



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF160.0M-04A	160.0 MHz IF SAW Filter 4.54 MHz Bandwidth

### Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
- o Frequency Response
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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)



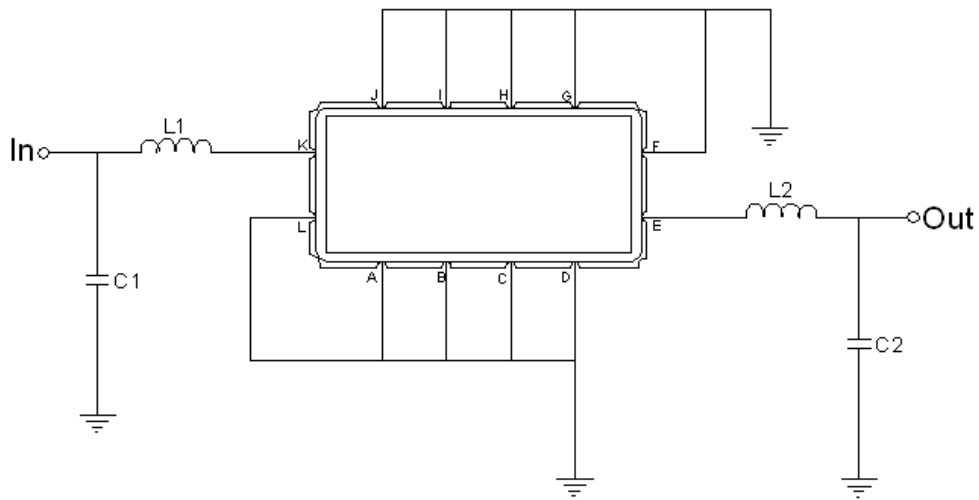


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1=27 nH, C1=24 pF
Output	L2=27 nH, C2=24 pF
Source/Load Impedance	50 Ω



## 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.

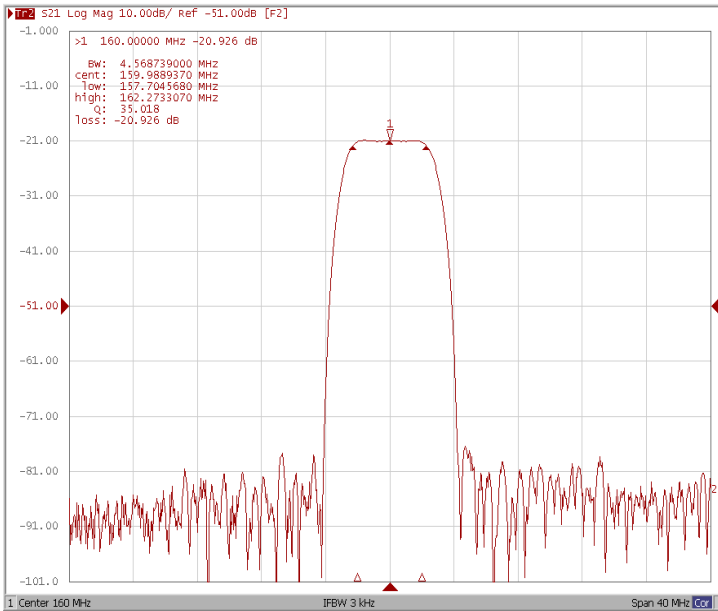
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	159.85	160.0	160.15
Insertion Loss at Fo	dB	-	21.0	22.5
Group Delay Variation	ns	-	45	100
Absolute Delay	us	-	1.62	-
Passband Ripple	dB	-	0.45	1.0
Bandwidth at -1dB	MHz	4.40	4.54	-
Bandwidth at -3dB	MHz	-	5.30	-
Bandwidth at -40dB	MHz	-	7.98	8.30
Relative Attenuation:				
Lower sidelobe	dB	50	55	-
Upper sidelobe	dB	50	55	-
Temperature Coefficient	ppm/°C	-	-18	-

