



Total Solution Provider in Saw Device

SA25230AD

252.5 MHz IF SAW Filter
30.21 MHz Bandwidth
Revision 0: 02.December. 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	D			
Length x Width	mm ²	-	20.0 x 12.6	-
Height	mm	-	-	5.05

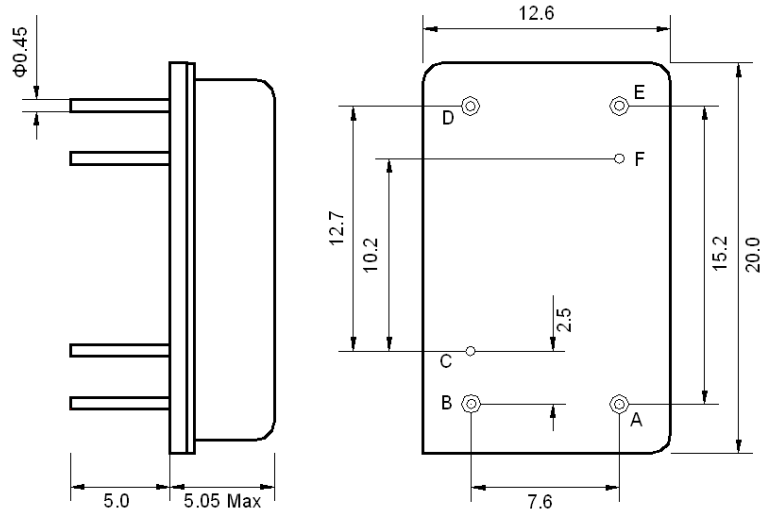
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	252.5	-
Insertion Loss at Fo	dB	-	30.0	-
Group Delay Variation at Fo ± 14.52 MHz	nsec	-	36	80
Absolute Delay at Fo	usec	-	2.86	-
Passband Ripple Variation at Fo ± 14.52 MHz	dB	-	0.68	1.0
Bandwidth at -1dB	MHz	29.95	30.21	-
Bandwidth at -3dB	MHz	-	30.48	-
Bandwidth at -40dB	MHz	-	31.78	31.95
Bandwidth at -50dB	MHz	-	31.98	-
Ultimate Rejection	dB	50	55	-
Temperature Coefficient	ppm/°C	-	-18	-

Notes : (1) With Matching Network (Ref. Testing Environment Circuit as shown below).

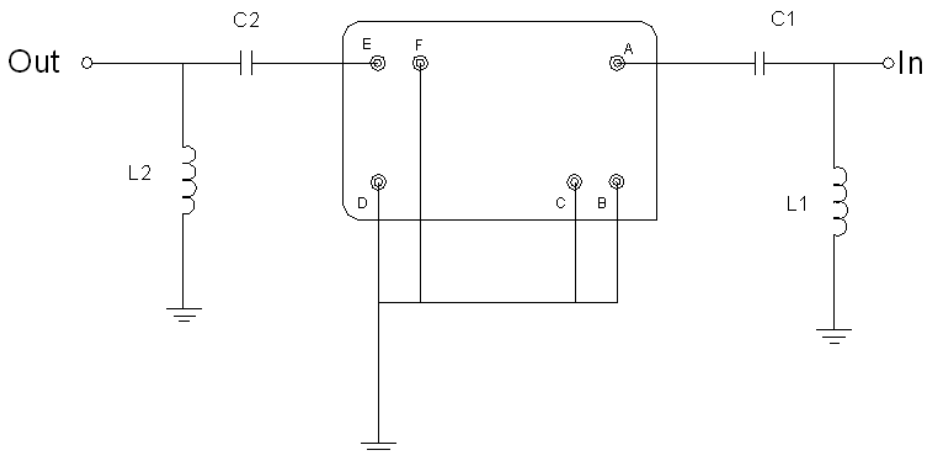
Those impedances could be modified with different impedance values and/or structures, if necessary.

Package Dimensions



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

Testing Environment



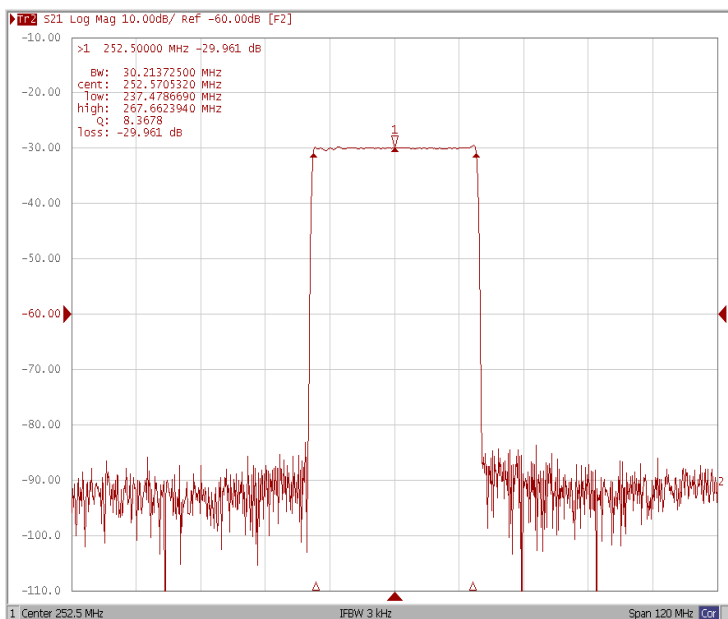
Test Fixture & Values	
Input	L1 = 8.2 nH, C1 = 180 pF
Output	L2 = 10 nH, C2 = 130 pF
Source/Load Impedance	50 Ω



