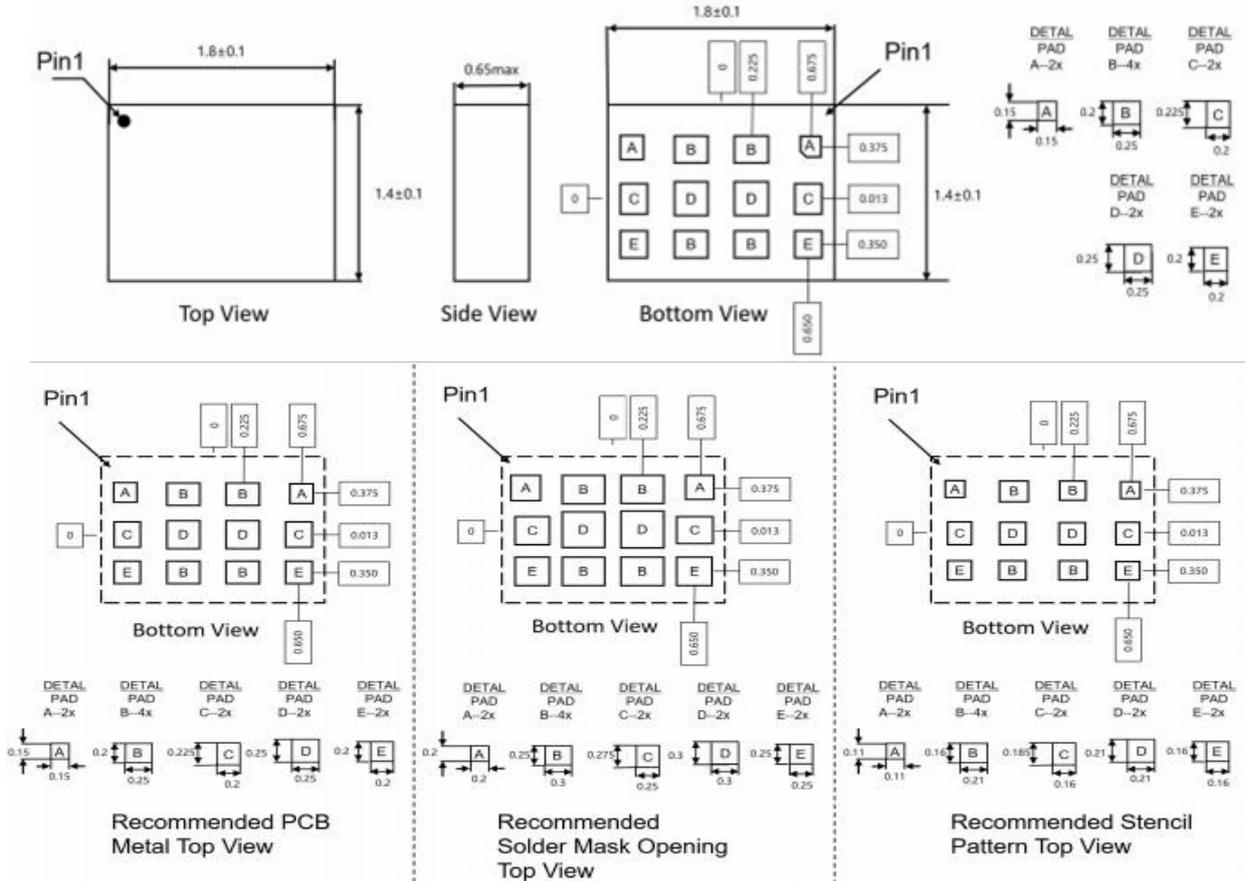


Specification Sheet

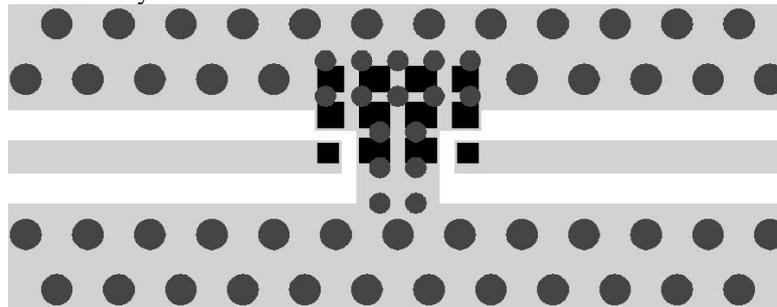
Customer Name	XXXX	CUST P/N	NA
Approval No.	PD	Temwell P/N	STSF-5250B160-S1814W
Lot No.		Date	2025.06.13
Description	SAW Filter (BandPass)	Version	A1

