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 1732.5/2132.5 MHz LTE Band 4 SMD 1.8X1.4 mm (BW=45 MHz)

TST Part No.: TF0212A

Customer Part No.:_____

Customer signature required

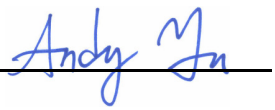
Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____Anne Chen_____ 

Approved by:_____Andy Yu_____ 

Date:_____2020 , 02, 08_____

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 1732.5/2132.5 MHz Band 4 SMD 1.8X1.4 mm (BW=45 MHz)

MODEL NO.:TF0212A REV.1.0

A. MAXIMUM RATING:

1. Operating temperature range: -20 ℃ to +85 ℃
2. Storage temperature range: -40 ℃ to +100 ℃
3. Input power : 29dBm (Ta=+50degC,50kh,CW)
4. Maximum DC Voltage: +/-5 V
5. Moisture Sensitivity Level: Level 1
6 .ESD 50V(MM) 100V(HBM)

RoHS Compliant

Lead-free soldering

Electrostatic **S**ensitive **D**evice (**ESD**)

B. ELECTRICAL CHARACTERISTICS:

Terminating impedance (Tx Port): 50//9.1nH 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}=1732.5 MHz)

Parameters Description			Unit	Min	Typ	Max	Remarks
Insertion Loss		1710~1755MHz	dB(*1)	-	1.6	2.0	
Amplitude ripple		1710~1755MHz	dB	-	0.6	1.2	
VSWR	Tx	1710~1755MHz	-	-	1.4	2.0	
	ANT		-	-	1.5	2.0	
Attenuation:							
1559~1585.42 MHz			dB	38	42	-	
2110~2155 MHz			dB	45	50	-	
2400~2500 MHz			dB	35	43	-	
3420~3510 MHz			dB	30	38	-	
5130~5265 MHz			dB	15	28	-	

ANT to Rx (f_{T0}=2132.5 MHz)

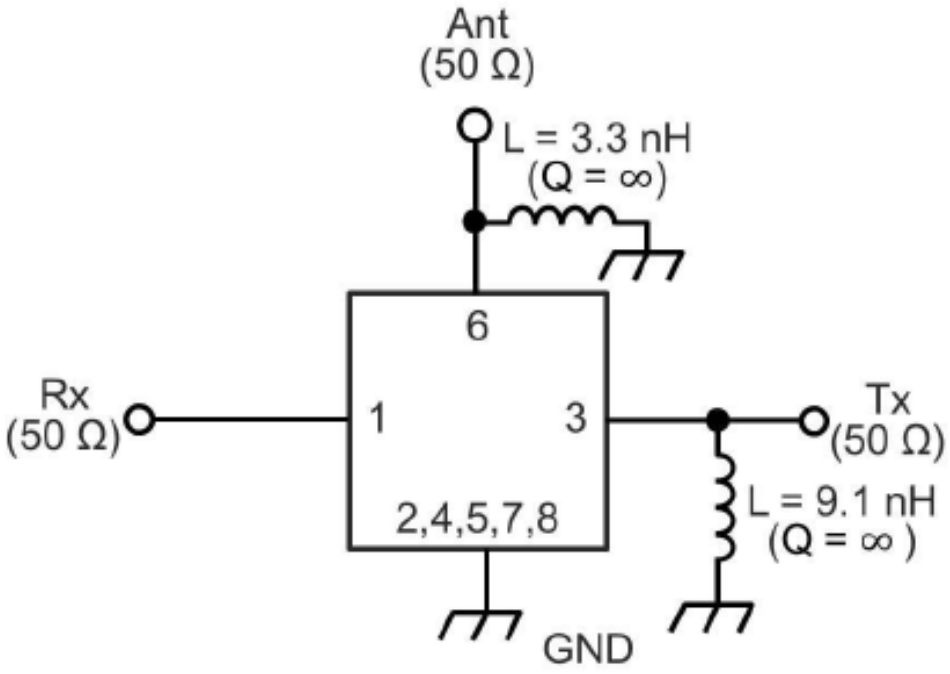
Parameters Description			Unit	Min	Typ	Max	Remarks
Insertion Loss		2110~2155 MHz	dB(*1)	-	1.8	2.2	
Amplitude ripple		2110~2155 MHz	dB	-	0.5	1.0	
VSWR	ANT	2110~2155 MHz	-		1.5	2.0	
	Rx		-		1.6	2.0	
Attenuation:							
1710~1755 MHz			dB	45	56	-	
2400~2500 MHz			dB	35	44	-	
3820~3910 MHz			dB	40	49	-	

