



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
820-IF120.0M-15A	20.0 MHz IF SAW Filter 15.48 MHz Bandwidth

### Specification Contents

- o Mechanical Dimensions
- o Test Circuit
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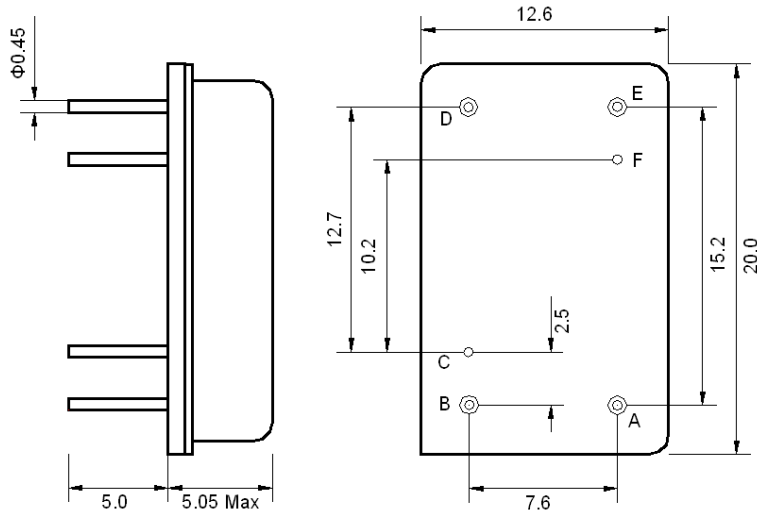
### Notes

- 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)



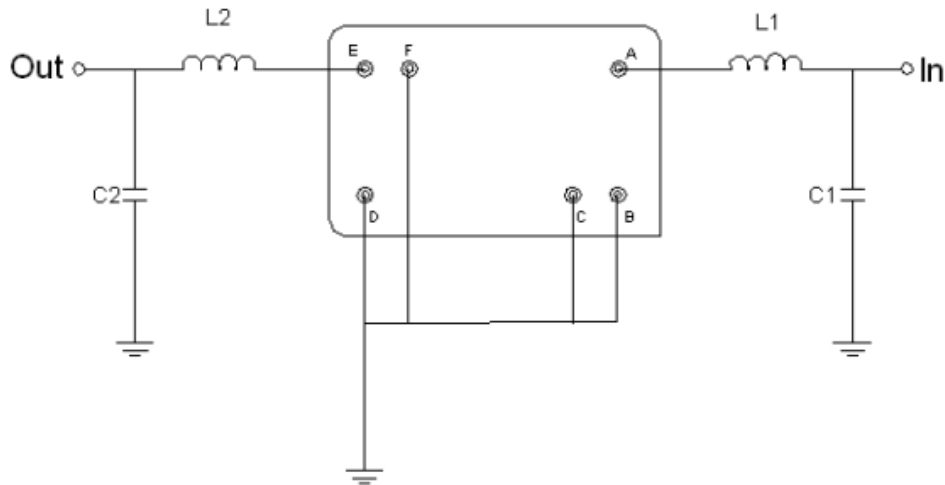


## Mechanical Dimensions (mm)



Pin Description	
B, C, D, F	Ground
A	Input
E	Output

## Test Circuit



Test Fixture & Values	
Input	L1 = 33 nH, C1 = 24 pF
Output	L2 = 56 nH, C2 = 18 pF
Source/Load Impedance	50 $\Omega$



## Maximum Ratings

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

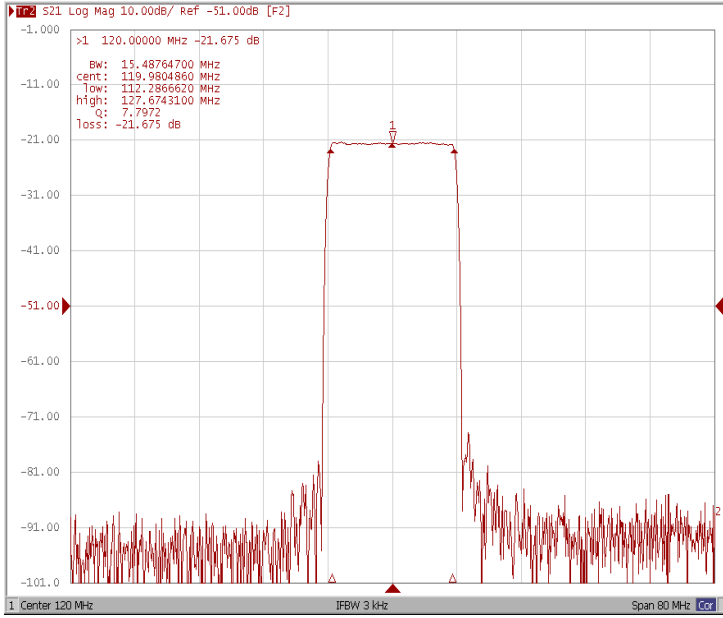
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	120.0	-
Insertion Loss at Fo	dB	-	21.6	23.5
Group Delay Variation at Fo ± 7.47 MHz	nsec	-	48	80
Absolute Delay at Fo	usec	-	2.22	2.50
Passband Ripple Variation at Fo ± 7.47 MHz	dB	-	0.58	1.00
Bandwidth at -1dB	MHz	15.20	15.48	-
Bandwidth at -3dB	MHz	-	15.74	-
Bandwidth at -40dB	MHz	-	17.14	17.30
Ultimate Rejection	dB	50	55	-
Temperature Coefficient	ppm/°C	-	-72	-