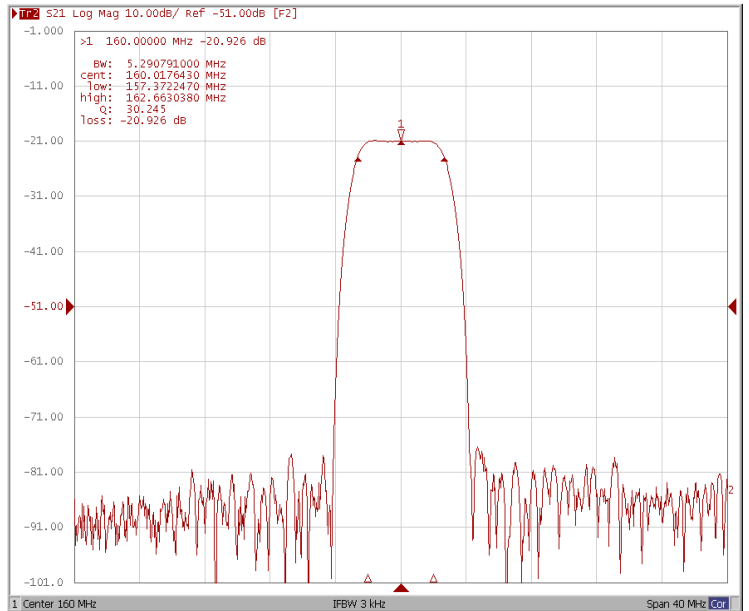


### Frequency Response

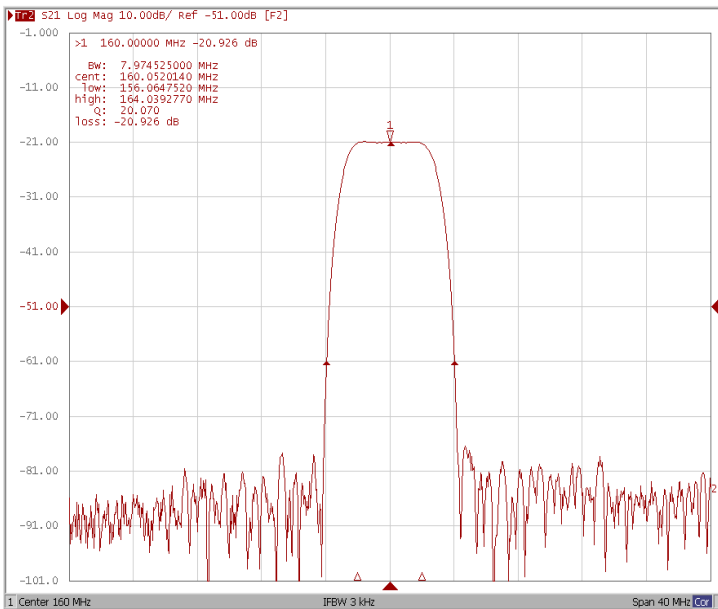
#### Bandwidth at -1.0 dB



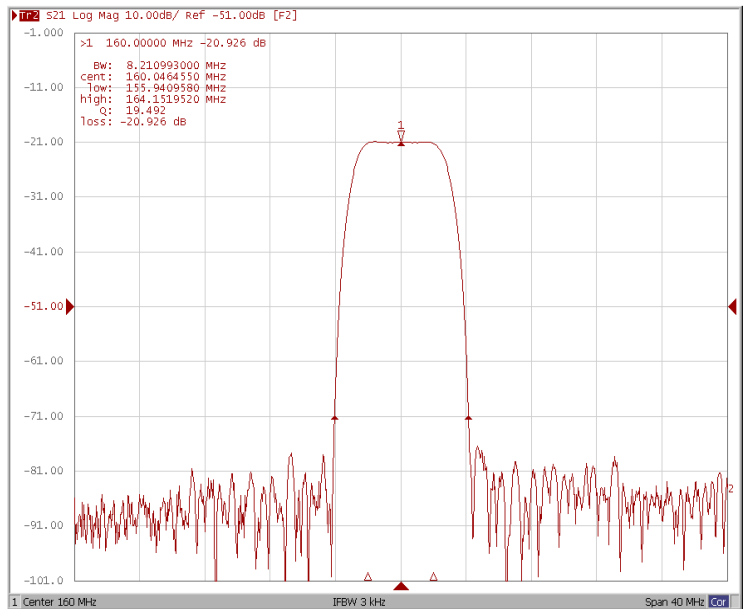
#### Bandwidth at -3.0 dB



#### Bandwidth at -40.0 dB

