



# PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
835-IF160.0M-12B	60.0MHz IF SAW Filter 12.73 MHz Bandwidth

## Specification Contents

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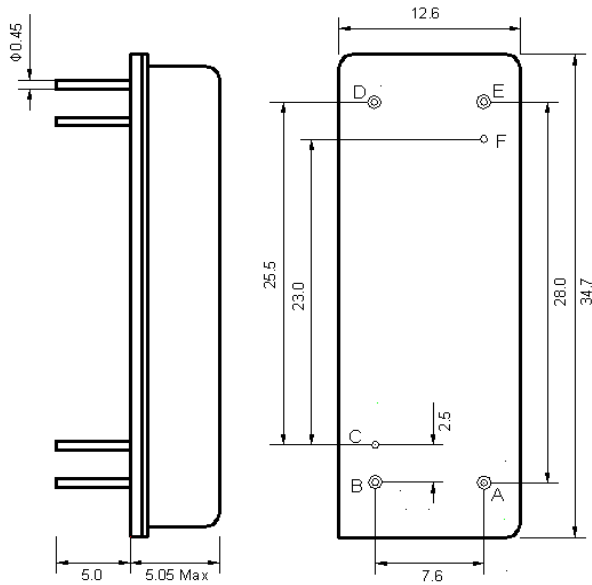
## Notes

- 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)



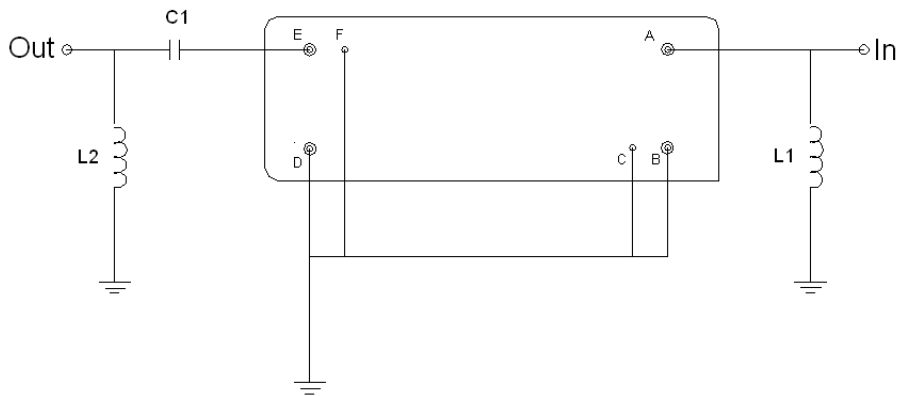


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1=18 nH
Output	L2=22nH, C1=120 pF
Source/Load Impedance	50 Ω



## Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-20	-	70
Storage Temperature Range	°C	-20	-	70
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.

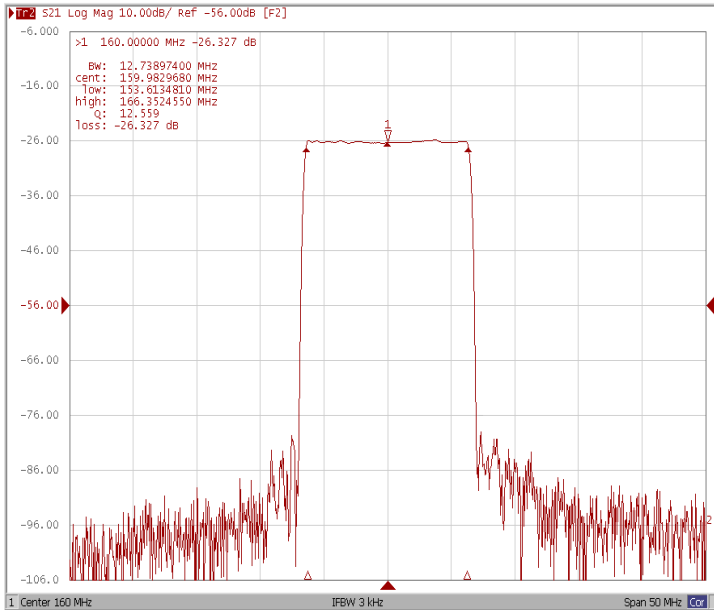
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	160.0	-
Insertion Loss at Fo	dB	-	26.32	28.50
Group Delay Variation (Fo±6.25MHz)	nsec	-	66	100
Absolute Delay Time at Fo	usec	-	4.4	4.6
Temperature Coefficient	ppm/°C	-	-18	-
Amplitude Ripple (Fo±6.25MHz)	dB	-	0.62	1.20
Bandwidth at -1dB	MHz	12.60	12.73	-
Bandwidth at -3dB	MHz	-	12.91	-
Bandwidth at -10dB	MHz	-	13.22	13.28
Bandwidth at -20dB	MHz	-	13.45	-
Bandwidth at -25dB	MHz	-	13.53	-
Bandwidth at -35dB	MHz	-	13.66	-
Relative Attenuation				
Out of Gain ± 400KHz	dB	8	12	-
Out of Gain ± 600KHz	dB	20	35	-
Out of Gain ± 1MHz	dB	45	54	-
Out of Gain ± 5MHz	dB	50	60	-

