



*Total Solution Provider in Saw Device*

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# SL1418T

140MHz IF SAW Filter  
18.0MHz Bandwidth  
Revision 1 : 29. Oct. 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) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	T			
Length x Width	mm <sup>2</sup>		9.1 x 4.8	
Height	mm		1.5	-

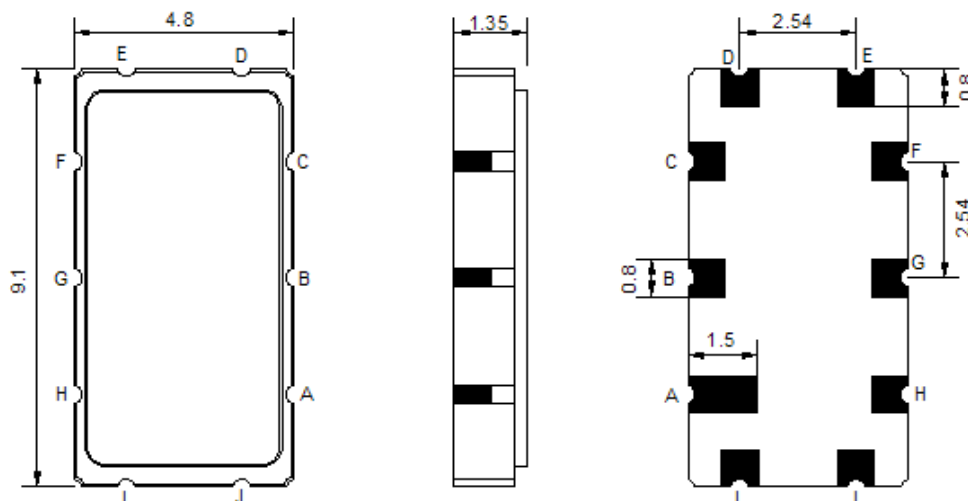
### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	140.0	-
Insertion Loss at Fo	dB	-	8.5	11.0
Temperature Coefficient	ppm/°C	-	-86	-
Amplitude Ripple Variation	dB <sub>p-p</sub>	-	0.6	1.0
Group Delay Variation	nsec	-	55	100
Absolute Delay at Fo	μsec	-	0.88	-
Bandwidth at -1.0 dB	MHz	17.2	18.2	-
Bandwidth at -3.0 dB	MHz	18.0	19.2	-
Bandwidth at -35.0 dB	MHz	-	22.8	25.0
Relative Attenuation: (Ref 140MHz)				
100 MHz ~ 124 MHz	dB	40	46	-
156 MHz ~ 180 MHz	dB	40	44	-

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

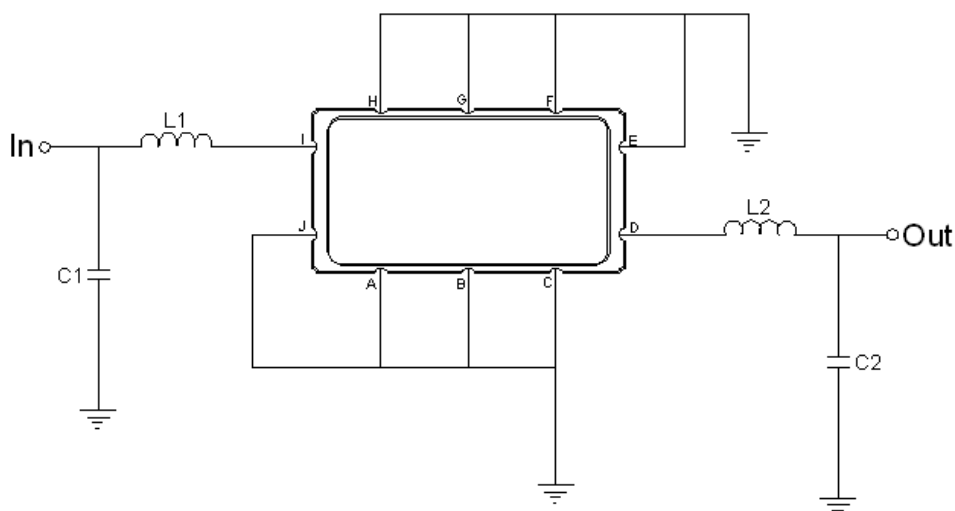
Those impedances could be modified with different impedance values and/or structures, if necessary.