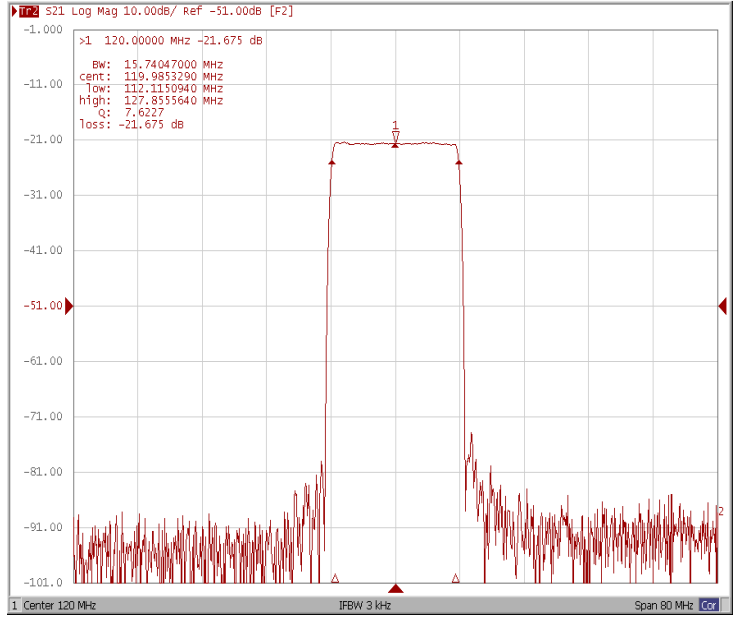


### Frequency Response

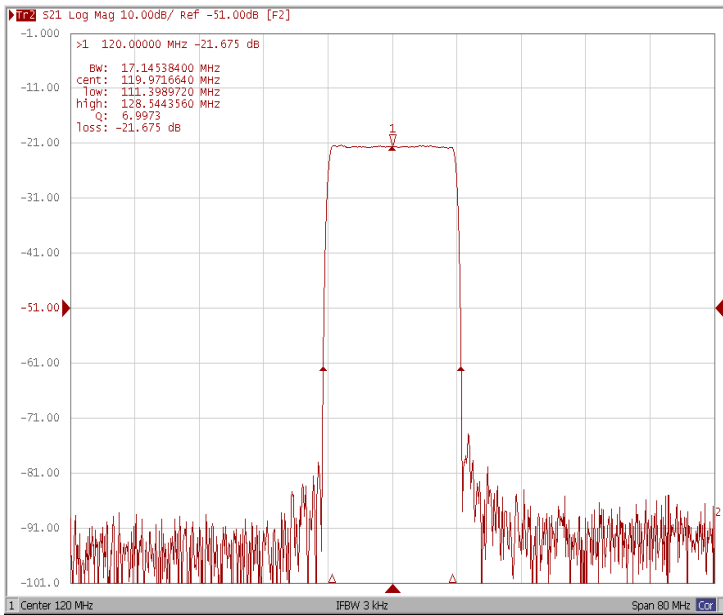
#### Bandwidth at -1.0 dB



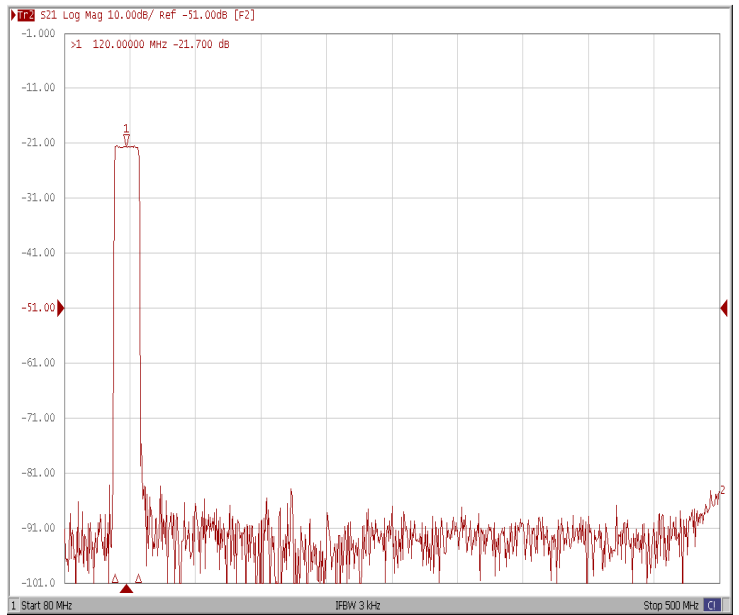
#### Bandwidth at -3.0 dB



#### Bandwidth at -40.0 dB



