

A. MAXIMUM RATING:

1. Input power : 29dBm (Ta=+50deg C,50000h,CW)
2. Maximum DC Voltage: +/-5 V
3. Operating temperature range: -40 °C to +85 °C
4. Storage temperature range: -55 °C to +125 °C
5. Moisture Sensivity Level: Level 3 (MSL 3)
6. ESD 100V(MM) 200V(HBM)

RoHS Compliant

Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

Terminating impedance(Tx Port): 50//12nH Ω (Single-ended)

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

Terminating impedance(Ant Port): 50//8.2nH Ω (Single-ended)

Tx to ANT($f_{T0}=733$ MHz)

Parameters		Description	Unit	Minimum	Typical	Maximum	Note
Insertion Loss	718 ~ 748 MHz		dB(*1)	-	1.8	3.6	
	718.25 ~ 747.75 MHz						
Ripple		718 ~ 748 MHz	dB	-	1.1	2.9	
VSWR	Tx	718 ~ 748 MHz	-	-	1.9	2.3	
	ANT		-	-	1.8	2.2	
Attenuation:							
10 ~ 698 MHz			dB	32	36	-	-
698 ~ 710 MHz			dB	15	26	-	-
758 ~ 773 MHz			dB	10	39	-	-
773 ~ 803 MHz			dB	50	55	-	Rx
1436 ~ 1496 MHz			dB	25	29	-	2fo
1565 ~ 1606 MHz			dB	22	25		GPS
2154 ~ 2244 MHz			dB	28	32		3fo
2400 ~ 2500 MHz			dB	30	38		ISM

ANT to Rx($f_{T0}=788$ MHz)

Parameters		Description	Unit	Minimum	Typical	Maximum	Note
Insertion Loss	773 ~ 803 MHz		dB(*1)	-	1.9	3.6	
	773.25 ~ 802.75 MHz				1.8	3.2	
Ripple		773 ~ 803 MHz	dB	-	0.8	2.9	
VSWR	ANT	773 ~ 803 MHz	-	-	1.8	2.5	
	Rx		-	-	1.7	2.5	
Attenuation:							
718 ~ 748 MHz			dB	50	63	-	Tx-
2400 ~ 2500 MHz			dB	30	73	-	ISM

