



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF187.5M-65A	187.5MHz IF SAW Filter 65.52 MHz Bandwidth

### Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
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- o Frequency Response
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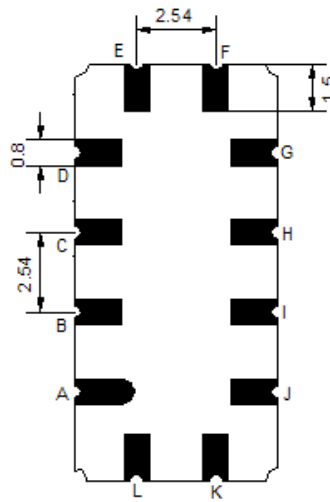
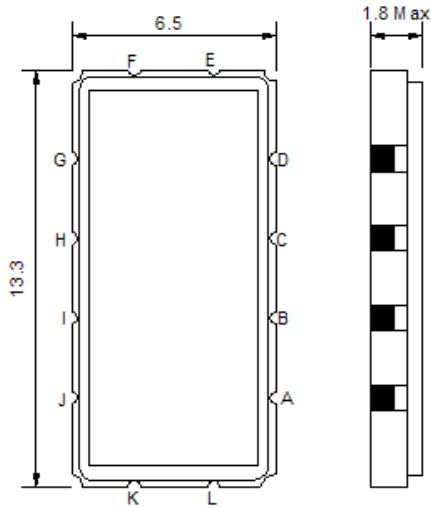
### Notes

- 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)



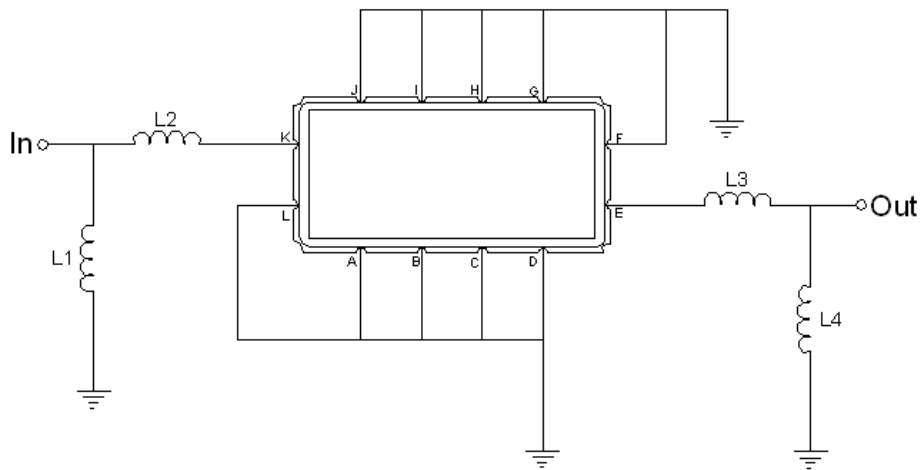


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1=56nH, L2=5.6nH
Output	L2=5.6nH, L4=56nH
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.

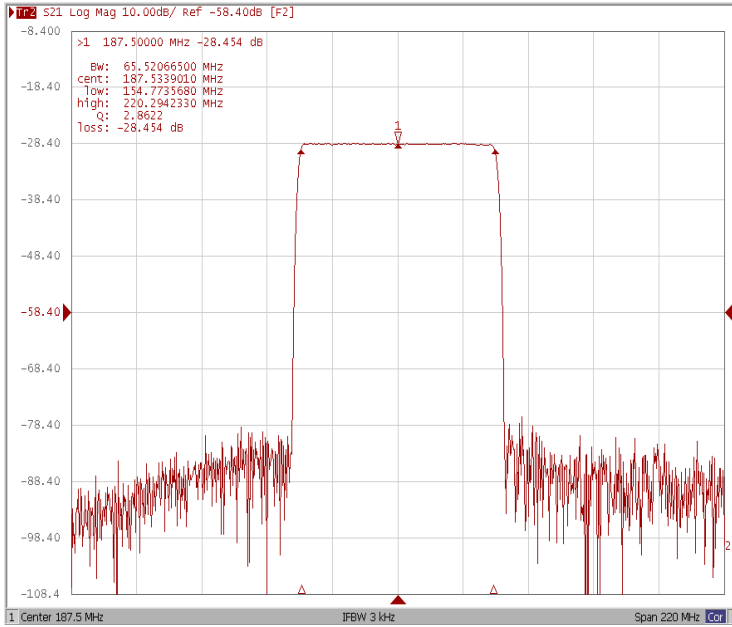
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	187.5	-
Insertion Loss at Fo	dB	-	28.50	31.00
Amplitude Ripple Variation(Fo±32.4MHz)	dB <sub>p-p</sub>	-	0.58	1.0
Group Delay Variation(Fo±32.4MHz)	nsec	-	13	35
Absolute Delay at Fo	μsec	-	0.90	-
Temperature Coefficient	ppm/°C	-	-72	-
Bandwidth at -1.0 dB	MHz	65.40	65.52	-
Bandwidth at -3.0 dB	MHz	-	66.68	-
Bandwidth at -40.0 dB	MHz	-	71.0	72.0
Ultimate Rejection				
10MHz ~ 147.5MHz	dB	48	50	-
227.5MHz ~ 540MHz	dB	48	50	-
540MHz~ 600MHz	dB	43	45	-

