



*Total Solution Provider in Saw Device*

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# SL09331AV

93.75MHz IF SAW Filter  
31.45MHz Bandwidth  
Revision 0: 19. August. 2010



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

### Maximum Ratings

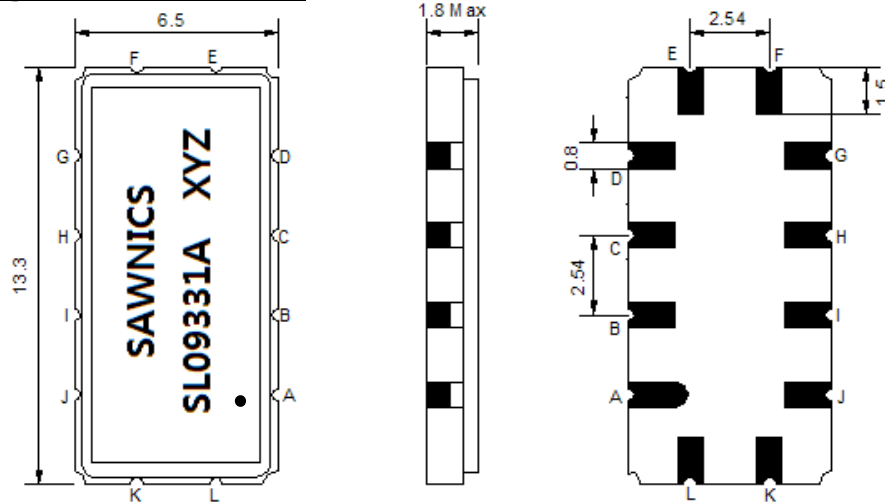
Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-30	-	+70
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
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	-	93.75	-
Insertion Loss at Fo	dB	-	14.00	16.00
Group Delay Variation at Fo ± 14.22 MHz	nsec	-	18	50
Absolute Delay at Fo	usec	-	0.95	1.10
Passband Ripple Variation at Fo ± 14.22 MHz	dB	-	0.35	0.80
Bandwidth at -1dB	MHz	-	31.45	-
Bandwidth at -3dB	MHz	-	32.45	-
Bandwidth at -40dB	MHz	-	36.55	-
Ultimate Rejection	dB	40	47	-
Temperature Coefficient	ppm/°C	-	-86	-

