



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-SL137.5M-50A	137.5MHz IF SAW Filter 5.3MHz Bandwidth

### Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
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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)



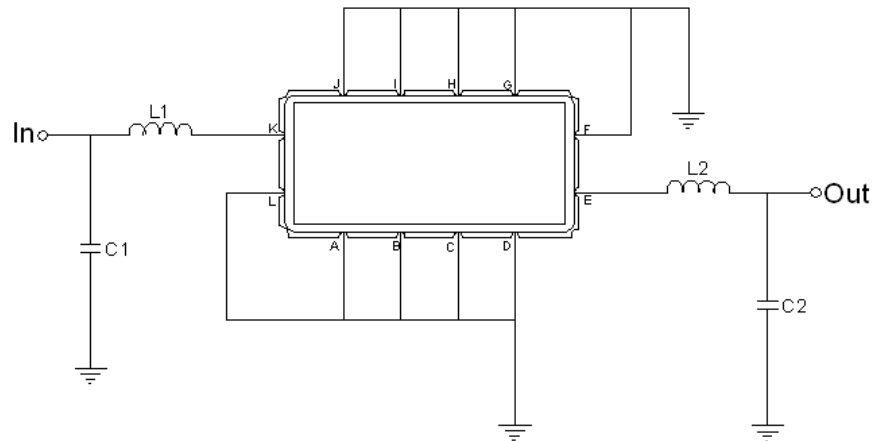


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1=39nH, C1=36pF
Output	L2=47nH, C1=27pF
Source/Load Impedance	50 Ω



## Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-30	-	85
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.

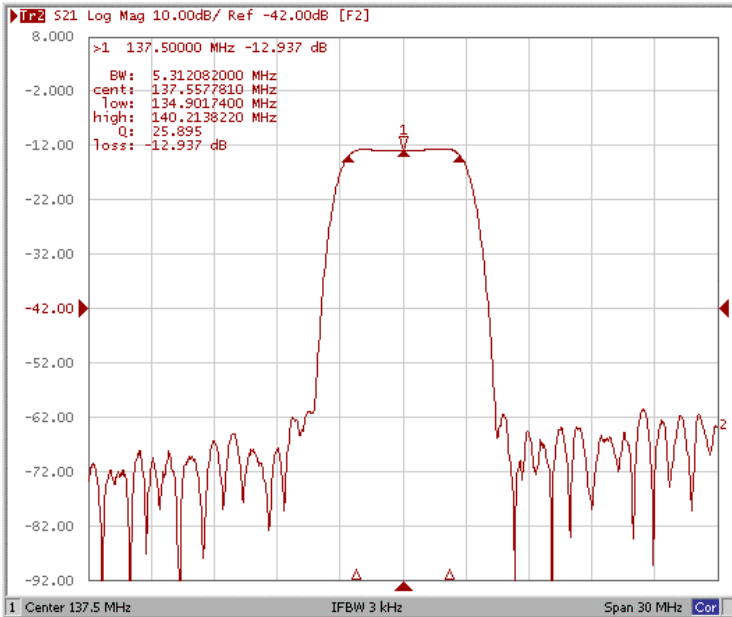
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	137.35	137.5	137.65
Insertion Loss at Fo	dB	-	13.0	15.0
Temperature Coefficient	ppm/°C	-	-18	-
Amplitude Ripple within fo ±2.2 MHz	dB <sub>p-p</sub>	-	0.3	0.8
Group Delay Variation within fo ±2.2 MHz	nsec	-	30	70
Absolute Delay at Fo	µsec	-	1.06	-
Bandwidth at -1.0 dB	MHz	5.1	5.3	-
Bandwidth at -3.0 dB	MHz	-	5.9	-
Bandwidth at -35.0 dB	MHz	-	8.2	8.6
Relative Attenuation:				
Lower Sidelobe	dB	45	48	-
Upper Sidelobe	dB	45	48	-

