



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

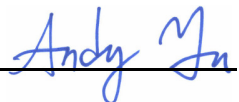
Product Name: SAW DPX 897.5 / 942.5MHz 35/35MHz BW Band8 SMD1.8X1.4 mm

TST Parts No.: TF0208A

Customer Part No.: _____

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

Checked by: _____ Anne Chen 

Approved by: _____ Andy Yu 

Date: _____ 2019/11/15

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 897.5 / 942.5MHz 35/35MHz BW Band8 SMD1.8X1.4 mm
MODEL NO.: TF0208A

REV. No.: 1.0

A. MAXIMUM RATING:

1. Input Power Level :
@ Input power at Tx Port : 29dBm (Ta=+50deg C,50000h,CW)
2. Maximum DC Voltage: 3 V
3. Operating temperature range: -20 °C to +85 °C
4. Storage temperature range: -40 °C to +85 °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 // 33nH Ω (Single-ended)

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

Terminating impedance(Ant Port): 50 // 9.1nH Ω (Single-ended)

Tx to ANT

Parameters Description		Unit	Minimum	Typical	Maximum	Note
Insertion Loss	880.48 ~ 914.52 MHz	dB	-	2.0	3.4	
	882.4 ~ 912.6 MHz	dB		1.7	2.5	
Ripple	880 ~ 915 MHz	dBp-p	-	1.4	2.9	
VSWR	Tx	-	-	1.6	2.2	
	ANT	-	-	1.6	2.2	
Attenuation:						
10.0 ~ 716.0 MHz		dB	30	35	-	
716.0 ~ 728.0 MHz		dB	30	35	-	
728.0 ~ 793.0 MHz		dB	30	35	-	
832.0 ~ 862.0 MHz		dB	30	41	-	
927.4 ~ 957.6 MHz		dB	48	54	-	
1559.0 ~ 1563.0 MHz		dB	35	42	-	
1565.42 ~ 1573.37 MHz		dB	35	42	-	
1573.37 ~ 1577.47 MHz		dB	35	42	-	
1577.47 ~ 1585.42 MHz		dB	35	43	-	
1597.55 ~ 1605.89 MHz		dB	35	43	-	
1710.0 ~ 1785.0 MHz		dB	35	46	-	
1760.0 ~ 1840.0 MHz		dB	40	47	-	

1840.0 ~ 1880.0 MHz	dB	40	48	-	
1920.0 ~ 1980.0 MHz	dB	35	46	-	
2110.0 ~ 2170.0 MHz	dB	35	42	-	
2400.0 ~ 2500.0 MHz	dB	30	37	-	
2434.0 ~ 2494.0 MHz	dB	30	37	-	
2620.0 ~ 2745.0 MHz	dB	28	35	-	
3520.0 ~ 3660.0 MHz	dB	20	29	-	
4400.0 ~ 4575.0 MHz	dB	15	27	-	
4900.0 ~ 5950.0 MHz	dB	15	25	-	
6160.0 ~ 6405.0 MHz	dB	15	27	-	
7040.0 ~ 7320.0 MHz	dB	5	12		

ANT to Rx

Parameters Description		Unit	Minimum	Typical	Maximum	Note
Insertion Loss	925.48 ~ 959.52 MHz	dB	-	1.9	3.1	
	927.4 ~ 957.6 MHz	dB		1.9	2.5	
Ripple	925 ~ 960 MHz	dBp-p	-	0.9	2.3	
VSWR	Tx	-	-	1.9	2.3	
	ANT	-	-	1.9	2.2	

Attenuation:

0.3~ 880.0 MHz	dB	50	63	-	
45.0 MHz	dB	50	108	-	
835.0 ~ 870.0 MHz	dB	50	62	-	
882.4 ~ 912.6 MHz	dB	50	57	-	
902.5 ~ 910.0 MHz	dB	47	57	-	
980.0 ~ 1045.0 MHz	dB	20	30	-	
1045.0 ~ 6000.0 MHz	dB	25	44	-	
1427.0 ~ 1448.0 MHz	dB	45	62	-	
1710.0 ~ 1785.0 MHz	dB	40	56	-	
1805.0 ~ 1980.0 MHz	dB	40	54	-	
2400.0 ~ 2500.0 MHz	dB	40	50	-	
2500.0 ~ 2570.0 MHz	dB	40	50	-	
2685.0 ~ 2790.0 MHz	dB	40	49	-	
2775.0 ~ 2880.0 MHz	dB	40	49	-	
2880.0 ~ 3700.0 MHz	dB	35	47	-	
3700.0 ~ 3840.0 MHz	dB	35	47	-	
4625.0 ~ 4800.0 MHz	dB	30	46	-	
4900.0 ~ 5950.0 MHz	dB	30	44	-	
6475.0 ~ 6720.0 MHz	dB	30	49	-	
7400.0 ~ 7680.0 MHz	dB	30	47	-	

