

Specification Sheet

Customer Name	XXXX	CUST P/N	NA
Approval No.	PD	Temwell P/N	STSF-2442B82-S1109W
Lot No.		Date	2025.06.23
Description	SAW Filter (BandPass)	Version	A1

(1) Size Diagram (Unit : MM)

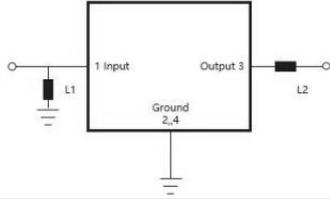
Pin Configuration	
1	Input
4	Output
Others	Ground

(2) Electrical Specifications

Parameter	Item		Specification		
	MHz	Unit	Min.	Typical	Max.
Center Frequency	-	MHz	-	2442	-
Insertion Loss	2401-2423	dB	-	1.7	2.0
	2406-2478	dB	-	1.2	1.5
	2461-2483	dB	-	1.4	1.9
	2402.5-2481.5	dB	-	1.8	2.5
Inband Ripple	2402.5-2481.5	dB	-	1.0	2.0
VSWR	2402.5-2481.5	-	-	1.6	2.0
Attenuation	10-1559	dB	35	42	-
	1559-1606	dB	35	42	-
	1710-1785	dB	33	41	-
	1805-1880	dB	33	42	-
	1850-1995	dB	35	42	-
	2110-2200	dB	35	48	-
	2300-2350	dB	40	46	-
	2350-2370	dB	40	47	-
	2372.5-2377.5	dB	12	19	-
	2382.5-2387.5	dB	3	5	-
	2496-2501	dB	15	34	-
	2500-2505	dB	43	54	-
	2505-2570	dB	36	48	-
	2555-2655	dB	35	44	-
	2620-2690	dB	35	44	-
3300-5000	dB	30	37	-	
4800-5000	dB	35	41	-	
5150-5925	dB	35	40	-	
Operation Temperature	-20°C~+85°C	°C	-	-	-
Storage Temperature	-40°C~+85°C	°C	-	-	-
RF Power Dissipation	+26	dBm	-	-	-
DC Voltage	3	V	-	-	-

Remark: Note 1: Test Temperature: 25°C±2°C
 Note 2: Terminating source impedance: 50Ω. Terminating load impedance: 50Ω

(3) Test Circuit



Port	Matching Component
Input	L1 :4.7 nH (Ideal inductor)
Output	L2 :2.0 nH (Ideal inductor)

Figure 1 Electrical Characteristics: Passband

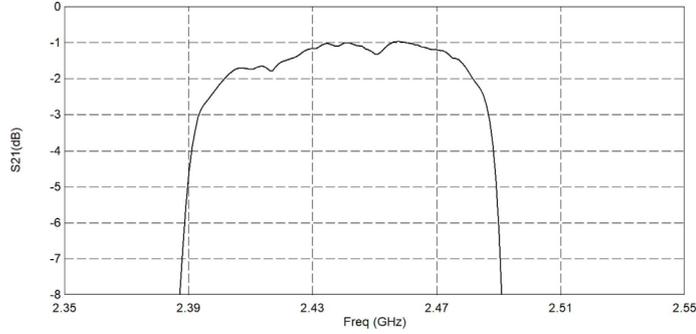


Figure 2 Electrical Characteristics: Narrowband

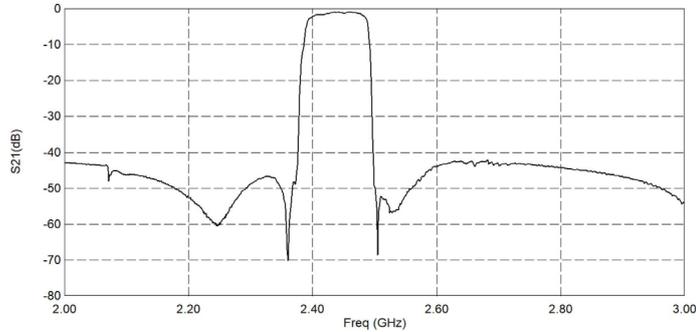


Figure 3 Electrical Characteristics: Wideband

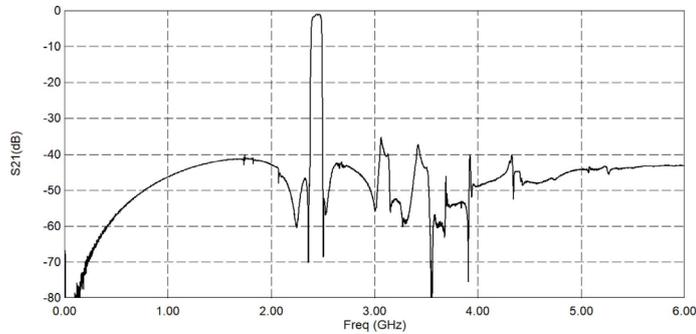
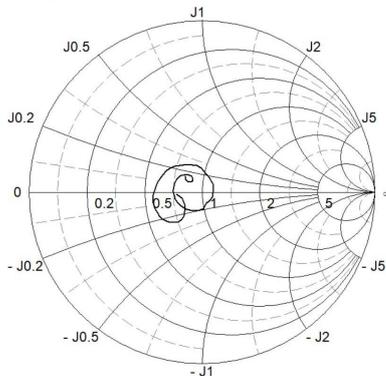
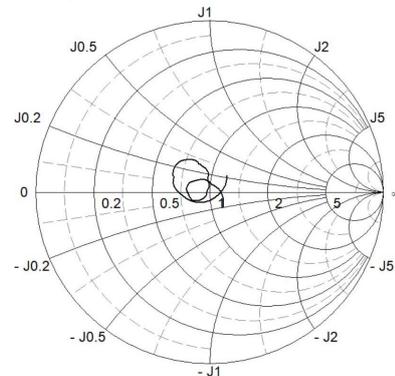


