



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
Taoyuan, 324, Taiwan, R.O.C.

TEL: 886-3-4690038 FAX: 886-3-4697532

E-mail: tstsales@mail.taisaw.com Web: www.taisaw.com

Product Specifications Approval Sheet

Product Description: SAW DPX 2535/2655 MHz Band 7 SMD 1.6X1.2 mm (BW=70MHz)

TST Part No.: TF0218AA0031

Customer Part No.: _____

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

Checked by: _____ Nina Chen *Nina Chen*

Approved by: _____ Kazuma Lee *Kazuma Lee*

Date: _____ 2022/05/05

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



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
Taoyuan, 324, Taiwan, R.O.C.

TEL: 886-3-4690038 FAX: 886-3-4697532

E-mail: tstsales@mail.taisaw.com Web: www.taisaw.com

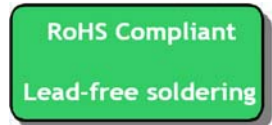
SAW DPX 2535/2655 MHz Band 7 SMD 1.6X1.2 mm (BW=70 MHz)

MODEL NO.: TF0218AA0031

REV.1.0

A. Maximum Rating:

1. Input power : 30dBm (Ta=+50°C,1000hmax,CW)
Input power : 29dBm (Ta=+50°C,5000hmax,CW)
2. Maximum DC Voltage: 5V
3. Operating temperature range: -30 °C to +85 °C
4. Storage temperature range: -40 °C to +100 °C
5. Moisture Sensitivity Level: Level 1 (MSL 1)
6. ESD 50V(MM) 100V(HBM)



Electrostatic Sensitive Device (ESD)

B. Electrical Characteristics:

Terminating impedance (Tx Port): 50 Ω(Single-ended)

Terminating impedance (Rx Port): 50 Ω (Single-ended)

Terminating impedance (Ant Port): 50//3.3nH Ω (Single-ended)

Tx to ANT (f_{T0}=2535 MHz)

Parameters Description		Unit	Min	Typ	Max	Remarks
Insertion Loss	2500 ~ 2535MHz	dB	-	2.1	3.2	
	2535 ~ 2570MHz	dB	-	1.8	2.6	
Amplitude ripple	2500 ~ 2570MHz	dB	-	0.9	2.6	
Ripple (any 5MHz)	2500 ~ 2570MHz	dB	-	0.5	1.0	Ta=+25°C
		dB	-	0.5	1.4	
VSWR	Tx	2500 ~ 2570MHz	-	-	1.6	2.2
	ANT	2500 ~ 2570MHz	-	-	1.5	2.3

Attenuation:

50~ 1606 MHz	dB	36	39	-	
1805 ~ 1880 MHz	dB	33	38	-	
1900 ~ 2025 MHz	dB	33	36	-	
2110 ~ 2170 MHz	dB	32	37	-	
2155 ~ 2200 MHz	dB	33	37		
2300 ~ 2400 MHz	dB	37	39		
2403 ~ 2421 MHz	dB(*1)	45	48		
2408 ~ 2426 MHz	dB(*1)	46	50		
2413 ~ 2431 MHz	dB(*1)	48	51		
2418 ~ 2436 MHz	dB(*1)	49	52		
2423 ~ 2441 MHz	dB(*1)	47	52		

2428 ~ 2446 MHz	dB(*1)	46	51		
2433 ~ 2451 MHz	dB(*1)	46	51		
2438 ~ 2456 MHz	dB(*1)	41	51		
2443 ~ 2461 MHz	dB(*1)	45	49		
2448 ~ 2466 MHz	dB(*1)	45	49		
2453 ~ 2471 MHz	dB(*1)	42	48		
2458 ~ 2476 MHz	dB(*1)	22	44		
2463 ~ 2481 MHz	dB(*1)	13	22		
2620 ~ 2690 MHz	dB	52	58		
3400 ~ 5000 MHz	dB	32	36		
5000 ~ 5140 MHz	dB	47	51		
5140 ~ 7710 MHz	dB	42	50		

ANT to Rx (f_{T0}=2655 MHz)

Parameters Description		Unit	Min	Typ	Max	Remarks
Insertion Loss	2620 ~ 2655MHz	dB	-	1.9	2.8	
	2655 ~ 2690MHz	dB	-	1.7	2.6	
Amplitude ripple		dB	-	0.7	1.8	
VSWR	ANT	-	-	1.7	2.0	
	Rx	-	-	1.8	2.2	

Attenuation:

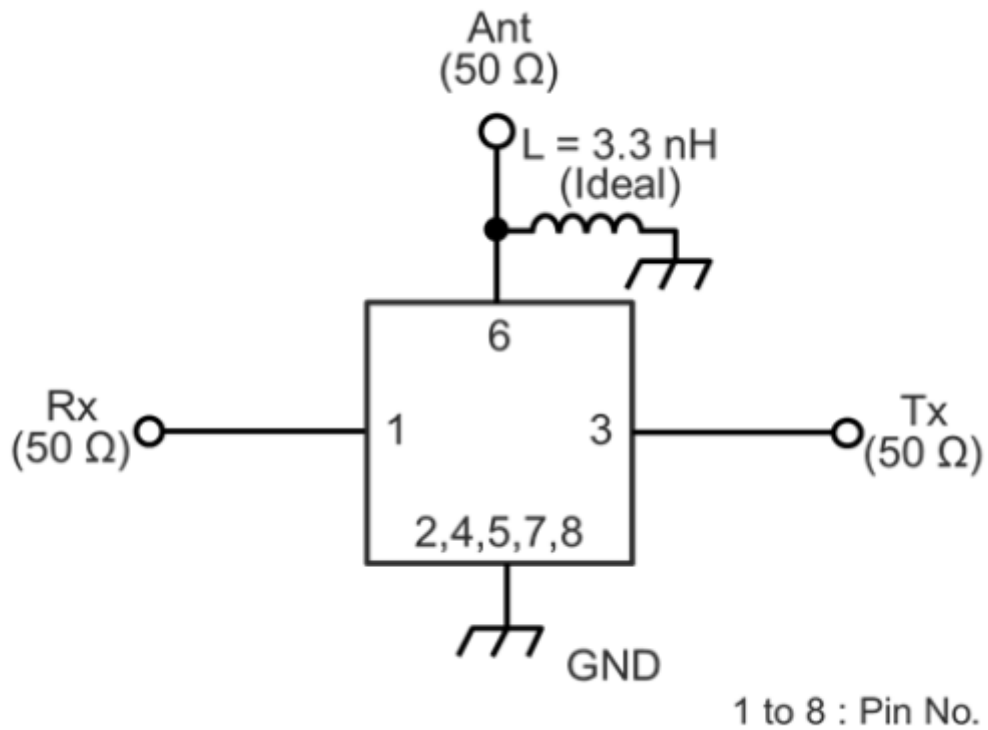
45 MHz	dB	60	90	-	
718 ~ 748 MHz	dB	53	59	-	
814 ~ 832 MHz	dB	51	57	-	
832 ~ 862 MHz	dB	51	60	-	
880 ~ 915 MHz	dB	50	56		
1710 ~ 1785 MHz	dB	40	46		
1920 ~ 1980 MHz	dB	39	46		
2400 ~ 2500 MHz	dB	45	54		
2402 ~ 2470 MHz	dB	45	54		
2500 ~ 2570 MHz	dB	47	56		
2570 ~ 2600 MHz	dB	1	6		
2775 ~ 2790 MHz	dB	51	55		
2775 ~ 6000 MHz	dB	45	53		
4900 ~ 5300 MHz	dB	55	60		
5300 ~ 5950 MHz	dB	53	58		
7620 ~ 7830 MHz	dB	43	50		
7860 ~ 8070 MHz	dB	42	48		

