



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
835-IF115.0M-09B	115.0MHz IF SAW Filter 9.58 MHz Bandwidth

### Specification Contents

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

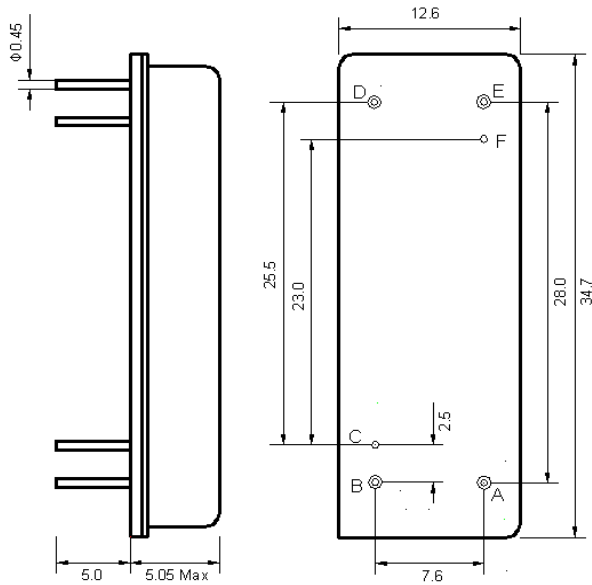
### Notes

- 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)



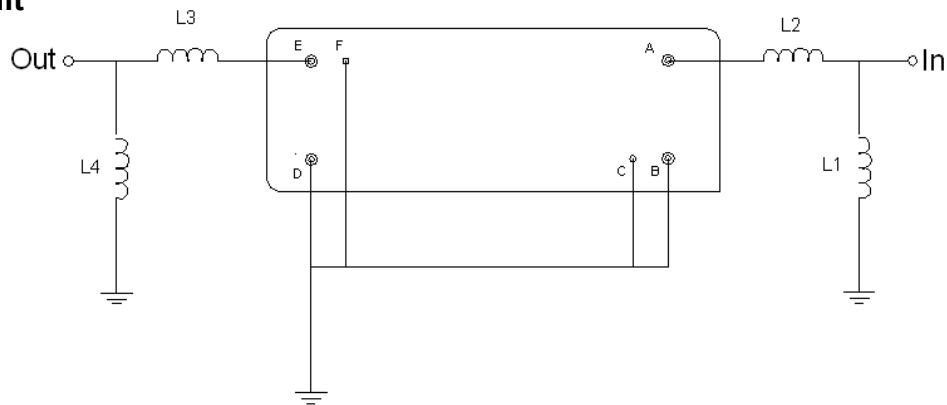


## Mechanical Dimensions (mm)



Pin Description	
B, C, D, F	Ground
A	In
E	Out

## Test Circuit



Test Fixture & Values	
Input	L1=18 nH, L2=5.6nH
Output	L2=4.7 nH, L4=18 pF
Source/Load Impedance	50 Ω



## Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-	45	-
Storage Temperature Range	°C	-20	-	70
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	28
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.

