



TAI-SAW TECHNOLOGY CO., LTD.

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

Product Name: BAW DPX 2535/2655 MHz Band 7 SMD 2.0x1.6 mm (BW=70 MHz)

TST Parts No.: TF0109B(This part is compliant with AEC-Q200)

Customer Part No.: _____

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

Checked by: _____ Anne Chen *Anne Chen*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2019/12/13

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 changes



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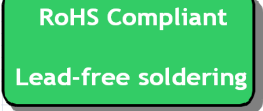
BAW DPX 2535/2655 MHz

MODEL NO.:TF0109B

REV. NO.:3.0

A. MAXIMUM RATING:

1. Input Power Level (2500~2570 MHz): 29 dBm (50k hours Max.)
2. DC Voltage: +/-5 V
3. Operating Temperature: -40 °C to +85 °C
4. Storage Temperature: -40 °C to +100 °C
5. Moisture Sensitive Level: Level 1 (MSL1)
6. ESD: 50 V(MM), 100 V(HBM)



Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

Terminating impedance (Tx port): 50 Ω

Terminating impedance (Rx port): 50 Ω

Terminating impedance (Ant port): 50//2.7nH Ω

Tx to Ant

Item	Unit	Min.	Typ.	Max.
Insertion Loss (2500~2510 MHz)	dB(*1)	-	2.1	3.0
Insertion Loss (2510~2570 MHz)	dB(*1)	-	1.6	2.4
Amplitude Ripple (2500~2570 MHz)	dB	-	1.2	2.3
VSWR Ant (2500~2570 MHz)	-	-	1.7	2.1
VSWR Tx (2500~2570 MHz)	-	-	1.8	2.3
Attenuation (Reference level from 0 dB)				
10 ~ 1565.42 MHz	dB	30	41	-
1565.42 ~ 1573.374 MHz	dB	35	41	-
1573.374 ~ 1577.466 MHz	dB	35	41	-
1577.466 ~ 1585.42 MHz	dB	35	41	-
1597.5515 ~ 1605.886 MHz	dB	35	40	-
1605.886 ~ 1680 MHz	dB	25	40	-
1805 ~ 1880 MHz	dB	30	38	-
1900 ~ 1920 MHz	dB	30	38	-
2010 ~ 2025 MHz	dB	30	37	-
2110 ~ 2170 MHz	dB	30	37	-
2401 ~ 2473 MHz	dB(*2)	35	45	-
2456 ~ 2478 MHz	dB(*2)	30	45	-

2461 ~ 2483 MHz	dB(*2)	20	40	-
2474 ~ 2500 MHz	dB	1	2	-
2590 ~ 2620 MHz	dB	1	6	-
2620 ~ 2690 MHz	dB	45	55	-
4900 ~ 5950 MHz	dB	20	49	-
5000 ~ 5140 MHz	dB	25	50	-
5100 ~ 5280 MHz	dB	35	51	-
7500 ~ 7710 MHz	dB	25	40	-

Ant to Rx

Item	Unit	Min.	Typ.	Max.
Insertion Loss (2620~2690 MHz)	dB(*1)	-	2.3	2.9
VSWR Ant (2620~2690 MHz)	-	-	1.9	2.3
VSWR Rx (2620~2690 MHz)	-	-	1.9	2.3
Attenuation (Reference level from 0 dB)				
1 ~ 2500 MHz	dB	40	48	-
45 MHz	dB	50	100	-
832 ~ 862 MHz	dB	40	65	-
1710 ~ 1785 MHz	dB	40	57	-
2500 ~ 2570 MHz	dB	42	48	-
2775 ~ 6000 MHz	dB	30	50	-
2400 ~ 2500 MHz	dB	40	48	-
4950 ~ 5950 MHz	dB	40	58	-
7620 ~ 7830 MHz	dB	40	55	-
7860 ~ 8070 MHz	dB	40	55	-

Tx to Rx

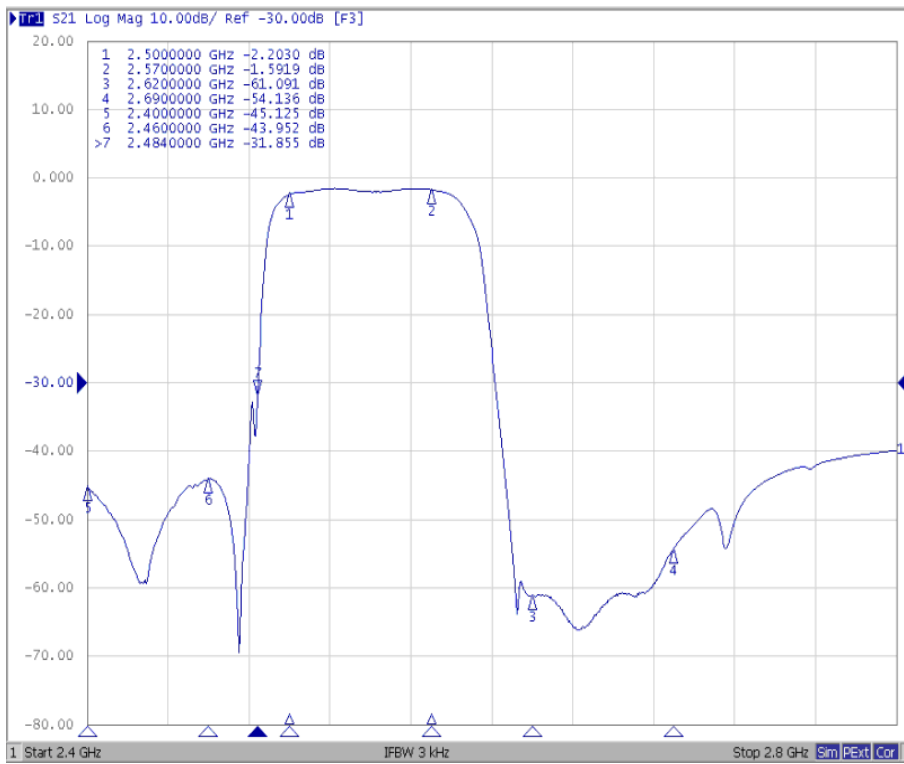
Item	Unit	Min.	Typ.	Max.	
Isolation (Reference level from 0 dB)	2500 ~ 2570 MHz	dB	50	53	-
	2620 ~ 2690 MHz	dB	50	57	-
	1574 ~ 1577 MHz	dB	40	62	-
	5000 ~ 5140 MHz	dB	30	44	-
	7500 ~ 7710 MHz	dB	30	40	-

