

Maximum Ratings

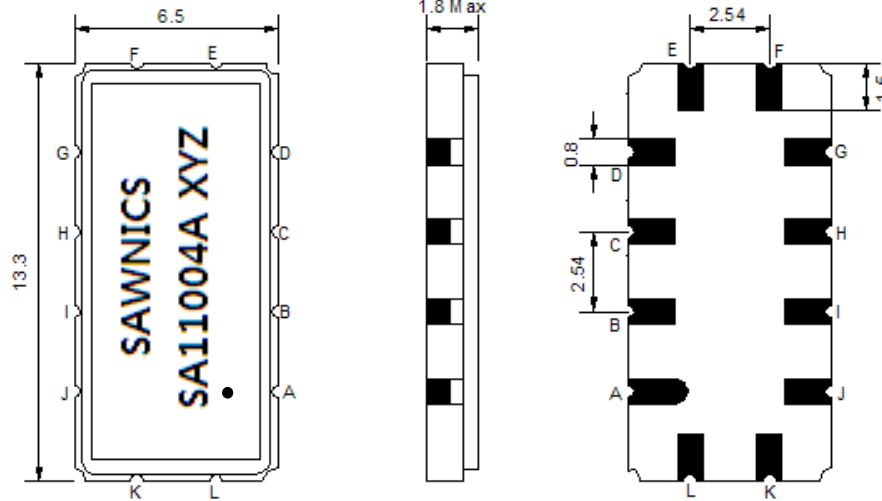
Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-5	-	70
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Package type & size	V			
Length x Width	mm ²	-	13.3 x 6.5	-
Height	mm	-	-	1.8

Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	109.9	110.0	110.1
Insertion Loss at Fo	dB	-	19.0	22.0
Amplitude Ripple within fo ±2.2 MHz	dB _{p-p}	-	0.6	1.0
Group Delay Variation within fo ±2.2 MHz	nsec	-	95	150
Absolute Delay at Fo	µsec	-	1.68	2.0
Bandwidth at -1.0 dB	MHz	4.40	4.82	-
Bandwidth at -3.0 dB	MHz	-	5.12	-
Bandwidth at -40.0 dB	MHz	-	6.35	6.50
Ultimate Rejection	dB	40	48	-
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.

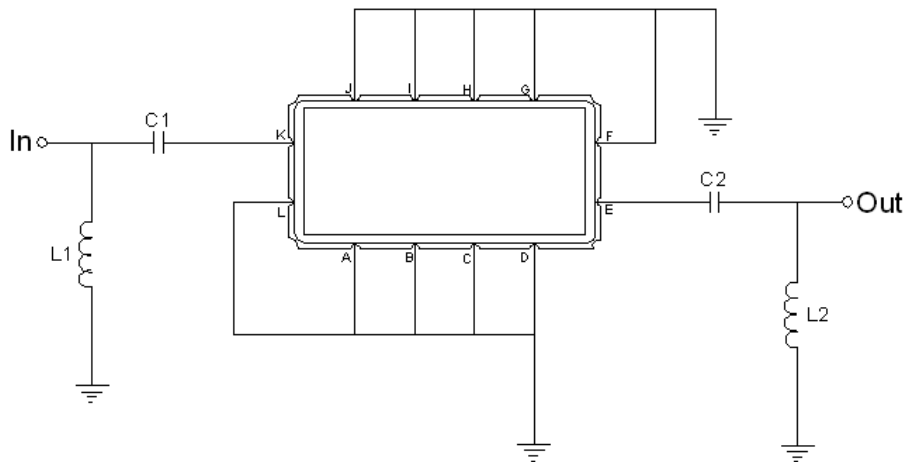
Package Dimensions



- ① SAWNICS: Brand
- ② SA11004A: 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, J, L	Ground
K	Input
E	Output