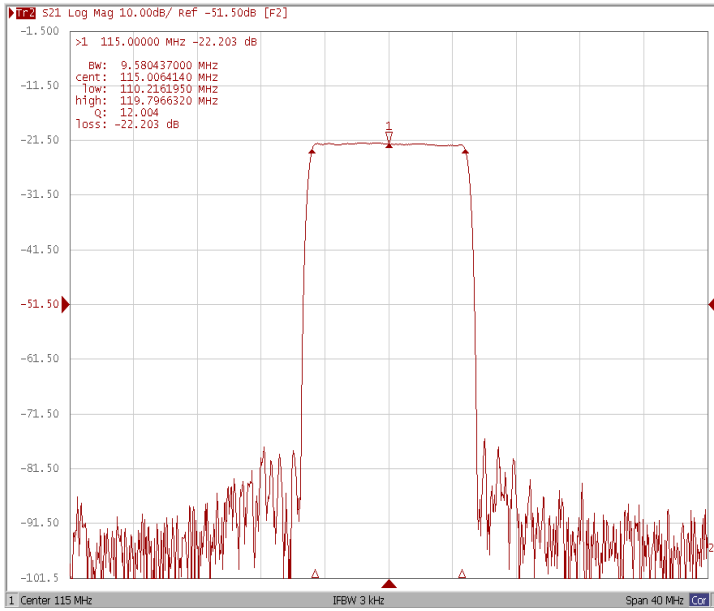
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	115.0	-
Insertion Loss at Fo	dB	-	22.2	26.0
Group Delay Variation (Fo±4.59MHz)	ns	-	68	100
Phase Linearity (Fo±4.59MHz)	deg		9.5	13.0
Absolute Delay Time at Fo	us	-	3.96	4.20
Temperature Coefficient	ppm/°C	-	-20	-
Amplitude Ripple (Fo±4.59MHz)	dB	-	0.63	1.00
Bandwidth at -1dB	MHz	9.45	9.58	-
Bandwidth at -45dB	MHz	-	10.88	11.05
Input & Output Return Loss		-	11.7	-
Triple transit attenuation	dBc	35	-	-
Relative Attenuation				
10MHz~105.0MHz	dBc	40	67	-
@109.84 MHz	dBc	10	13	-
@109.94 MHz	dBc	5	8	-
@120.06MHz	dBc	5	7	-
@120.16 MHz	dBc	10	11	-
125.0MHz ~300.0MHz	dBc	40	78	-

