

Specification Sheet

Customer Name	XXXX	CUST P/N	NA
Approval No.	PD	Temwell P/N	STSD-2535-2655-S1612W
Lot No.		Date	2025.04.16
Description	SAW Duplexer	Version	A1

(1) Size Diagram (Unit : MM)

Top View

Side View

Bottom View

PinNo.	Description
1	Rx
3	Tx
6	Antenna
2,4,5,7,8	Ground
Tolerance	±0.1mm

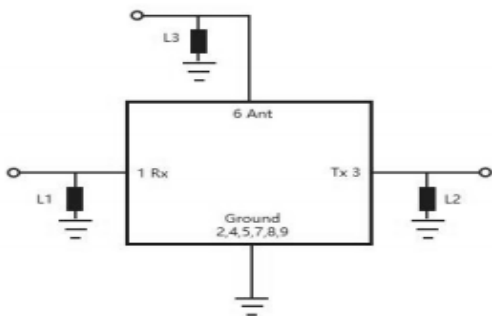
(2) Electrical Specifications

Parameter	Item		Specification		
	MHz	Unit	Min.	Typical	Max.
Center Frequency	-	MHz	-	2535 / 2655	-
Insertion Loss	2500-2570	dB	-	2.0	2.4
	2620-2690	dB	-	2.0	2.4
Ripple Deviation	2500-2570	dB	-	1.0	1.6
	2620-2690	dB	-	0.7	1.5
VSWR of Tx Port	2500-2570	-	-	1.5	2.0
VSWR of Rx Port	2620-2690	-	-	1.7	2.0
VSWR of Ant Port	2500-2570	-	-	1.5	2.0
	2620-2690	-	-	1.6	2.0
Attenuation (2500-2570)	10-1559	dB	35	40	-
	791-821	dB	35	52	-
	1166.22-1254	dB	35	43	-
	1559-1563	dB	35	40	-
	1565.42-1585.42	dB	35	40	-
	1597.55-1605.89	dB	35	40	-
	1805-1880	dB	35	36	-
	2110-2170	dB	33	35	-
	2401-2468	dB	35	36	-
	2451-2473	dB	20	35	-
	2456-2478	dB	15	20	-
	2461-2483	dB	4.5	6.5	-
	2620-2690	dB	45	62	-
	3300-3800	dB	30	35	-
	3800-4200	dB	30	42	-
	4400-5000	dB	30	47	-
5000-5140	dB	30	50	-	
5150-5925	dB	20	43	-	
7500-7710	dB	20	35	-	
Attenuation (2620-2690)	10-2500	dB	33	38	-
	718-748	dB	40	55	-
	832-862	dB	40	53	-
	880-915	dB	40	52	-
	1710-1785	dB	36	40	-
	1920-1980	dB	33	38	-

	2400-2483	dB	35	45	-
	2500-2570	dB	37	50	-
	5150-5925	dB	30	50	-
	7620-7830	dB	20	45	-
Isolation	2500-2570	dB	50	53	-
	2620-2690	dB	53	55	-
Operation Temperature	-20°C~+85°C	°C	-	-	-
Storage Temperature	-40°C~+85°C	°C	-	-	-
RF Power Dissipation	+30	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	L2 : 6.0 nH (Ideal inductor)
Rx	L1 : 15.3 nH (Ideal inductor)
Ant	L3 : 2.4 nH (Ideal inductor)

Figure 1 Electrical Characteristics: Tx to Ant.

