



Total Solution Provider in Saw Device

SA11020BD1

110.0 MHz IF SAW Filter
20.27 MHz Bandwidth
Revision 0: 09. MAY. 2008



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

Maximum Ratings

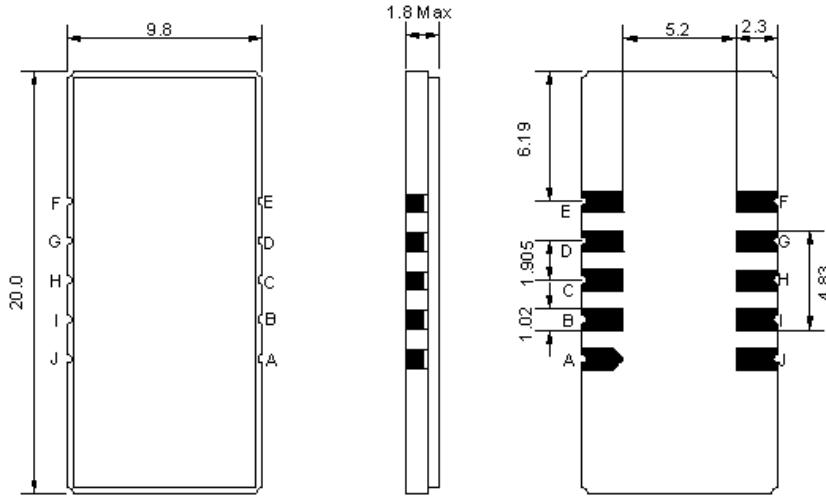
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	0	-	60
Storage Temperature Range	°C	-30	-	80
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Package type & size	D1			
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	-	110.00	-
Insertion Loss at Fo	dB	-	20.0	23.0
Group Delay Variation (Fo±9.75MHz)	ns	-	40	80
Absolute Delay	us	-	2.38	-
Passband Ripple (Fo±9.75MHz)	dB	-	0.54	1.00
Bandwidth at -1dB	MHz	-	20.27	-
Bandwidth at -3dB	MHz	-	20.54	-
Bandwidth at -40dB	MHz	-	21.73	-
Ultimate Rejection	dB	-	52	-
Temperature coefficient	ppm/°C	-	-72	-

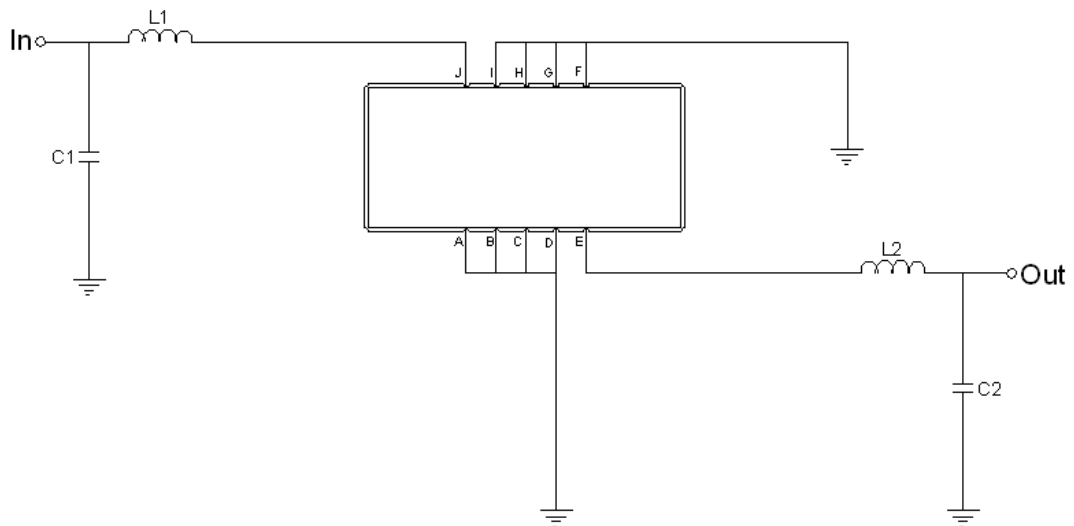
Notes : (1) With Matching Network (Ref. Testing Environment Circuit as shown below).
Those impedances could be modified with different impedance values and/or structures, if necessary.