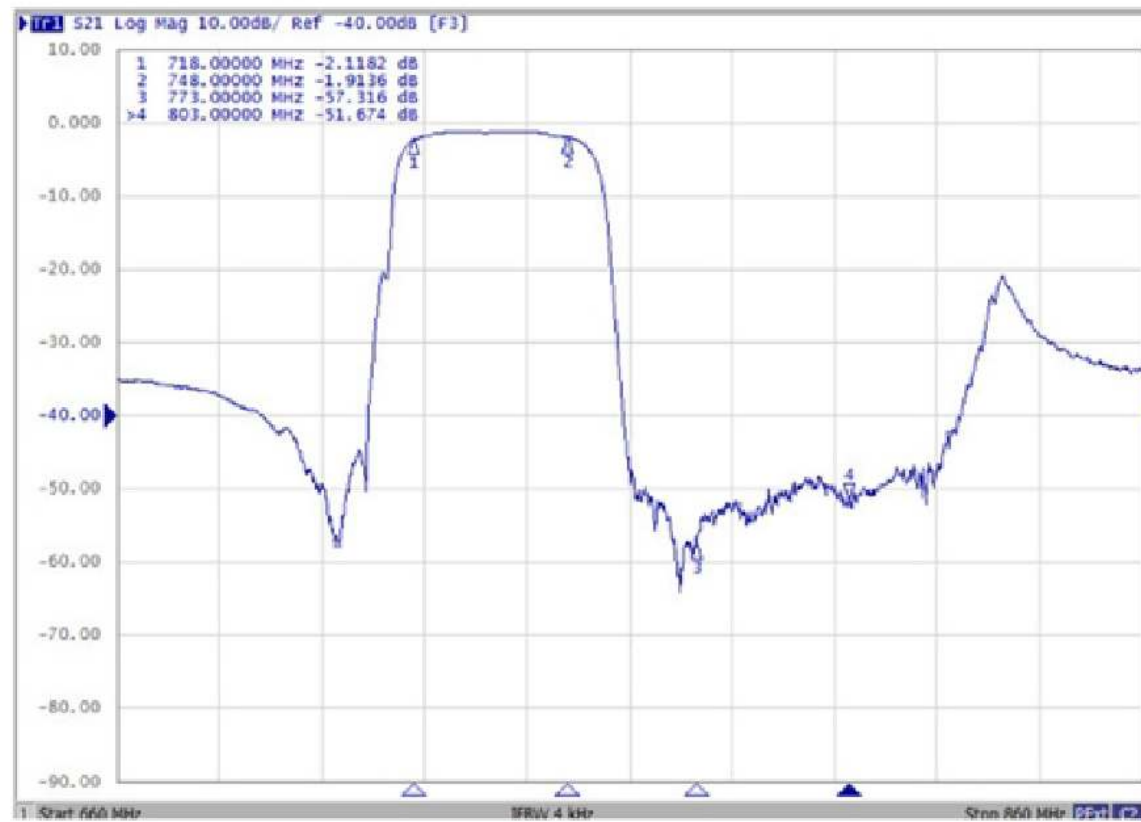
Tx to Rx

Isolation	718 ~ 748 MHz		dB	57	63	-	Tx
	773 ~ 803 MHz		dB	53	60	-	Rx

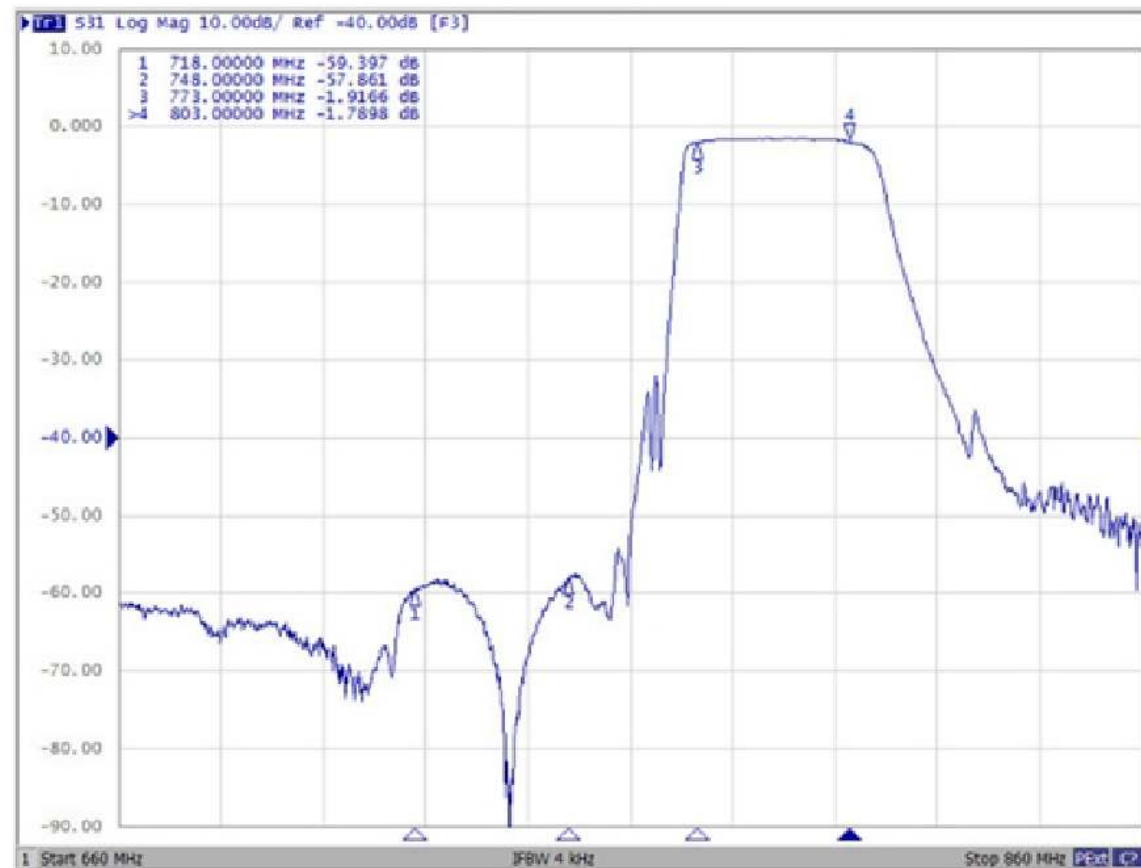
(*1) De-embedded test fixture.

