



# PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
820-IF70.0M-05B	70MHz IF SAW Filter 5.28MHz Bandwidth

## Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
- o Frequency Response
- o Smith Chart
- o VSWR

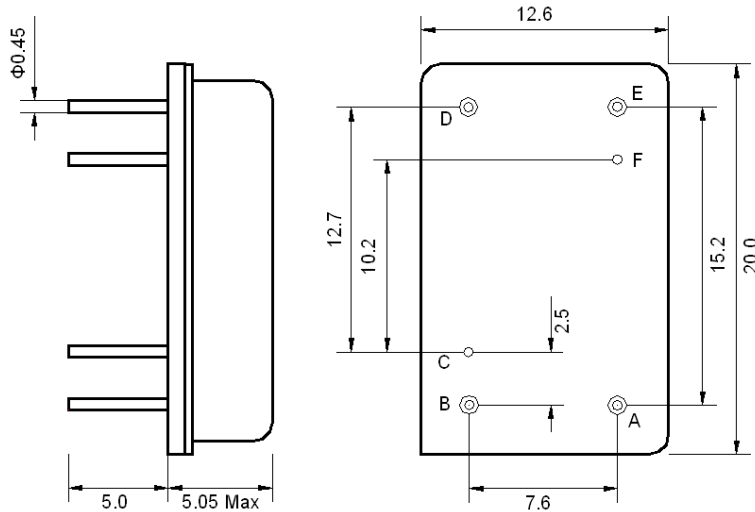
## Notes

- 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)



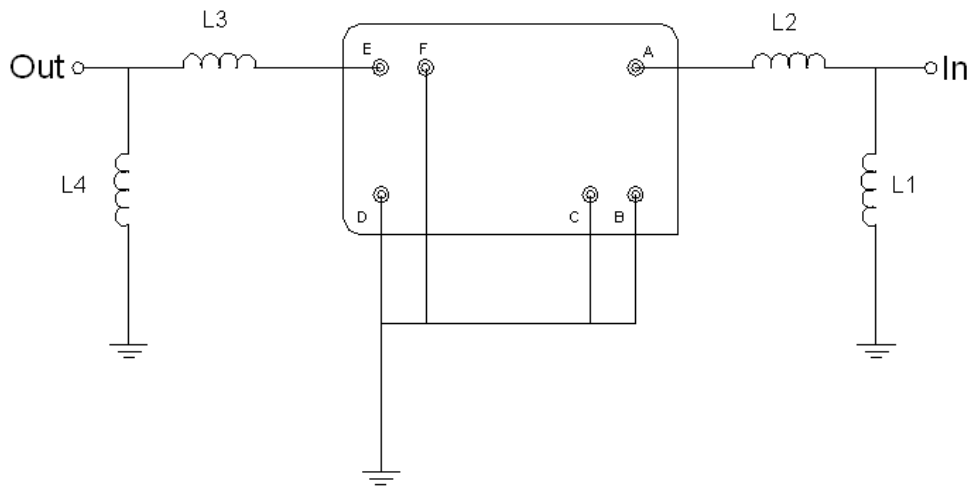


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1= 120 nH, L2= 82 nH
Output	L3= 68 nH, L4= 120 nH
Source/Load Impedance	50 Ω



## 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.

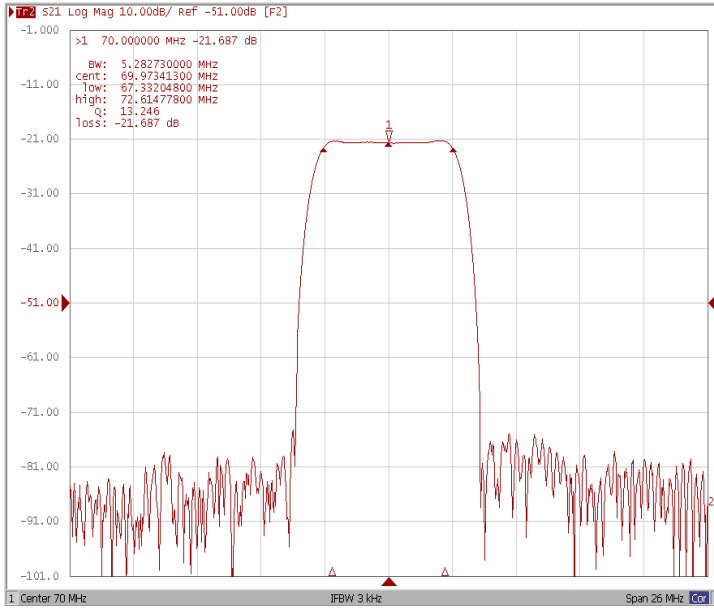
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	69.92	70.0	70.08
Insertion Loss at Fo	dB	-	21.6	24.0
Amplitude Ripple Variation	dB <sub>p-p</sub>	-	0.5	0.95
Group Delay Variation	nsec	-	47	100
Absolute Delay at Fo	μsec	-	2.92	-
Temperature Coefficient	ppm/°C	-	-20	-
Bandwidth at -1.0 dB	MHz	5.0	5.28	-
Bandwidth at -3.0 dB	MHz	-	5.68	-
Bandwidth at -40.0 dB	MHz	-	7.39	7.50
Ultimate Rejection	dB	50	55	-