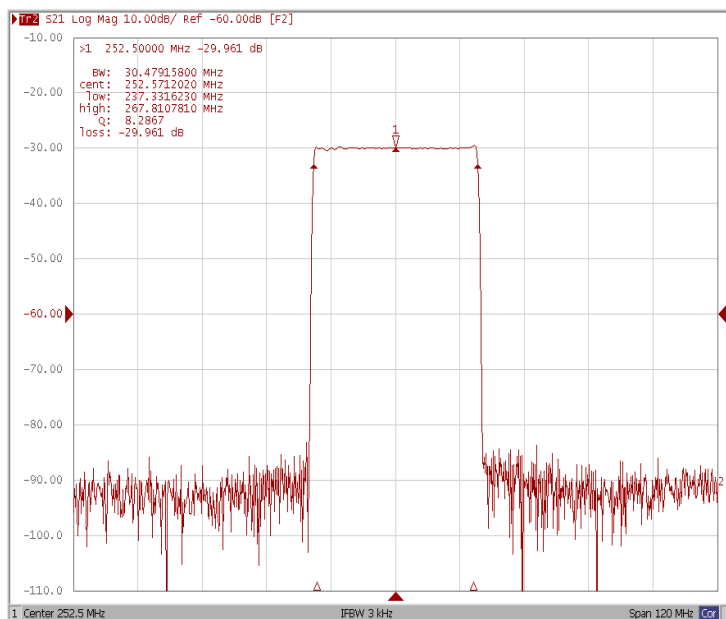
□ Frequency Characteristics

Frequency Response

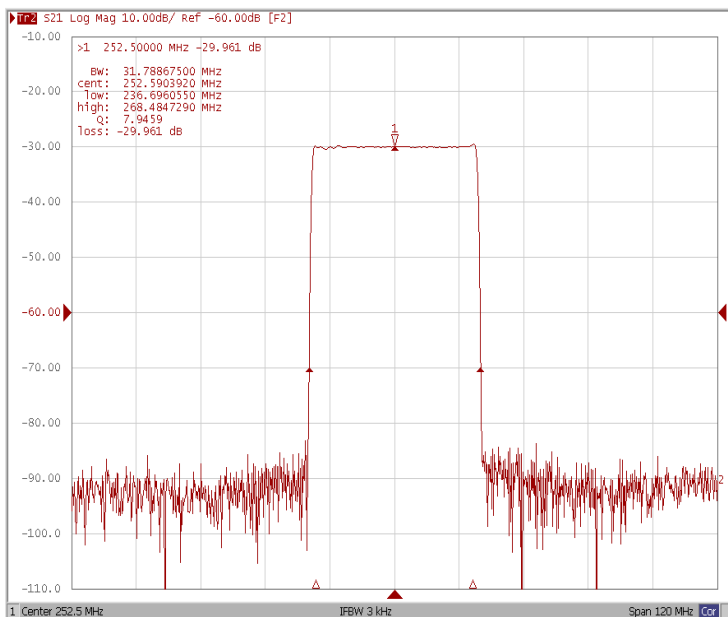
Bandwidth at -1.0 dB



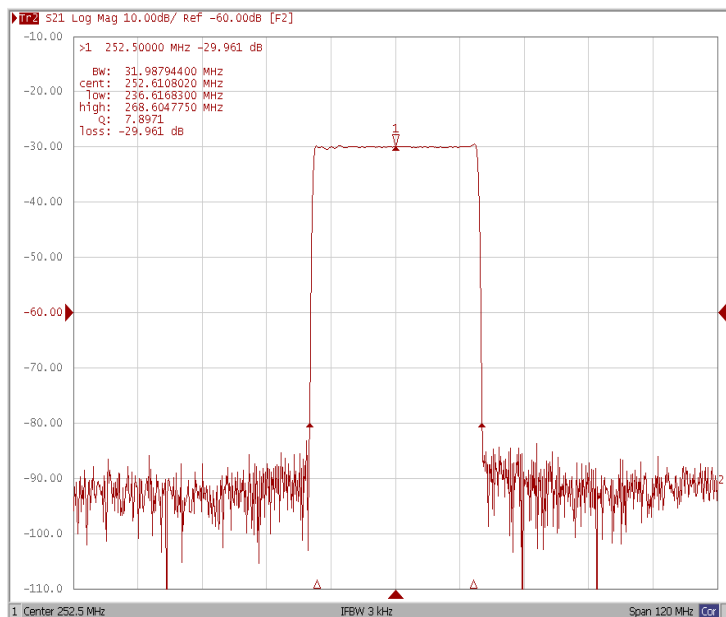
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