C. Frequency Characteristics:

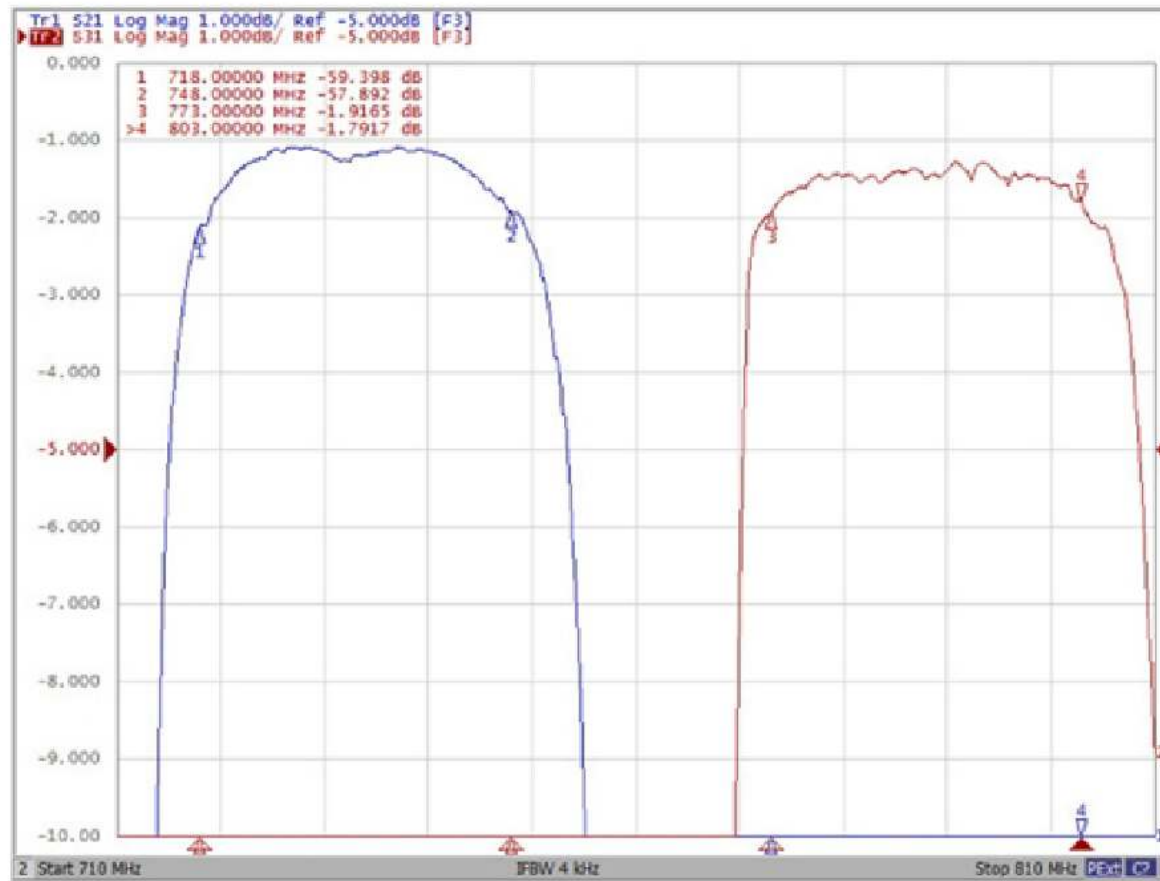
Tx to Ant



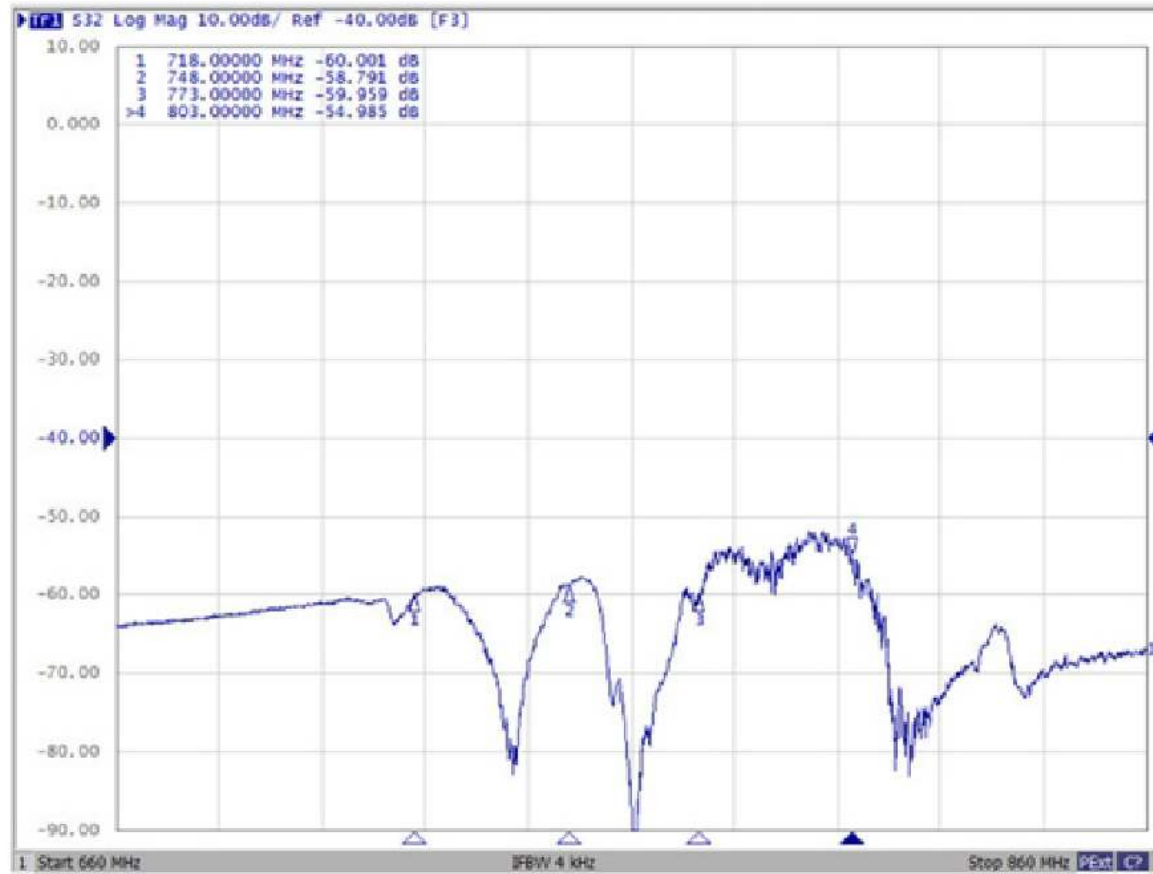
Ant to Rx



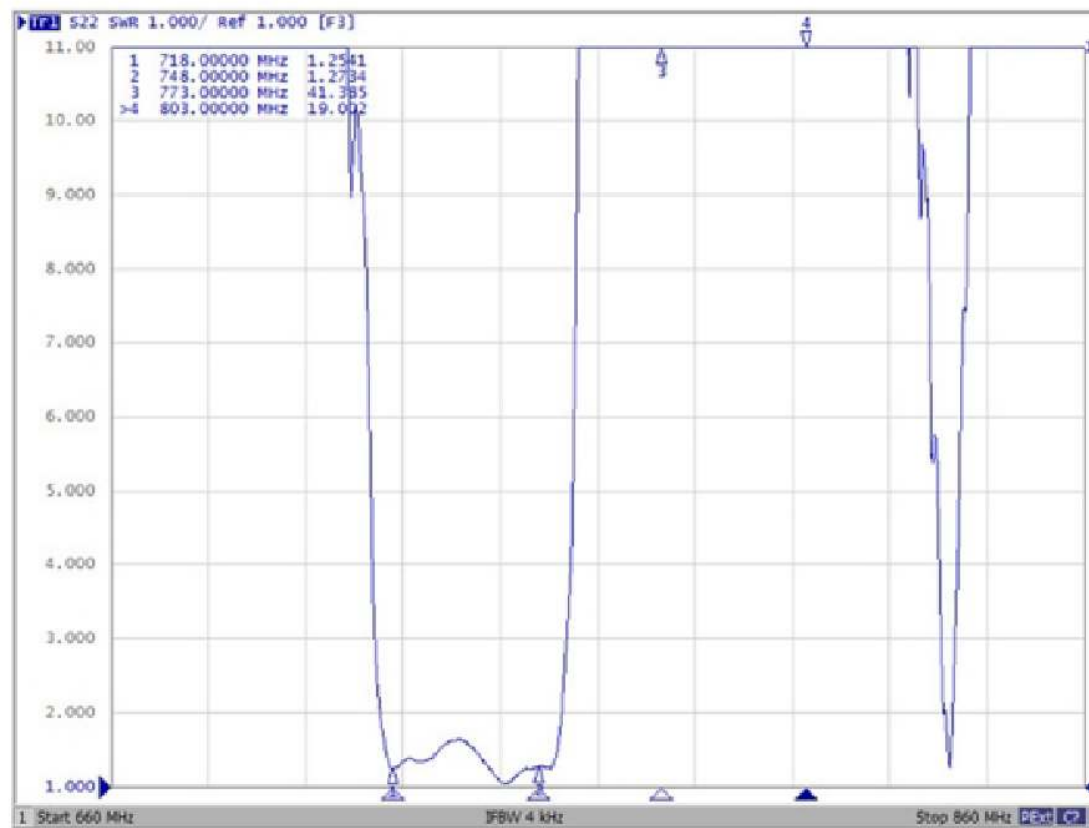
Ripple Deviation