Tx to Rx

Isolation	1710~1755 MHz	dB	55	60	-	
	2110~2155 MHz	dB	50	56	-	

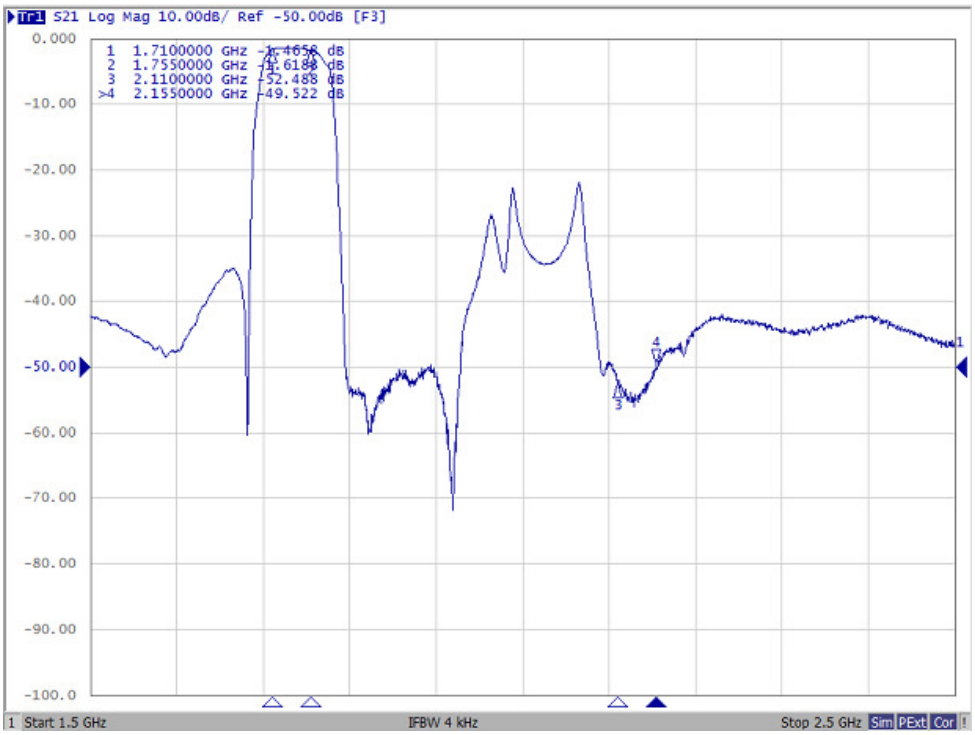
(*1) Specification of insertion loss excludes loss that comes from the test board.

C.Evaluation Circuit

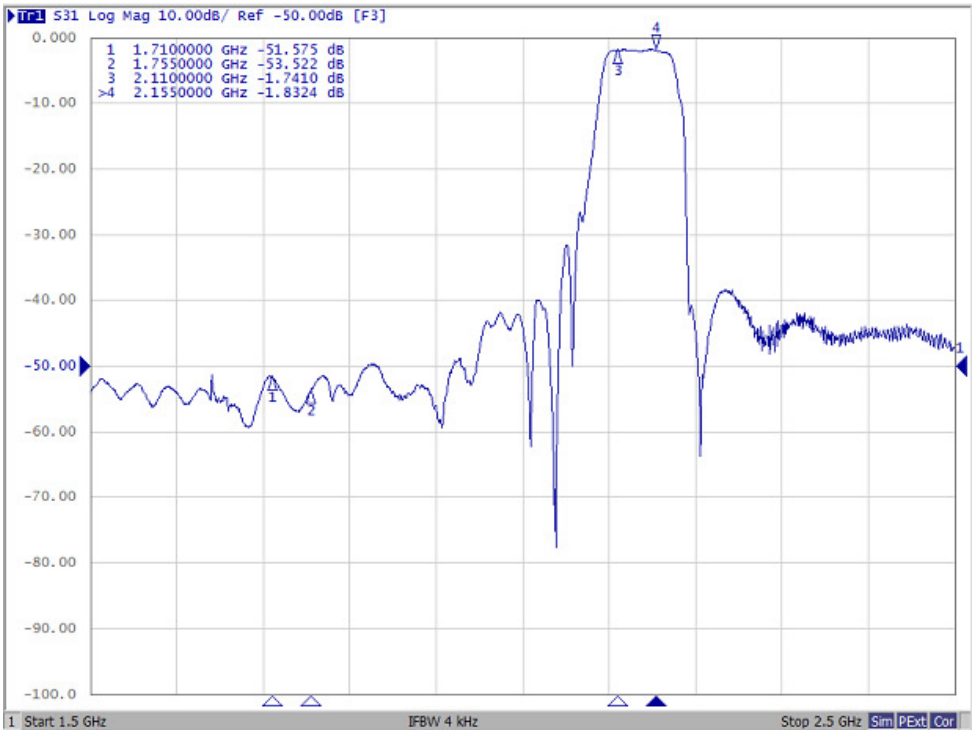


D. <u>FREQUENCY CHARACTERISTICS</u>:

Tx to Ant

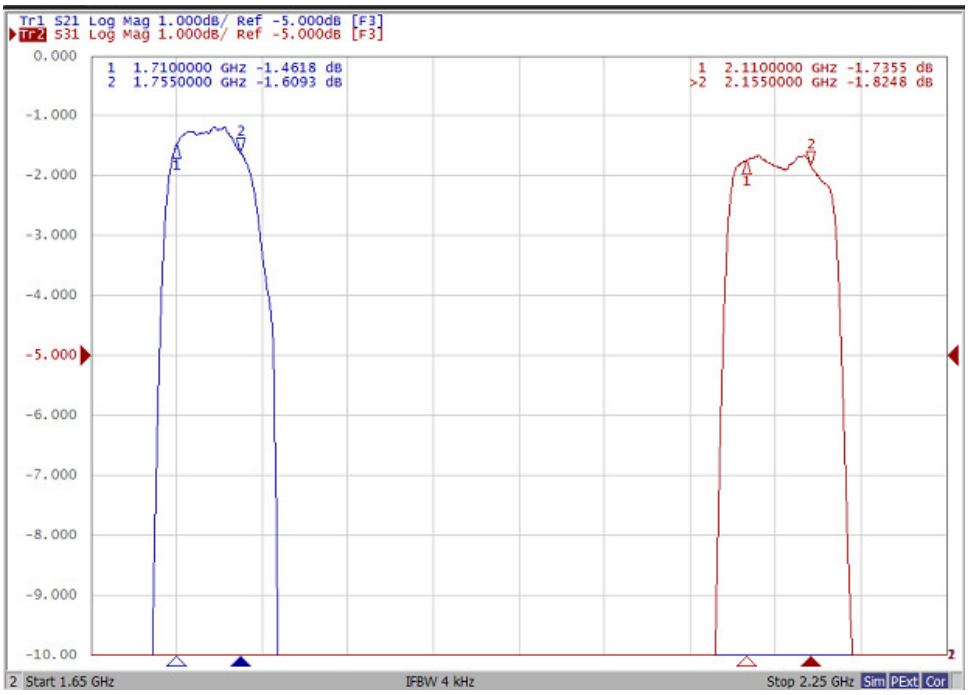


Ant to Rx



These data **exclude** loss that comes from the test board.