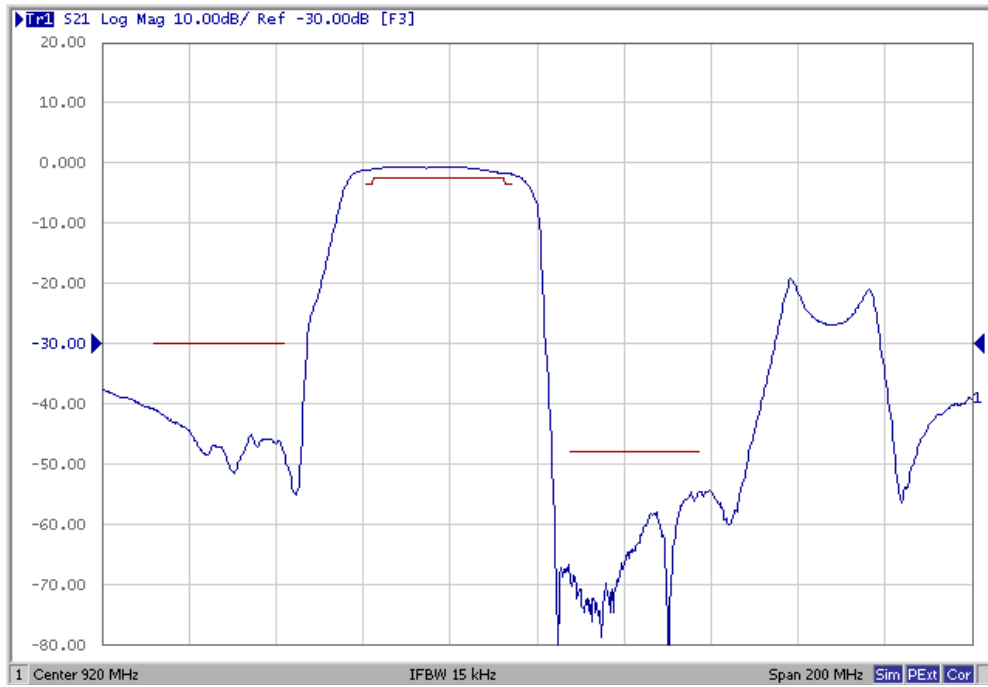
Tx to Rx

Isolation	882.4 ~ 912.6 MHz	dB	55	63	-	
	927.4 ~ 957.6 MHz	dB	50	57	-	

Notes:(1) With Matching Network

