



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-SL140.0M-77A	140.0 MHz IF SAW Filter 77.3 MHz 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)



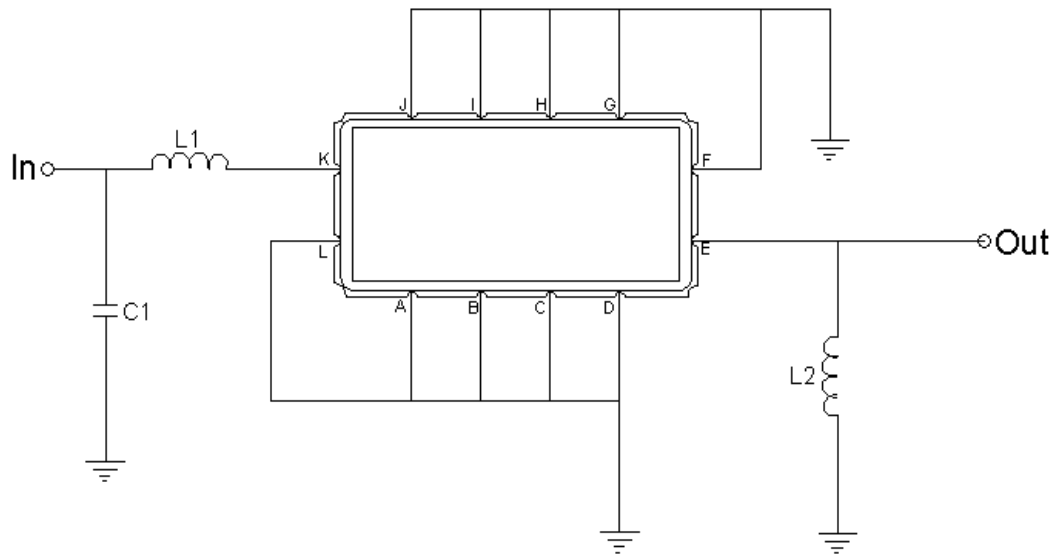


Mechanical Dimensions (mm)



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

Test Circuit



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



Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-40	-	80
Storage Temperature Range	°C	-45	-	105
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.

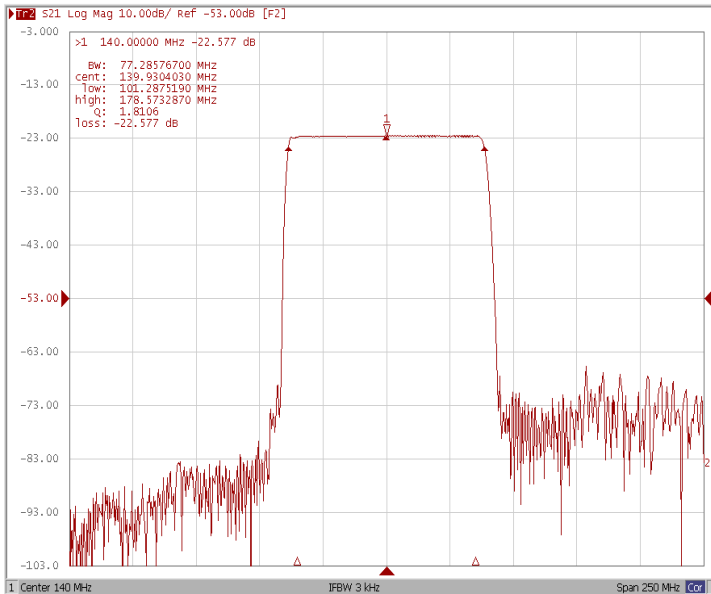
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	139.75	140.00	140.25
Insertion Loss at Fo	dB	-	22.5	25.0
Group Delay Variation at Fo±35.0MHz	nsec	-	14	40
Absolute Delay at Fo	usec	-	0.78	-
Passband Ripple at Fo±35.0MHz	dB	-	0.45	1.00
Bandwidth at -2dB	MHz	75.00	77.30	-
Bandwidth at -3dB	MHz	76.00	77.90	-
Bandwidth at -35dB	MHz	-	84.30	85.00
Ultimate Rejection				
@Fo ± 40MHz	dB	-	7.4	-
@Fo ± 50MHz	dB	40	53	-
Material Temperature coefficient	KHz/°C	-	-13.16	-
ESD Class	-	-	1A	-