Tx to Ant ,Ant to Rx



Tx to Rx Isolation

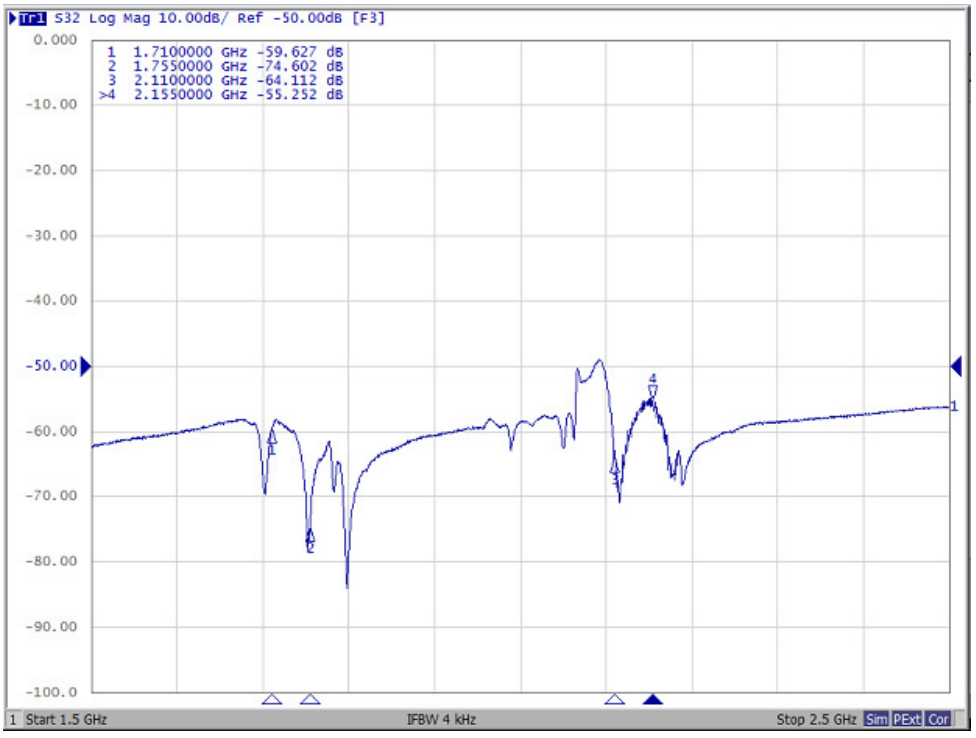
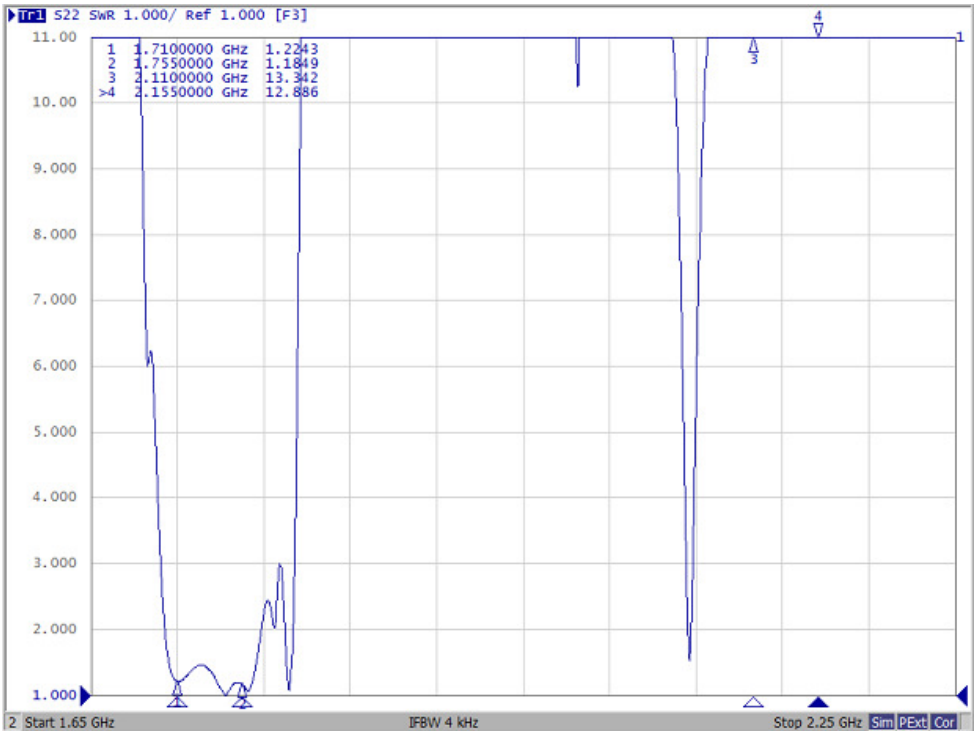