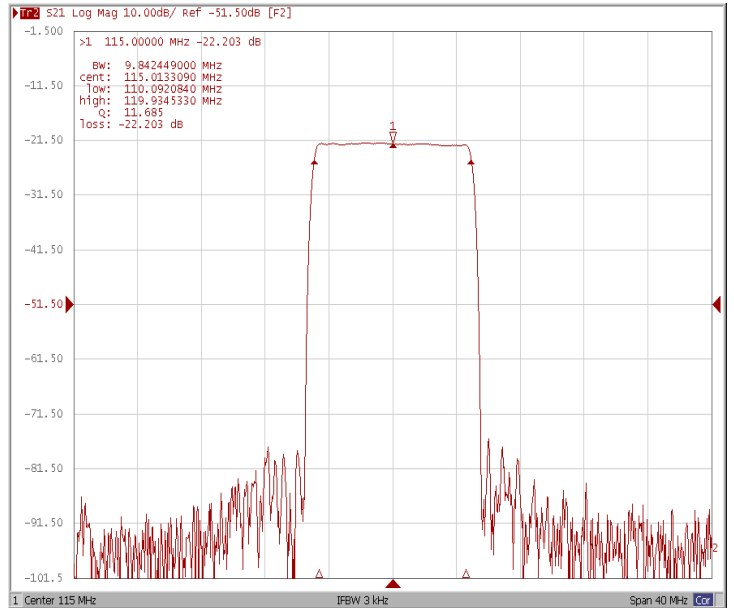


### Frequency Response

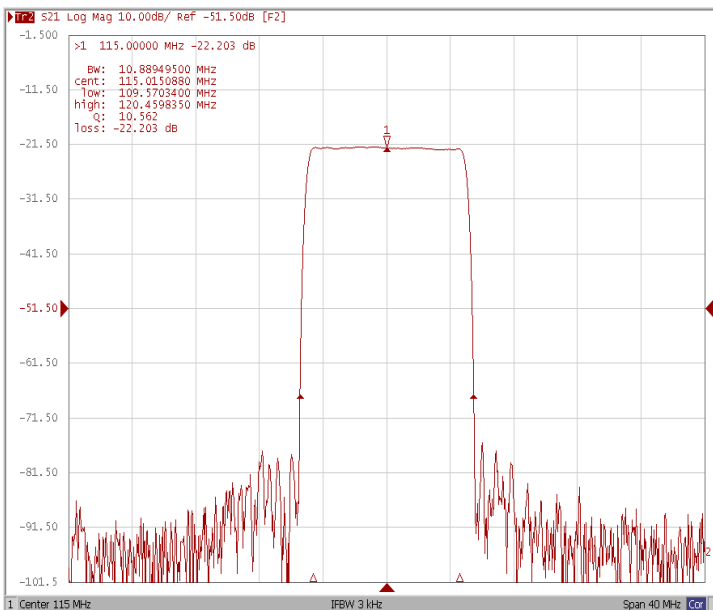
#### Bandwidth at -1.0 dB



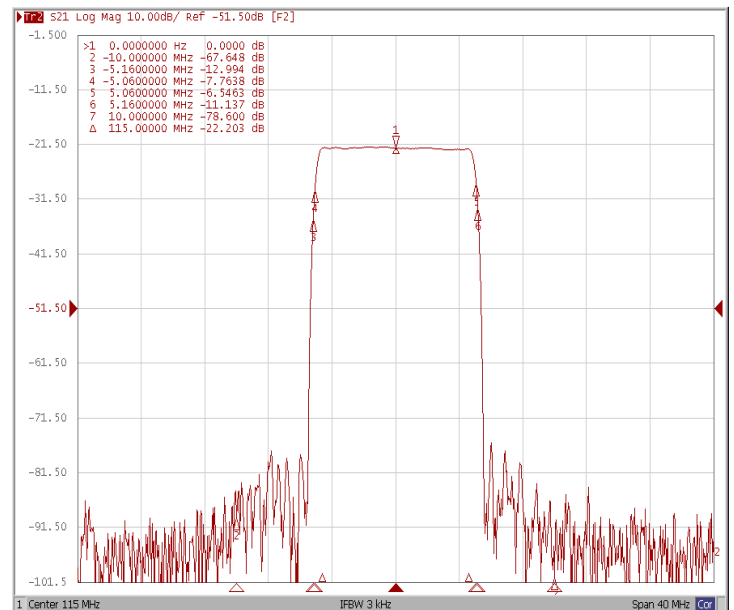
#### Bandwidth at -3.0 dB



#### Bandwidth at -45.0 dB

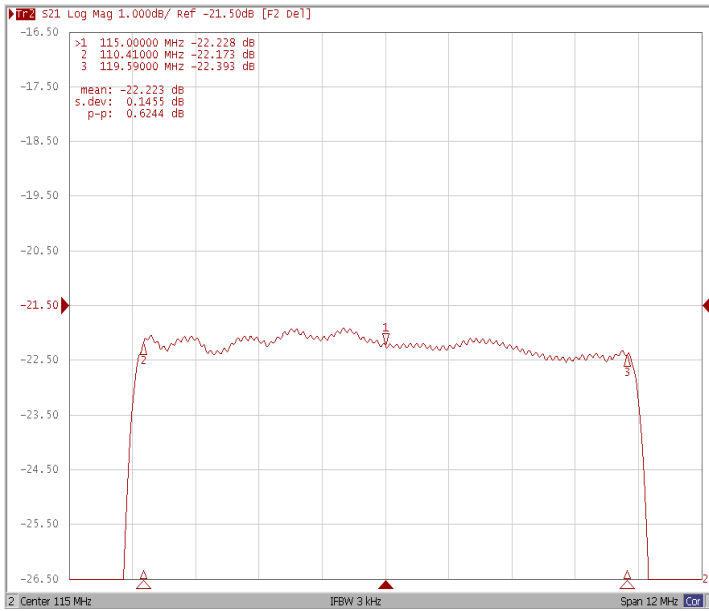