Tx to Rx

Isolation	2500 ~ 2535 MHz	dB	57	62	-	
	2535 ~ 2570 MHz	dB	53	57		
	2620 ~ 2655 MHz	dB	56	65		
	2655 ~ 2690 MHz	dB	52	59	-	

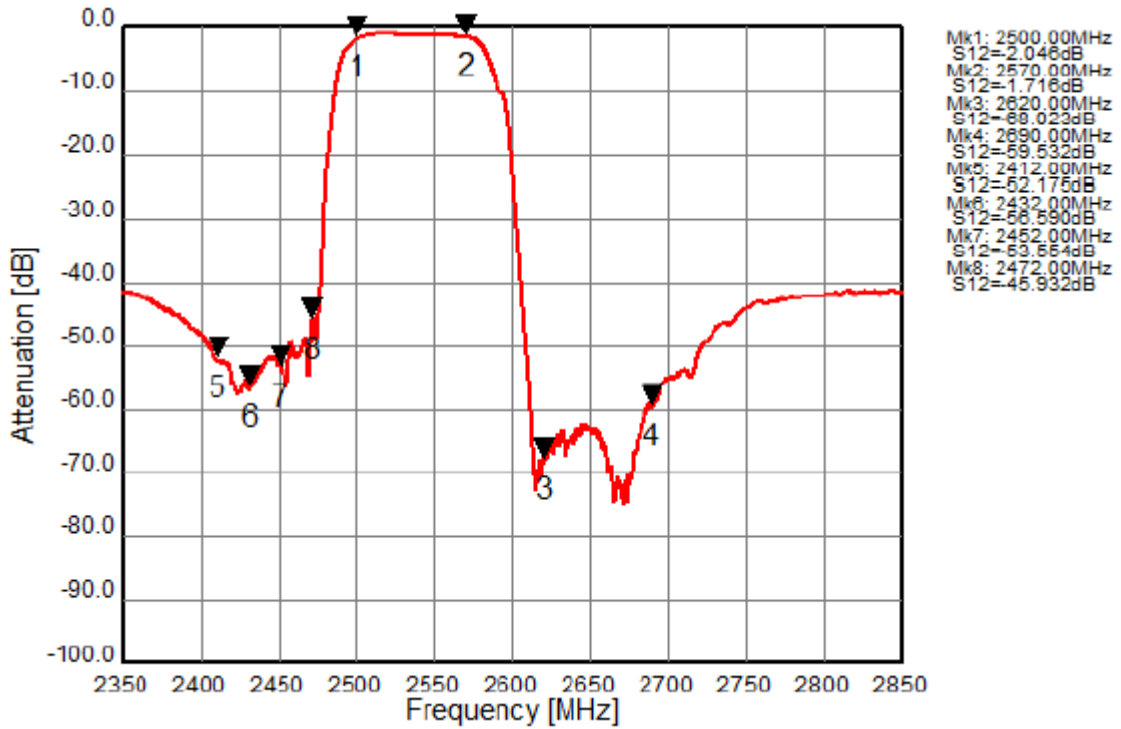
(*1)Integrated over 18MHz CH BW.

