



Total Solution Provider in Saw Device

SL1408V

Low-Loss 140MHz IF SAW Filter
8.5MHz Bandwidth
Revision 2 : 25. January. 2007



- Electrical Characteristics
 - Package Dimensions
 - Testing Environment
 - Frequency Characteristics
-

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□ Electrical Characteristics

Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-30	-	80
Storage Temperature Range	°C	-40	-	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	-
Package type & size	V			
Length x Width	mm ²	-	13.3 x 6.5	-
Height	mm	-	-	1.8

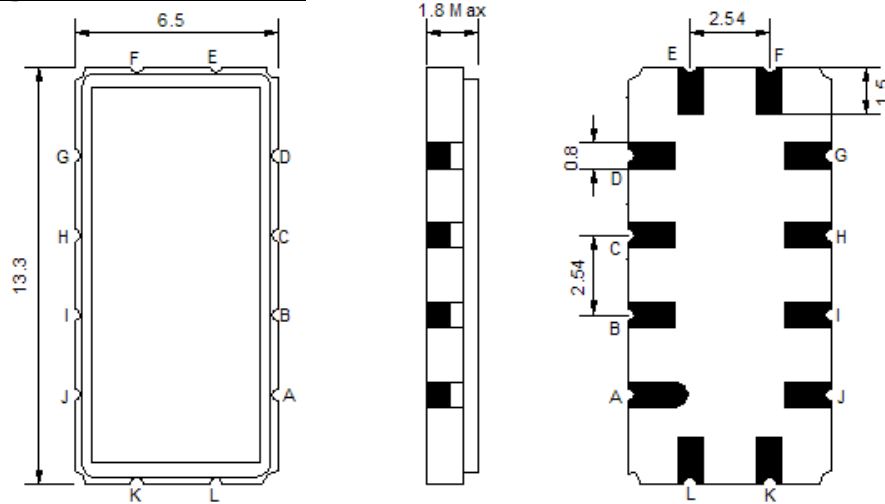
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	139.6	140.0	140.4
Insertion Loss at Fo	dB	-	6.5	8.0
Temperature Coefficient	ppm/°C	-	-86	-
Amplitude Ripple within fo ±3.2 MHz	dB _{p-p}	-	0.6	1.0
Group Delay Variation within fo ±3.2 MHz	nsec	-	40	100
Absolute Delay at Fo	µsec	-	1.0	-
Bandwidth at -1.0 dB	MHz	7.6	7.9	-
Bandwidth at -3.0 dB	MHz	8.5	9.2	-
Bandwidth at -40.0 dB	MHz	-	13.3	14.0
Relative Attenuation:				
Lower Sidelobe	dB	45	-	-
Upper Sidelobe	dB	45	-	-

Notes : (1) With Matching Network (Ref. Testing Environment Circuit as shown below).

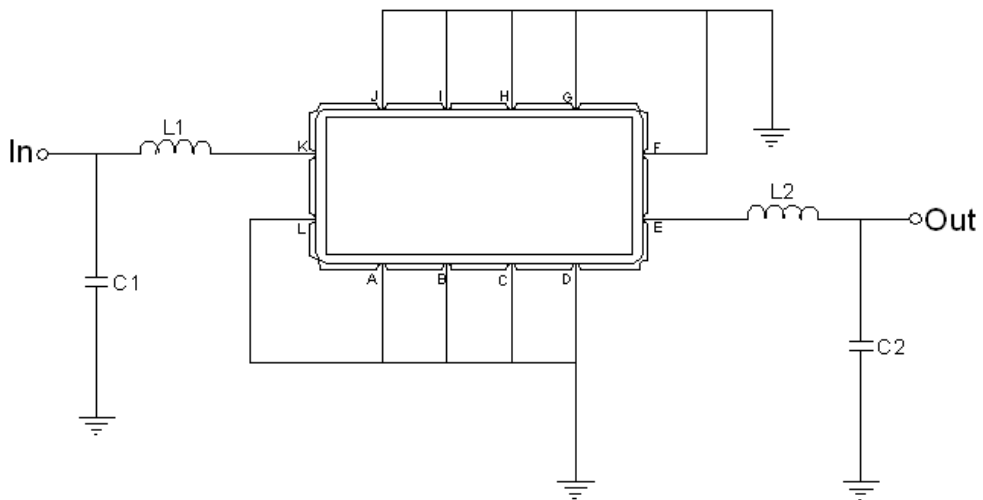
Those impedances could be modified with different impedance values and/or structures, if necessary.

