



# PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-SL96.0M-35	96.0MHz IF SAW Filter 36.0MHz 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)



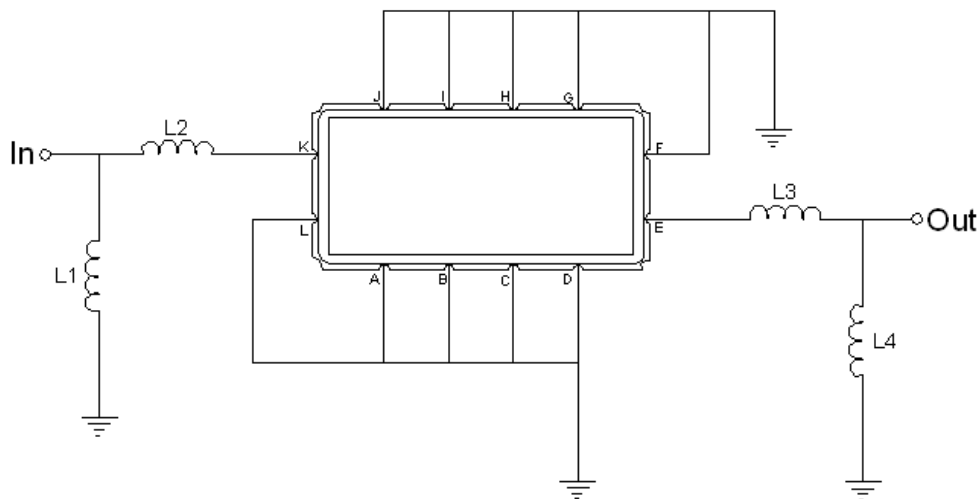


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1=68 nH, L2=68 nH
Output	L3=68 nH, L4=68 nH
Source/Load Impedance	50 $\Omega$



## 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.

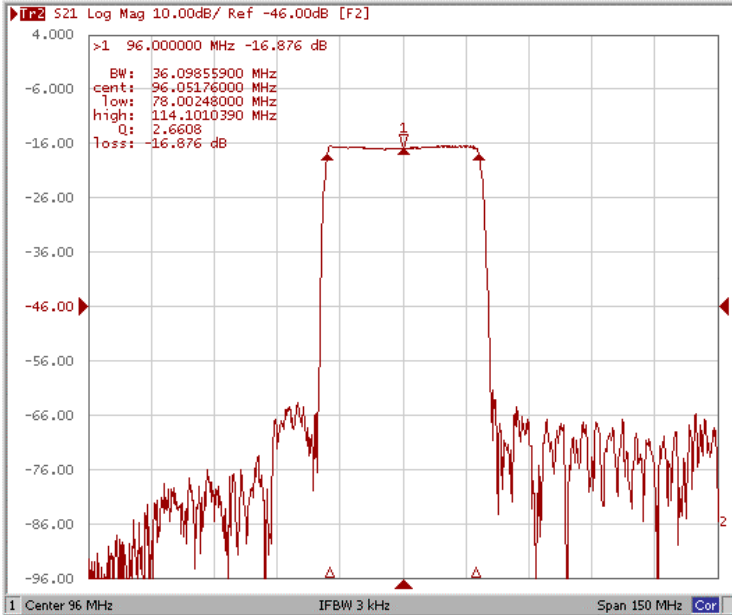
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	96.0	-
Insertion Loss at Fo	dB	-	16.8	18.5
Temperature Coefficient	ppm/°C	-	-86	-
Amplitude Ripple Variation	dB <sub>p-p</sub>	-	1.2	2.0
Amplitude Ripple within fo ±2.5 MHz	dB <sub>p-p</sub>	-	0.4	0.7
Group Delay Variation	nsec	-	65	120
Group Delay Variation within fo ±2.5 MHz	nsec	-	38	70
Absolute Delay at Fo	μsec	-	0.942	-
Bandwidth at -1.0 dB	MHz	35.0	36.0	-
Bandwidth at -3.0 dB	MHz	36.0	36.8	-
Bandwidth at -30.0 dB	MHz	-	40.0	41.0
Relative Attenuation:	dB	40	47	-
Ambient Temperature	°C	-	25	-

