



*Total Solution Provider in Saw Device*

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# SA11530AD1

115.0 MHz IF SAW Filter  
29.94 MHz Bandwidth  
Revision 0: 17. June. 2008

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

### Maximum Ratings

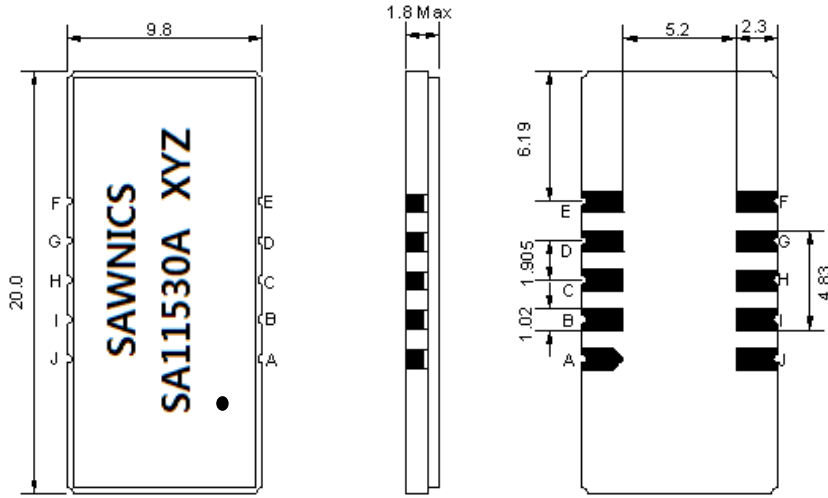
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	0	-	60
Storage Temperature Range	°C	-30	-	80
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	D1			
Length x Width	mm <sup>2</sup>	-	20.0 x 9.8	-
Height	mm	-	-	1.8

### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	114.85	115.00	115.15
Insertion Loss at Fo	dB	-	24.5	27.0
Group Delay Variation (Fo±14.5MHz)	ns	-	30	80
Absolute Delay	us	-	1.85	-
Passband Ripple (Fo±14.5MHz)	dB	-	0.7	-
Bandwidth at -1dB	MHz	29.80	29.94	-
Bandwidth at -3dB	MHz	-	30.30	-
Bandwidth at -40dB	MHz	-	31.95	32.10
Ultimate Rejection	dB	-	52	-
Temperature coefficient	ppm/°C	-	-72	-

**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.

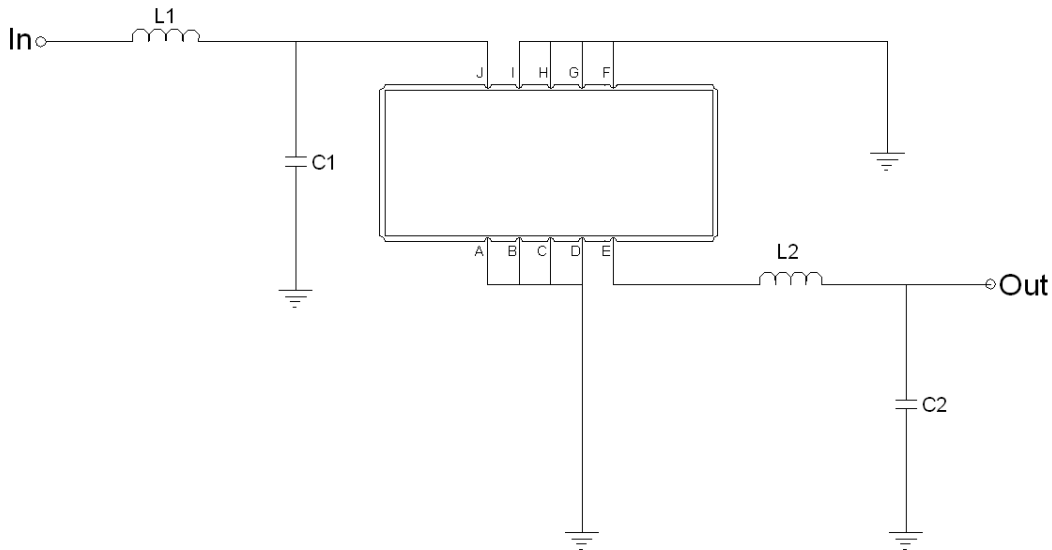
**Package Dimensions**



- ① SAWNICS: Brand
- ② SA11530A: 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	Ground
J	Input
E	Output

