



*Total Solution Provider in Saw Device*

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# SA140141AV

140MHz IF SAW Filter

15.0MHz Bandwidth

Revision 1: 29. Oct. 2007



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

### Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operation 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	V			
Length x Width	mm <sup>2</sup>	-	13.3 x 6.5	-
Height	mm	-	-	1.8

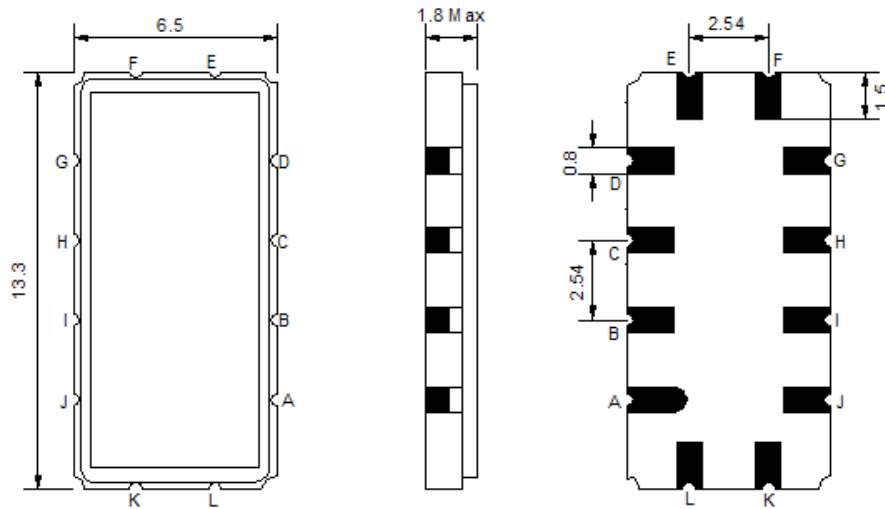
### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	140.0	-
Insertion Loss at Fo	dB	-	18.0	21.0
Amplitude Ripple Variation (Fo ± 6.875 MHz)	dB <sub>p-p</sub>	-	0.6	1.0
Group Delay Variation (Fo ± 6.875 MHz)	nsec	-	50	100
Absolute Delay at Fo	µsec	-	0.88	-
Temperature Coefficient	ppm/°C	-	-23	-
Bandwidth at -1.0 dB	MHz	-	14.8	-
Bandwidth at -3.0 dB	MHz	15.0	15.5	-
Bandwidth at -40.0 dB	MHz	-	18.5	19.0
<b>Relative Attenuation</b>				
Lower Sidelobe	dB	42	48	-
Upper Sidelobe	dB	40	45	-
Fc-8.5MHz	dB	-	15	
Fc+8.5MHz	dB	-	9	

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

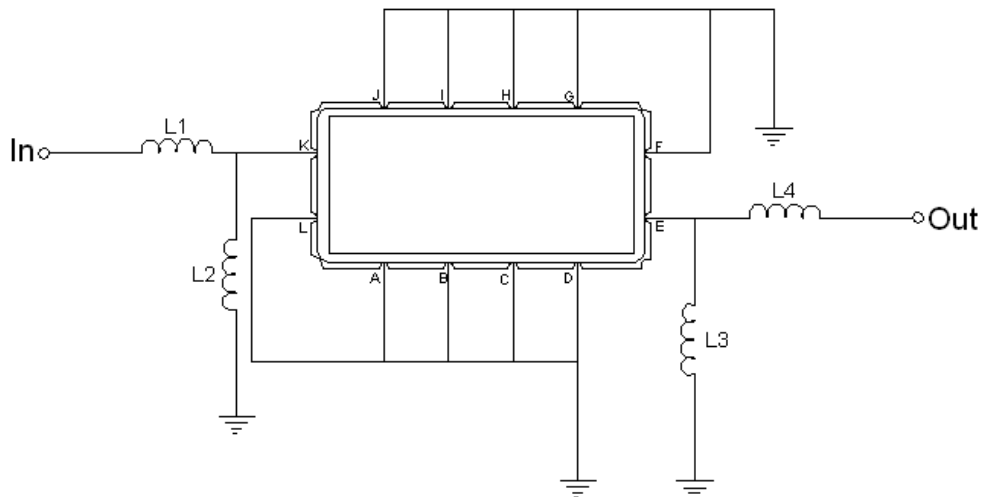
Those impedances could be modified with different impedance values and/or structures, if necessary.

### □ Package Dimensions



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

### □ Testing Environment



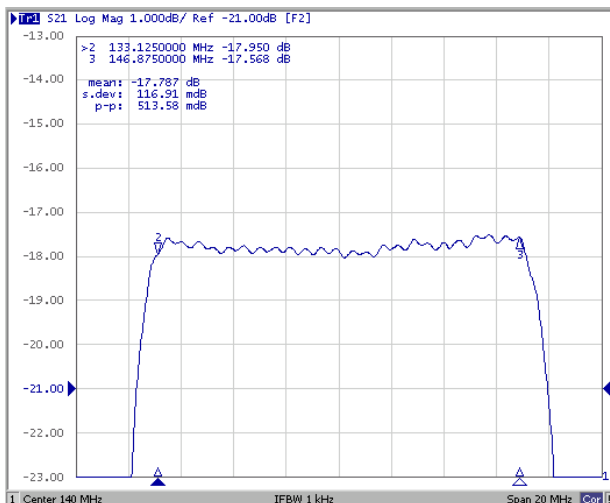
Test Fixture & Values	
Input	L1=68 nH , L2=47 nH
Output	L3=82 nH , L4=47 nH
Source/Load Impedance	50 Ω

### □ Frequency Characteristics

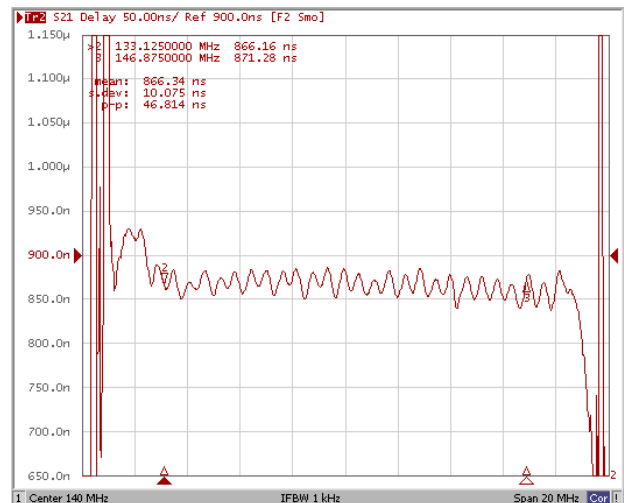
#### Frequency Response



#### Ripple (Fo±6.875MHz)



#### Group Delay (Fo±6.875MHz)



### Relative Attenuation (Fo±8.5MHz)