Bandwidth at -50.0 dB

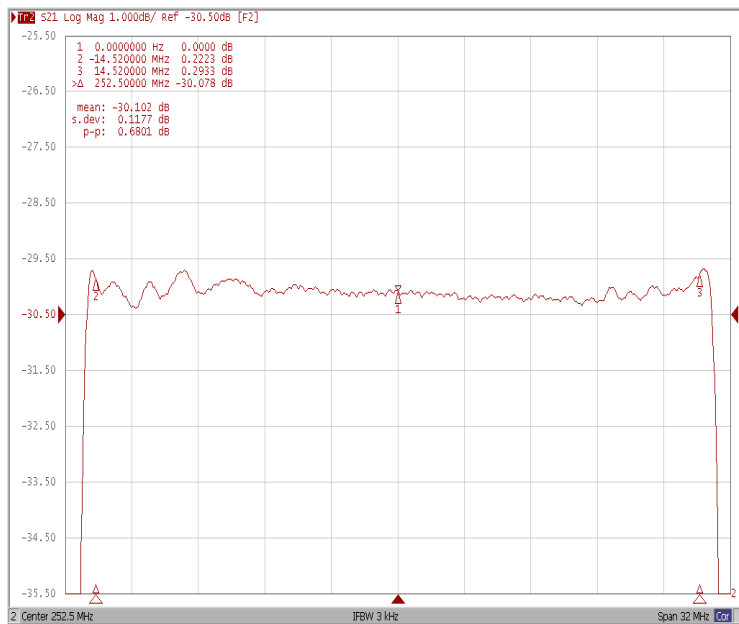




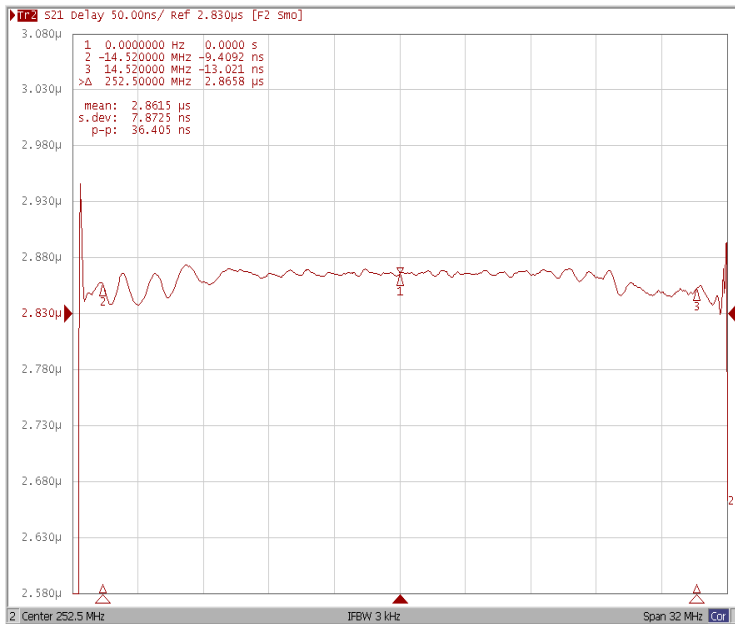
Frequency Characteristics

Frequency Response

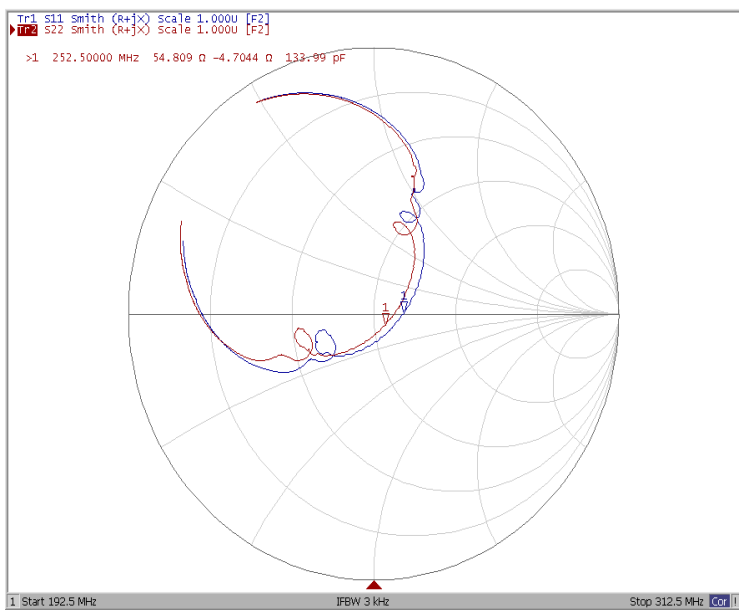
Ripple Variation $F_0 \pm 14.52\text{MHz}$



Group Delay Variation $F_0 \pm 14.52\text{MHz}$



Smith Chart



VSWR