Figure 4 Smith Chart

Input (2401MHz to 2483MHz)



Output (2401MHz to 2483MHz)



Approval

C. K. Chang

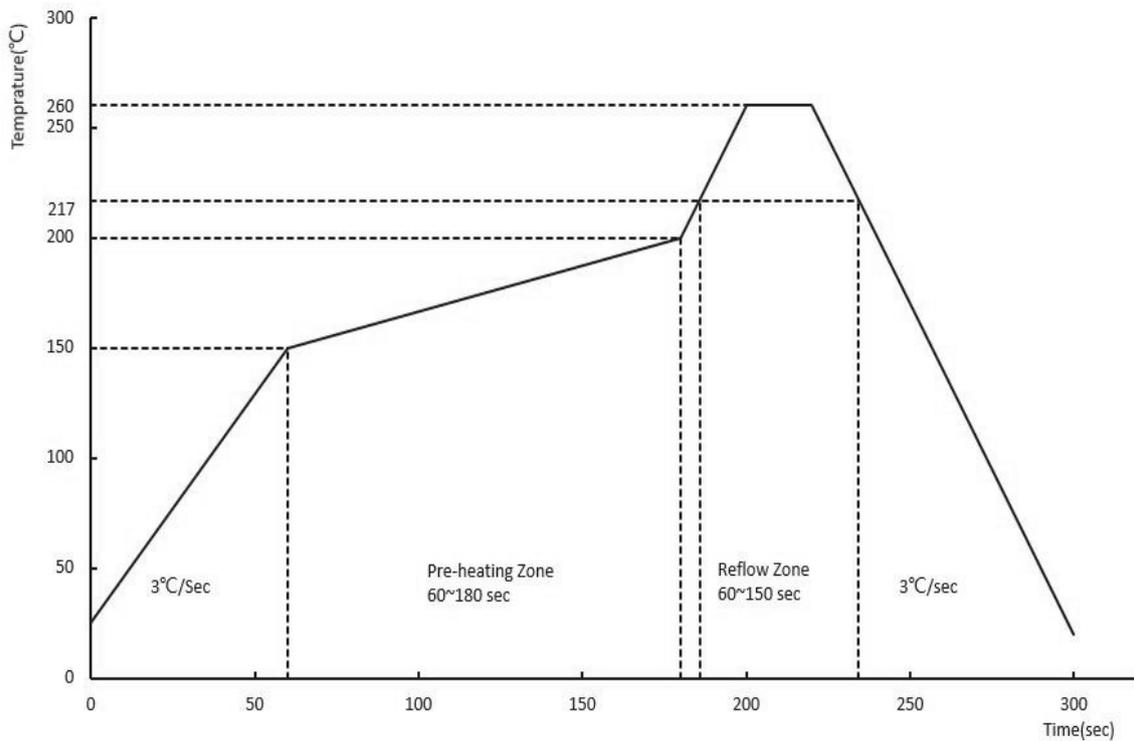
Supervisor

M. Y. Chen

Designer

F.L.Lai

Recommended SMT Solder Profile



Reliability

No.	Test item	Test condition	
1	Temperature Storage	Temperature: 85°C±2°C , Duration: 250h , Recovery time: 2h±0.5h Temperature: -40°C±3°C , Duration: 250h ,Recovery time: 2h±0.5h	
2	Humidity Test	Conditions: 60°C±2°C ,90~95%RH	Duration:250h
3	Thermal Shock	Heat cycle conditions: TA=-40°C±3°C, TB=85°C±2°C, t1=t2=30min, Switch time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.	
4	Vibration Fatigue	Frequency of vibration:10~55Hz Directions: X,Y and Z	Amplitude:1.5mm Duration: 2h
5	Drop Test	Cycle time:10times	Height:1.0m
6	Solder Ability Test	Temperature:245°C±5°C Depth: DIP--2/3, SMD--1/5	Duration:3.0s--5.0s
7	Resistance to Soldering Heat	Thickness of PCB:1mm , Solder condition: 260°C±5°C , Duration:10±1s Temperature of Soldering Iron: 350°C±10°C, Duration: 3~4s, Recovery time : 2 ± 0.5h	