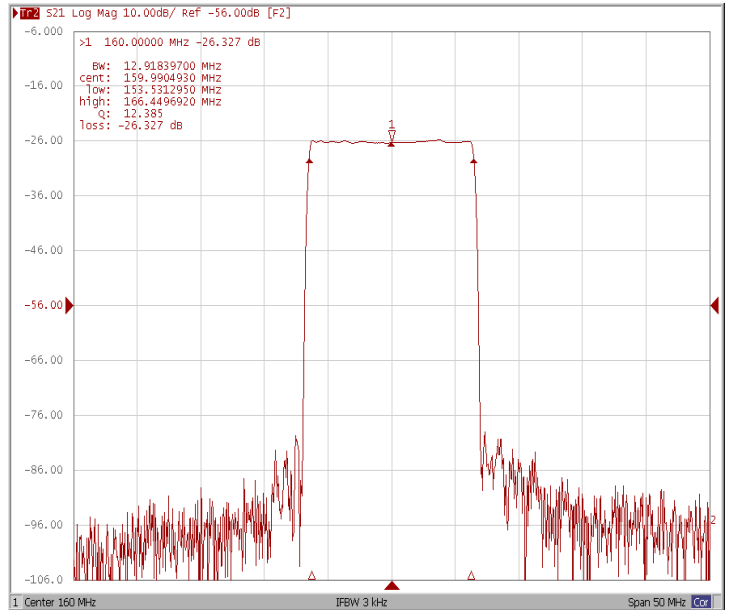


### Frequency Response

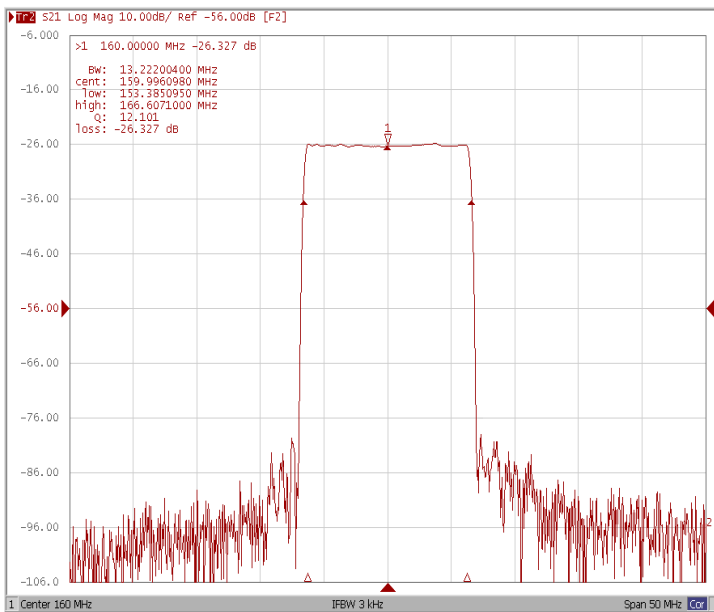
#### Bandwidth at -1.0 dB



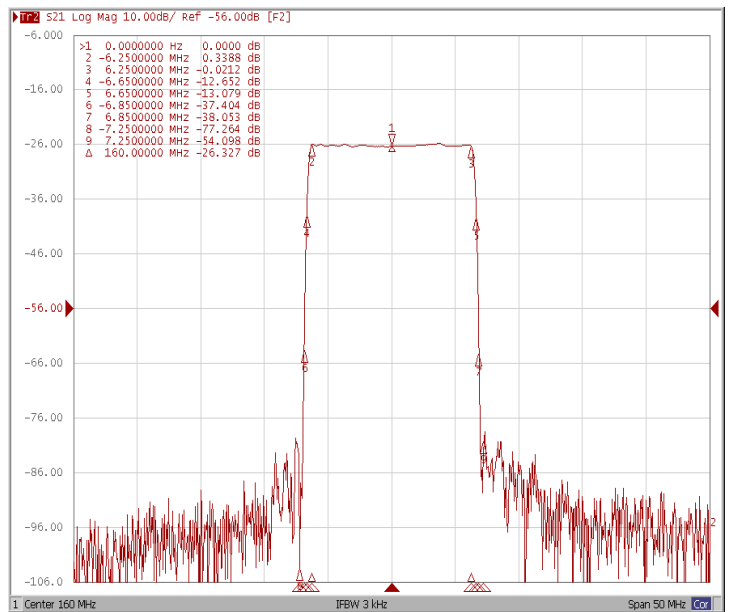
#### Bandwidth at -3.0 dB



#### Bandwidth at -10.0 dB

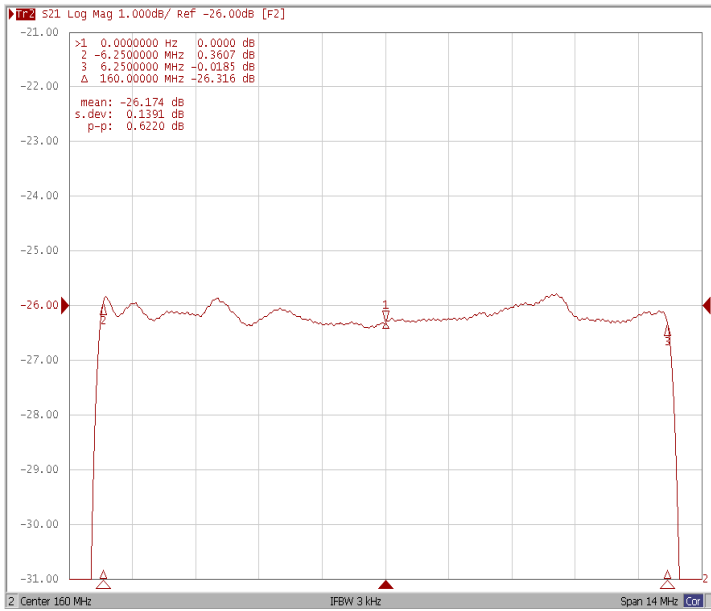


