



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF120.3M-10A	120.3MHz IF SAW Filter 10.55MHz 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)



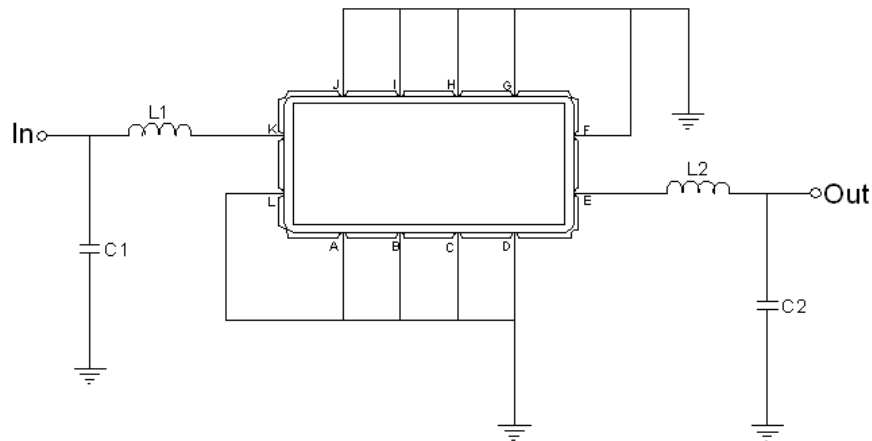


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1 = 22 nH, C1 = 8 pF
Output	L2 = 22 nH, C2 = 8 pF
Source/Load Impedance	50 Ω



## Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-5	-	+65
Storage Temperature Range	°C	-30	-	+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	-	120.3	-
Insertion Loss at Fo	dB	-	20.5	22.0
Group Delay Variation at Fo ±5.00 MHz	ns	-	52	90
Absolute Delay at Fo	us	-	1.61	-
Amplitude Ripple at Fo ±5.00 MHz	dB	-	0.50	-
Bandwidth at -1dB	MHz	10.40	10.55	-
Bandwidth at -3dB	MHz	-	11.05	-
Bandwidth at -25dB	MHz	-	12.55	12.70
Bandwidth at -40dB	MHz	-	12.90	13.30
Relative Attenuation				
Lower Sidelobe	dB	48	52	-
Upper Sidelobe	dB	48	52	-
Temperature Coefficient	ppm/°C	-	-72	-



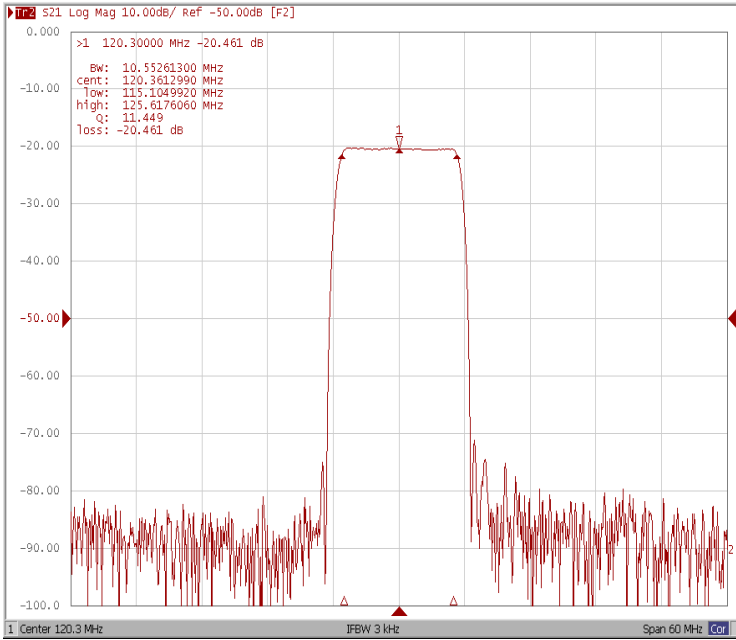
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### Frequency Response

