



# PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF108.8M-03A	108.8MHz IF SAW Filter 3.93MHz Bandwidth

## Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
- o Frequency Response
- o Smith Chart
- o VSWR

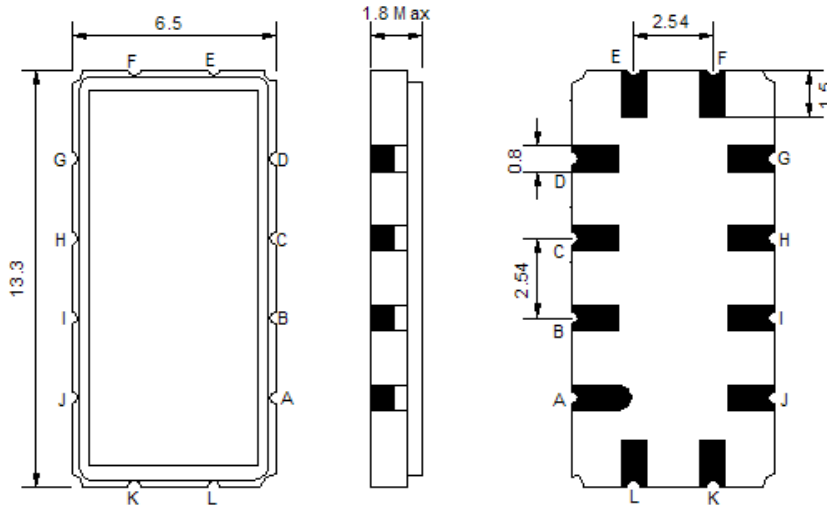
## Notes

- 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)



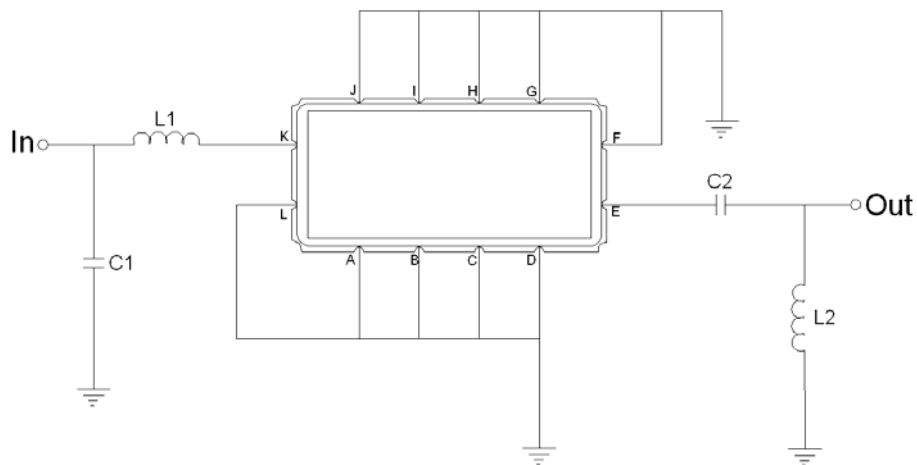


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1 = 10 nH, C1 = 36 pF
Output	L2 = 18 nH, C2 = 240 pF
Source/Load Impedance	50 $\Omega$



## Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-5	-	65
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.

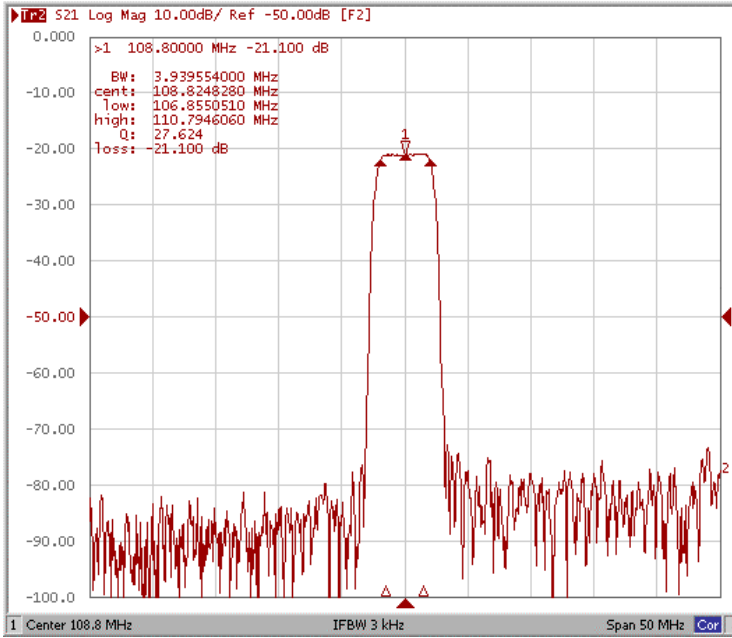
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	108.70	108.80	108.90
Insertion Loss at Fo	dB	-	21.10	23.00
Group Delay Variation (Fo±1.50MHz)	ns	-	80	130
Absolute Delay Time at Fo	us	-	1.41	1.60
Temperature Coefficient	ppm/°C	-	-18	-
Amplitude Ripple (Fo±1.50MHz)	dB	-	0.35	0.90
Bandwidth at -1dB	MHz	3.60	3.93	-
Bandwidth at -3dB	MHz	4.00	4.33	-
Bandwidth at -25dB	MHz	-	5.55	5.70
Bandwidth at -40dB	MHz	-	5.88	6.10
Ultimate Rejection	dB	45	52	-

