



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
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Product Specifications Approval Sheet

Product Description: SAW Duplexer 836.5/881.5 MHz Band 5 Size 1.8x1.4 mm BW 25/25 MHz

TST Part No.: TF0123CA1823

Customer Part No.: _____

Customer signature required
Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: _____ Nina Chen *Nina Chen*

Approved by: _____ Kazuma Lee *Kazuma Lee*

Date: _____ 2022/06/20

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the change



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SAW Duplexer 836.5/881.5 MHz Band 5 Size 1.8x1.4 mm BW 25/25 MHz

MODEL NO.: TF0123CA1823

REV.1.0

A. Maximum Rating:

1. Input power : 29dBm
2. DC Voltage: 3V
3. Operating temperature range: -20 °C to +85 °C
4. Storage temperature range: -40 °C to +85 °C
5. Moisture Sensitivity Level: Level 3 (MSL 3)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. Electrical Characteristics:

Tx to ANT

Parameter		Unit	Min	Typ	Max	Remarks
Insertion Loss	824~849 MHz	dB	-	1.8	2.3	
Amplitude Ripple	824~849 MHz	dB	-	0.7	1.2	
VSWR	Tx	824~849 MHz	-	1.3	2.0	
	ANT	824~849 MHz	-	1.3	2.0	
Attenuation	10~420 MHz	dB	35	43	-	
	420~494 MHz	dB	35	38	-	
	494~701 MHz	dB	35	43	-	
	699~716 MHz	dB	38	43	-	
	701~728 MHz	dB	38	43	-	
	728~764 MHz	dB	35	40	-	
	764~804 MHz	dB	30	35	-	
	869~894 MHz	dB	45	48	-	
	925~960 MHz	dB	40	42	-	
	1574~1577 MHz	dB	25	29	-	
	1638~1708 MHz	dB	25	29	-	
	1805~1880 MHz	dB	25	29	-	
	1930~1990 MHz	dB	22	27	-	
	2110~2170 MHz	dB	22	26	-	
	2400~2494 MHz	dB	21	25	-	
2472~2547 MHz	dB	21	24	-		
3286~3406 MHz	dB	15	18	-		
4900~5950 MHz	dB	23	30	-		

ANT to Rx

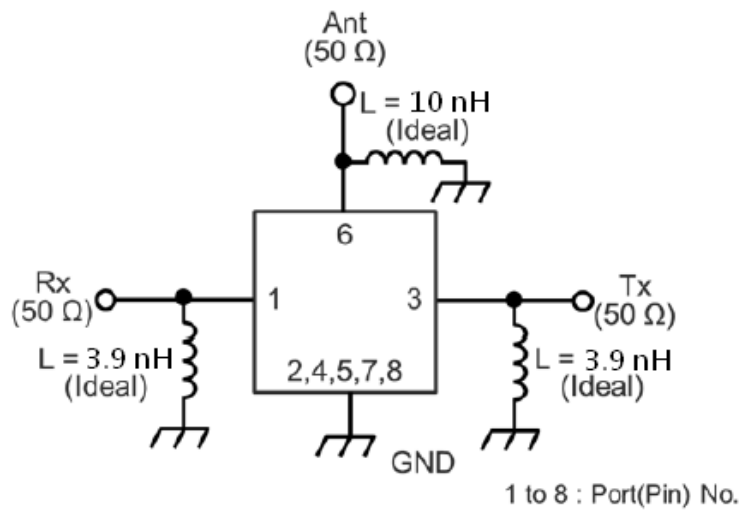
Parameter		Unit	Min	Typ	Max	Remarks
Insertion Loss	869~894 MHz	dB	-	1.9	2.7	
Amplitude Ripple	869~894 MHz	dB	-	0.7	1.2	
VSWR	Rx	869~894 MHz	-	-	1.3	2.0
	ANT	869~894 MHz	-	-	1.3	2.0
Attenuation	10~447 MHz	dB	35	45	-	
	447~824 MHz	dB	40	43	-	
	779~804 MHz	dB	35	43	-	
	824~849 MHz	dB	50	55	-	
	1693~1743 MHz	dB	40	55	-	
	1710~1785 MHz	dB	43	55	-	
	1850~1920 MHz	dB	45	55	-	
	1920~1980 MHz	dB	45	55	-	
	1980~2400 MHz	dB	53	55	-	
	2400~2500 MHz	dB	55	58	-	
	2517~2592 MHz	dB	45	55	-	
	2607~2682 MHz	dB	53	55	-	
	3476~3576 MHz	dB	40	50	-	
	4345~4470 MHz	dB	25	35	-	
4900~5950 MHz	dB	23	30	-		

