



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Name: SAW DPX 718 / 773MHz 30/30MHz BW Band28 SMD1.8X1.4 mm

TST Parts No.: TF0155B(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: _____ 2018 . 11 . 30

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 DPX 718/773MHz 30/30MHz BW Band28 SMD1.8X1.4 mm
MODEL NO.: TF0155B

REV. No.: 1.0

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 Sensitivity 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

Parameters Description		Unit	Minimum	Typical	Maximum	Note
Insertion Loss	703 ~ 733 MHz	dB(*1)	-	2.0	2.9	
	703.25 ~ 732.75 MHz			2.0	2.7	
Ripple		dB	-	1.3	2.4	
VSWR	Tx	-	-	1.9	2.2	
	ANT	-	-	1.8	2.1	
Attenuation:						
10 ~ 694 MHz		dB	18	30	-	-
694 ~ 698 MHz		dB	3.0	11	-	-
758 ~ 788 MHz		dB	47	54	-	Rx
1406 ~ 1466 MHz		dB	23	29	-	2fo
1565 ~ 1606 MHz		dB	20	24		GPS
2109 ~ 2199 MHz		dB	30	34		3fo
2400 ~ 2500 MHz		dB	35	40		ISM

ANT to Rx

Parameters Description		Unit	Minimum	Typical	Maximum	Note
Insertion Loss	758 ~ 788 MHz	dB(*1)	-	1.8	2.6	
	758.25 ~ 787.75 MHz			1.7	2.4	
Ripple)	758 ~ 788 MHz	dB	-	0.9	2.0	
VSWR	ANT	758 ~ 788 MHz	-	-	1.8	2.0
	Rx		-	-	1.8	2.0
Attenuation:						
703 ~ 733 MHz		dB	50	64	-	Tx-
2400 ~ 2500 MHz		dB	30	68	-	ISM

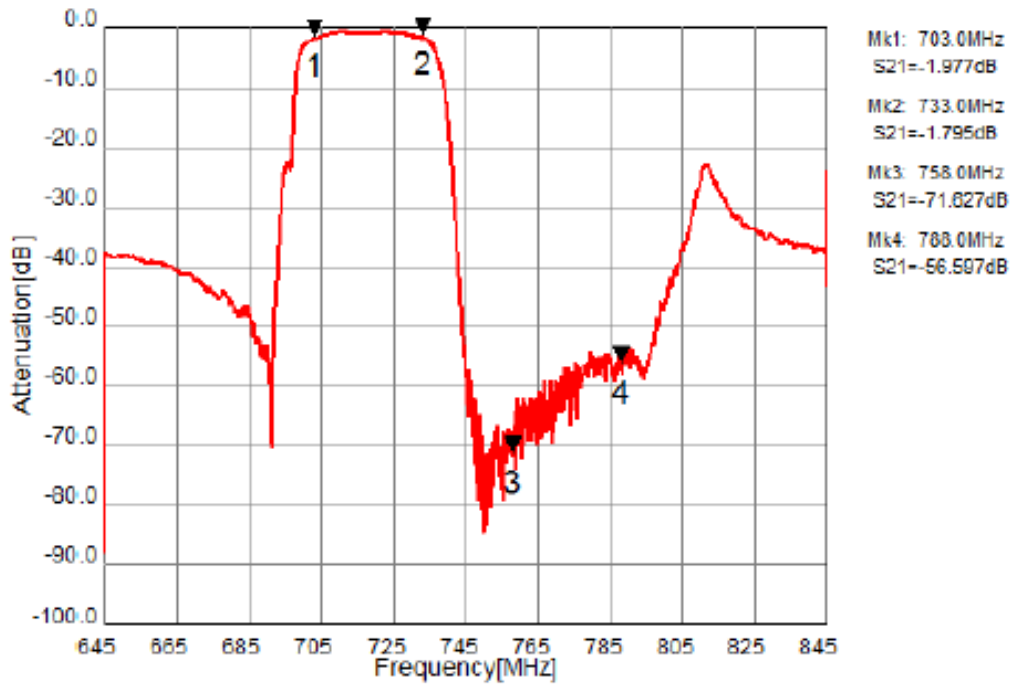
Tx to Rx

Isolation	703 ~ 733 MHz	dB	60	63	-	Tx
	758 ~ 788 MHz	dB	55	58	-	Rx

(*1) De-embedded test fixture.