Figure 3-2. Electrical Characteristics

These data **exclude** loss that comes from the test board

Tx Port



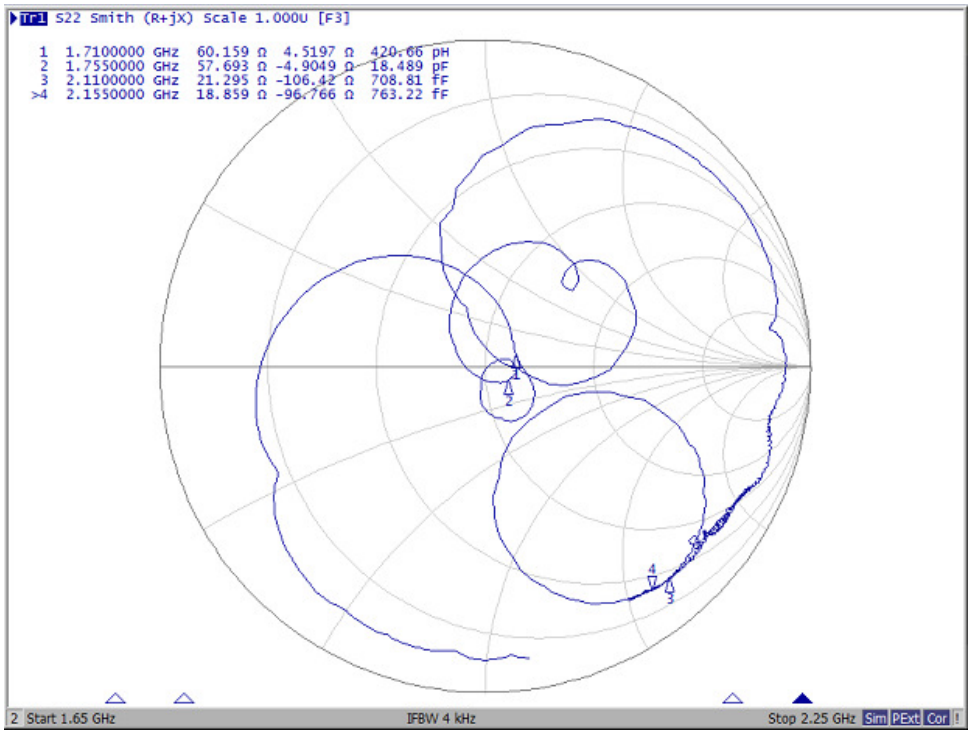
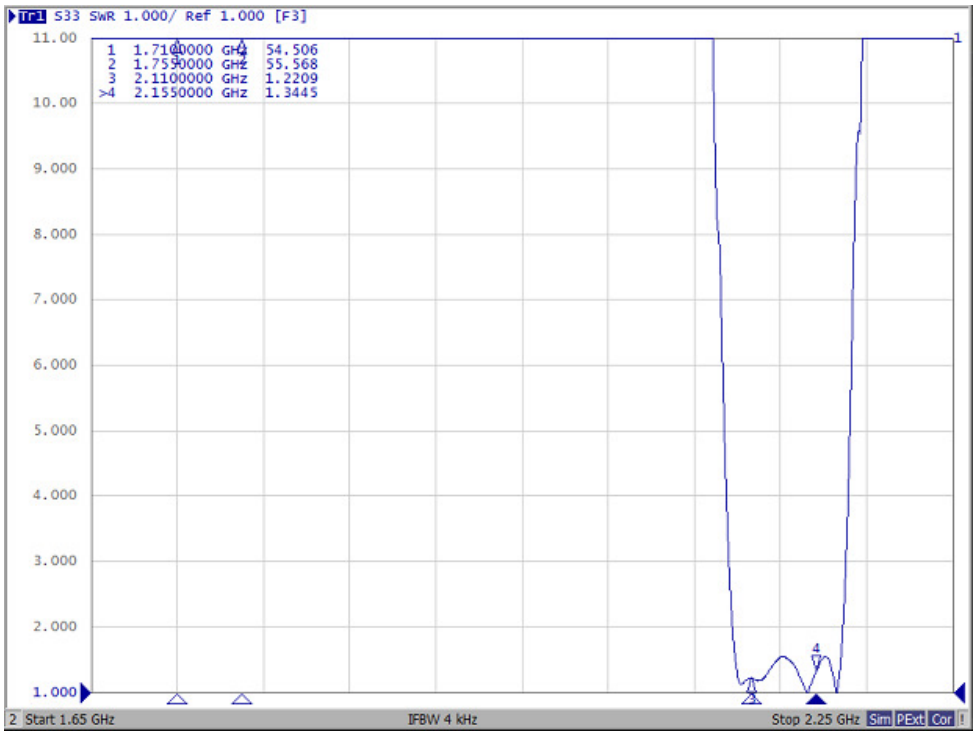


