



Total Solution Provider in Saw Device

SA11020CV

110.1 MHz IF SAW Filter
20.35 MHz Bandwidth
Revision 0: 25. July. 2008



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

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□ Electrical Characteristics

Maximum Ratings

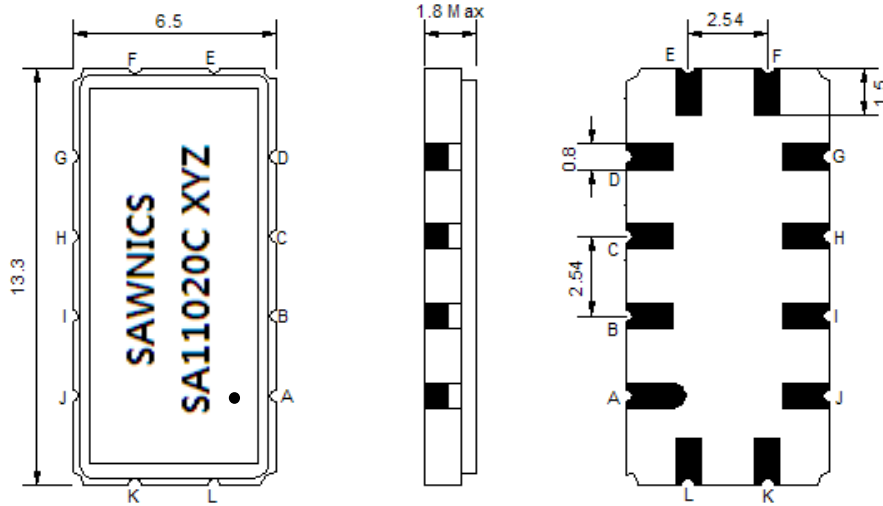
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-	25	-
Storage Temperature Range	°C	-20	-	70
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Package type & size	V			
Length x Width	mm ²	-	13.3 x 6.5	-
Height	mm	-	-	1.8

Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	110.00	110.10	110.20
Insertion Loss at Fo	dB	-	21.50	24.00
Group Delay Variation	ns	-	30	50
Absolute Delay	us	-	1.57	-
Temperature Coefficient	ppm/°C	-	-72	-
Passband Ripple	dB	-	0.80	1.00
Bandwidth at -1dB	MHz	20.20	20.35	-
Bandwidth at -30dB	MHz	-	20.74	-
Bandwidth at -40dB	MHz	-	22.39	22.45
Ultimate Attenuation	dB	50	52	-

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.

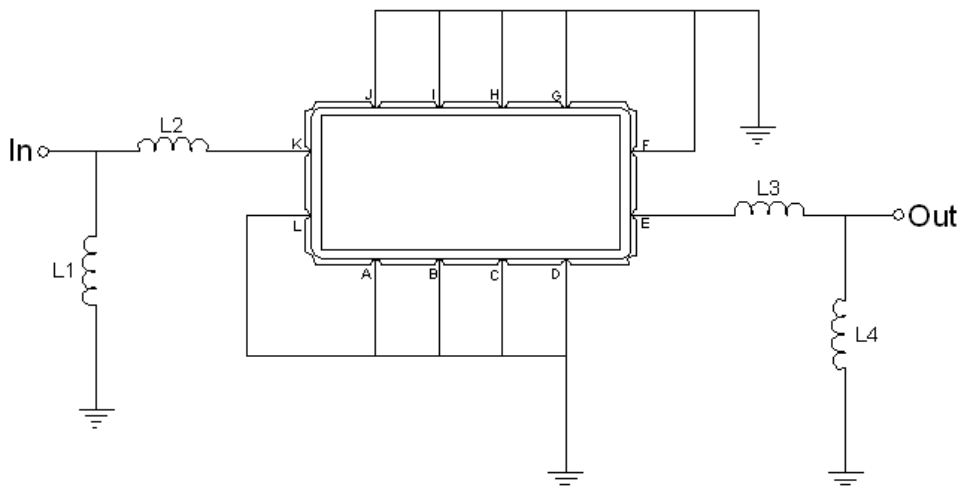
Package Dimensions



- ① SAWNICS: Brand
- ② SA11020C: 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=180 nH, L2=18nH
Output	L3=18nH, L4=180nH
Source/Load Impedance	50 Ω