C. Measurement Circuit:

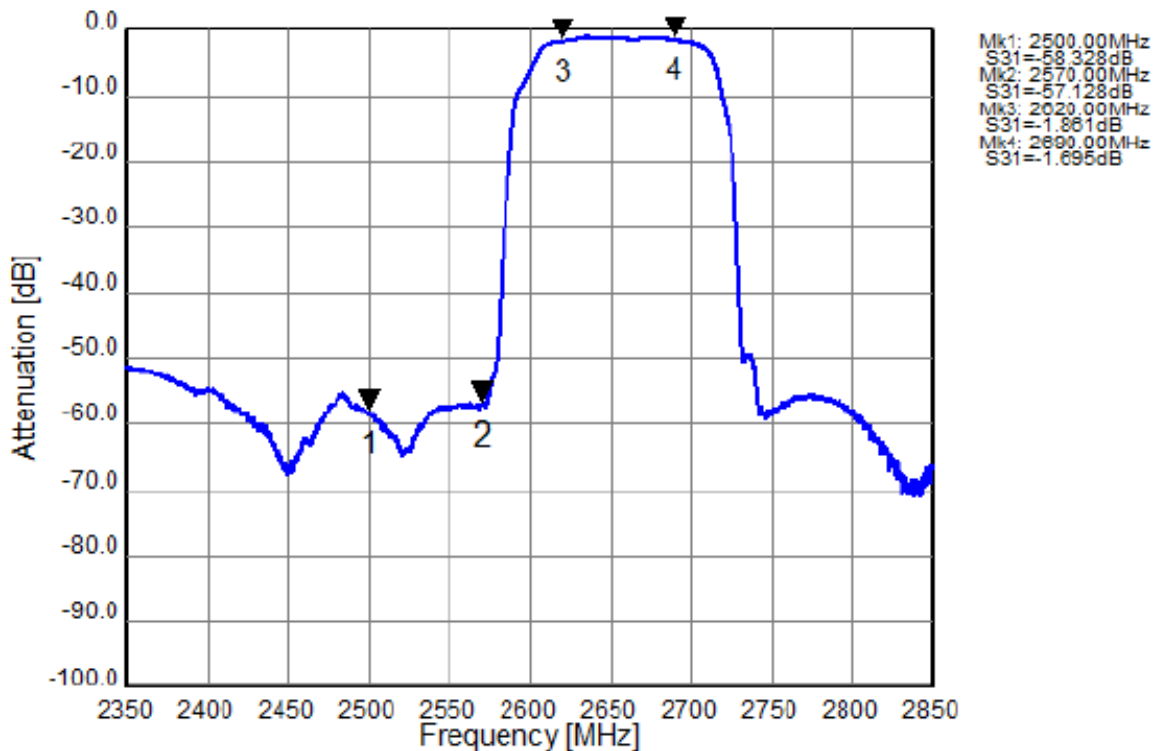


D. Frequency Characteristics:

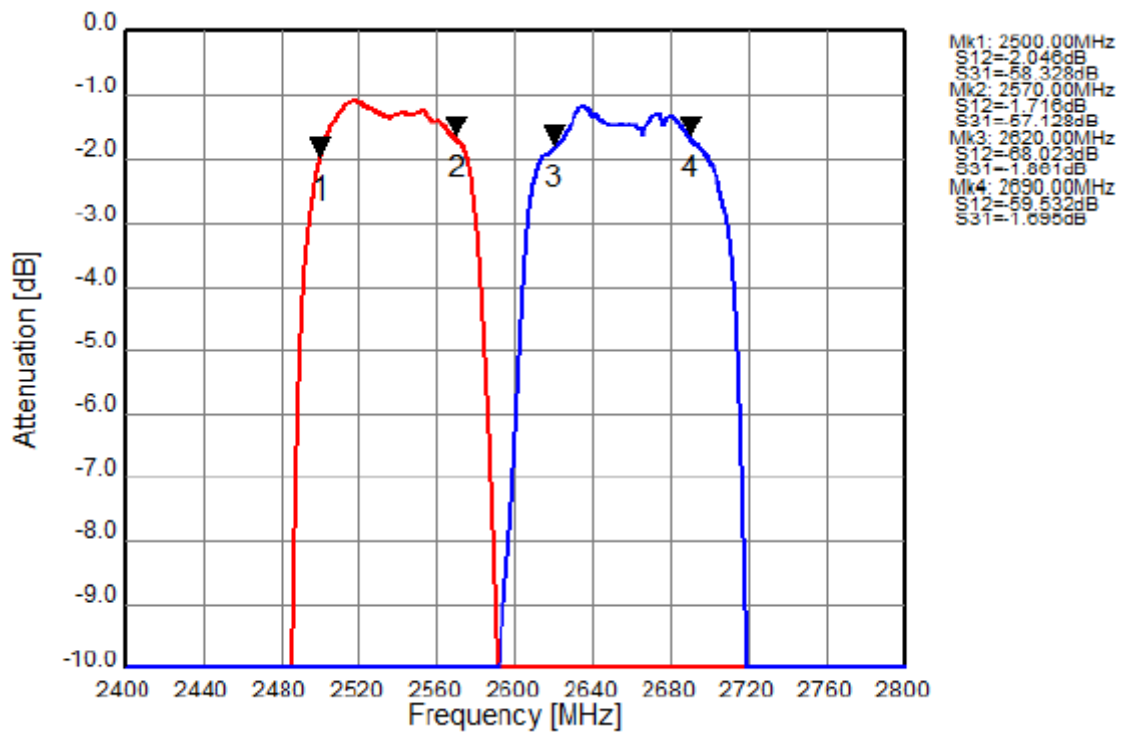
Tx to Ant



