



# PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF80.0M-30A	80.0 MHz IF SAW Filter 30.20 MHz Bandwidth

## Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
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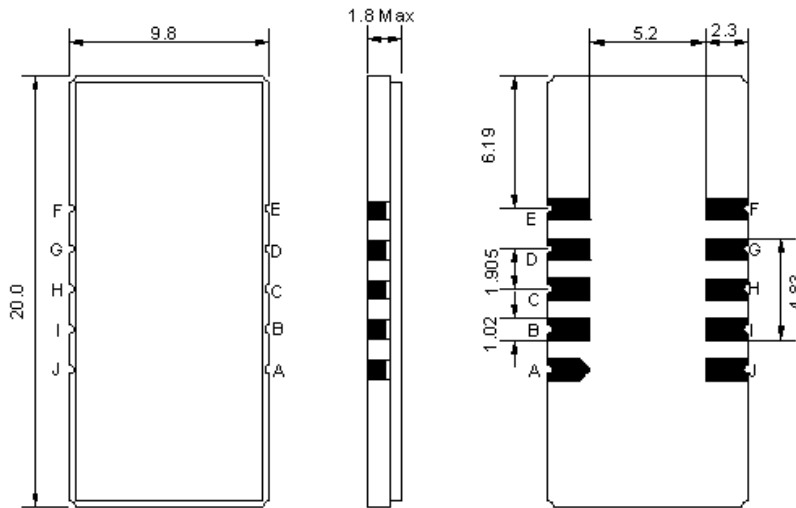
## Notes

- 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)



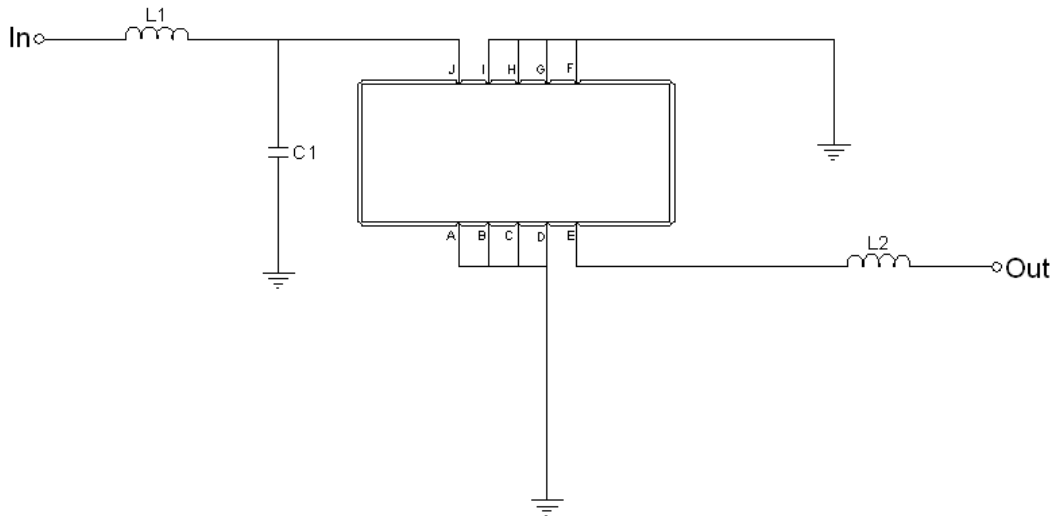


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	$L1 = 120 \text{ nH}$ , $C2 = 3.3 \text{ pF}$
Output	$L2 = 150 \text{ nH}$
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	-	80.0	-
Insertion Loss at Fo	dB	-	25.70	28.00
Group Delay Variation at Fo ± 14.75 MHz	nsec	-	25	60
Absolute Delay at Fo	usec	-	1.78	-
Passband Ripple Variation at Fo ± 14.75 MHz	dB	-	0.55	0.90
Bandwidth at -1dB	MHz	29.90	30.20	-
Bandwidth at -3dB	MHz	-	30.60	-
Bandwidth at -25dB	MHz	-	32.22	-
Bandwidth at -40dB	MHz	-	32.65	32.90
Relative Attenuation				
Lower Sidelobe	dB	48	52	-
Upper Sidelobe	dB	48	52	-
Temperature Coefficient	ppm/°C	-	-72	-

