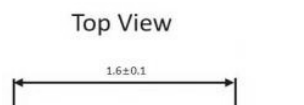


Specification Sheet

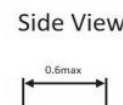
Customer Name	XXXX	CUST P/N	NA
Approval No.	PD	Temwell P/N	STSD-733-788-S1612W
Lot No.		Date	2025.04.17
Description	SAW Duplexer	Version	A1

(1)Size Diagram (Unit : MM)

Top View



Side View



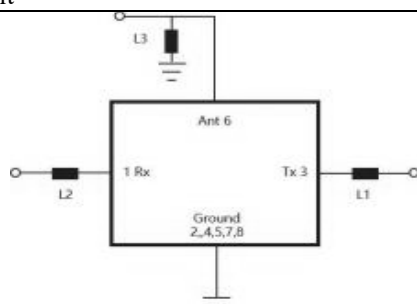
Bottom View

(2)Electrical Specifications

Item			Specification		
Parameter	MHz	Unit	Min.	Typical	Max.
Center Frequency	-	MHz	-	733 / 788	-
Insertion Loss	718.25-747.75	dB	-	2.6	3.0
	773.25-802.75	dB	-	2.7	3.3
Ripple Deviation	718-748	dB	-	1.3	1.6
	773-803	dB	-	1.2	1.8
VSWR of Tx Port	718-748	-	-	1.7	2.0
VSWR of Rx Port	773-803	-	-	1.8	2.1
VSWR of Ant Port	718-748	-	-	1.7	2.0
	773-803	-	-	1.8	2.1
Attenuation (718-748)	10-698	dB	29	34	-
	698-710	dB	34	39	-
	758-773	dB	12	18	-
	773-803	dB	45	52	-
	859-894	dB	30	36	-
	1225-1250	dB	38	44	-
	1436-1510	dB	35	39	-
	1559-1563	dB	35	39	-
	1565.42-1573.37	dB	35	39	-
	1573.37-1577.47	dB	35	39	-
	1577.47-1585.42	dB	35	39	-
	1597.55-1605.89	dB	35	39	-
	1805-1880	dB	35	39	-
	1930-1995	dB	35	40	-
	2010-2025	dB	35	40	-
	2154-2244	dB	34	39	-
	2400-2484	dB	25	31	-
	2570-2620	dB	21	26	-
	2872-2992	dB	20	24	-
	4900-5950	dB	14	19	-
Attenuation (733-803)	10-703	dB	45	49	-
	703-718	dB	46	52	-
	718-748	dB	49	54	-
	880-915	dB	40	44	-
	2400-2496	dB	50	60	-

Isolation	2496-2690	dB	50	60	-
	4900-5900	dB	50	60	-
	718-748	dB	52	56	-
	773-803	dB	52	57	-
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 : 10.9 nH (Ideal inductor)
Rx	L2 : 4.0 nH (Ideal inductor)
Ant	L3 : 10.8 nH (Ideal inductor)

Figure 1 Electrical Characteristics: Tx to Ant.

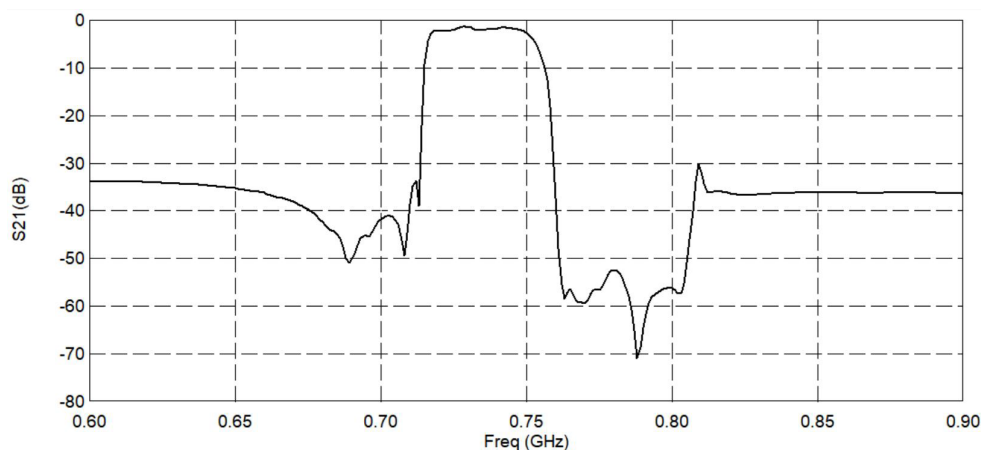


Figure 2 Electrical Characteristics: Tx to Ant.

