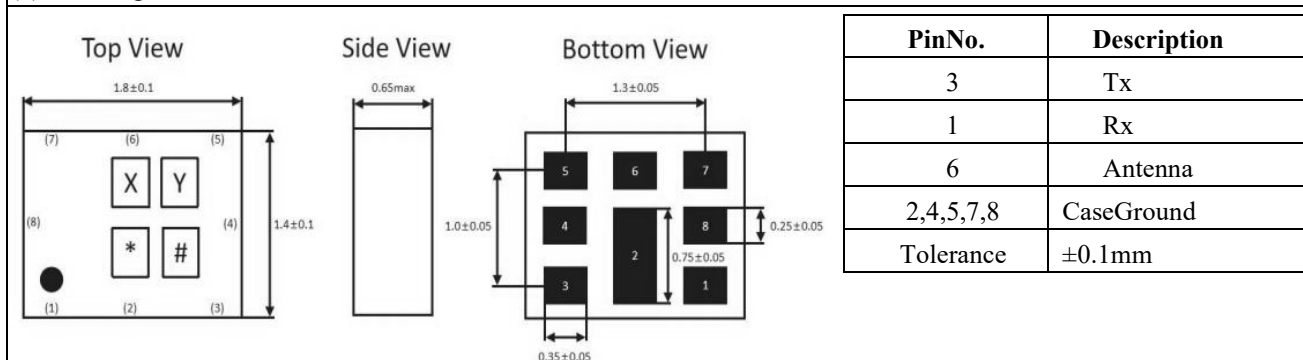


Specification Sheet

Customer Name	XXXX	CUST P/N	NA
Approval No.	PD	Temwell P/N	STSD-707-737-S1814W
Lot No.		Date	2025.04.18
Description	SAW Duplexer	Version	A1

(1)Size Diagram (Unit : MM)



(2)Electrical Specifications

Item			Specification		
Parameter	MHz	Unit	Min.	Typical	Max.
Center Frequency	-	MHz	-	707.5 / 737.5	-
Insertion Loss	699.25-715.75	dB	-	2.2	2.7
	729.25-745.75	dB	-	2.3	2.6
Ripple Deviation	699.25-715.75	dB	-	1.0	1.5
	729.25-745.75	dB	-	0.9	1.5
VSWR of Tx Port	699.25-715.75	-	-	1.7	2.0
VSWR of Rx Port	729.25-745.75	-	-	1.7	1.9
VSWR of Ant Port	699.25-715.75	-	-	1.7	2.0
	729.25-745.75	-	-	1.8	2.0
Attenuation (699.25-715.75)	10-685	dB	25	30	-
	722-729	dB	4	7	-
	729.25-745.75	dB	45	54	-
	746-768	dB	25	32	-
	768-805	dB	25	32	-
	824-849	dB	25	31	-
	869-894	dB	28	31	-
	1398-1432	dB	30	34	-
	1559-1563	dB	31	37	-
	1565.42-1573.37	dB	31	37	-
	1573.37-1577.47	dB	31	37	-
	1577.47-1585.42	dB	31	37	-
	1597.55-1605.89	dB	31	37	-
	1710-1755	dB	35	40	-
	1805-1880	dB	35	42	-
	1930-1990	dB	40	46	-
	2097-2155	dB	35	42	-
	2155-2170	dB	45	52	-
	2400-2484	dB	45	55	-
	2816-2864	dB	38	44	-
Attenuation (729.25-745.75)	4900-5950	dB	18	25	-
	10-699	dB	40	56	-
	30-30	dB	50	100	-
	699.25-715.75	dB	45	56	-

