

Specification Sheet

Customer Name	XXXX	CUST P/N	NA
Approval No.	PD	Temwell P/N	STSF-1650B48-S1109W
Lot No.		Date	2025.04.25
Description	SAW Filter (BandPass)	Version	A1

(1) Size Diagram (Unit : MM)

Top View

Side View

Bottom View

Pin	Configuration
1	Input
4	Output
Others	Ground

(2) Electrical Specifications

Parameter	Item		Specification		
	MHz	Unit	Min.	Typical	Max.
Center Frequency	-	MHz	-	1650	-
Insertion Loss	1626.5-1675	dB	-	1.9	2.5
Inband Ripple	1626.5-1675	dB	-	0.9	1.5
VSWR	1626.5-1675	-	-	1.5	1.8
Attenuation	10-1164	dB	37	41	-
	1164-1189	dB	37	41	-
	1559-1564	dB	45	50	-
	1573-1578	dB	50	55	-
	1597-1606	dB	25	50	-
	3200-3400	dB	38	43	-
	4800-5100	dB	40	45	-
Operation Temperature	-20°C~+85°C	°C	-	-	-
Storage Temperature	-40°C~+85°C	°C	-	-	-
RF Power Dissipation	+29	dBm	-	-	-

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 : 2.2 nH (Ideal inductor)
Output	L2 : 1.8 nH (Ideal inductor)