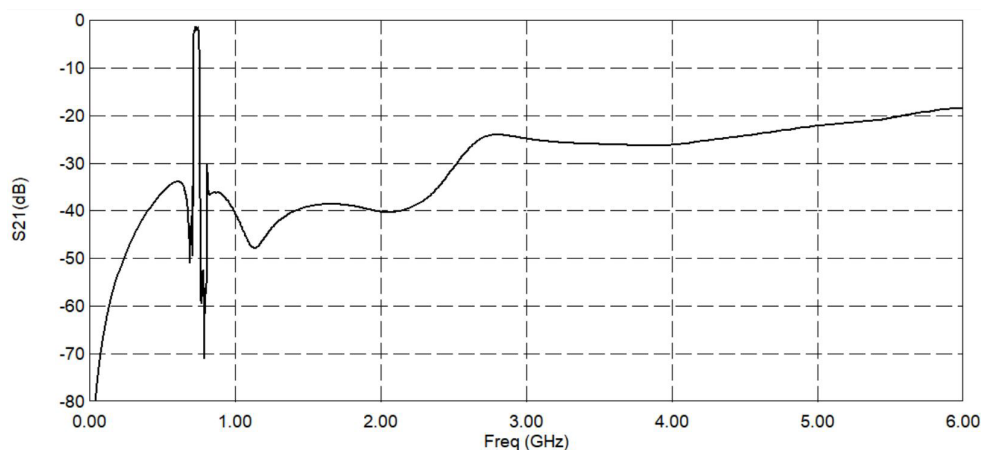


Figure 3 Electrical Characteristics: Ant to Rx.

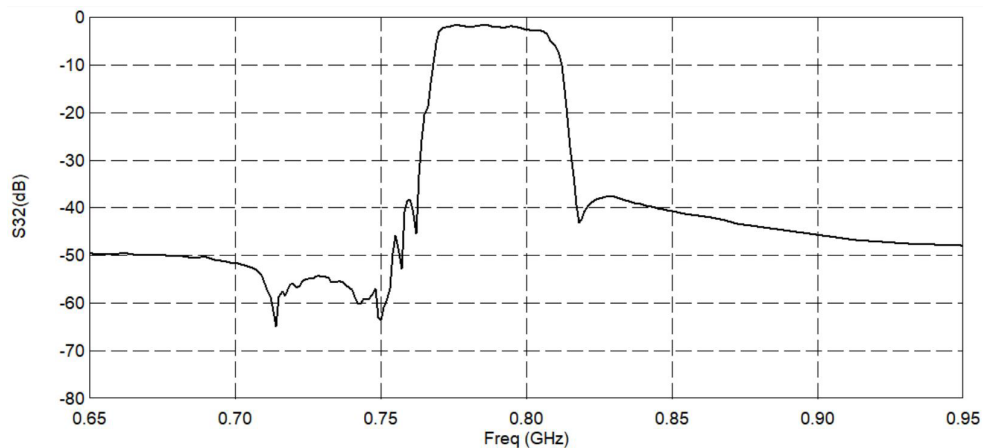


Figure 4 Electrical Characteristics: Ant to Rx.

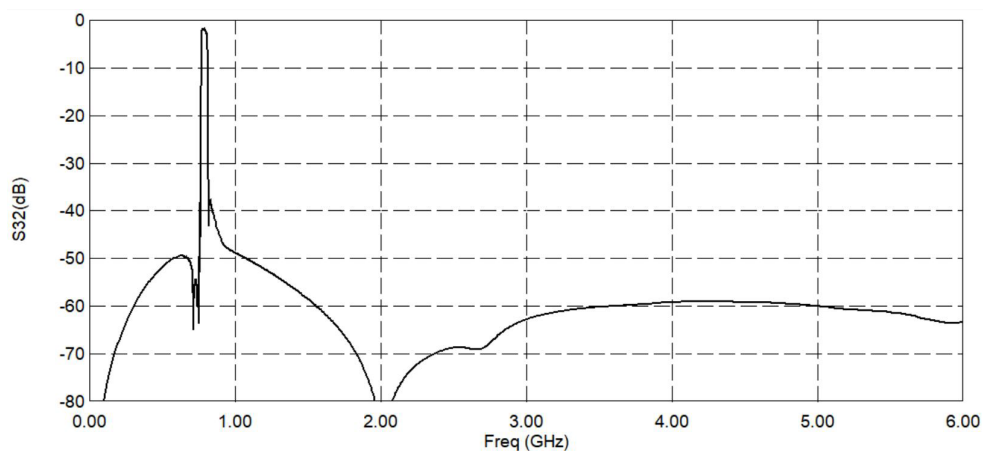


Figure 5 Electrical Characteristics: Tx to Rx.