Figure 3-3. Electrical Characteristics

Rx Port



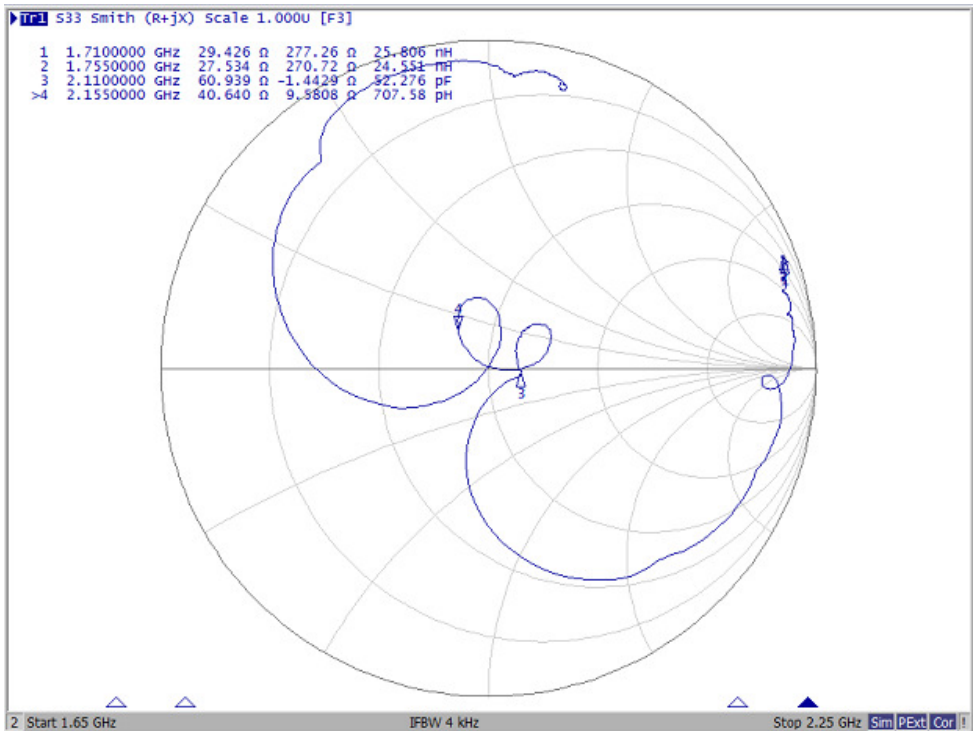
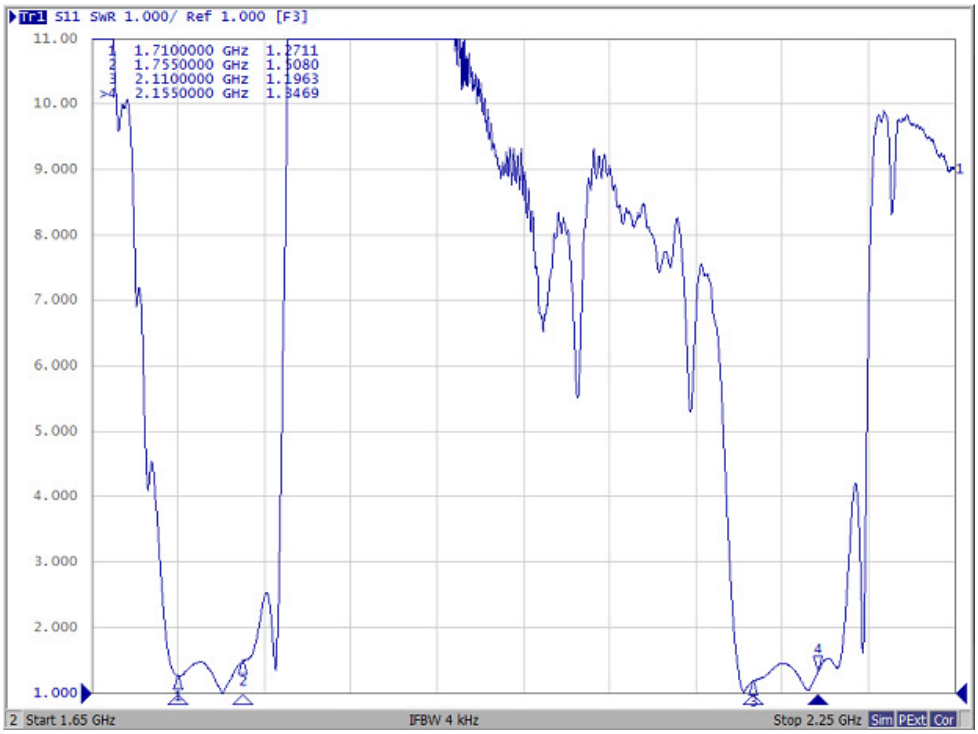


