



Total Solution Provider in Saw Device

SA7410AD1

74.6875 MHz IF SAW Filter
10.0 MHz Bandwidth
Revision 0: 29. NOV. 2007



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

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□ Electrical Characteristics

Maximum Ratings

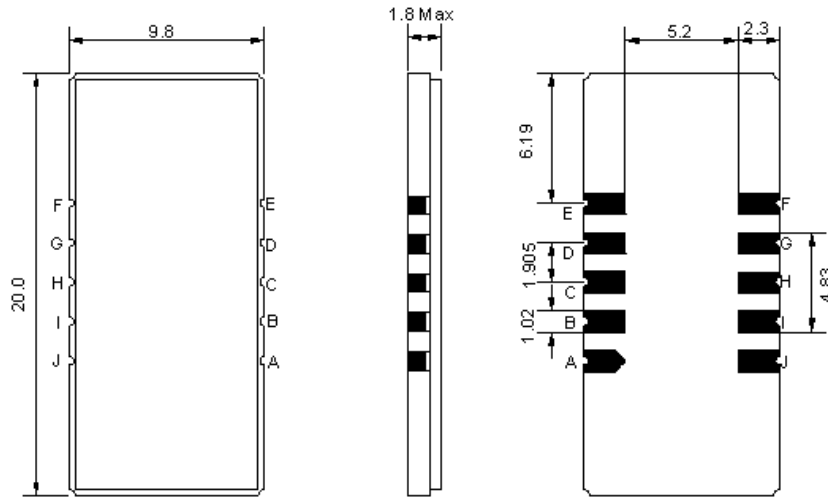
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	0	-	60
Storage Temperature Range	°C	-20	-	70
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Package type & size	D1			
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	-	74.9875	-
Insertion Loss at Fo	dB	-	20.0	23.0
Group Delay Variation (Fo±4.6875MHz)	ns	-	50	100
Absolute Delay	us	-	2.32	-
Passband Ripple (Fo±4.6875MHz)	dB	-	0.46	1.00
Bandwidth at -1dB	MHz	9.375	10.00	-
Bandwidth at -30dB	MHz	-	11.50	-
Bandwidth at -40dB	MHz	-	11.65	12.10
Ultimate Rejection	dB	-	50	-
Relative Attenuation Fo±5.9125MHz	dB	30	50	

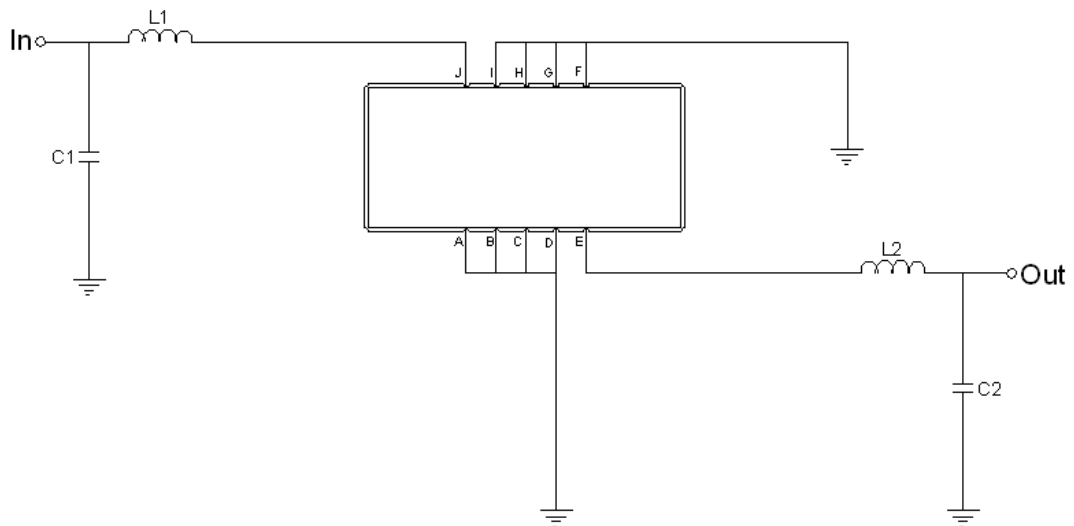
Notes : (1) With Matching Network (Ref. Testing Environment Circuit as shown below).
Those impedances could be modified with different impedance values and/or structures, if necessary.