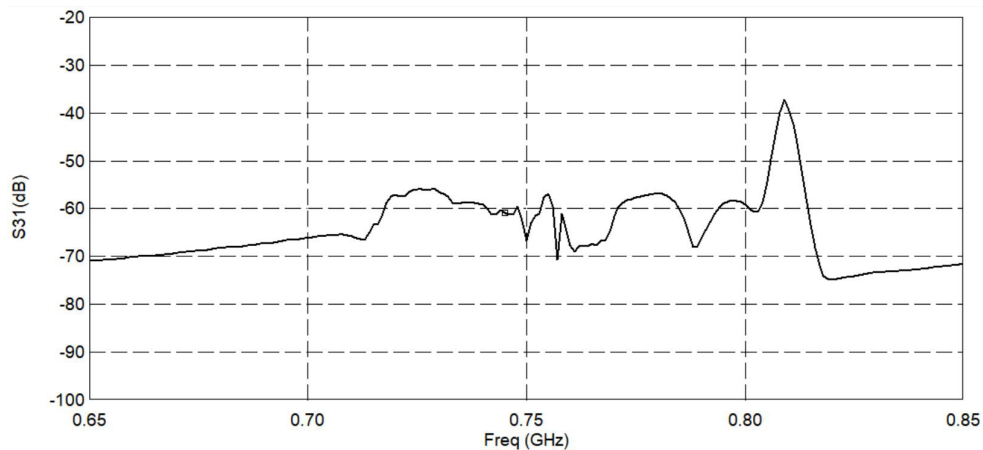


Figure 6 Electrical Characteristics: Tx to Rx.