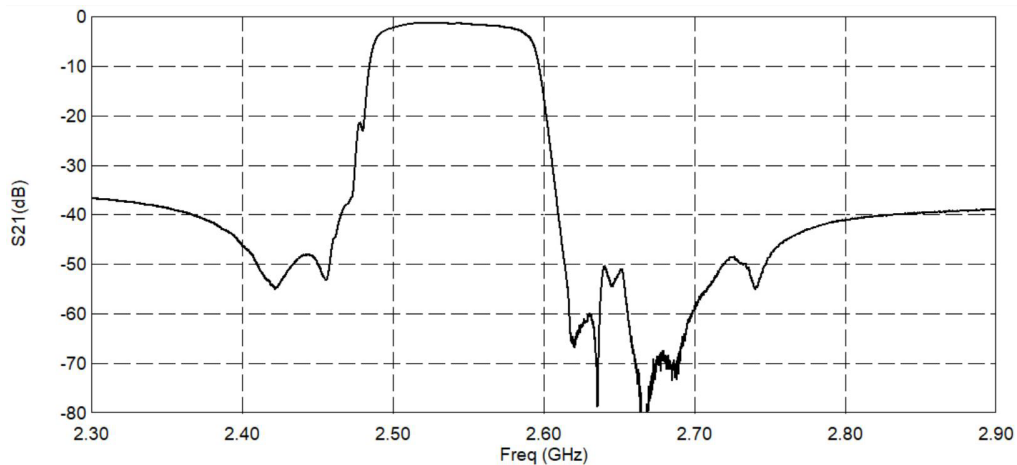


Figure 2 Electrical Characteristics: Tx to Ant.

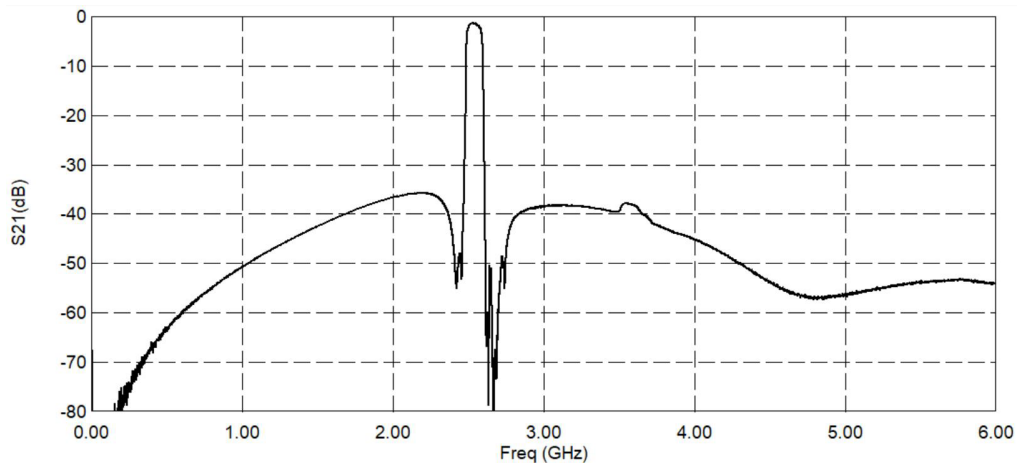


Figure 3 Electrical Characteristics: Ant to Rx.

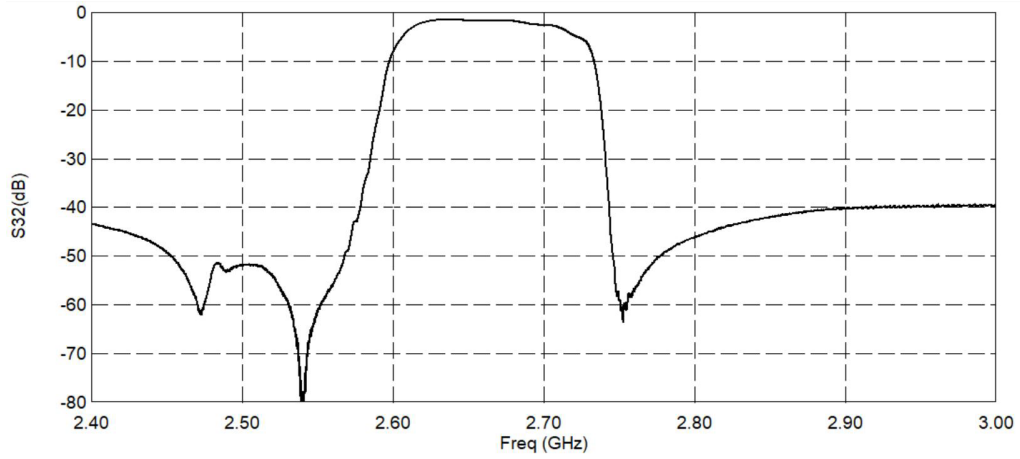


Figure 4 Electrical Characteristics: Ant to Rx.