□ Package Dimensions



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

□ Testing Environment



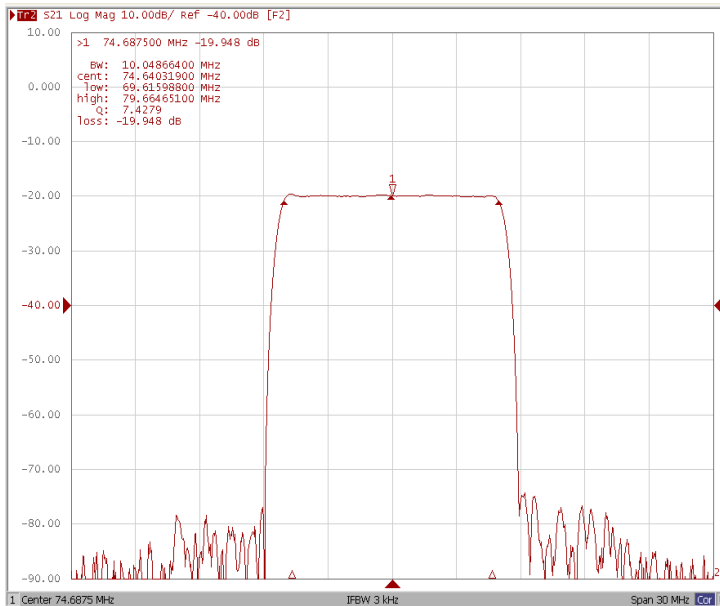
Test Fixture & Values	
Input	L1=56nH, C1=20pF
Output	L2=56nH, C2=20pF
Source/Load Impedance	50 Ω