#### Relative Attenuation

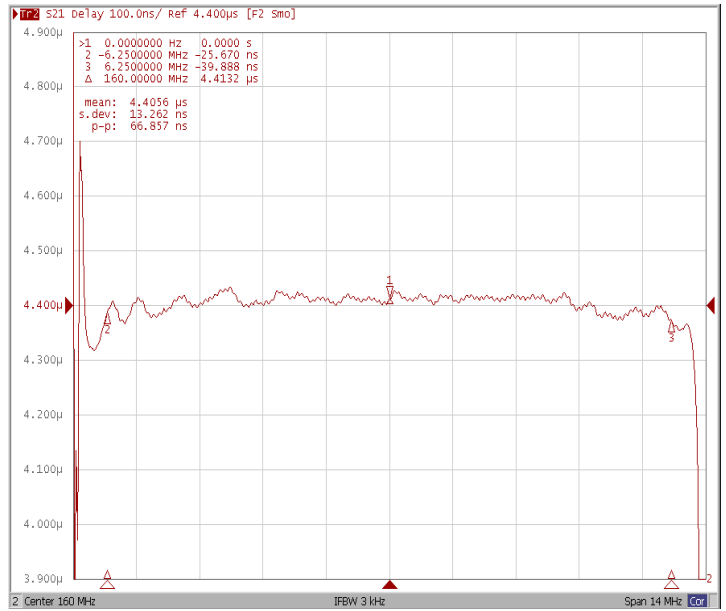




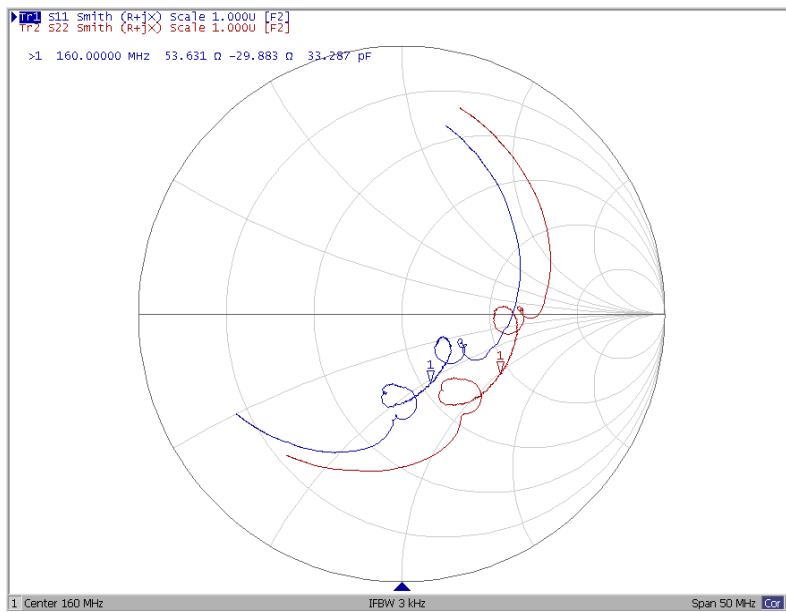
### Ripple Variation Fo±6.25MHz



### Group Delay Variation Fo±6.25MHz



### Smith Chart





### VSWR