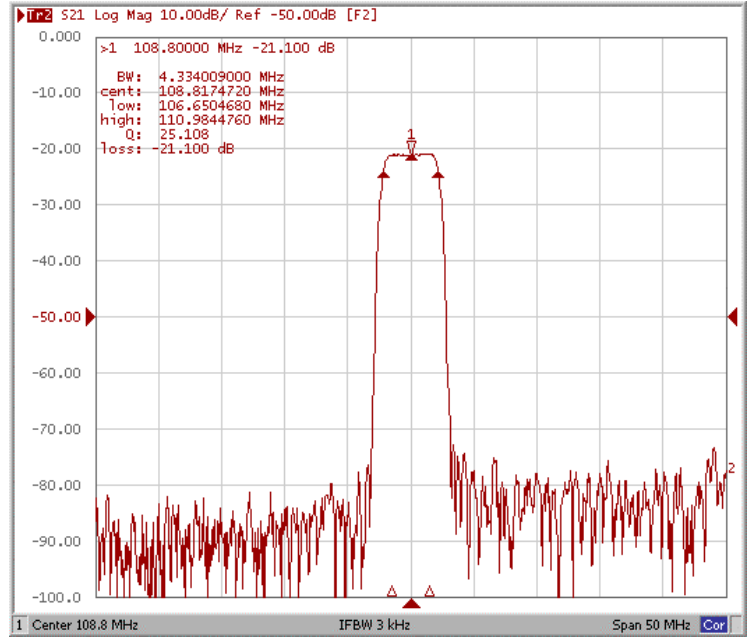


## Frequency Response

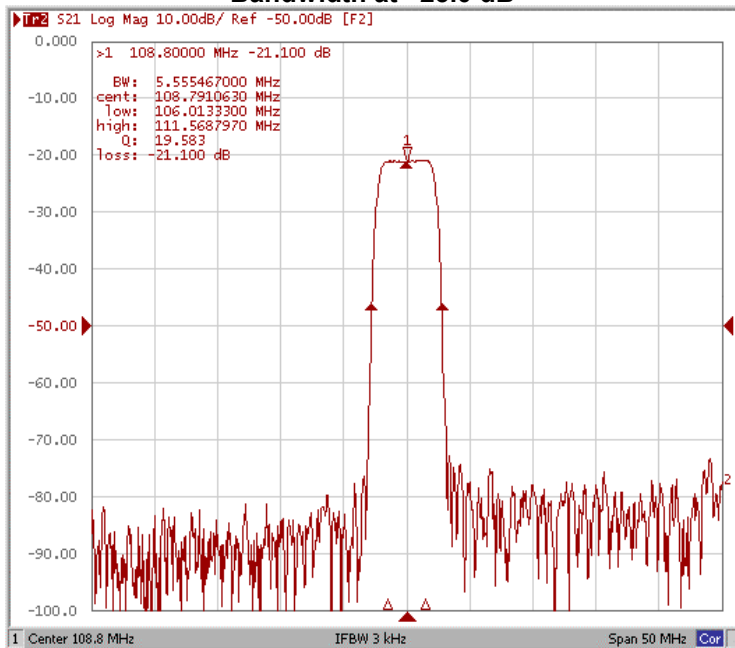
### Bandwidth at -1.0 dB



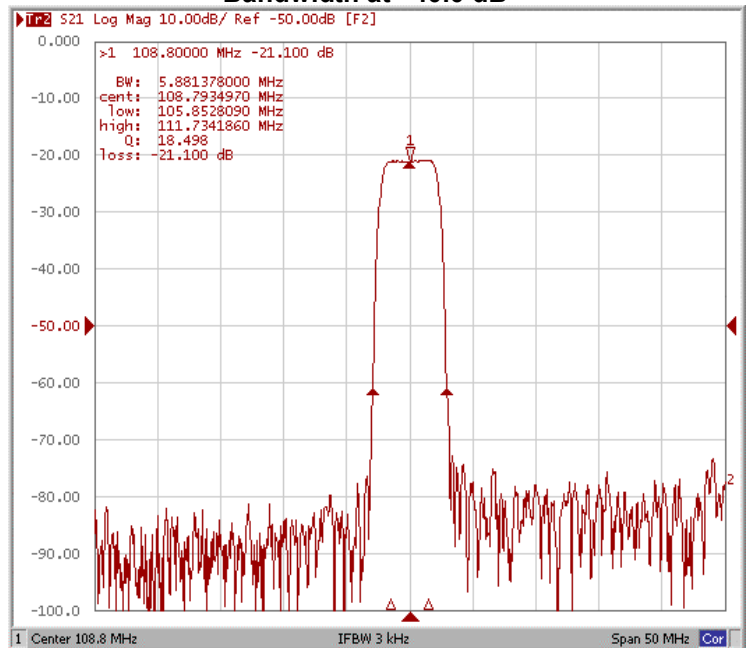
### Bandwidth at -3.0 dB



### Bandwidth at -25.0 dB

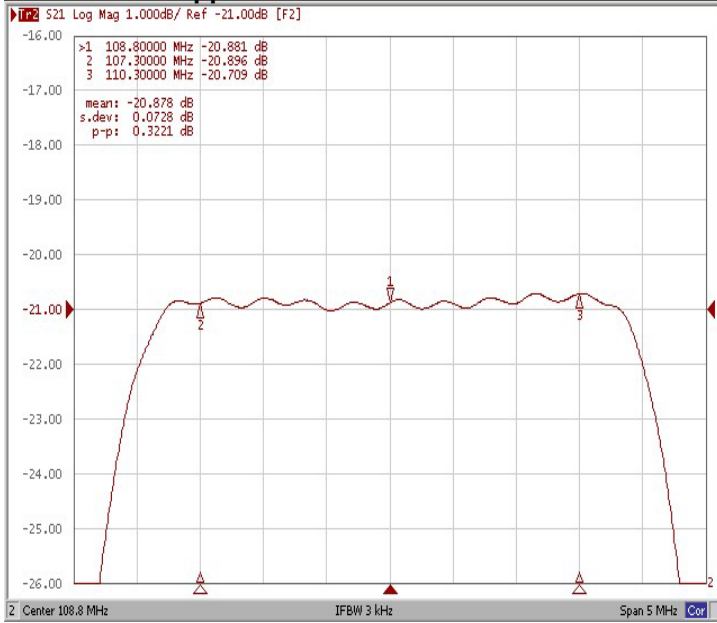