**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.

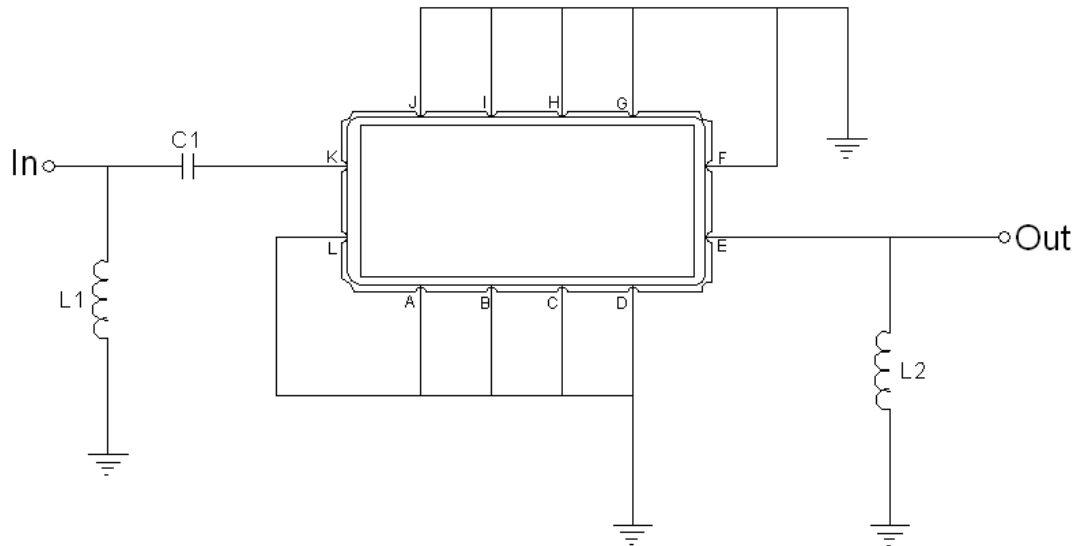
### Package Dimensions



- ① SAWNICS: Brand
- ② SL09331A: Model Name
- ③ X : Date Code (Year)
- ④ Y : Date Code (Month)
- ⑤ Z : Date Code (Date)
- : Index Dot

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

### Testing Environment



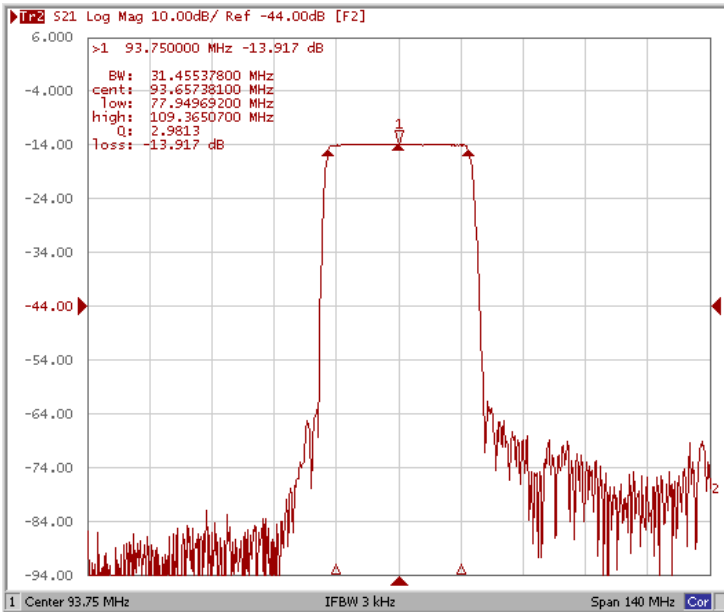
Test Fixture & Values	
Input	L1 = 68nH, C1 = 200pF
Output	L2 = 56nH,
Source/Load Impedance	50 Ω