Package Dimensions



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

Testing Environment



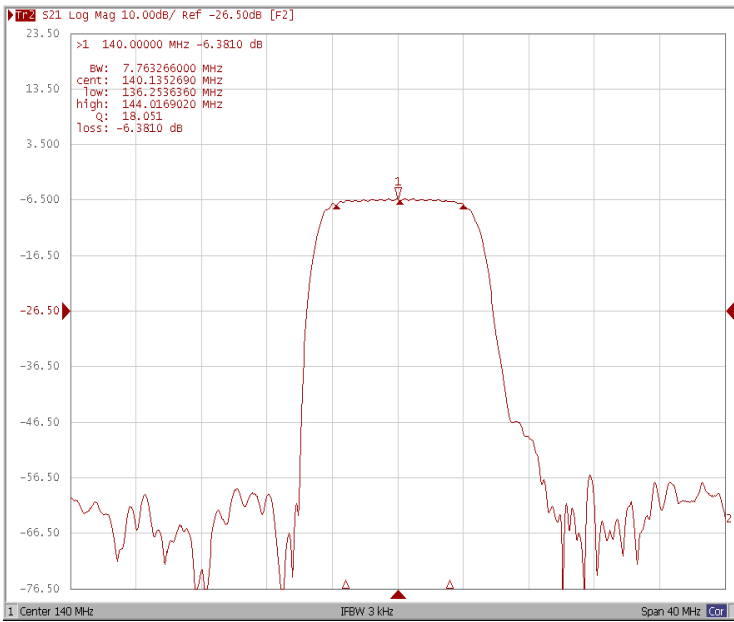
Test Fixture & Values	
Input	L1=68nH, C1=22pF
Output	L2=68nH, C2=24pF
Source/Load Impedance	50 Ω



□ Frequency Characteristics

Frequency Response

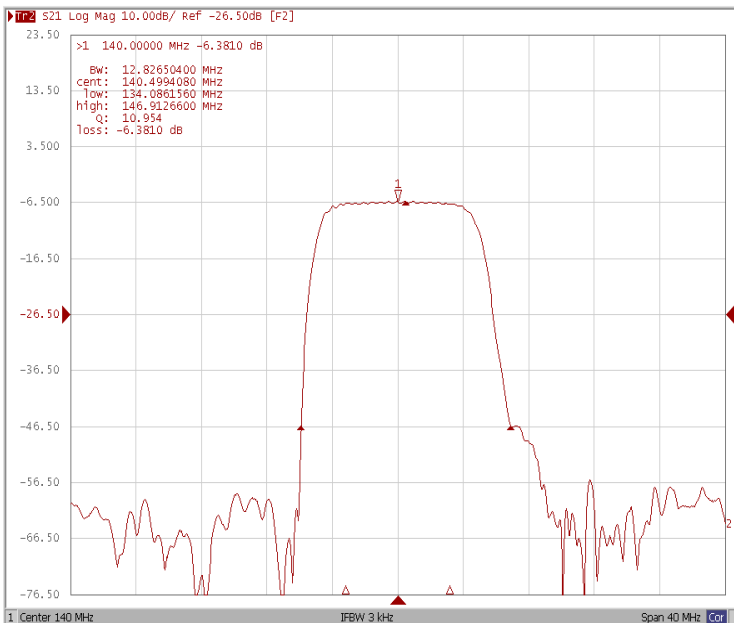
Bandwidth at -1.0 dB



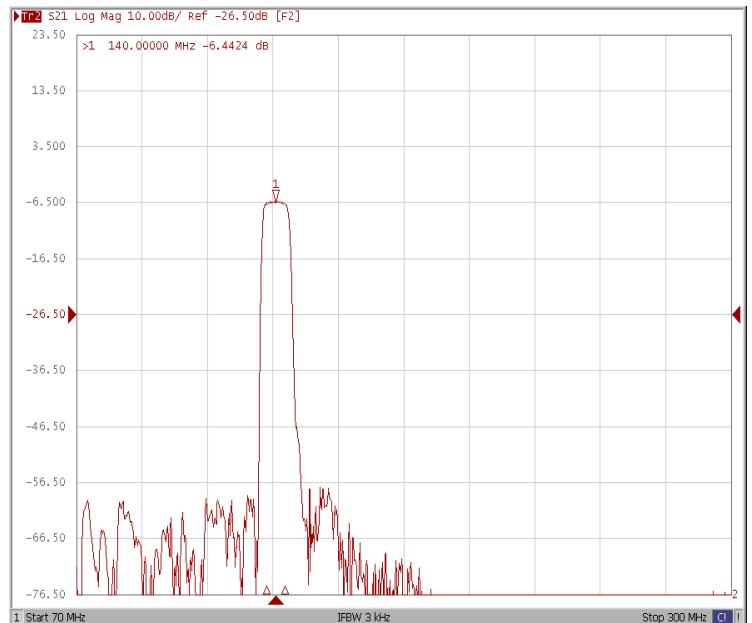
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



