



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF184.0M-15A	84.0 MHz IF SAW Filter 15.45 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)



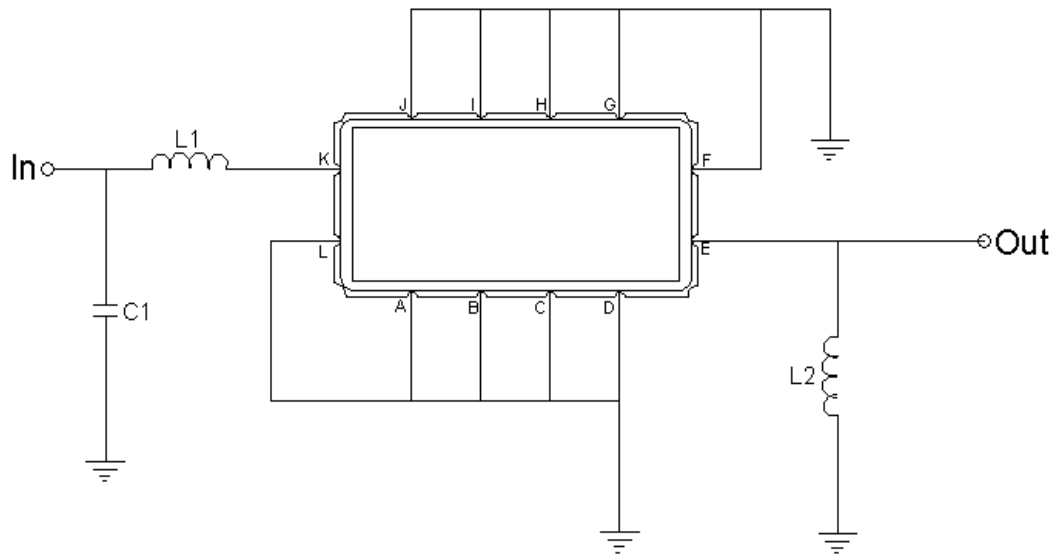


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=39 nH, C1=24 pF
Output	L2=27 nH
Source/Load Impedance	50 Ω



Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	20	-	50
Storage Temperature Range	°C	-45	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	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.

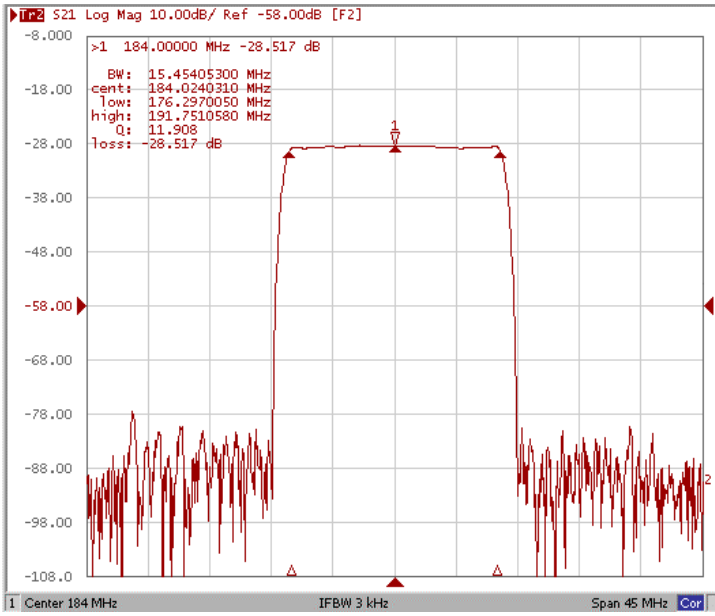
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	184.00	-
Insertion Loss at Fo	dB	-	28.5	30.0
Group Delay Variation (Fo±7.5MHz)	ns	-	40	80
Absolute Delay	us	-	2.00	-
Passband Ripple (Fo±7.5MHz)	dB	-	0.65	1.0
Bandwidth at -1dB	MHz	15.20	15.45	-
Bandwidth at -3dB	MHz	-	15.90	-
Bandwidth at -40dB	MHz	-	17.60	17.90
Ultimate Rejection	dB	45	50	-
Relative Attenuation Fo±9.0MHz	dB	45	55	-
Temperature Coefficient	ppm/°C	-	-18	-