C. Frequency Characteristics:

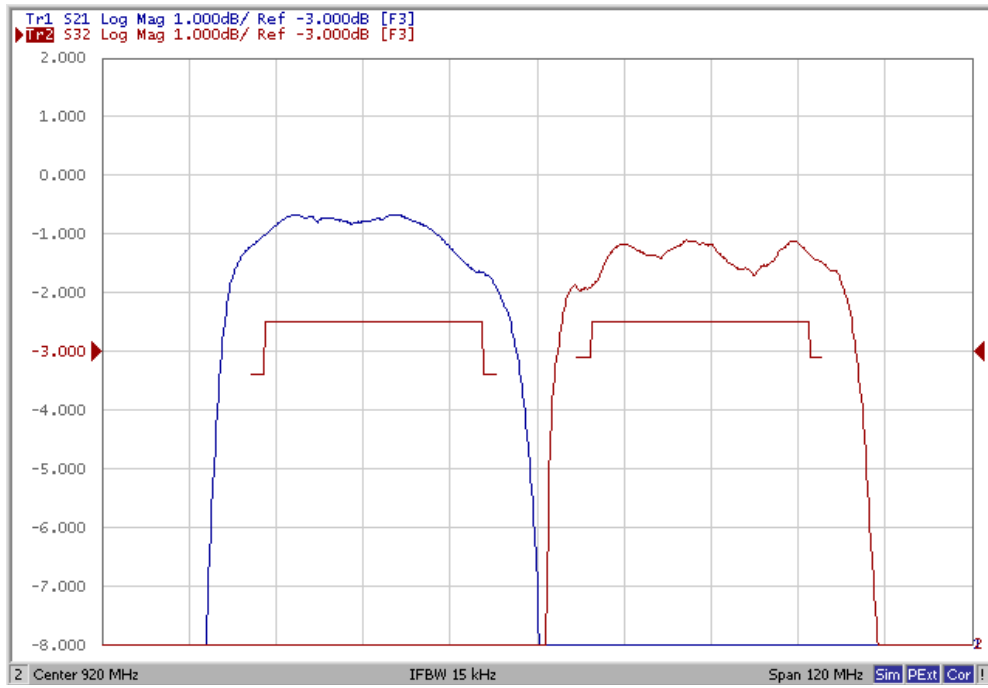
Tx to Ant



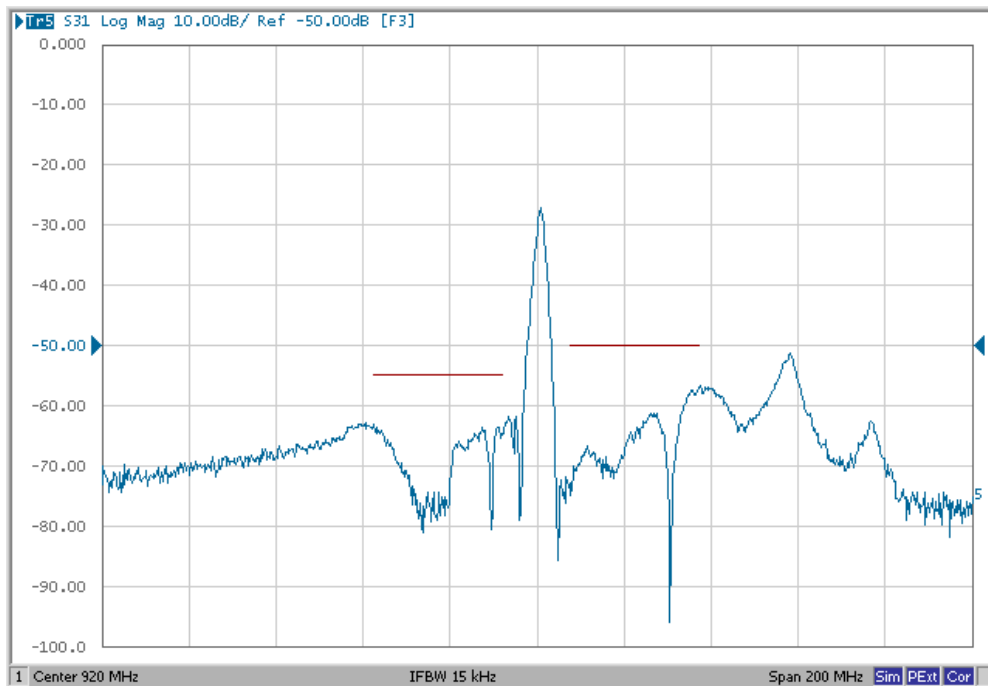
Ant to Rx



