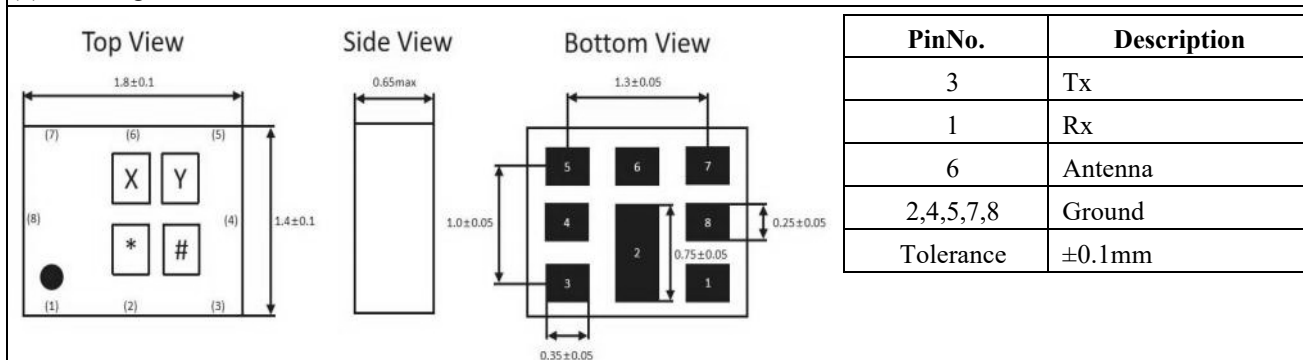


Specification Sheet

Customer Name	XXXX	CUST P/N	NA
Approval No.	PD	Temwell P/N	STSD-836-881-S1814W
Lot No.		Date	2025.04.17
Description	SAW Duplexer	Version	A1

(1)Size Diagram (Unit : MM)

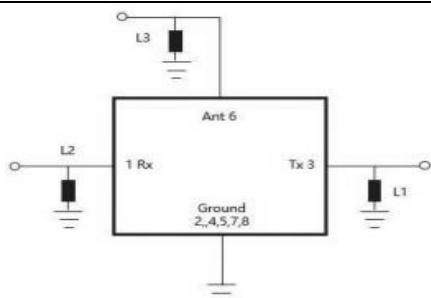


(2)Electrical Specifications

Item			Specification		
Parameter	MHz	Unit	Min.	Typical	Max.
Center Frequency	-	MHz	-	836.5 / 881.5	-
Insertion Loss	824-849	dB	-	1.7	2.3
	869-894	dB	-	1.9	2.7
Ripple Deviation	824-849	dB	-	0.5	1.2
	869-894	dB	-	0.7	1.2
VSWR of Tx Port	824-849	-	-	1.5	2.0
VSWR of Rx Port	869-894	-	-	1.5	2.0
VSWR of Ant Port	824-849	-	-	1.5	2.0
	869-894	-	-	1.5	2.0
Attenuation (824-849)	10-420	dB	35	39	-
	420-494	dB	28	33	-
	494-701	dB	20	26	-
	699-716	dB	20	26	-
	701-728	dB	20	26	-
	728-764	dB	20	26	-
	764-804	dB	23	28	-
	869-894	dB	50	58	-
	1575-1577	dB	30	38	-
	1638-1708	dB	30	40	-
	1805-1880	dB	35	42	-
	1930-1990	dB	33	42	-
	2110-2170	dB	29	37	-
	2400-2494	dB	25	32	-
	2472-2547	dB	25	32	-
	3286-3406	dB	20	26	-
	4900-5950	dB	8	13	-
Attenuation (869-894)	10-447	dB	43	54	-
	447-824	dB	50	60	-
	779-804	dB	42	53	-
	824-849	dB	42	52	-
	1693-1743	dB	42	51	-
	1710-1785	dB	40	48	-
	1850-1920	dB	40	48	-

