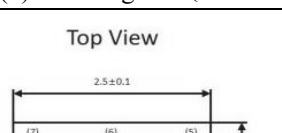


Specification Sheet

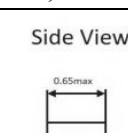
Customer Name	XXXX	CUST P/N	NA
Approval No.	PD	Temwell P/N	STSD-1842-1747-S2520W
Lot No.		Date	2025.04.25
Description	SAW Duplexer	Version	A1

(1)Size Diagram (Unit : MM)

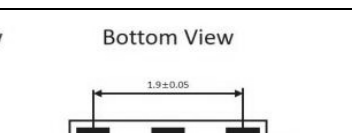
Top View



Side View



Bottom View



Pin	Configuration
1	Tx
3	Rx
6	Ant
Others	Ground

(2)Electrical Specifications

Item			Specification		
Parameter	MHz	Unit	Min.	Typical	Max.
Center Frequency	-	MHz	-	1842.5 / 1747.5	-
Insertion Loss	1805-1880(-10°C - 85°C)	dB	-	2.5	3.2
	1805-1880 (-40°C - 95°C)	dB	-	2.5	3.5
	1710-1785 (-10°C - 85°C)	dB	-	2.8	3.6
	1710-1785 (-40°C - 95°C)	dB	-	2.8	3.9
Ripple Deviation	1805-1880(-10°C - 85°C)	dB	-	1.3	2.2
	1805-1880 (-40°C - 95°C)	dB	-	1.3	2.5
	1710-1785(-10°C - 85°C)	dB	-	1.3	2.8
	1710-1785(-40°C - 95°C)	dB	-	1.3	3.1
VSWR of Tx Port	1805-1880 (-10°C - 85°C)	-	-	1.5	2.0
	1805-1880(-40°C - 95°C)	-	-	1.5	2.0
VSWR of Rx Port	1710-1785(-10°C - 85°C)	-	-	1.6	2.0
	1710-1785(-40°C - 95°C)	-	-	1.6	2.0
VSWR of Ant Port	1805-1880 (-10°C - 85°C)	-	-	1.5	2.0
	1805-1880(-40°C - 95°C)	-	-	1.5	2.0
	1710-1785(-10°C - 85°C)	-	-	1.6	2.0
	1710-1785(-40°C - 95°C)	-	-	1.6	2.0
Attenuation (1805-1880) (-10°C - 85°C)	10-1710	dB	38	43	-
	1710-1745	dB	48	54	-
	1745-1775	dB	48	56	-
	1775-1783	dB	40	48	-
	1783-1785	dB	40	48	-
	1900-1911	dB	20	30	-
	1911-1920	dB	50	60	-
	1920-1980	dB	45	56	-
	1950-2250	dB	36	42	-
	2250-2425	dB	36	44	-
	2425-3740	dB	30	39	-
	3740-5725	dB	30	35	-
Attenuation 1805-1880) (-40°C - 95°C)	10-1710	dB	38	43	-
	1710-1745	dB	48	54	-
	1745-1775	dB	48	56	-
	1775-1783	dB	40	50	-
	1783-1785	dB	40	50	-
	1900-1911	dB	15	30	-

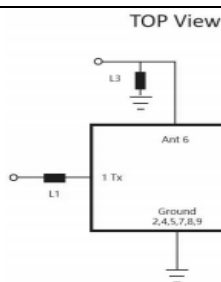
	1911-1920	dB	50	60	-
	1920-1980	dB	45	56	-
	1980-2250	dB	36	42	-
	2250-2425	dB	36	44	-
	2425-3740	dB	30	39	-
	3740-5725	dB	30	35	-
Attenuation (1710-1785) (-10°C - 85°C)	10-1660	dB	38	43	-
	1660-1690	dB	16	19	-
	1805-1840	dB	45	53	-
	1840-1880	dB	42	51	-
	1880-2400	dB	35	40	-
	2400-2500	dB	33	38	-
	2500-3550	dB	25	30	-
	3550-4200	dB	25	28	-
	4200-5325	dB	25	30	-
Attenuation (1710-1785) (-40°C - 95°C)	10-1660	dB	35	40	-
	1660-1690	dB	16	19	-
	1805-1840	dB	45	58	-
	1840-1880	dB	42	51	-
	1880-2400	dB	35	40	-
	2400-2500	dB	33	38	-
	2500-3550	dB	25	30	-
	3550-4200	dB	20	28	-
	4200-5325	dB	20	30	-
Isolation (-10°C - 85°C)	1710-1785	dB	49	52	-
	1805-1880	dB	51	54	-
Isolation (-40°C - 95°C)	1710-1785	dB	49	52	-
	1805-1880	dB	50	54	-
Operation Temperature	-40°C~+95°C	°C	-	-	-
Storage Temperature	-40°C~+95°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	L1 : 9.1 nH (Ideal inductor)
Rx	L2 : 8.8 nH (Ideal inductor)
Ant	L3 : 4.7 nH (Ideal inductor)

Figure 1 Electrical Characteristics: Tx to Ant.