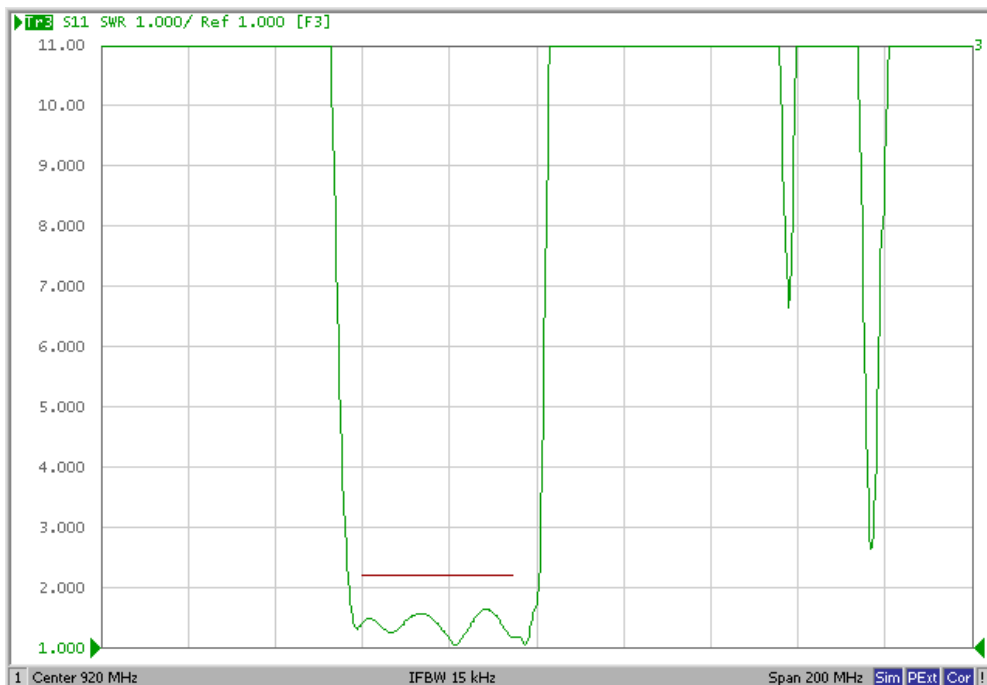
Ripple Deviation



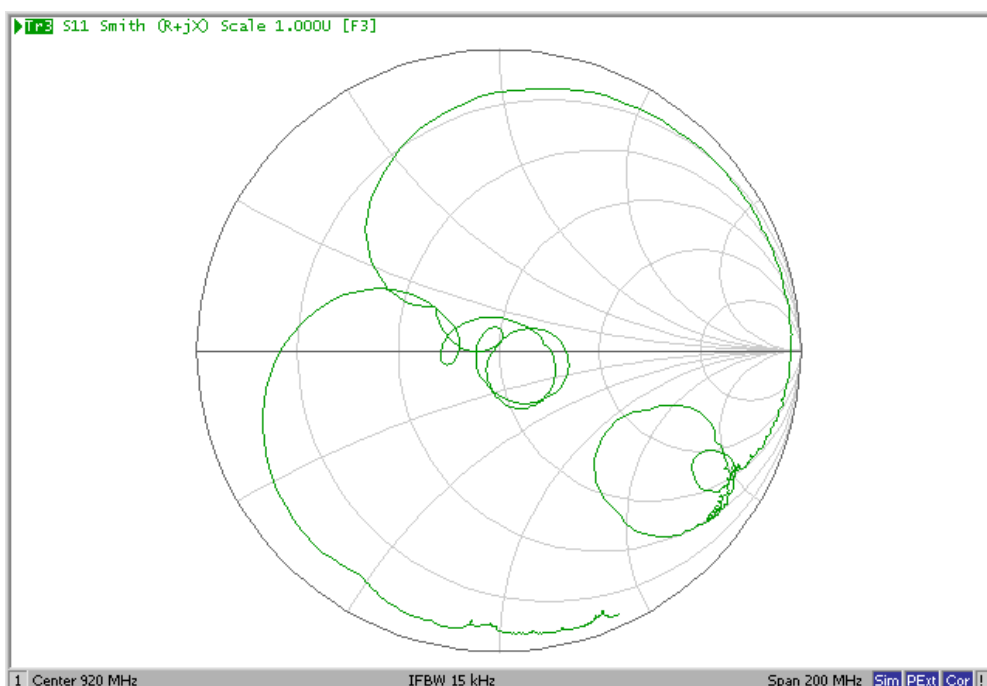
Isolation



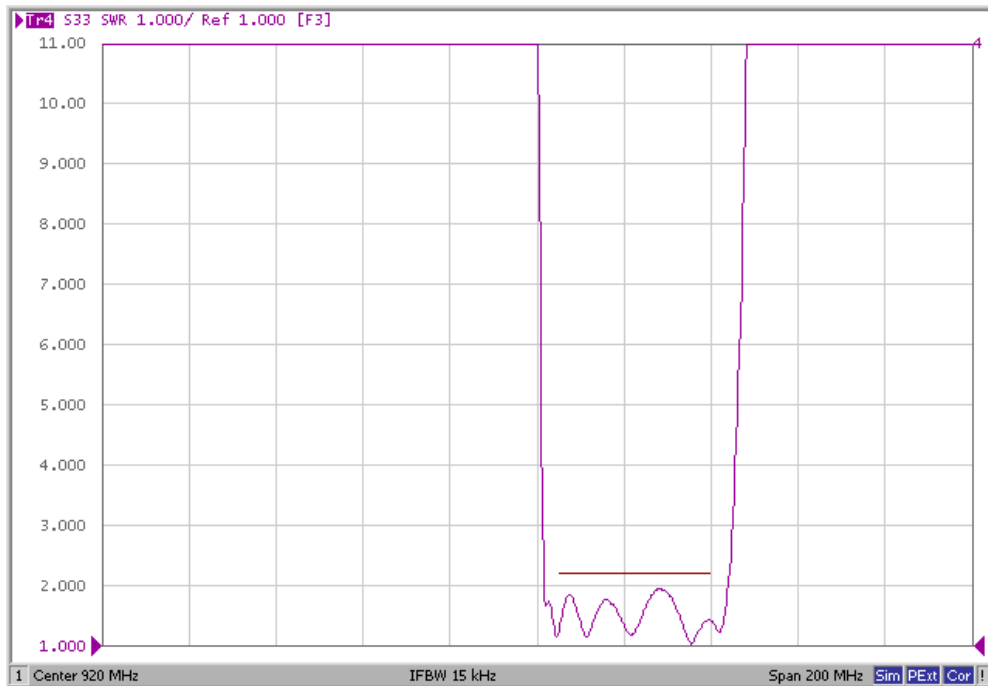
VSWR (Tx Port)



