



Total Solution Provider in Saw Device

SA11515DD1

115.0 MHz IF SAW Filter
15.73 MHz Bandwidth
Revision 0: 19.October. 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	-5	-	70
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Package type & size	D1			
Length x Width	mm ²	-	20.0 x 9.8	-
Height	mm	-	-	1.8

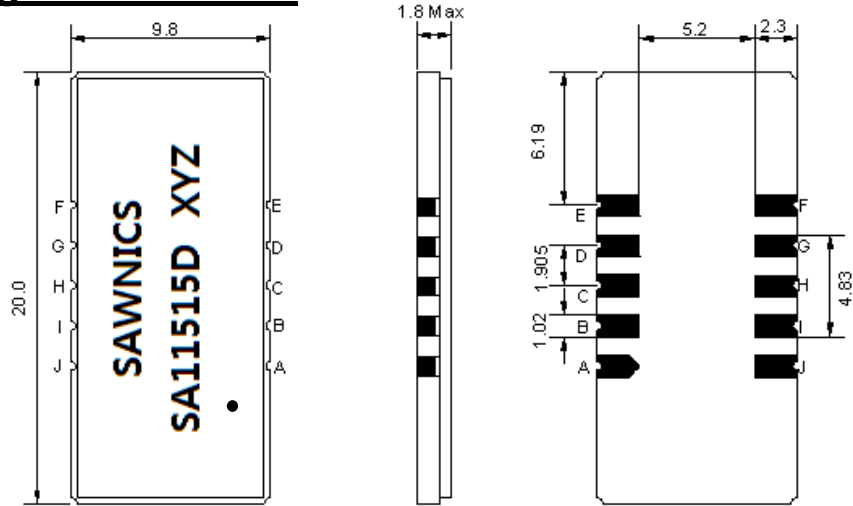
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	115.00	-
Insertion Loss at Fo	dB	-	22.00	24.00
Group Delay Variation at Fo ± 7.47 MHz	nsec	-	53	100
Absolute Delay at Fo	usec	-	2.35	-
Passband Ripple Variation at Fo ± 7.47 MHz	dB	-	0.60	1.00
Bandwidth at -1dB	MHz	15.50	15.73	-
Bandwidth at -3dB	MHz	-	16.00	-
Bandwidth at -40dB	MHz	-	17.27	17.45
Ultimate Rejection	dB	50	53	-
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.

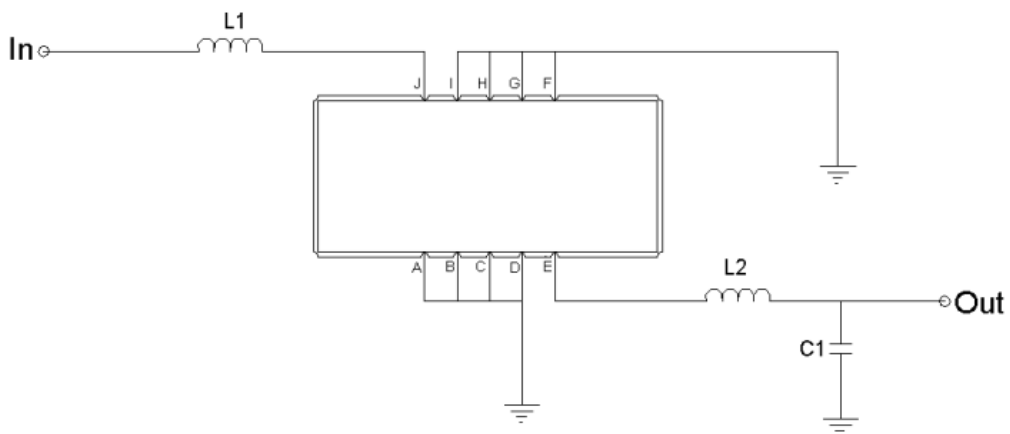
Package Dimensions



- ① SAWNICS: Brand
- ② SA11515D: 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 = 33 nH
Output	L2 = 33 nH, C1 = 20 pF
Source/Load Impedance	50 Ω

