



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF83.0625M-02A	83.0625MHz IF SAW Filter 2.17MHz 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)



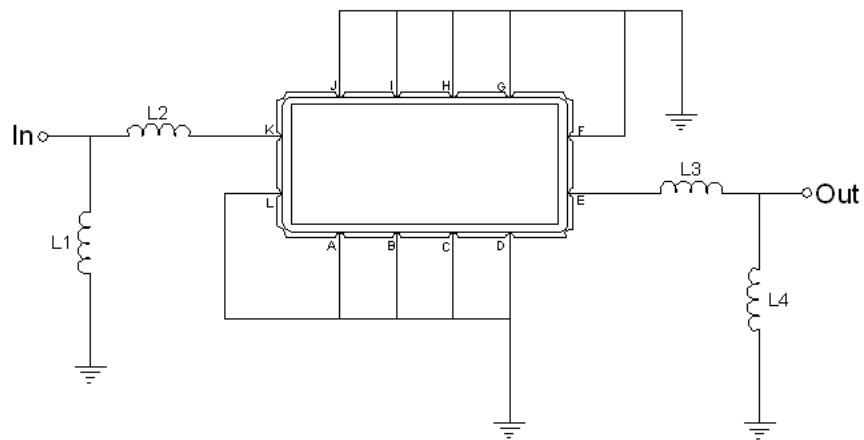


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=68nH, L2=220nH
Output	L3=180nH, L4=68nH
Source/Load Impedance	50 Ω



Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	0	-	60
Storage Temperature Range	°C	-20	-	70
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.

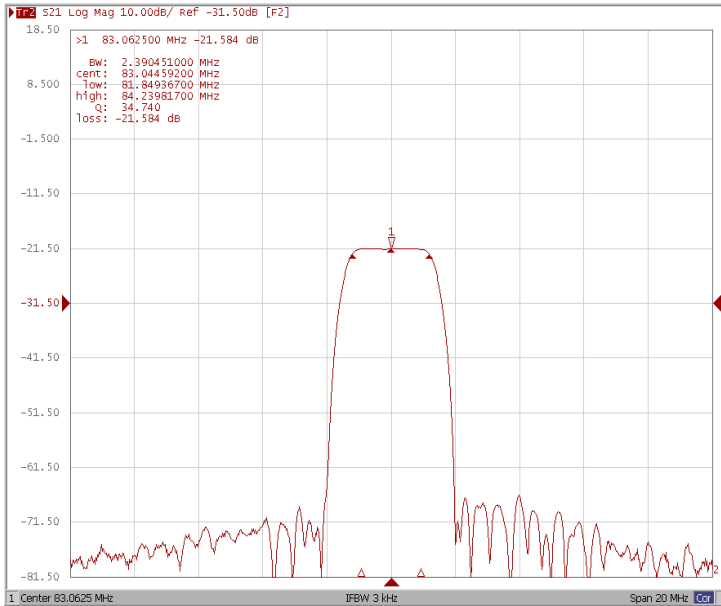
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	83.0625	-
Insertion Loss at Fo	dB	-	21.6	23.5
Group Delay Variation (Fo±0.9375MHz)	ns	-	50	100
Absolute Delay	us	-	1.81	-
Passband Ripple (Fo±0.9375MHz)	dB	-	0.2	1.00
Bandwidth at -1dB	MHz	1.875	2.79	-
Bandwidth at -30dB	MHz	-	3.78	-
Bandwidth at -40dB	MHz	-	3.92	4.62
Ultimate Rejection	dB	-	48	-
Relative Attenuation Fo±2.1625MHz	dB	30	50	-