Tx to Rx

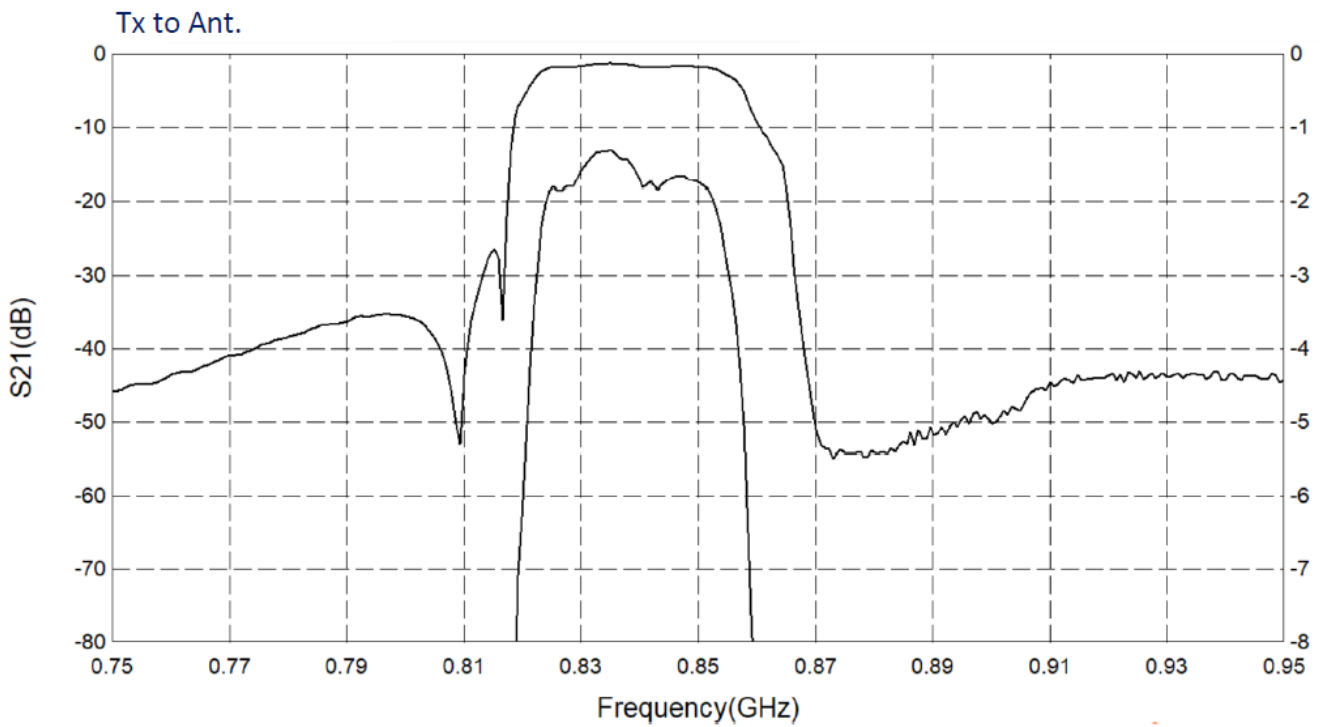
Parameter		Unit	Min	Typ	Max	Remarks
Isolation	824~849 MHz	dB	53	57	-	
	869~894 MHz	dB	50	55	-	
	1574~1577 MHz	dB	50	55	-	
	1683~1708 MHz	dB	50	55	-	
	2462~2577 MHz	dB	43	55	-	

