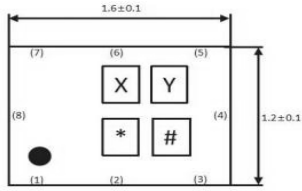
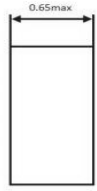
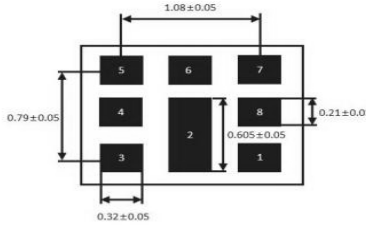


Specification Sheet

Customer Name	XXXX	CUST P/N	NA
Approval No.	PD	Temwell P/N	STSD-897-942-S1612W
Lot No.		Date	2025.04.16
Description	SAW Duplexer	Version	A1

(1)Size Diagram (Unit : MM)

Top View  Side View  Bottom View 	<table> <tr> <th>PinNo.</th><th>Description</th></tr> <tr> <td>1</td><td>Rx</td></tr> <tr> <td>3</td><td>Tx</td></tr> <tr> <td>6</td><td>Antenna</td></tr> <tr> <td>2,4,5,7,8</td><td>Ground</td></tr> <tr> <td>Tolerance</td><td>±0.1mm</td></tr> </table>	PinNo.	Description	1	Rx	3	Tx	6	Antenna	2,4,5,7,8	Ground	Tolerance	±0.1mm
PinNo.	Description												
1	Rx												
3	Tx												
6	Antenna												
2,4,5,7,8	Ground												
Tolerance	±0.1mm												

(2)Electrical Specifications

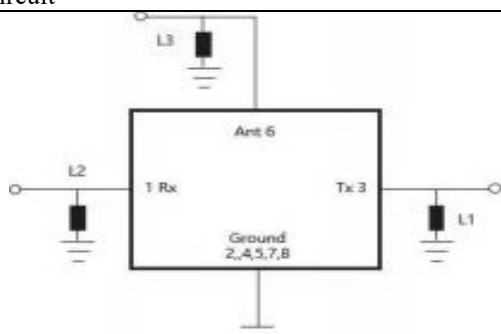
Item			Specification		
Parameter	MHz	Unit	Min.	Typical	Max.
Center Frequency	-	MHz	-	897.5 / 942.5	-
Insertion Loss	882.5-912.5	dB	-	2.5	3.0
	927.5-957.5	dB	-	2.4	3.0
Ripple Deviation	882.5-912.5	dB	-	1.1	1.7
	927.5-957.5	dB	-	0.9	1.5
VSWR of Tx Port	880-915	-	-	1.7	2.0
VSWR of Rx Port	925-960	-	-	1.5	2.0
VSWR of Ant Port	880-915	-	-	1.7	2.0
	925-960	-	-	1.5	2.0
Attenuation (882.5-912.5)	10-716	dB	25	30	-
	716-862	dB	25	30	-
	925.15-959.85	dB	30	38	-
	1559-1563	dB	30	38	-
	1565.42-1585.42	dB	30	39	-
	1597.55-1605.89	dB	35	40	-
	1680-1830	dB	35	42	-
	1805-1990	dB	45	49	-
	2110-2200	dB	45	50	-
	2400-2500	dB	40	47	-
	2620-2745	dB	35	42	-
	3520-3660	dB	20	26	-
	4400-4575	dB	10	17	-
	4900-5950	dB	25	30	-
Attenuation (927.5-957.5)	10-880	dB	35	44	-
	880.15-914.85	dB	22	50	-
	1427-1448	dB	40	48	-
	1710-1980	dB	40	52	-
	2300-2690	dB	40	50	-
	2400-2500	dB	40	50	-
	4900-5950	dB	30	35	-
Isolation	882.5-912.5	dB	50	54	-
	927.5-957.5	dB	50	53	-
Operation Temperature	-20℃~+85℃	℃	-	-	-
Storage Temperature	-40℃~+85℃	℃	-	-	-
RF Power Dissipation	+28.5	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 :15.0 nH (Ideal inductor)
Rx	L2 :22.0 nH (Ideal inductor)
Ant	L3 : 10.0 nH (Ideal inductor)

Figure 1 Electrical Characteristics: Tx to Ant.