	1920-1980	dB	25	35	-
	1980-2400	dB	45	56	-
	2400-2500	dB	38	46	-
	2517-2592	dB	38	47	-
	2607-2682	dB	22	30	-
	3476-3576	dB	20	28	-
	4345-4470	dB	12	20	-
	4900-5950	dB	6	10	-
Isolation	824-849	dB	53	57	-
	869-894	dB	50	58	-
	1574-1577	dB	50	58	-
	1683-1708	dB	50	58	-
	2462-2577	dB	43	55	-
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
Tx	L1 : 12.0 nH (Ideal inductor)
Rx	L2 : 17.0 nH (Ideal inductor)
Ant	L3 : 9.0 nH (Ideal inductor)

Figure 1 Electrical Characteristics: Tx to Ant.

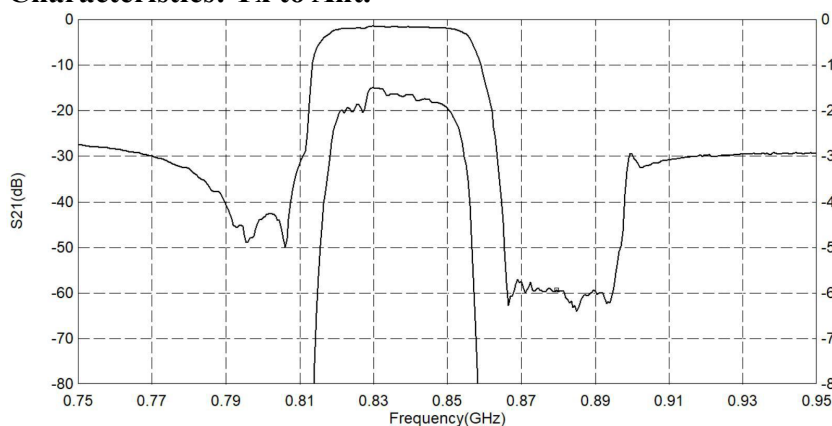


Figure 2 Electrical Characteristics: Tx to Ant.

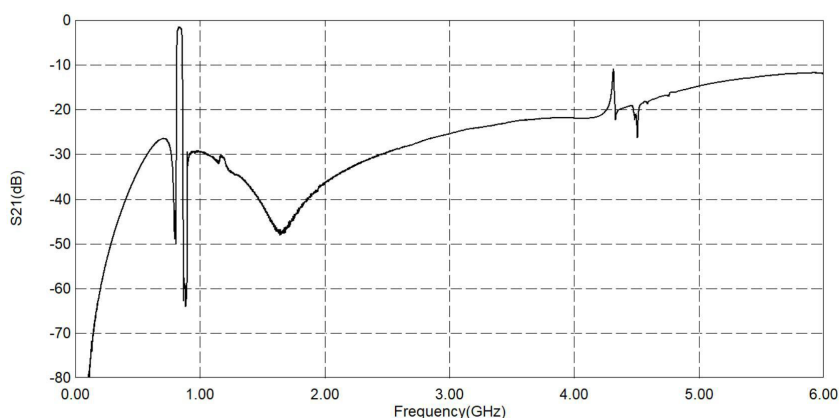


Figure 3 Electrical Characteristics: Ant to Rx.

