



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF110.0M-20C	110.1 MHz IF SAW Filter 20.35 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)



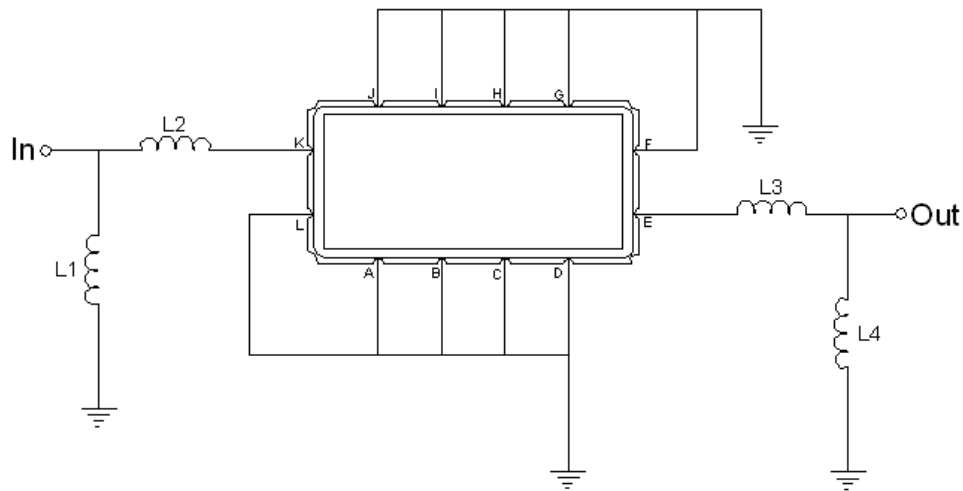


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1=180 nH, L2=18nH
Output	L3=18nH, L4=180nH
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.

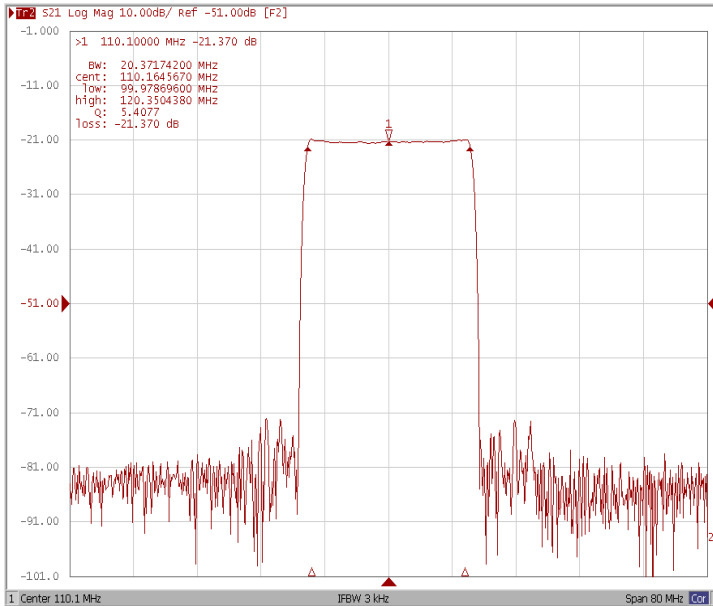
**Electrical Specification**

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	110.00	110.10	110.20
Insertion Loss at Fo	dB	-	21.50	24.00
Group Delay Variation	ns	-	30	50
Absolute Delay	us	-	1.57	-
Temperature Coefficient	ppm/°C	-	-72	-
Passband Ripple	dB	-	0.80	1.00
Bandwidth at -1dB	MHz	20.20	20.35	-
Bandwidth at -30dB	MHz	-	20.74	-
Bandwidth at -40dB	MHz	-	22.39	22.45
Ultimate Attenuation	dB	50	52	-