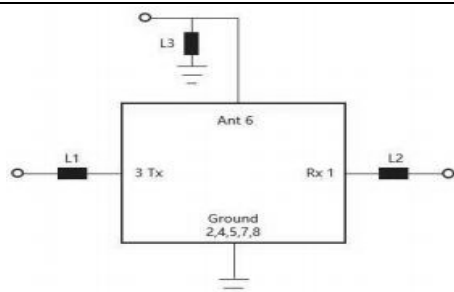
	716-722	dB	5	12	-
	776-793	dB	30	39	-
	793-805	dB	35	40	-
	824-849	dB	40	50	-
	1710-1755	dB	40	50	-
	1850-1920	dB	40	50	-
	2187-2238	dB	40	48	-
	2400-2500	dB	40	48	-
	4900-5950	dB	40	48	-
Isolation	699.25-715.75	dB	53	58	-
	729.25-745.75	dB	53	58	-
Operation Temperature	-20°C~+85°C	°C	-	-	-
Storage Temperature	-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 : 15 nH (Ideal inductor)
Rx	L2 : 5.4 nH (Ideal inductor)
Ant	L3 : 4.2 nH (Ideal inductor)

Figure 1 Electrical Characteristics: Tx to Ant.

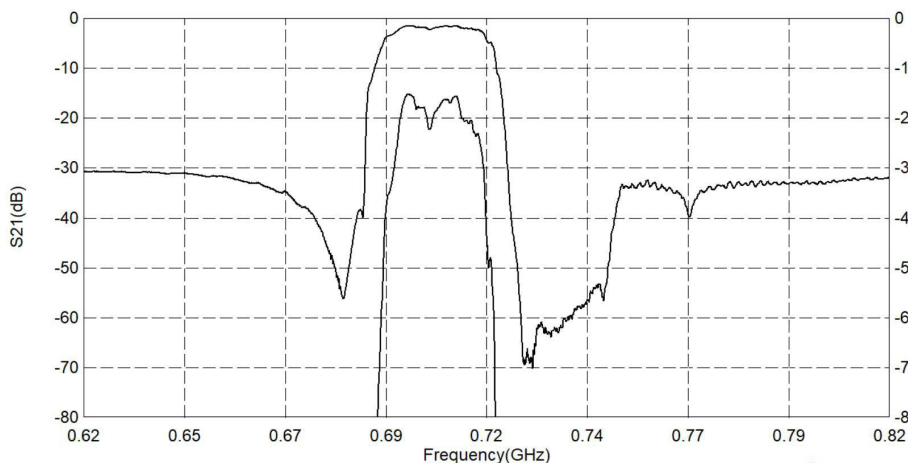


Figure 2 Electrical Characteristics: Tx to Ant.

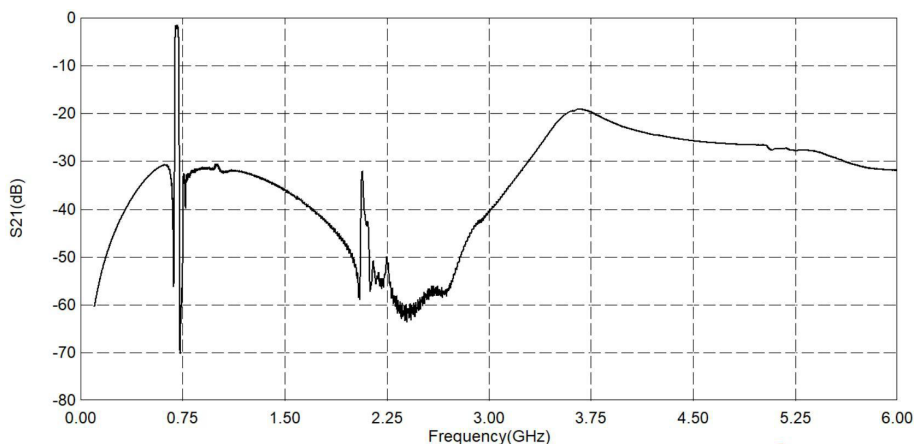


Figure 3 Electrical Characteristics: Ant to Rx.