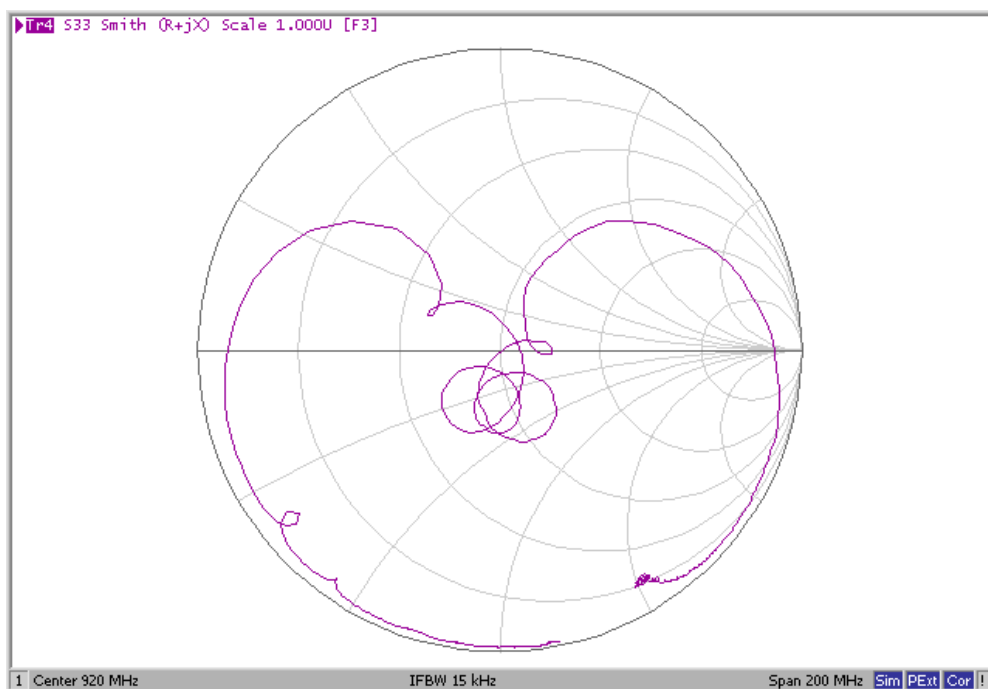
Smith Chart (TxPort)



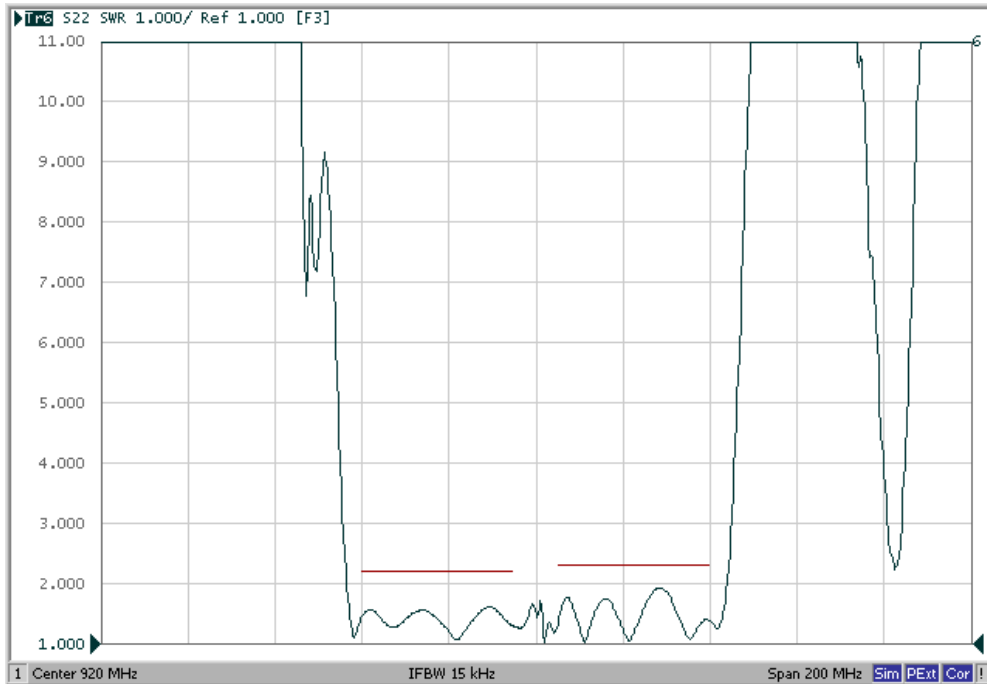
VSWR (Rx Port)