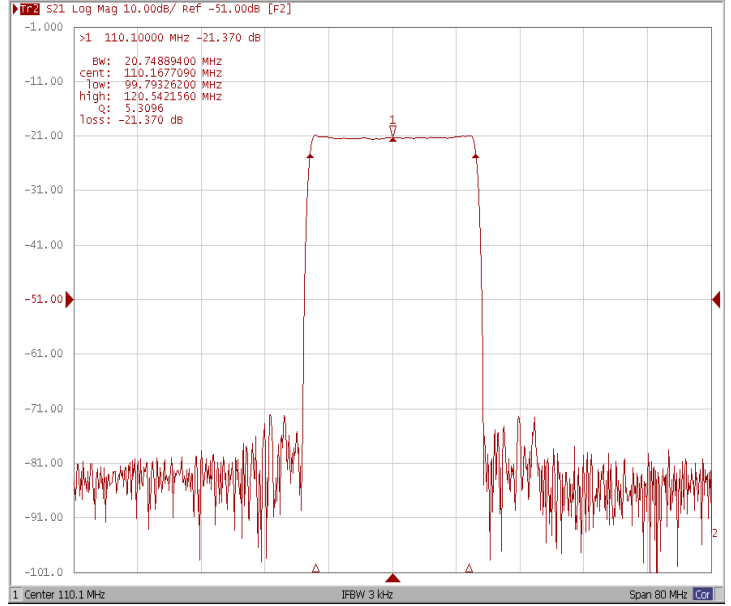


### Frequency Response

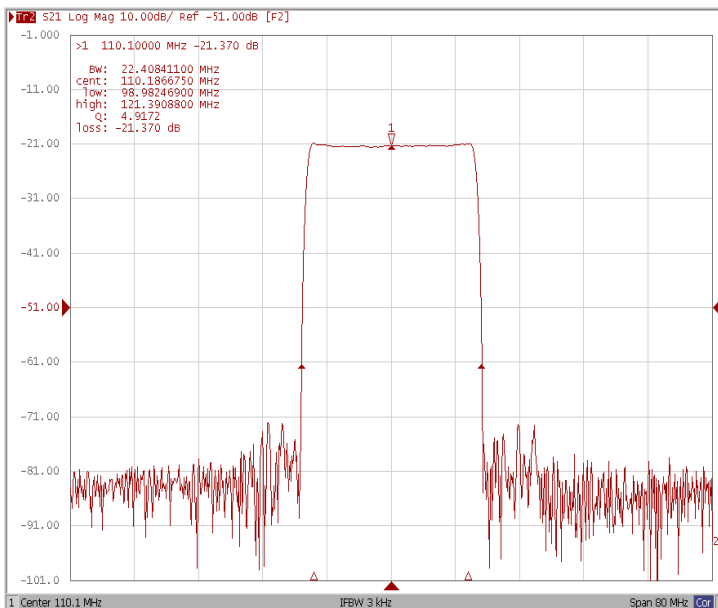
#### Bandwidth at -1.0 dB



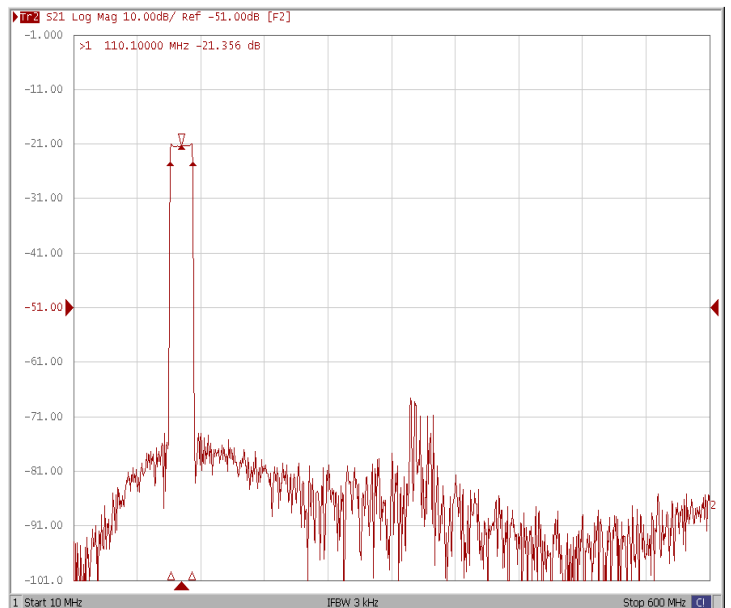
#### Bandwidth at -3.0 dB



#### Bandwidth at -40.0 dB

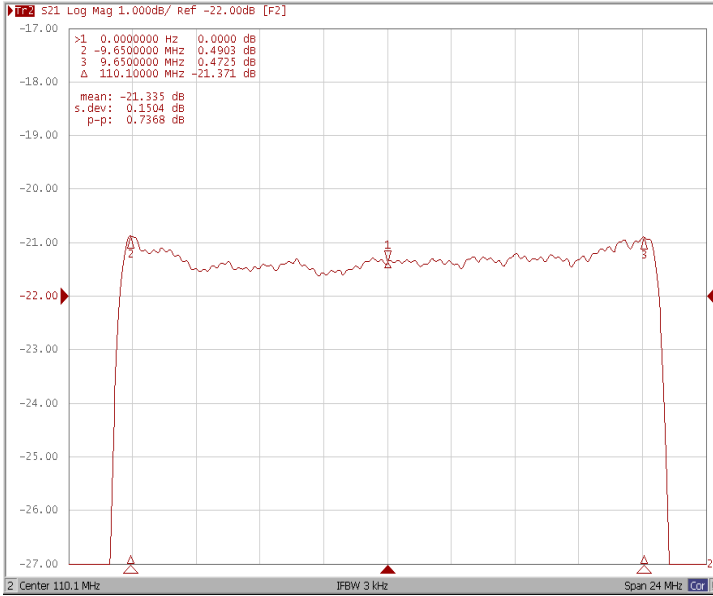