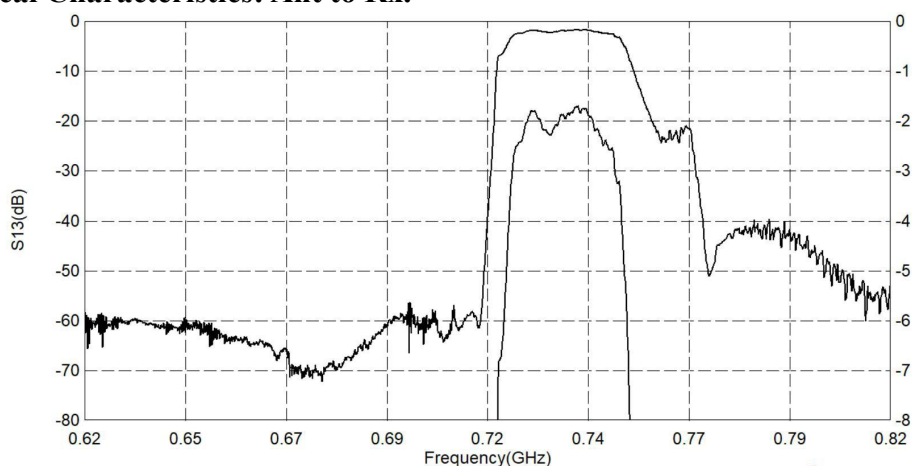


Figure 4 Electrical Characteristics: Ant to Rx.

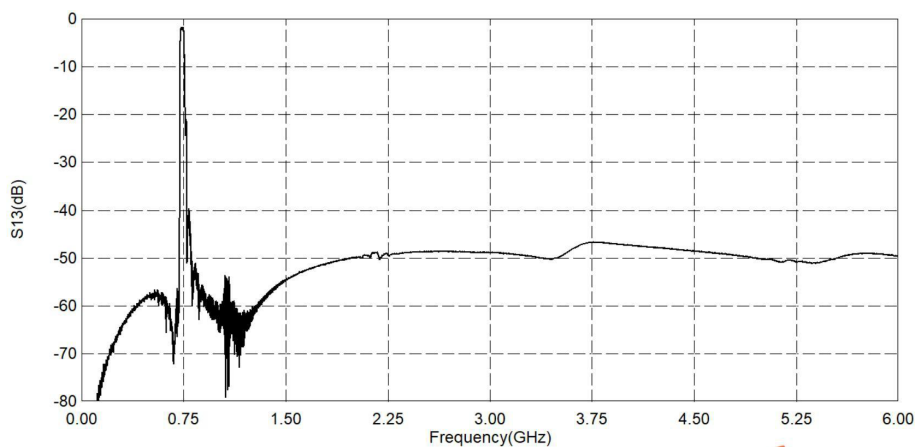


Figure 5 Electrical Characteristics: Tx to Rx.

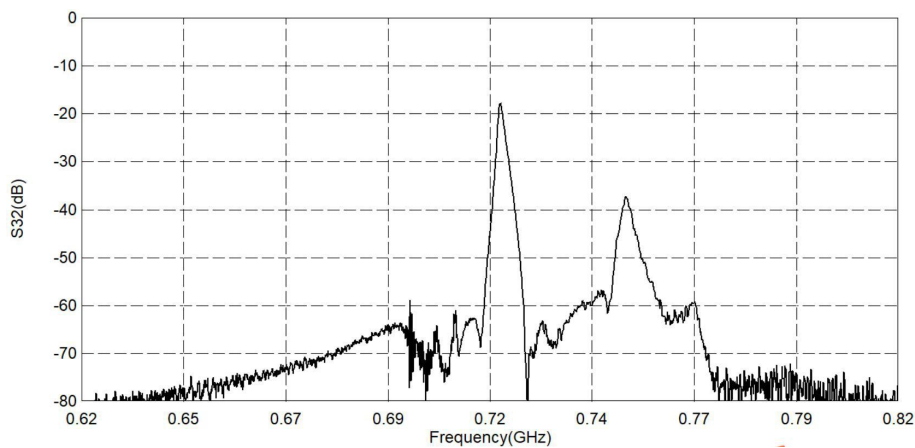


Figure 6 Electrical Characteristics: Tx to Rx.