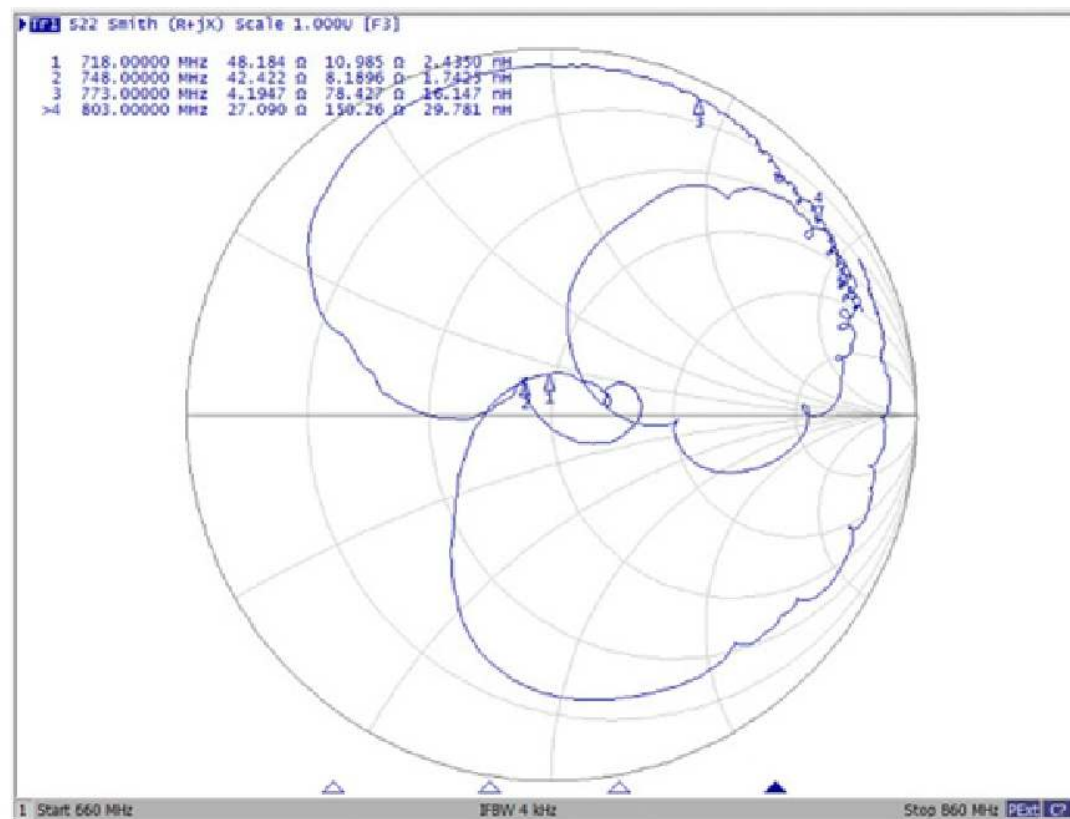
Isolation



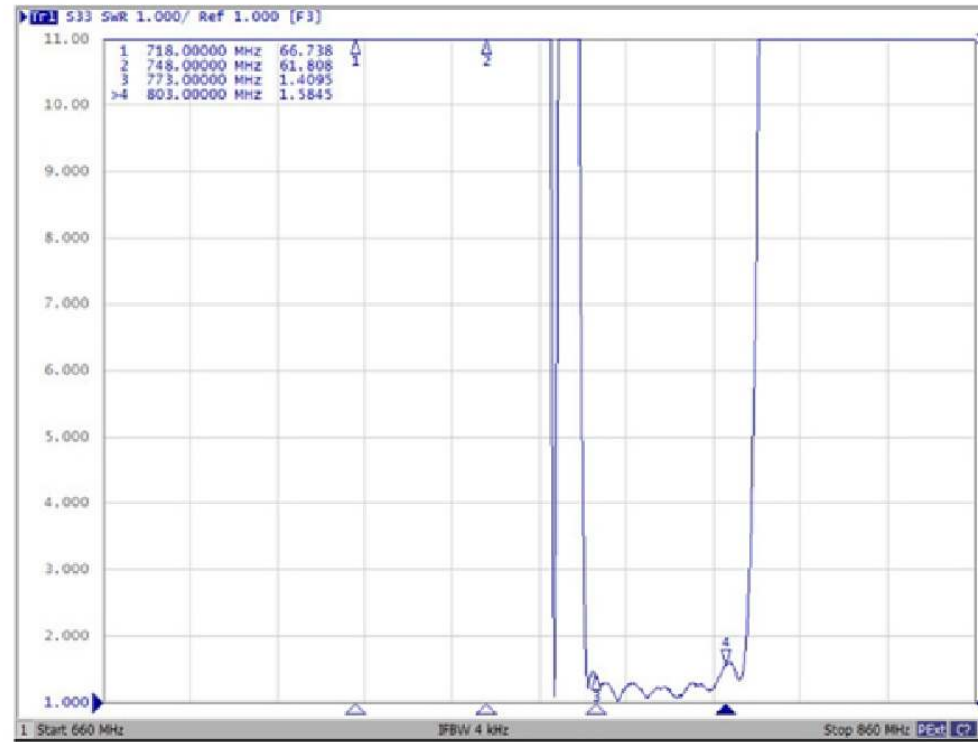
VSWR (Tx Port)



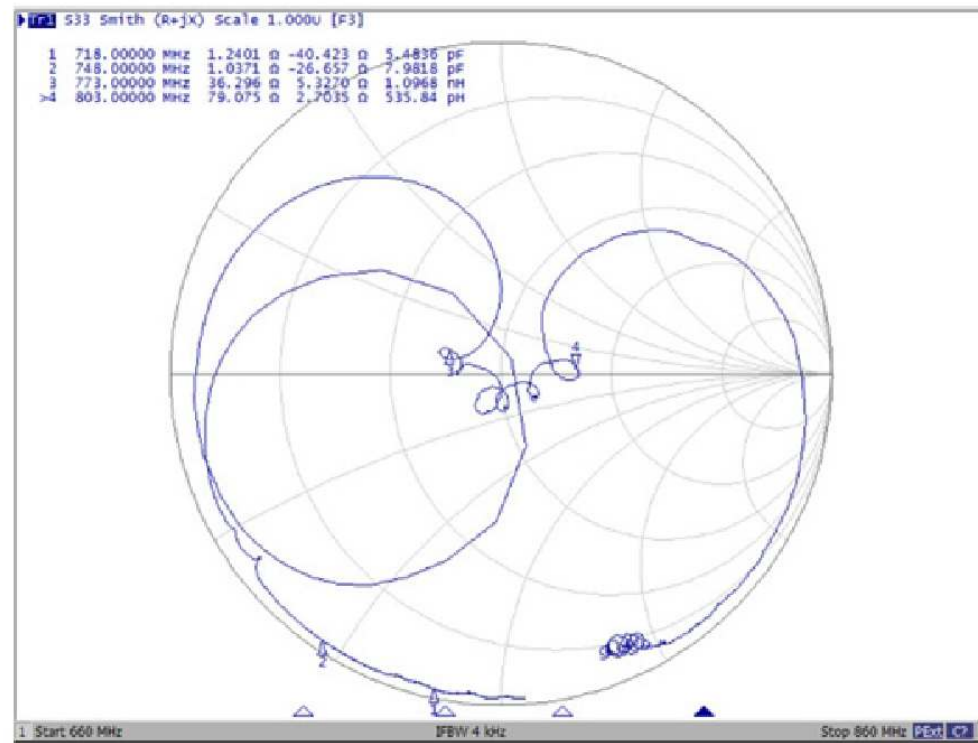
Smith Chart (Tx Port)



VSWR (Rx Port)