□ Package Dimensions



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

□ Testing Environment

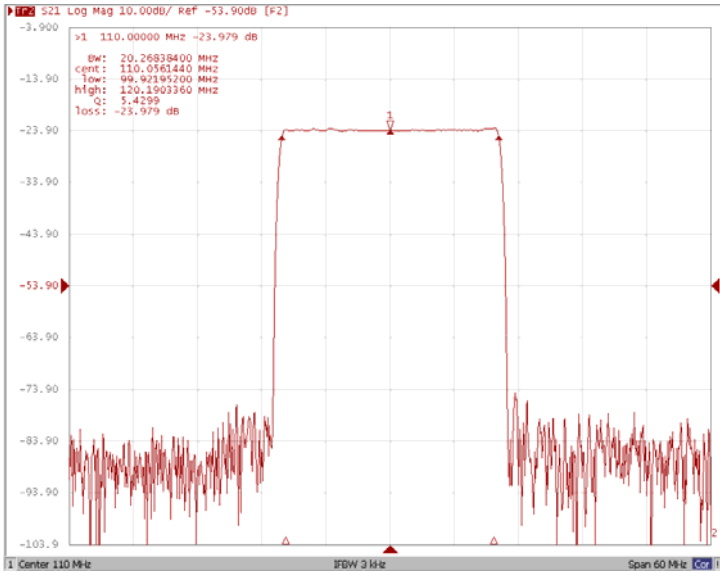


Test Fixture & Values	
Input	L1=68nH, C1=18pF
Output	L2=68nH, C2=22pF
Source/Load Impedance	50 Ω

□ Frequency Characteristics

Frequency Response

Bandwidth at -1.0 dB



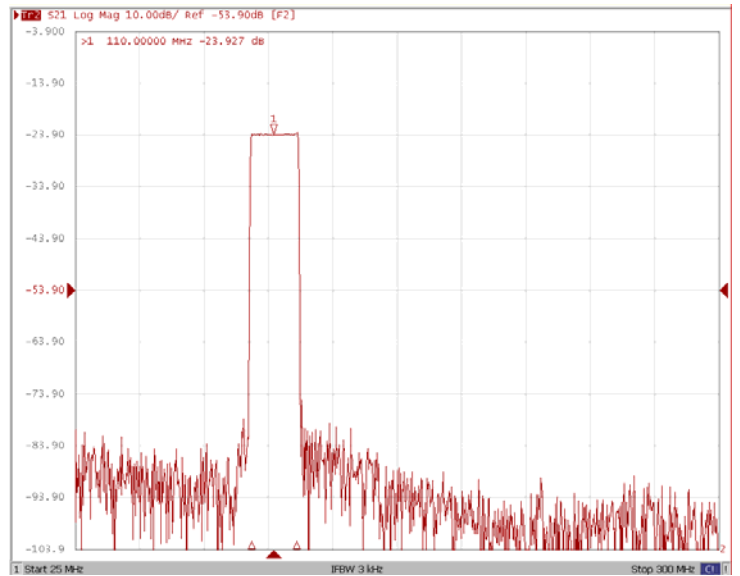
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



