



Total Solution Provider in Saw Device

SA12724AD1

127.55 MHz IF SAW Filter
24.70 MHz Bandwidth
Revision 0: 10. November. 2010



- 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	-	+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

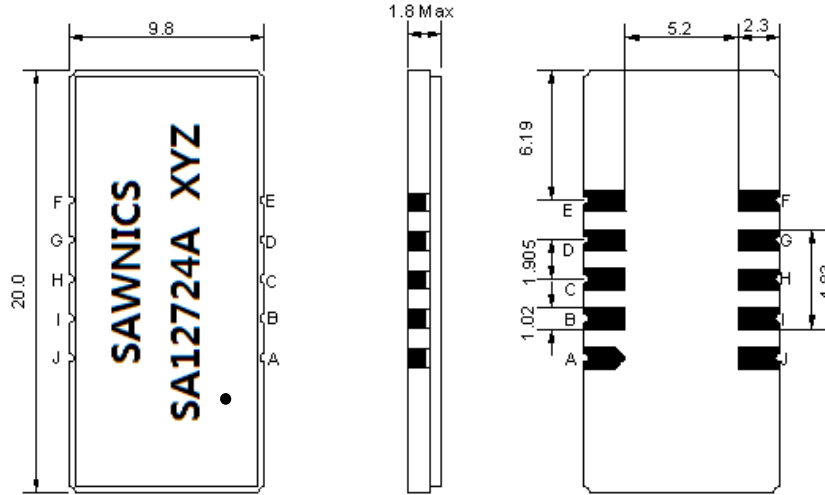
Room Temperature : +25°C

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	127.55	-
Insertion Loss at Fo	dB	-	23.90	25.50
Group Delay Variation (Fo±11.90MHz)	nsec	-	35	80
Absolute Delay at Fo	usec	-	2.24	2.50
Passband Ripple Variation(Fo±11.90MHz)	dB	-	0.65	1.00
Bandwidth at -1dB	MHz	24.50	24.70	-
Bandwidth at -20dB	MHz	-	25.88	26.05
Bandwidth at -35dB	MHz	-	26.20	26.35
Bandwidth at -40dB	MHz	-	26.30	26.45
Bandwidth at -50dB	MHz	-	26.40	-
Ultimate Rejection	dB	50	53	-
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.

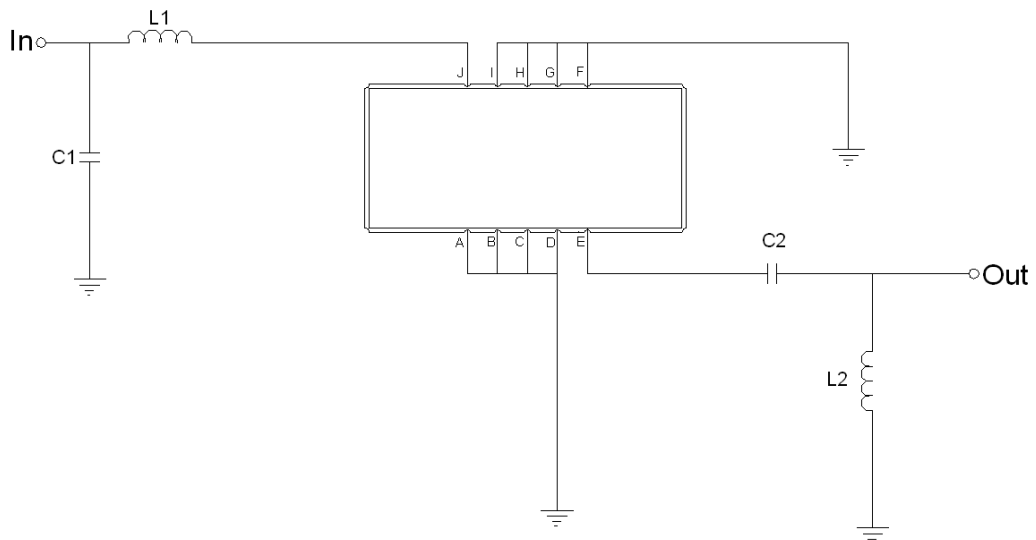
Package Dimensions



- ① SAWNICS: Brand
- ② SA12724A: 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 = 20 pF
Output	L2 = 47 nH, C2=100 pF
Source/Load Impedance	50 Ω

