



*Total Solution Provider in Saw Device*

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# SL12220AV

122.50MHz IF SAW Filter  
20.88MHz Bandwidth  
Revision 0 : 6.August.2009



- 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	-20	-	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

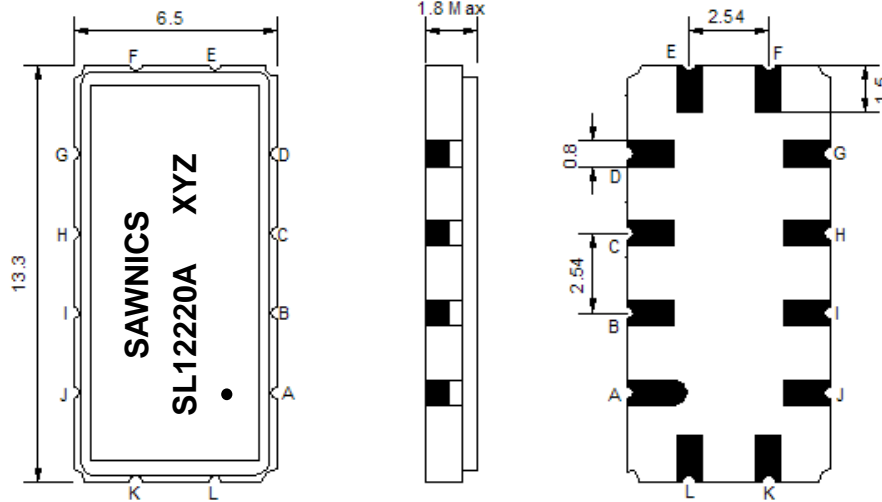
### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	122.50	-
Insertion Loss at Fo	dB	-	14.50	16.00
Group Delay Variation at Fo±9.52MHz	ns	-	22	50
Absolute Delay Time at Fo	us	-	1.01	-
Amplitude Ripple at Fo±9.52MHz	dB	-	0.32	0.80
Bandwidth at -1dB	MHz	20.50	20.88	-
Bandwidth at -3dB	MHz	21.30	21.53	-
Bandwidth at -40dB	MHz	-	24.26	24.50
<b>Relative Attenuation</b>				
Lower Sidelobe	dB	40	48	-
Upper Sidelobe	dB	40	48	-
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.

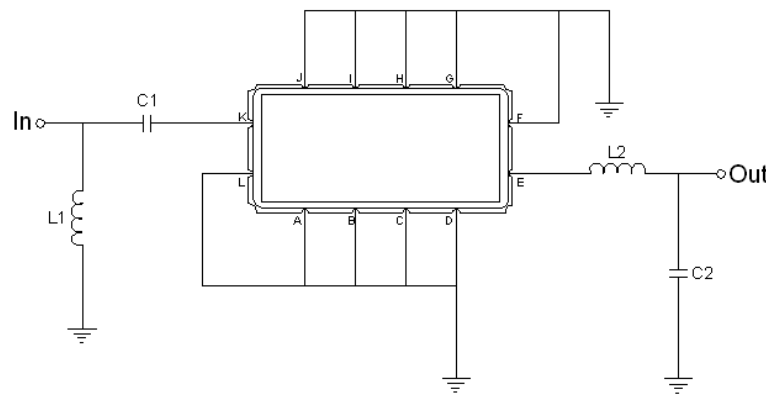
### Package Dimensions



- ① SAWNICS: Brand
- ② SL1220A: 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



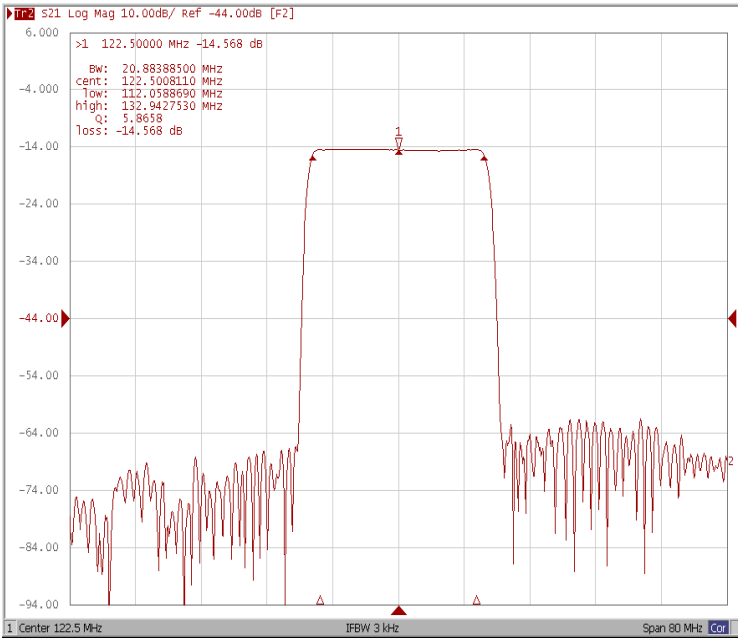
Test Fixture & Values	
Input	L1 = 27 nH, C1 = 100 pF
Output	L2 = 22 nH, C2 = 56 pF
Source/Load Impedance	50 Ω