(1) Size Diagram and PCB Mounting Pattern (Unit : MM)

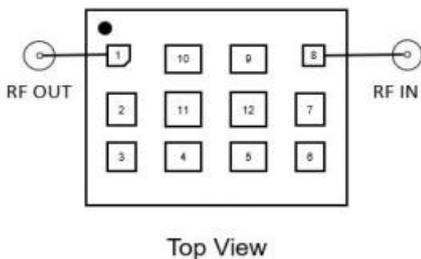
- All tolerances are ± 0.05 mm except overall length and width ± 0.10 mm.



- Evaluation Board Schematic and Layout



(2) Test Circuit



Pin No.	Label	Description
1	OUTPUT	RF Output matched to 50Ω
8	INPUT	RF Input matched to 50Ω
Other Pads	GND	RF/DC ground. Use the recommended via pattern to minimize inductance and thermal resistance. Refer to PCB Mounting Pattern for suggested footprint.

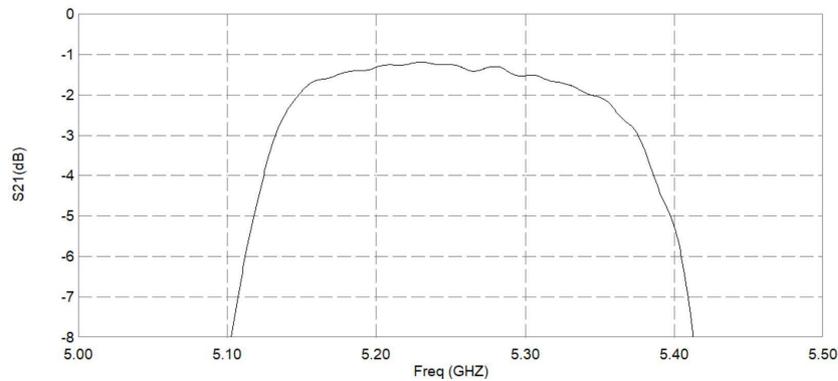
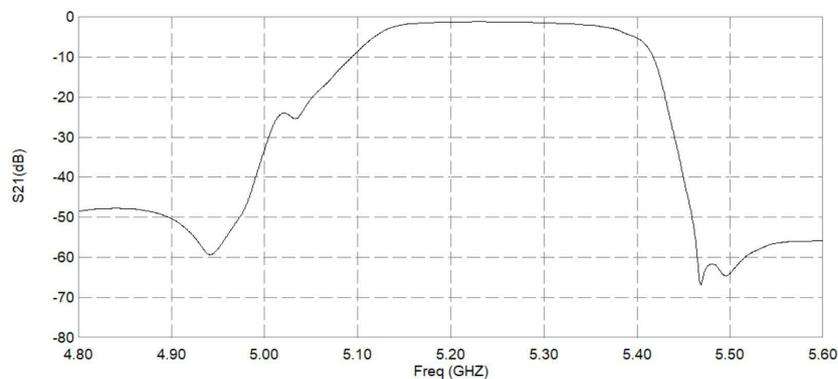
(3)Electrical Specifications

Item			Specification		
Parameter	MHz	Unit	Min.	Typical	Max.
Center Frequency	-	MHz	-	5250	-
Insertion Loss	5170-5330(160MHz)	dB	-	1.4	1.7
	5170-5330	dB	-	1.8	2.3
Inband Ripple	5170-5330	dB	-	0.6	0.8
VSWR of Input Port	5170-5330	-	-	1.3	1.7
VSWR of Output Port	5170-5330	-	-	1.2	1.5
Attenuation	30-2400	dB	30	34	-
	2400-2500	dB	30	33	-
	2400-3000	dB	26	30	-
	3400-3800	dB	33	36	-
	3800-4900	dB	34	37	-
	5490-5850	dB	51	55	-
	5945-6425	dB	40	43	-
	6425-7125	dB	35	39	-
	7200-7500	dB	29	31	-
10300-11800	dB	13	15	-	
Operation Temperature	-40°C~+105°C	°C	-	-	-
Storage Temperature	-40°C~+105°C	°C	-	-	-
RF Power Dissipation	+28	dBm	-	-	-
DC Voltage	3	V	-	-	-