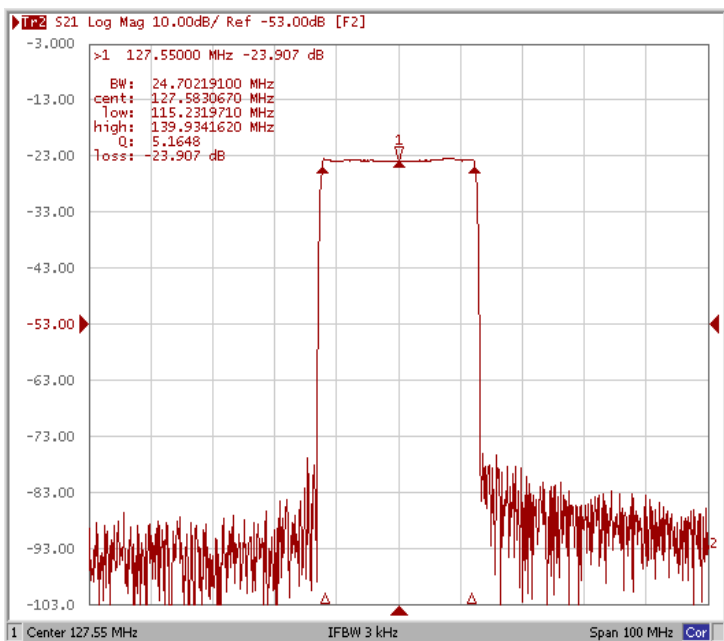


□ Frequency Characteristics

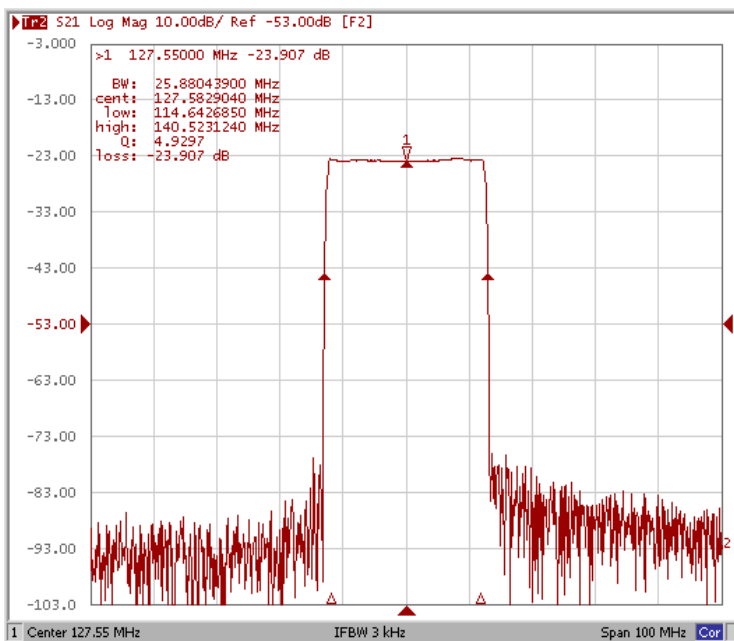
Frequency Response

Room Temperature : +25°C

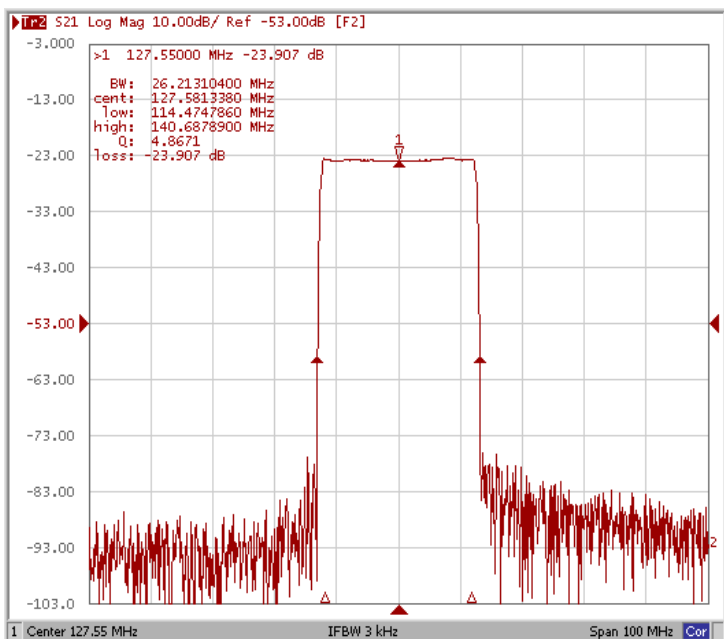