## □ Package Dimensions



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

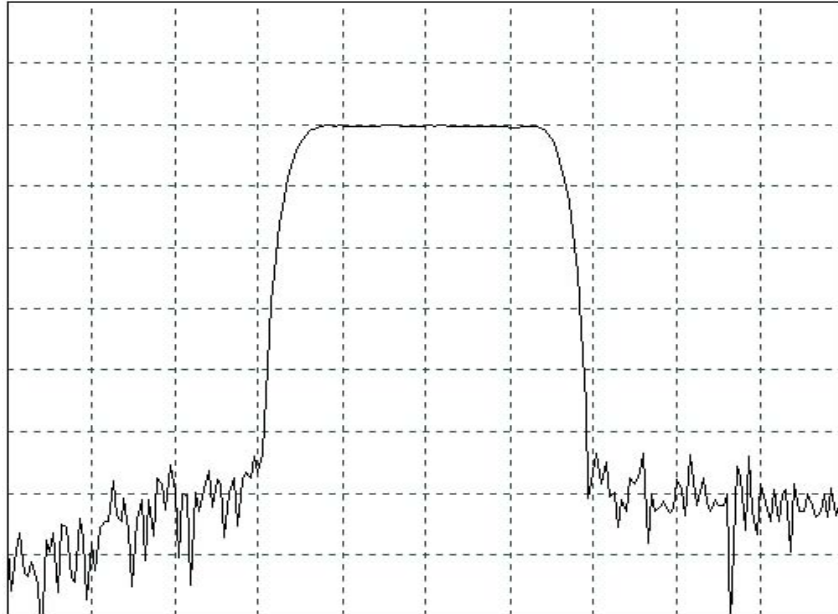
## □ Testing Environment



Test Fixture & Values	
Input	L1 = 39 nH , C1 = 43 pF
Output	L2 = 39 nH , C2 = 43 pF
Source/Load Impedance	50 $\Omega$

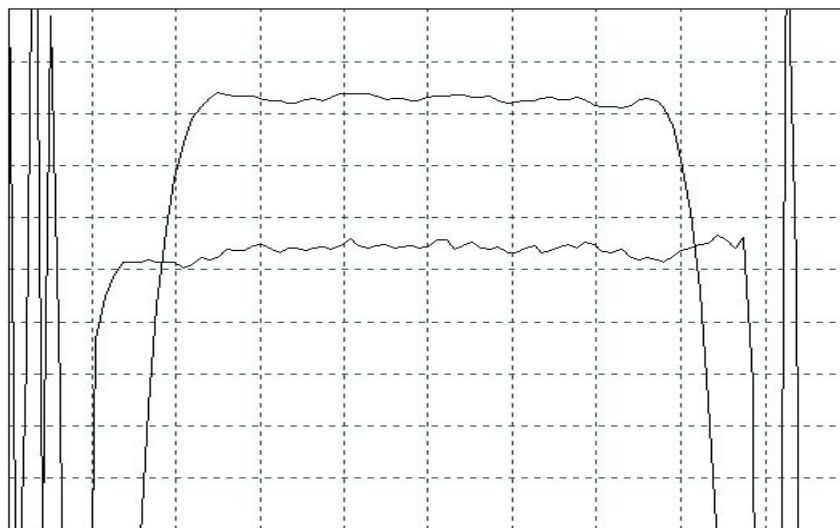
## □ Frequency Characteristics

Frequency Response



Horizontal : 2.5MHz/Div

Vertical : 10 dB/Div



Horizontal : 1.2 MHz/Div

Vertical : 1 dB/Div

Vertical : 100 ns/Div