(*1) Specification of insertion loss excludes loss that comes from the test board.

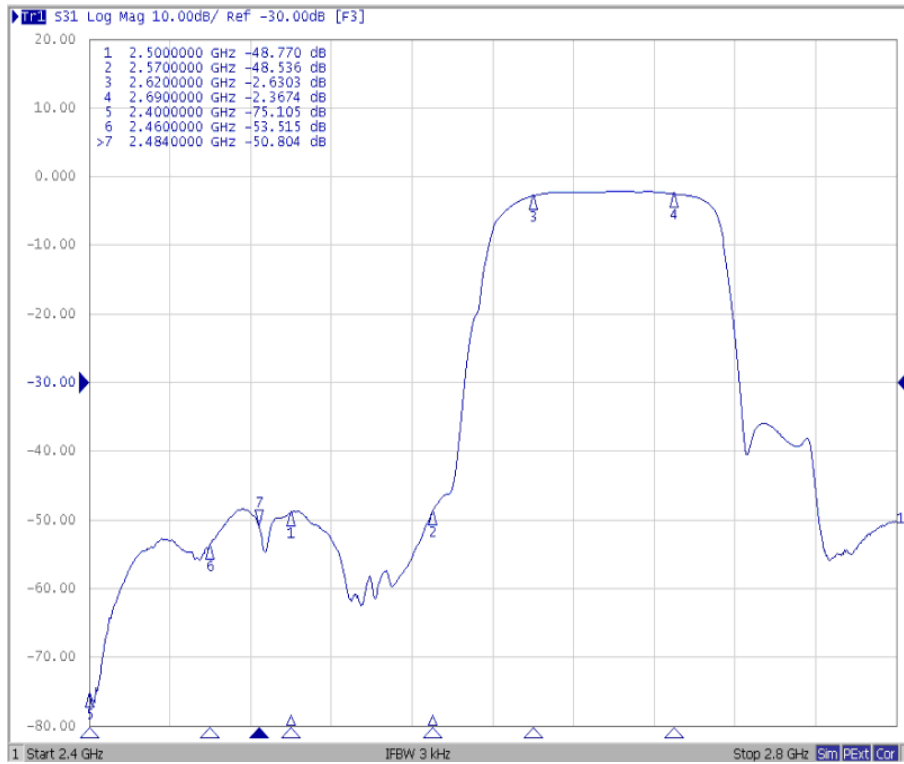
(*2) Integrated attenuation over 22 MHz BW.

