



# PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-SL147.0M-10B	147.0MHz IF SAW Filter 9.5 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)



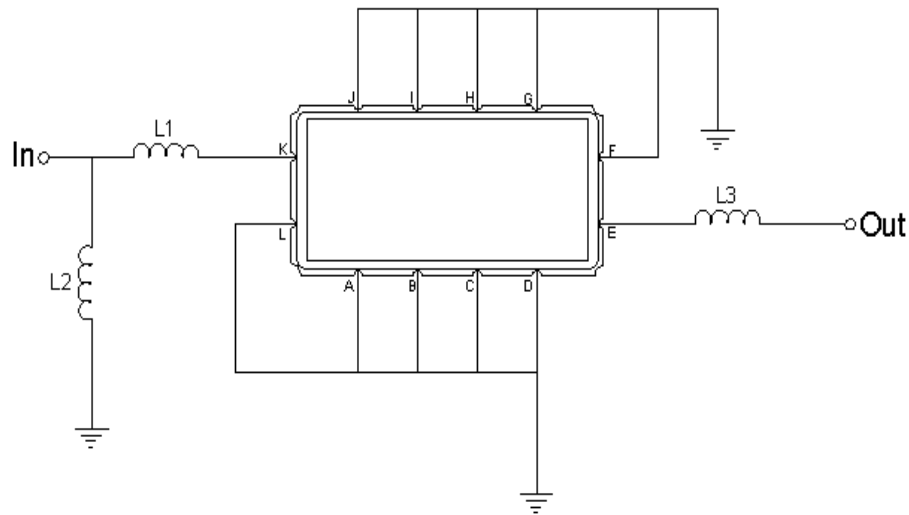


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1=8.2 nH, L2=47 nH
Output	L3=22 nH
Source/Load Impedance	50 Ω



## Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	0	-	80
Storage Temperature Range	°C	-40	-	55
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.

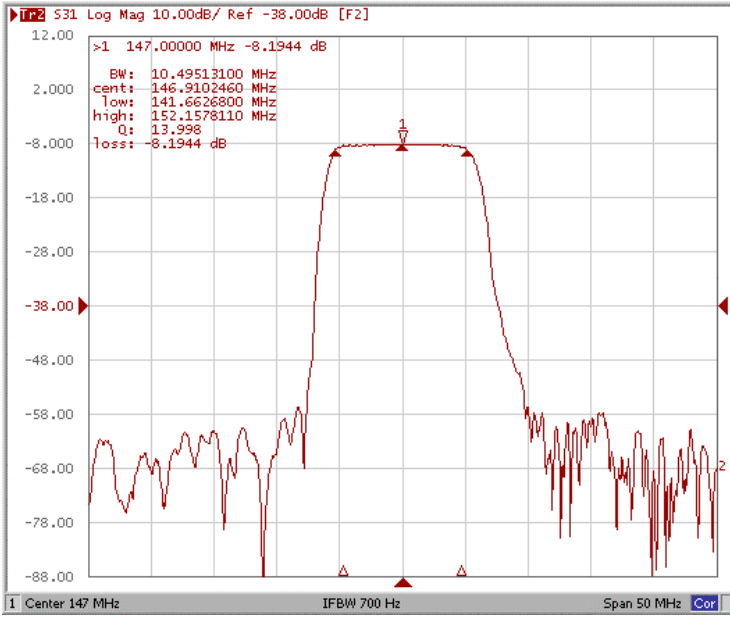
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	146.8	147.0	147.2
Insertion Loss at Fo	dB	-	8.2	11.0
Amplitude Ripple Variation at Fo ± 4.75 MHz	dB <sub>p-p</sub>	-	0.6	1.0
Group Delay Variation at Fo ± 4.75 MHz	nsec	-	60	100
Absolute Delay at Fo	μsec	-	0.91	-
Temperature Coefficient	ppm/°C	-	-89	-
Bandwidth at -1.0 dB	MHz	9.6	10.5	-
Bandwidth at -3.0 dB	MHz	10.6	11.4	-
Bandwidth at -35.0 dB	MHz	-	15.2	16.0
Relative Attenuation				
Lower Sidelobe	dB	45	50	-
Upper Sidelobe	dB	45	50	-

