



Total Solution Provider in Saw Device

SA07005BD

70MHz IF SAW Filter

5.28MHz Bandwidth

Revision 0: 10. Oct. 2008



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

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□ Electrical Characteristics

Maximum Ratings

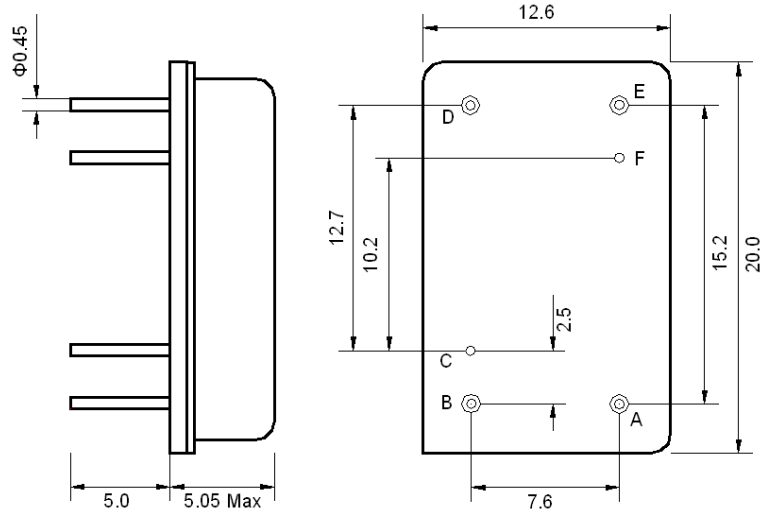
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-20	-	70
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Package type & size	D1			
Length x Width	mm ²	-	20.0 x 12.6	-
Height	mm	-	-	5.05

Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	69.92	70.0	70.08
Insertion Loss at Fo	dB	-	21.6	24.0
Amplitude Ripple Variation	dB _{p-p}	-	0.5	0.95
Group Delay Variation	nsec	-	47	100
Absolute Delay at Fo	μsec	-	2.92	-
Temperature Coefficient	ppm/°C	-	-20	-
Bandwidth at -1.0 dB	MHz	5.0	5.28	-
Bandwidth at -3.0 dB	MHz	-	5.68	-
Bandwidth at -40.0 dB	MHz	-	7.39	7.50
Ultimate Rejection	dB	50	55	-

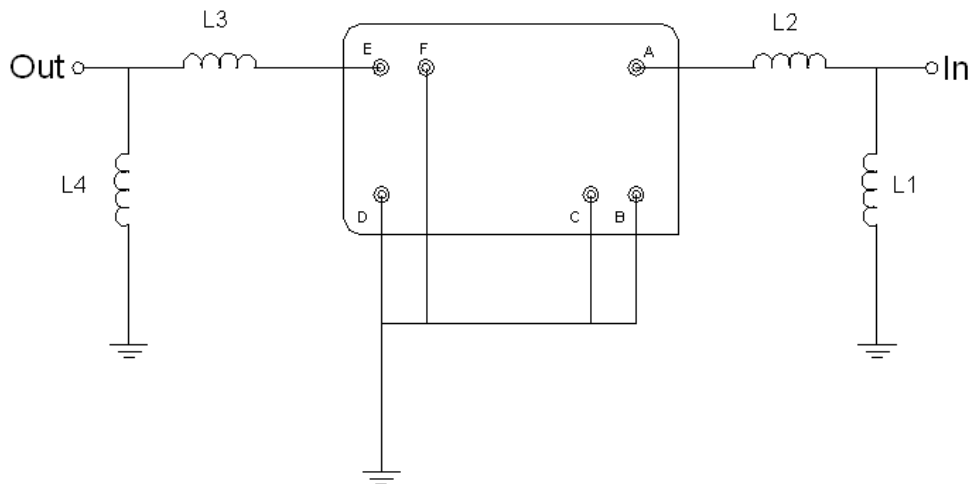
Notes : (1) With Matching Network (Ref. Testing Environment Circuit as shown below).
Those impedances could be modified with different impedance values and/or structures, if necessary.