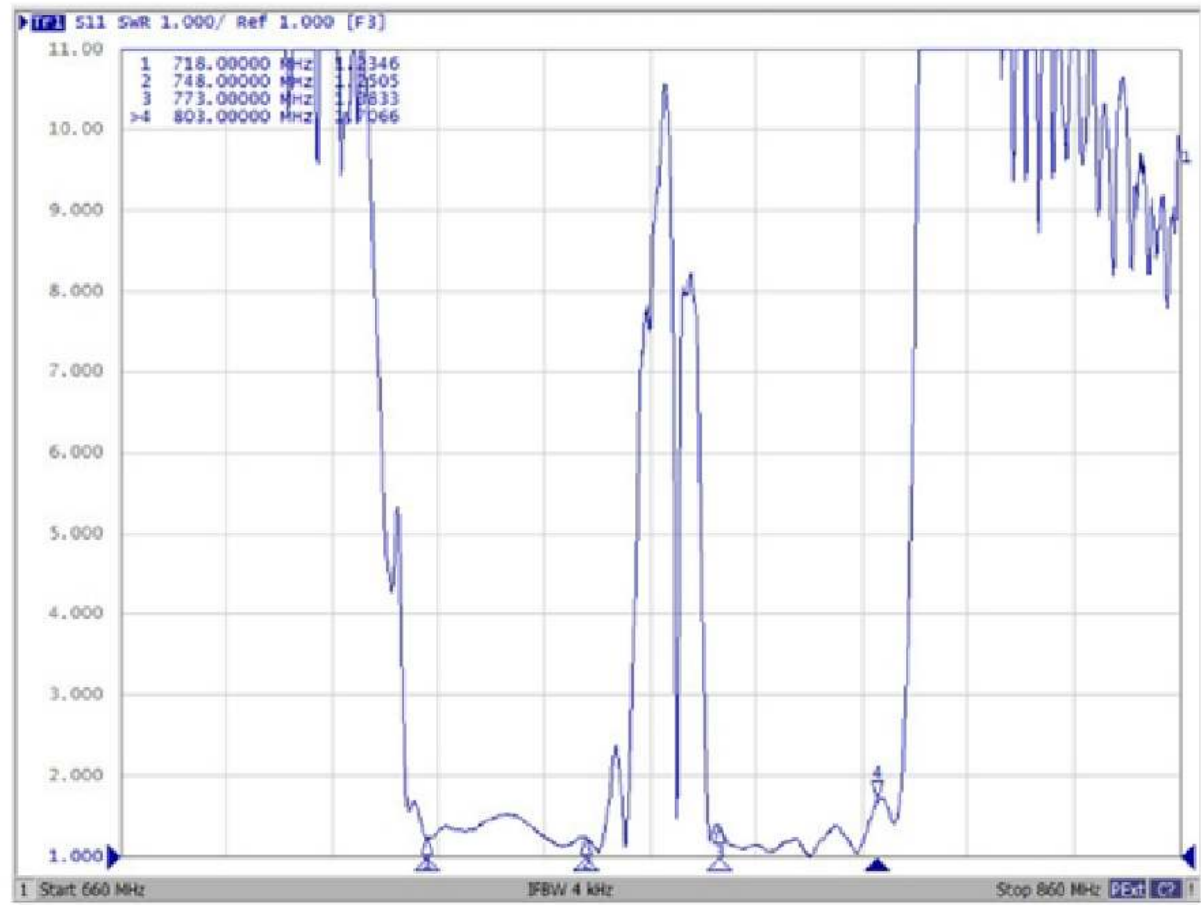


Smith Chart (Rx Port)

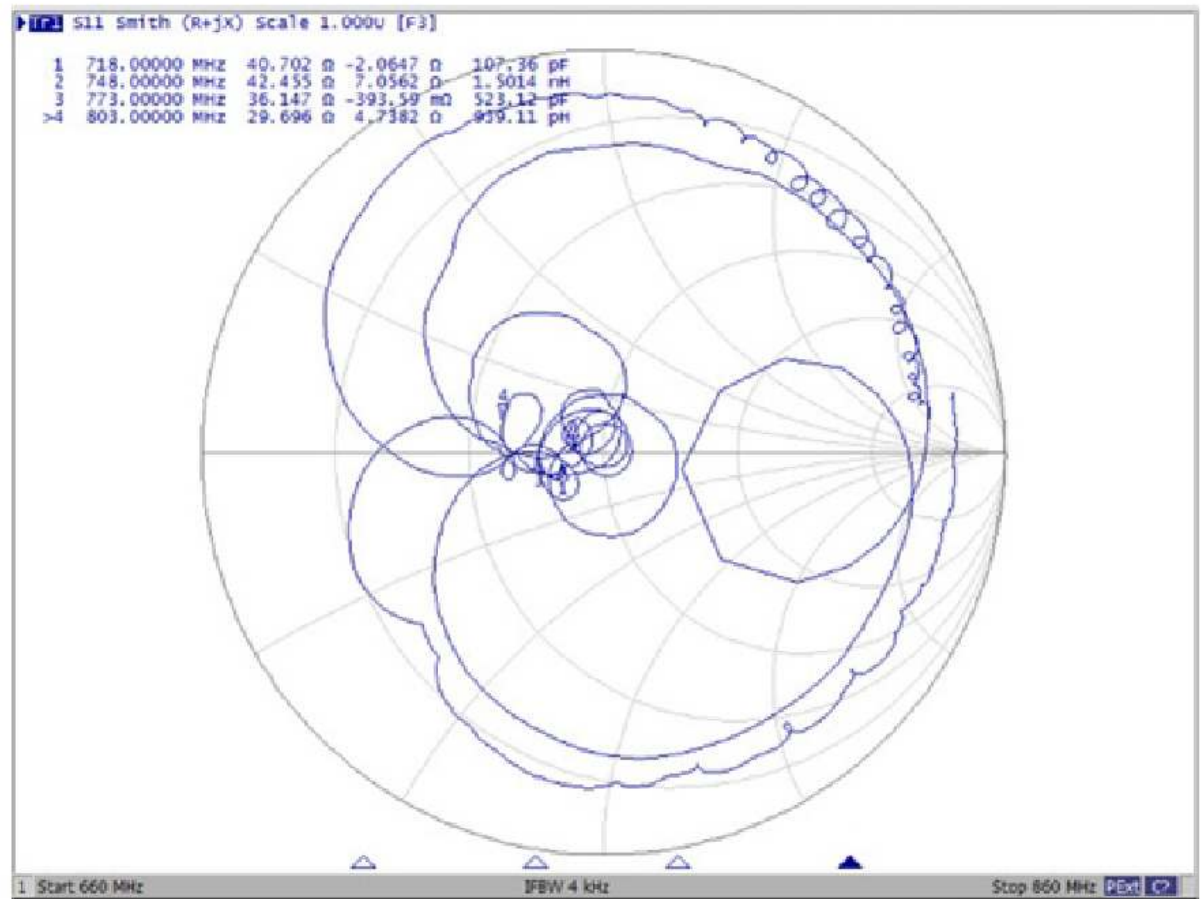


VSWR (ANT Port)