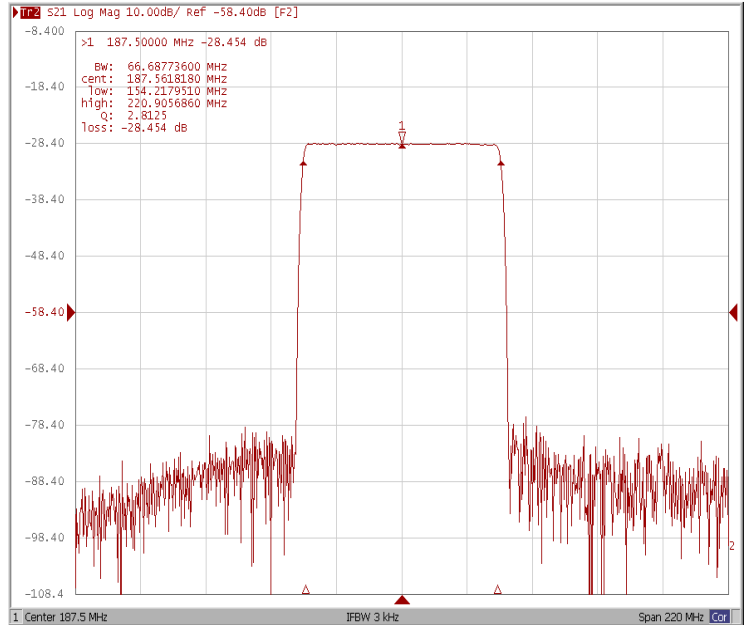


## Frequency Response

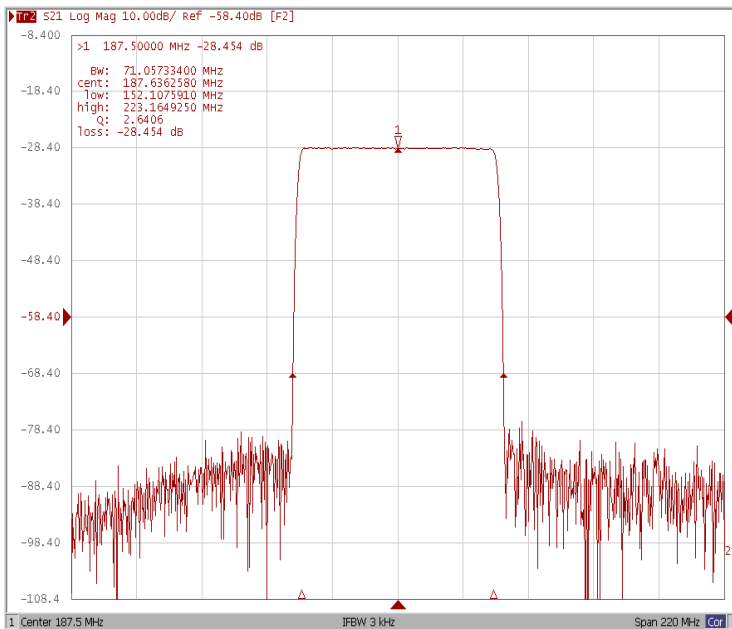
### Bandwidth at -1.0 dB



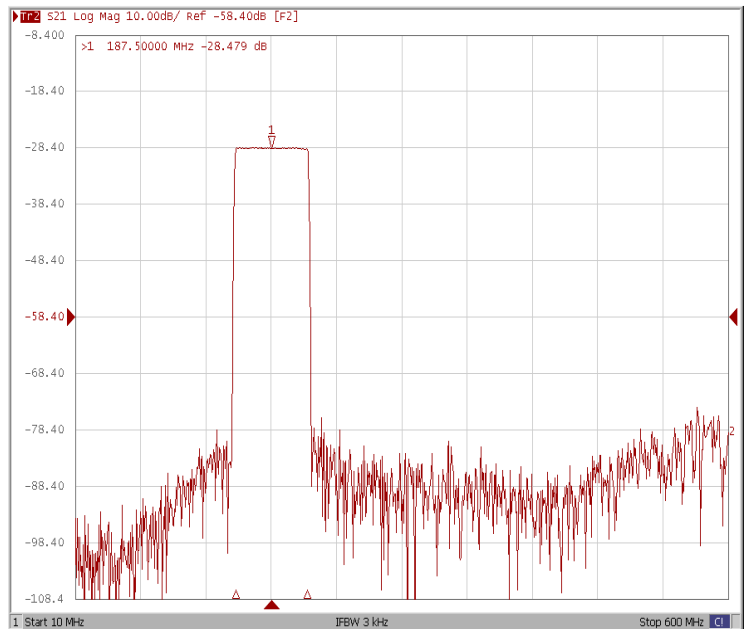
### Bandwidth at -3.0 dB



### Bandwidth at -40.0 dB

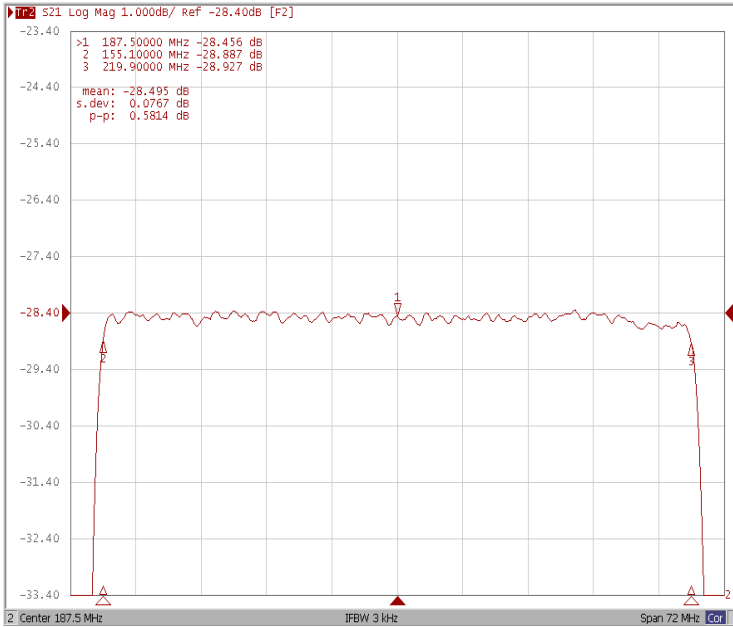