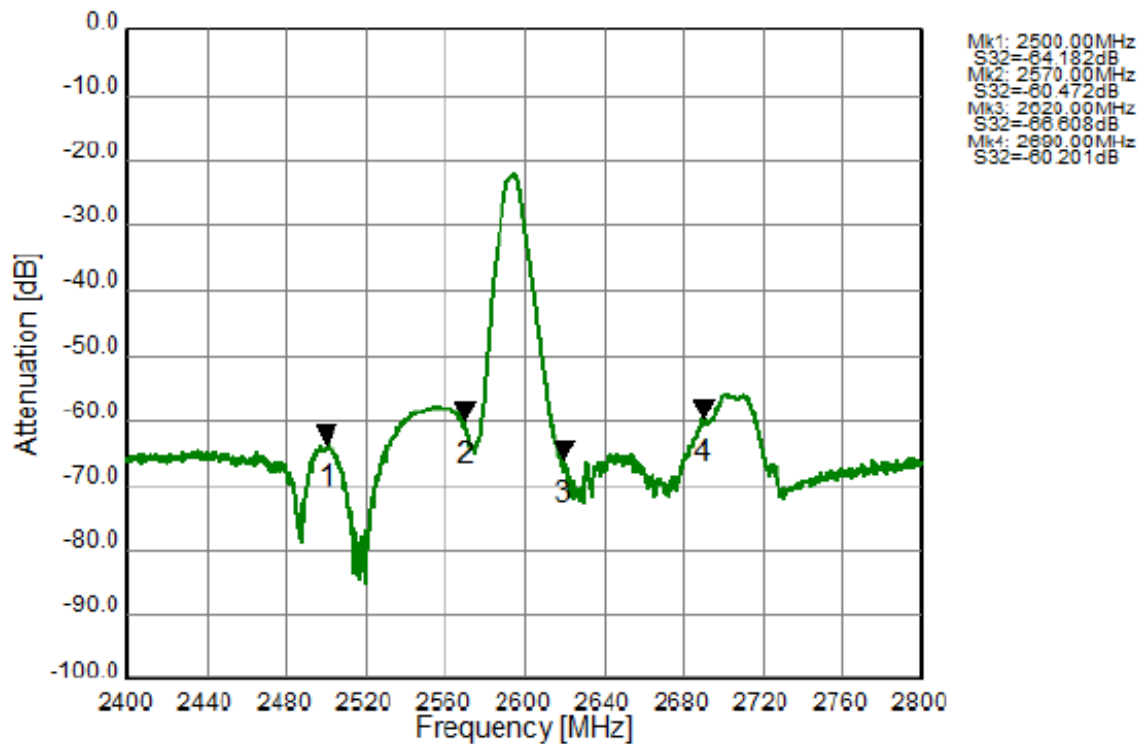
Ant to Rx



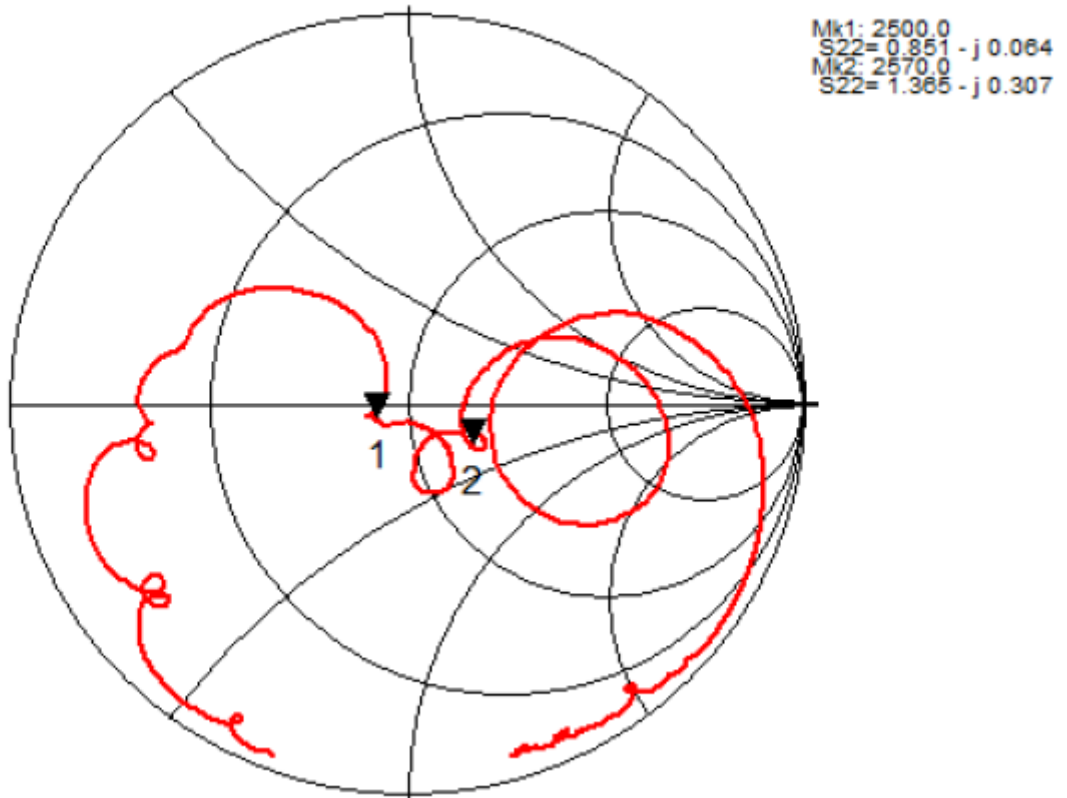
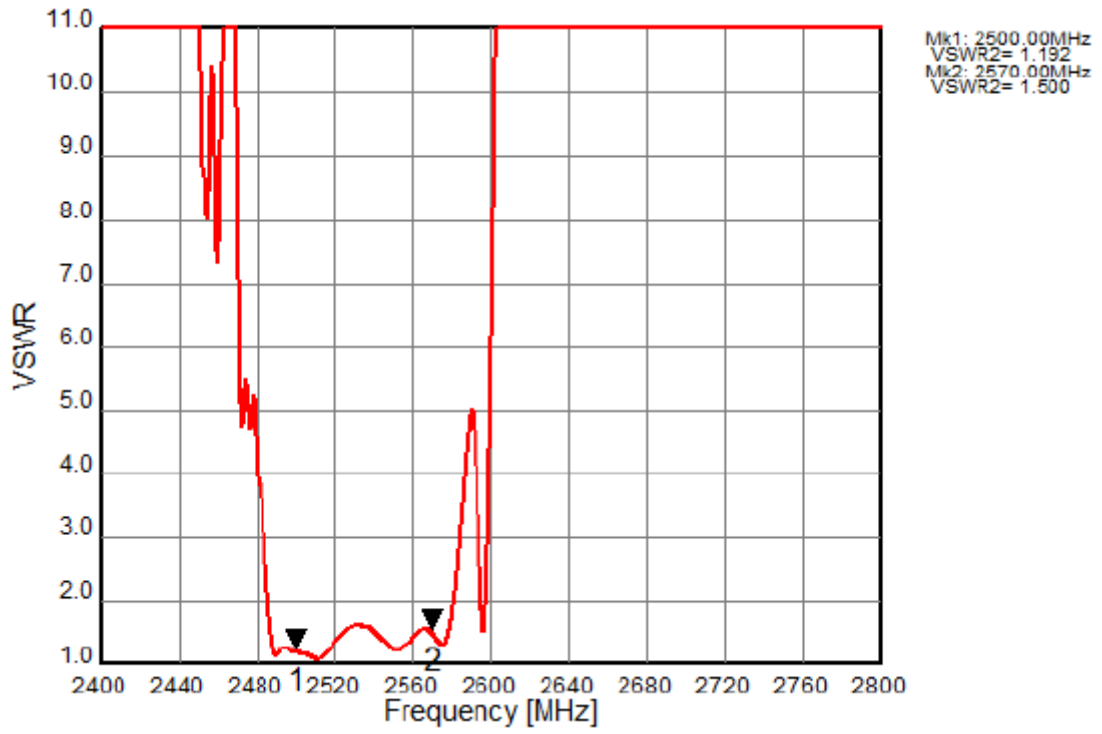
Tx to Ant ,Ant to Rx