Figure 3-4. Electrical Characteristics

Ant Port



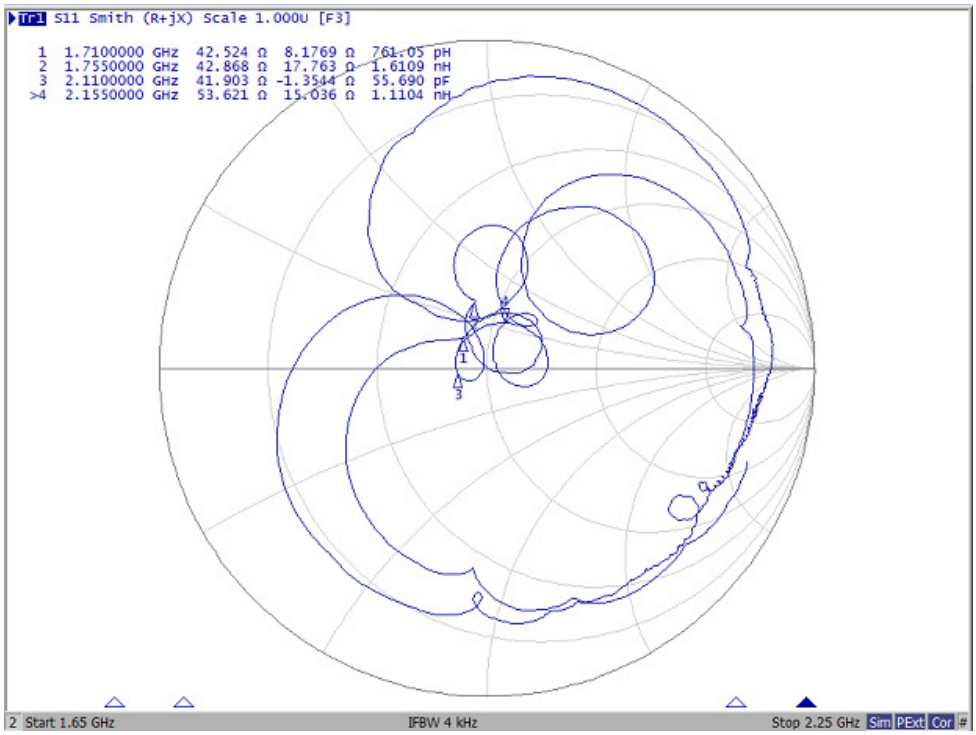
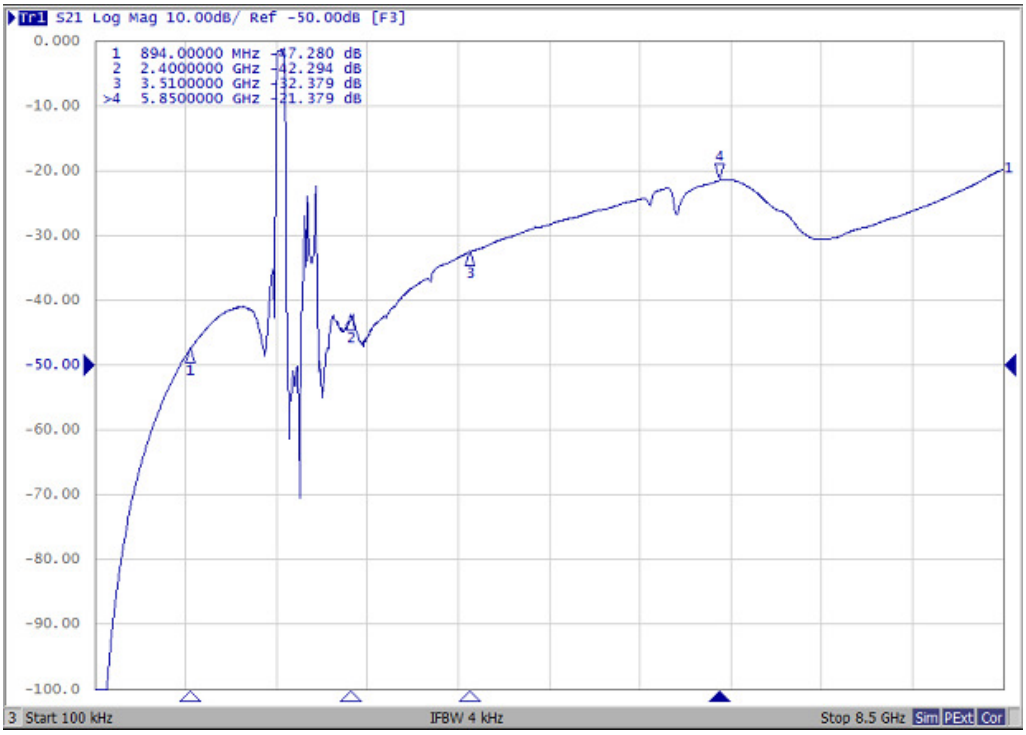
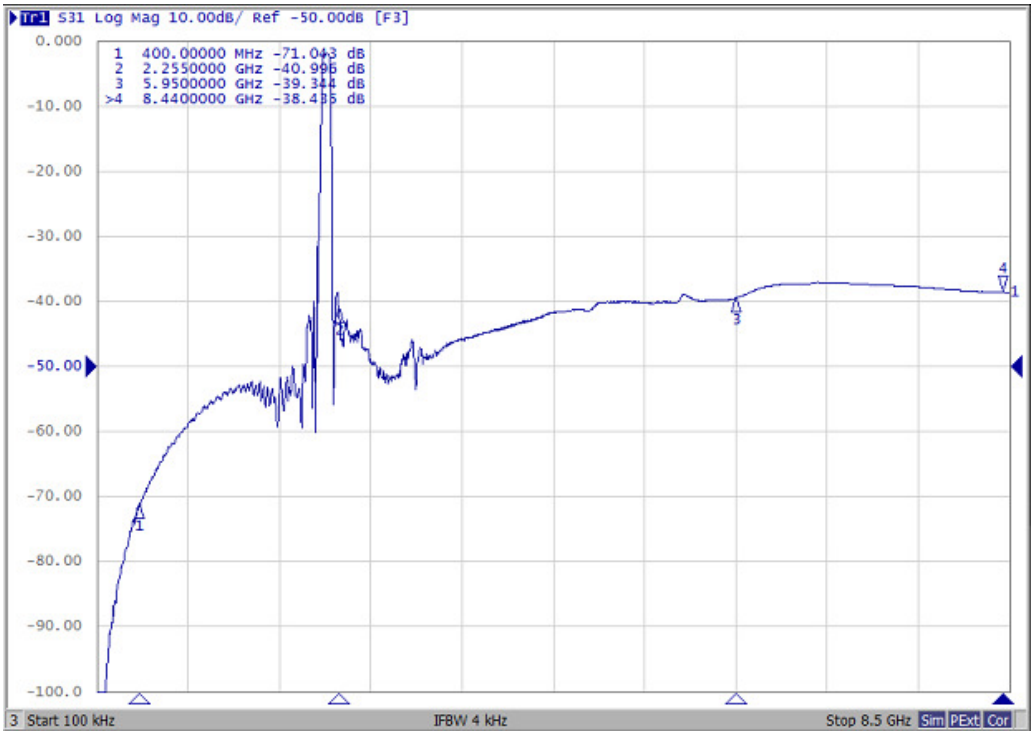