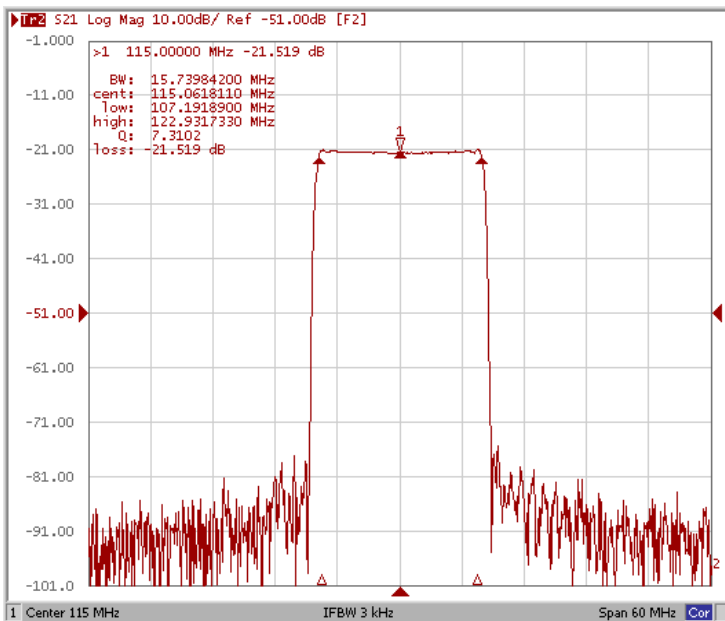


Frequency Characteristics

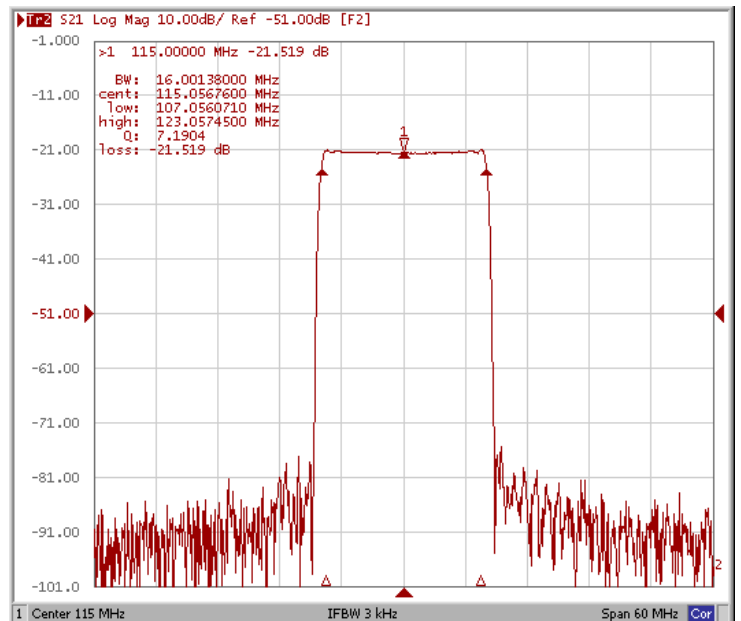
Frequency Response

Operating Temperature : +25 °C

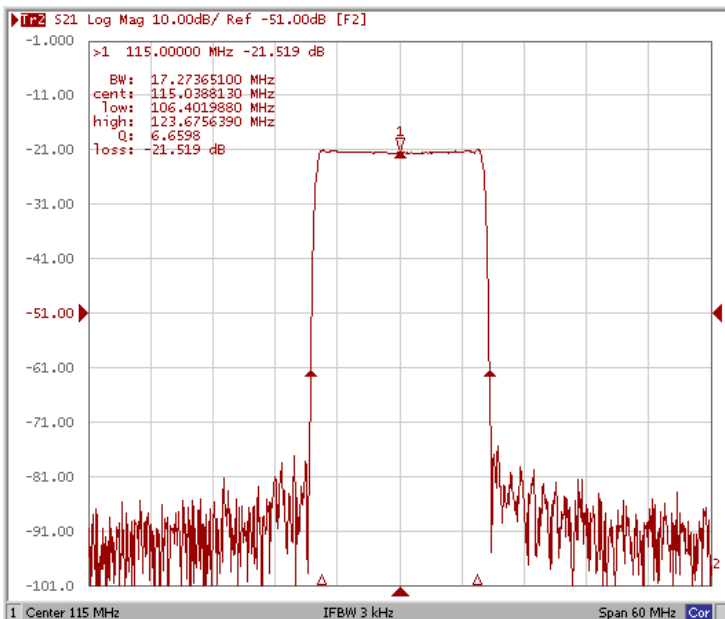
Bandwidth at -1.0 dB



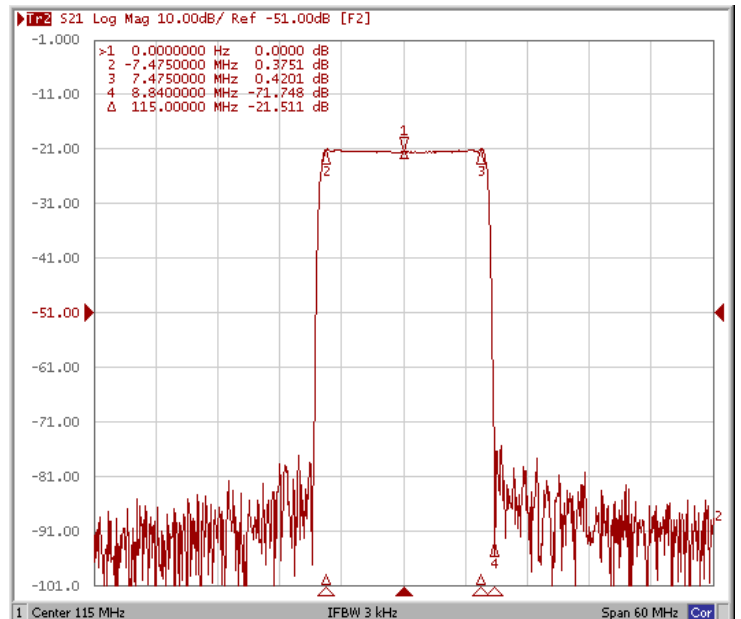
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