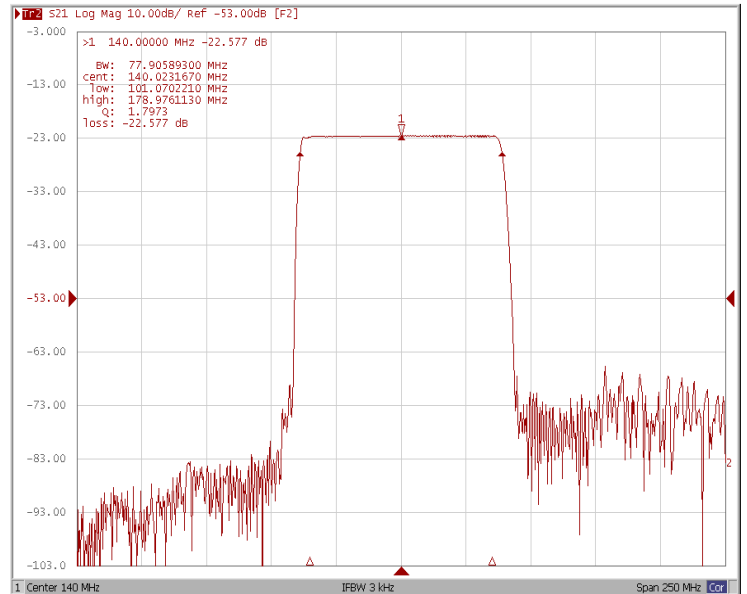


Frequency Response

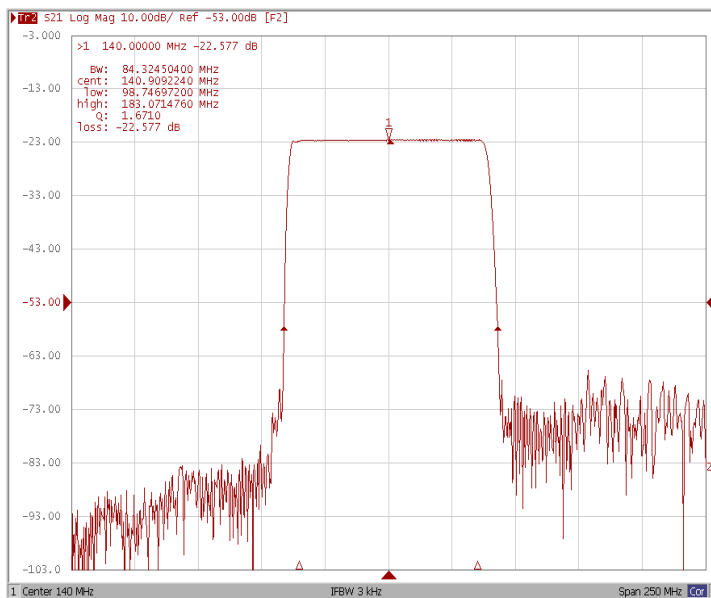
Bandwidth at -2.0 dB



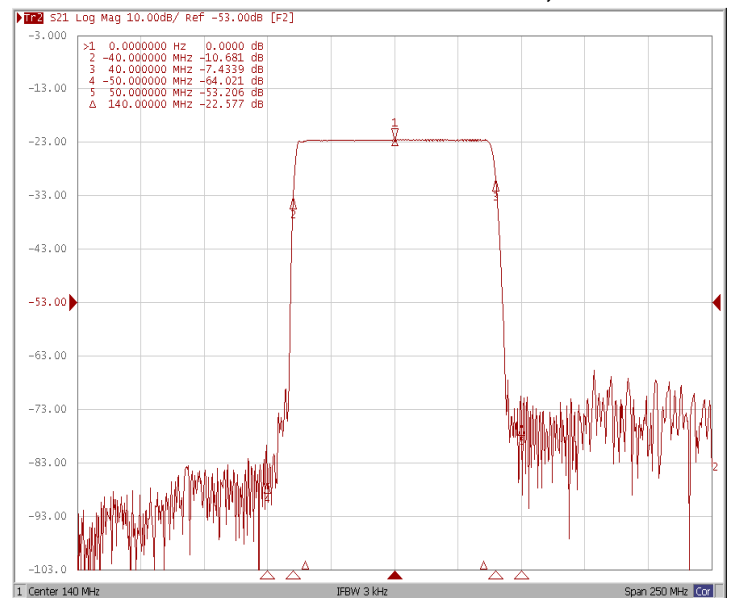
Bandwidth at -3.0 dB



Bandwidth at -35.0 dB

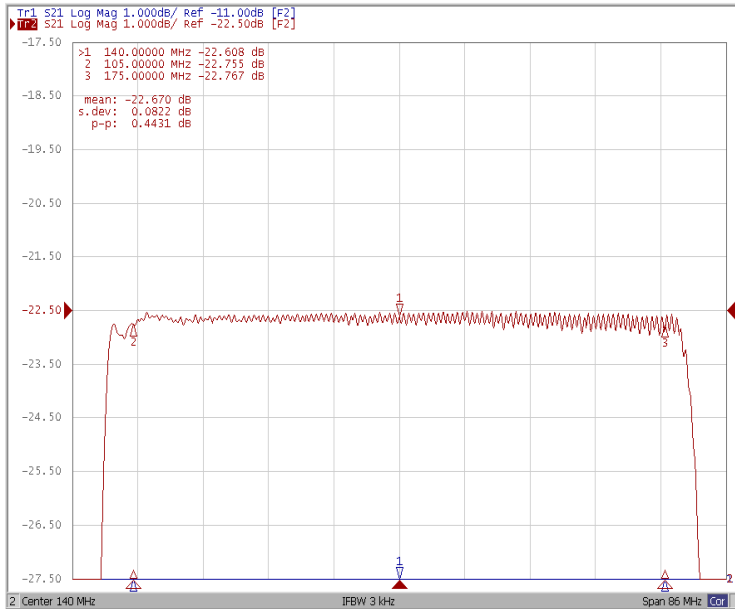