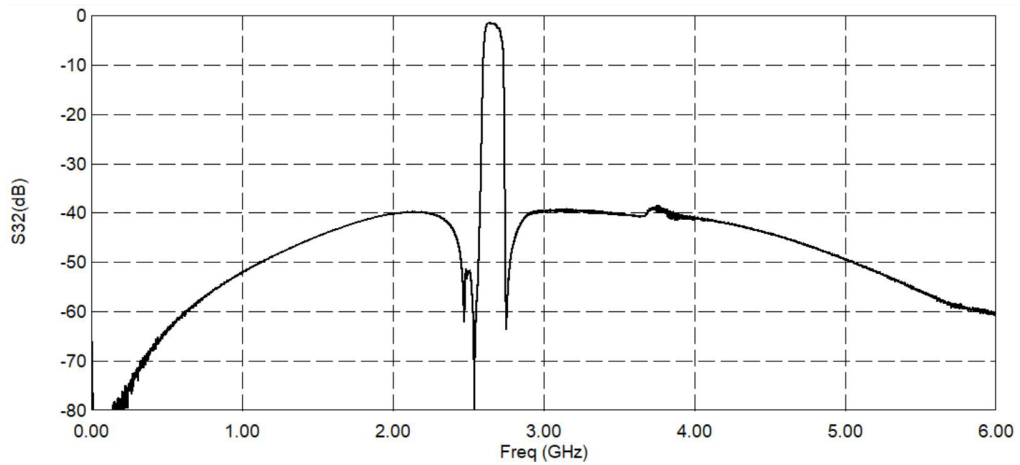


Figure 5 Electrical Characteristics: Tx to Rx.

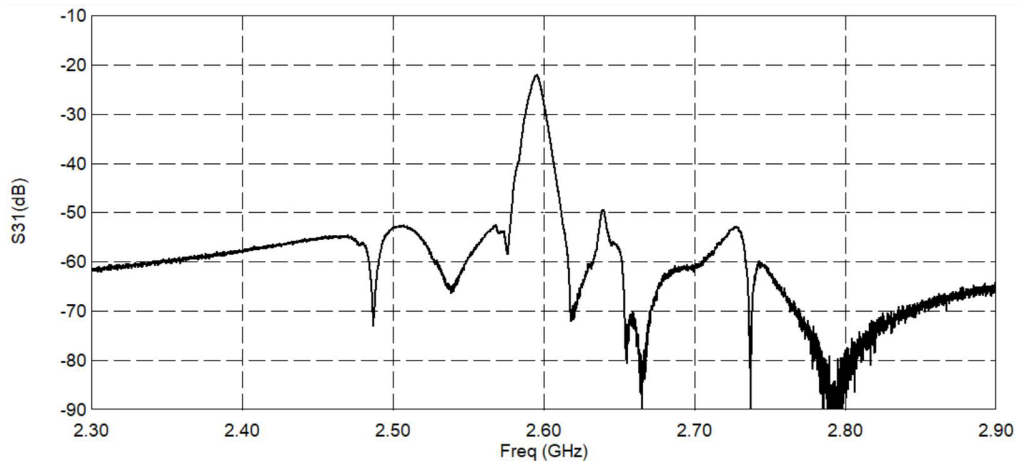


Figure 6 Electrical Characteristics: Tx to Rx.