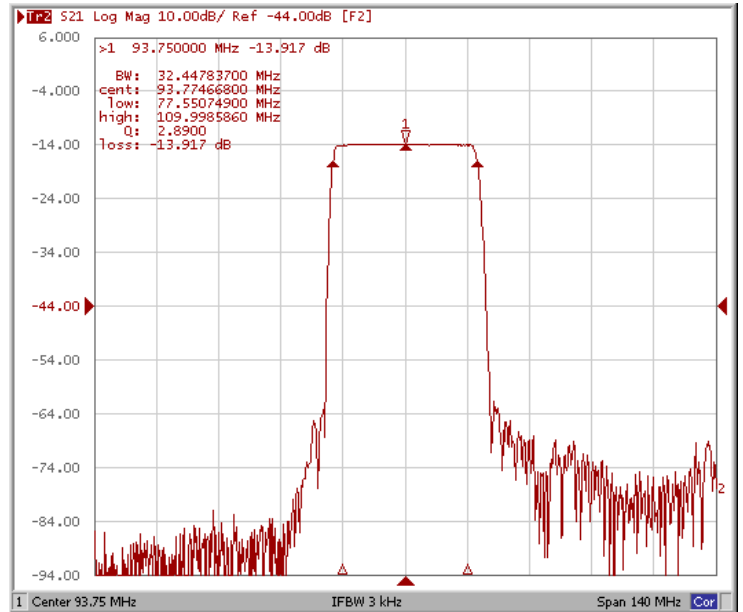
**Frequency Characteristics**

**Frequency Response**

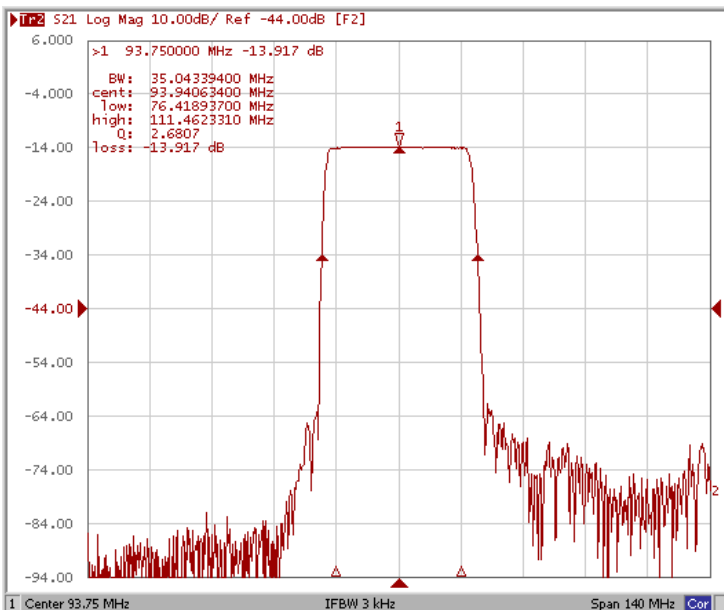
**Bandwidth at -1.0 dB**



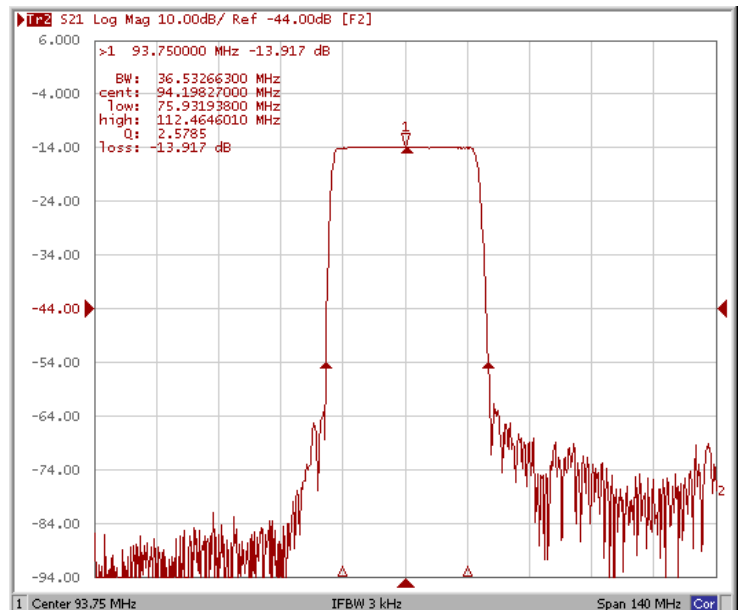
**Bandwidth at -3.0 dB**



**Bandwidth at -20 dB**



**Bandwidth at -40 