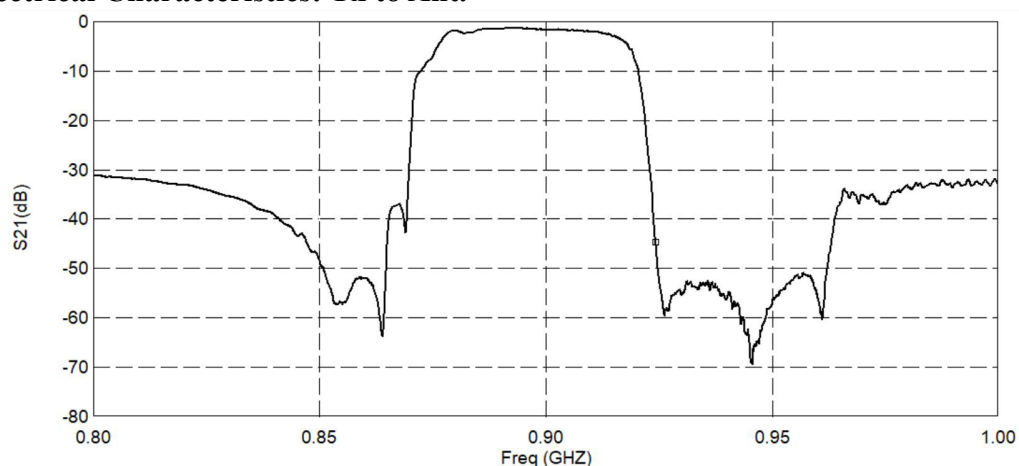


Figure 2 Electrical Characteristics: Tx to Ant.

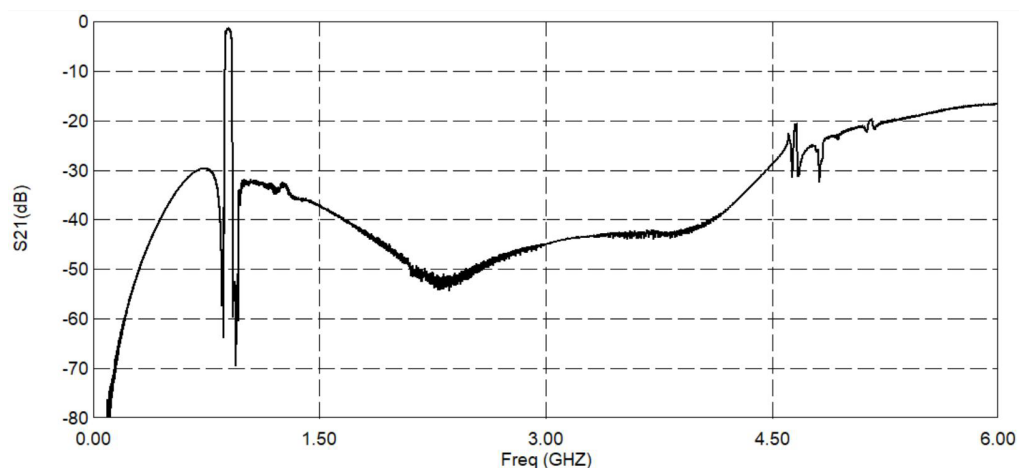


Figure 3 Electrical Characteristics: Ant to Rx.