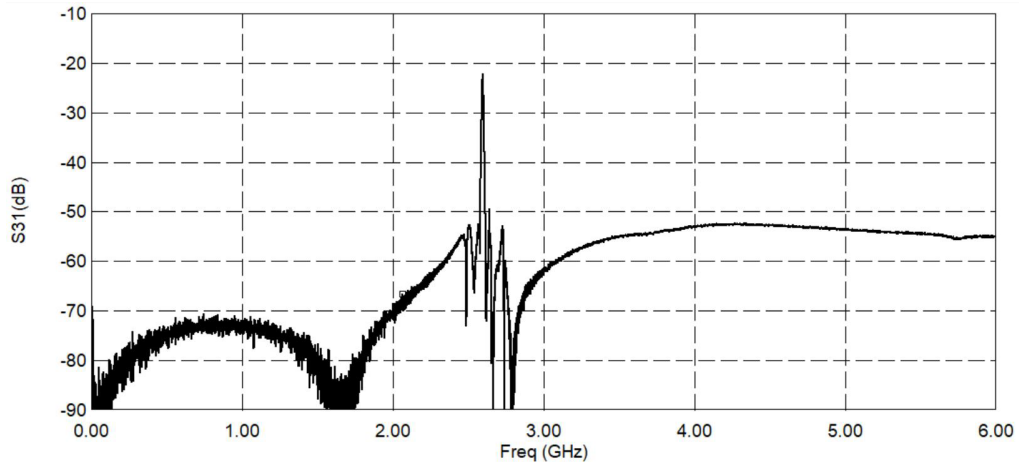
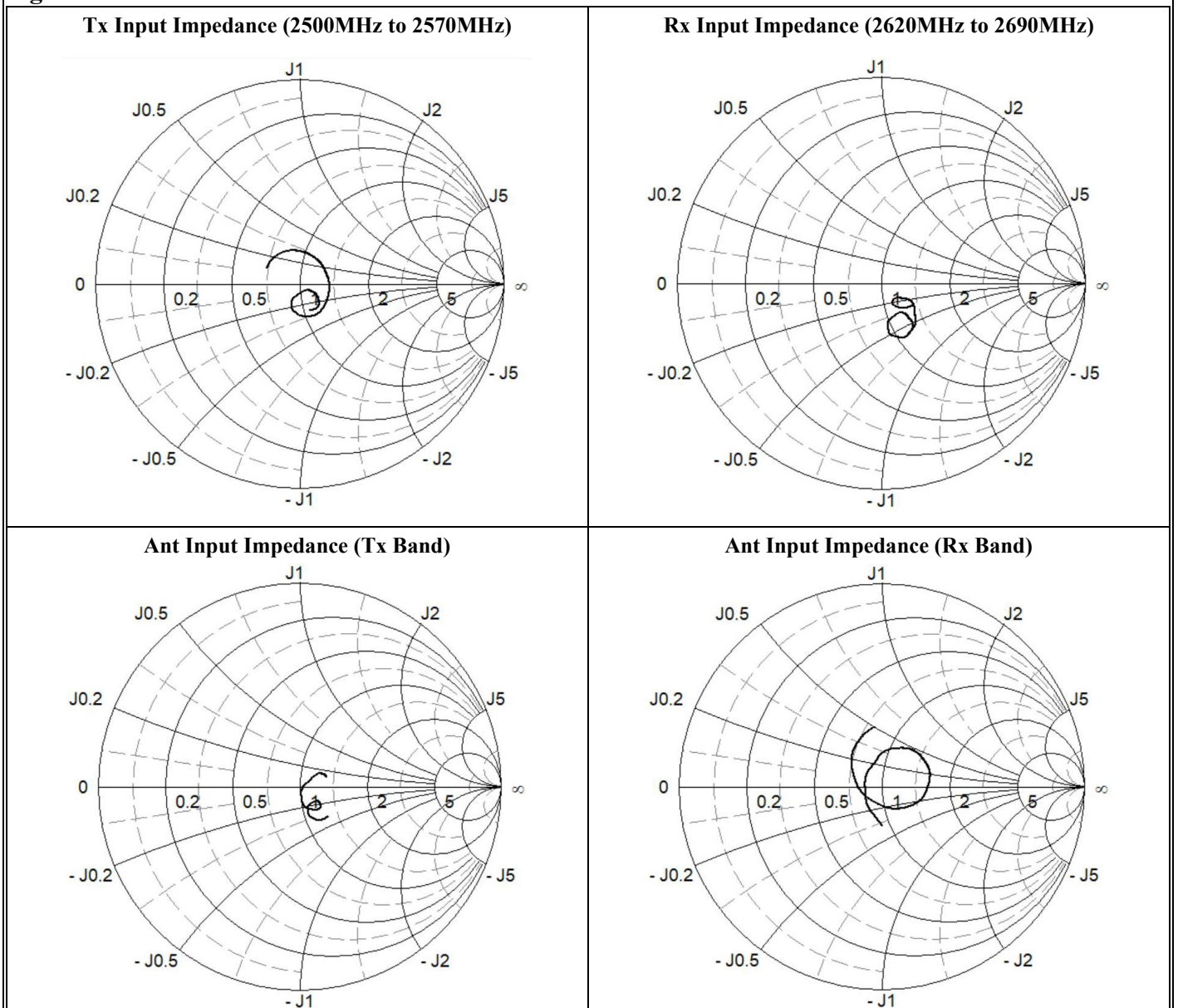