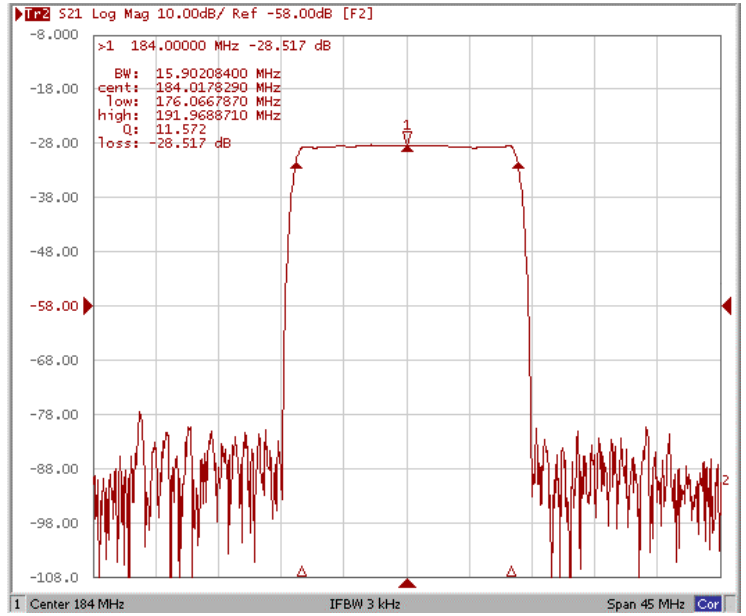


Frequency Response

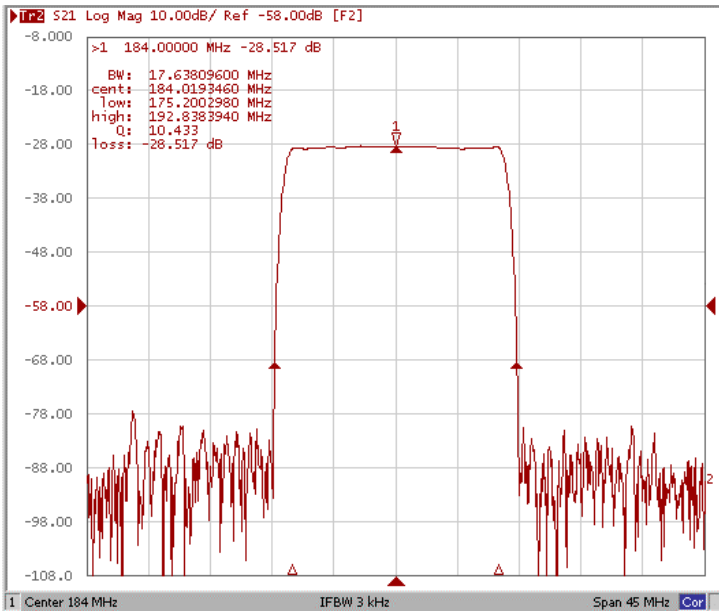
Bandwidth at -1.0 dB



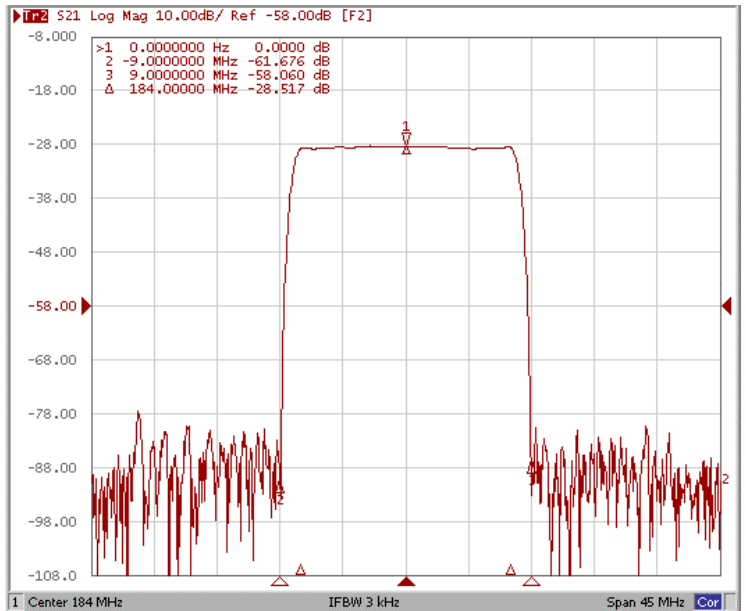
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