#### Relative Attenuation

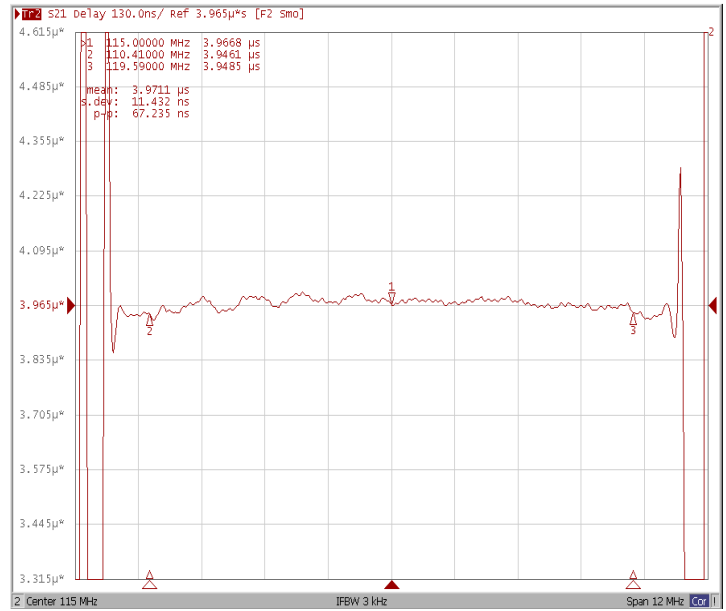




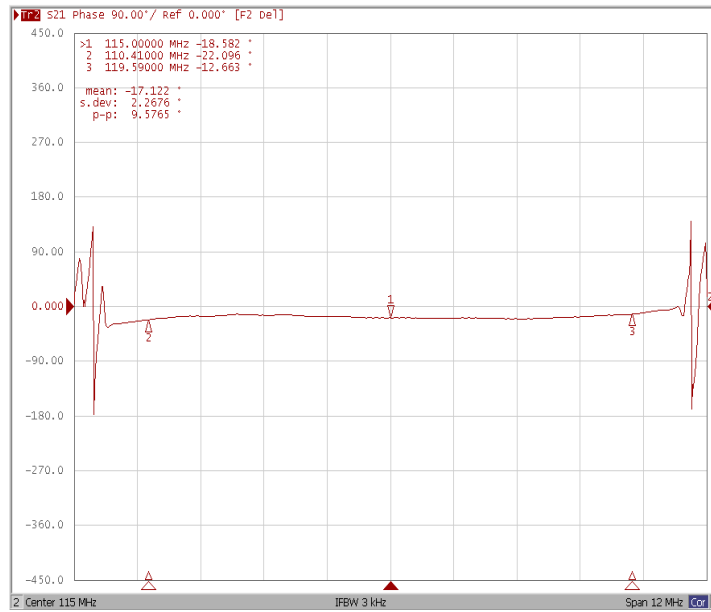
### Ripple Variation Fo±4.59MHz



### Group Delay Variation Fo±4.59MHz

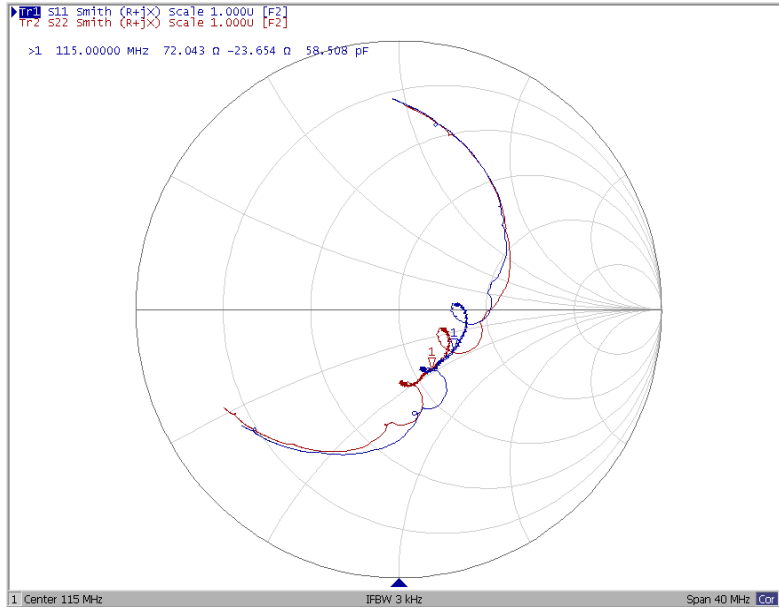