C. FREQUENCY CHARACTERISTICS:

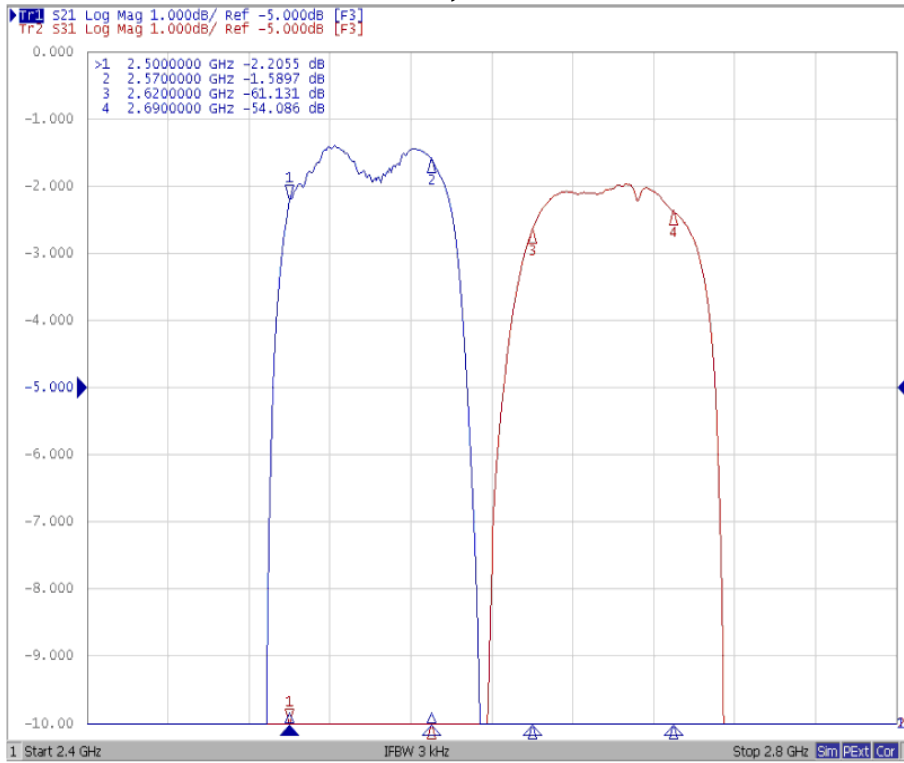
Tx to Ant



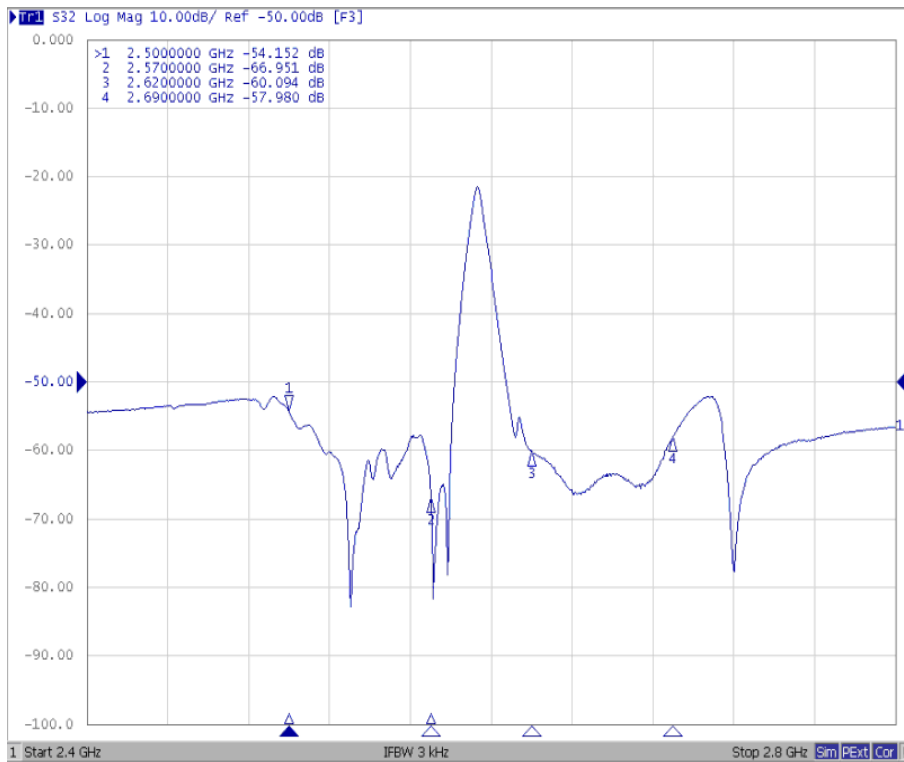
Ant to Rx



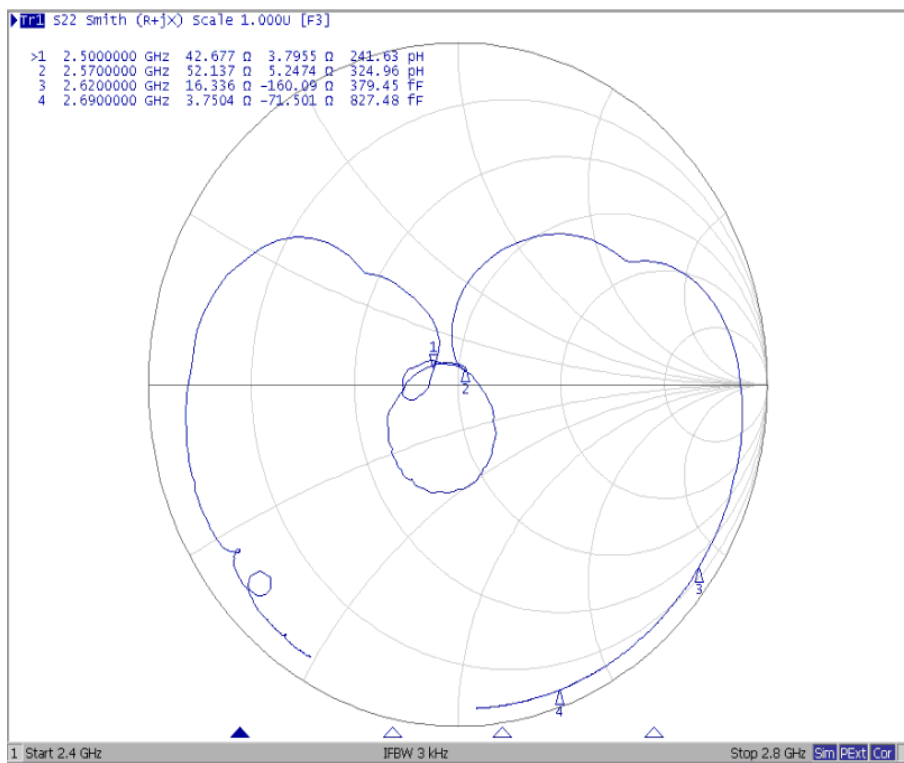
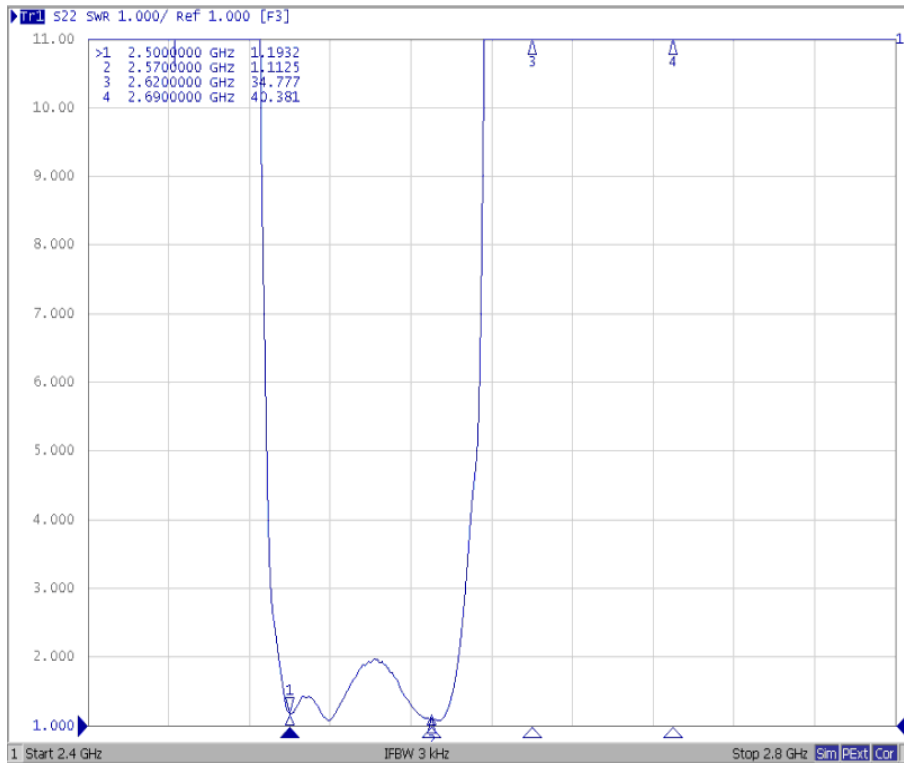
Tx to Ant, Ant to Rx