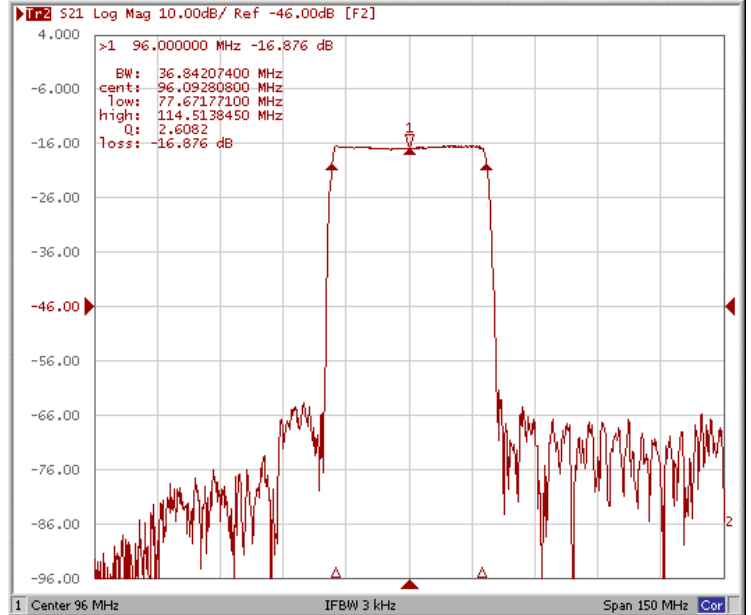


## Frequency Response

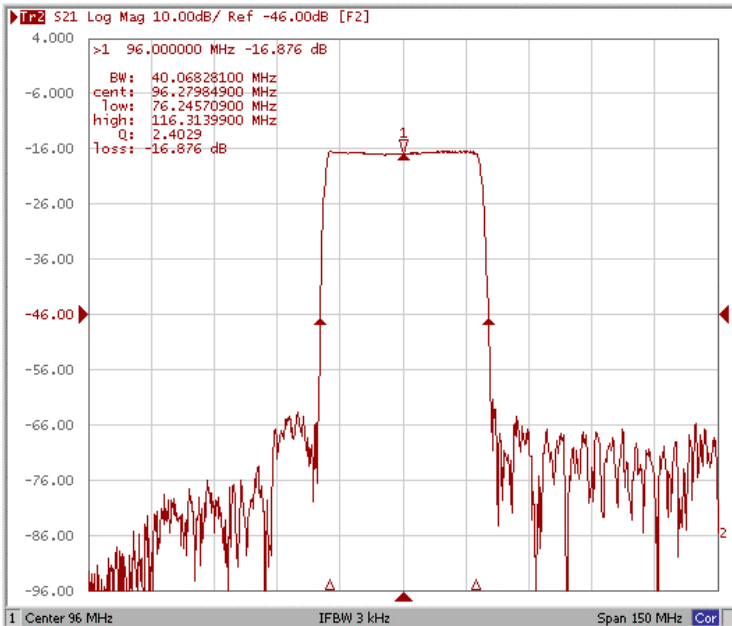
### Bandwidth at -1.0 dB



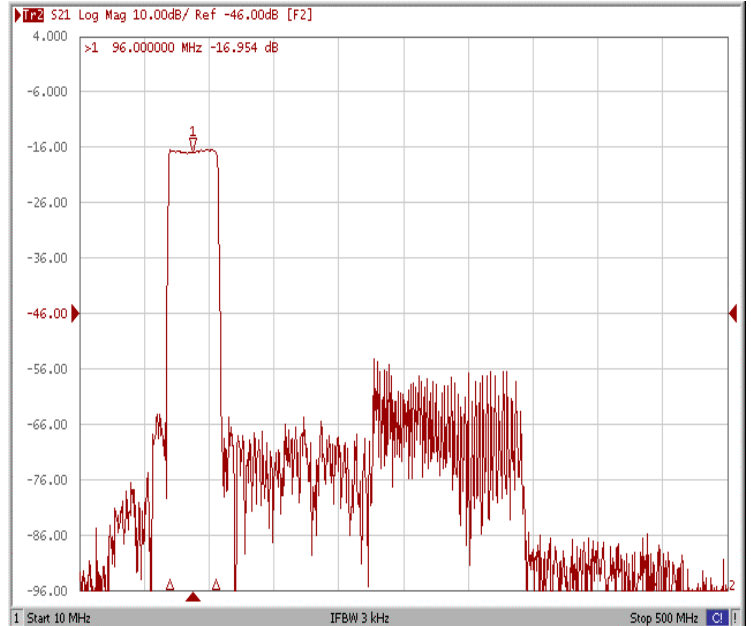
### Bandwidth at -3.0 dB



### Bandwidth at -30.0 dB