C. Frequency Characteristics:

Tx to Ant



Ant to Rx

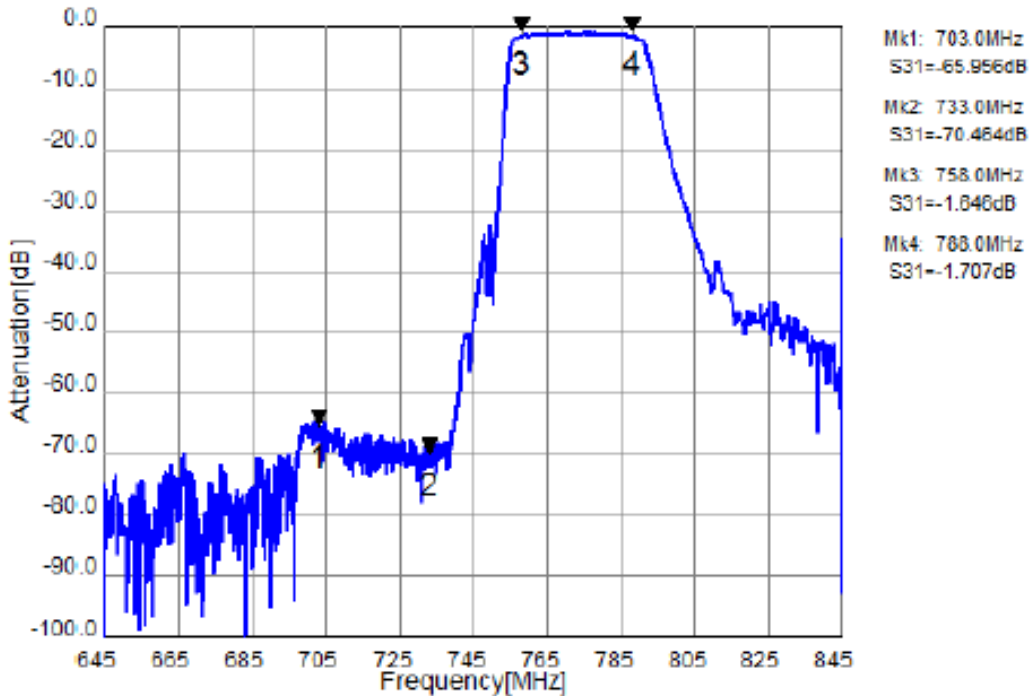
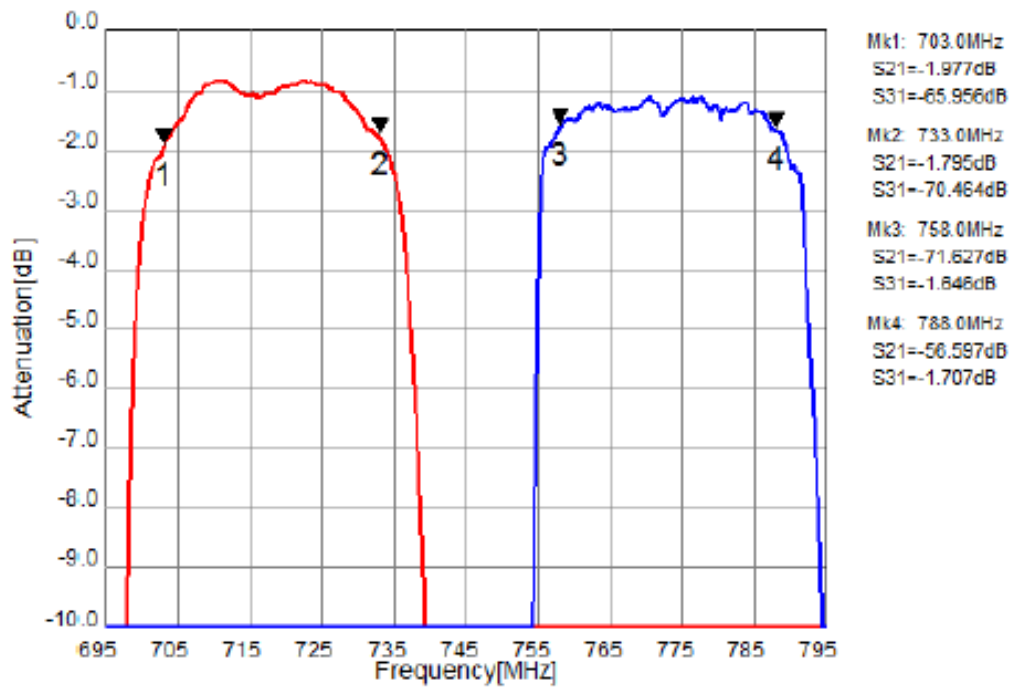