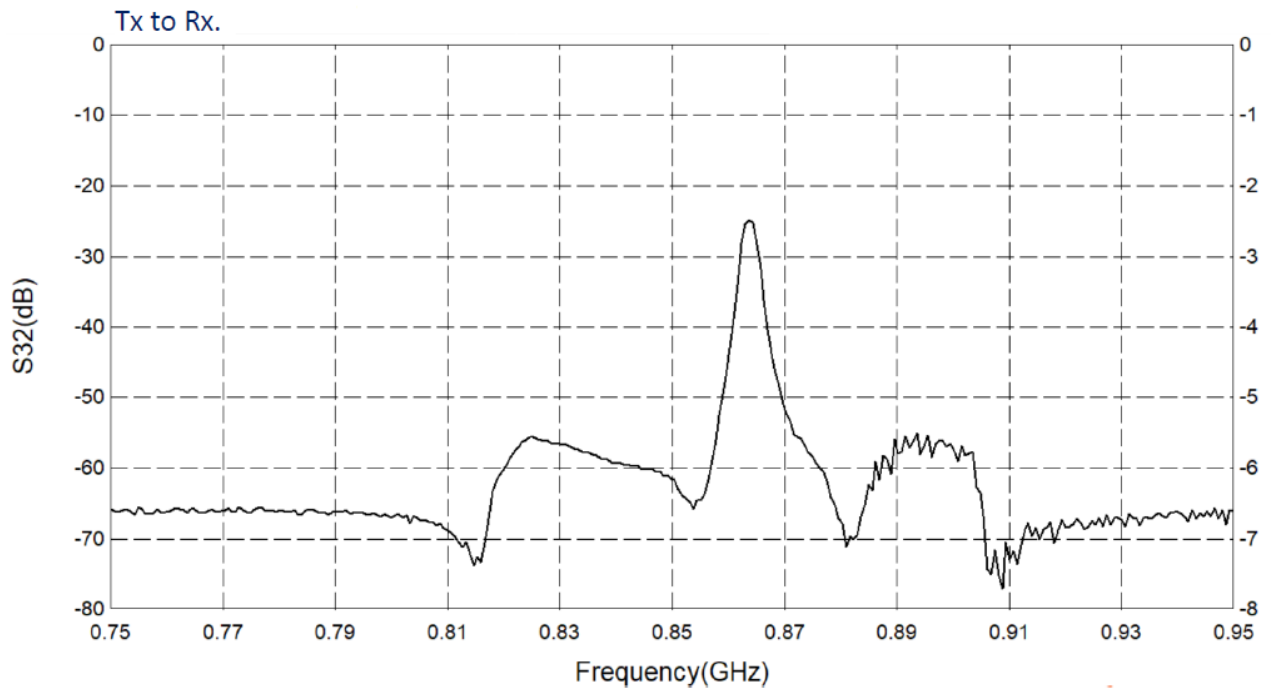
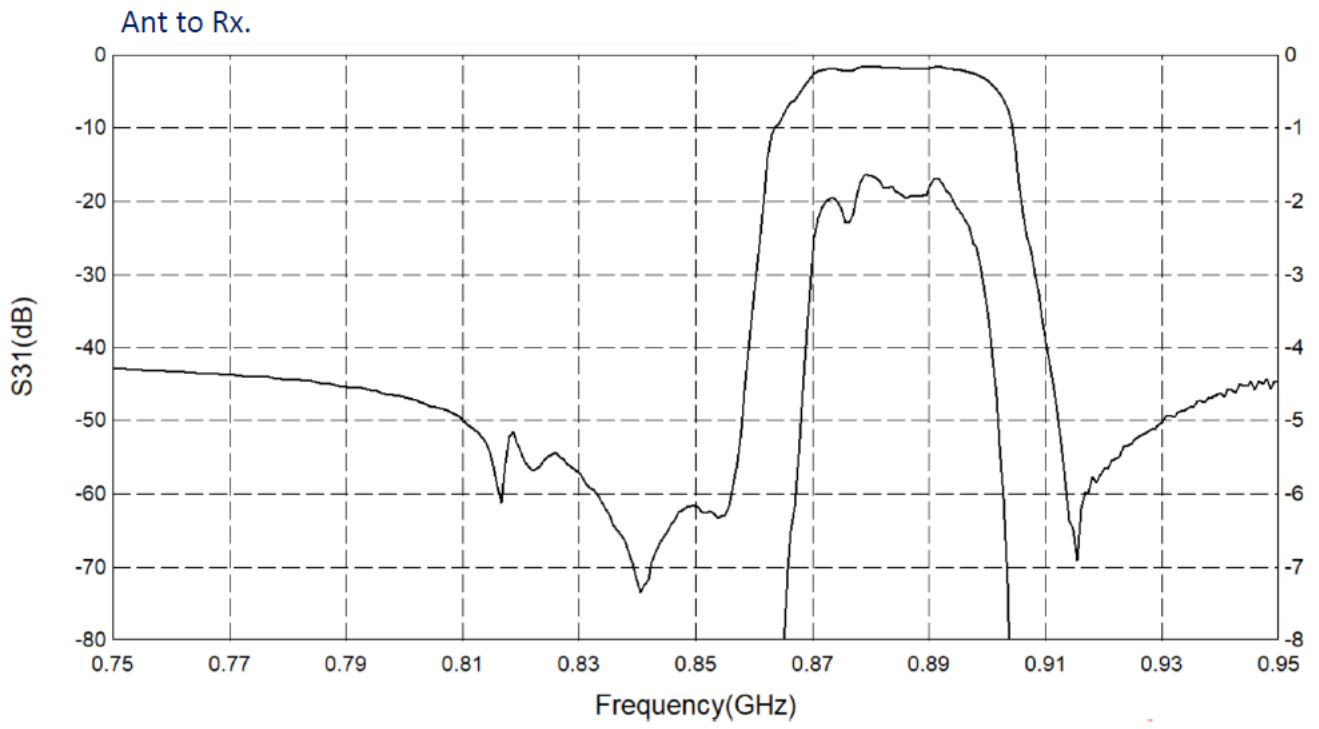
1. Min/Max specifications are guaranteed at the indicated temperature (unless otherwise noted).
2. Typical data is the average value (arithmetic mean) of the parameter over the indicated band at +25°C