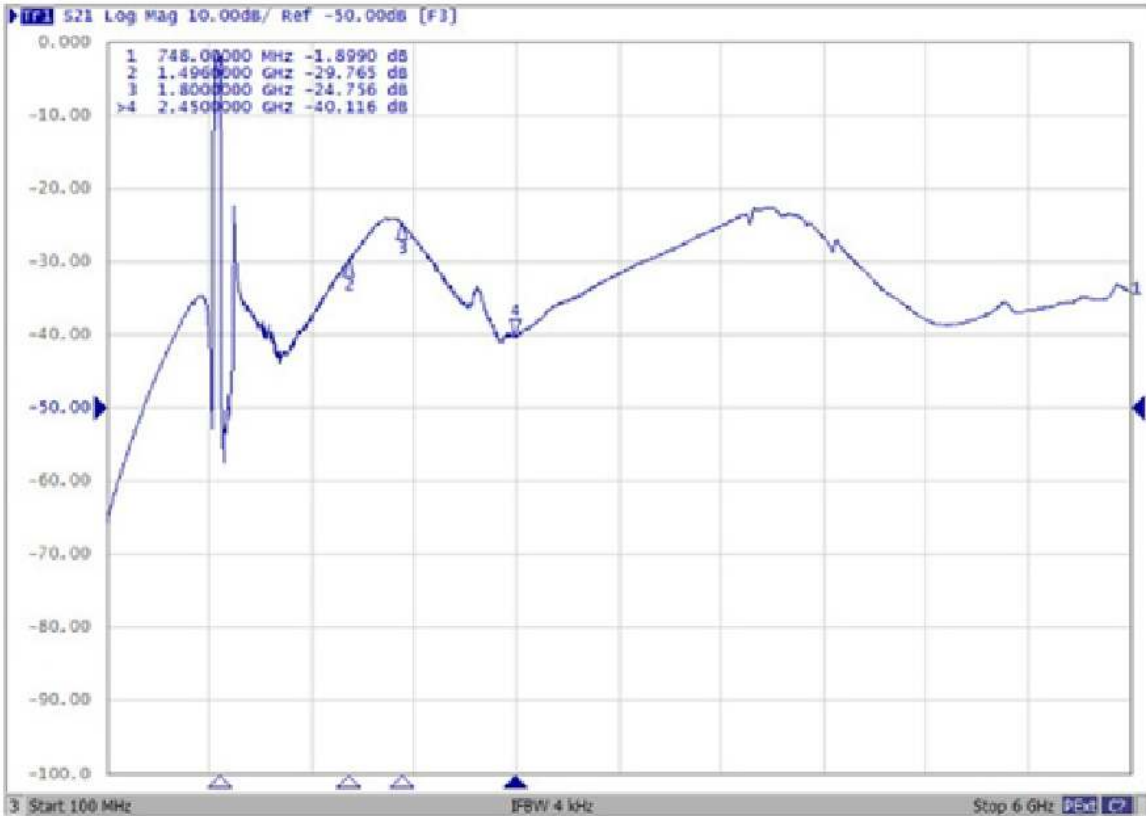
TAI-SAW TECHNOLOGY CO., LTD.



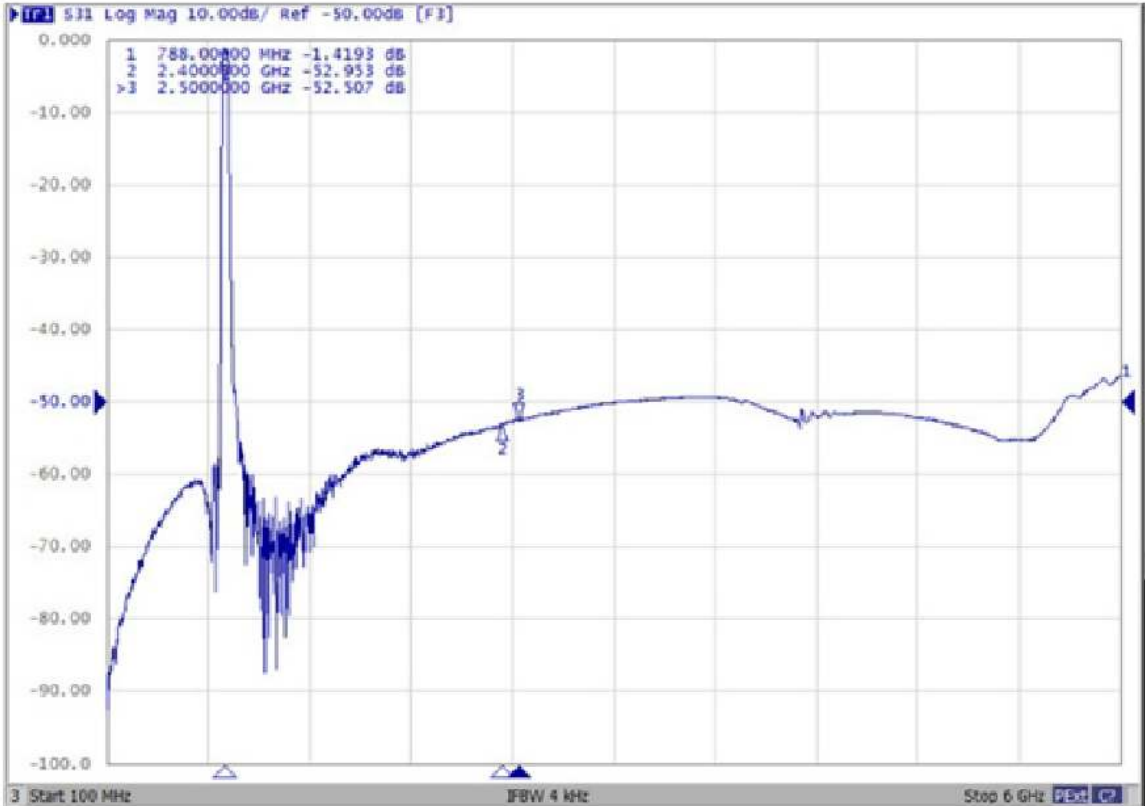
Smith Chart (ANT Port)



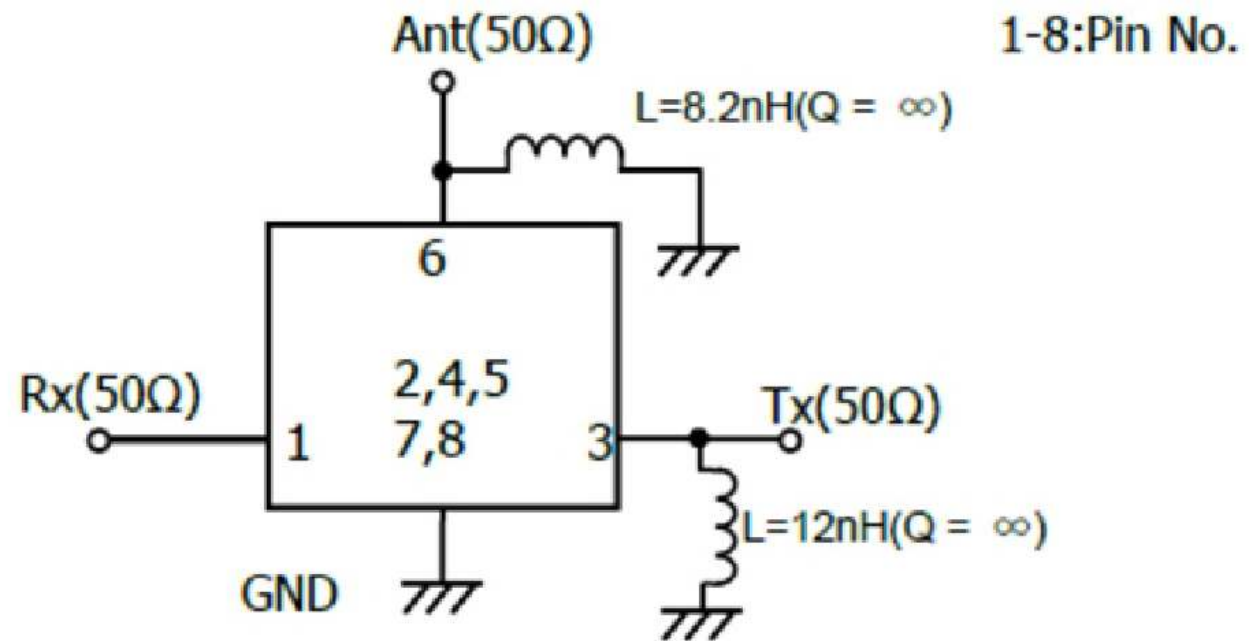
Tx to Ant (Wide Span)