Figure 3-1. Electrical Characteristics

Tx to Ant, Ant to Rx



Tx to Rx Isolation

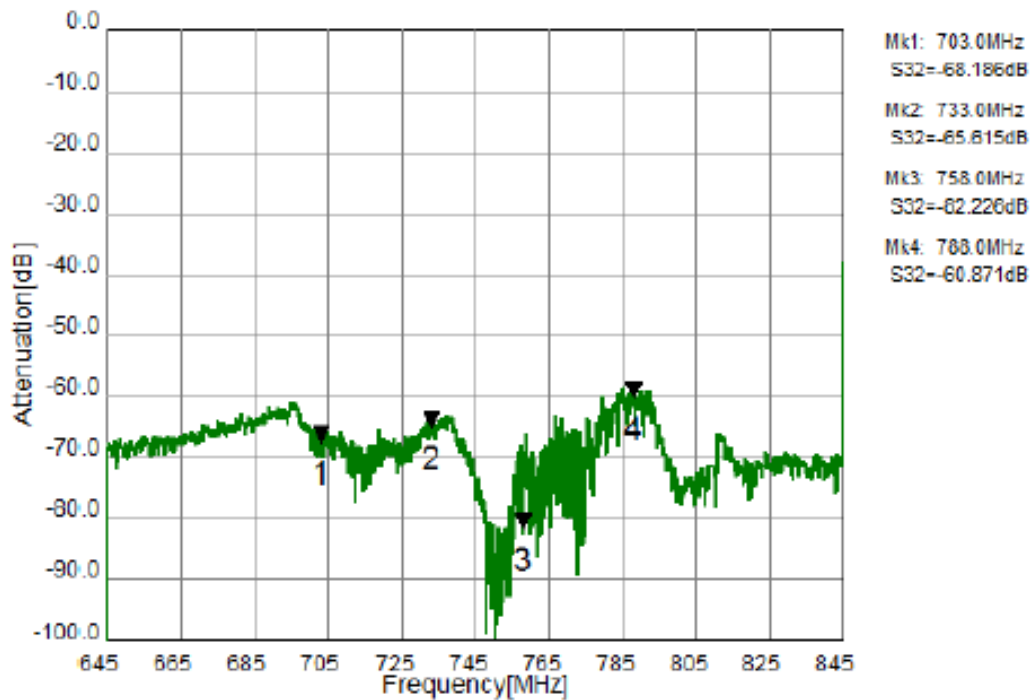


Figure 3-2. Electrical Characteristics

Tx Port

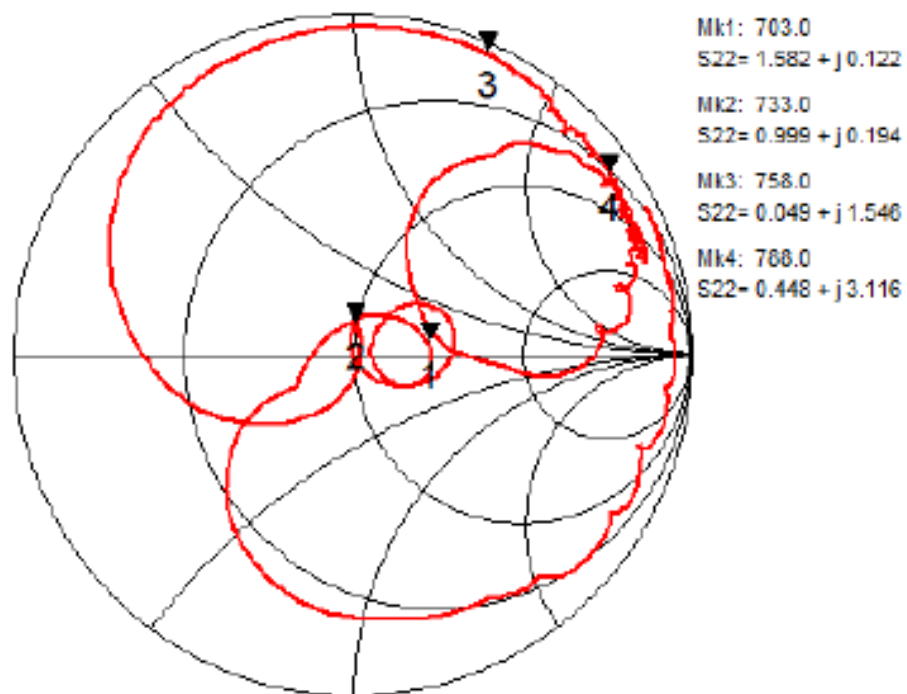
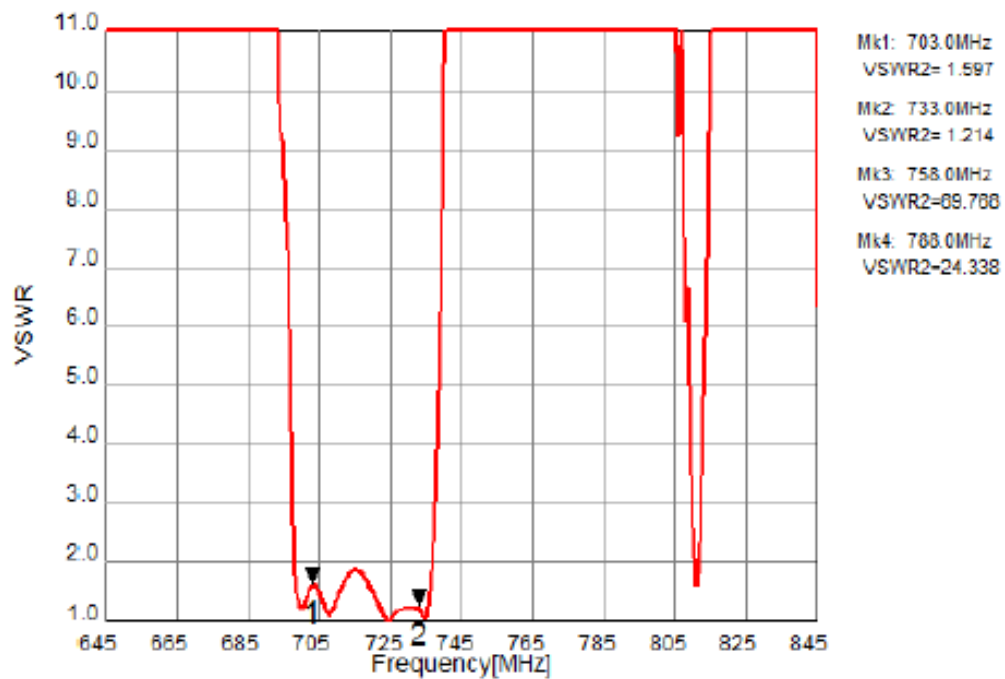