Figure 1 Electrical Characteristics: Passband

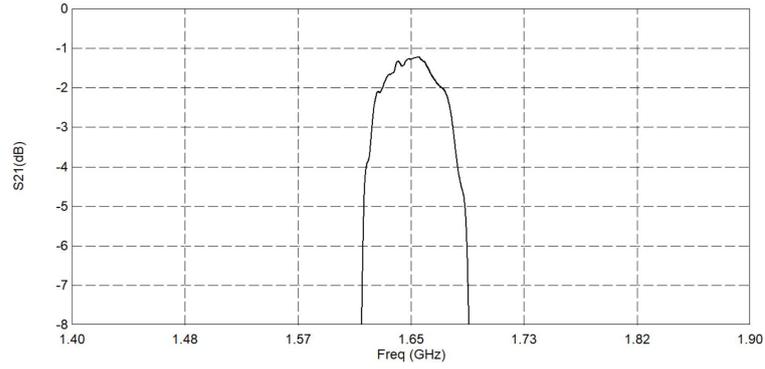


Figure 2 Electrical Characteristics: Narrowband

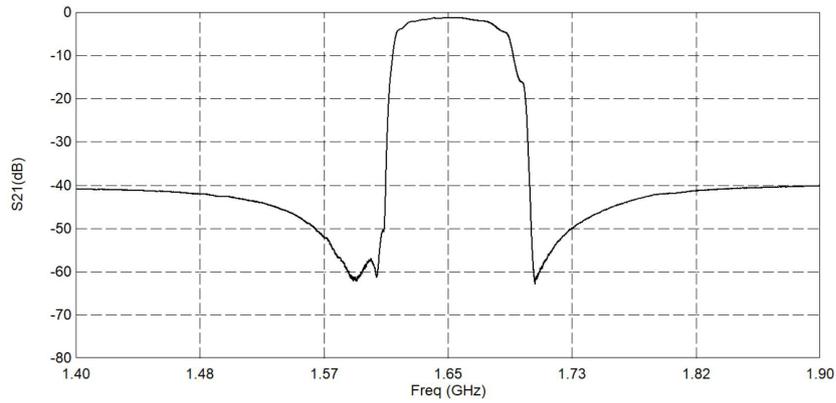


Figure 3 Electrical Characteristics: Wideband

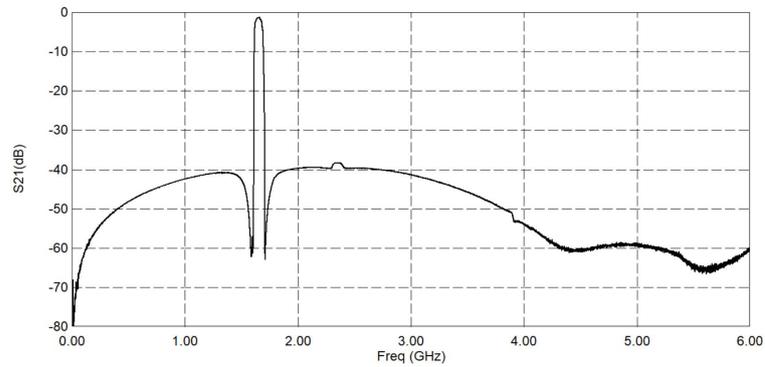
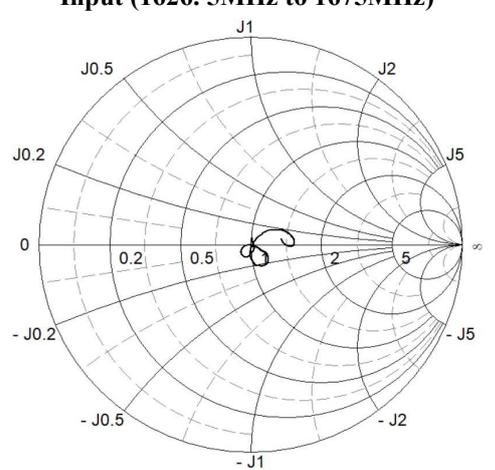
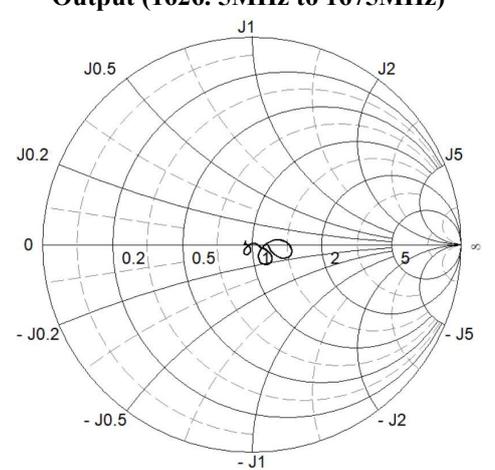
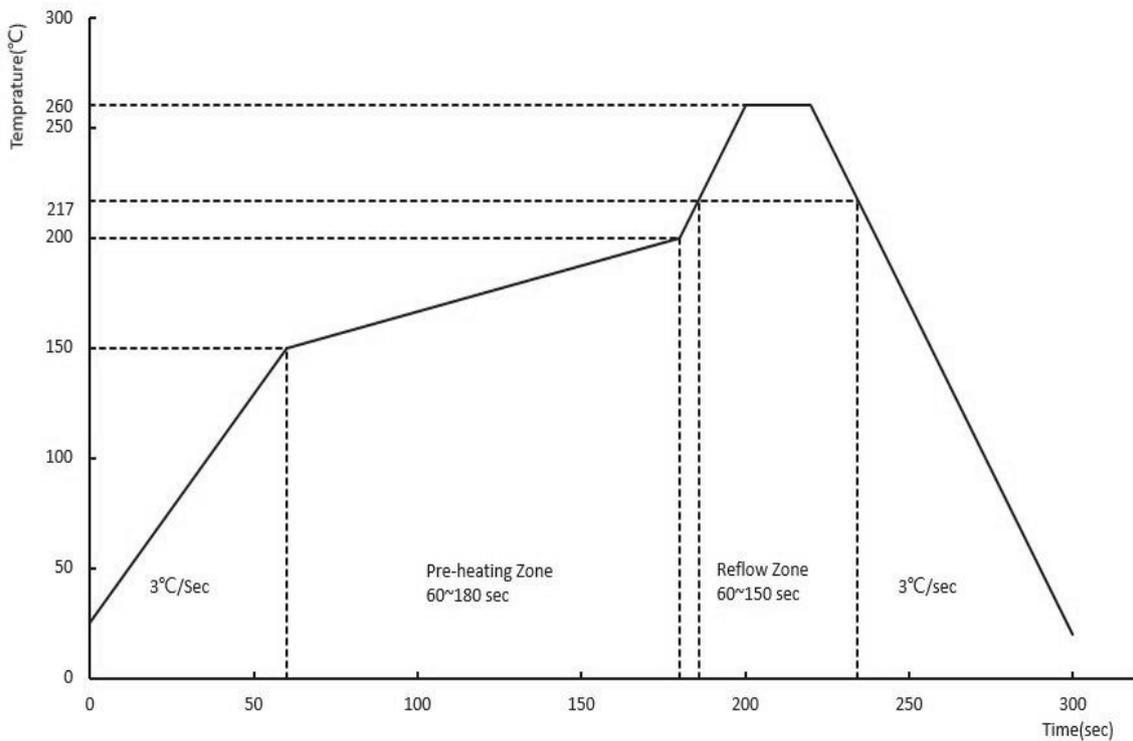


Figure 4 Smith Chart

Input (1626.5MHz to 1675MHz)		Output (1626.5MHz to 1675MHz)	
			
Approval	Supervisor	Designer	
C. K. Chang	M. Y. Chen	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	