Relative Attenuation at Fo±40.0MHz , ±50.0MHz

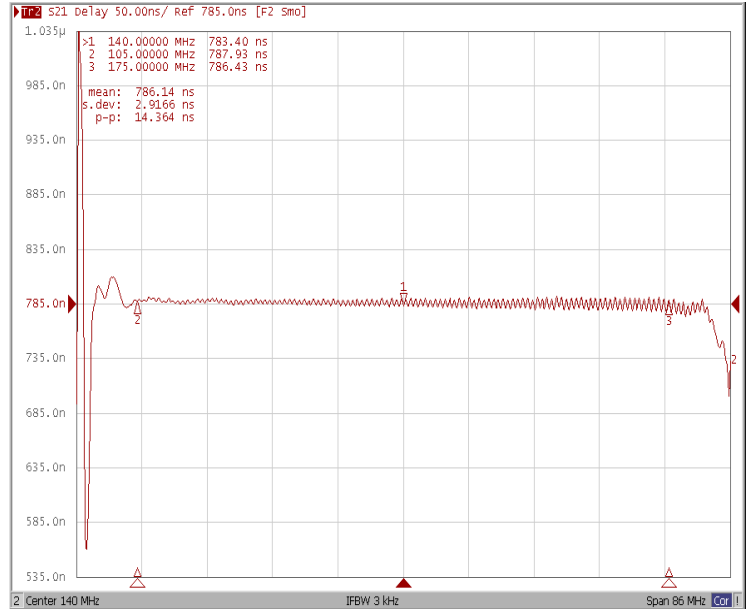




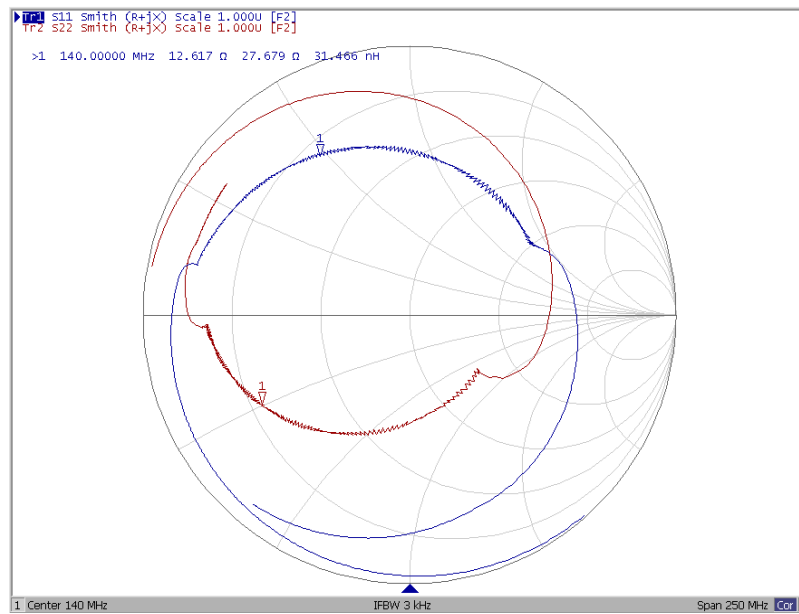
Ripple Variation at Fo±35.0MHz



Group Delay Variation at Fo±35.0MHz



Smith Chart





VSWR