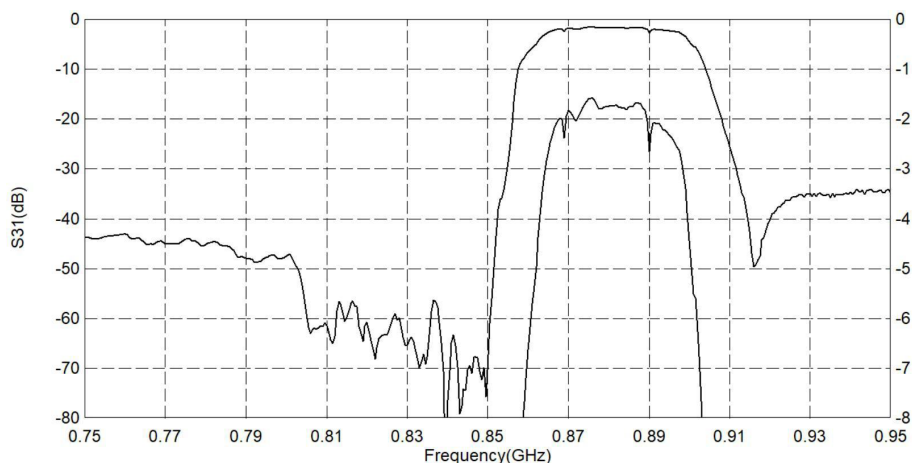


Figure 4 Electrical Characteristics: Ant to Rx.

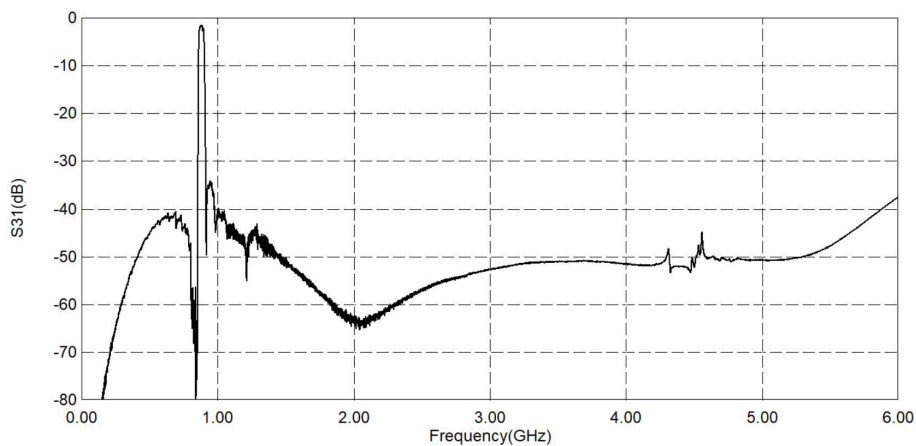


Figure 5 Electrical Characteristics: Tx to Rx.

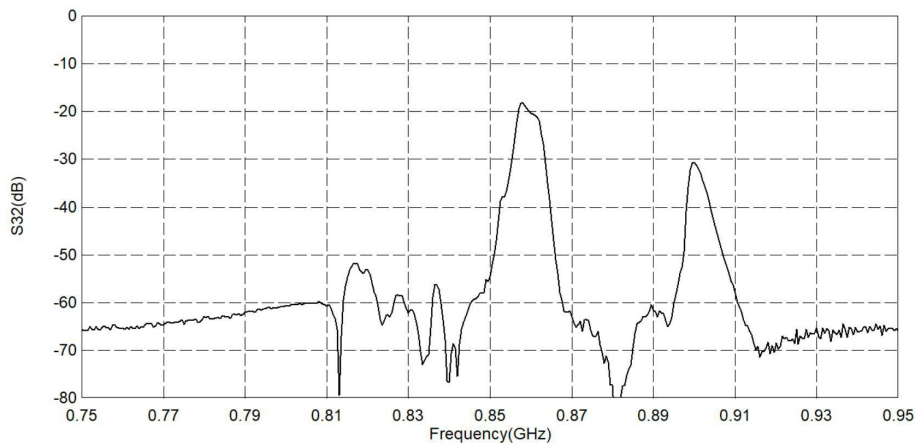


Figure 6 Electrical Characteristics: Tx to Rx.