Bandwidth at -1.0 dB



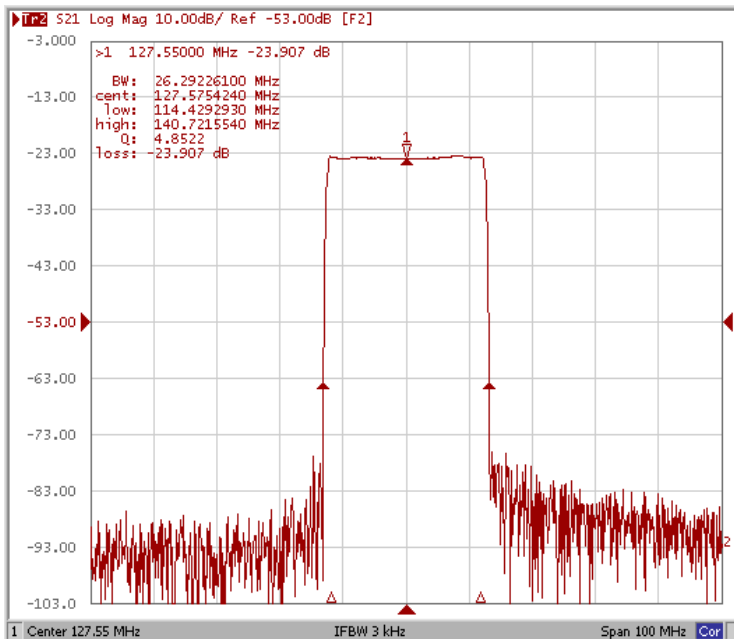
Bandwidth at -20.0 dB



Bandwidth at -35.0 dB



Bandwidth at -40.0 dB

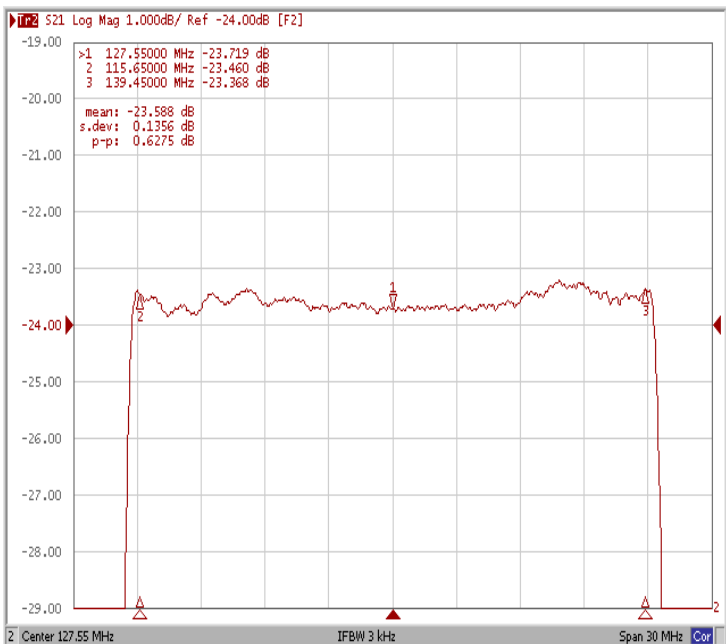