Figure 3-3. Electrical Characteristics

Rx Port

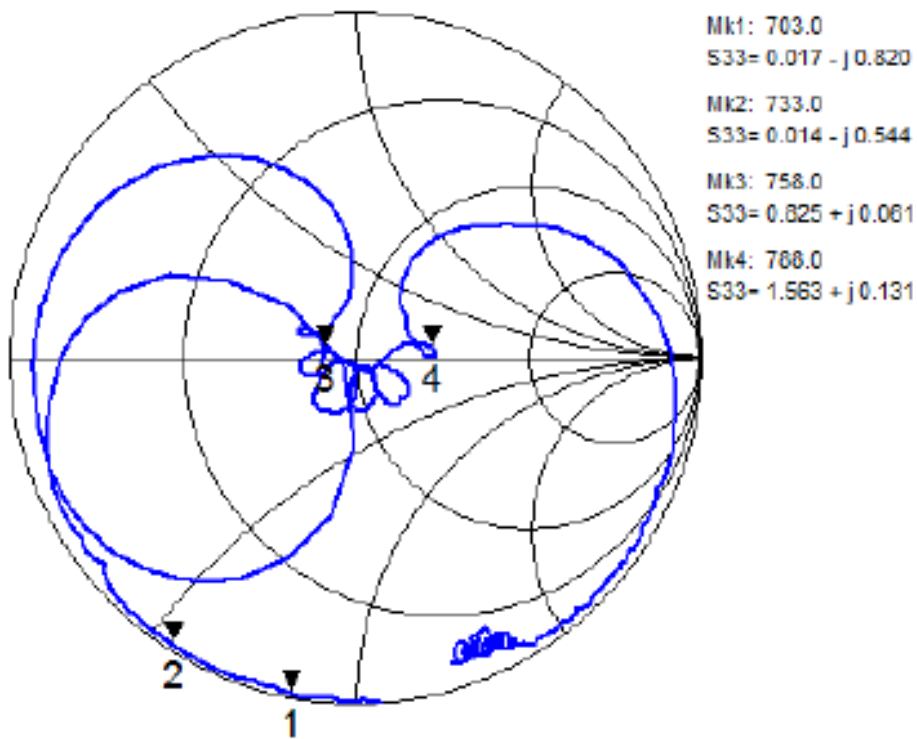
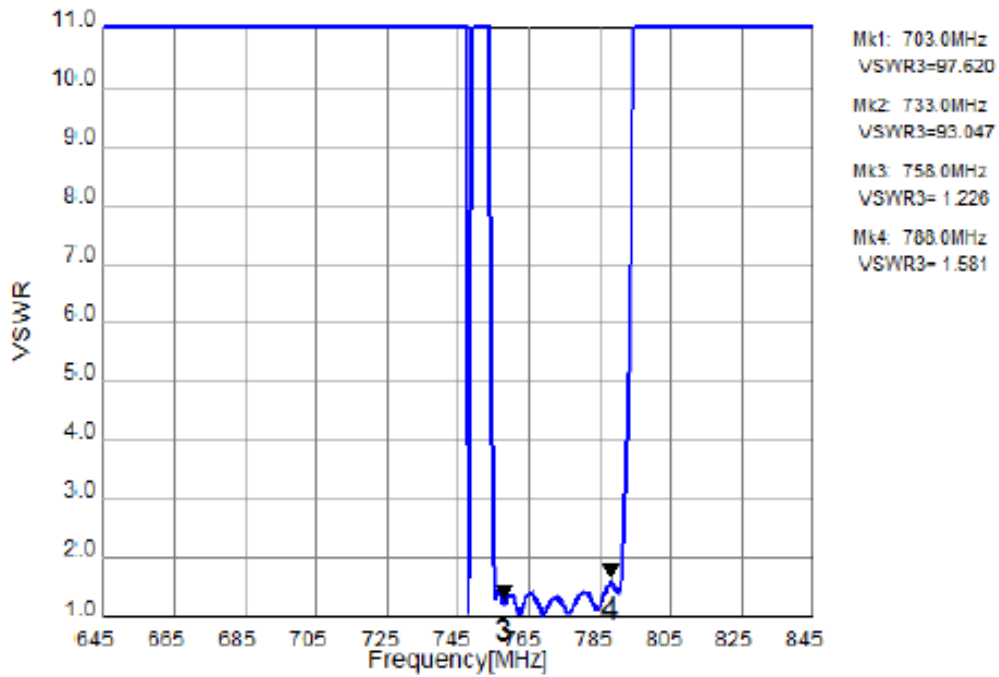


