



Total Solution Provider in Saw Device

SA12029AD1

120.0 MHz IF SAW Filter
29.47 MHz Bandwidth
Revision 0: 26. Oct. 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	-	25	-
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

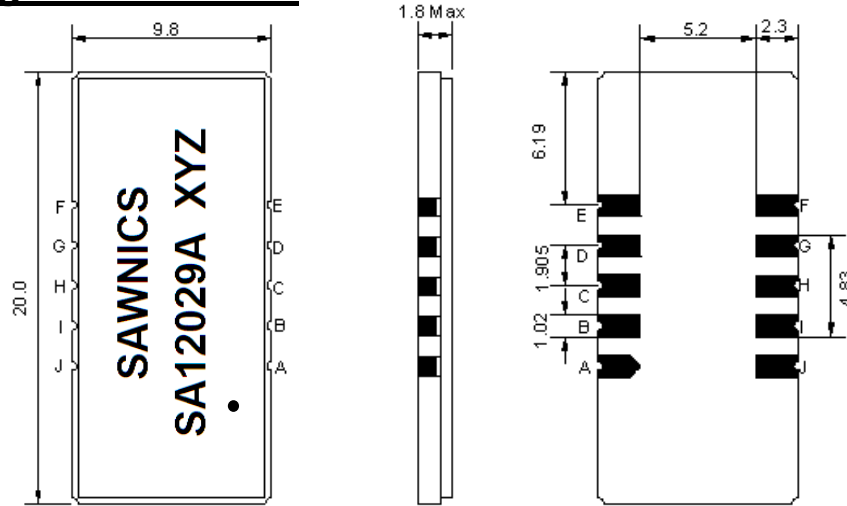
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	120.0	-
Insertion Loss at Fo	dB	-	24.8	26.5
Group Delay Variation at Fo ± 14.22 MHz	nsec	-	26	50
Absolute Delay at Fo	usec	-	2.27	-
Passband Ripple Variation at Fo ± 14.22 MHz	dB	-	0.68	1.00
Bandwidth at -1dB	MHz	29.20	29.47	-
Bandwidth at -3dB	MHz	-	29.73	-
Bandwidth at -40dB	MHz	-	31.15	31.30
Ultimate Rejection	dB	48	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.

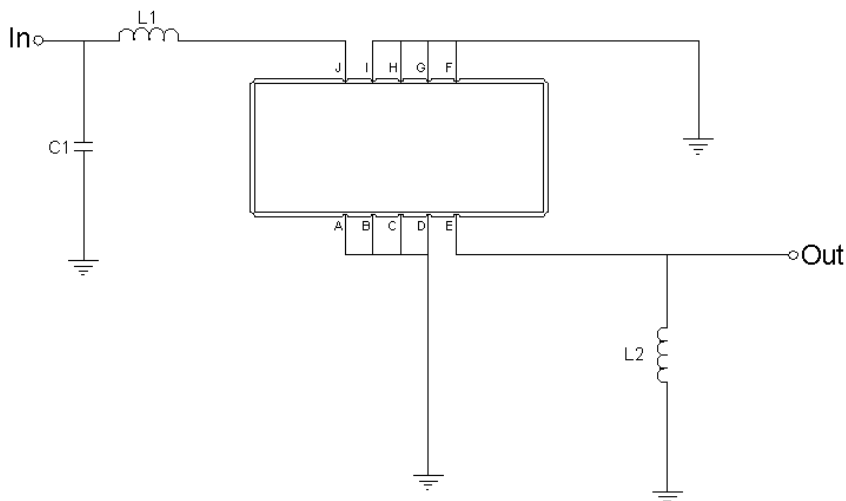
Package Dimensions



- ① SAWNICS: Brand
- ② SA12029A: 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



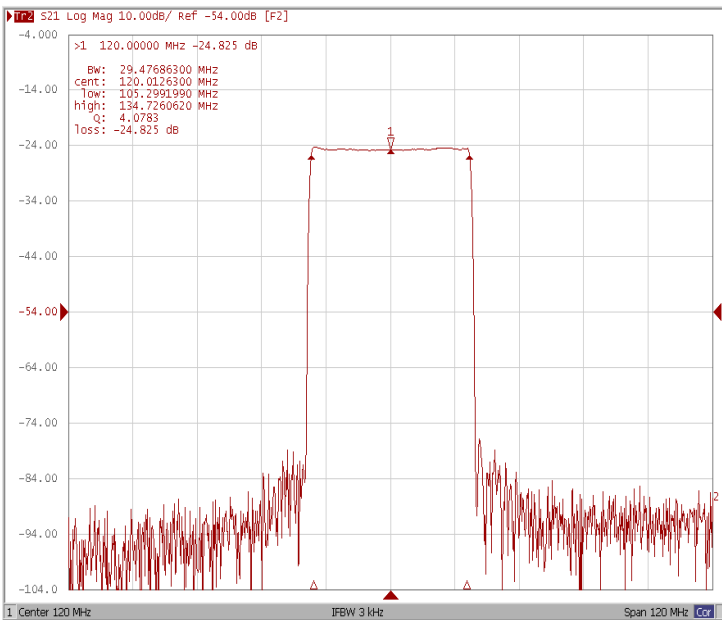
Test Fixture & Values	
Input	L1 = 68 nH, C1 = 24 pF
Output	L2 = 56 nH
Source/Load Impedance	50 Ω