Figure 3-5. Electrical Characteristics

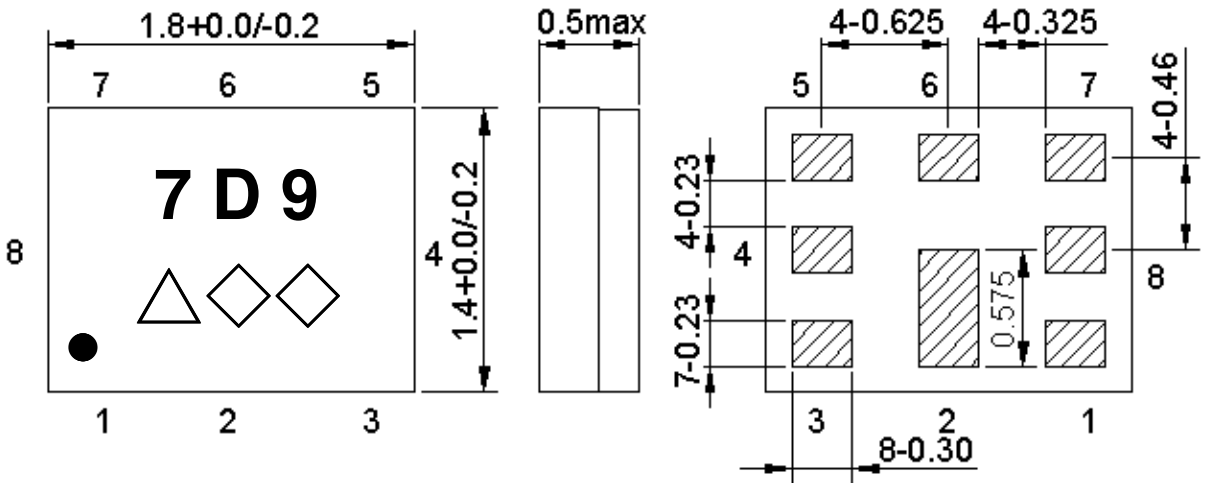
Tx to Ant (Wide span)



Ant to Rx (Wide span)



E.OUTLINE DRAWIN:



Not Specified Tolerance : +/-0.1 mm
Unit : mm

Marking name : **7D9**

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

◇◇: Lot Code.

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

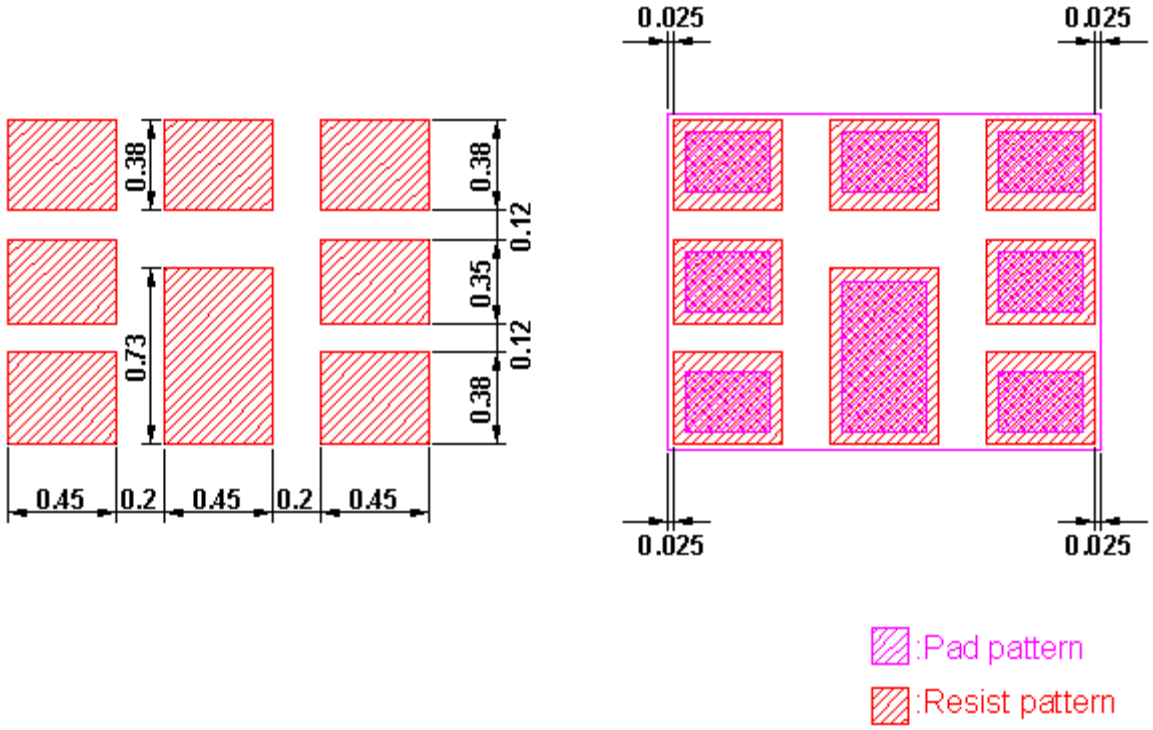
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	n	p	q	r	s	t	u	v	w	x	y	z
2021	A	B	C	D	E	F	G	H	J	K	L	M
2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2023	a	b	c	d	e	f	g	h	j	k	l	m