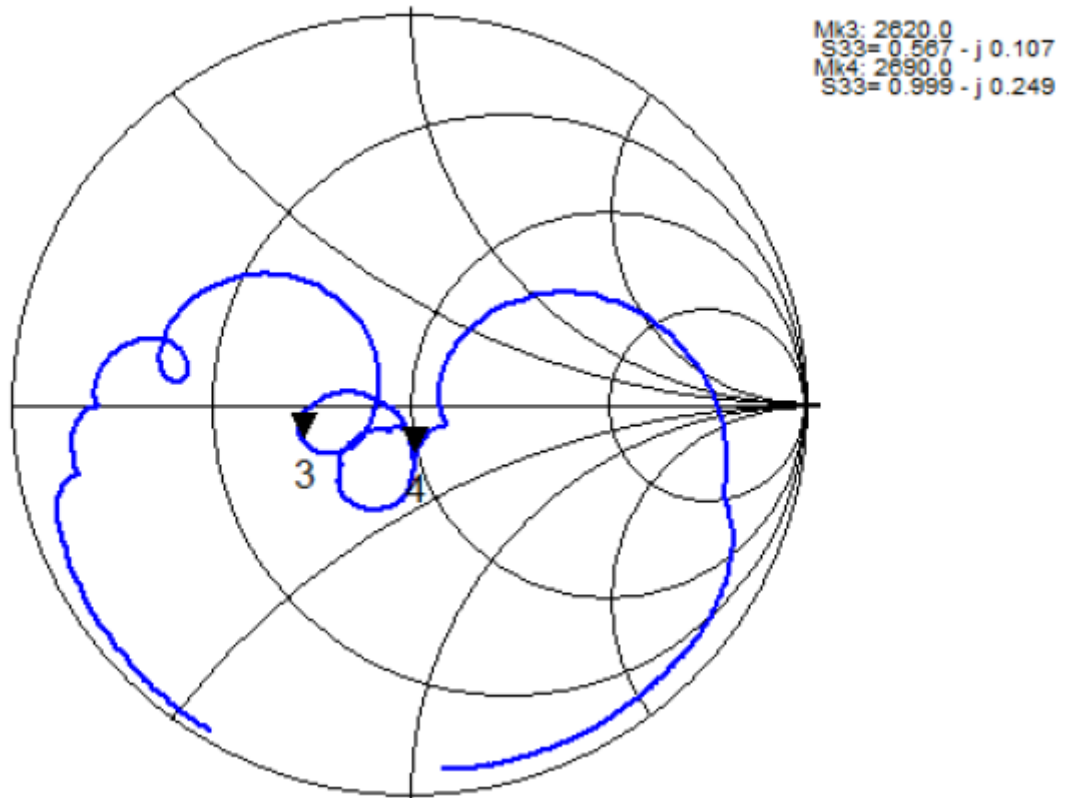
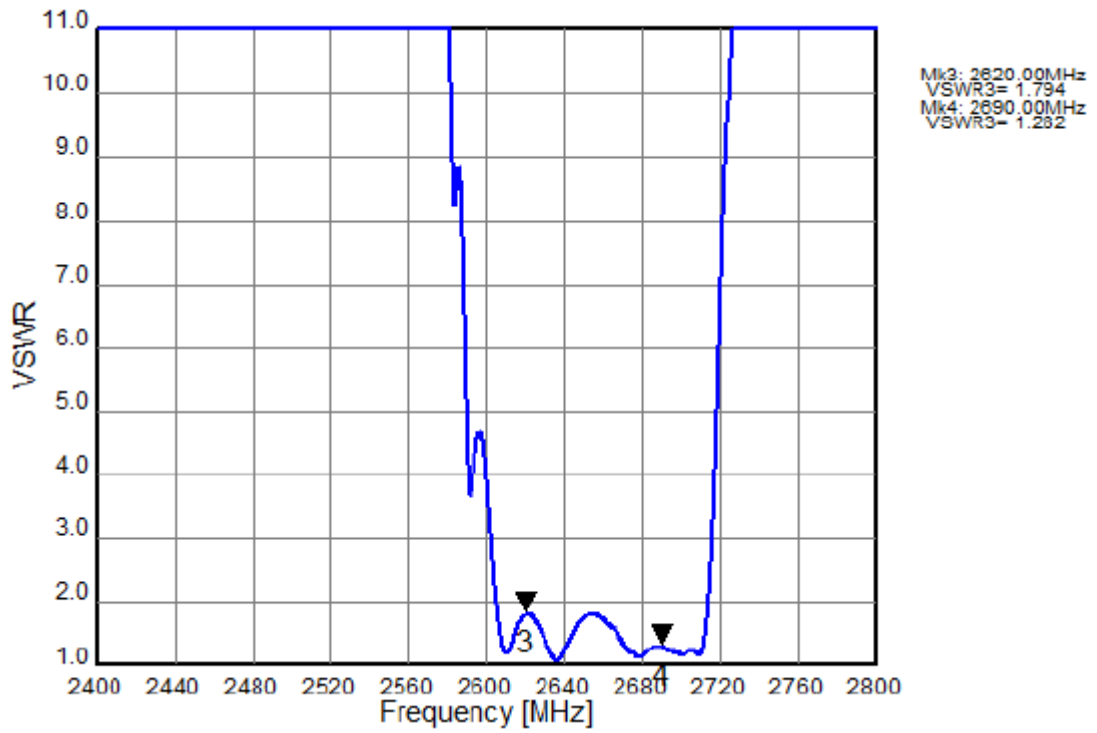
Tx to Rx Isolation