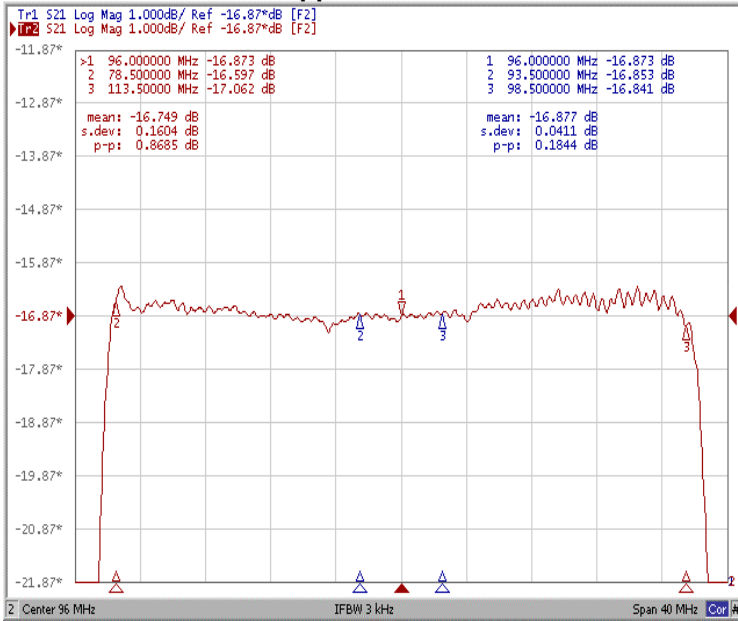


### Wide-Band

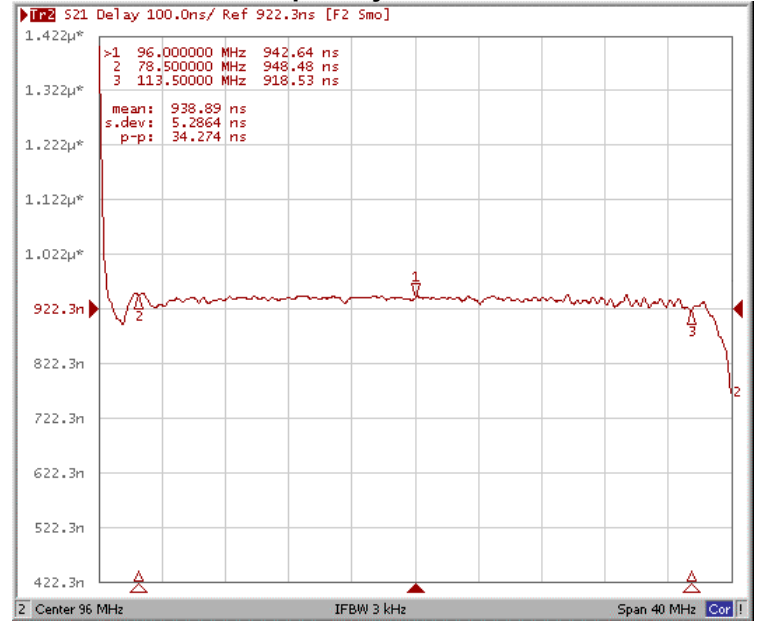




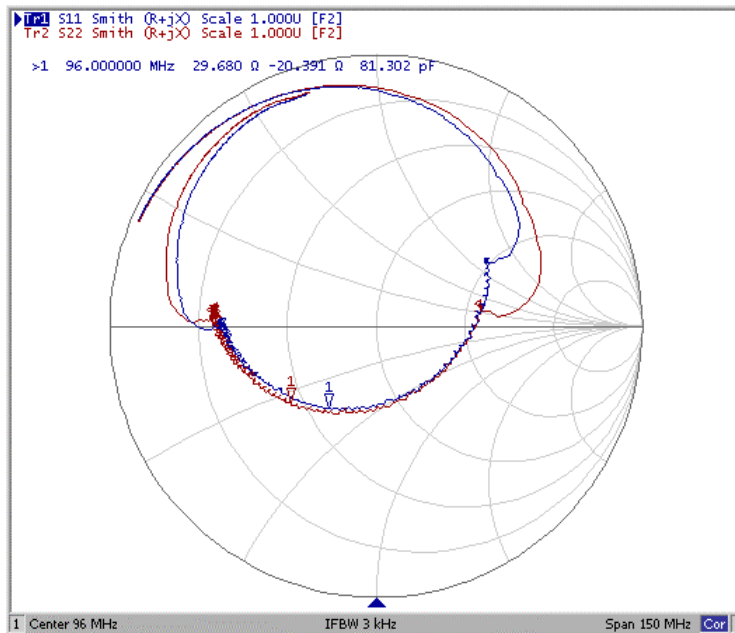
### Ripple Variation



### Group Delay Variation



### Smith Chart





### VSWR