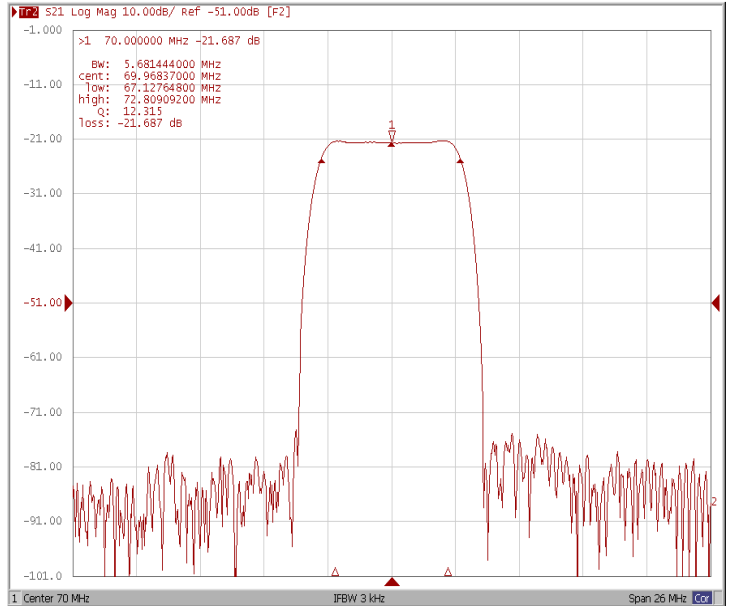


## Frequency Response

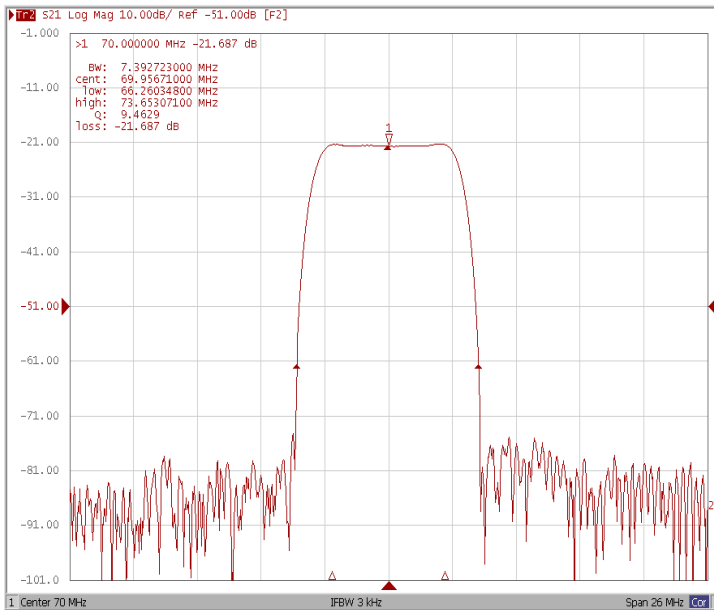
### Bandwidth at -1.0 dB



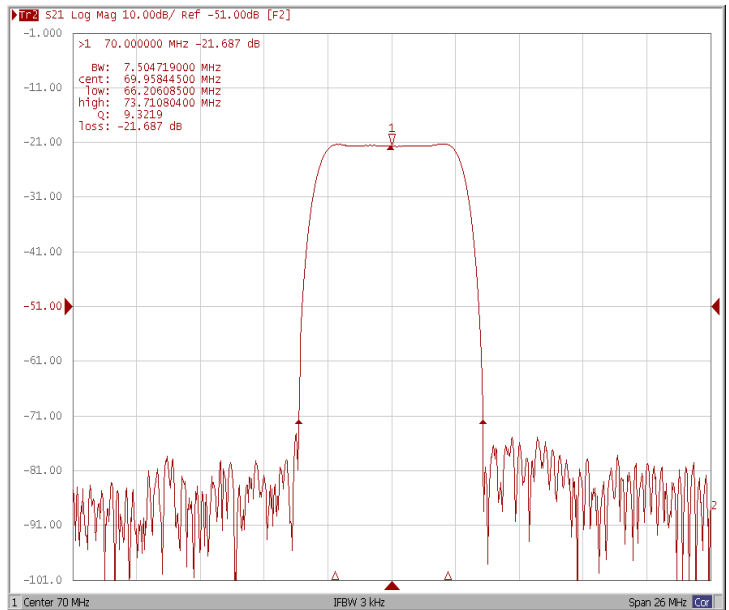
### Bandwidth at -3.0 dB



### Bandwidth at -40.0 dB



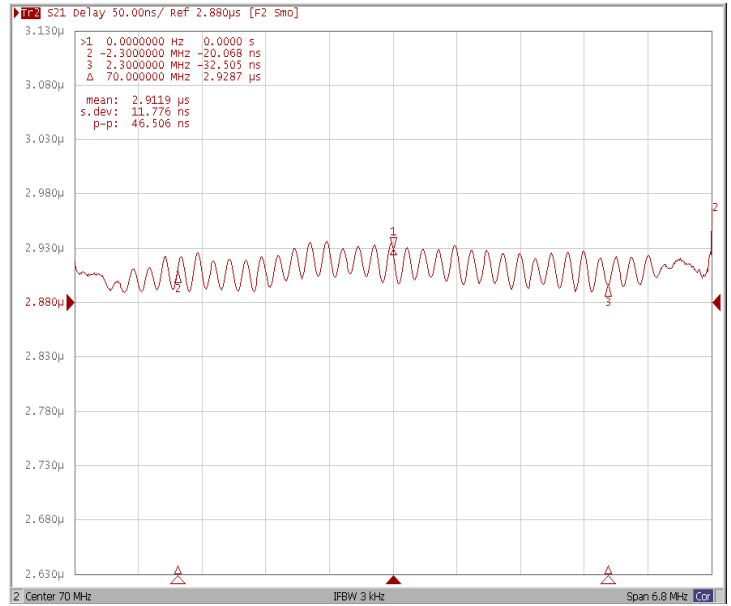