**Testing Environment**

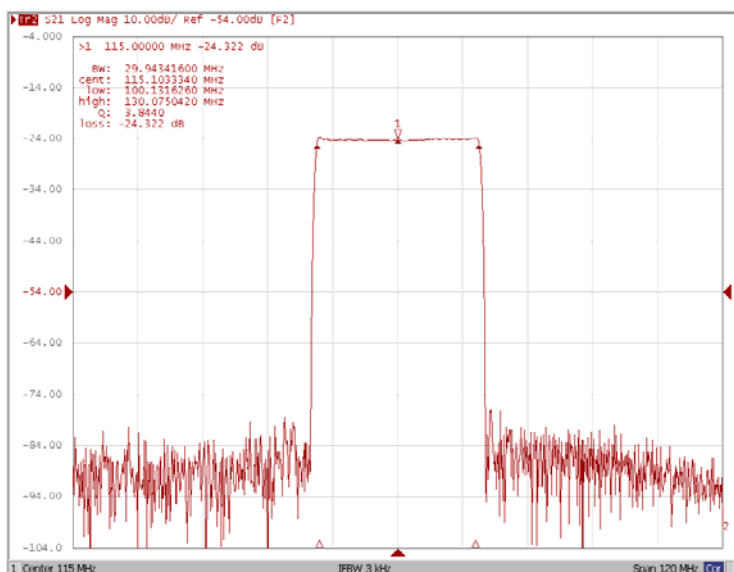


Test Fixture & Values	
Input	L1=150nH, C1=7pF
Output	L2=150nH, C2=16pF
Source/Load Impedance	50 Ω

### □ Frequency Characteristics

#### Frequency Response

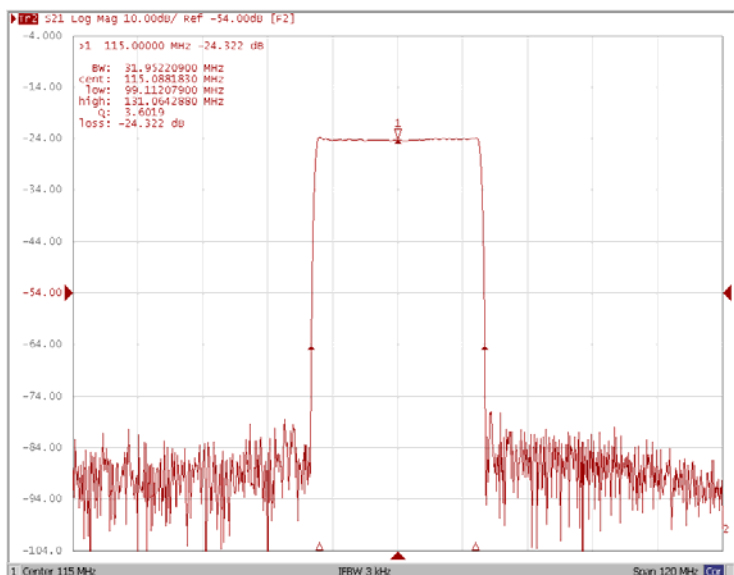
Bandwidth at -1.0 dB



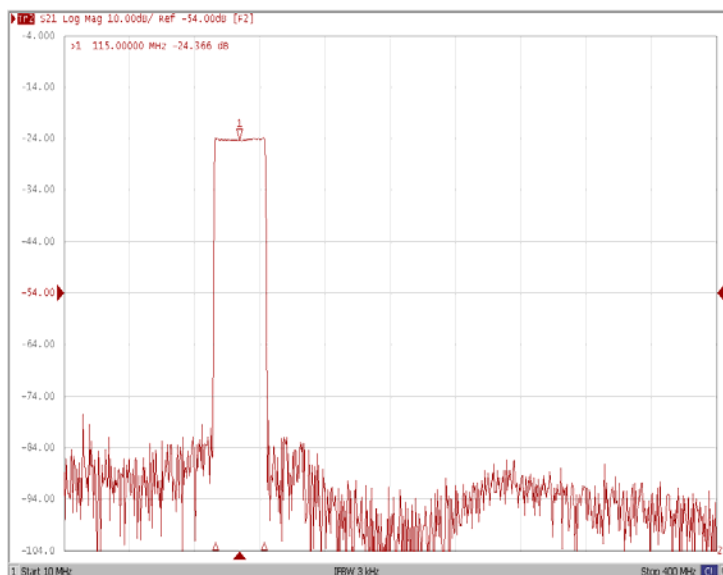
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