C. Measurement Circuit:

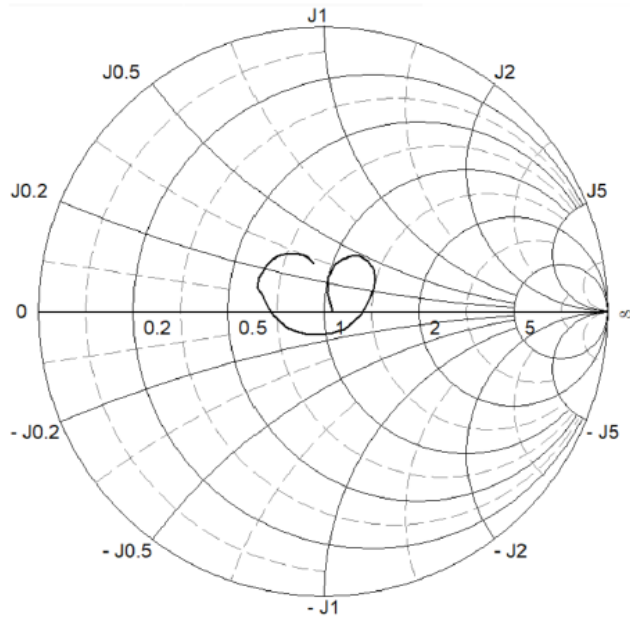


D. Frequency Characteristics:

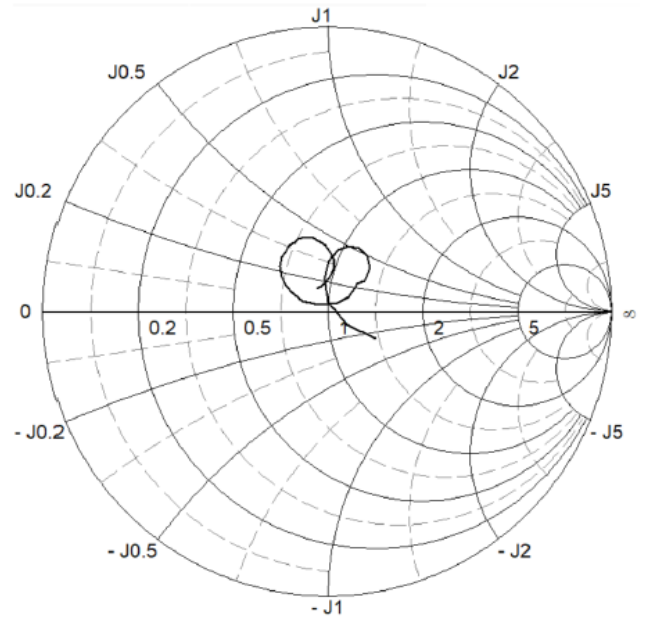




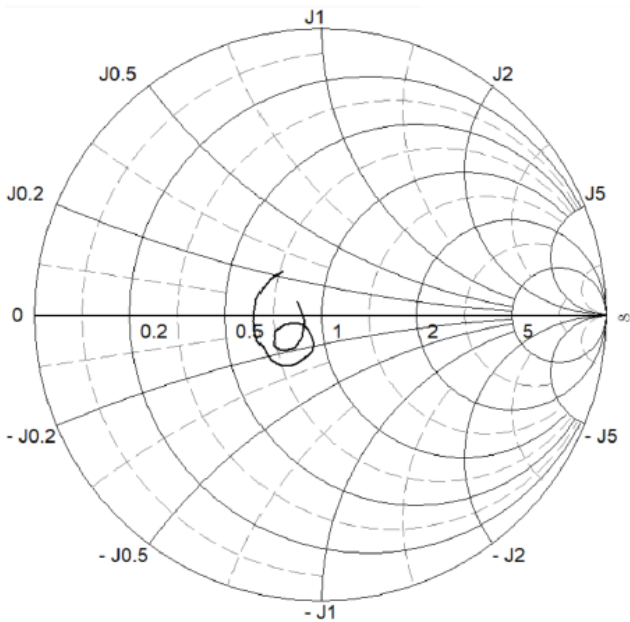
Tx Input Impedance
(824MHz to 849MHz)