Figure 3-4. Electrical Characteristics

Ant Port

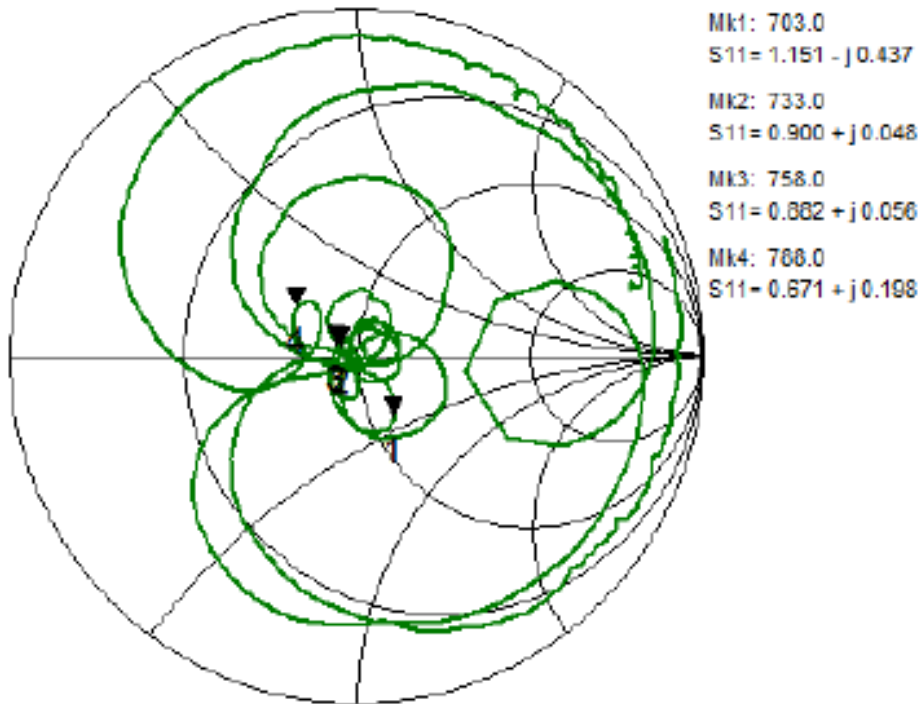
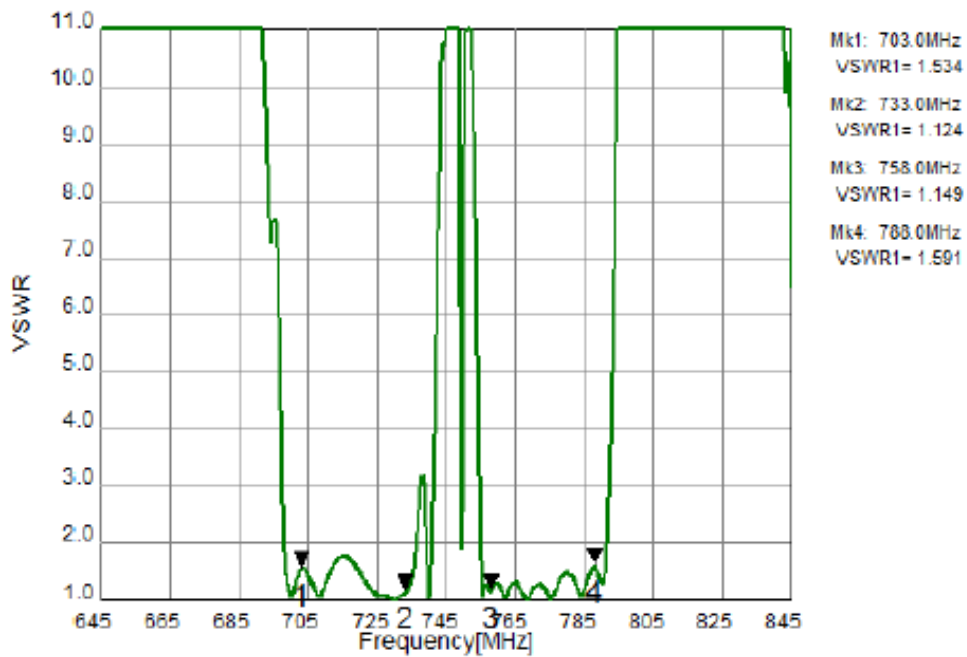
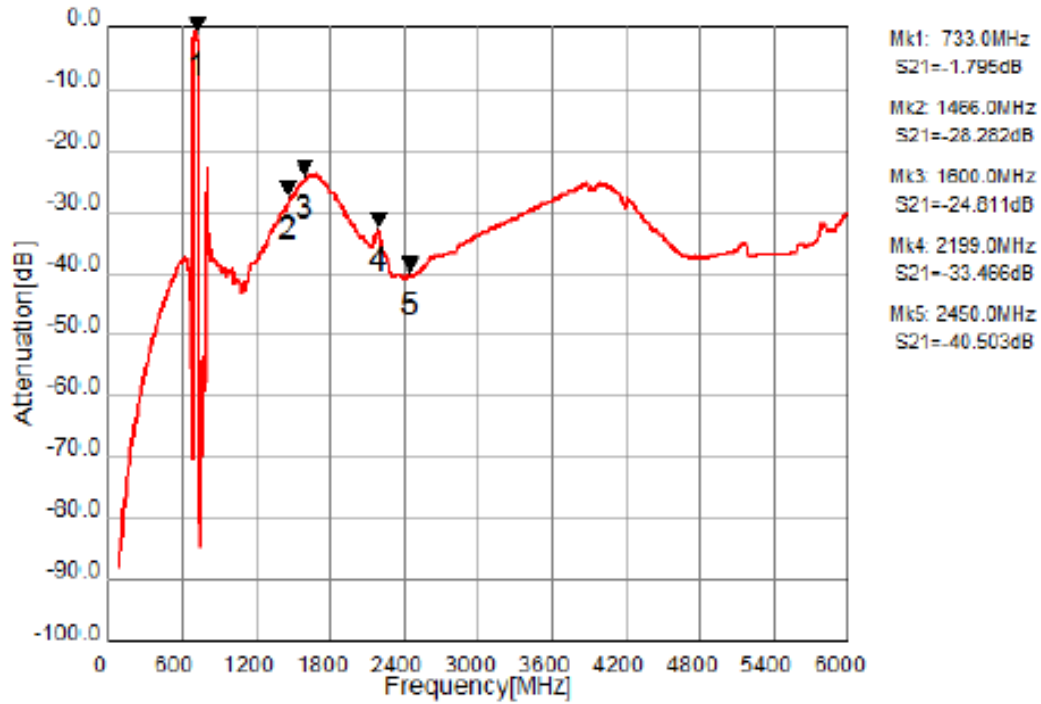