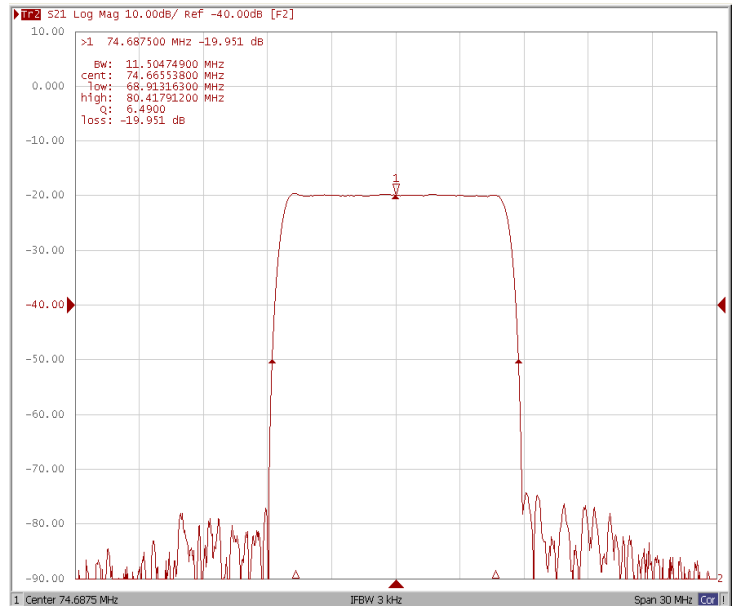
Frequency Characteristics

Frequency Response

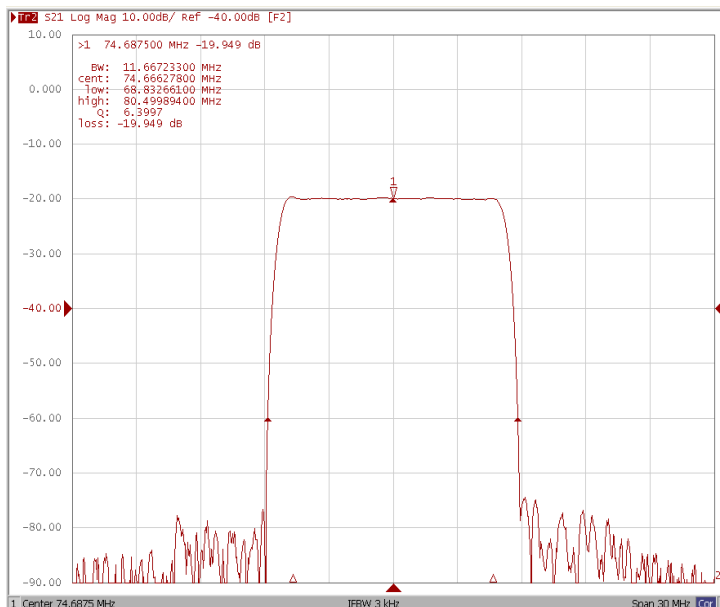
Bandwidth at -1.0 dB



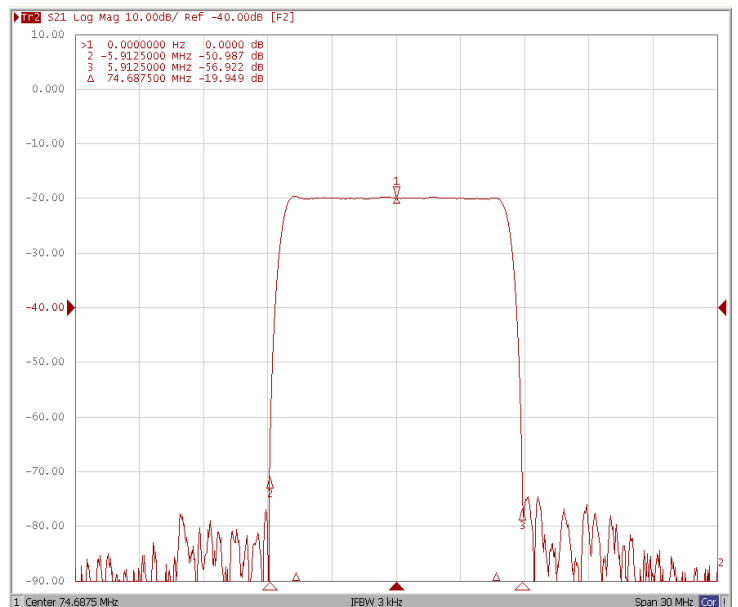
Bandwidth at -30.0 dB



Bandwidth at -40.0 dB



Relative Attenuation Fo±5.9125MHz



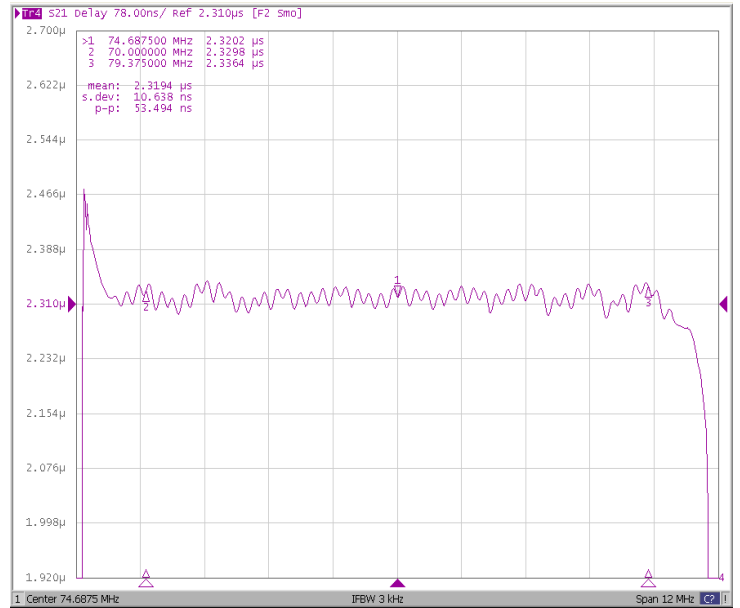
Frequency Characteristics

Frequency Response

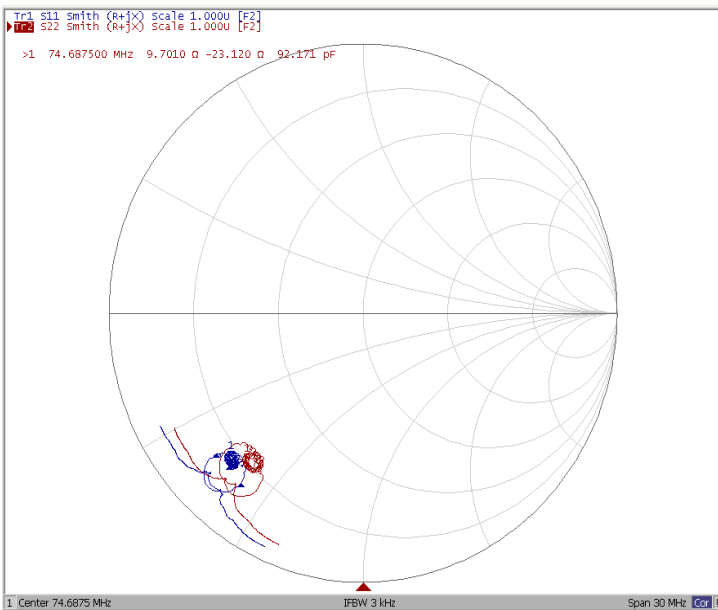
Ripple Variation $Fo \pm 4.6875\text{MHz}$



Group Delay Variation $Fo \pm 4.6875\text{MHz}$



Smith Chart



VSWR