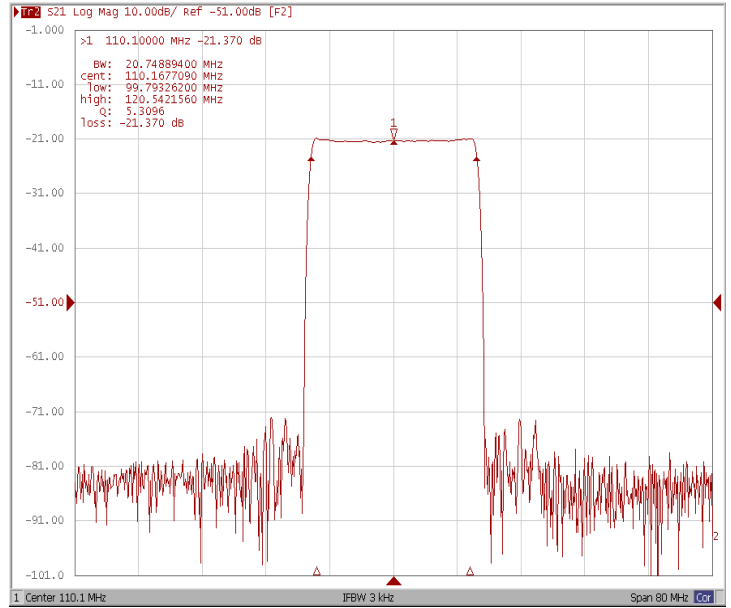
□ Frequency Characteristics

Frequency Response

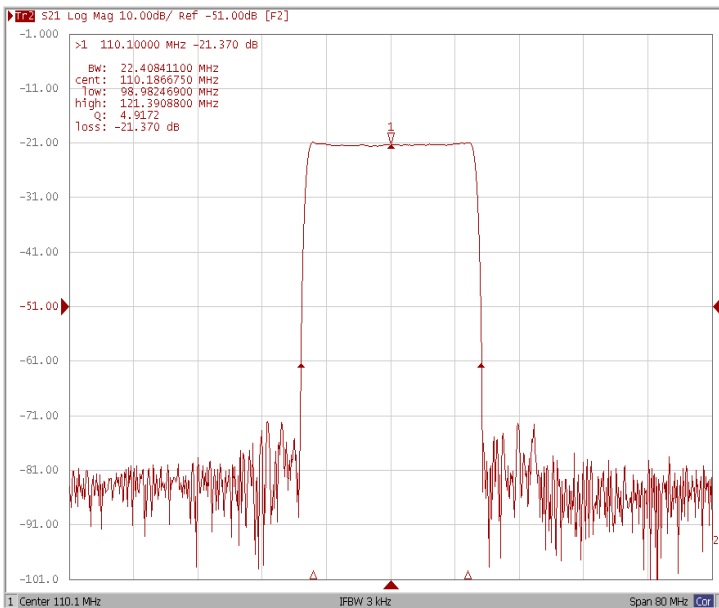
Bandwidth at -1.0 dB



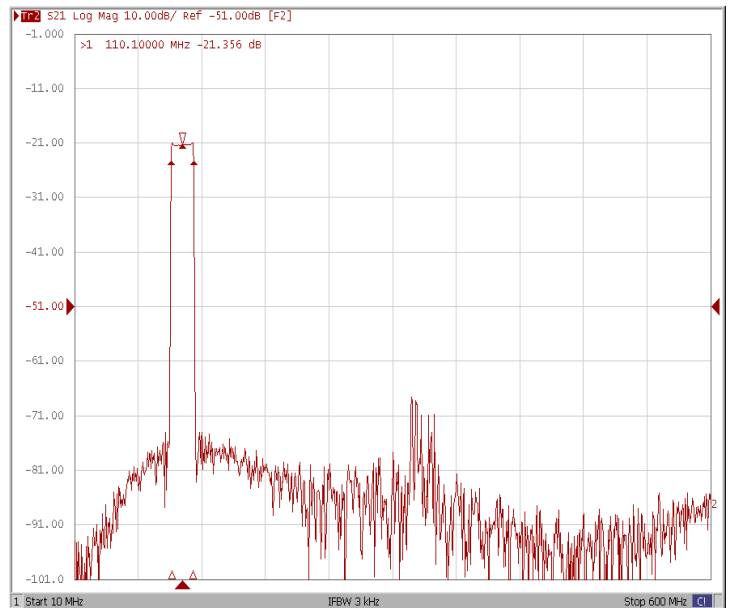
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



