



Total Solution Provider in Saw Device

SL110CS

110.592MHz IF SAW Bandpass Filter
Revision 1: 08. February. 2012



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

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□ Electrical Characteristics

Maximum Ratings

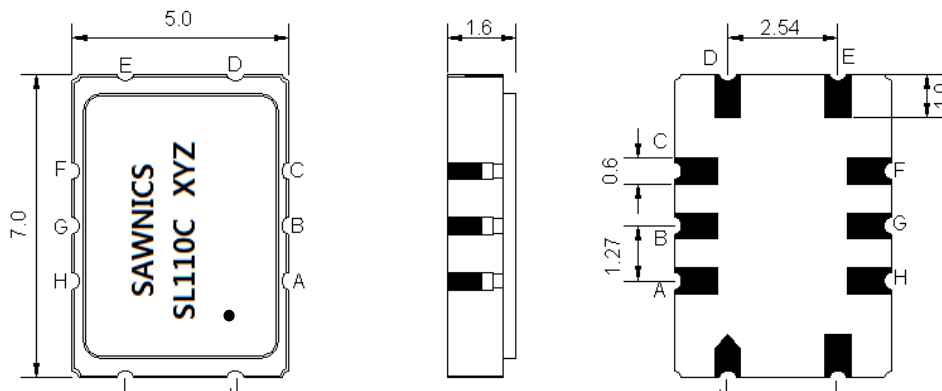
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-30	-	85
Storage Temperature Range	°C	-40	-	105
Maximum DC Voltage	V	-	-	3
Maximum Input Power	dBm	-	-	20
Source Impedance (Balanced) ⁽¹⁾	Ω	-	200	-
Load Impedance (Balanced) ⁽¹⁾	Ω	-	1000	-
Package type & size	S			
Length x Width	mm ²	-	7.0 x 5.0	-
Height	mm	-	-	1.8

Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	110.592	-
Insertion Loss at Fo	dB	-	8.9	11.5
Amplitude Ripple (Fo ± 0.2 MHz)	dB _{p-p}	-	0.65	1.2
Phase Linearity (Fo±0.275MHz)	deg RMS	-	3.0	5.0
Temperature Coefficient	ppm/°C	-	-0.03	-
Bandwidth at -3.0 dB	MHz	0.55	0.7	-
Bandwidth at -30.0 dB	MHz	-	1.5	1.6
Template on the amplitude, reference is loss at Fc				
Attenuation at Fc ± 800 KHz	dB	25	30	-
Attenuation at Fc ± 812.5 KHz	dB	25	30	-
Attenuation at Fc ± 2MHz	dB	33	40	-
Attenuation at Fc ± 9MHz	dB	40	55	-

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

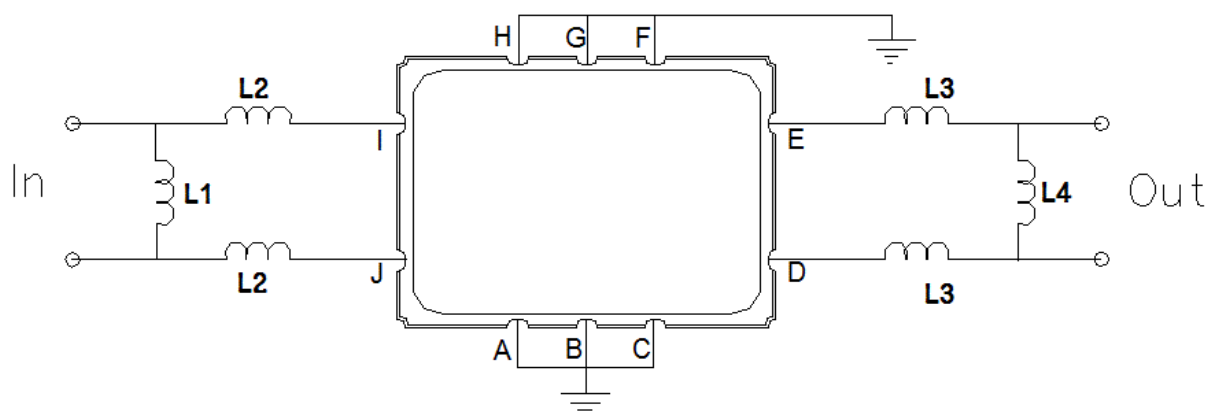


- ① SAWNICS: Brand
- ② SL110C : Model Name
- ③ X : Date Code (Year)
- ④ Y : Date Code (Month)
- ⑤ Z : Date Code (Date)
- : Index Dot

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

Testing Environment

Matching Network for 200Ω/1000Ω Balanced Configuration



Test Fixture & Values	
Input	L1= 82 nH , L2= 120 nH, Q>40
Output	L3= 33 nH, L4= 180 nH, Q>40
Source/Load Impedance	200/1000 Ω