Package Dimensions



Pin Description	
B, C, D, F	Ground
A	Input
E	Output

Testing Environment



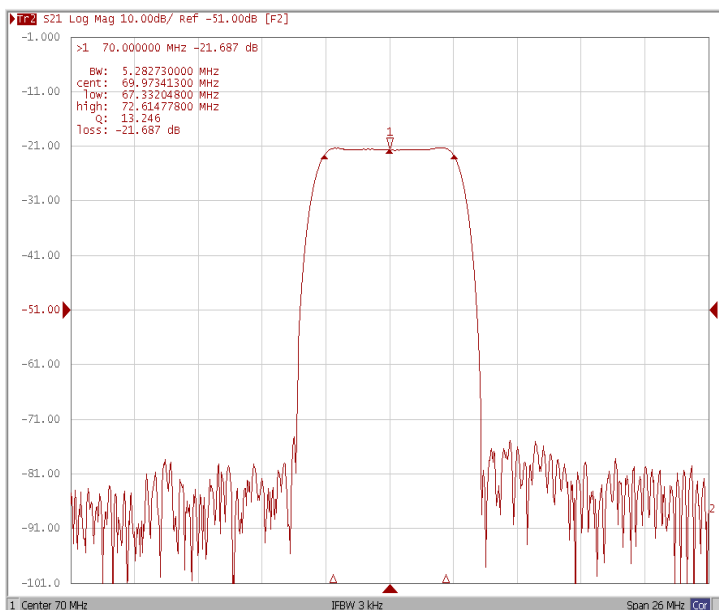
Test Fixture & Values	
Input	L1= 120 nH, L2= 82 nH
Output	L3= 68 nH, L4= 120 nH
Source/Load Impedance	50 Ω



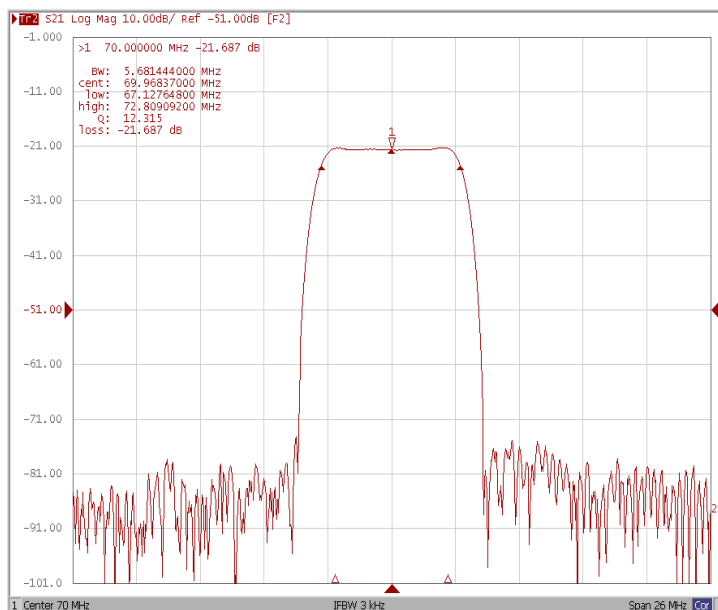
□ Frequency Characteristics

Frequency Response

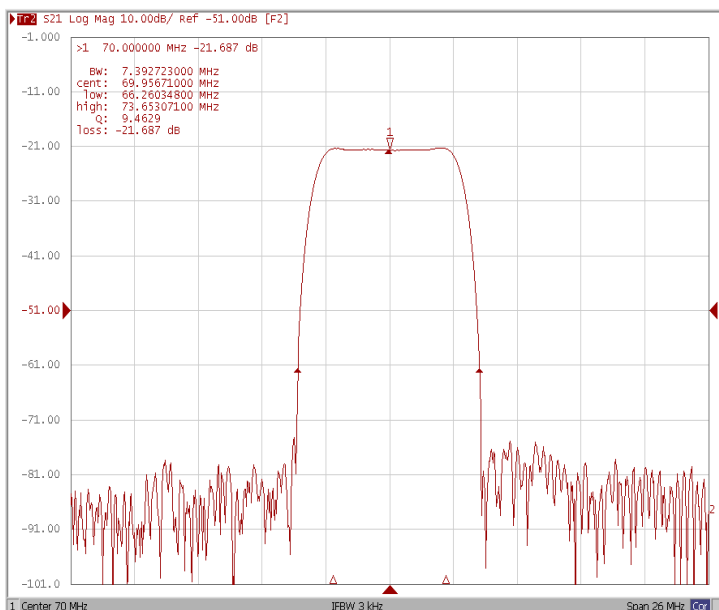
Bandwidth at -1.0 dB



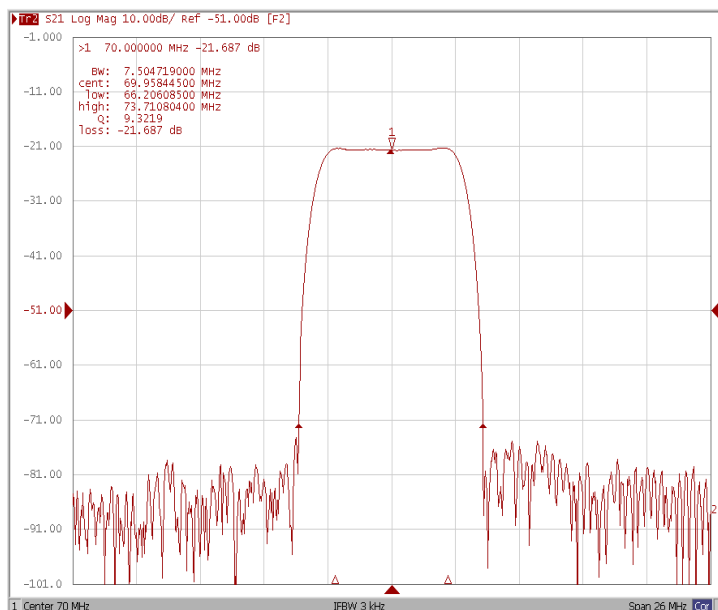
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