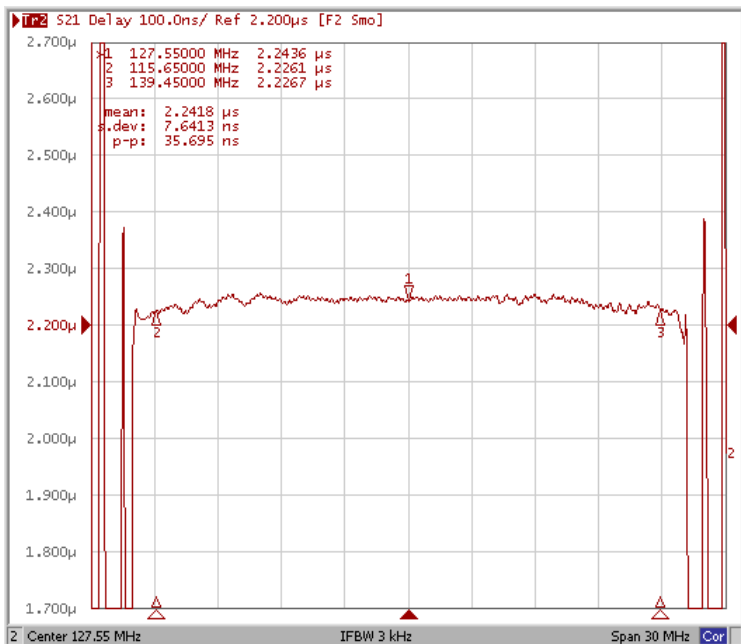
Frequency Characteristics

Frequency Response

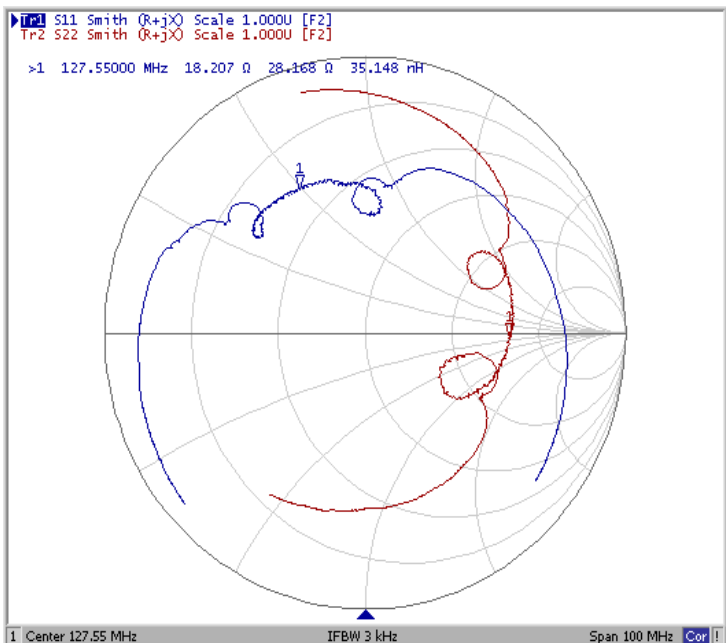
Ripple Variation Fo±11.90MHz



Group Delay Variation Fo±11.90MHz



Smith Chart



VSWR