Remark

Note 1: Test Temperature: 25°C±2°C

Note 2: Terminating source impedance: 50Ω. Terminating load impedance: 50Ω

Figure 1 Electrical Characteristics:Passband

Figure 2 Electrical Characteristics: Narrowband

Figure 3 Electrical Characteristics: Wideband

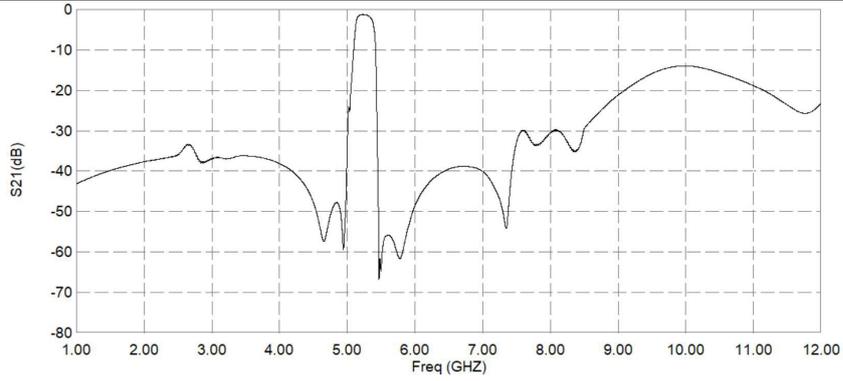


Figure 4 Electrical Characteristics: Input return loss