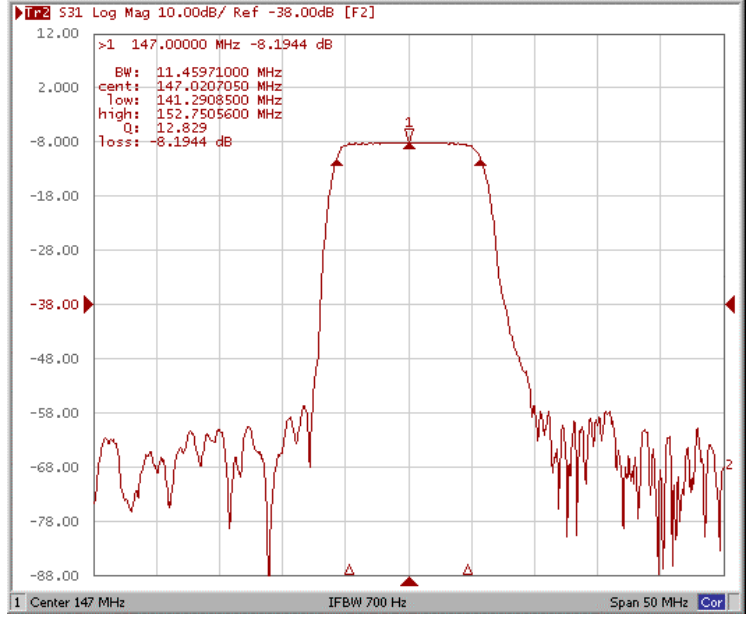


## Frequency Response

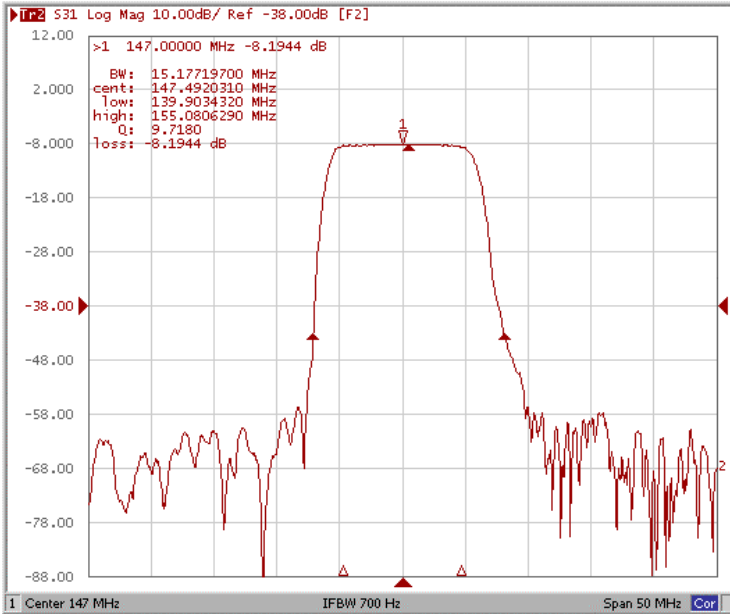
### Bandwidth at -1.0 dB



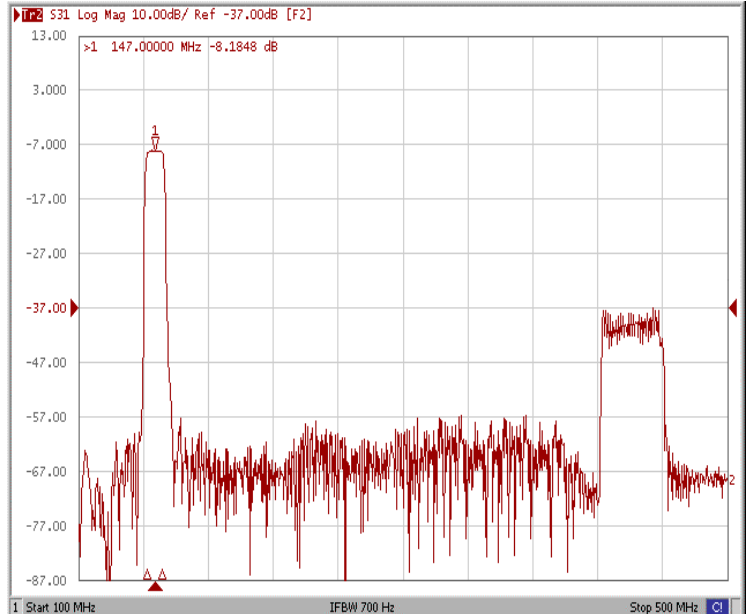
### Bandwidth at -3.0 dB



### Bandwidth at -35.0 dB

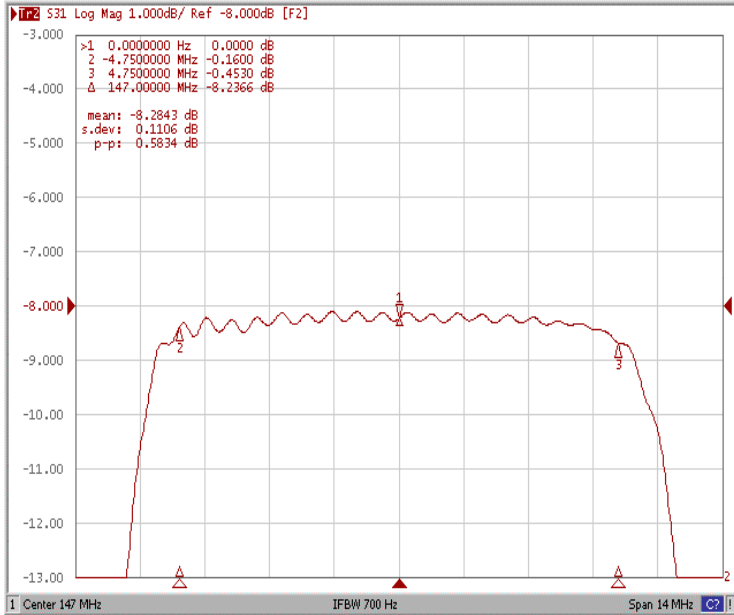