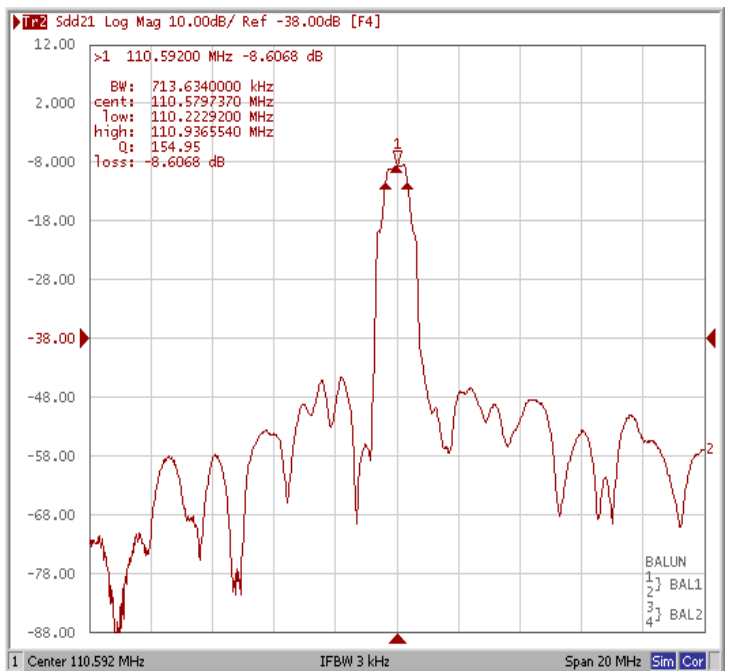
Frequency Characteristics

Frequency Response

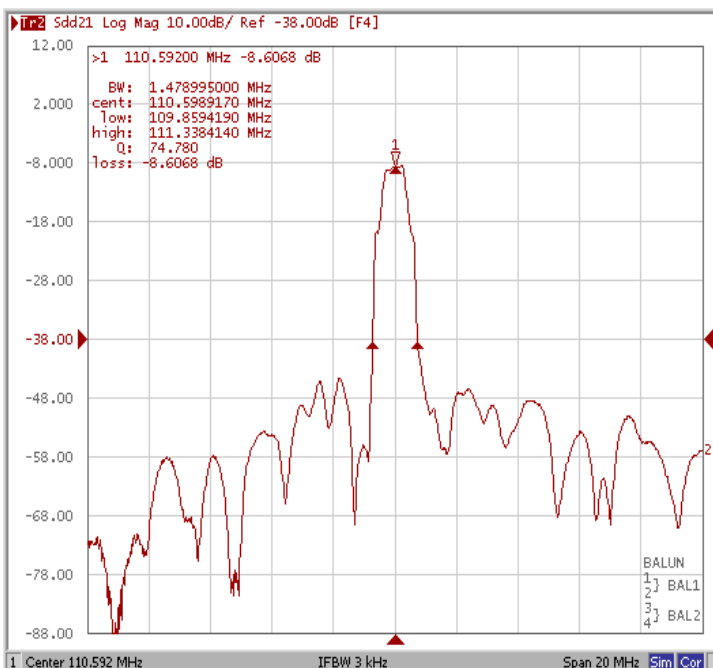
Bandwidth at -1.0 dB



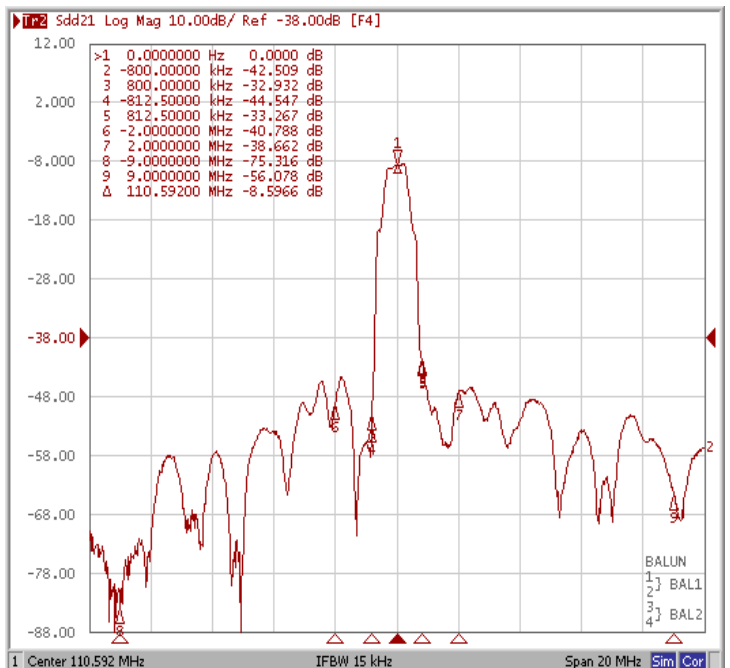
Bandwidth at -3.0 dB



Bandwidth at -30.0 dB



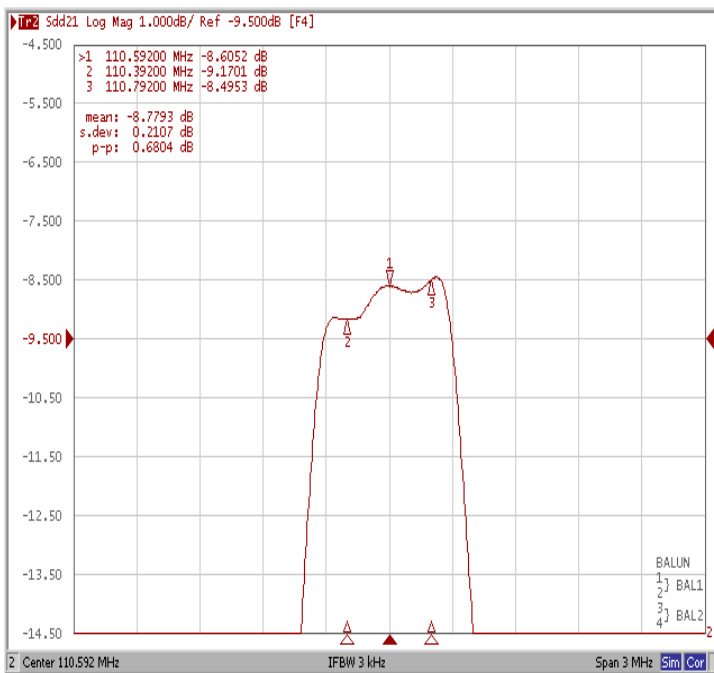