Bandwidth at -50.0 dB

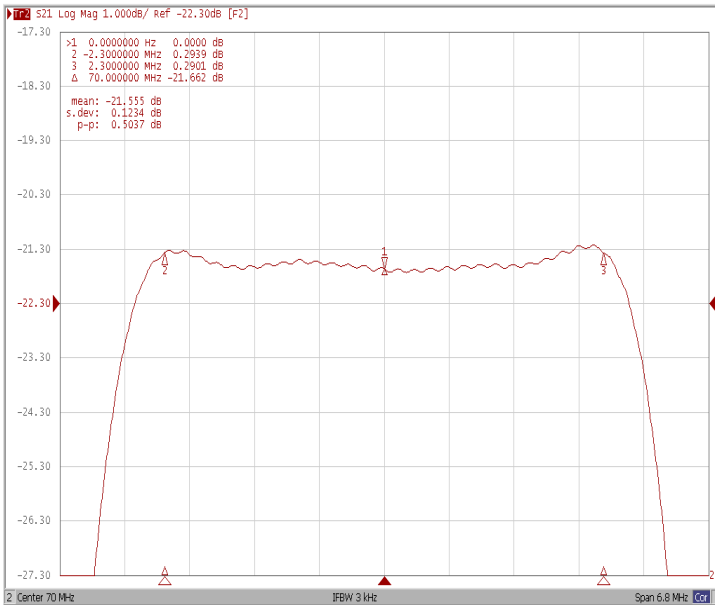




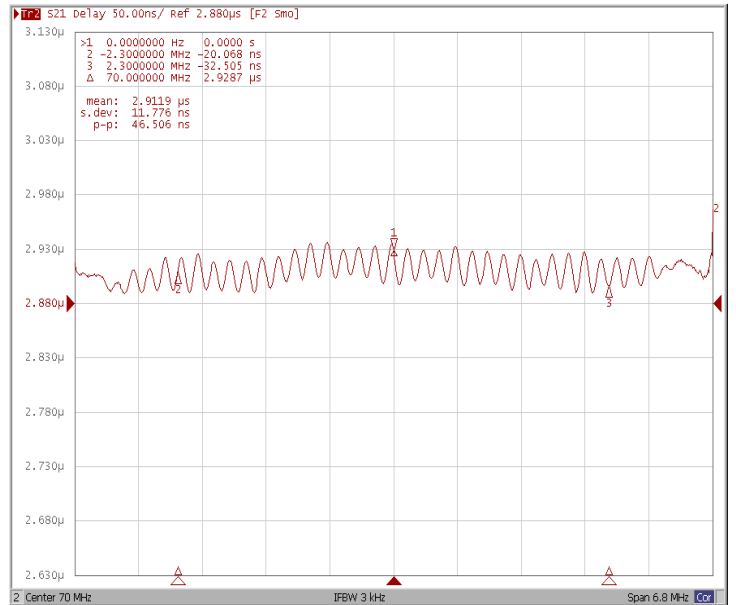
Frequency Characteristics

Frequency Response

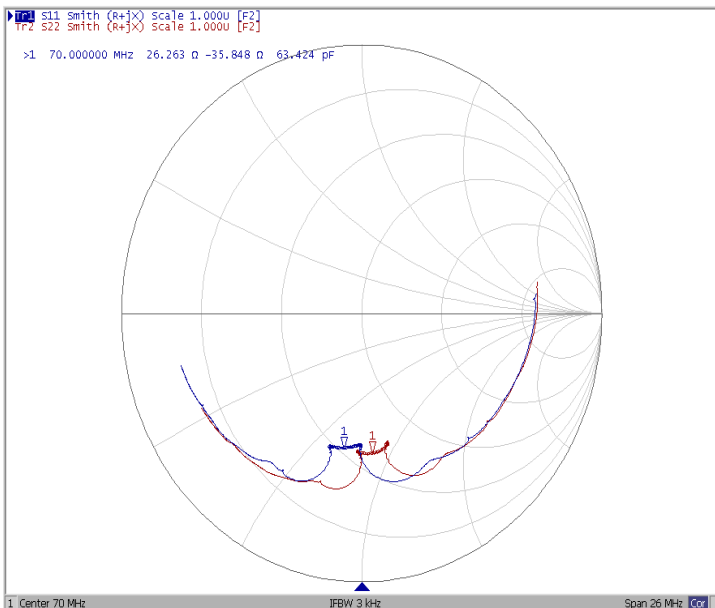
Ripple Variation Fo±2.3MHz



Group Delay Variation Fo±2.3MHz



Smith Chart



VSWR