### Wide-Band

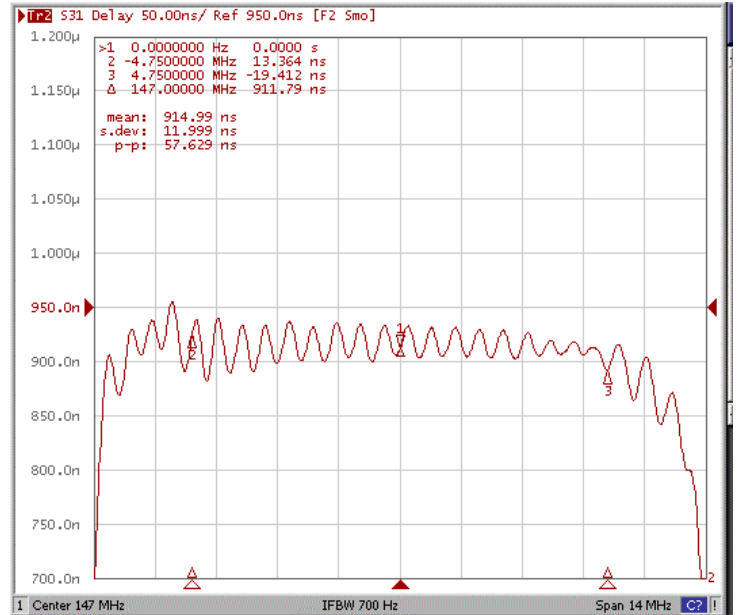




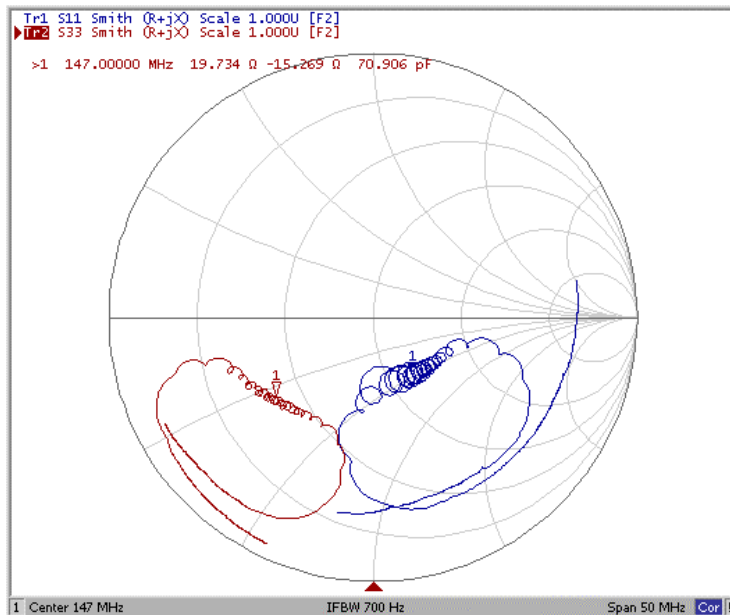
### Ripple Variation Fo±4.75MHz



### Group Delay Variation Fo±4.75MHz



### Smith Chart





### VSWR