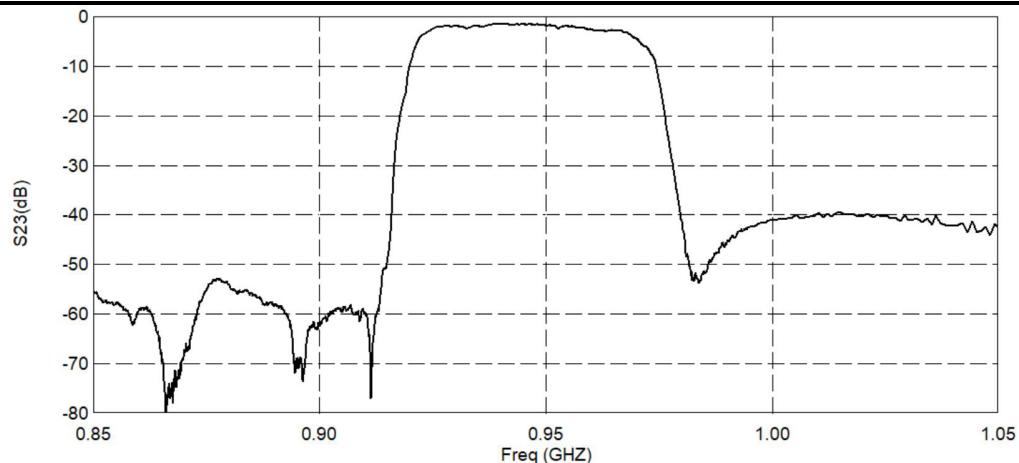


Figure 4 Electrical Characteristics: Ant to Rx.

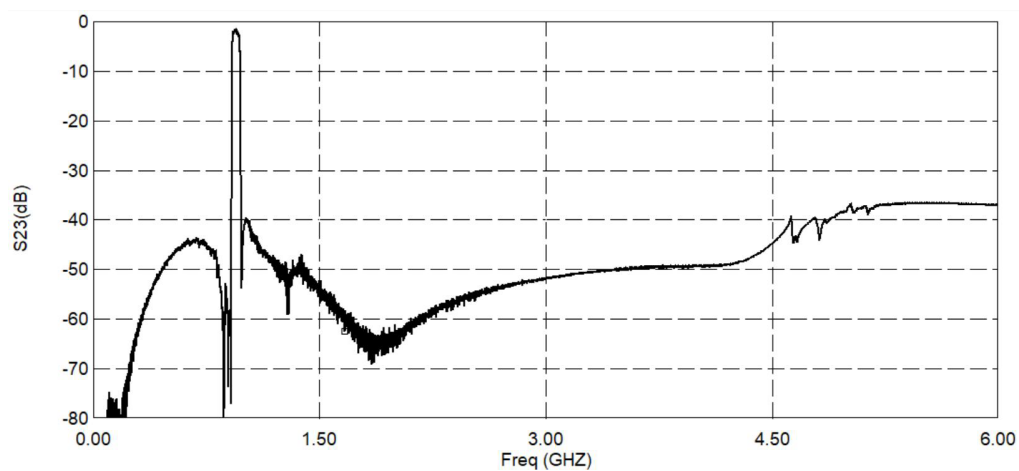


Figure 5 Electrical Characteristics: Tx to Rx.

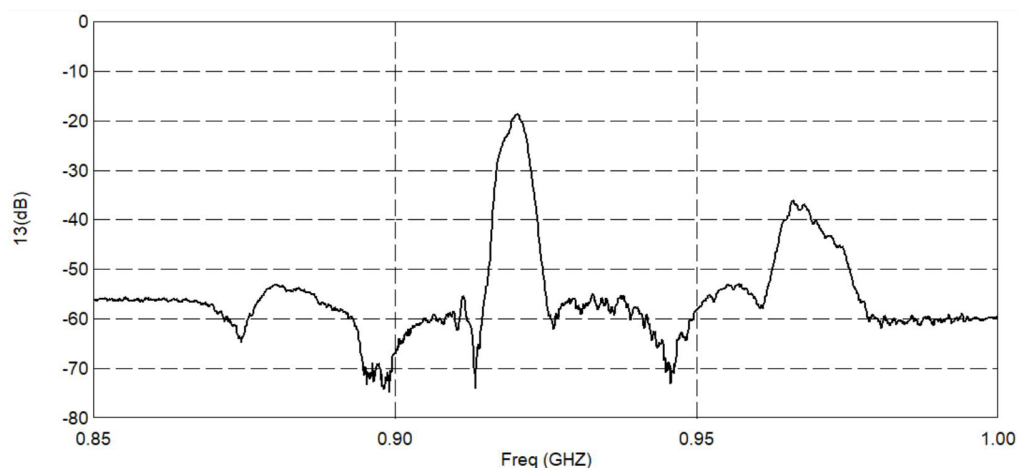


Figure 6 Electrical Characteristics: Tx to Rx.