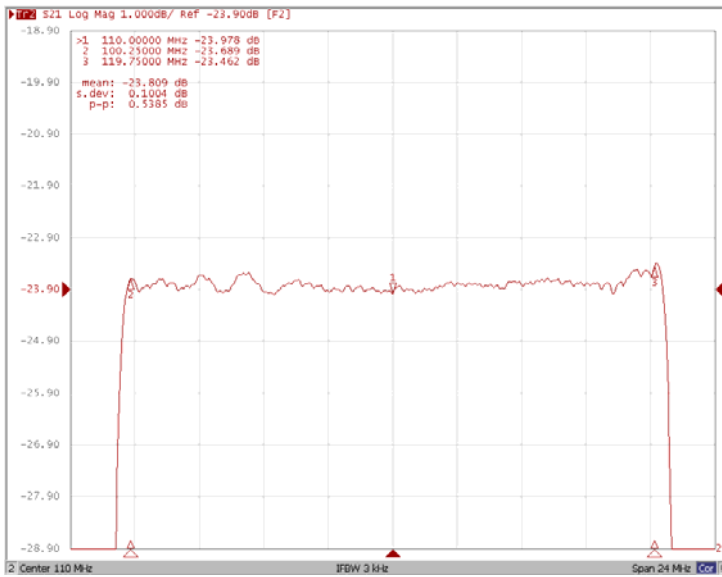
Wide Band



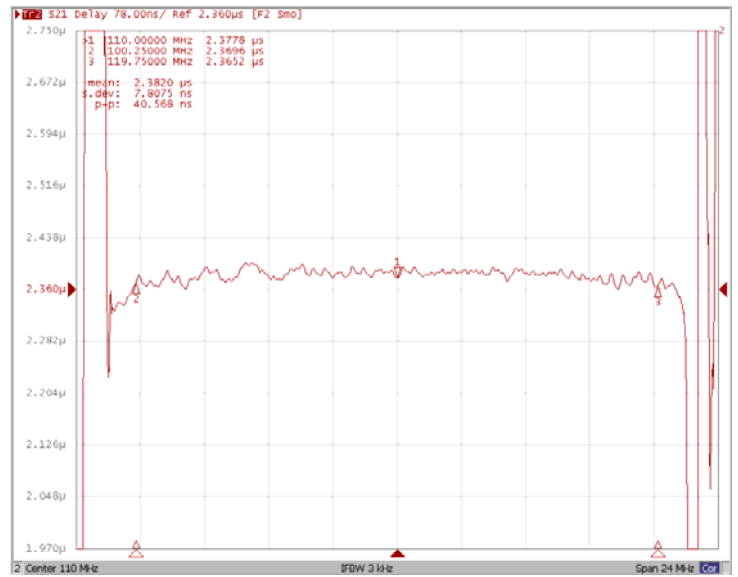
□ Frequency Characteristics

Frequency Response

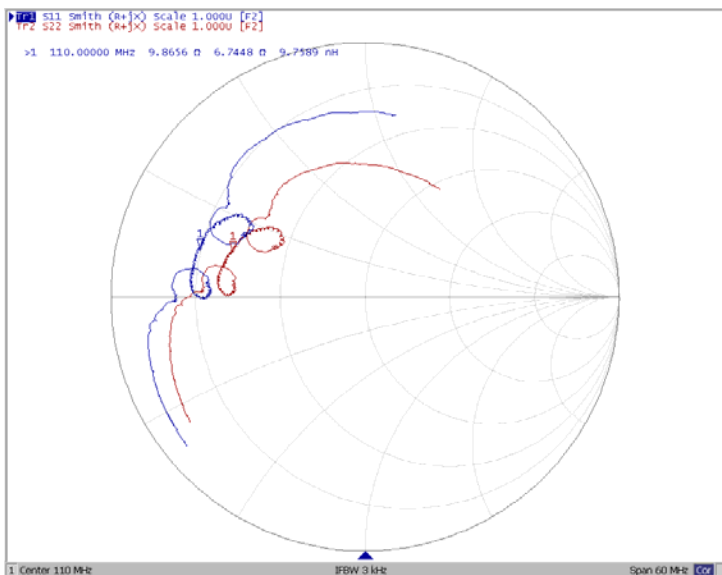
Ripple Variation $Fo \pm 9.75\text{MHz}$



Group Delay Variation $Fo \pm 9.75\text{MHz}$



Smith Chart



VSWR