Figure 3-5. Electrical Characteristics

Tx to Ant (Wide span)



Ant to Rx (Wide span)

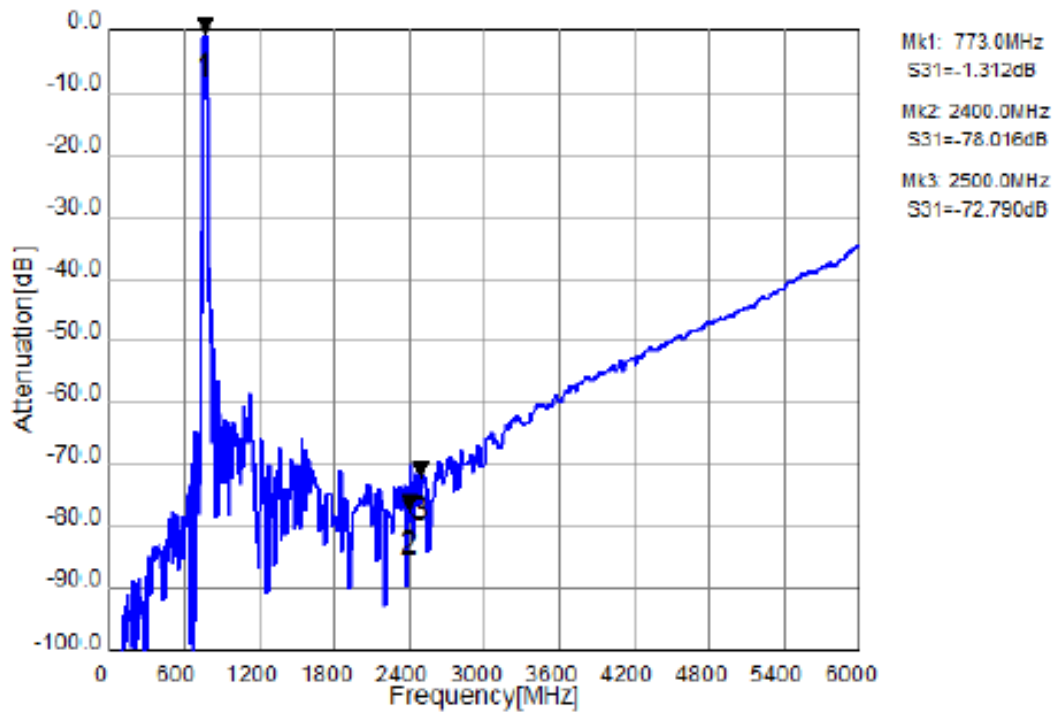
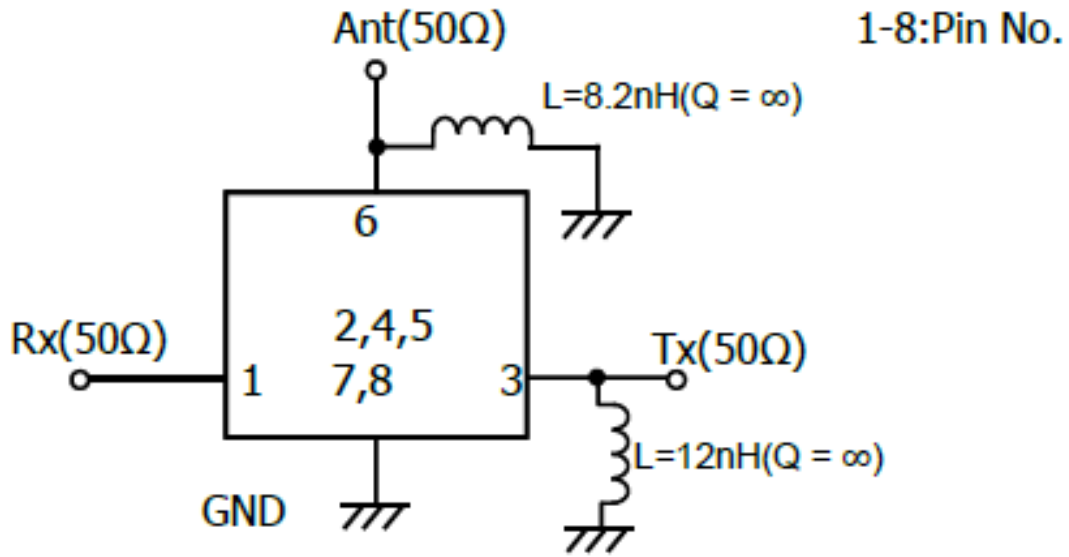
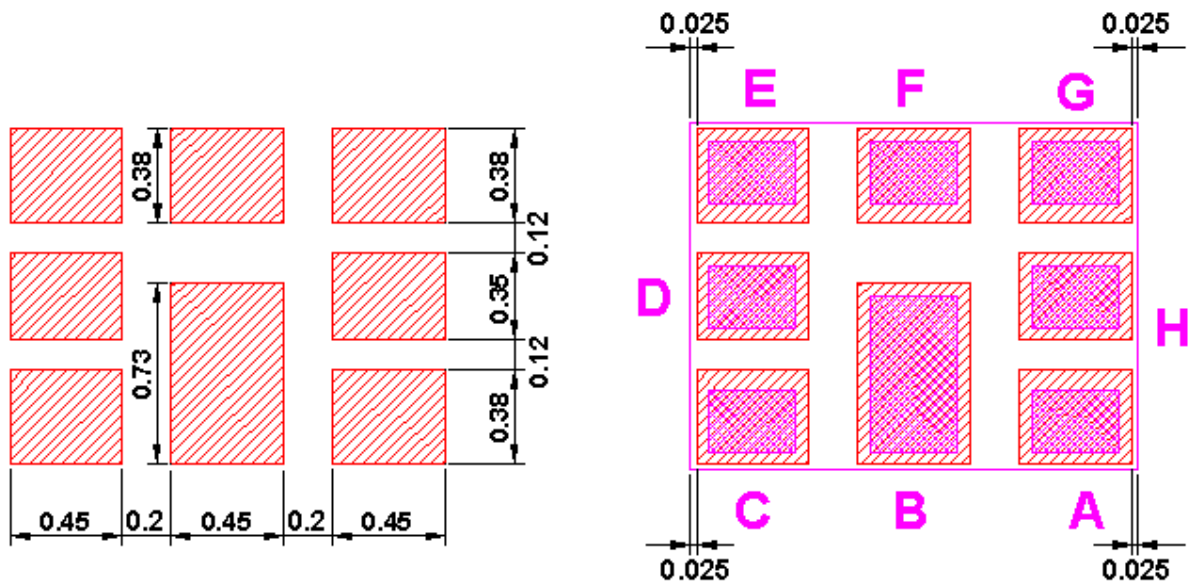