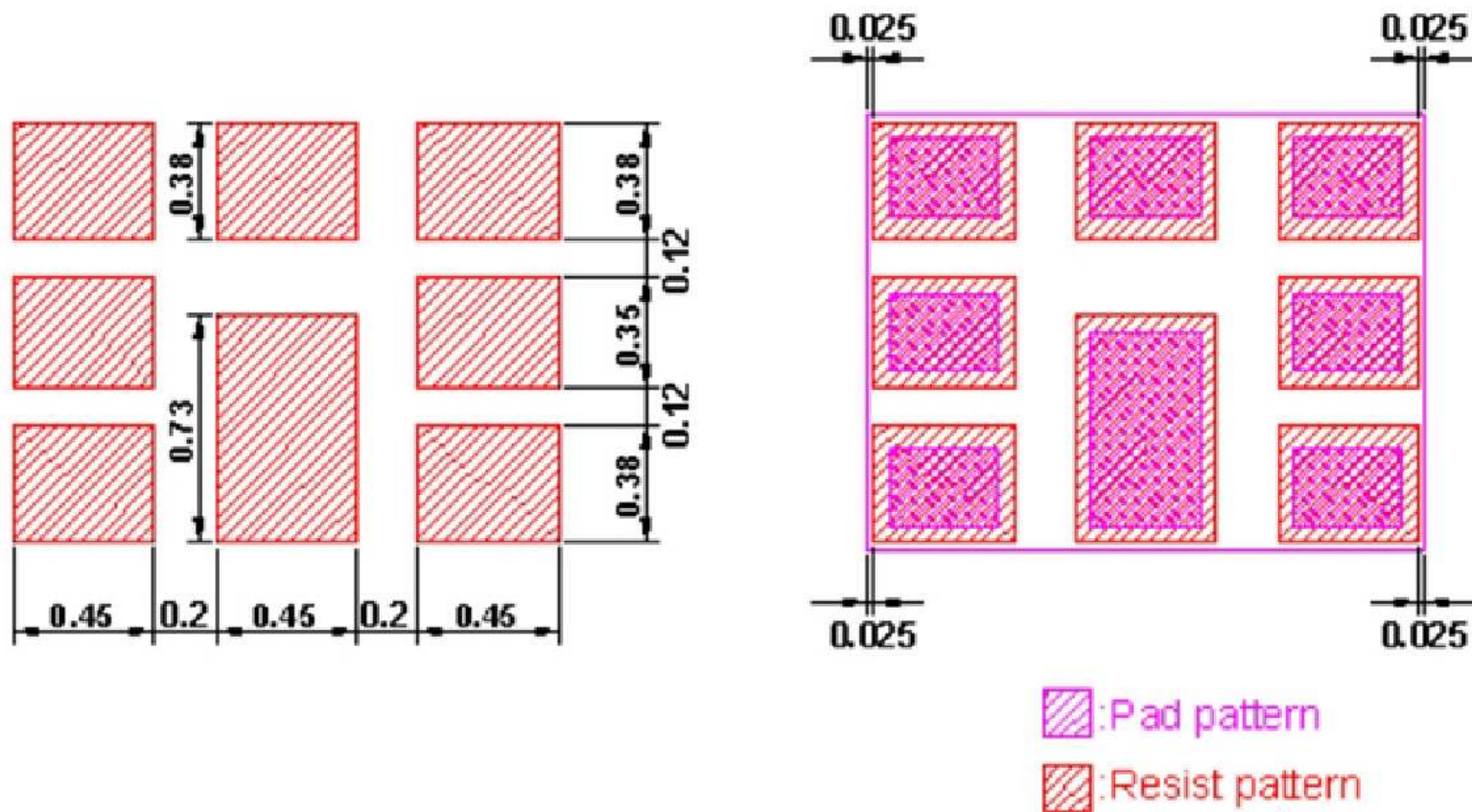
Ant to Rx (Wide Span)



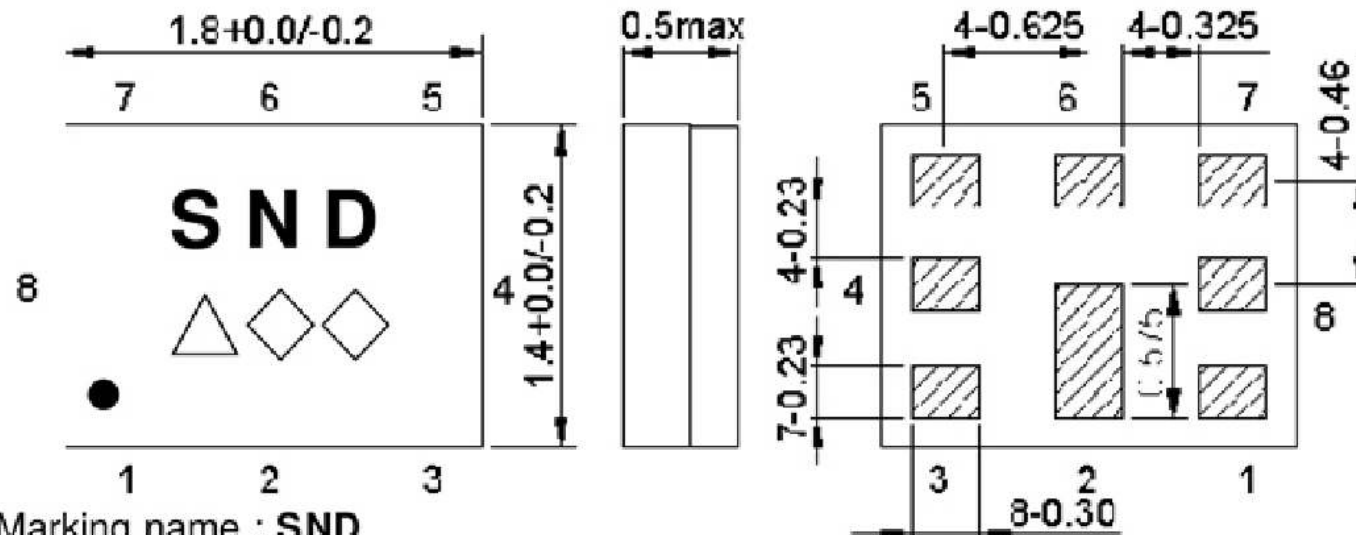
D .Evaluation Circuit



E . FOOTPRINT:



F.OUTLINE DRAWING:



Marking name : **SND**

△: Date code(2016 May → s ,....., 2019 Dec→m.)