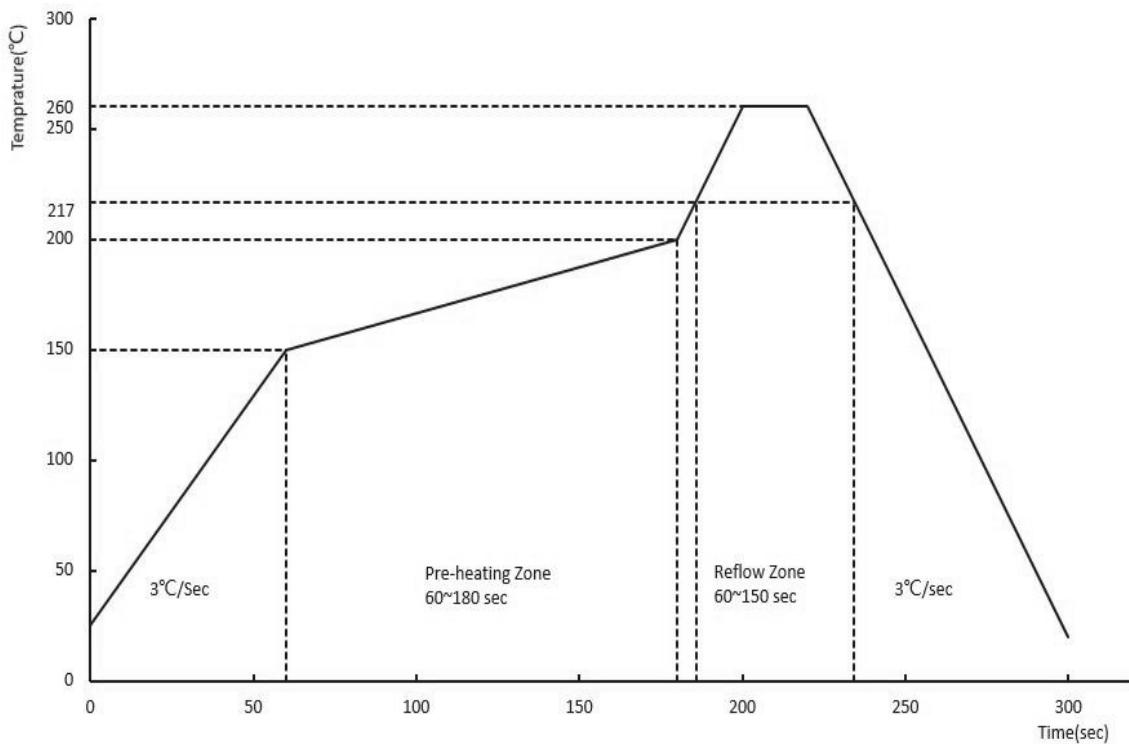


Figure 7 Smith chart



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	