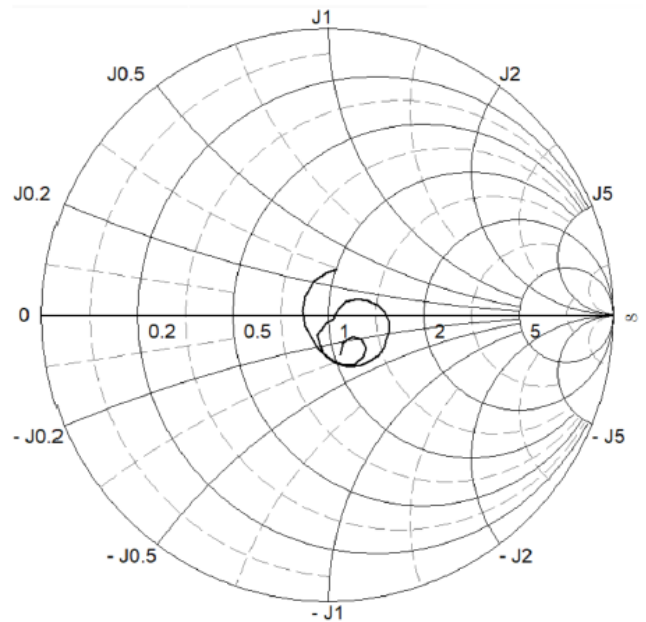
Rx Input Impedance
(869MHz to 894MHz)

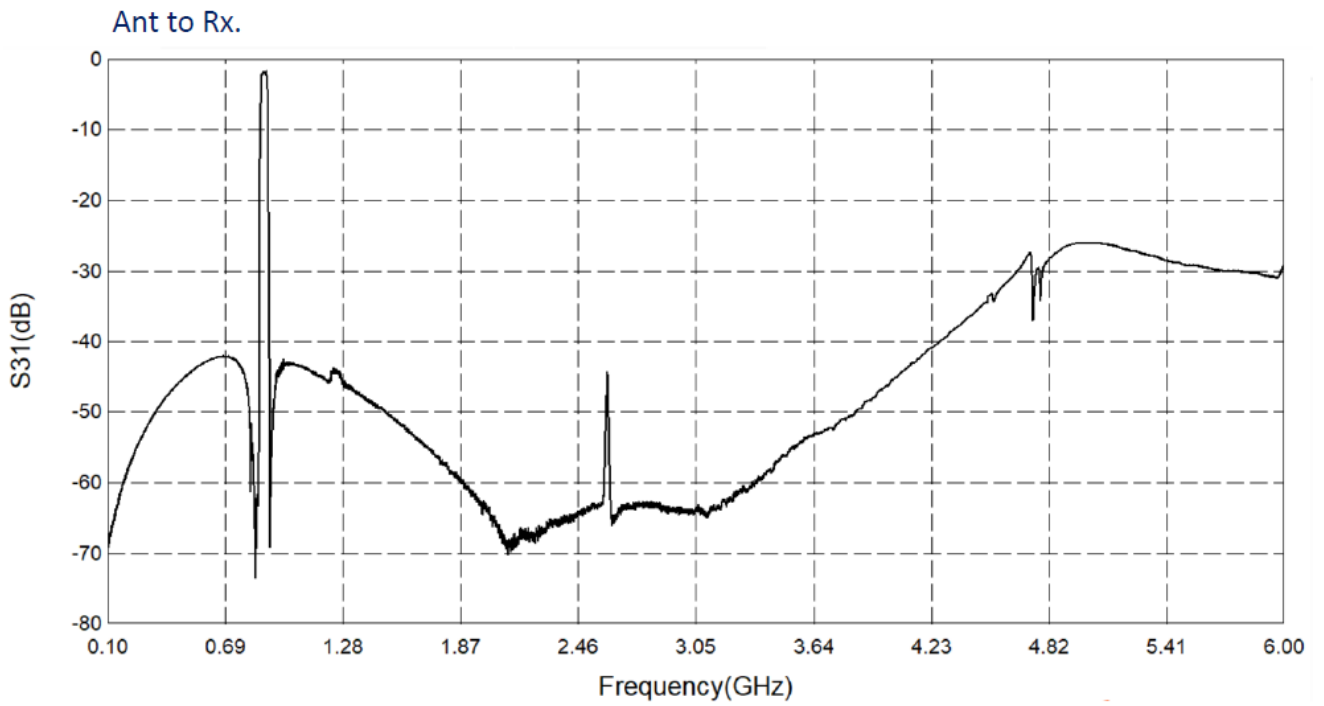
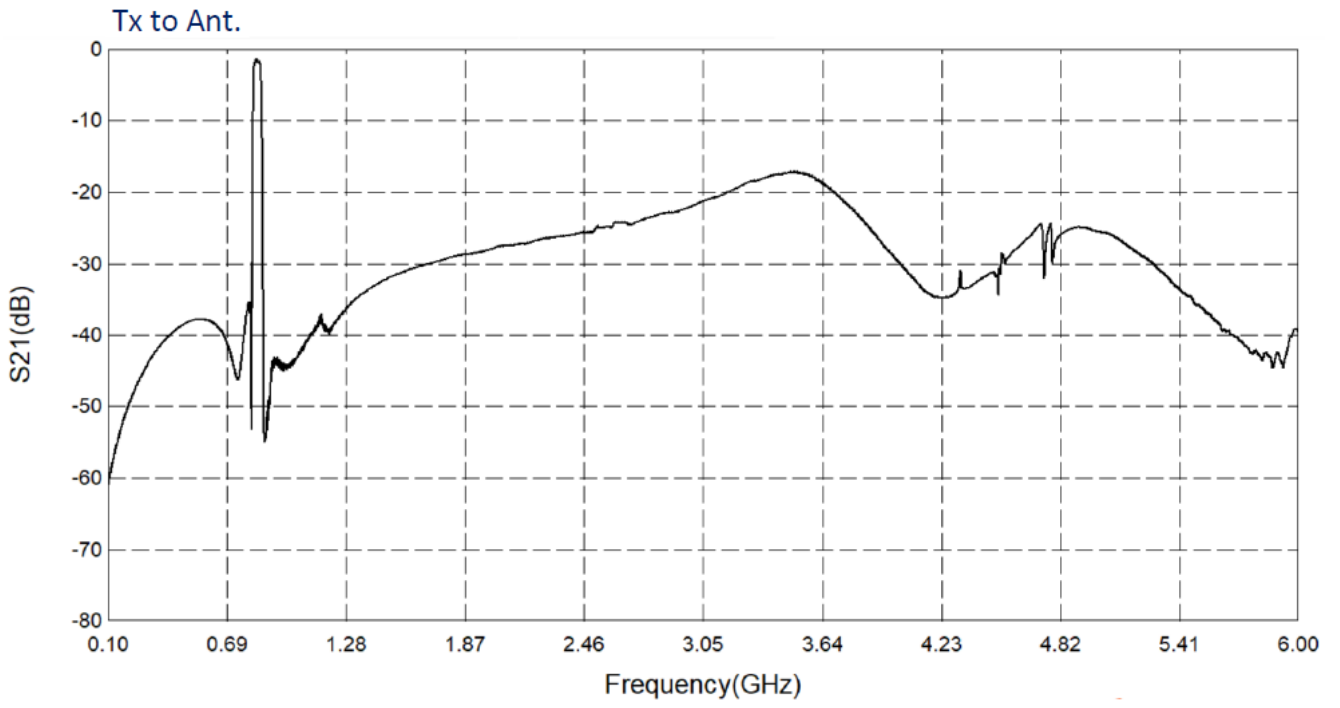