◇◇: Lot Code.

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

Pin assignment

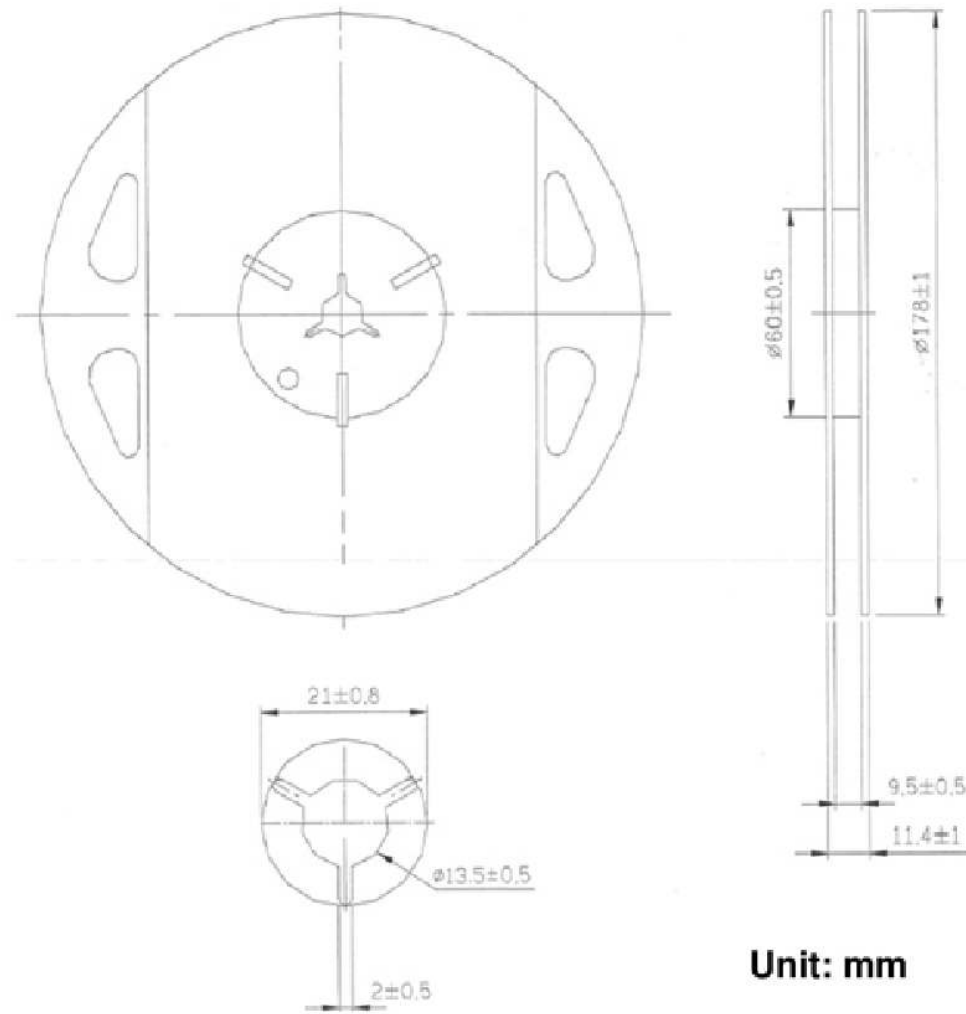
Pin No.	Pin name	Description
1	Rx	Receiver
2	GND	Ground
3	Tx	Transmitter
4	GND	Ground
5	GND	Ground
6	Ant	Antenna
7	GND	Ground
8	GND	Ground

Figure 1. Dimensions and Pin assignment

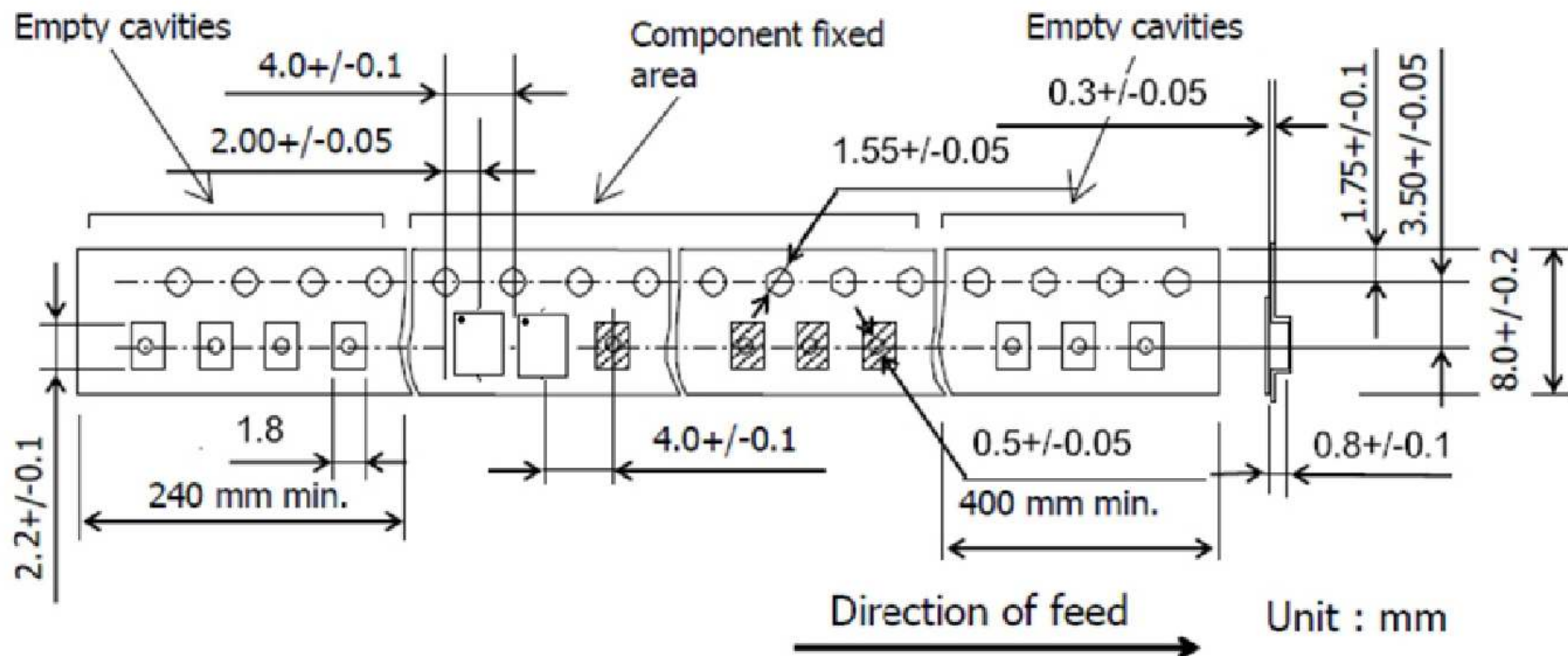
G. PACKING:

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