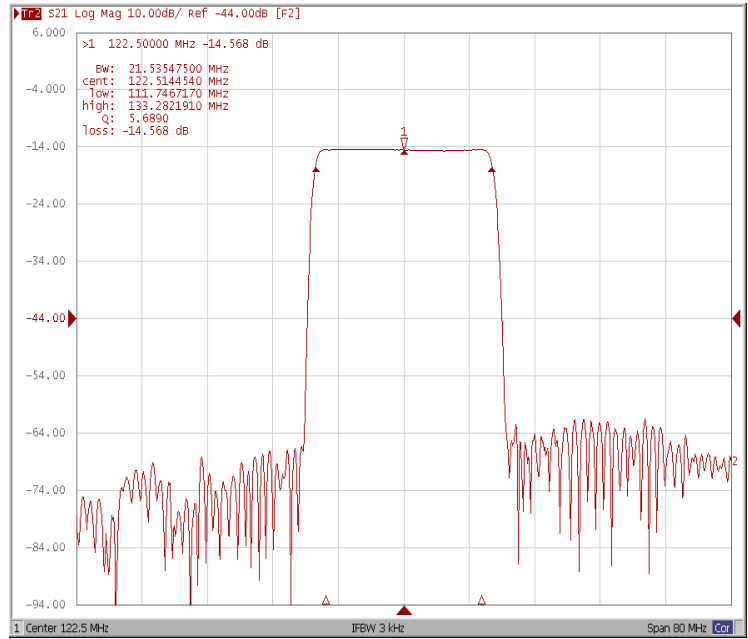
# Frequency Characteristics

## Frequency Response

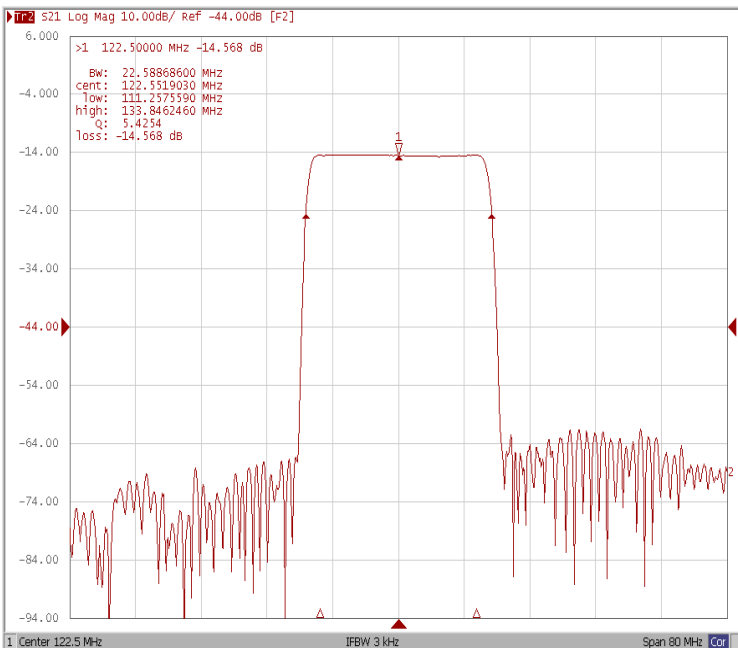
Bandwidth at -1.0 dB



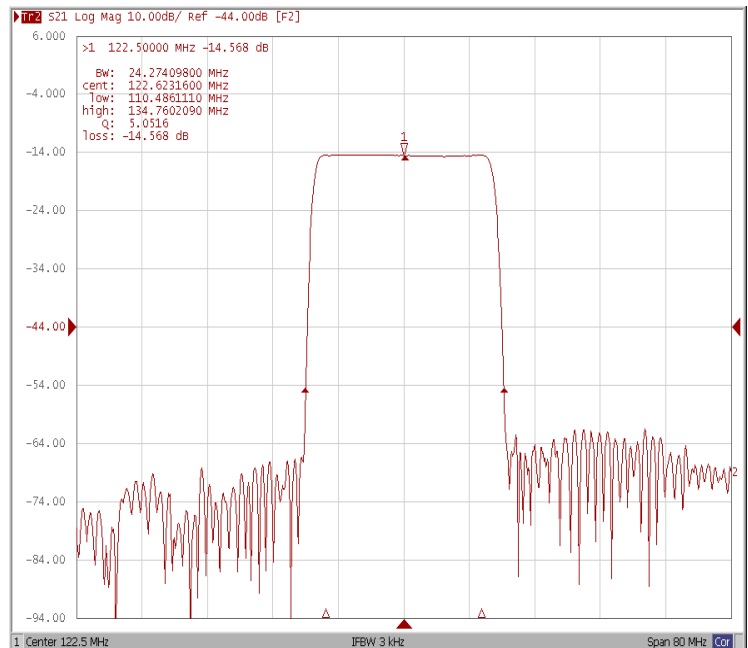
Bandwidth at -3.0 dB



Bandwidth at -10.0 dB



Bandwidth at -40.0 dB