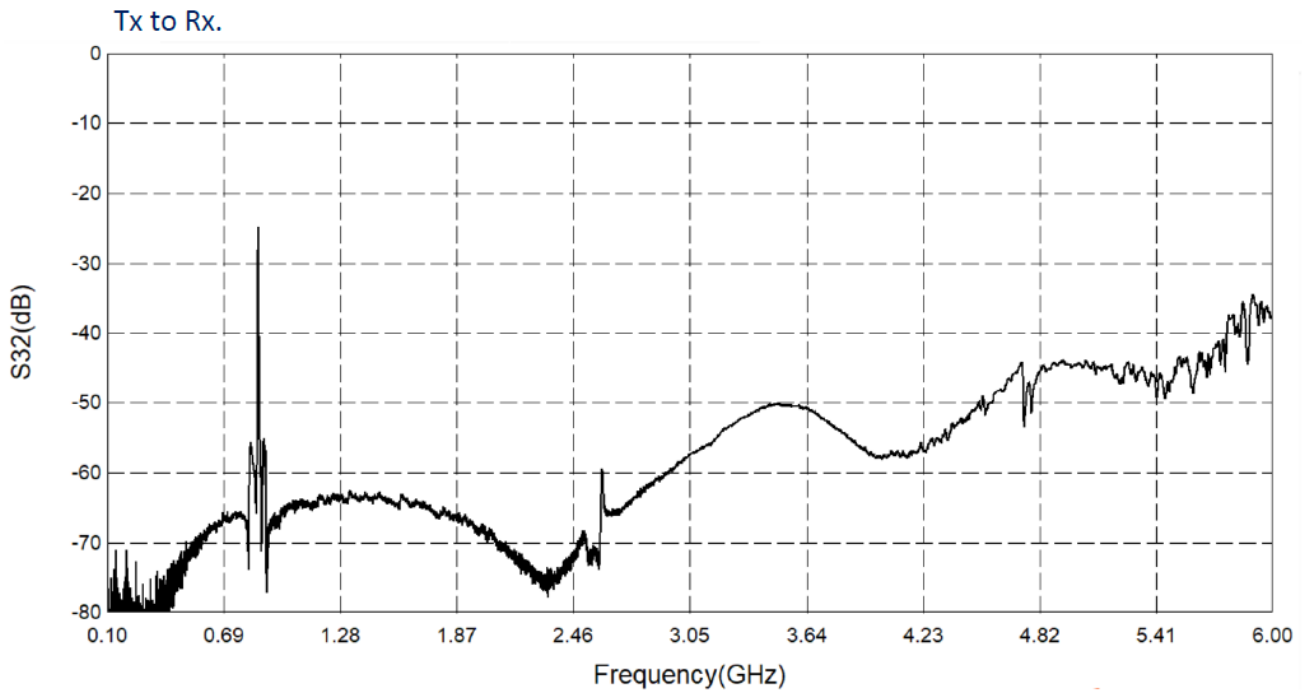
Ant Input Impedance (Tx Band)