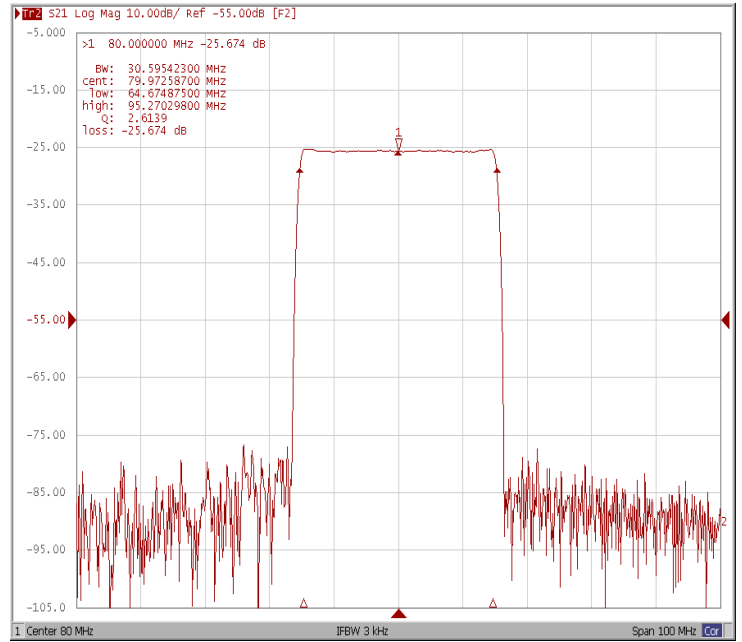


## Frequency Response

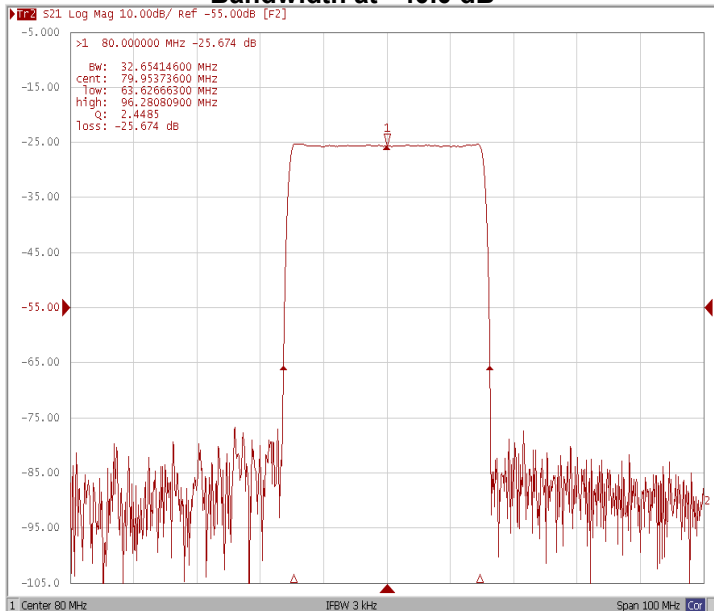
### Bandwidth at -1.0 dB



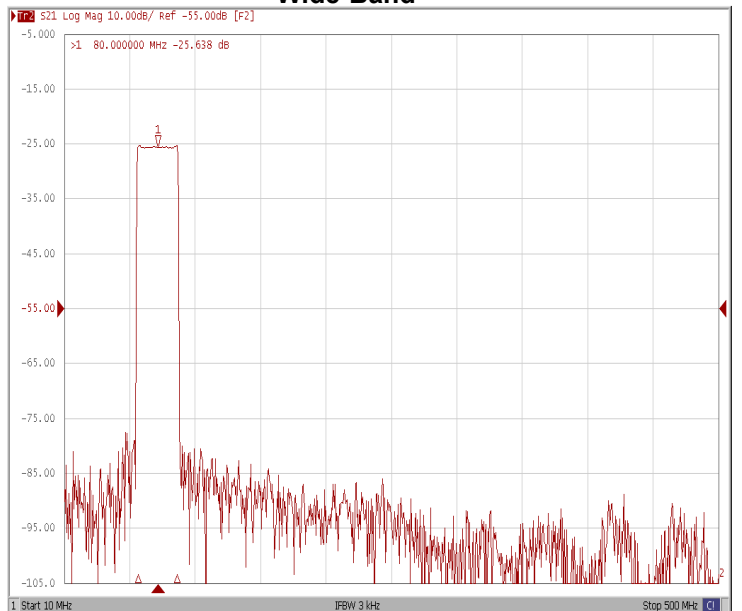
### Bandwidth at -3.0 dB



### Bandwidth at -40.0 dB



### Wide-Band

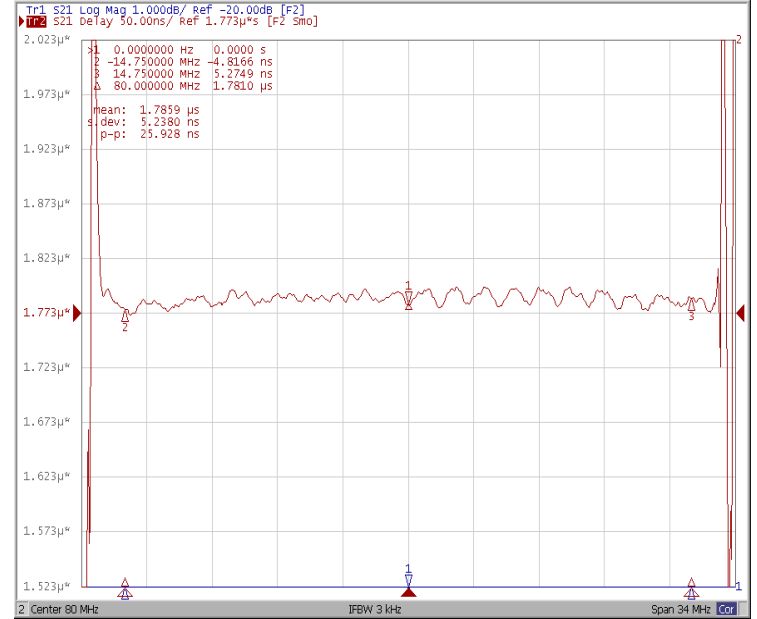




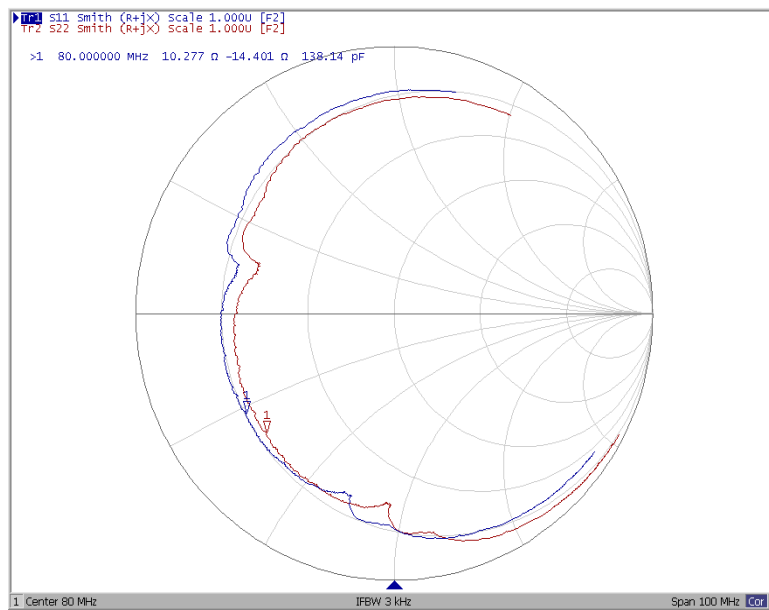
### Ripple Variation Fo±14.75 MHz



### Group Delay Variation Fo±14.75MHz



### Smith Chart





### VSWR