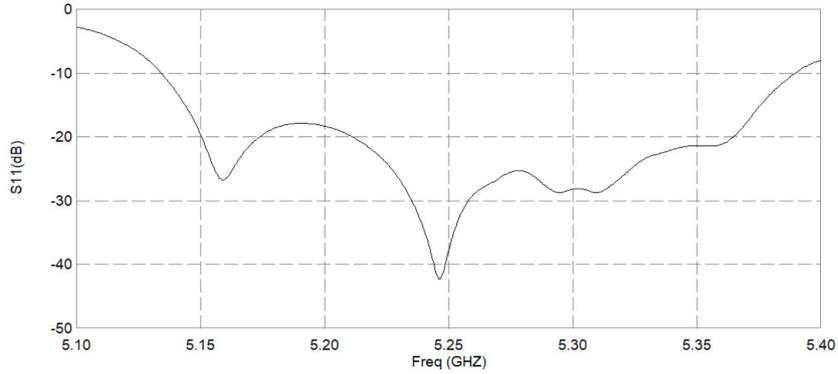


Figure 5 Electrical Characteristics: Output return loss

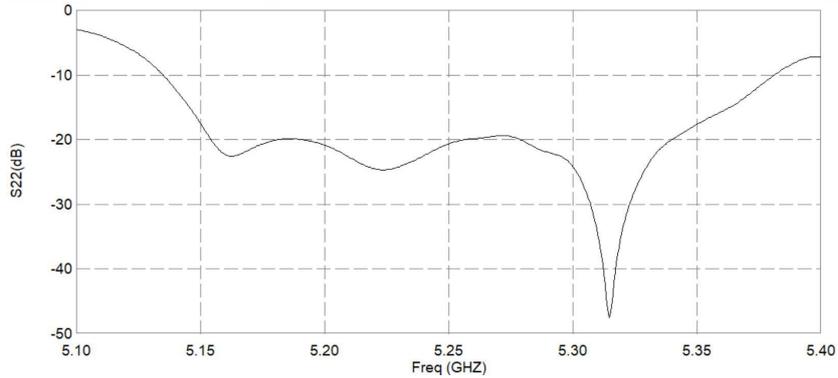
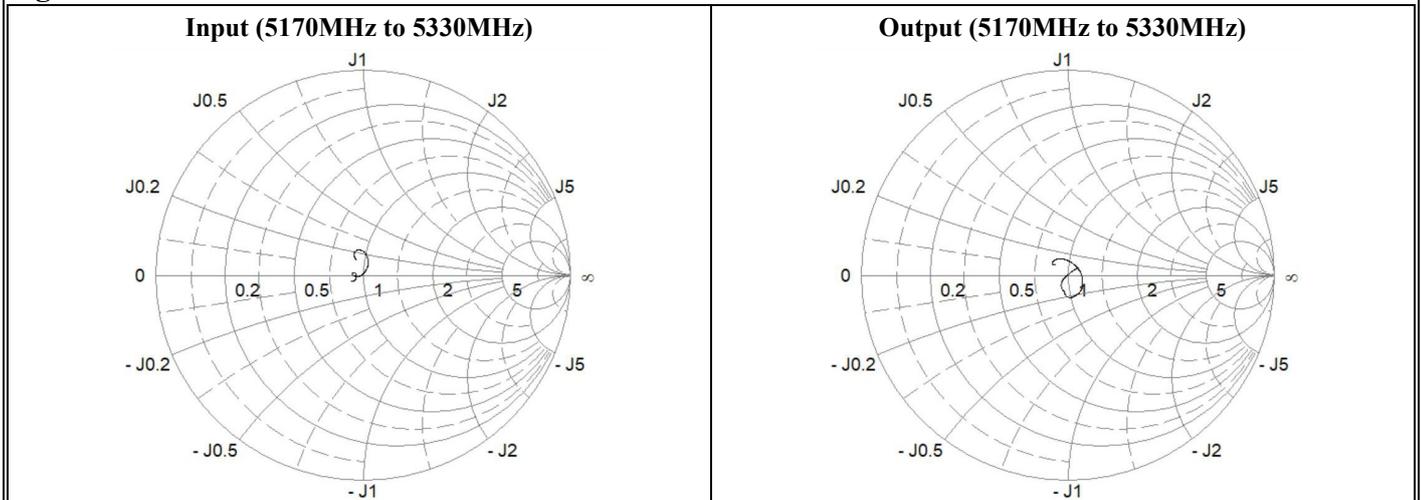
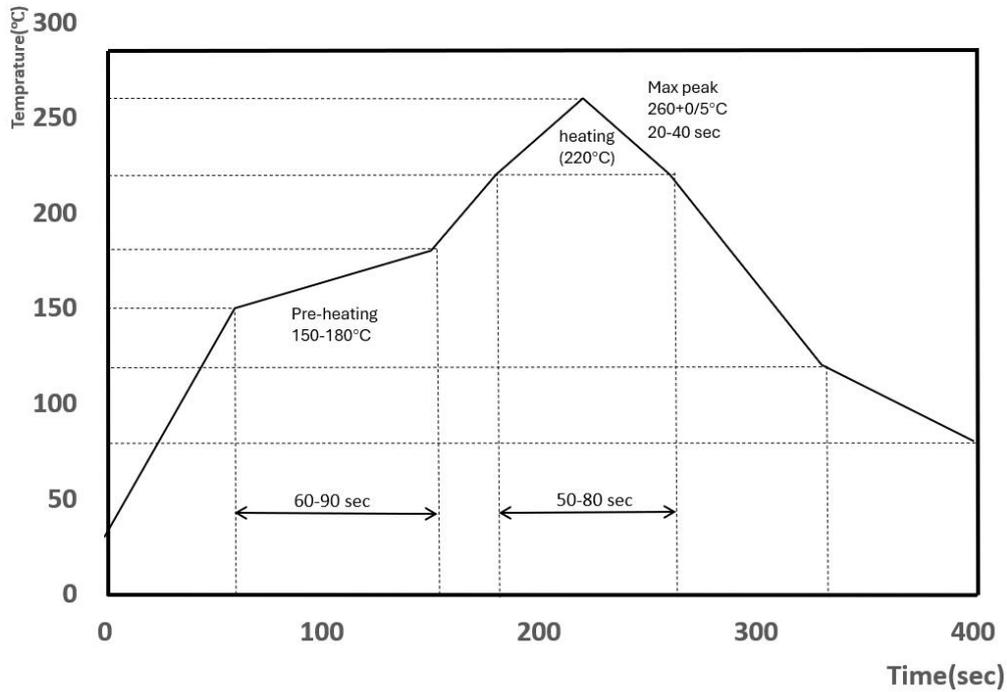


Figure 6 Smith Chart



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: 105°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	