Wide-Band

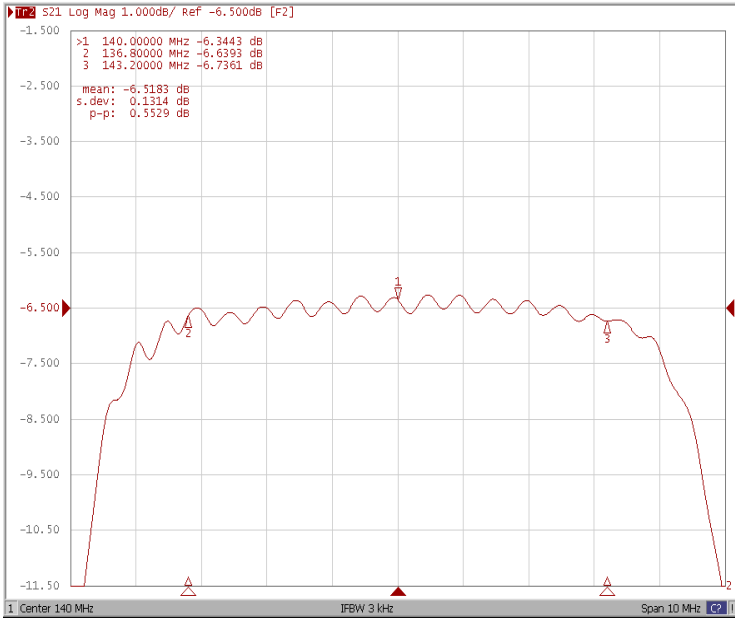




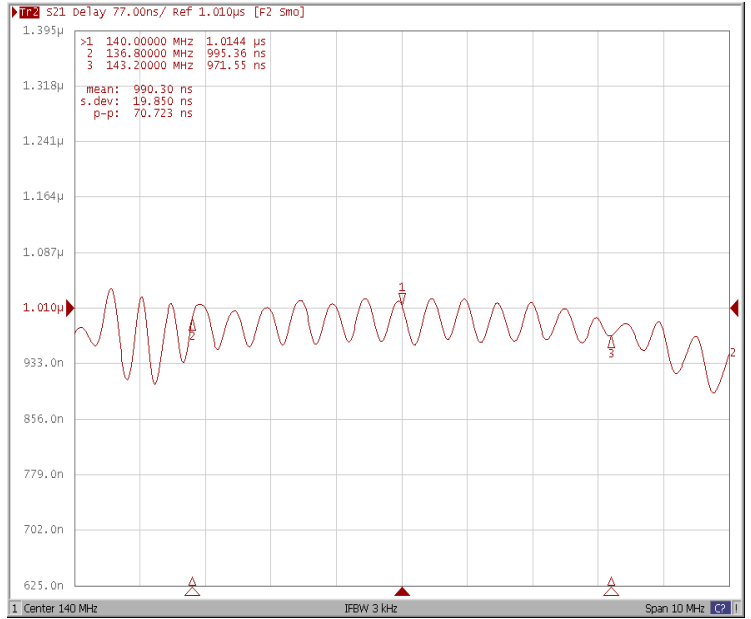
Frequency Characteristics

Frequency Response

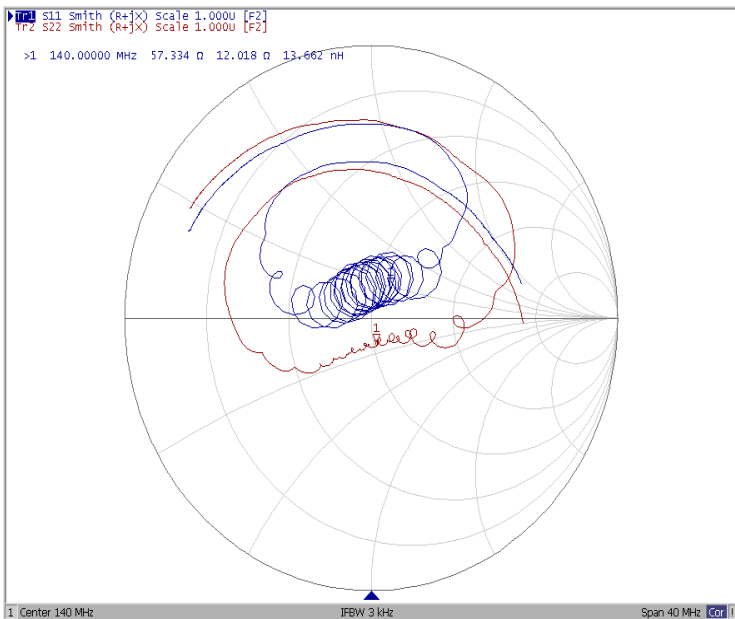
Ripple Variation $Fo \pm 3.2\text{MHz}$



Group Delay Variation $Fo \pm 3.2\text{MHz}$



Smith Chart



SWR