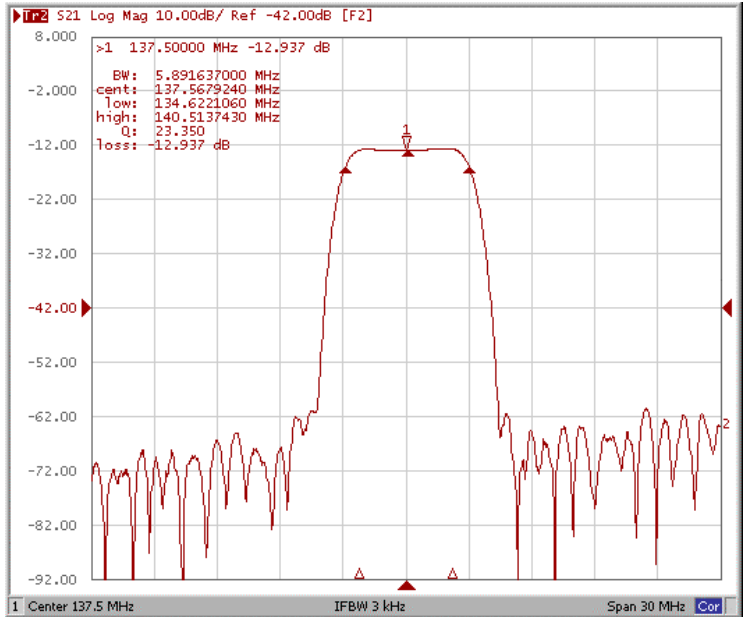


## Frequency Response

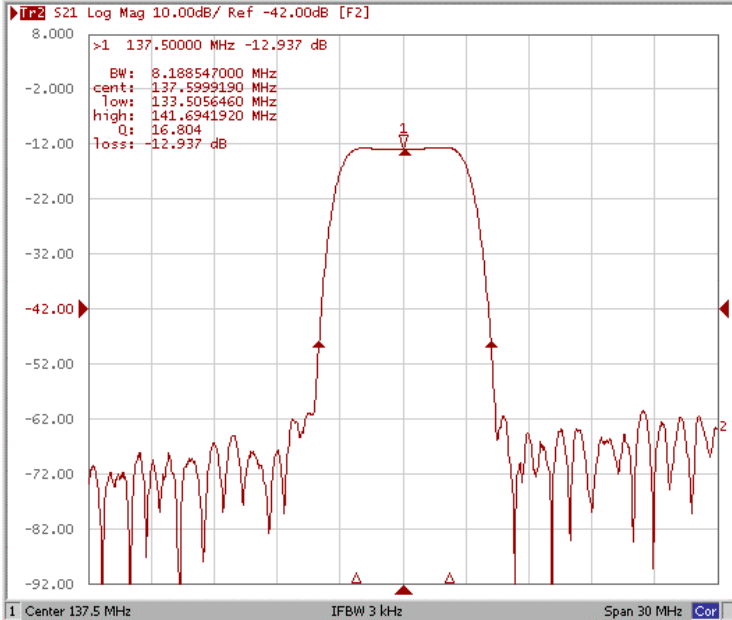
### Bandwidth at -1.0 dB



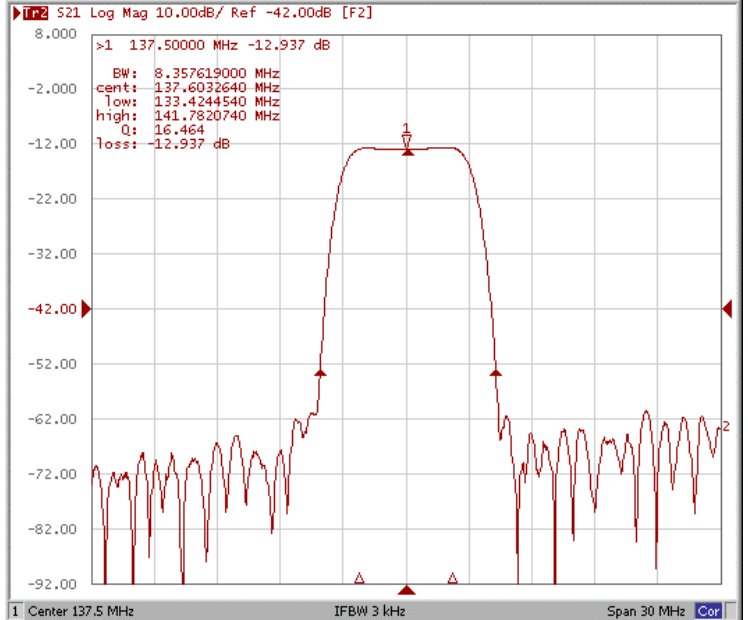
### Bandwidth at -3.0 dB



### Bandwidth at -35.0 dB

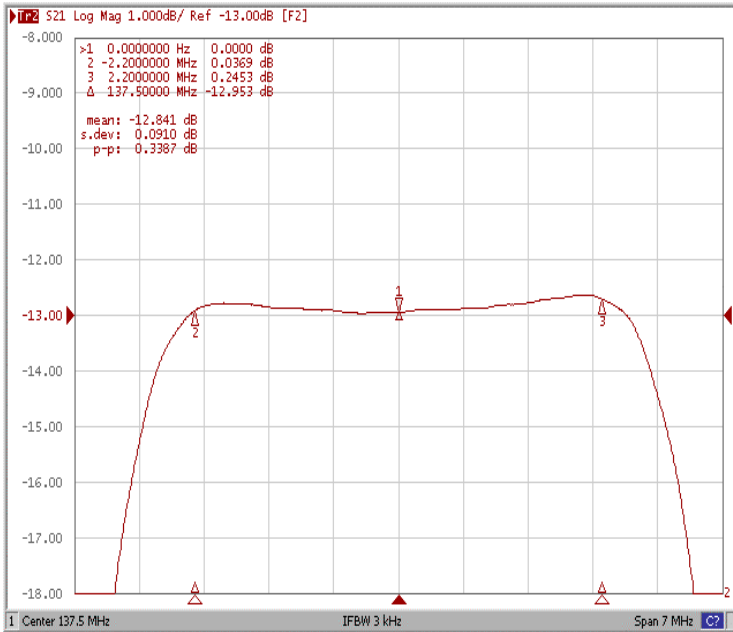