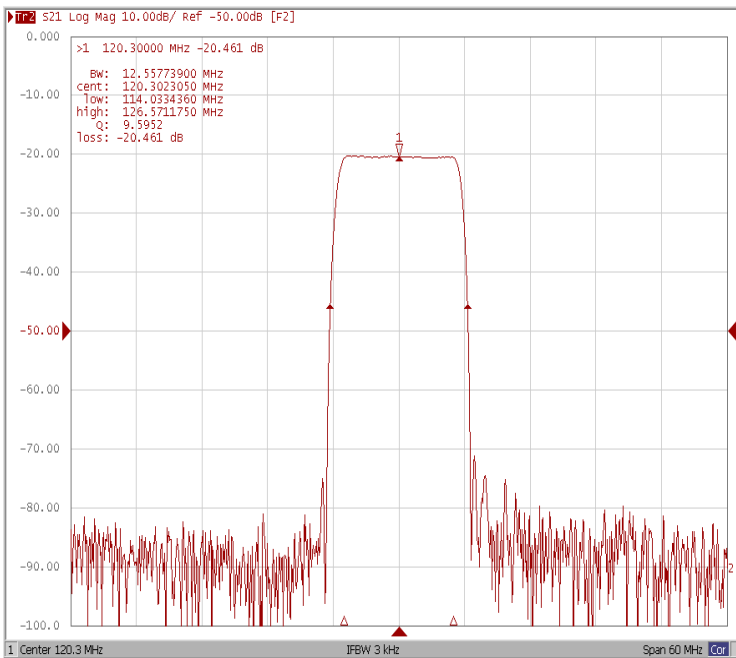
Bandwidth at -1.0 dB



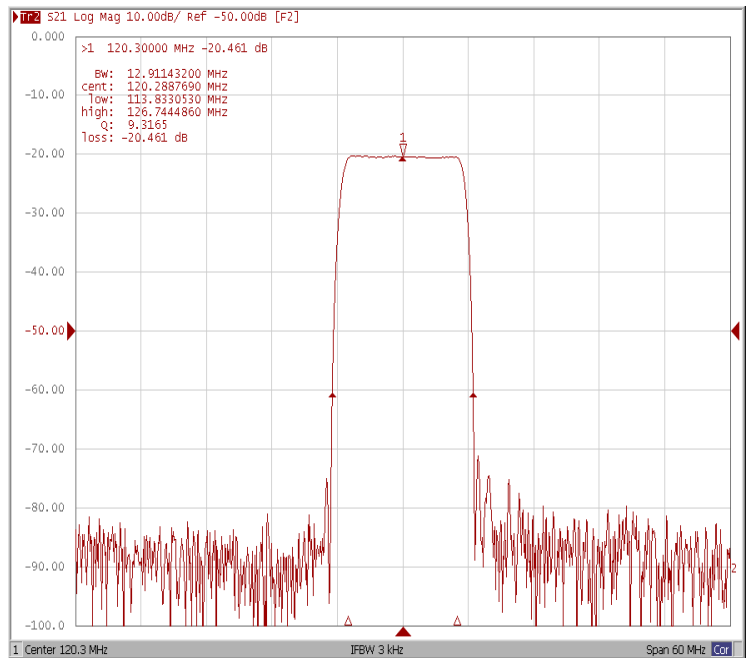
Bandwidth at -3.0 dB



Bandwidth at -25.0 dB

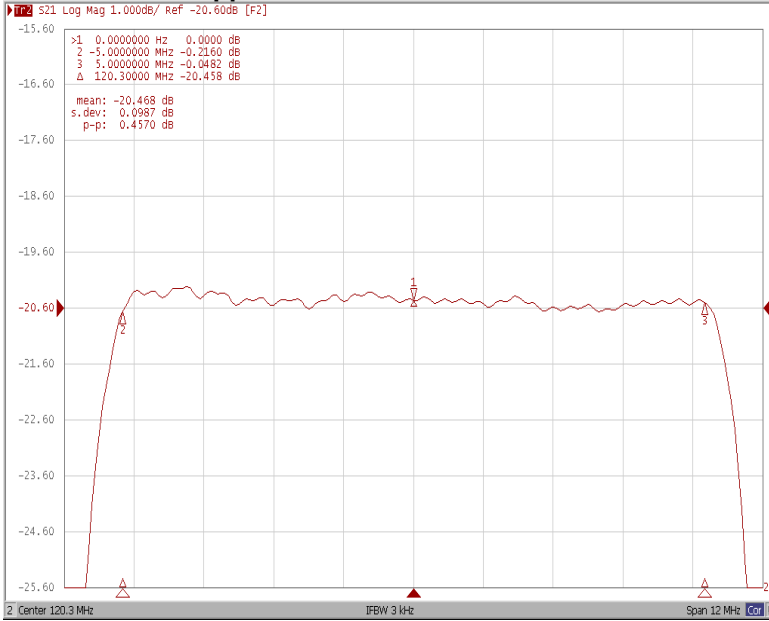


Bandwidth at -40.0 dB