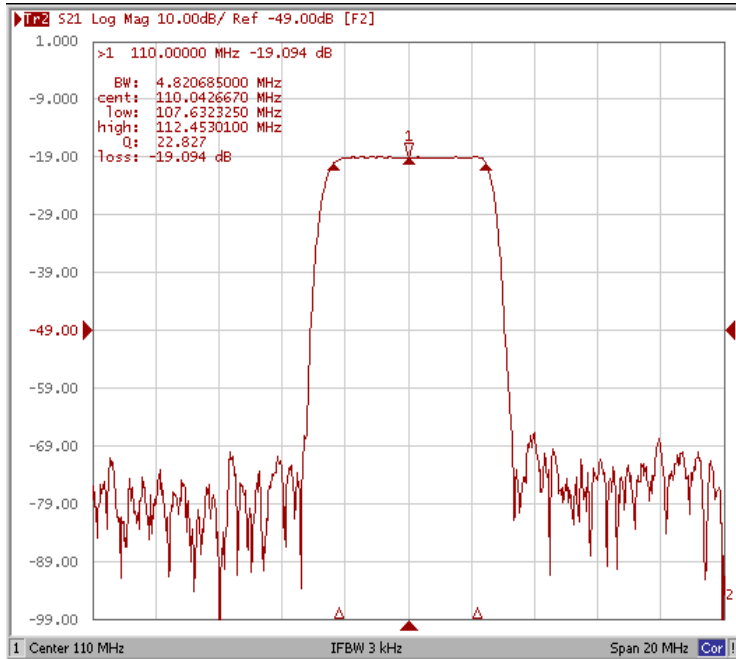
Testing Environment



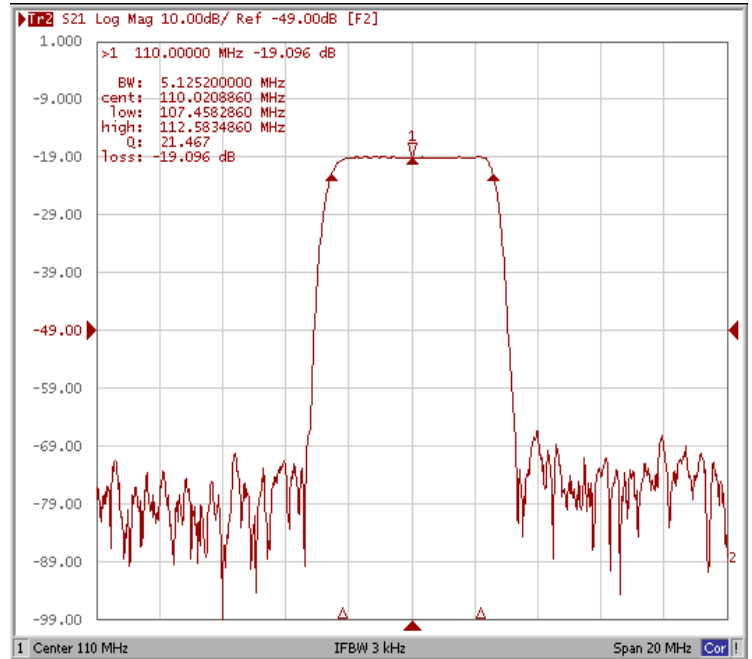
Test Fixture & Values	
Input	L1=56nH, C1=120pF
Output	L2=27nH, C2=130pF
Source/Load Impedance	50 Ω