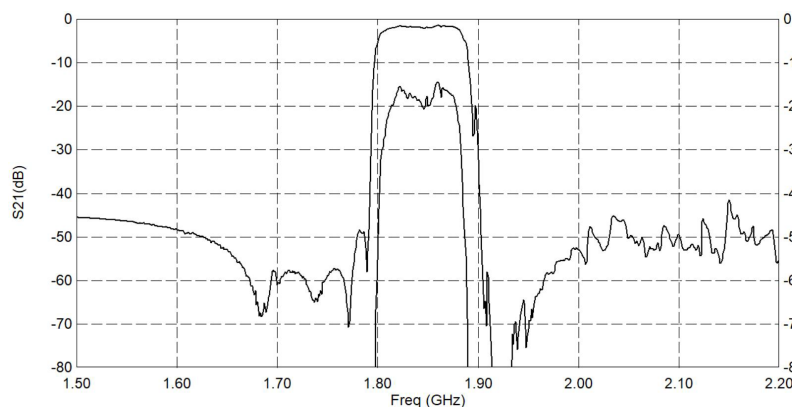


Figure 2 Electrical Characteristics: Tx to Ant.

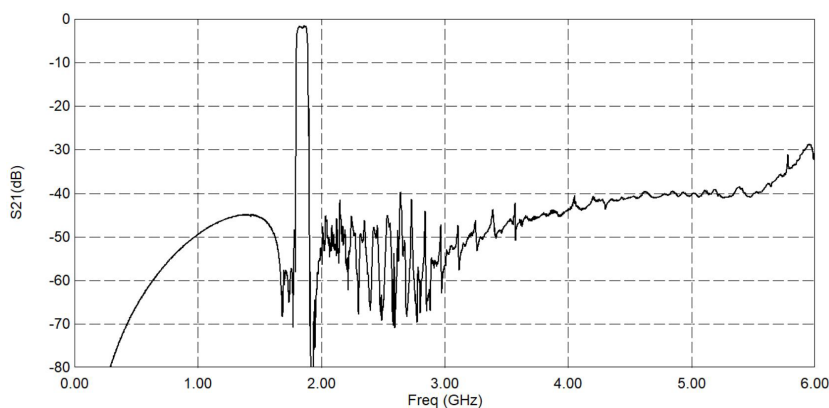


Figure 3 Electrical Characteristics: Ant to Rx.

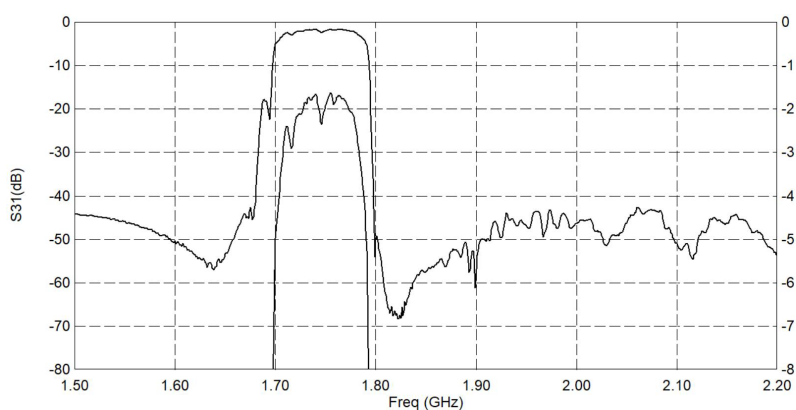


Figure 4 Electrical Characteristics: Ant to Rx.

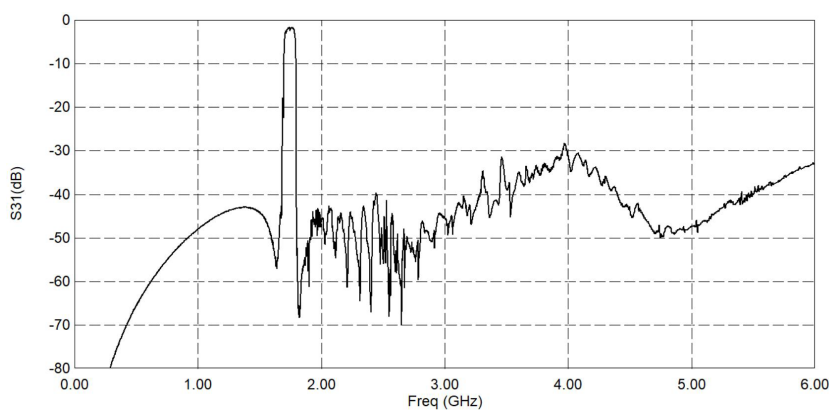


Figure 5 Electrical Characteristics: Tx to Rx.