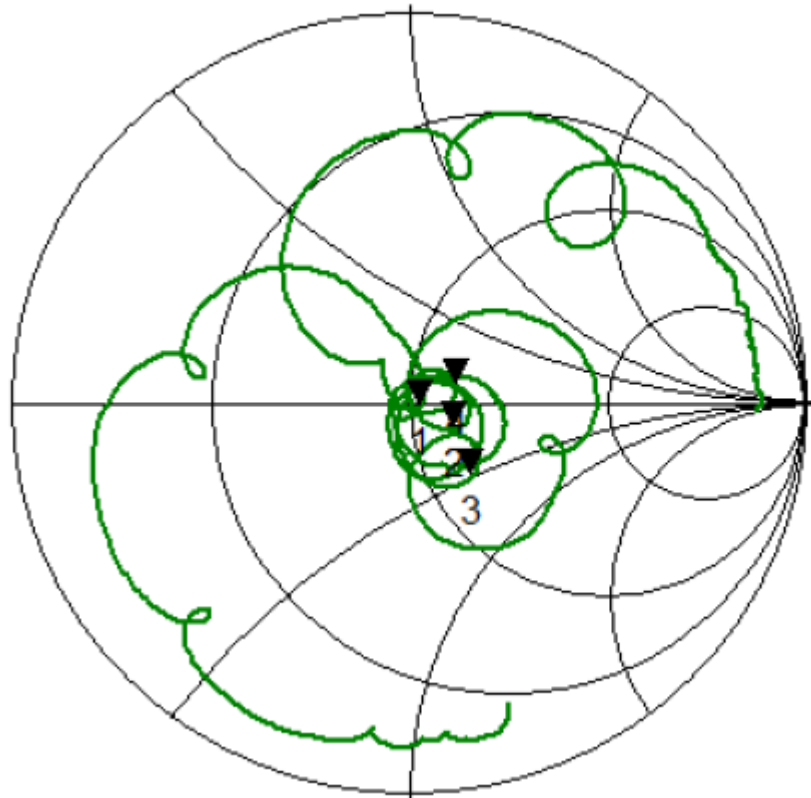
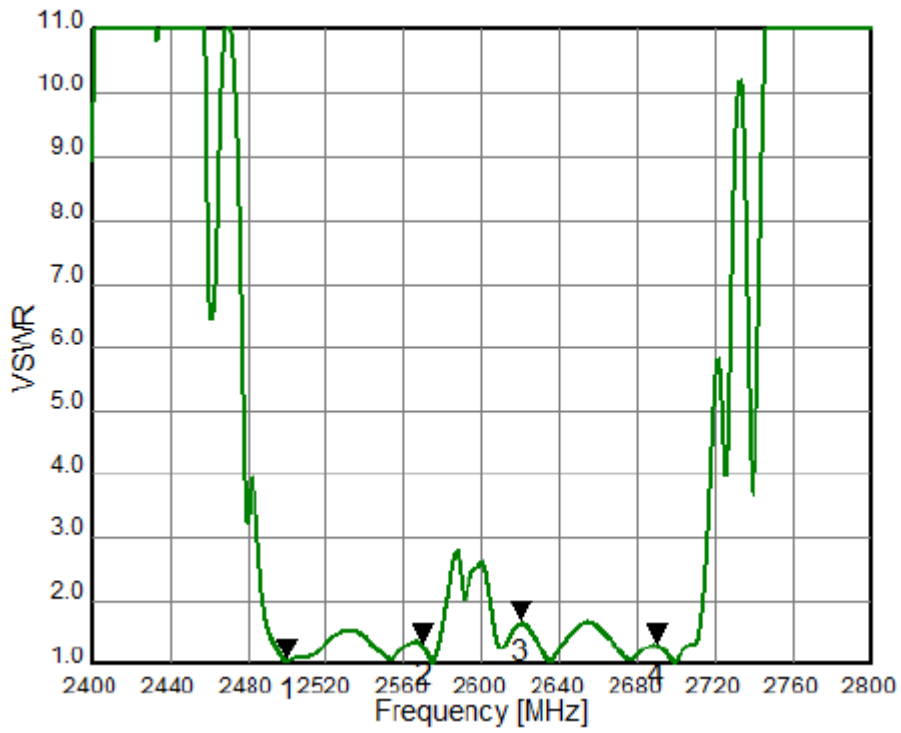
Tx Port