Figure 3-6. Electrical Characteristics

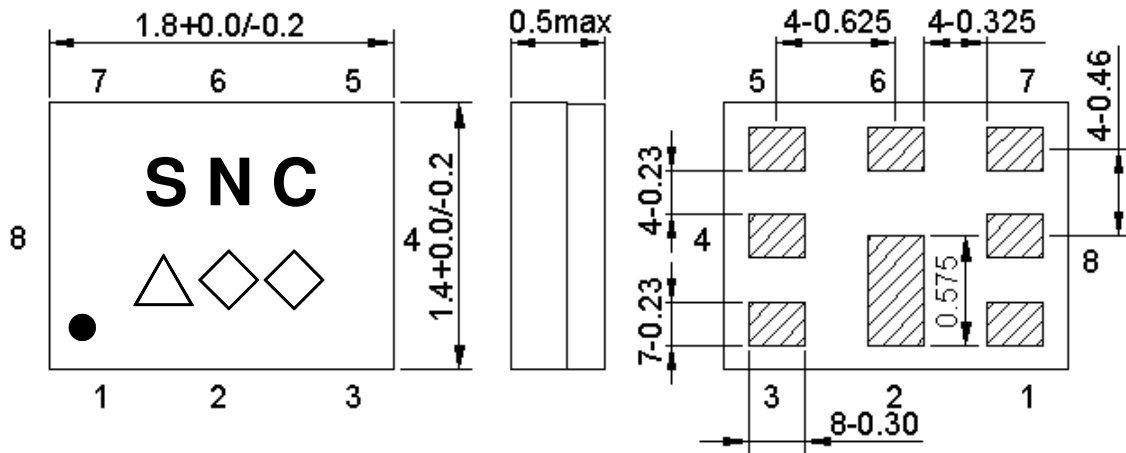
D. MEASUREMENT CIRCUIT:



PCB FOOTPRINT:



E.OUTLINE DRAWING: (Mass Production)



Marking name : NC

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

◇◇: Lot Code.