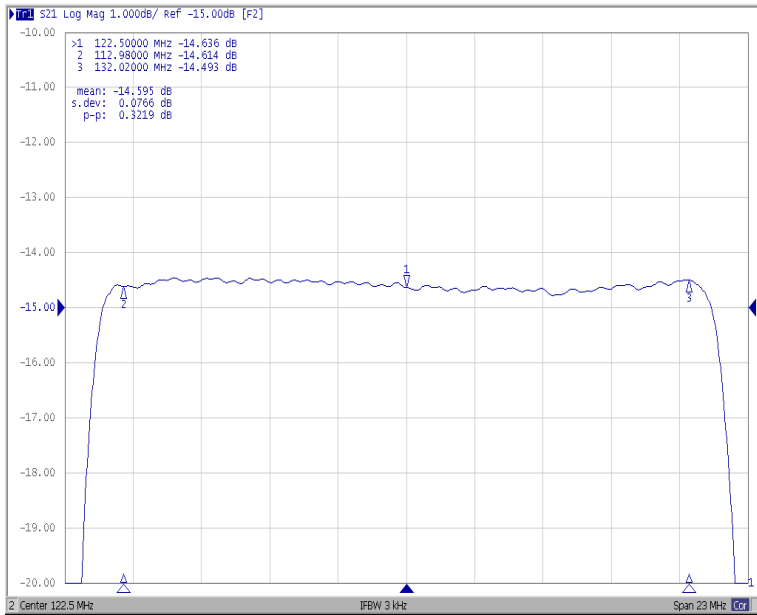




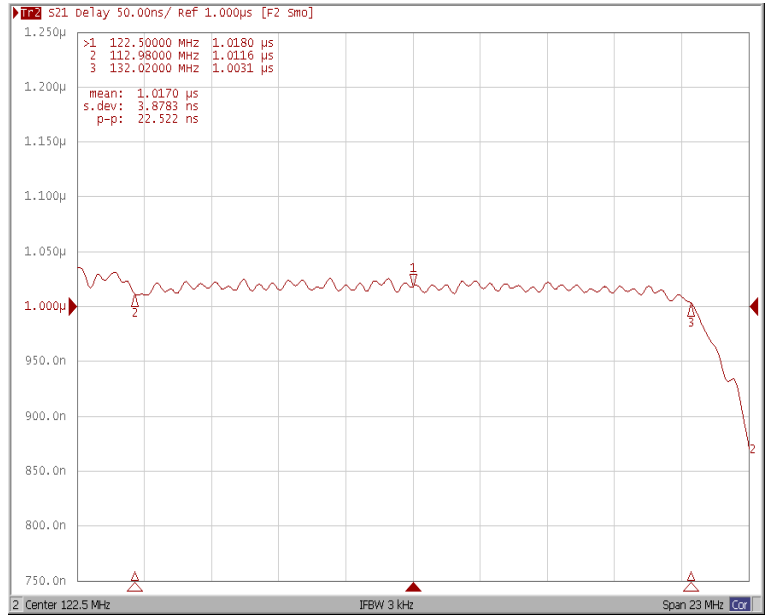
### Frequency Characteristics

#### Frequency Response

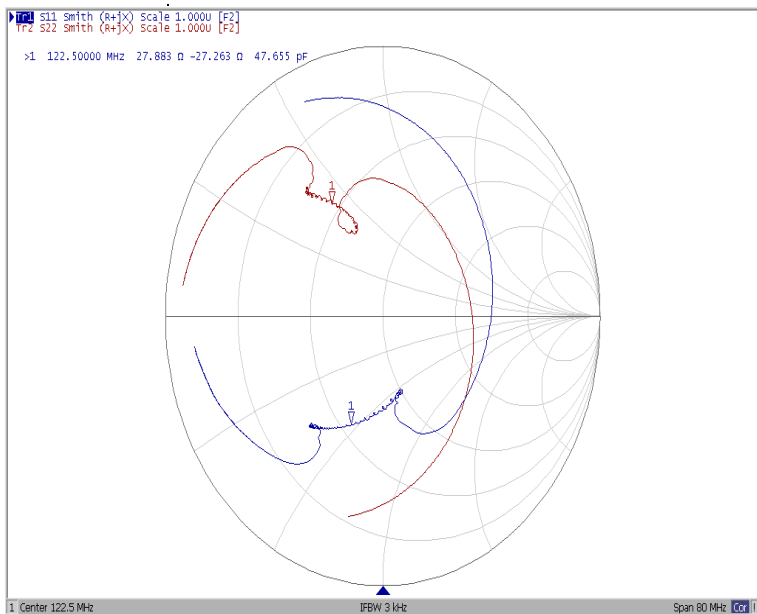
Ripple Variation at Fo±9.52MHz



Group Delay Variation at Fo±9.52MHz



Smith Chart



VSWR