### Wide Band

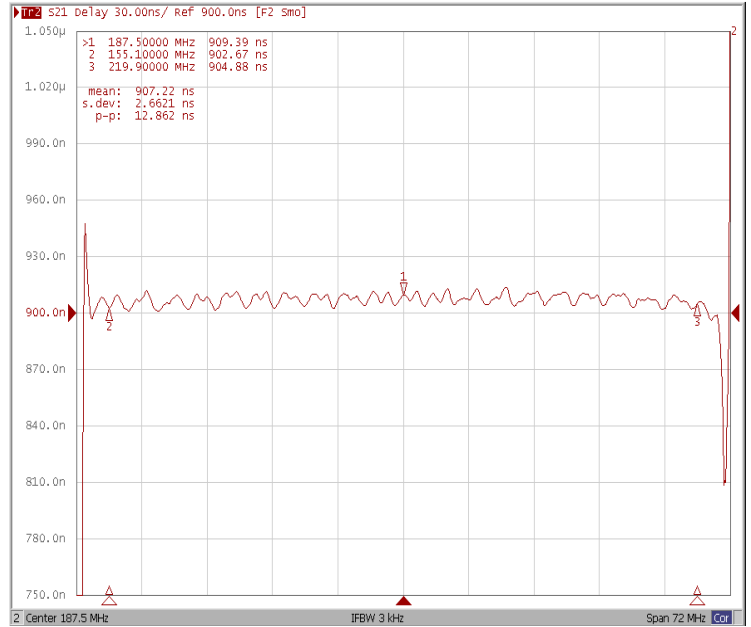




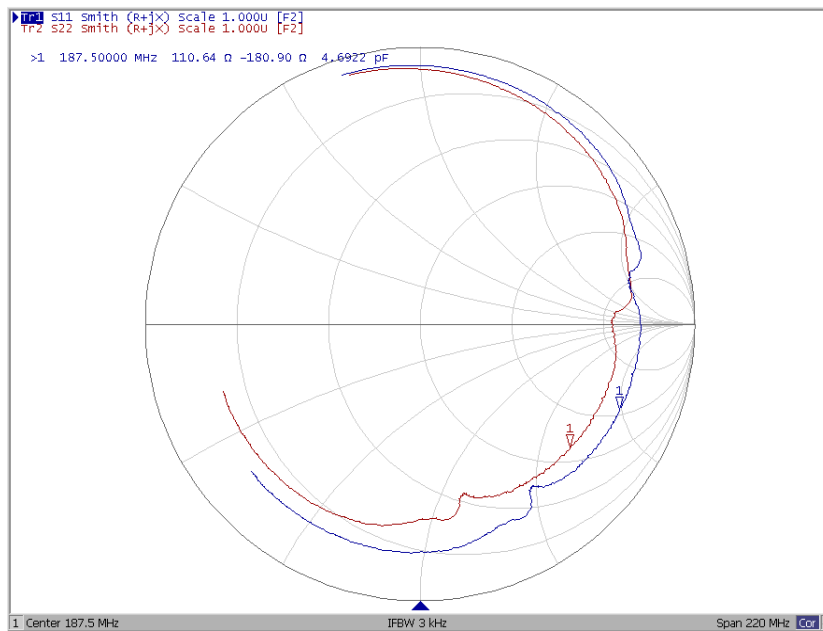
### Ripple Variation Fo±32.4MHz



### Group Delay Variation Fo±32.4MHz



### Smith Chart





### VSWR