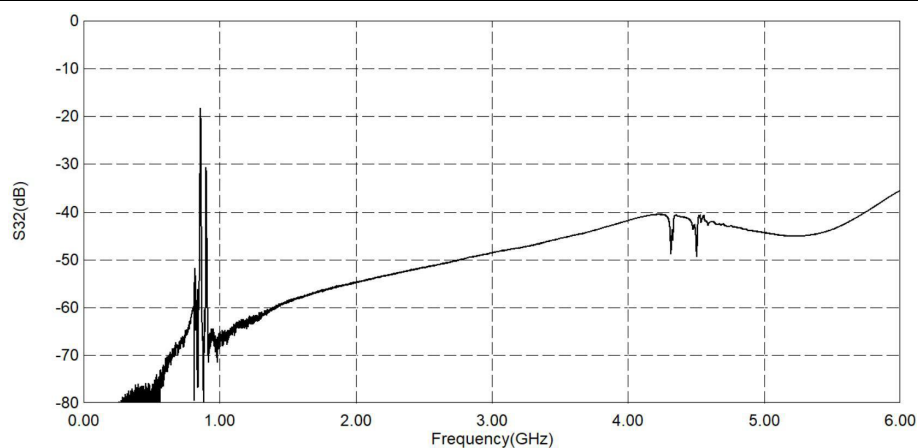
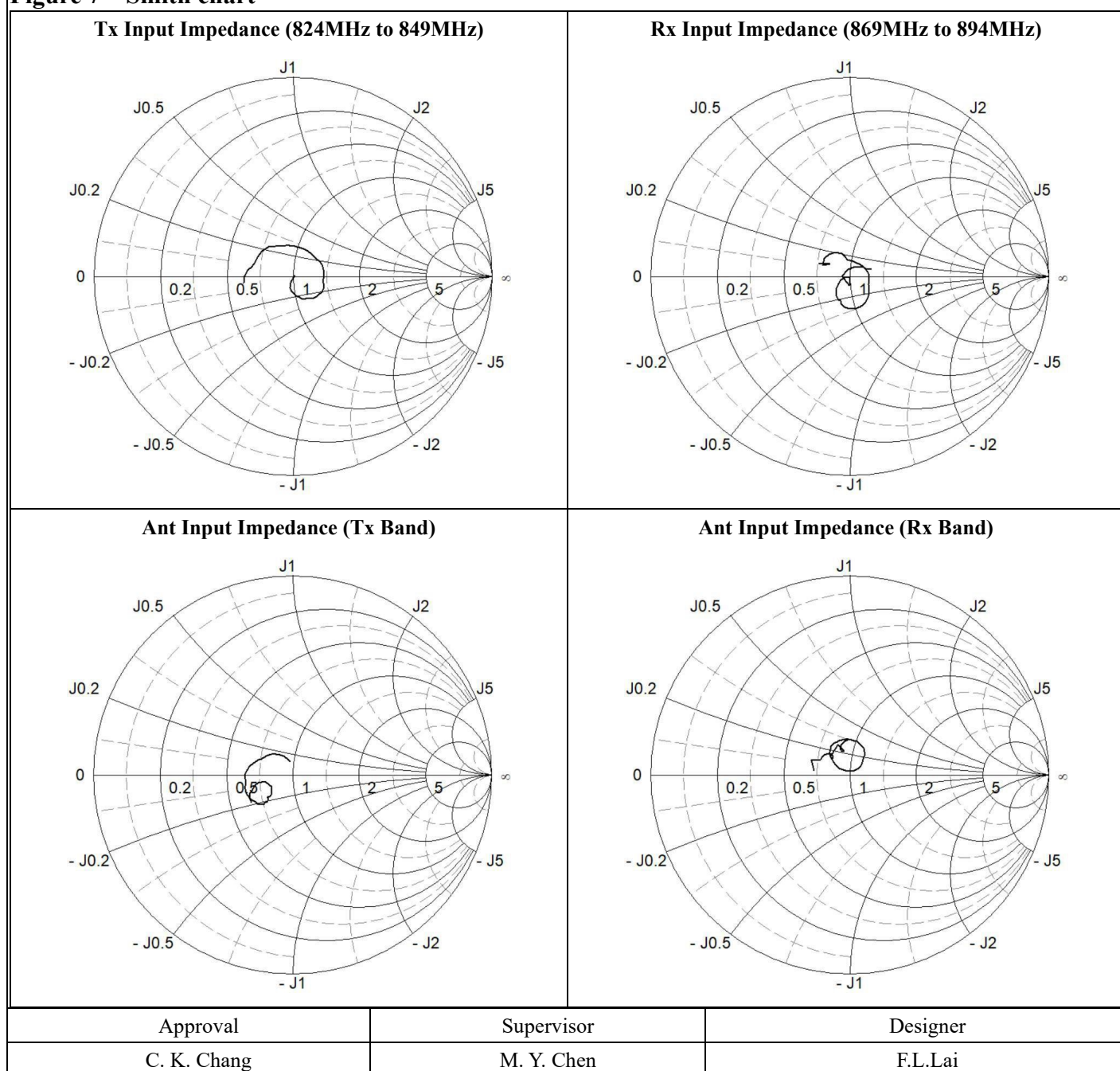