### Bandwidth at -40.0 dB

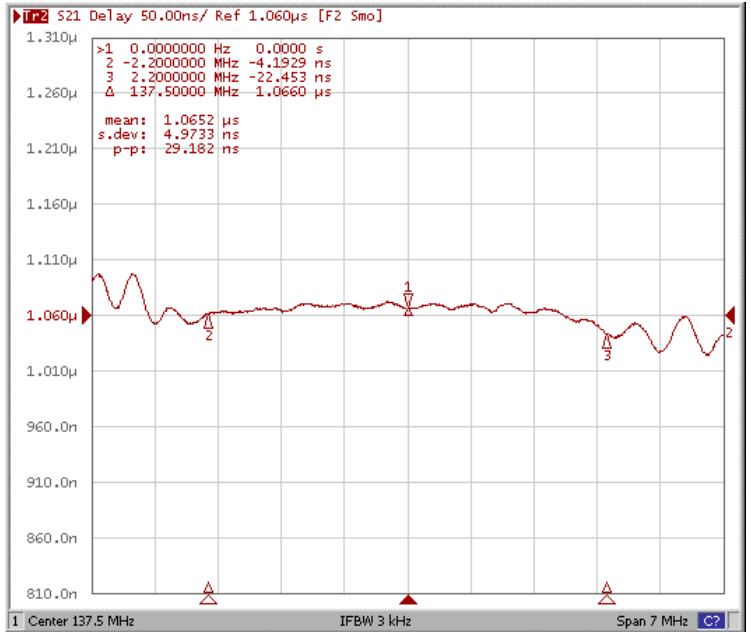




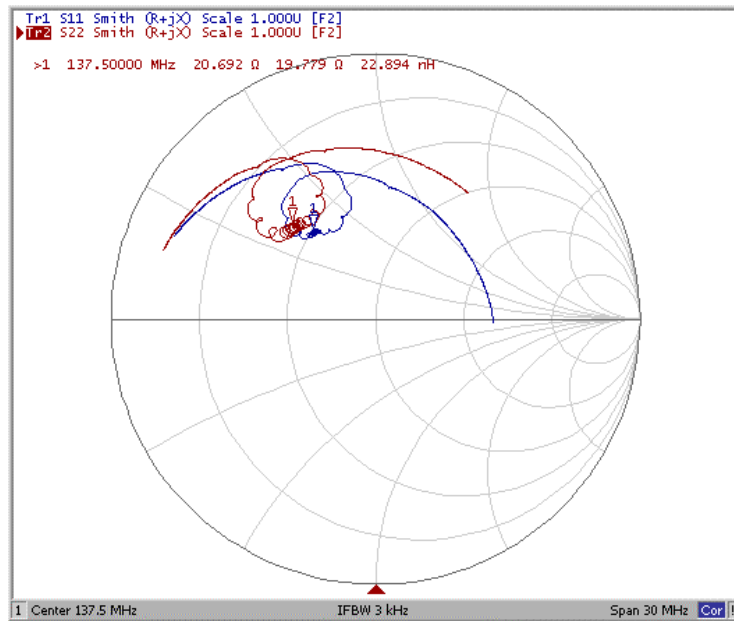
### Ripple Variation Fo±2.2MHz



### Group Delay Variation Fo±2.2MHz



### Smith Chart





## VSWR