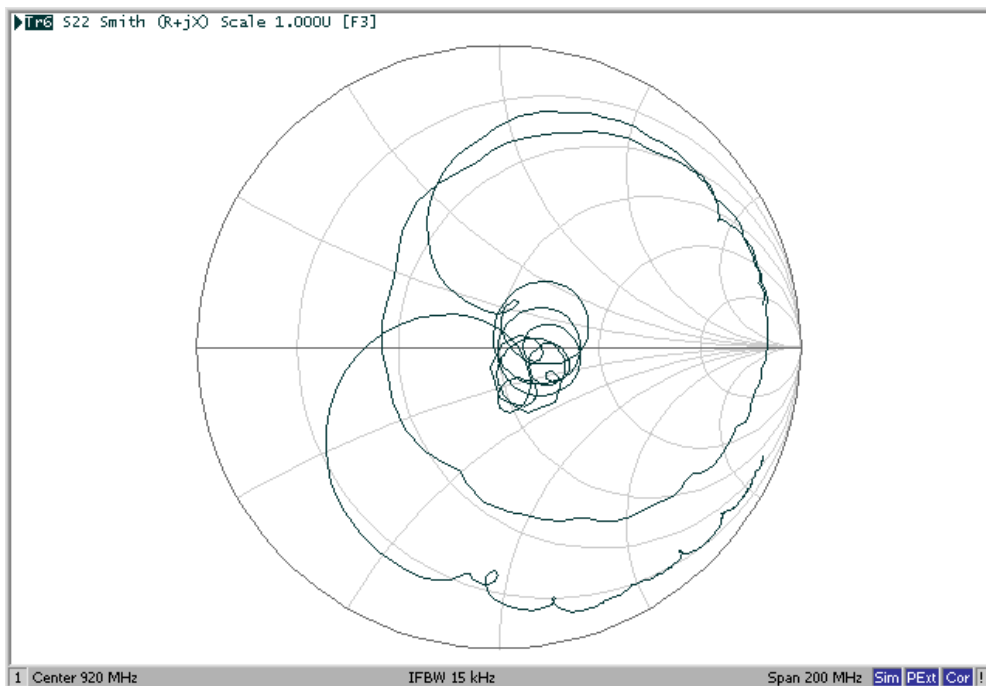
SmithChart (RxPort)



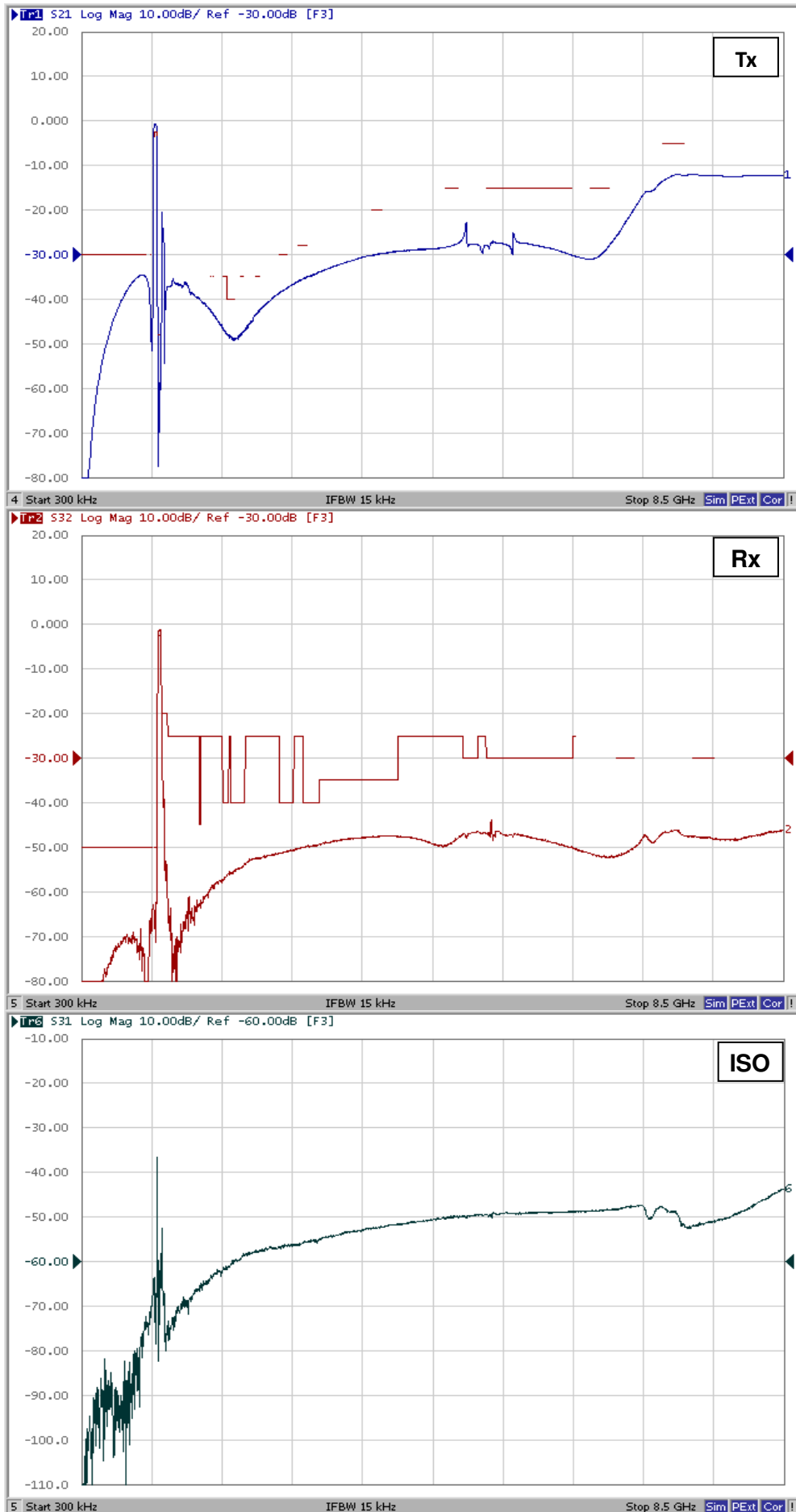
VSWR (ANTPort)