#### Wide-Band

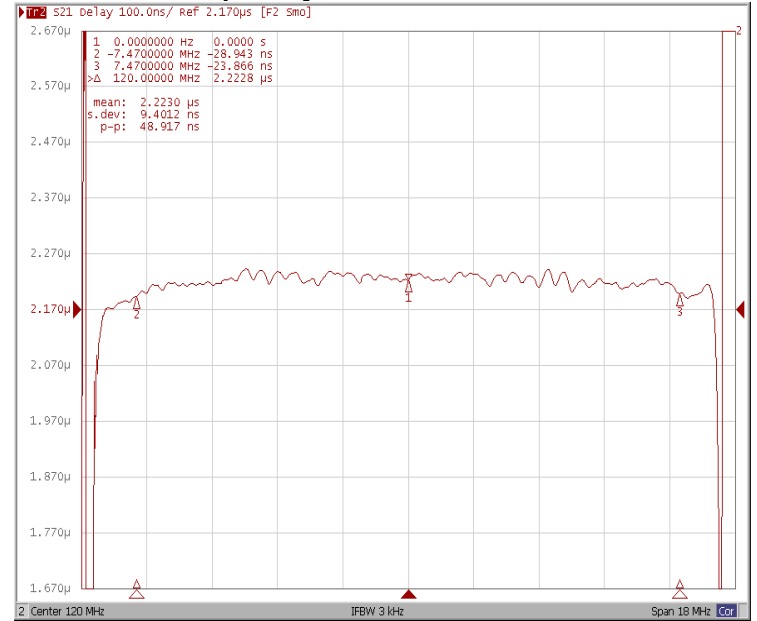




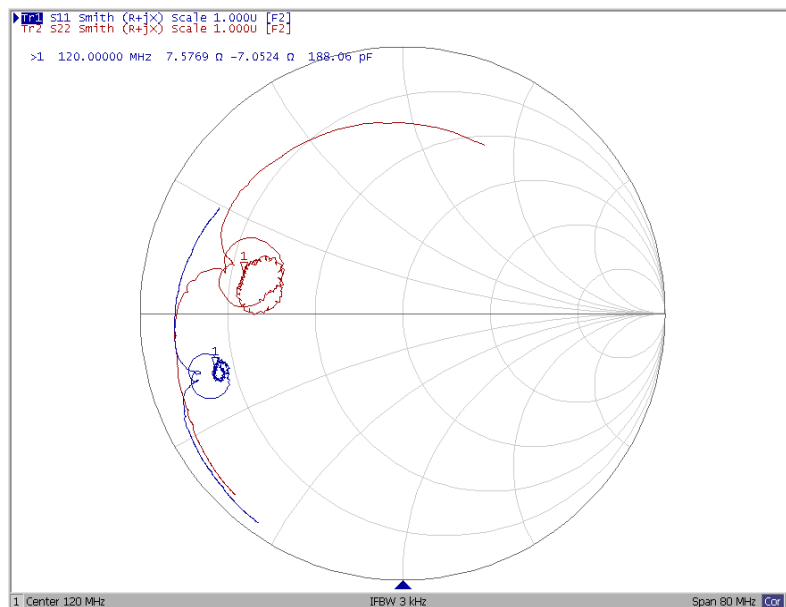
### Ripple Variation $F_o \pm 7.47\text{MHz}$



### Group Delay Variation $F_o \pm 7.47\text{MHz}$



### Smith Chart





### VSWR