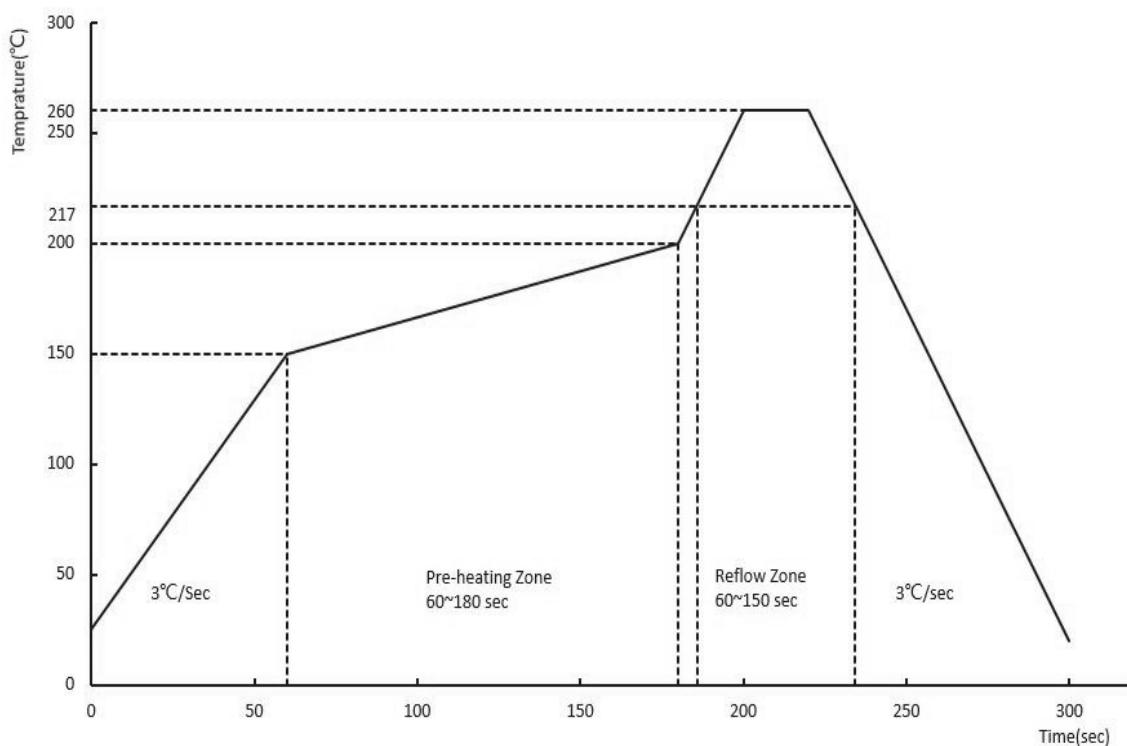


Figure 7 Smith chart



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	