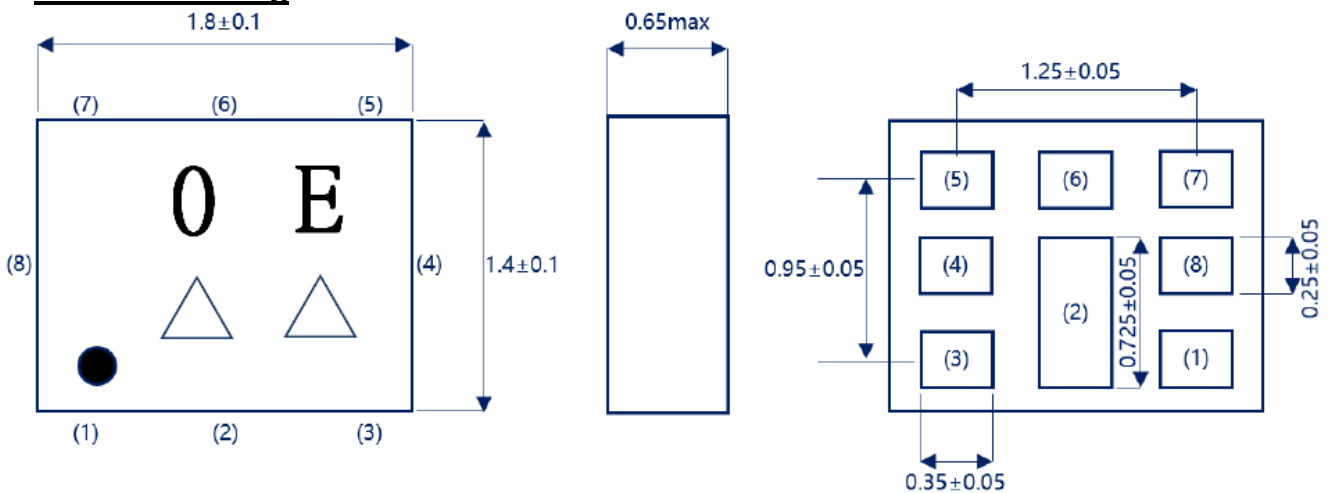
Ant Input Impedance (Rx Band)