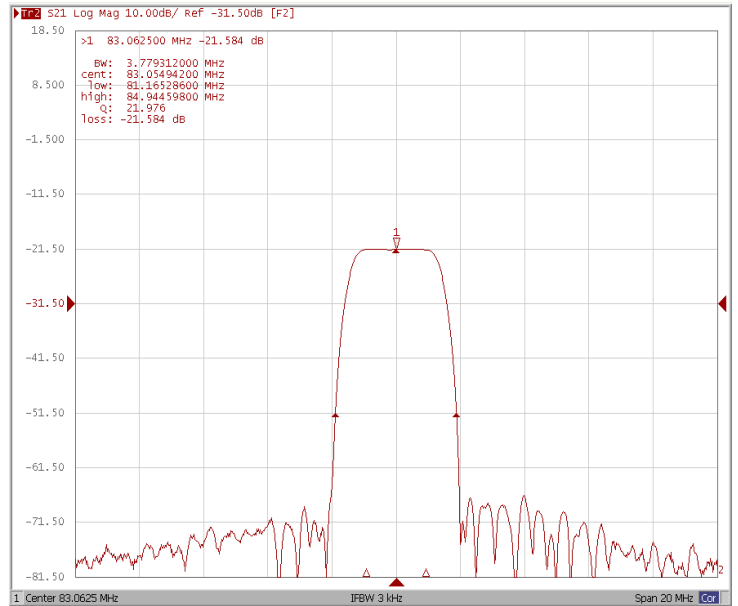


Frequency Response

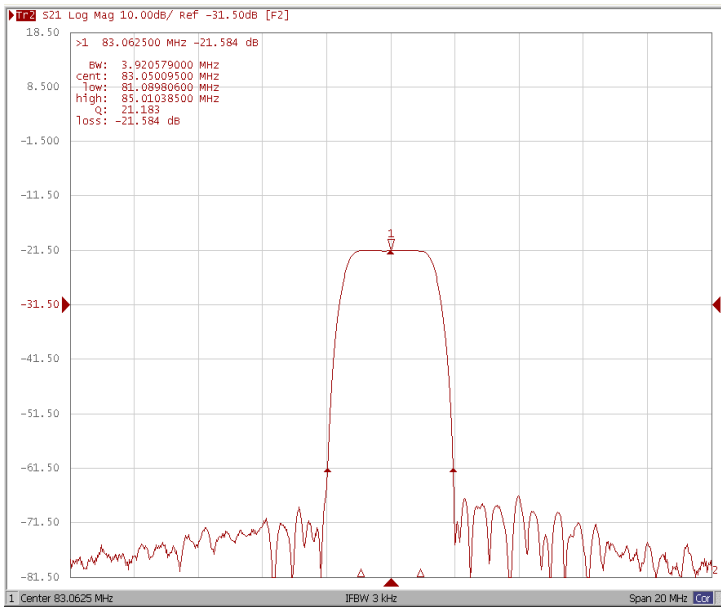
Bandwidth at -1.0 dB



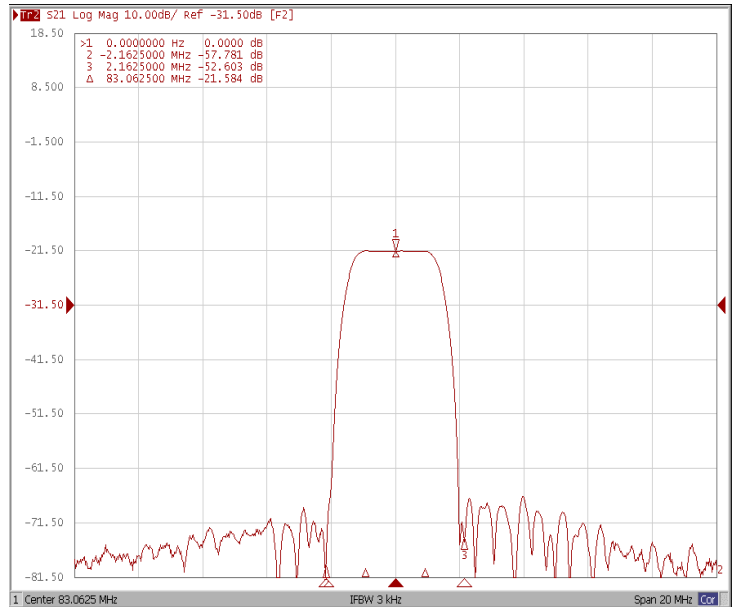
Bandwidth at -30.0 dB



Bandwidth at -40.0 dB