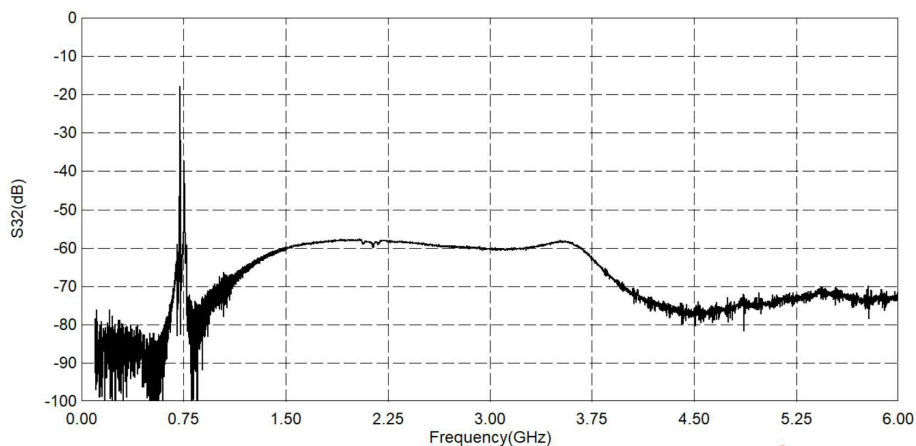
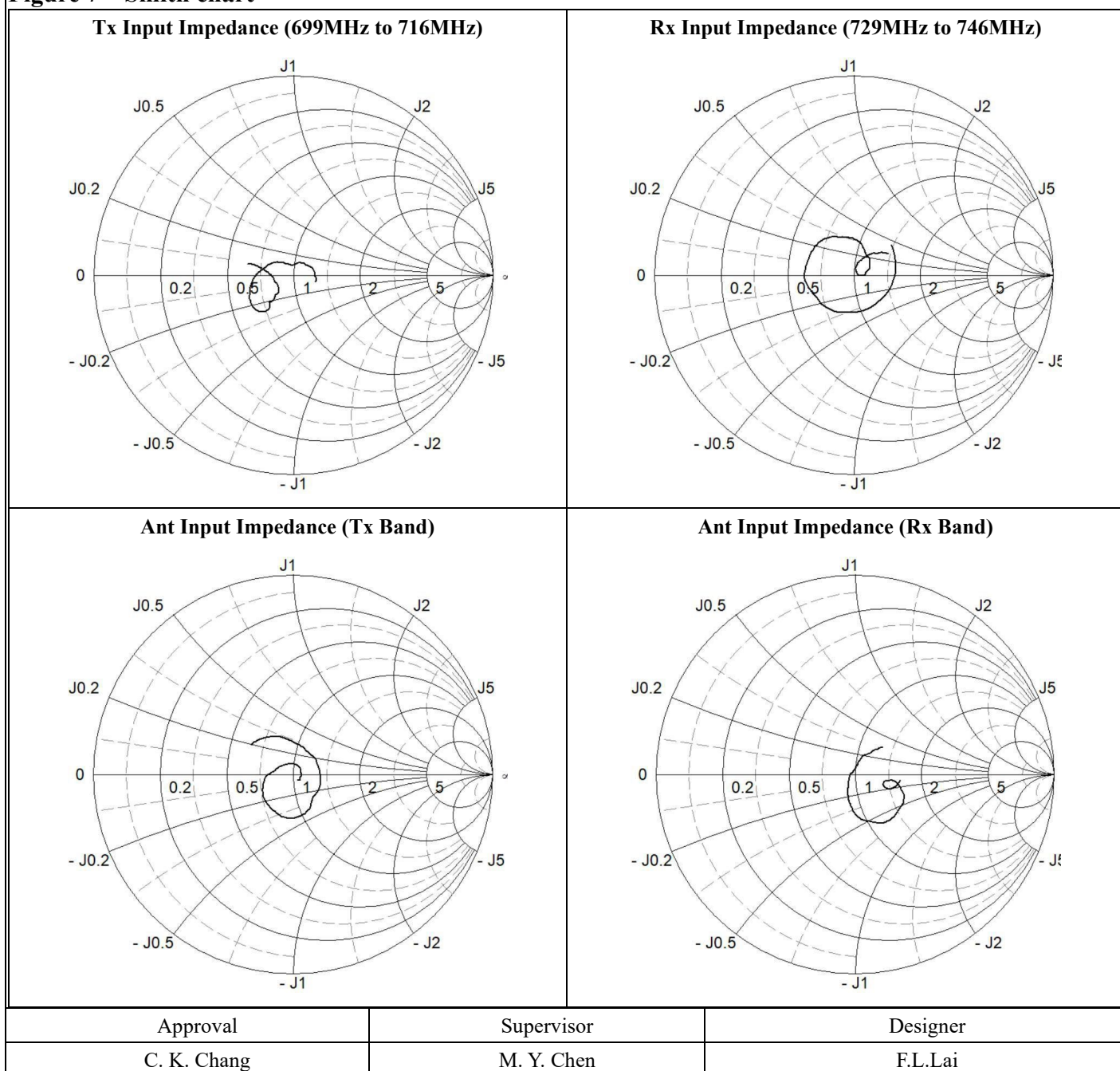