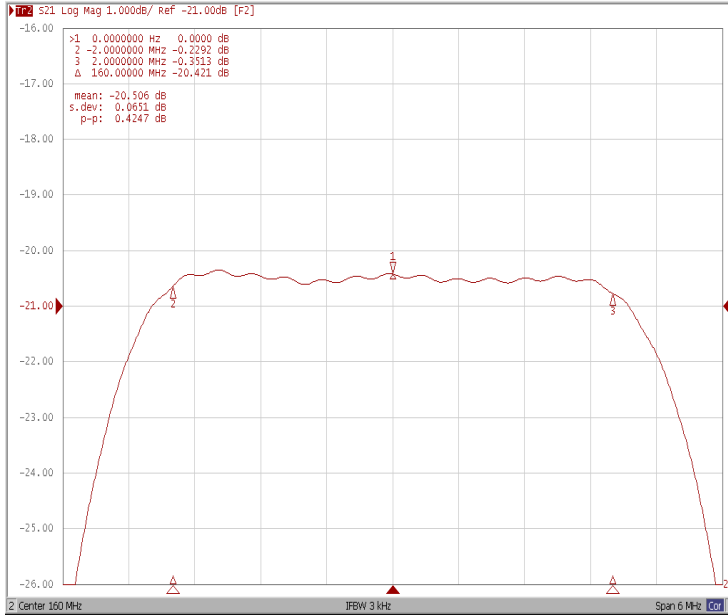


#### Bandwidth at -50.0 dB

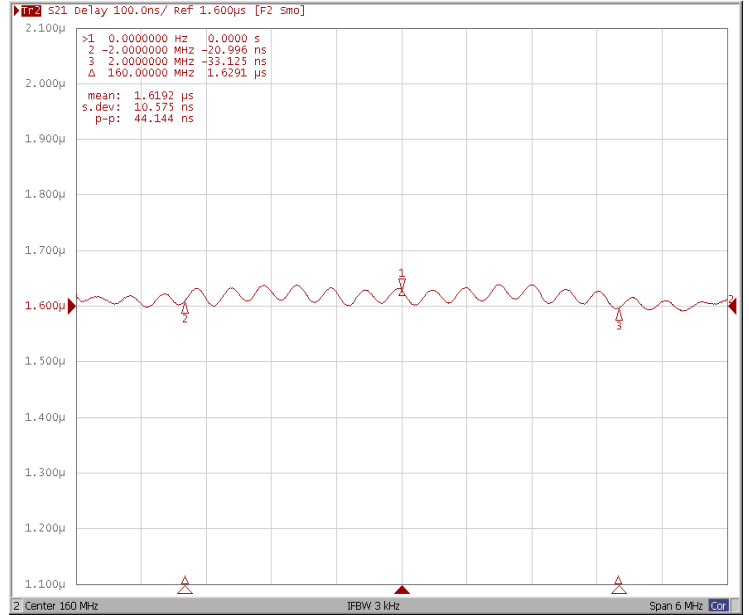




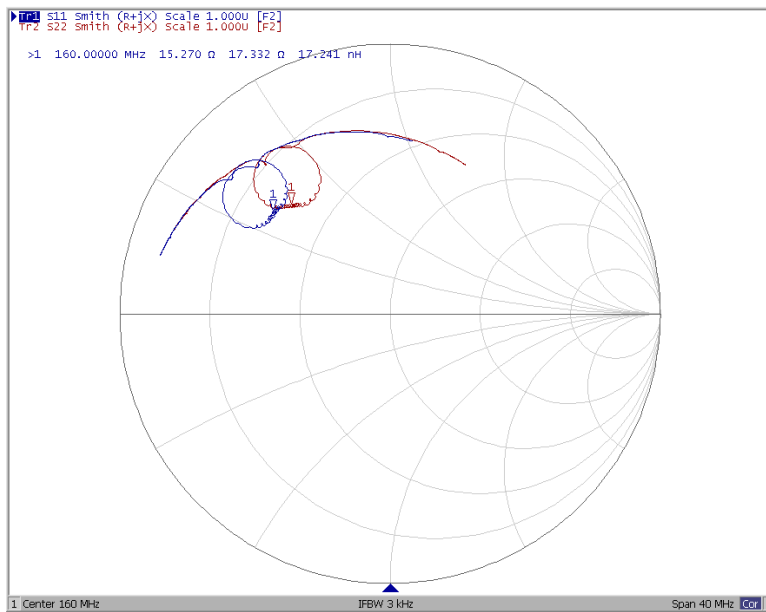
### Ripple Variation



### Group Delay Variation



### Smith Chart





### VSWR