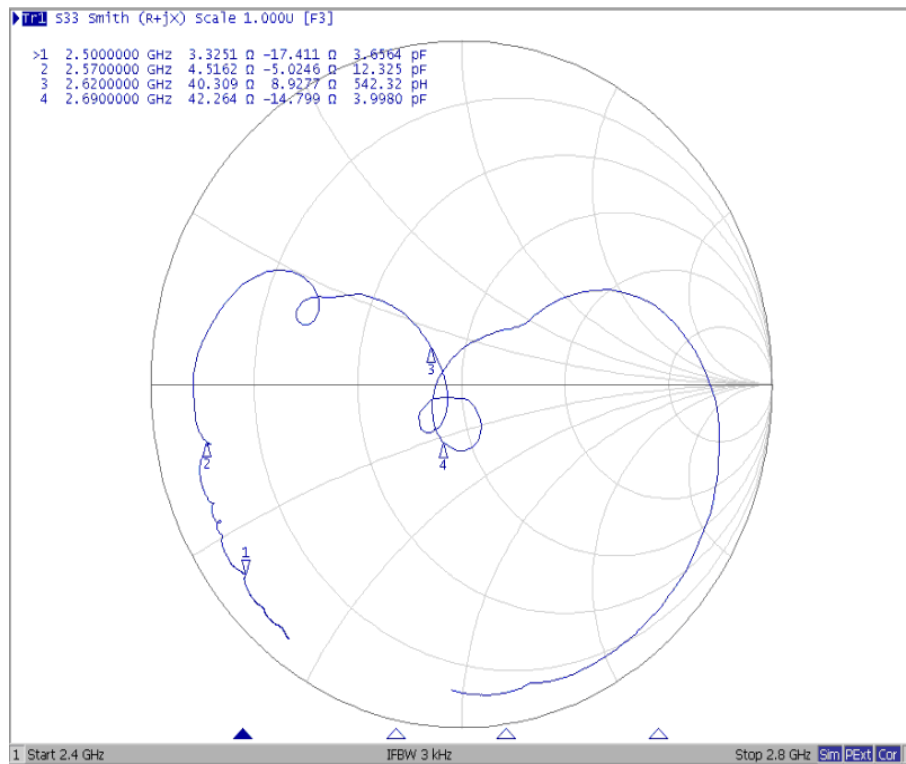
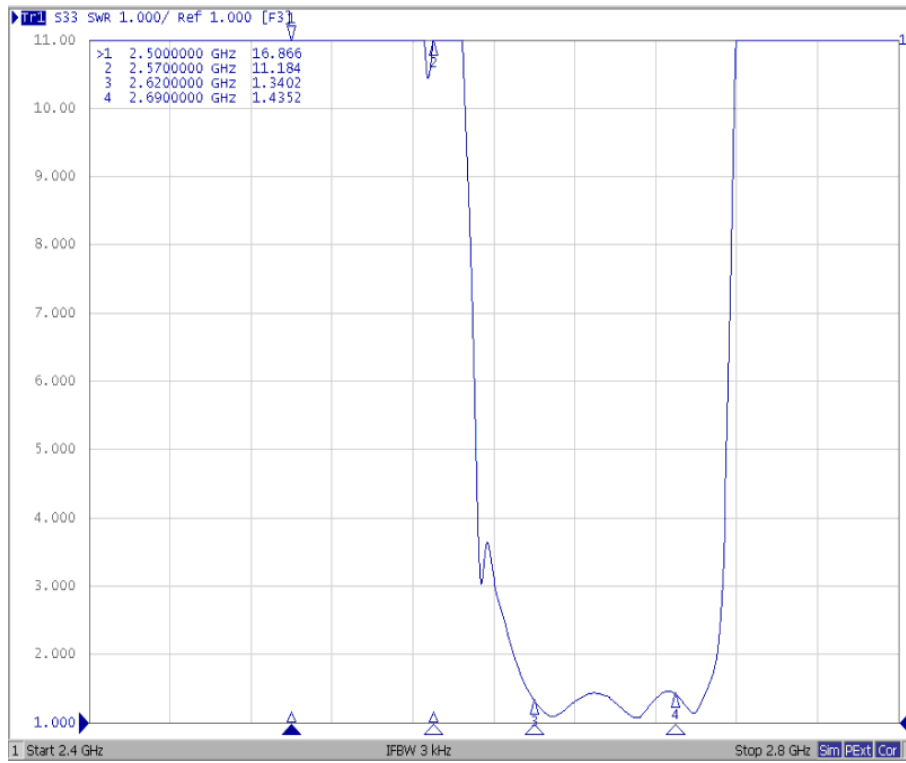
Tx to Rx Isolation