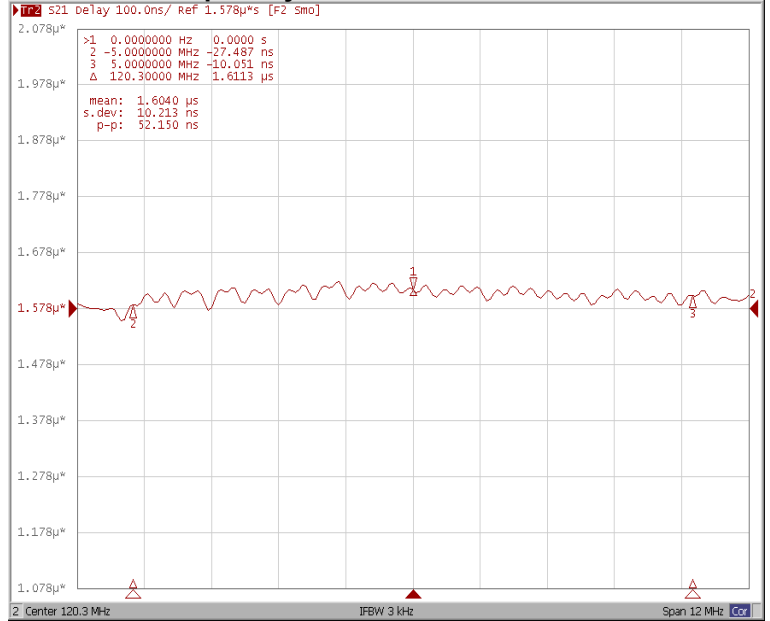




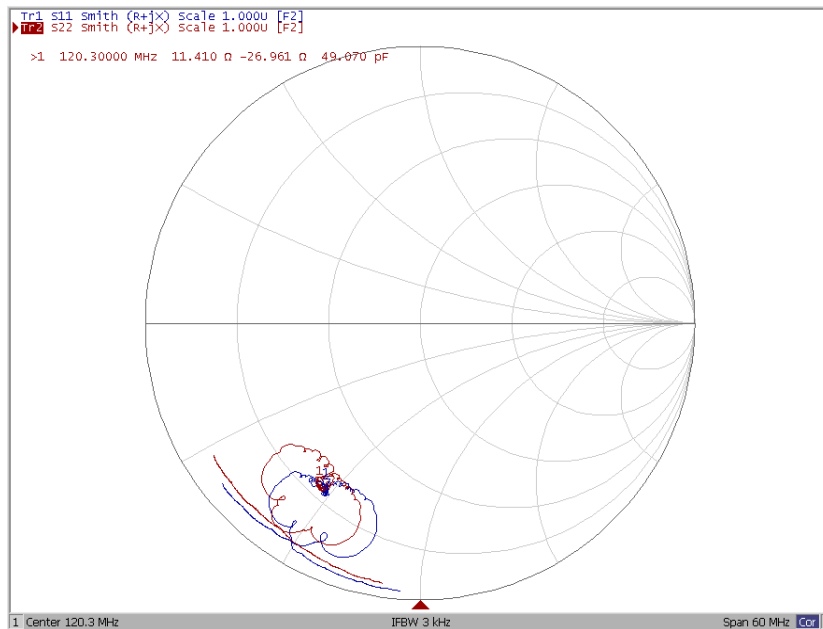
### Ripple Variation at Fo $\pm 5.00$ MHz



### Group Delay Variation at Fo $\pm 5.00$ MHz



### Smith Chart





### VSWR