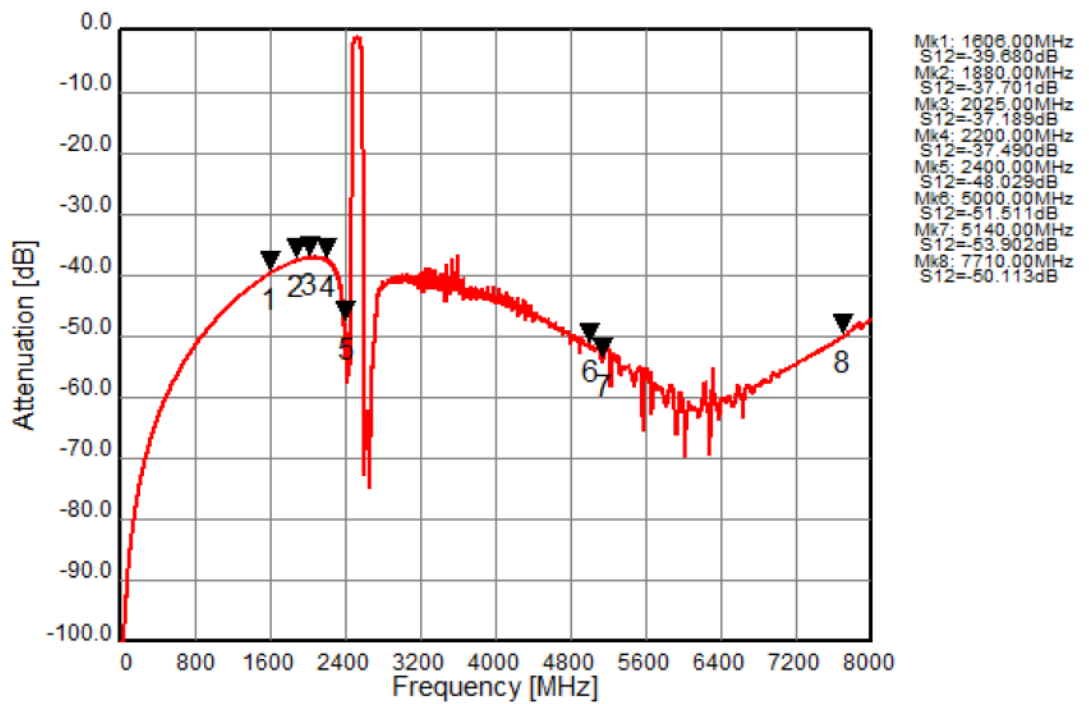
Rx Port



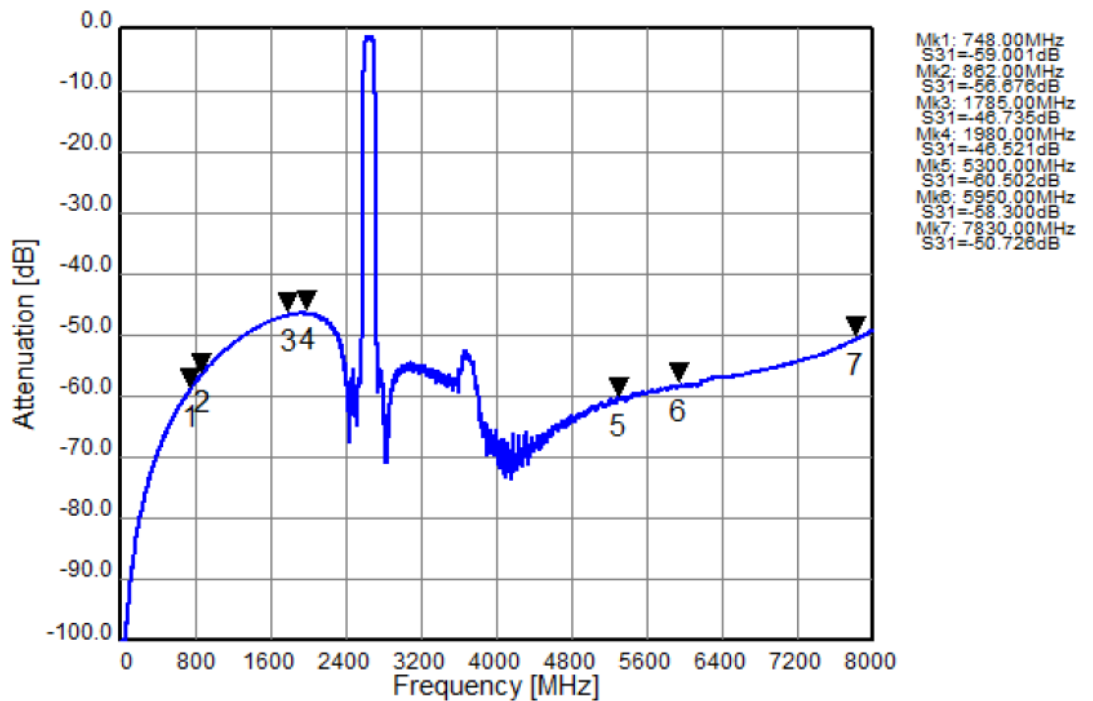
Ant Port



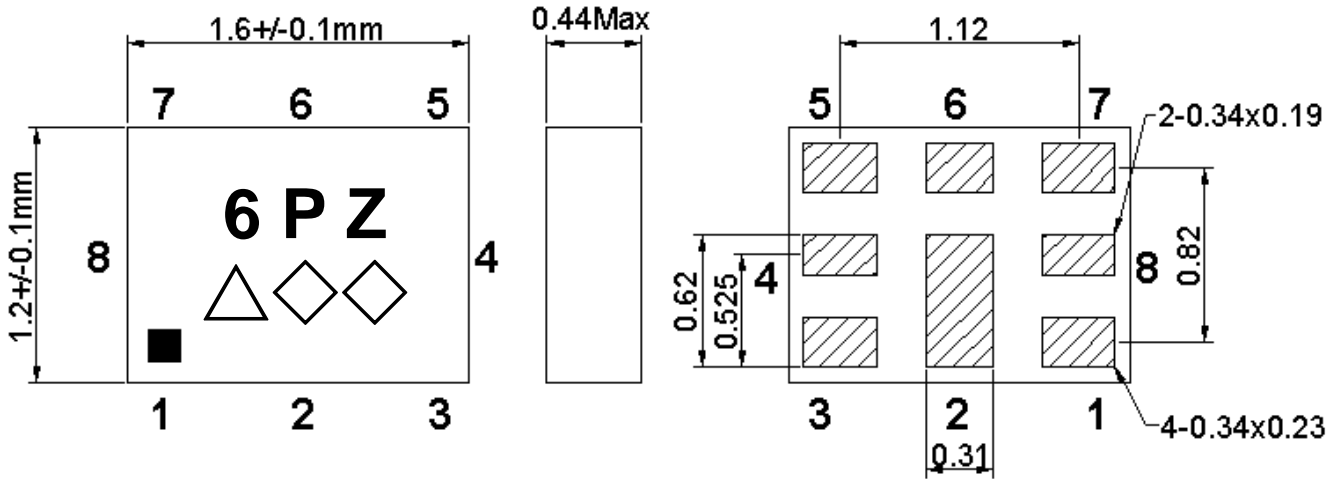
Tx to Ant (Wide Span)



Ant to Rx (Wide Span)



E. Outline Drawing:



Not Specified Tolerance : +/-0.05 mm

Coplanarity : 0.1 mm max.

1 to 8 : Pin No.

Unit : mm

Marking name : **6PZ**

△: Date code(2021 May → E ,....., 2023 Dec→m.)

◇◇: Lot Code.