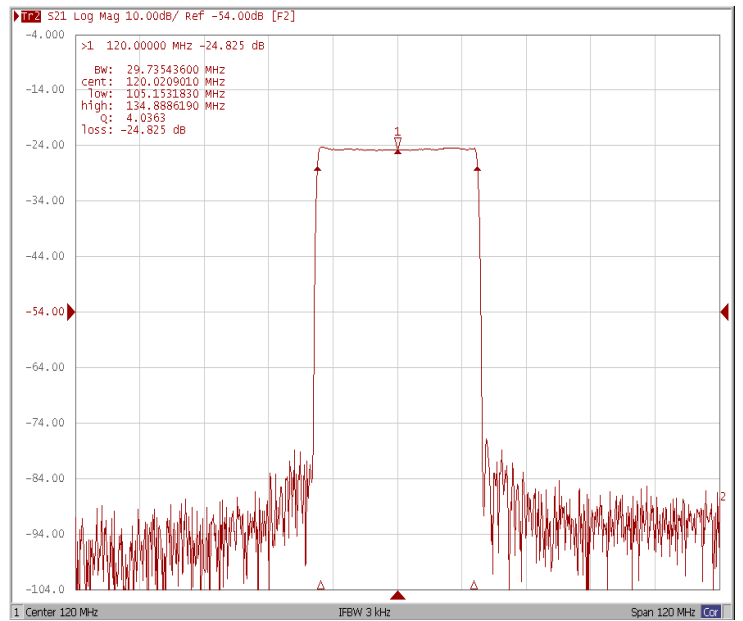
Frequency Characteristics

Frequency Response

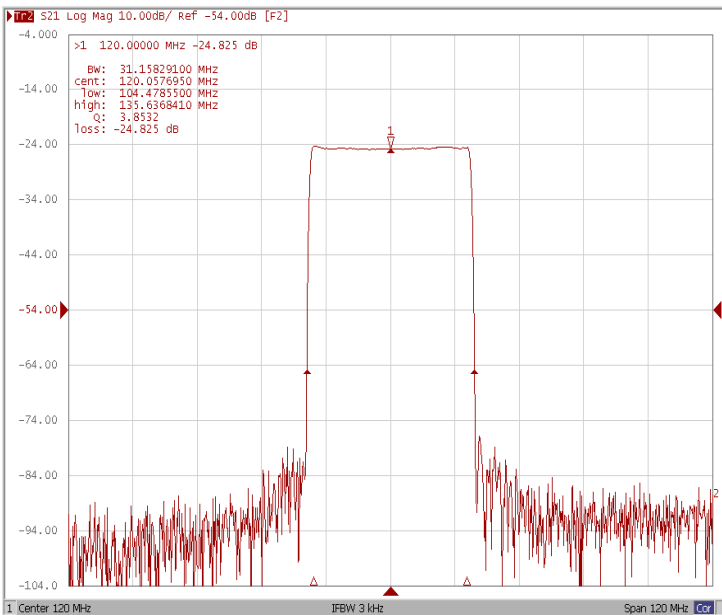
Bandwidth at -1.0 dB



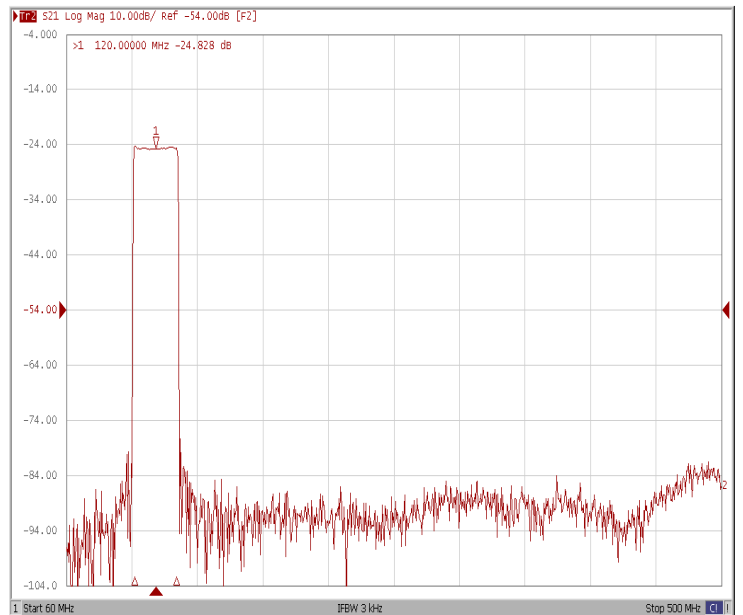
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