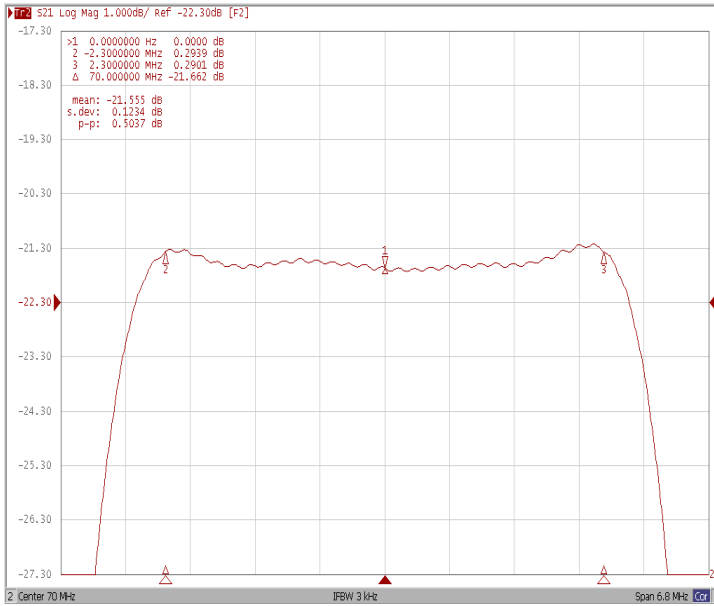
### Bandwidth at -50.0 dB



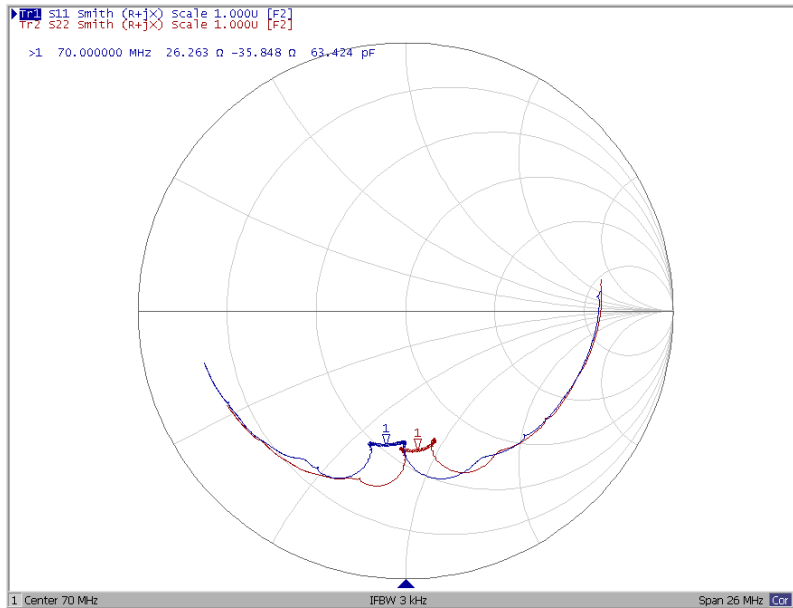


### Ripple Variation $F_0 \pm 2.3\text{MHz}$

### Group Delay Variation $F_0 \pm 2.3\text{MHz}$



### Smith Chart





### VSWR