#### Wide-Band

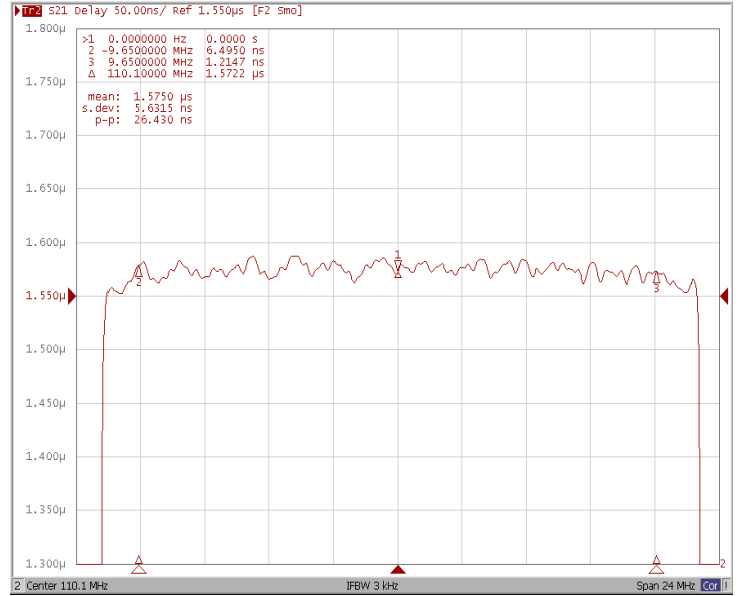




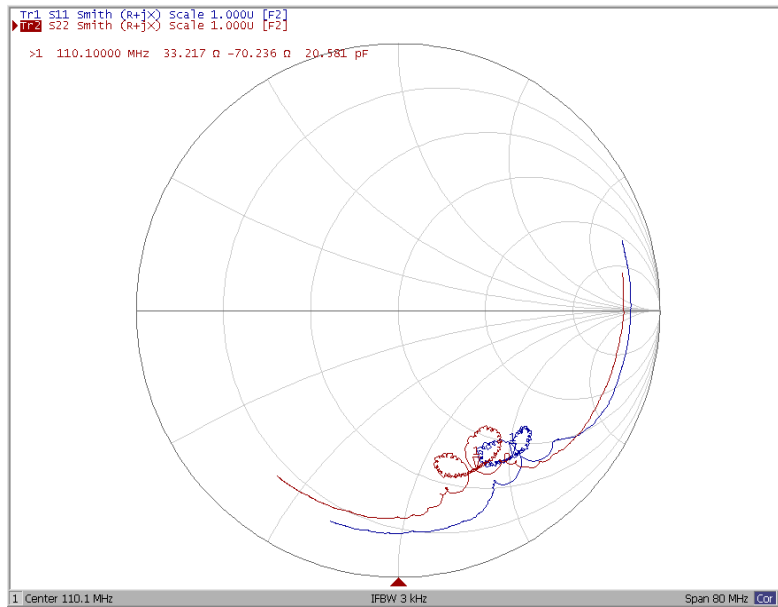
### Ripple Variation Fo±9.65MHz



### Group Delay Variation Fo±9.65MHz



### Smith Chart





### VSWR

