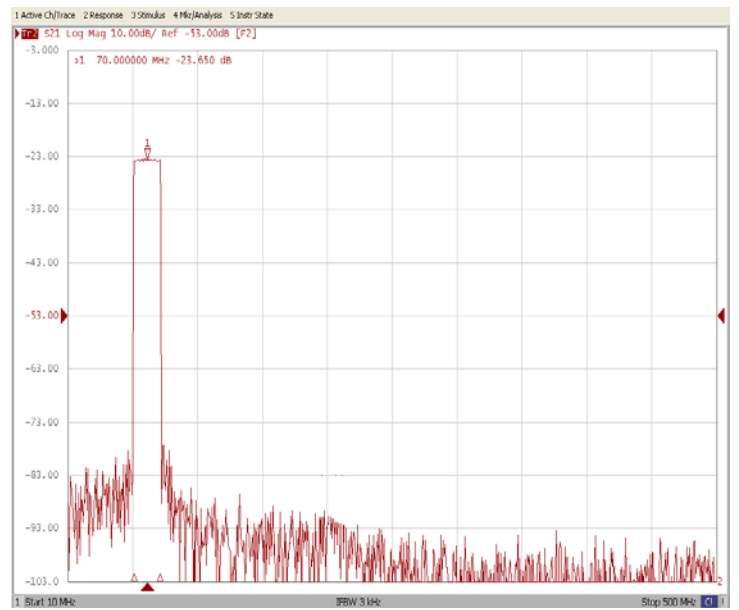
### Bandwidth at -40.0 dB



### Bandwidth at -1.0 dB

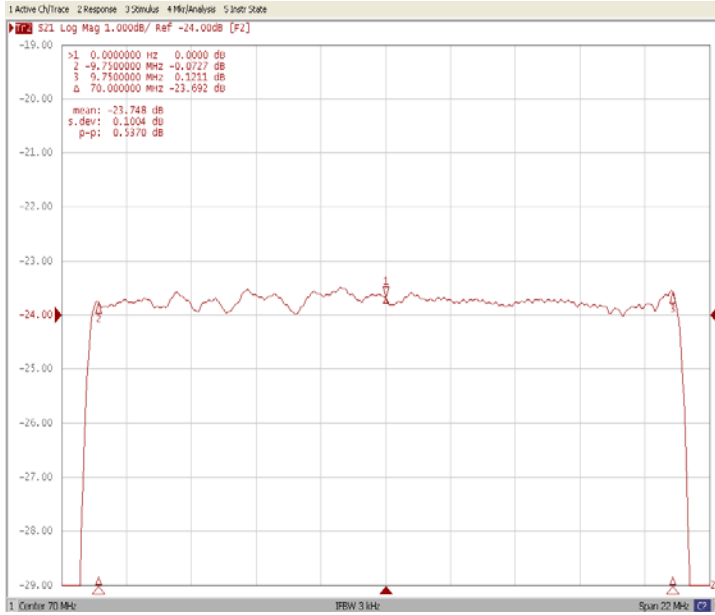


### Wide Band

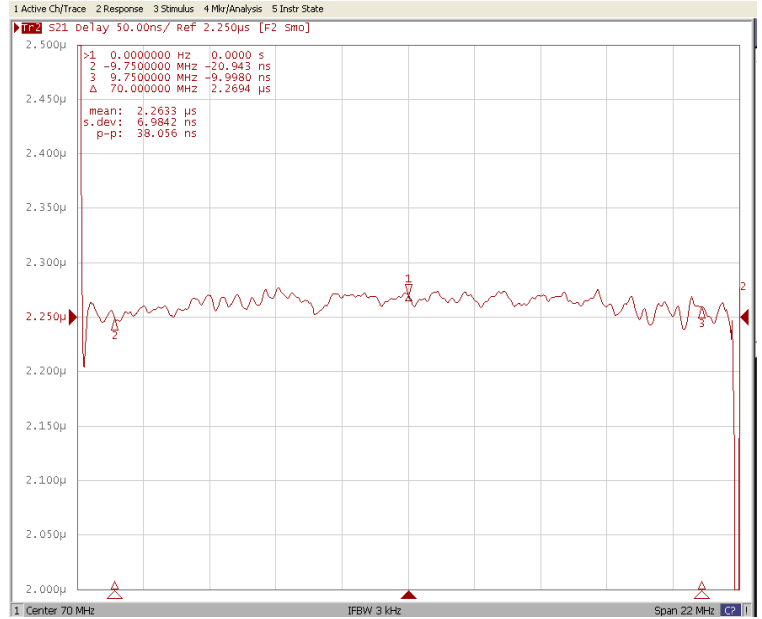




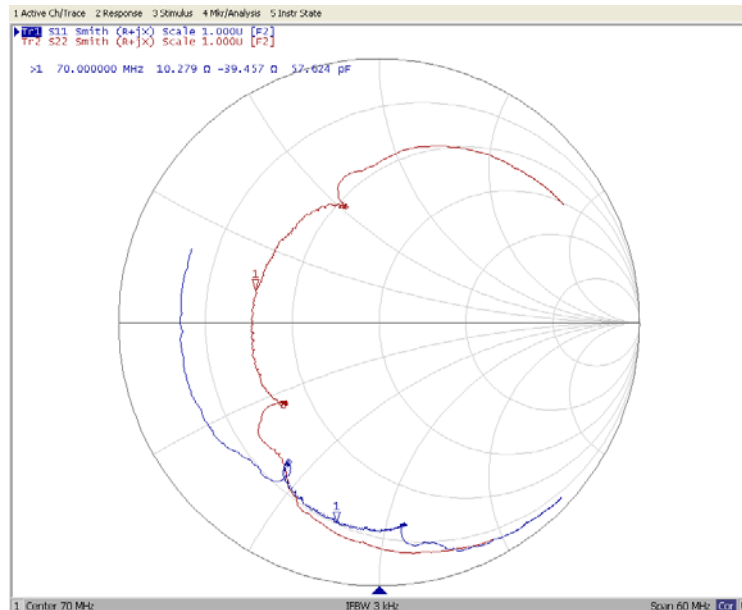
### Ripple Variation



### Group Delay Variation



### Smith Chart





## VSWR