### Phase Linearity Fo±4.59MHz



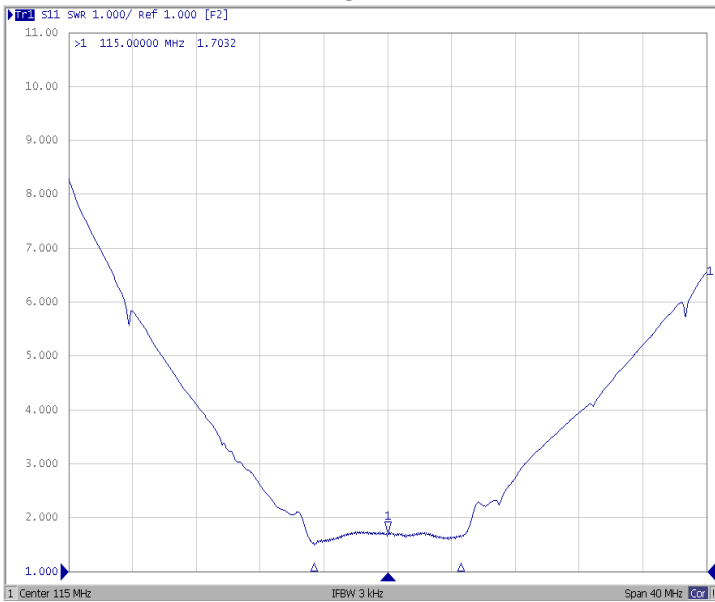


### Smith Chart

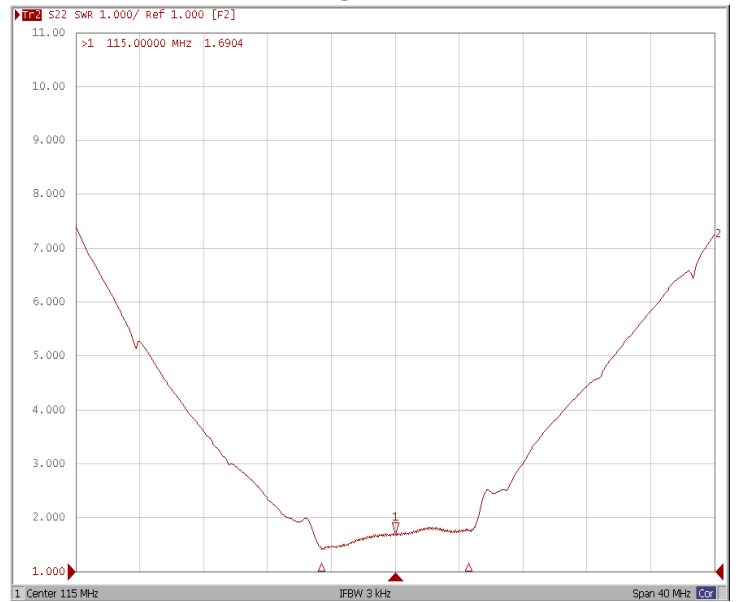


### VSWR

S11



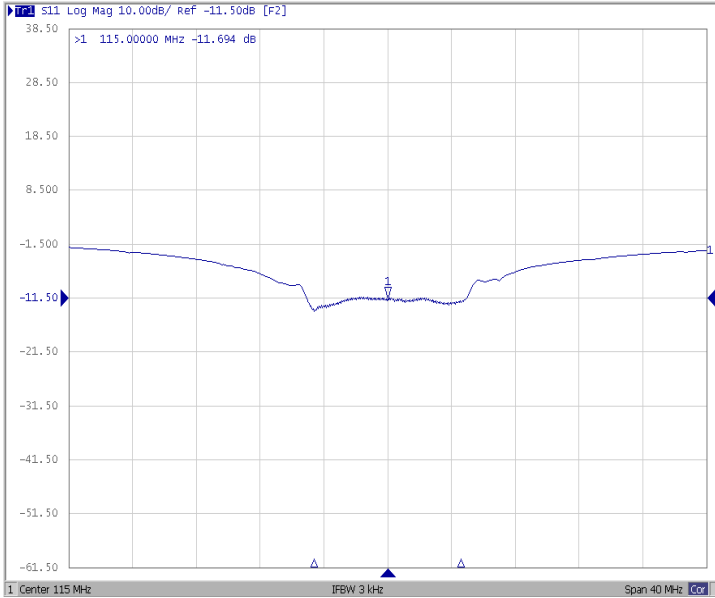
S22





### Return Loss

**S11**



**S22**