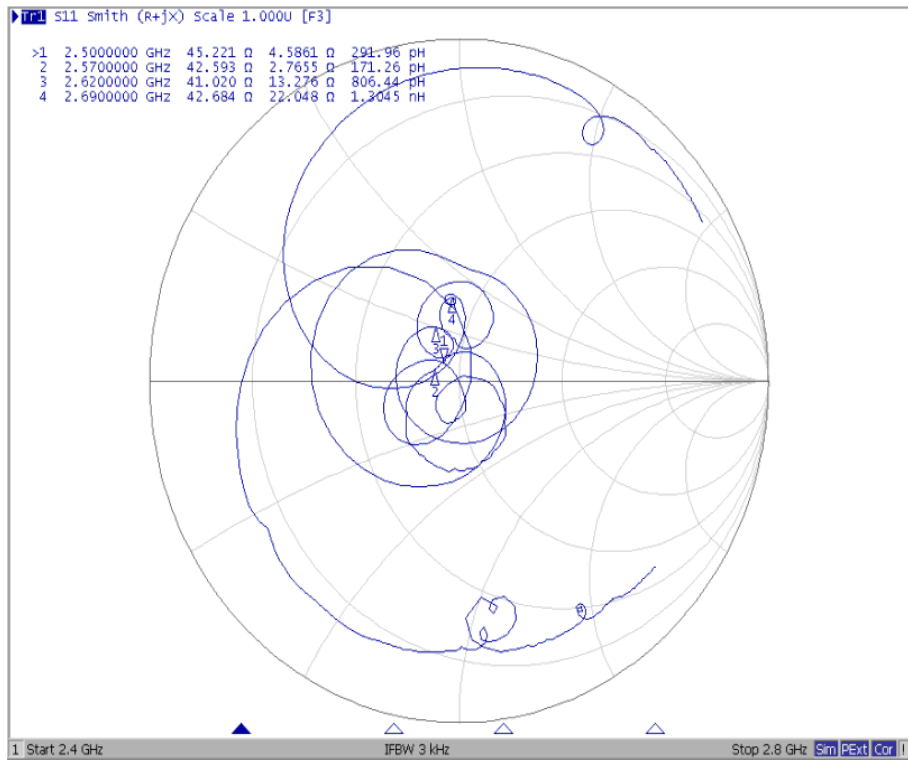
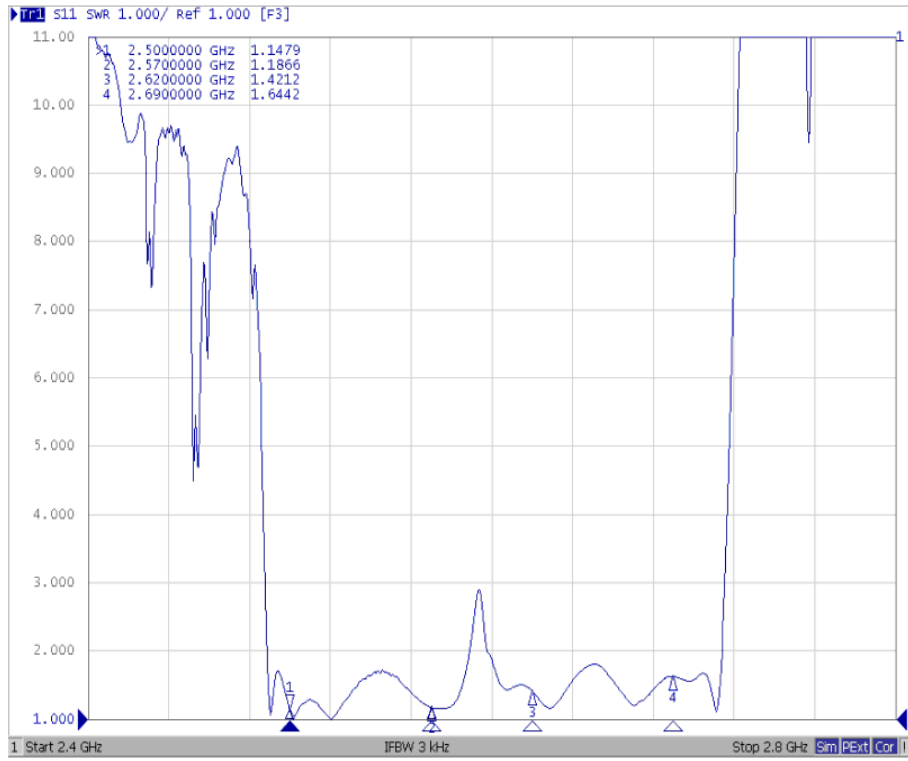
Tx Port