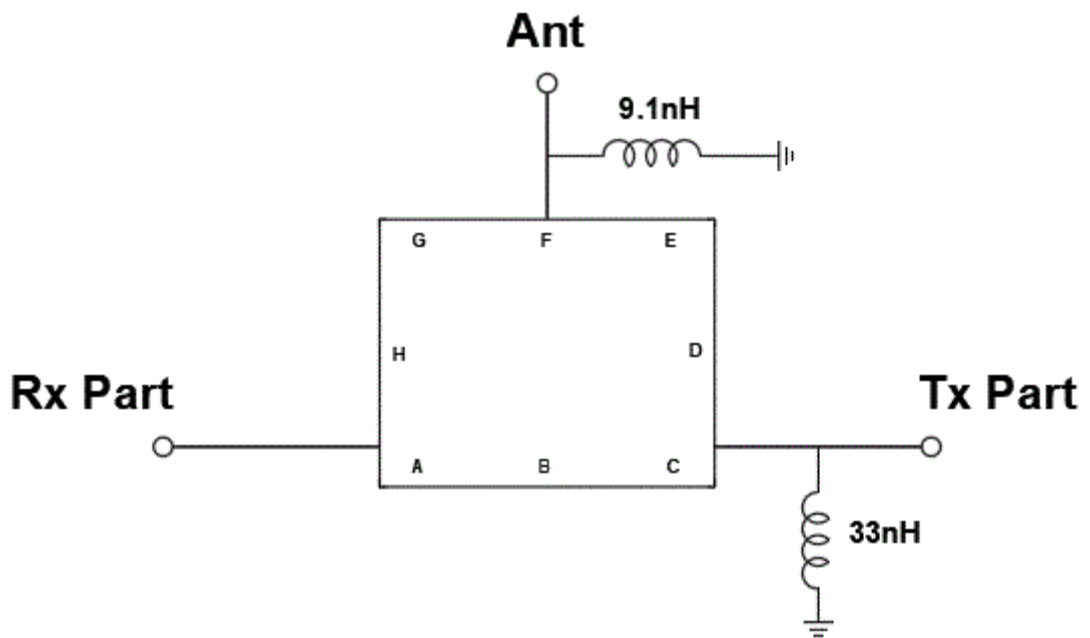
Smith Chart (ANTPort)