dB**

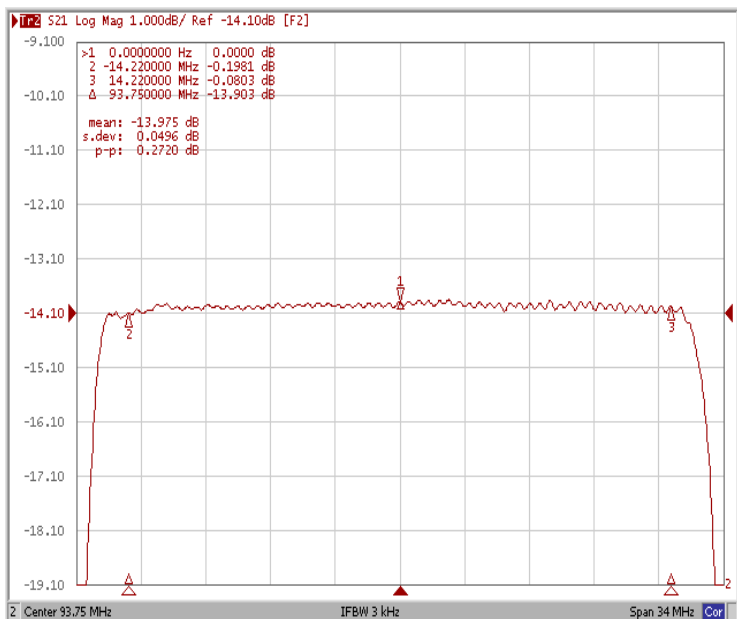




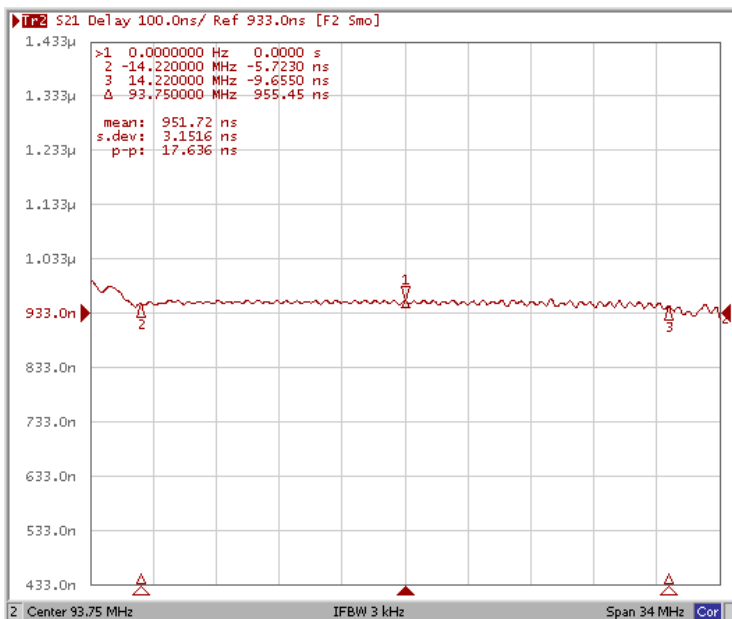
### Frequency Characteristics

#### Frequency Response

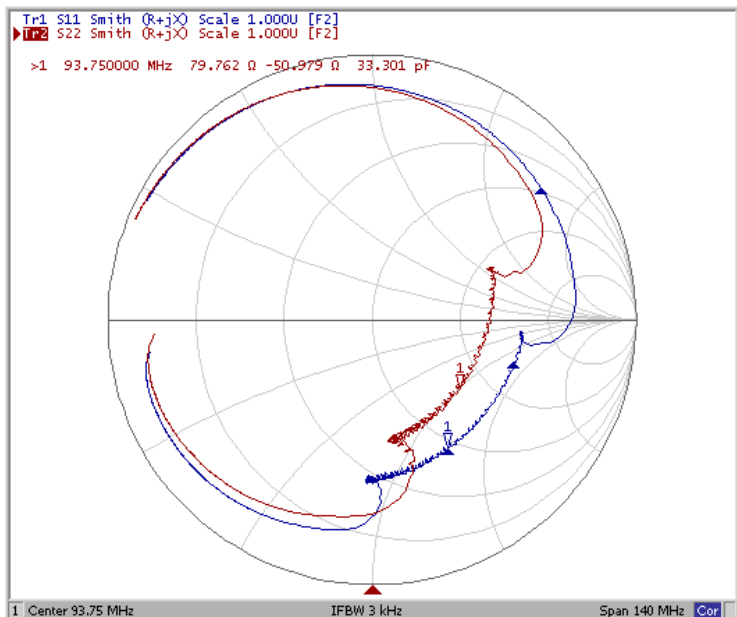
Ripple Variation Fo±14.22MHz



Group Delay Variation Fo±14.22MHz



Smith Chart



VSWR