Product Date Code. Follow below table.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	A	B	C	D	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	V	W	X	Y	Z
2019	a	b	c	d	e	f	g	h	j	k	l	m
2020	n	p	q	r	s	t	u	v	w	x	y	z
2021	A	B	C	D	E	F	G	H	J	K	L	M

Pin assignment

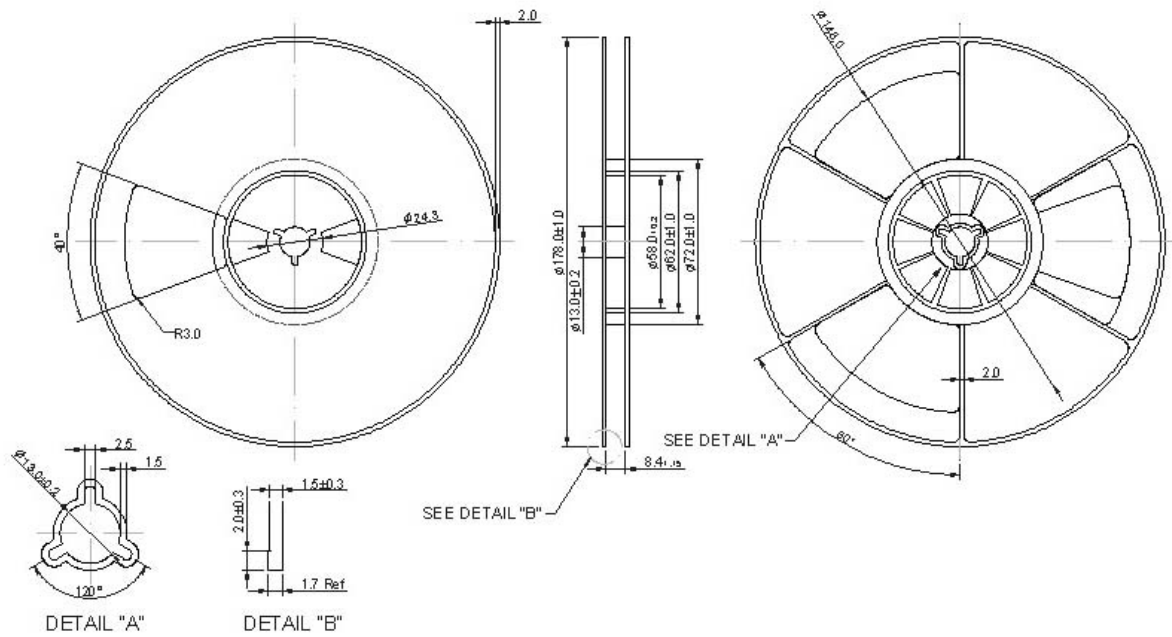
Pin No.	Pin name	Description
1	Rx	Receiver
2	GND	Ground
3	Tx	Transmitter
4	GND	Ground
5	GND	Ground
6	Ant	Antenna
7	GND	Ground
8	GND	Ground

Figure 1. Dimensions and Pin assignment

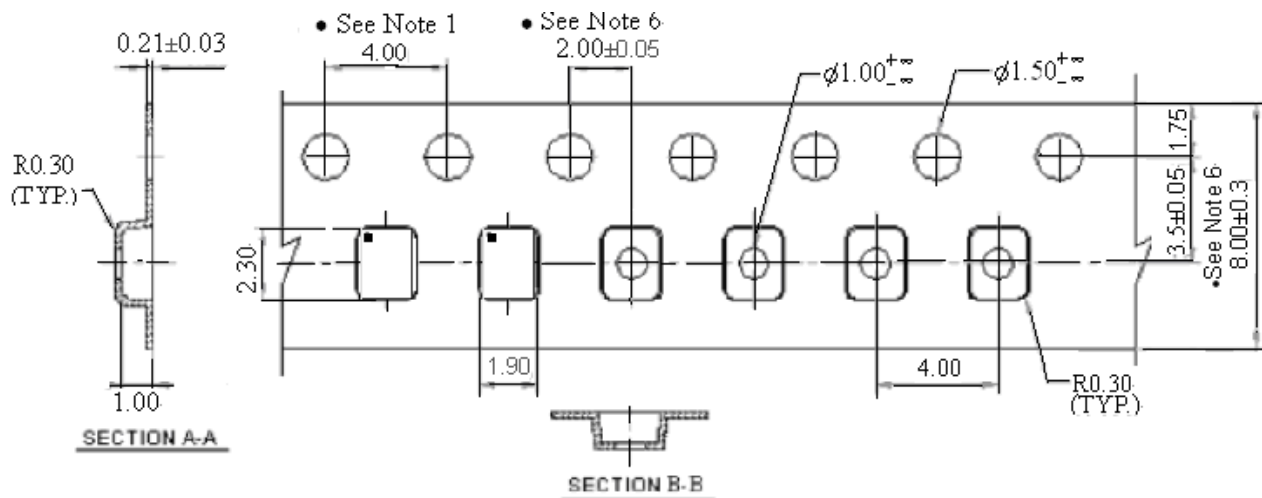
F. PACKING:

1. REEL DIMENSION

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



2. TAPE DIMENSION



G. 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.