Wide-Band

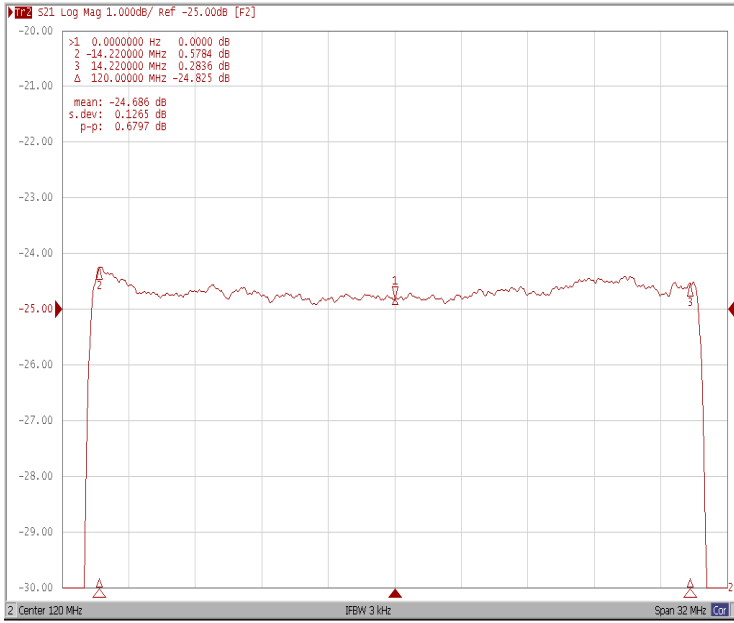




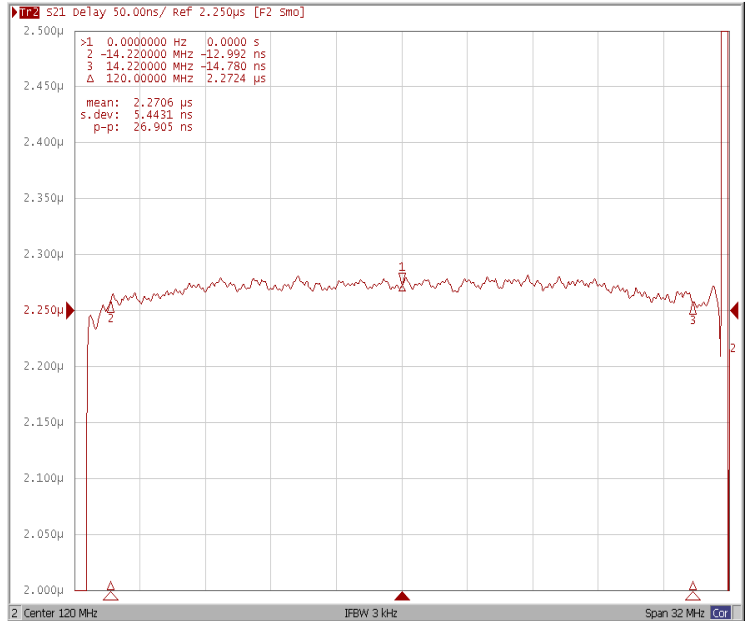
Frequency Characteristics

Frequency Response

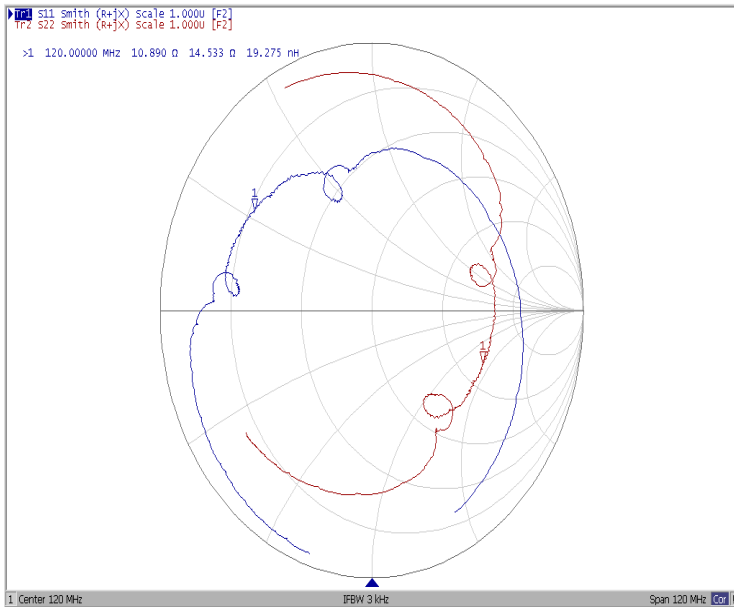
Ripple Variation Fo±14.22 MHz



Group Delay Variation Fo±14.22MHz



Smith Chart



VSWR