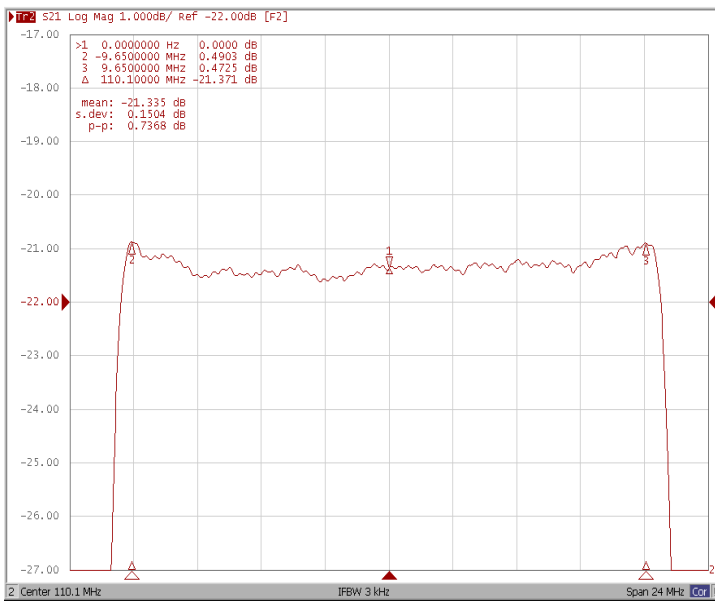
Wide-Band



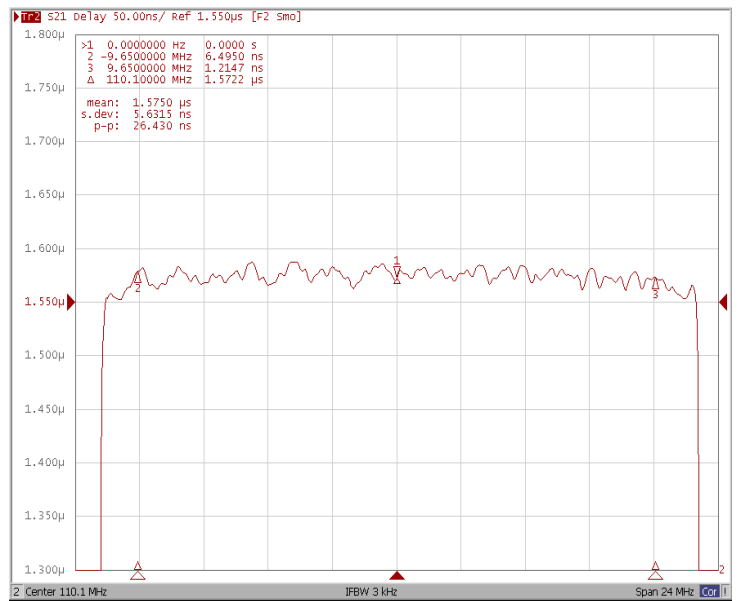
Frequency Characteristics

Frequency Response

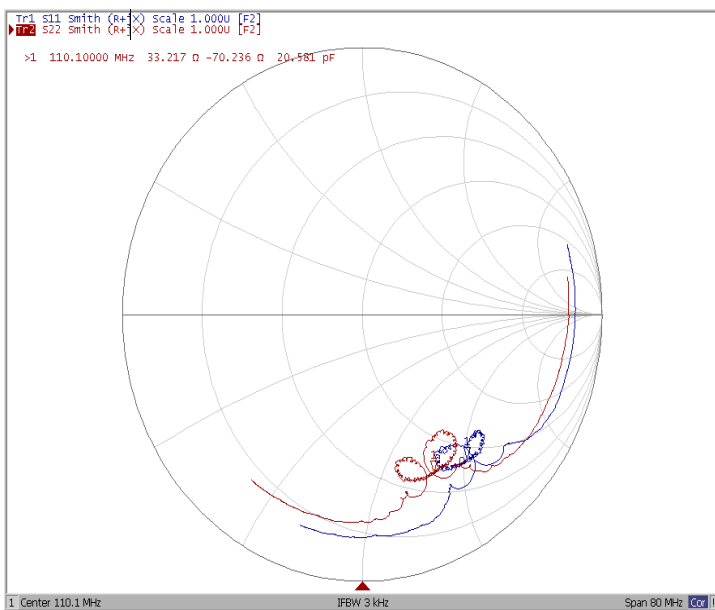
Ripple Variation $Fo \pm 9.65\text{MHz}$



Group Delay Variation $Fo \pm 9.65\text{MHz}$



Smith Chart



VSWR