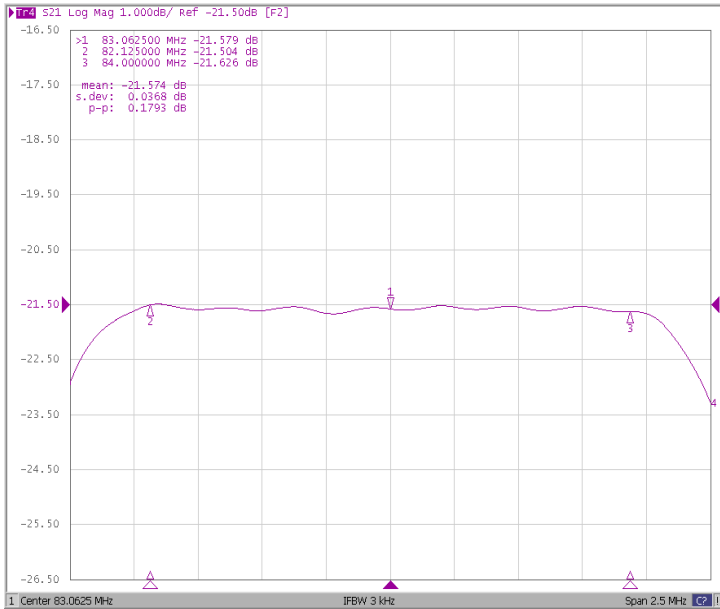


Relative Attenuation Fo±2.1625MHz

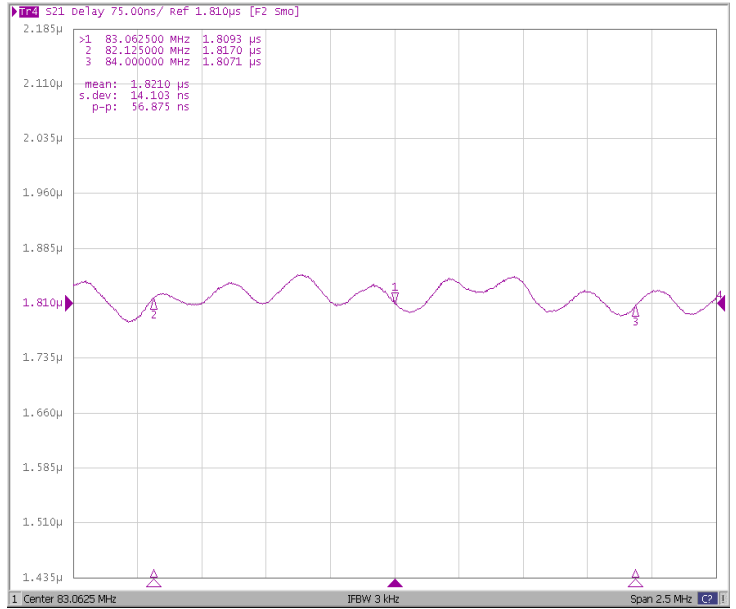




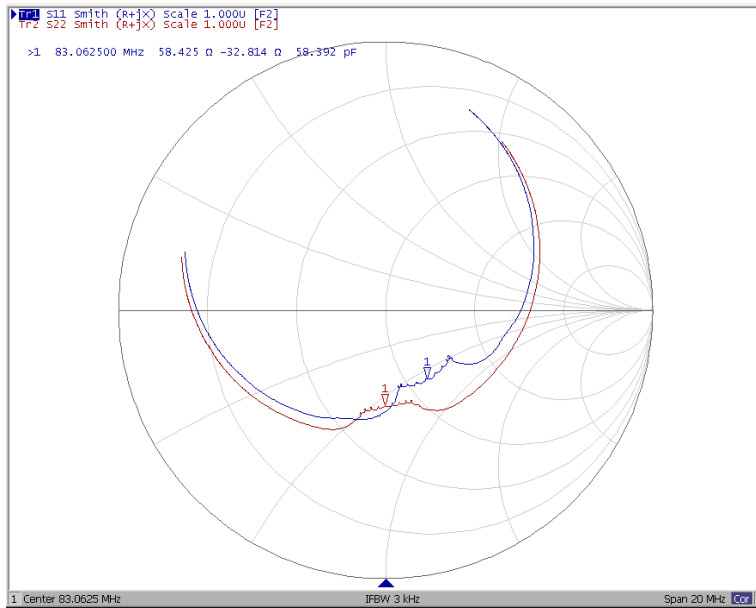
Ripple Variation Fo±0.9375



Group Delay Variation Fo±0.9375



Smith Chart





VSWR