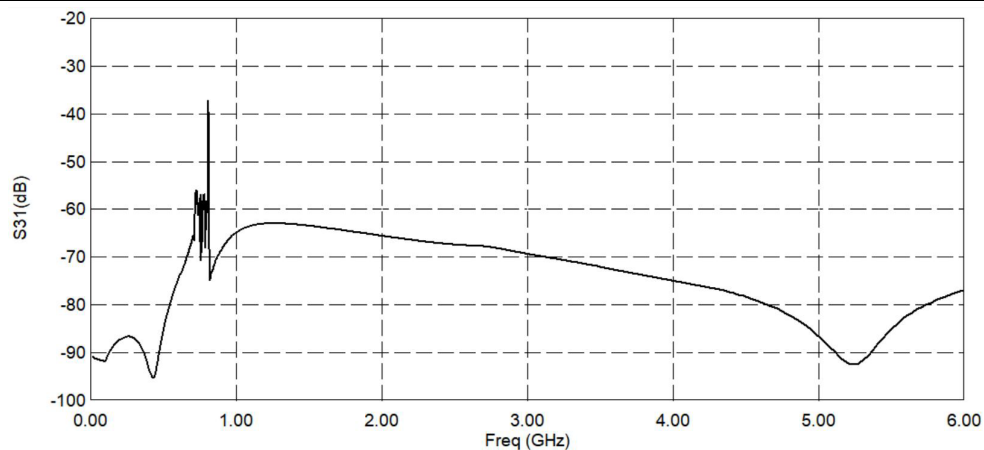
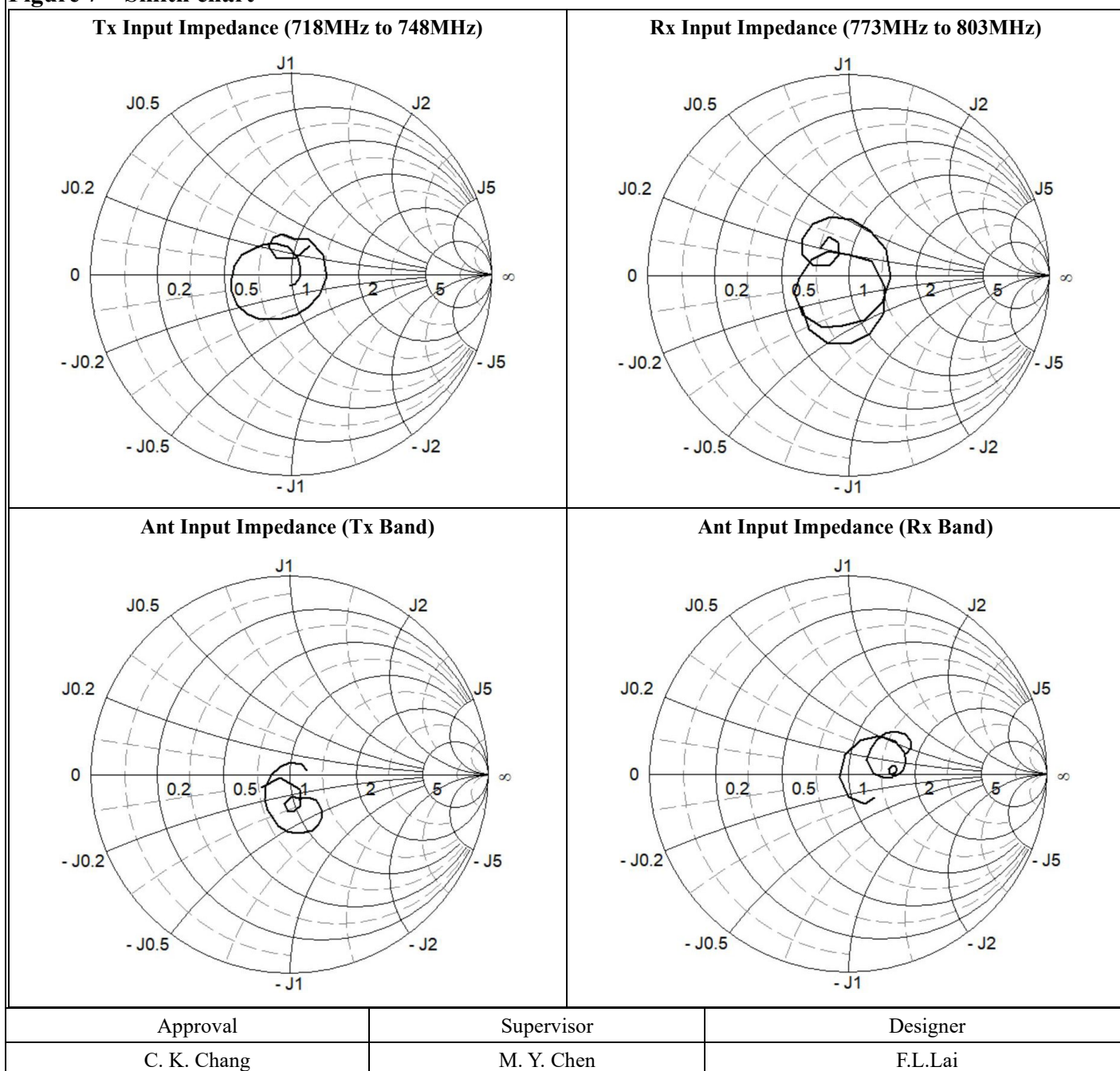
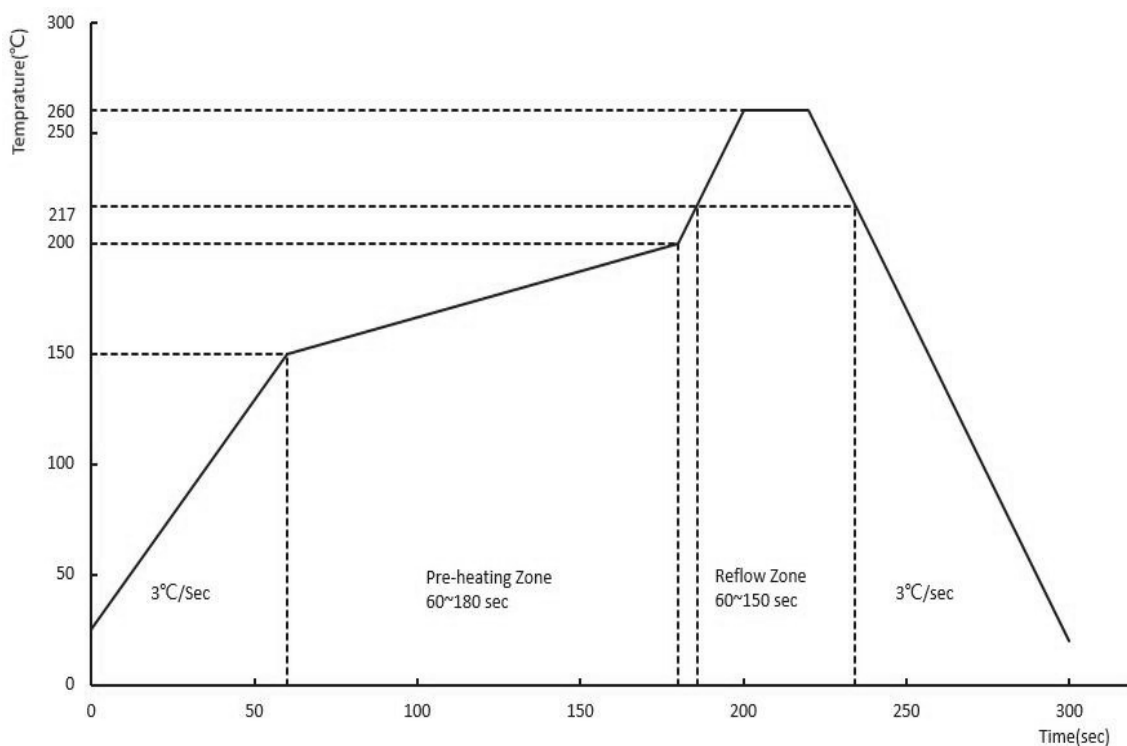


Figure 7 Smith chart



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	