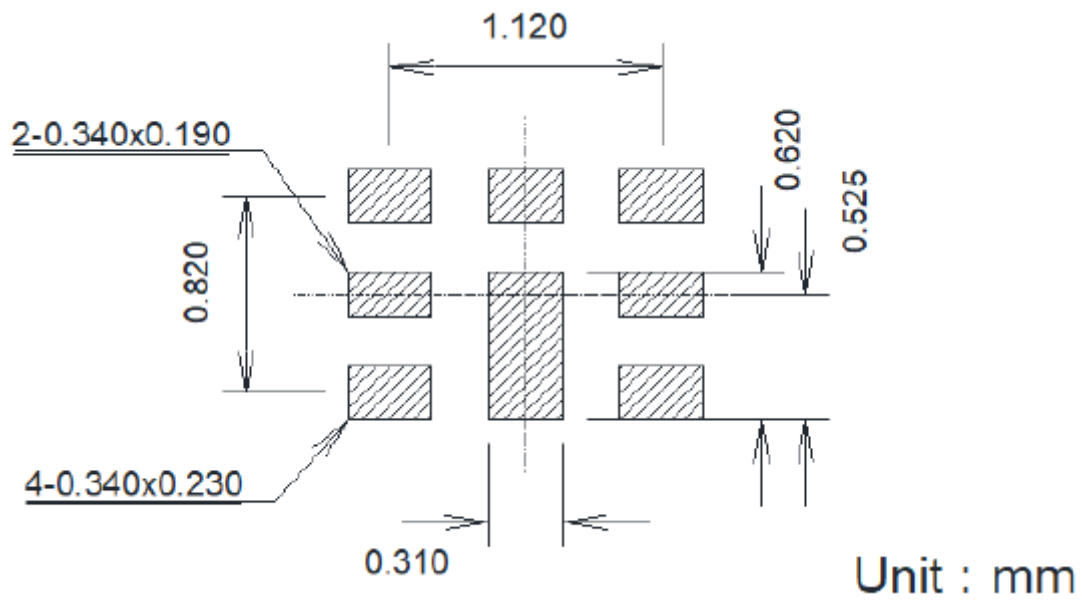
Product Date Code. Follow below table. **(4-year cycle)**

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2021	A	B	C	D	E	F	G	H	J	K	L	M
2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2023	a	b	c	d	e	f	g	h	j	k	l	m
2024	n	p	q	r	s	t	u	v	w	x	y	z
2025												
2026												
2027												
2028												

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

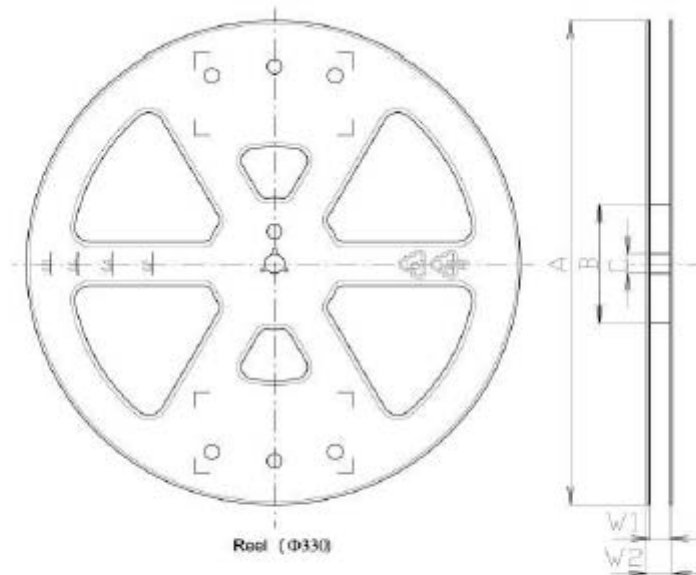
F. PCB Footprint:



G. Packing:

1. Reel Dimension

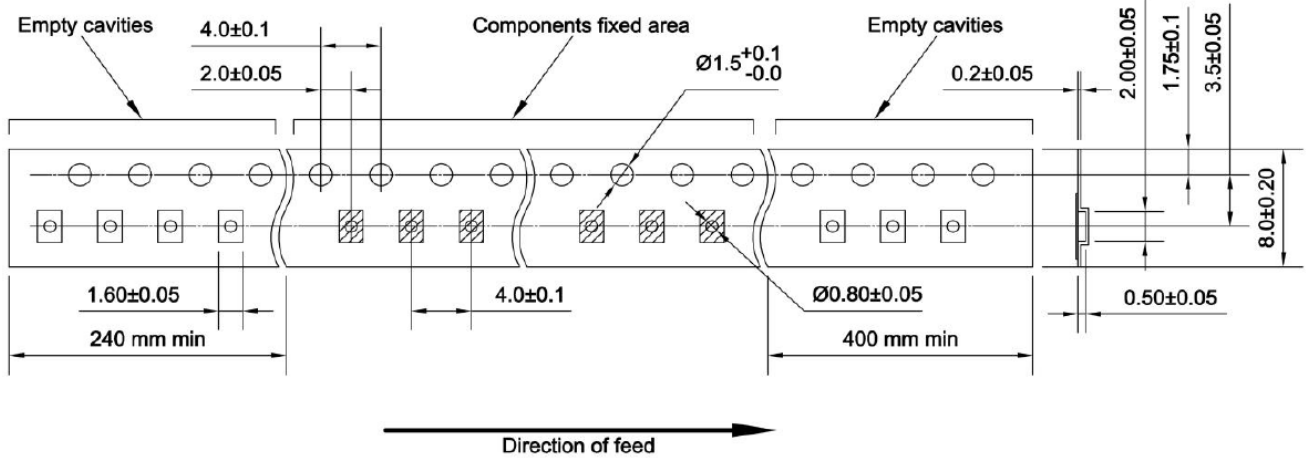
(Please refer to FR-75D10 for packing quantity)



Order	Code	Quantity (pcs./reel)	A	B	C	W1	W2	Tape Pitch
Standard	Y	15,000	φ330	φ100	φ13 ±0.2	9.4 ±1.0	13.4 ±1.0	4.0 ±0.1
Option	Z	3,000	φ180	φ60	φ13 ±0.2	9 +1.0/-0.0	11.4 ±1.0	4.0 ±0.1

Unit:mm

2. Tape Dimension



H. Recommended Solder 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 245~260°C peak (min. 10sec).
4. Time : 2 times.