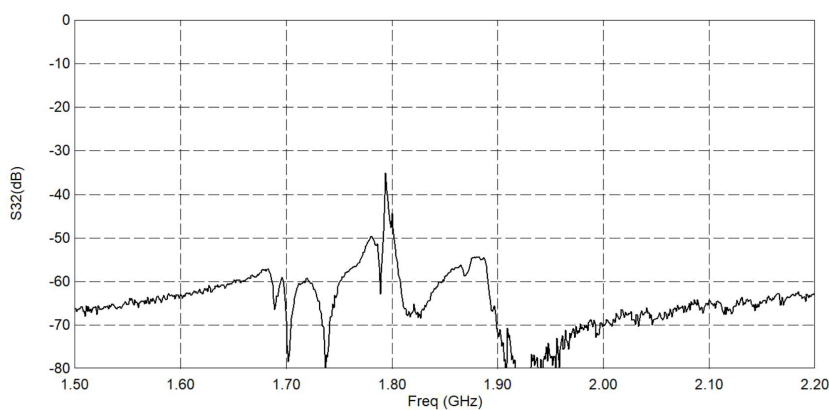


Figure 6 Electrical Characteristics: Tx to Rx.

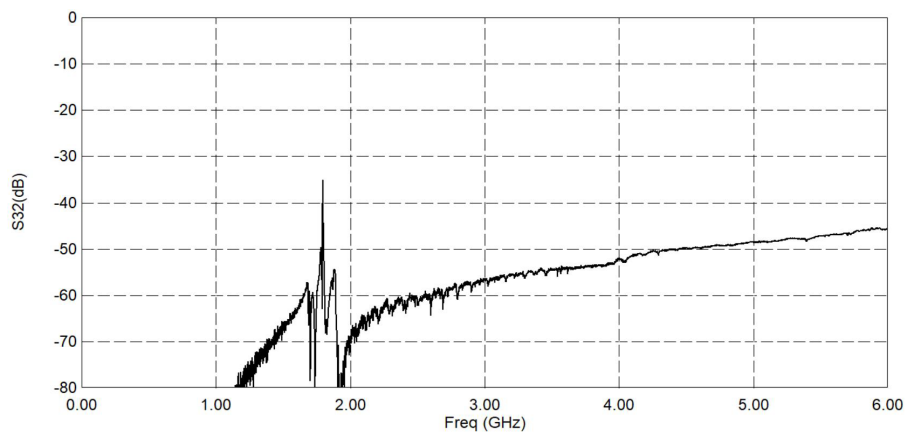
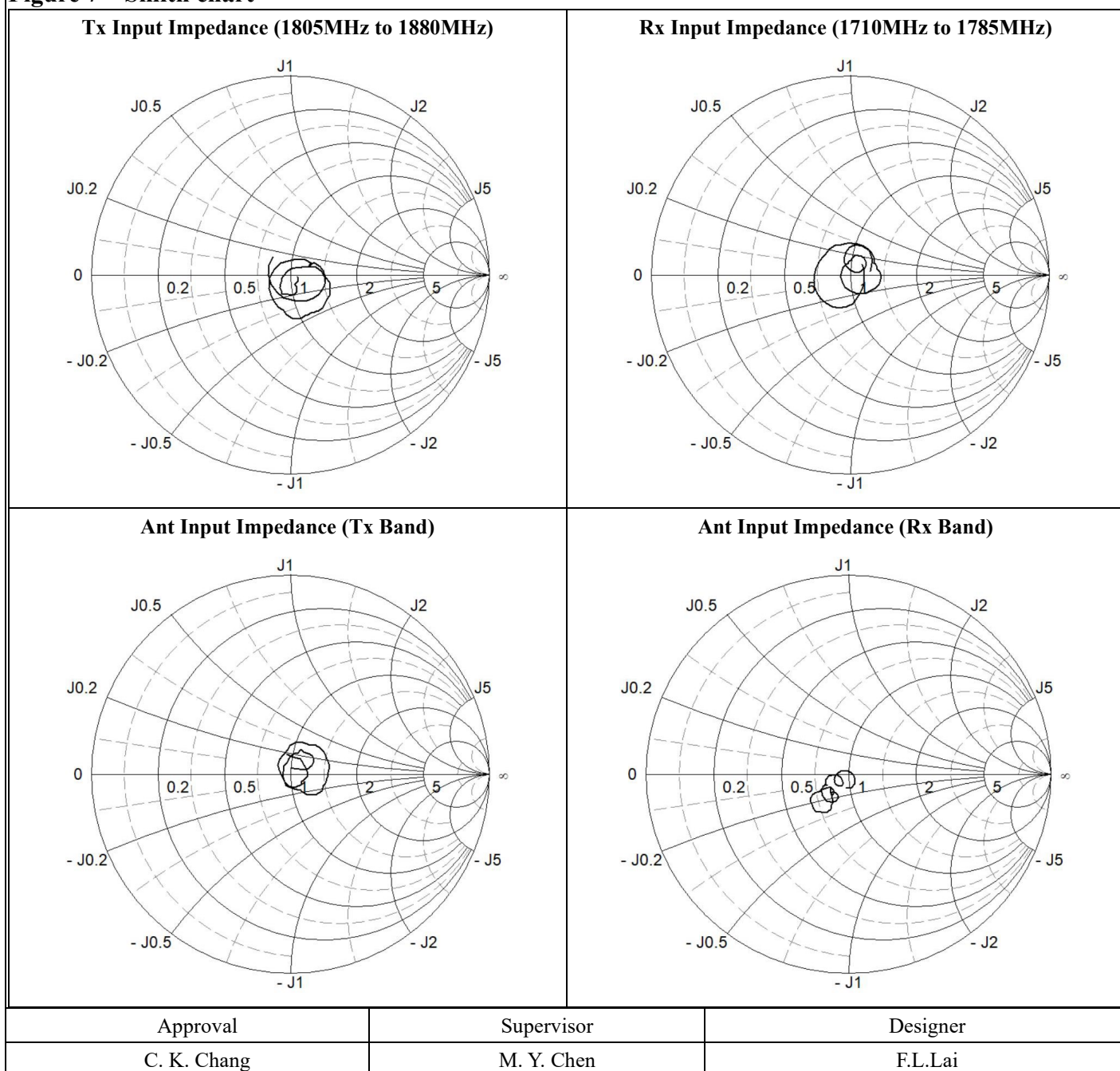
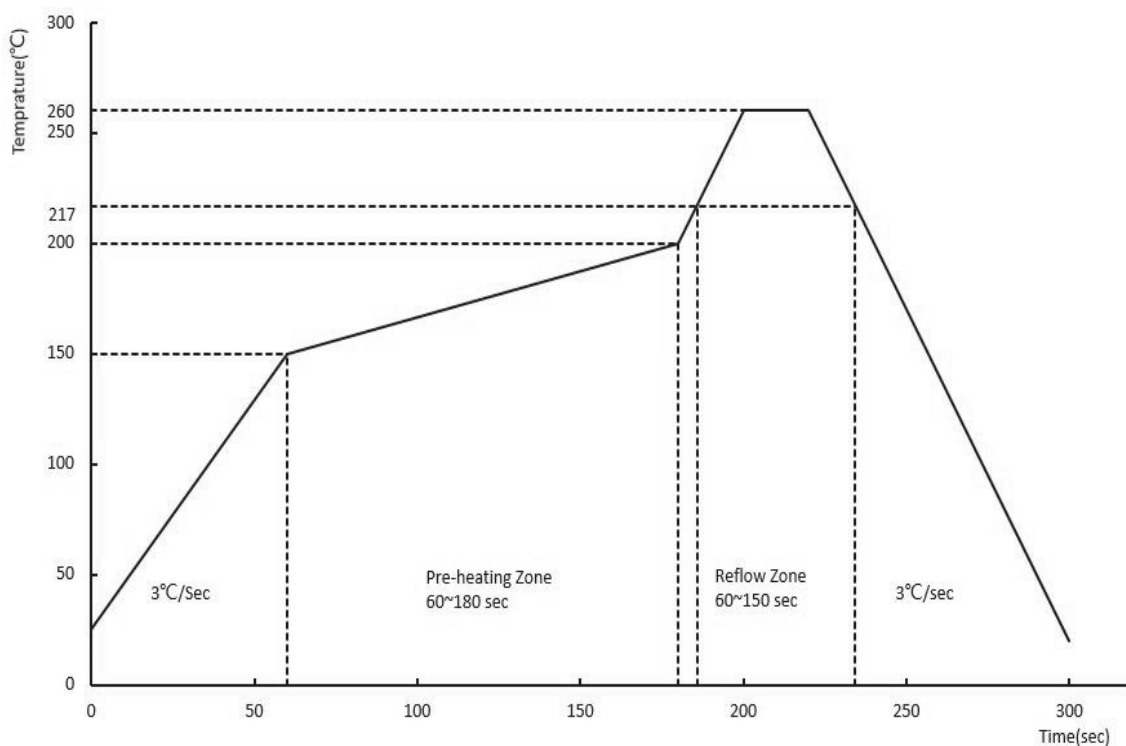


Figure 7 Smith chart



Recommended SMT Solder Profile



Reliability

No.	Test item	Test condition	
1	Temperature Storage	Temperature: 95°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=95°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	