$\Delta F(Fo+7.475MHz) +1.365MHz$

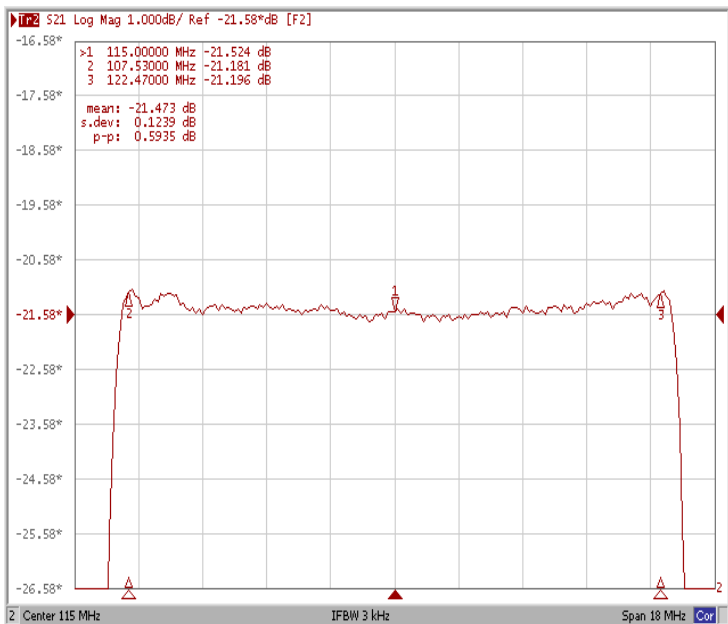




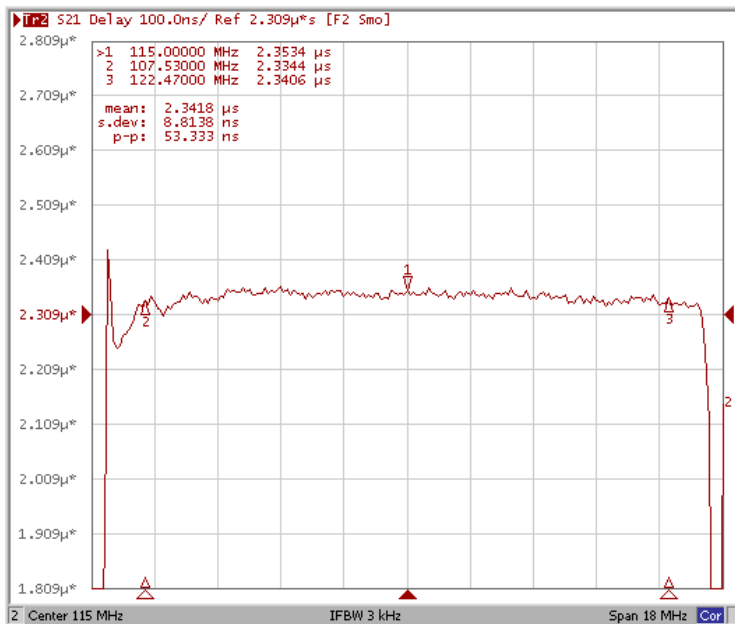
Frequency Characteristics

Frequency Response

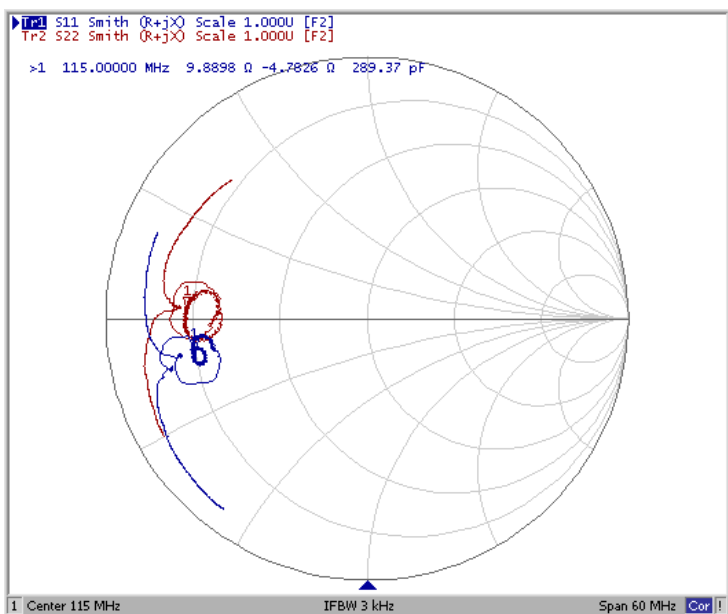
Ripple Variation Fo±7.47 MHz



Group Delay Variation Fo±7.47MHz



Smith Chart



VSWR