E. Outline Drawing:



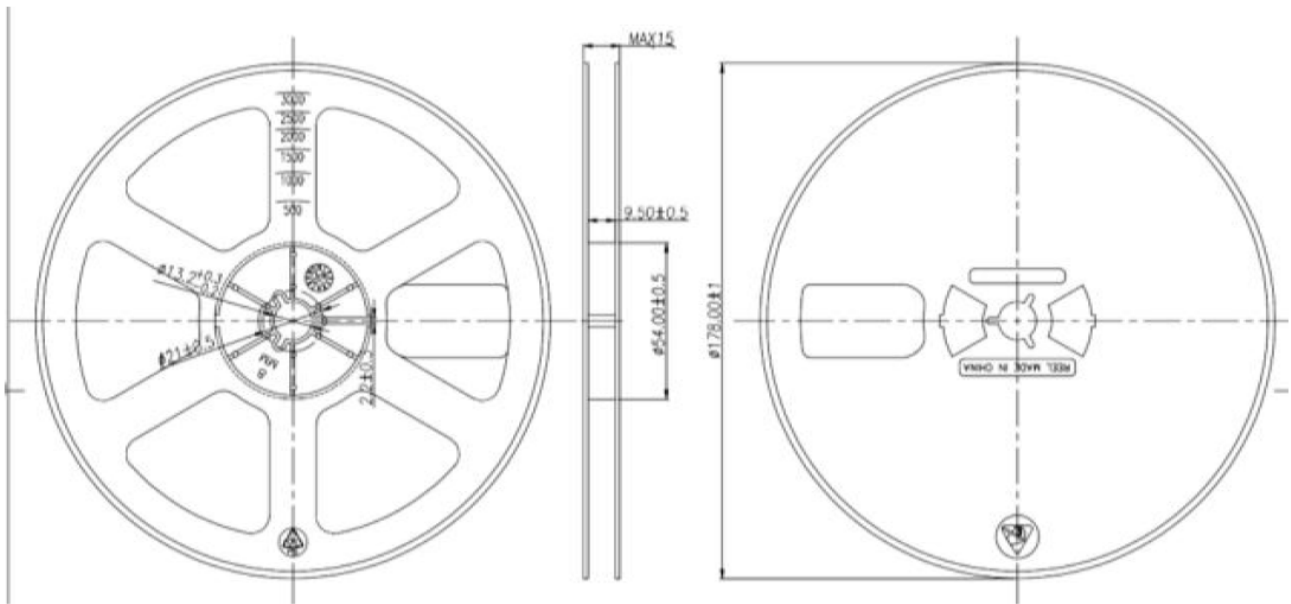
Marking name: 0E

△ △: Lot Code. (01,02,03...09,0A,0B,...0Z,A0,A1...ZZ) , except I,O

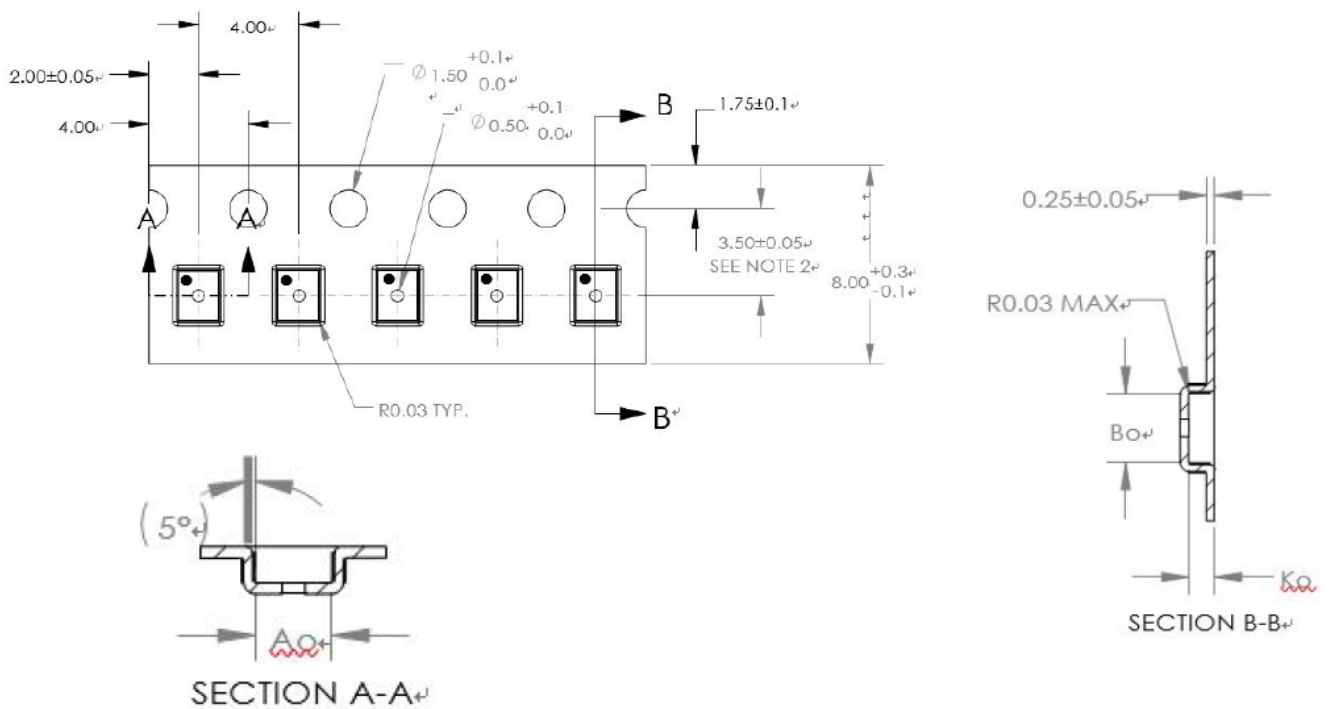
Pin Configuration	
3	Tx
1	Rx
6	Antenna
2,4,5,7,8	Ground

F.Packing:

1. Reel Dimension



2. Tape Dimension



G. Recommended Solder Profile