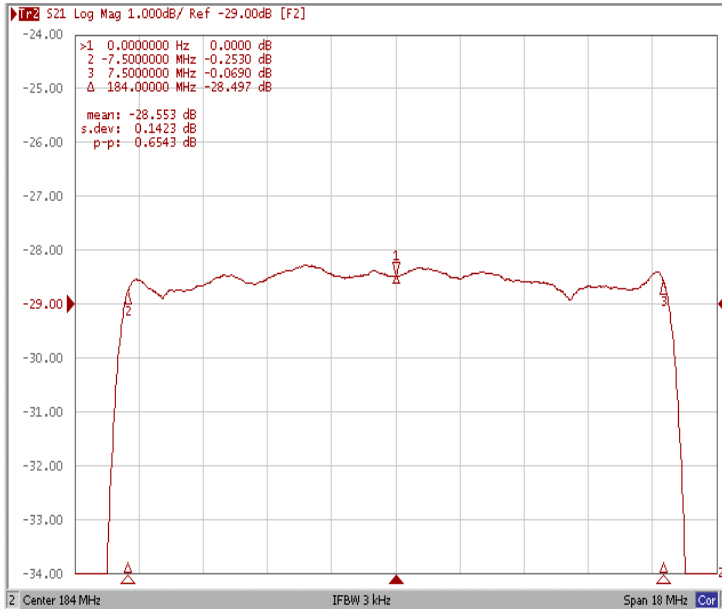


Relative Attenuation Fo±9.0MHz

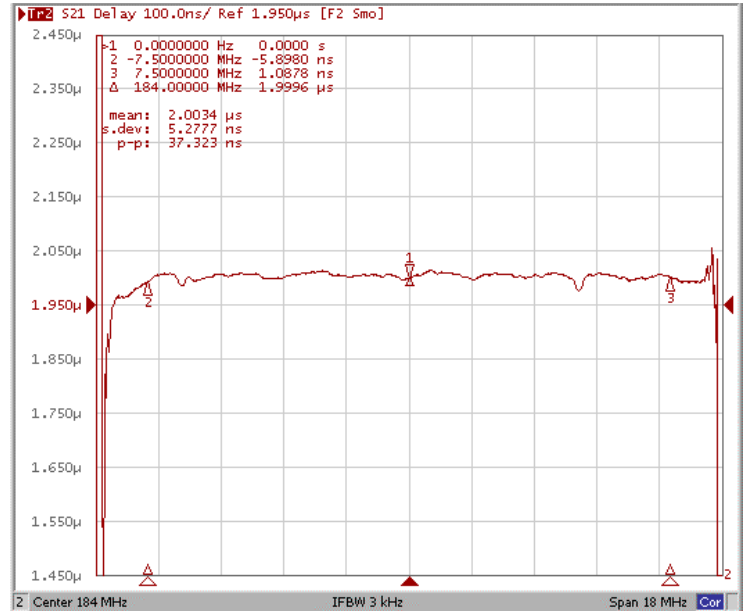




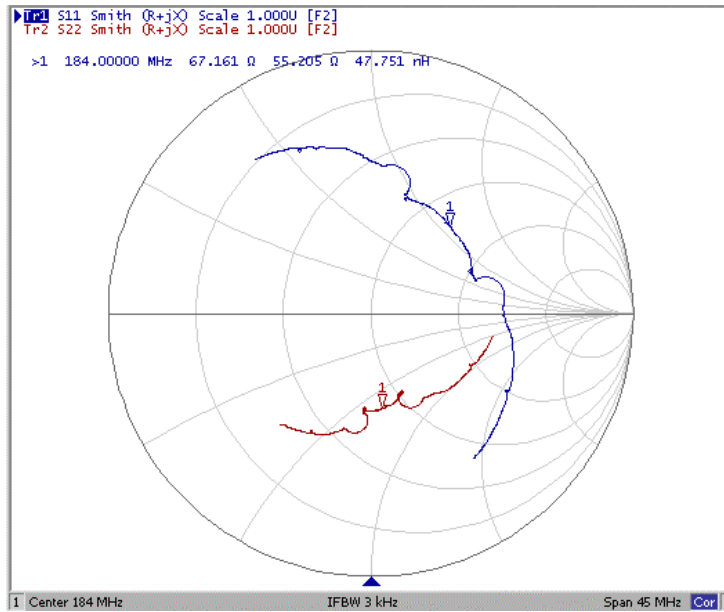
Ripple Variation $F_o \pm 7.5\text{MHz}$



Group Delay Variation $F_o \pm 7.5\text{MHz}$



Smith Chart





VSWR