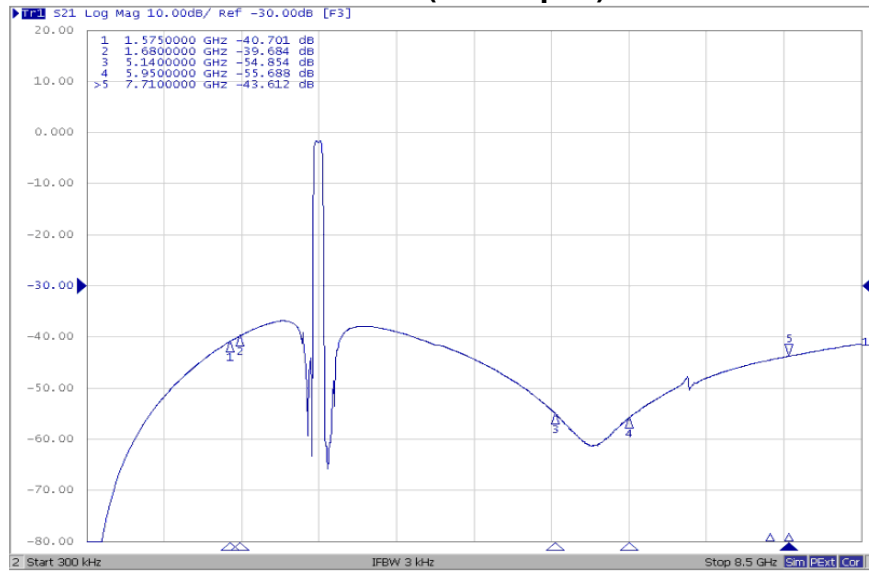
Rx Port



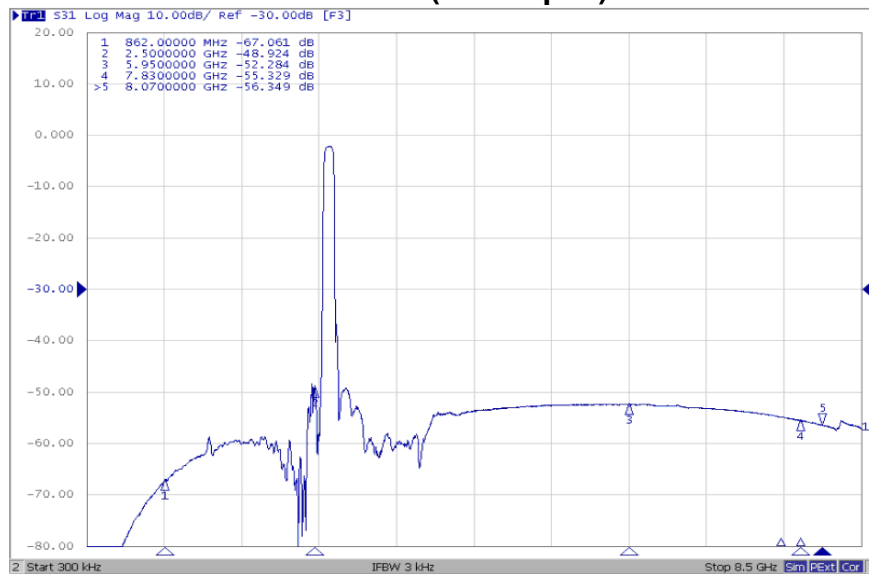
Ant Port



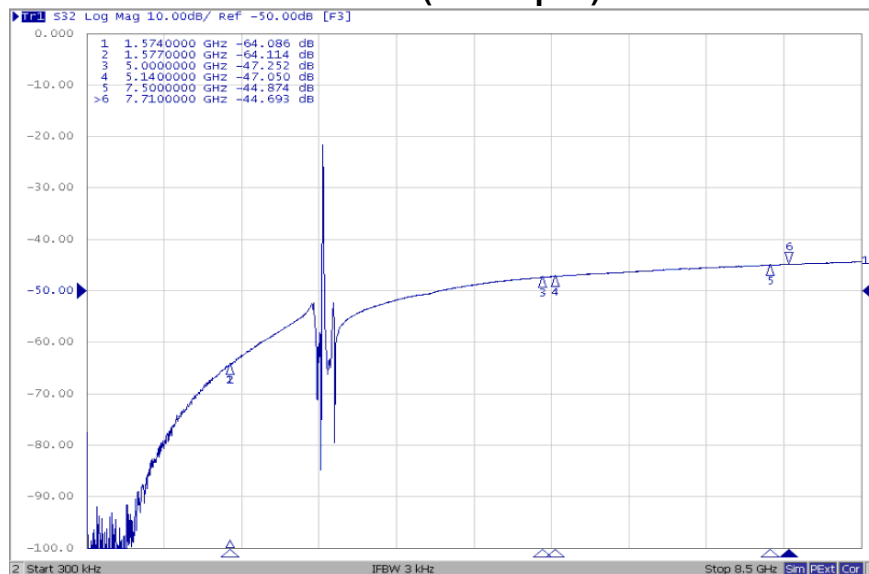
Tx to Ant (Wide span)