Attenuation



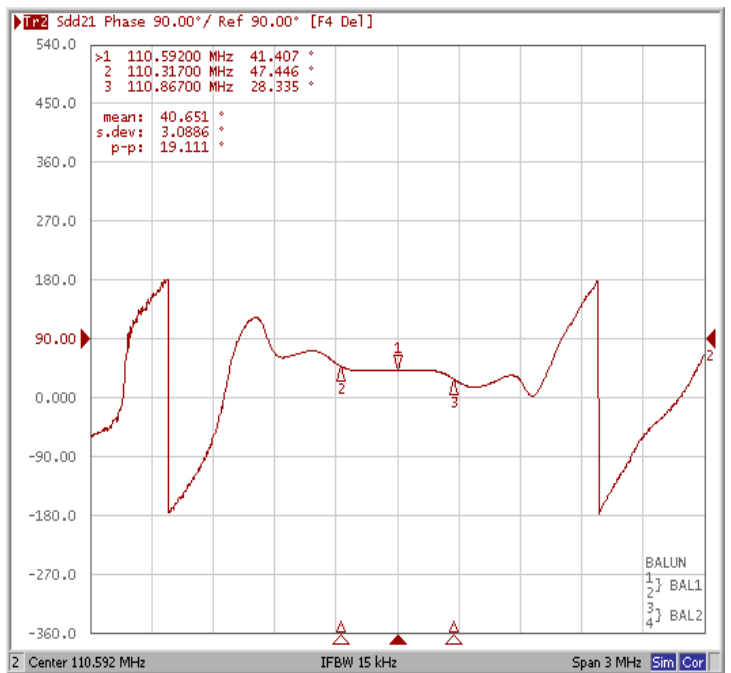
Frequency Characteristics

Frequency Response

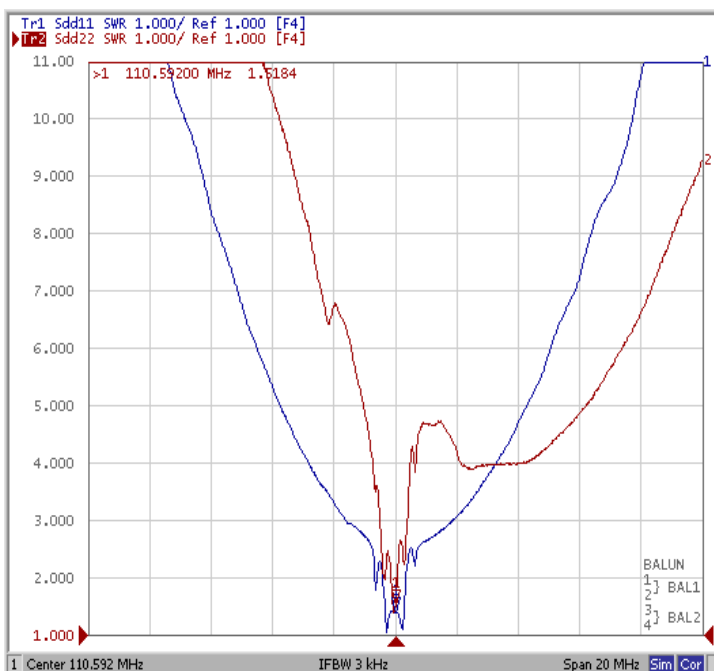
AmplitudeRipple($F_o \pm 0.2\text{MHz}$)



Phase Linearity($F_o \pm 0.275\text{MHz}$)



VSWR



Smith Chart