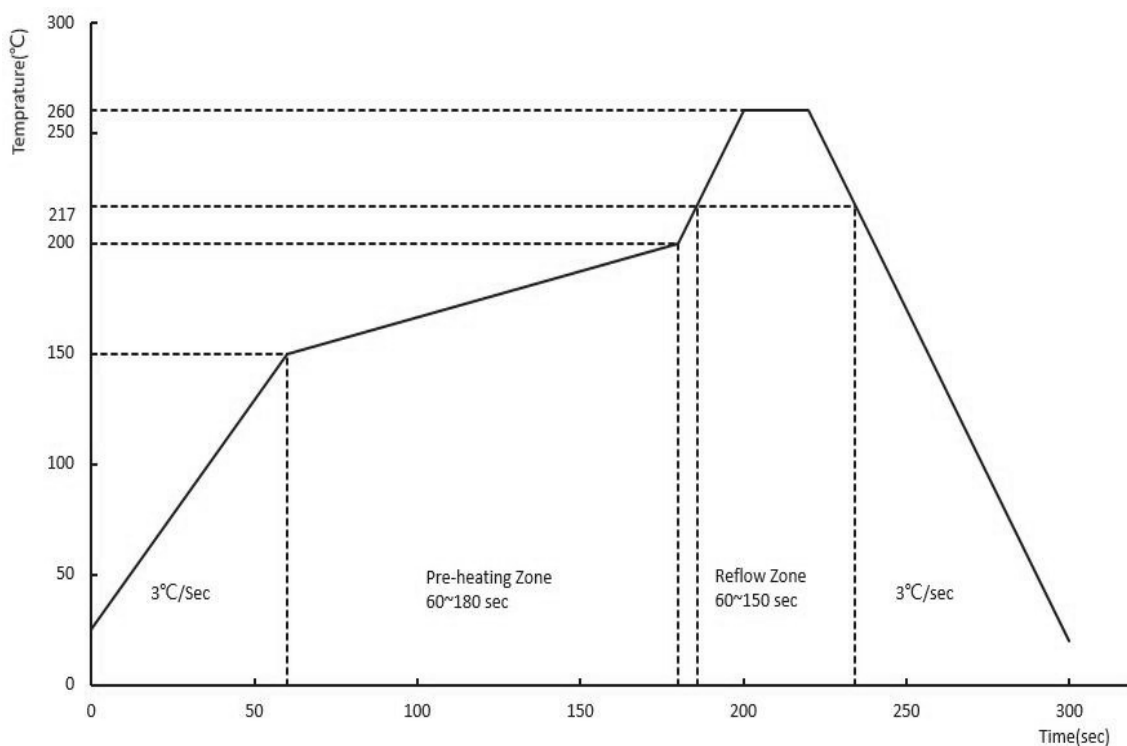


Figure 7 Smith chart



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	