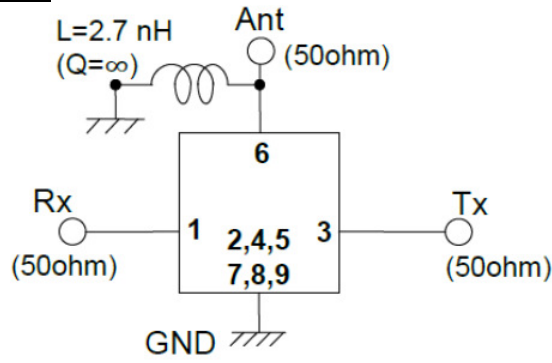
Ant to Rx (Wide span)



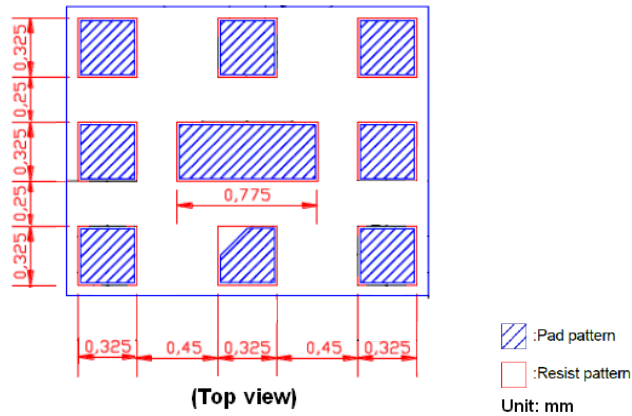
Tx to Rx (Wide span)



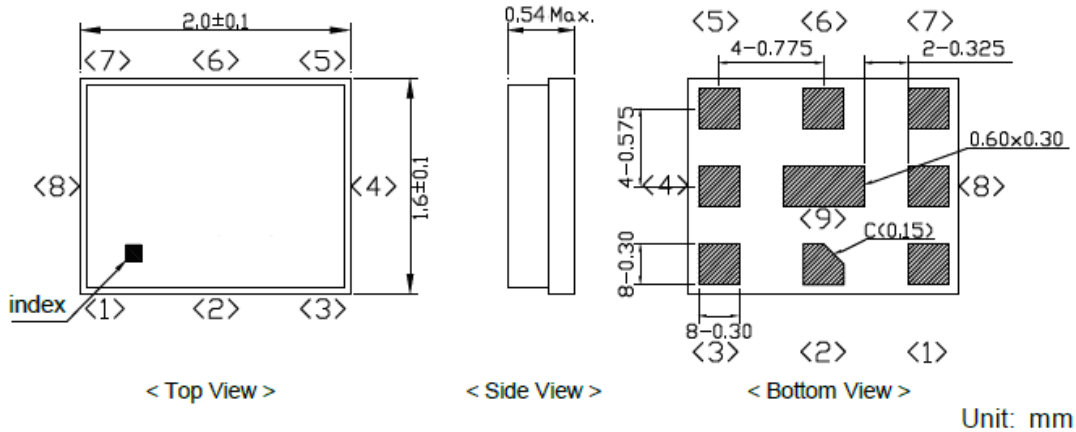
D. MEASUREMENT CIRCUIT:



E. PCB Footprint:



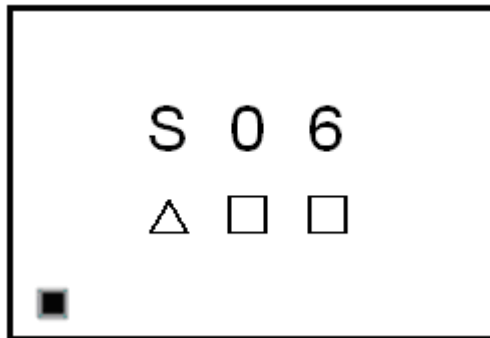
F. OUTLINE DRAWING:



Pin Configuration

Pin No.	Symbol	Function
1	RX	Receiver
2	GND	Ground
3	TX	Transmitter
4	GND	Ground
5	GND	Ground
6	ANT	Antenna
7	GND	Ground
8	GND	Ground
9	GND	Ground

Top View (Mass Production):