Frequency Response

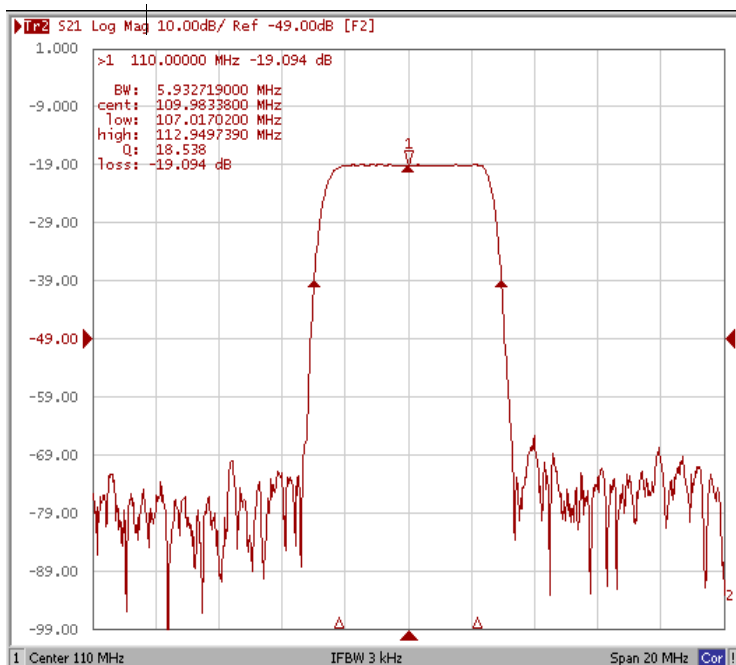
Bandwidth at -1.0 dB



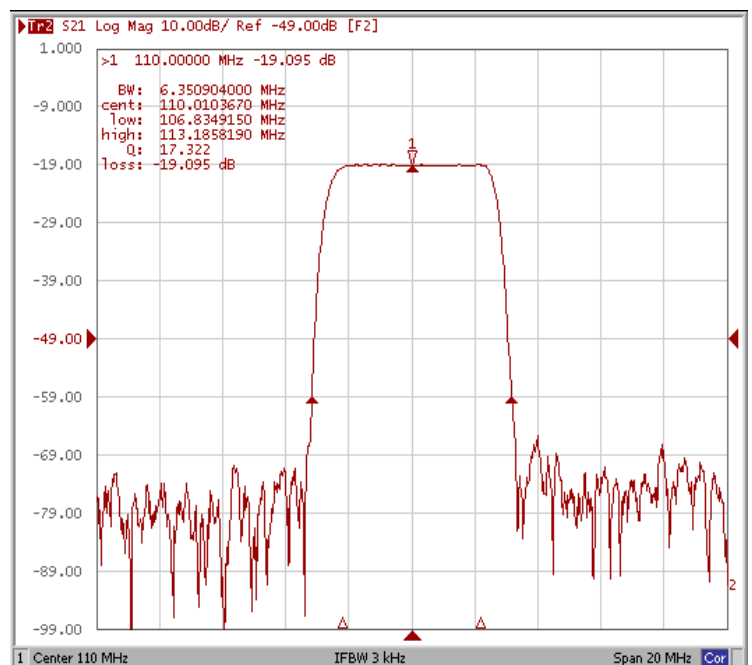
Bandwidth at -3.0 dB



Bandwidth at -20.0 dB

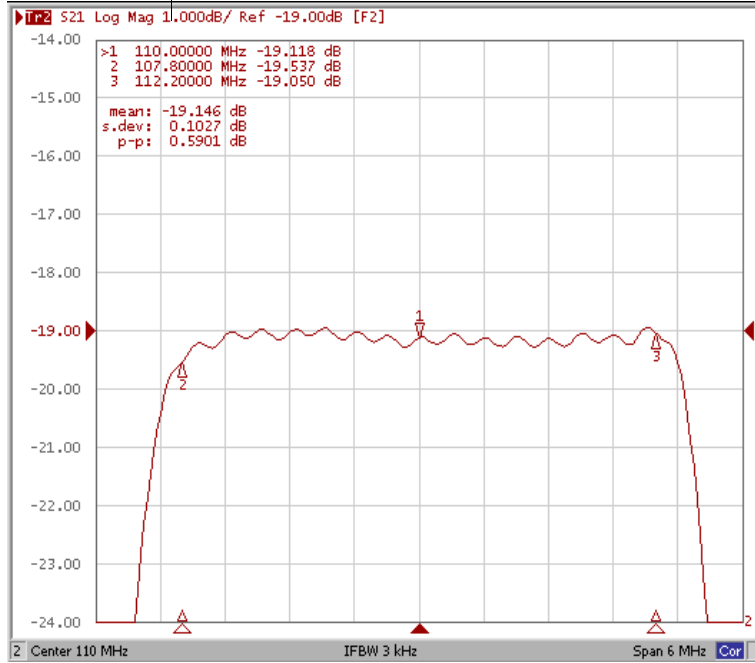


Bandwidth at -40.0 dB