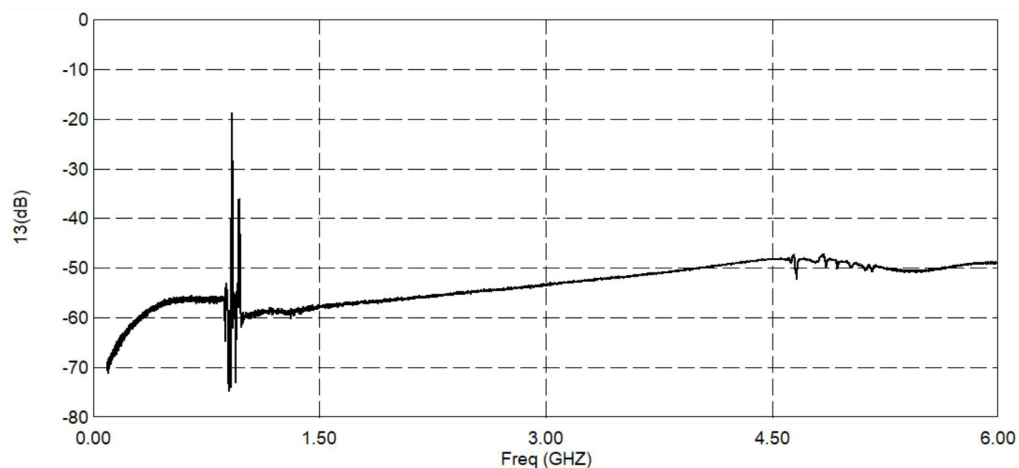
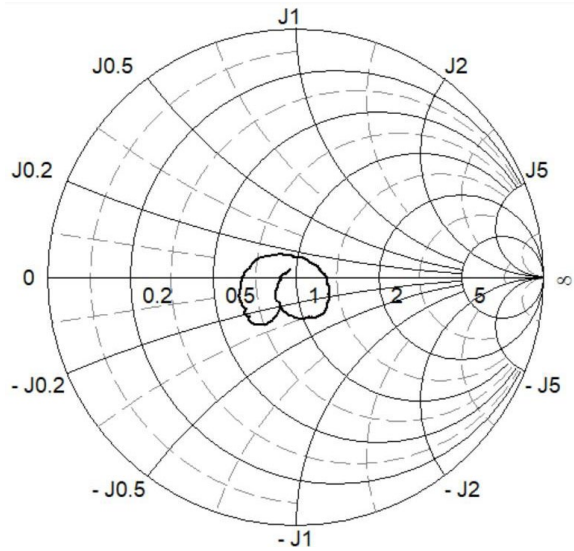
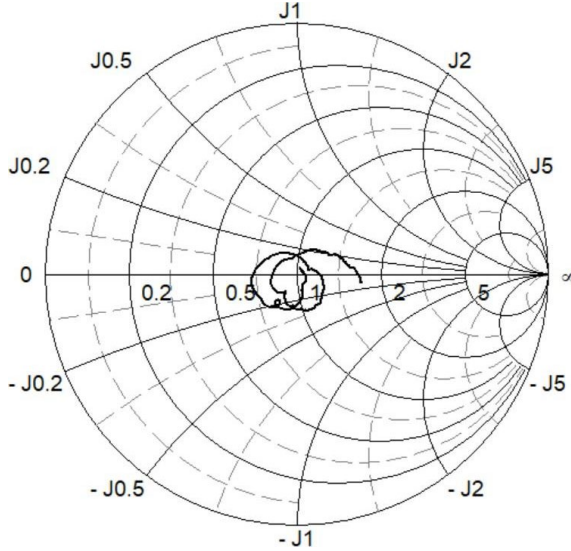
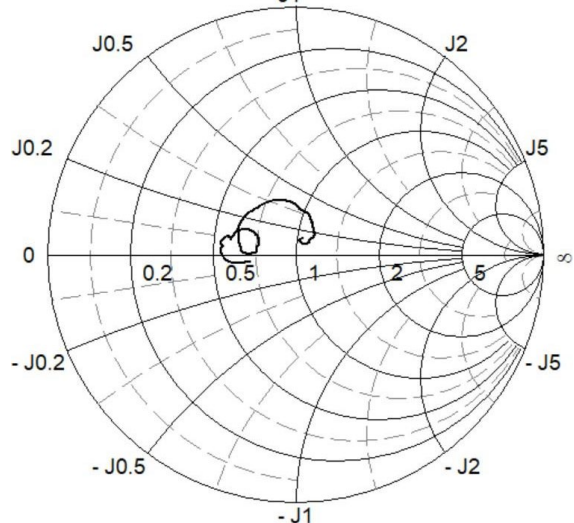
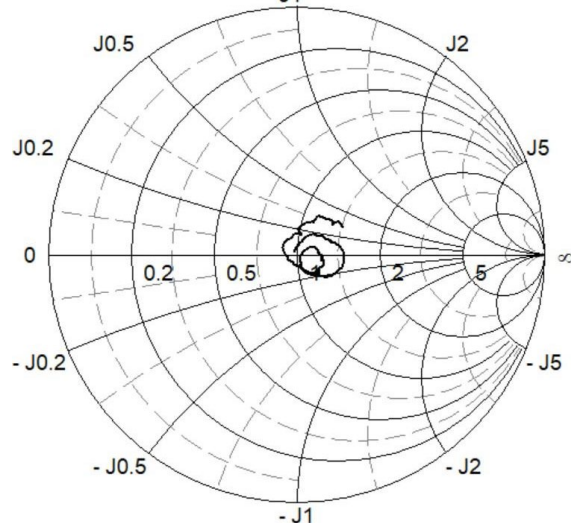
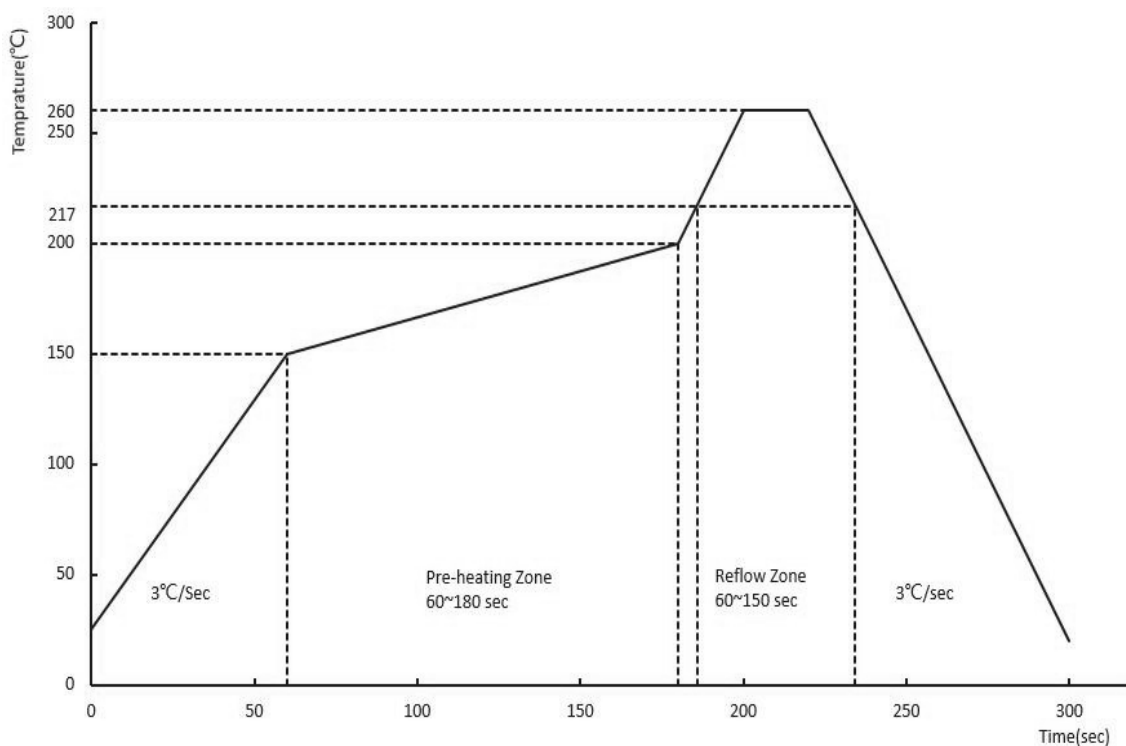


Figure 7 Smith chart

Tx Input Impedance (880MHz to 915MHz) 	Rx Input Impedance (925MHz to 960MHz) 	
Ant Input Impedance (Tx Band) 	Ant Input Impedance (Rx Band) 	
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	