△ : Date Code

□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

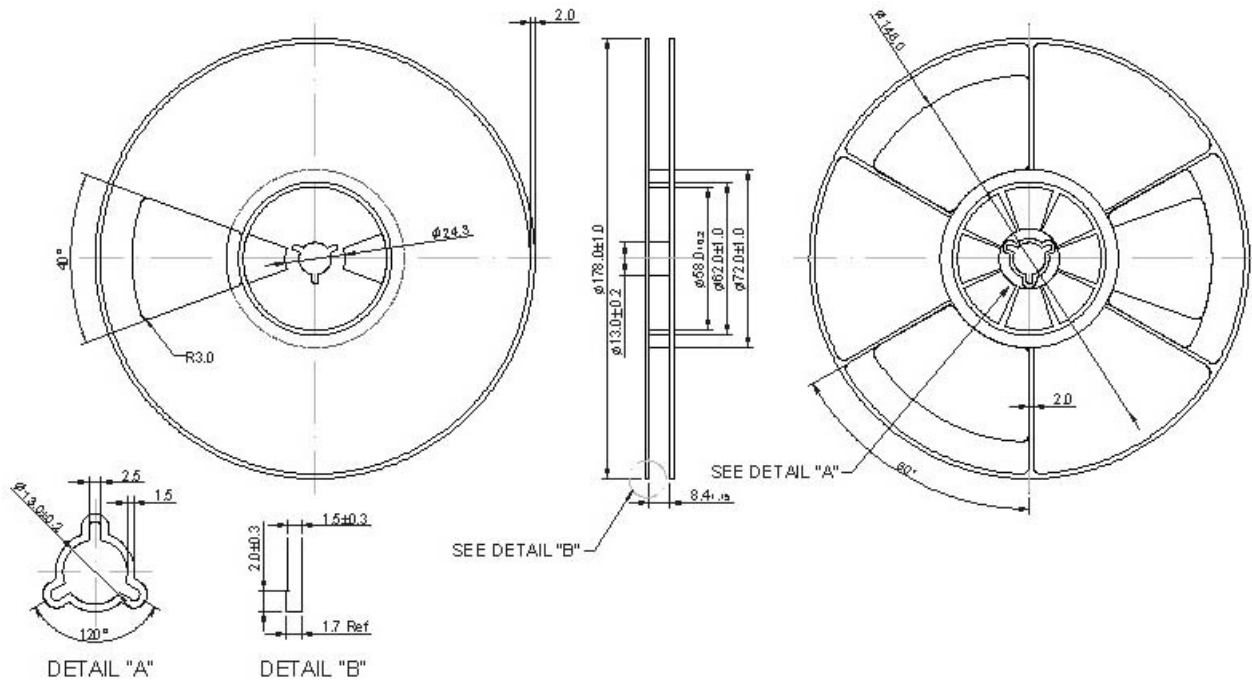
Date Code: Follow below table. (4-year cycle)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019 / 2023	a	b	c	d	e	f	g	h	j	k	l	m
2020 / 2024	n	p	q	r	s	t	u	v	w	x	y	z
2021 / 2025	A	B	C	D	E	F	G	H	J	K	L	M
2022 / 2026	N	P	Q	R	S	T	U	V	W	X	Y	Z

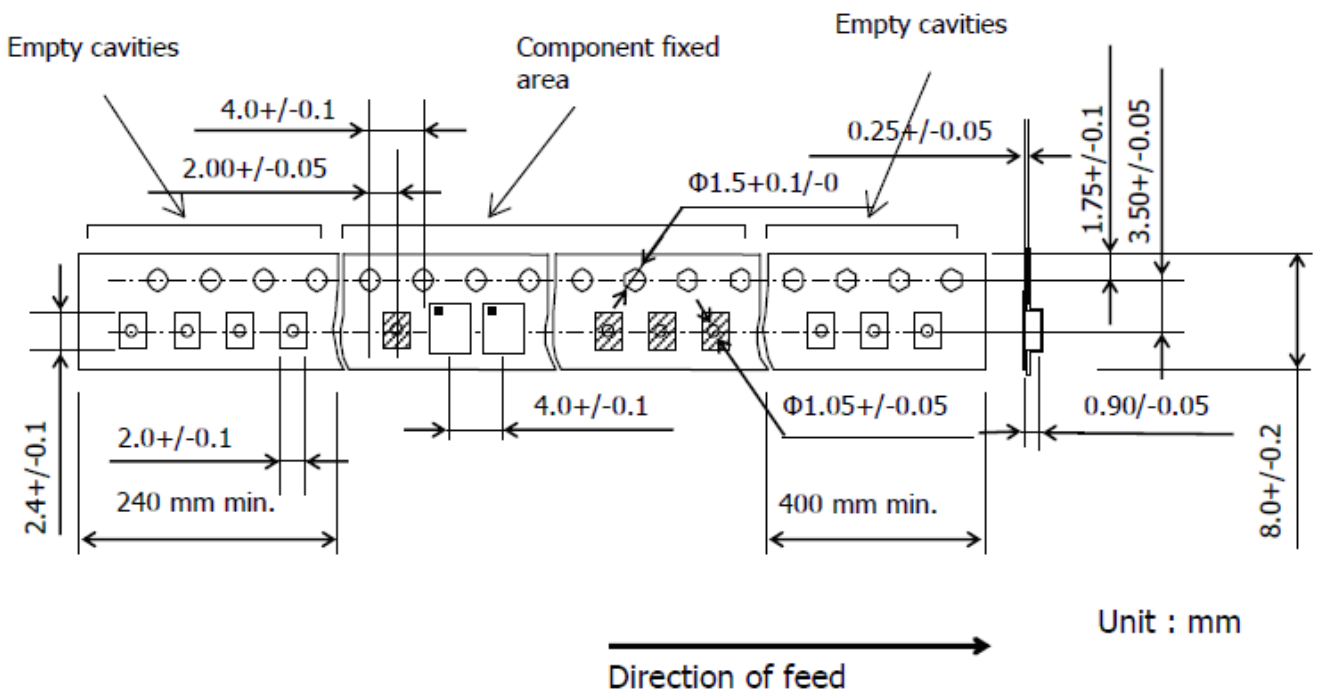
G. PACKING: (Ref: WI-75M03)

1. REEL DIMENSION

(Please refer to FR-75D10 for packing quantity)



2. TAPE DIMENSION



H. Recommended Reflow Profile:

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (20~40sec).
4. Time: 2 times.