Pin Configuration

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

Figure 1. Dimensions and Pin assignment

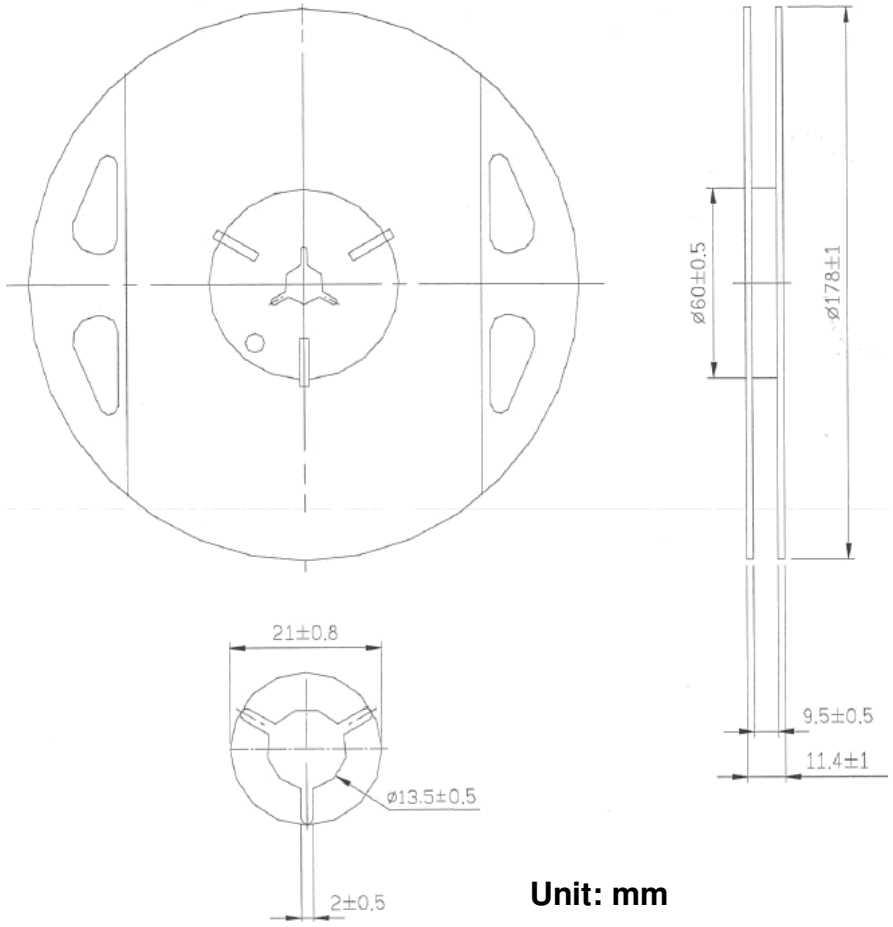
F. FOOTPRINT:


0.38
0.38
0.12
0.35
0.12
0.73
0.38
0.45
0.2
0.45
0.2
0.45
0.025
0.025
0.025
0.025
:Pad pattern
:Resist pattern

G. PACKING:

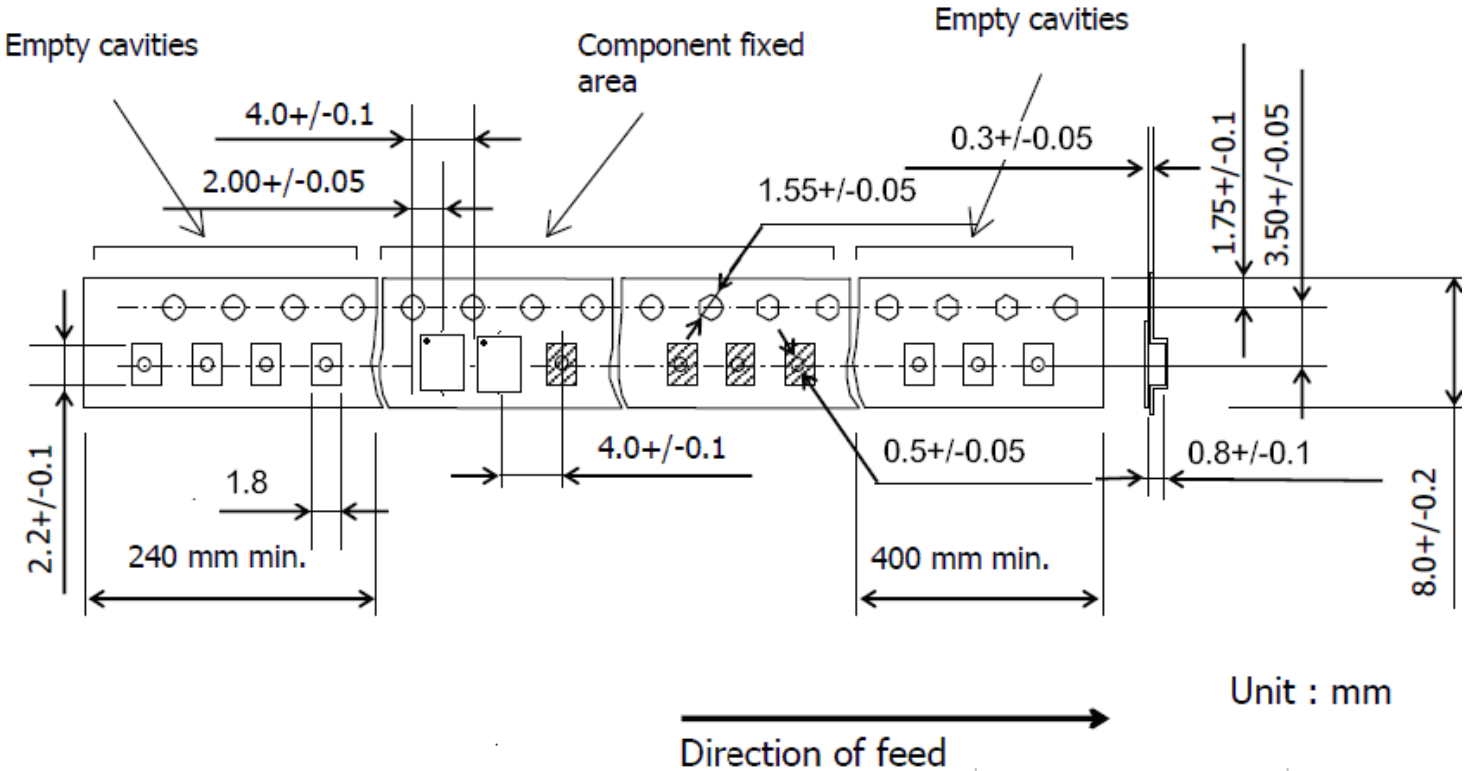
1. REEL DIMENSION

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



Unit: mm

2. TAPE DIMENSION



H. RECOMMENDED REFLOW PROFILE :

1. Preheating shall be fixed at 150~180℃ for 60~90 seconds.
2. Ascending time to preheating temperature 150℃ shall be 30 seconds min.
3. Heating shall be fixed at 220℃ for 50~80 seconds and at 245~260℃ peak (min. 10sec).
4. Time : 2 times.