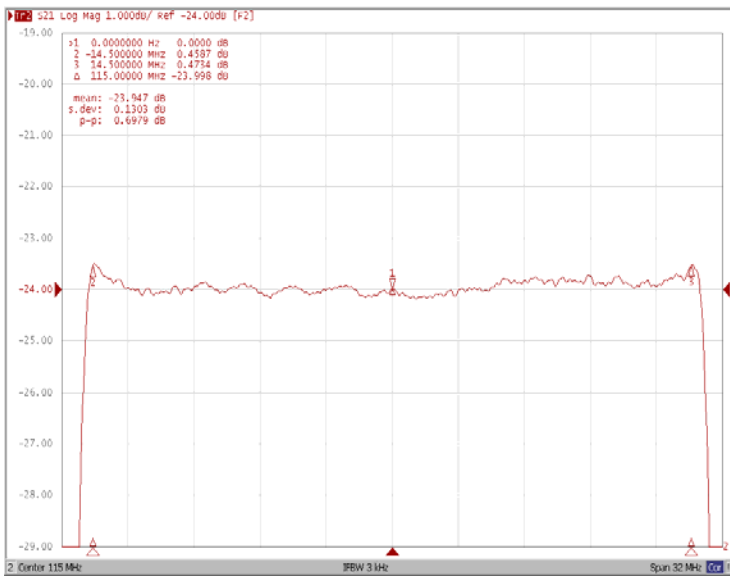
Wide Band



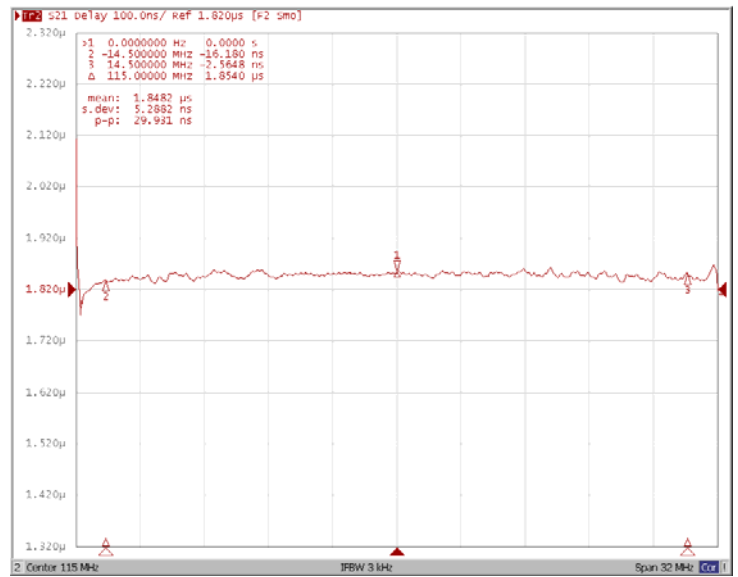
### □ Frequency Characteristics

#### Frequency Response

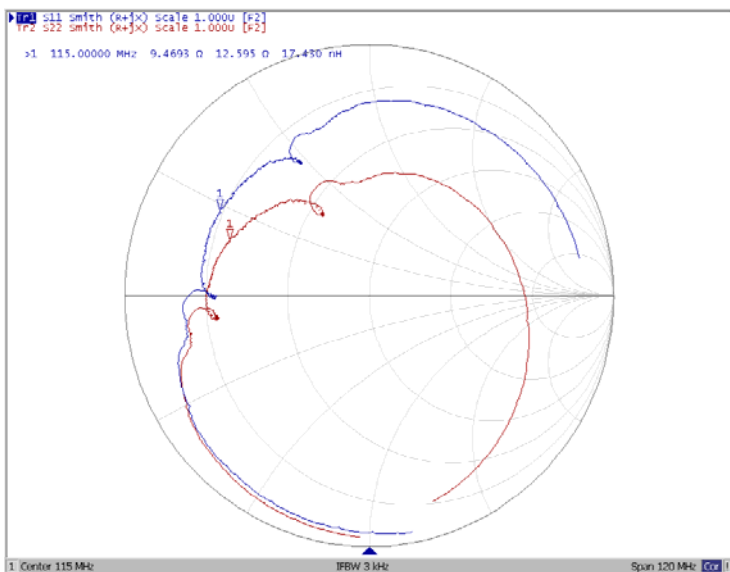
Ripple Variation  $F_o \pm 14.5\text{MHz}$



Group Delay Variation  $F_o \pm 14.5\text{MHz}$



Smith Chart



VSWR