### Bandwidth at -40.0 dB

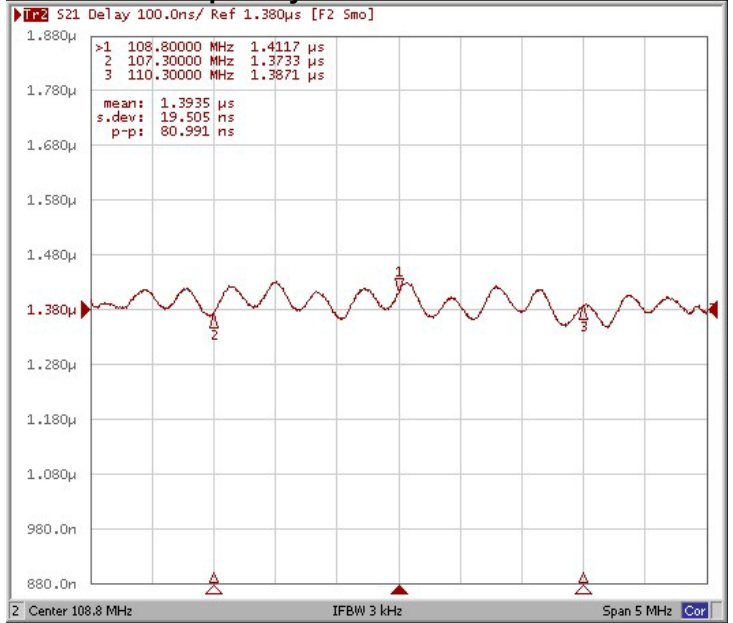




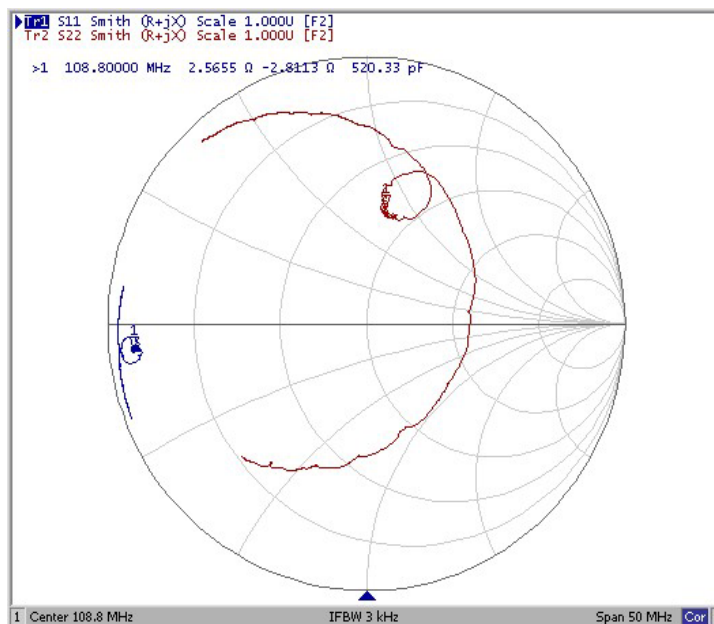
### Ripple Variation Fo±1.50MHz



### Group Delay Variation Fo±1.50MHz



### Smith Chart





### VSWR