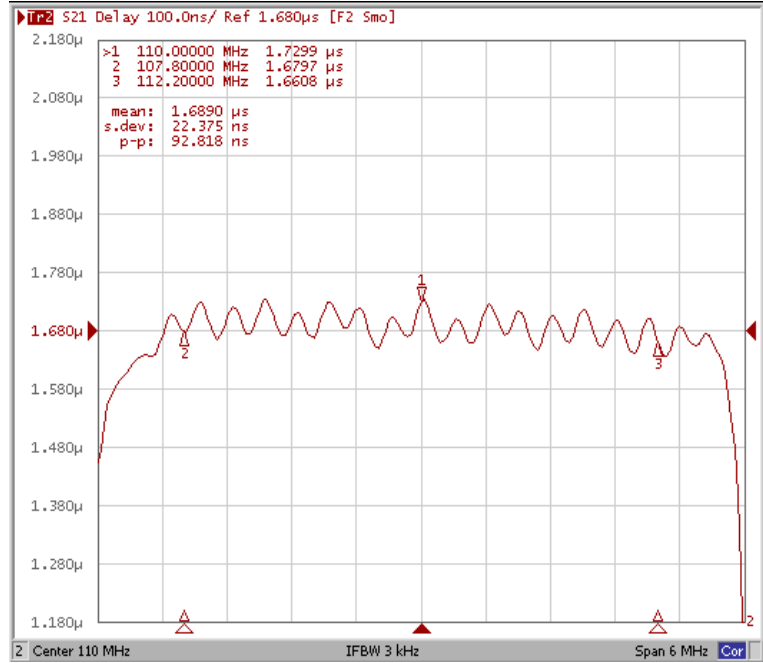


Frequency Response

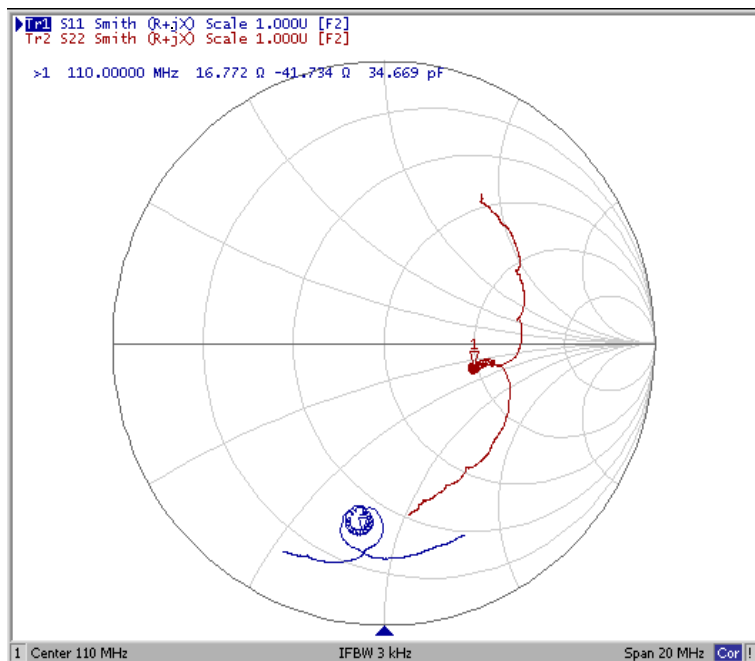
Ripple Variation $F_0 \pm 2.2\text{MHz}$



Group Delay Variation $F_0 \pm 2.2\text{MHz}$



Smith Chart



SWR