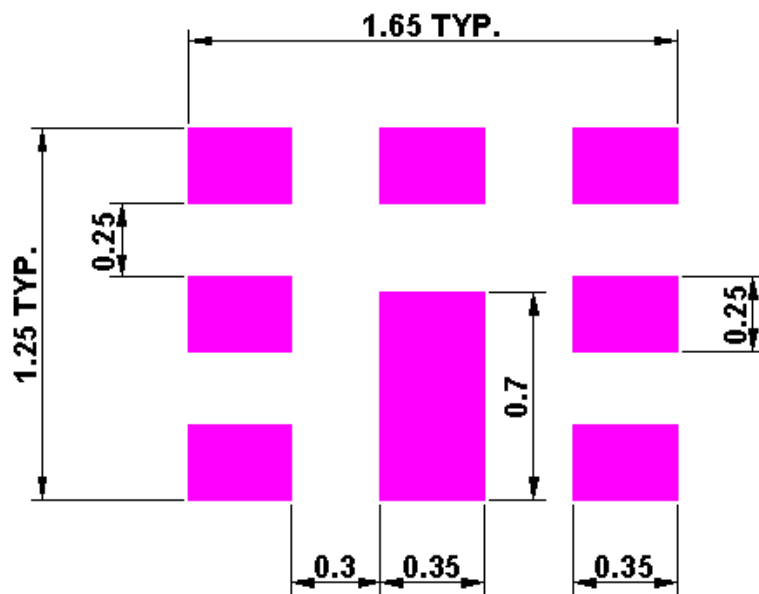
Wide Span



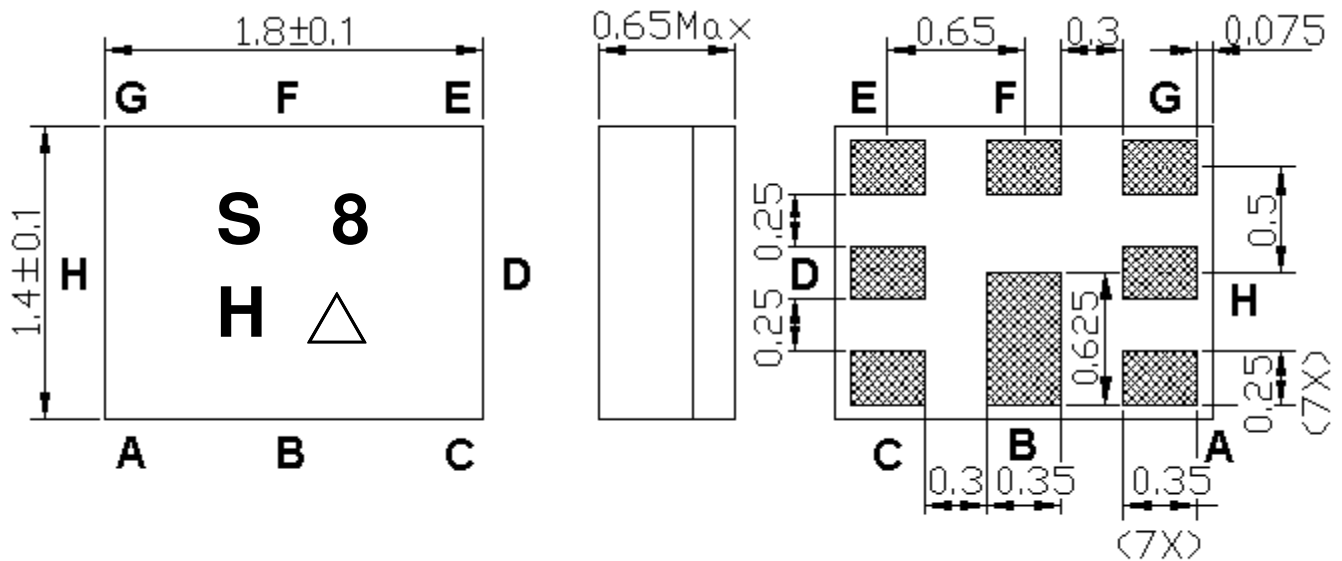
D. MEASUREMENT CIRCUIT:



E. PCB Footprint:



F.OUTLINE DRAWING: (Mass Production)



Not Specified Tolerance : ± 0.07 mm
Unit : mm

Marking Descriptions	
S	Marking name
8	Band Class
H	Series Number
△	Date Code(Year+Month)

Pin Description	
B,D,E,G,H	Ground
F	Ant
C	Tx (897.5 MHz)
A	Rx (942.5 MHz)

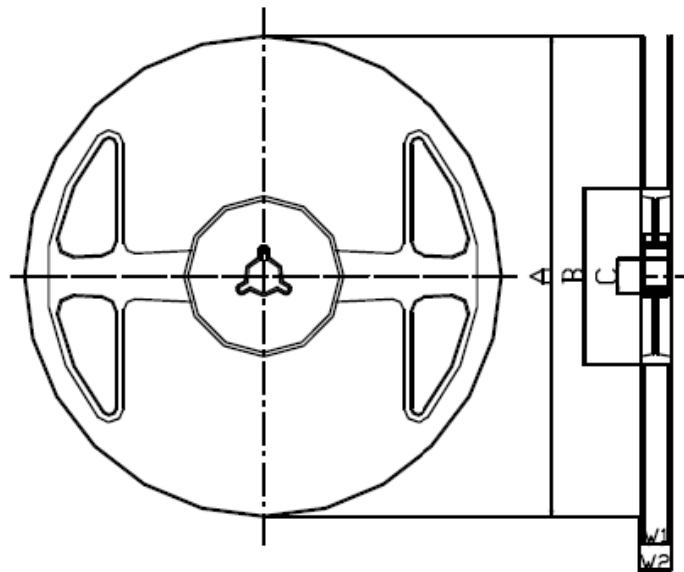
Date Code: Follow below table. (8-year cycle)

Year	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2013	A	B	C	D	E	F	G	H	J	K	L	M
2014	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>J</u>	<u>K</u>	<u>L</u>	<u>M</u>
2018	<u>N</u>	<u>P</u>	<u>Q</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>U</u>	<u>V</u>	<u>W</u>	<u>X</u>	<u>Y</u>	<u>Z</u>
2019	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	<u>e</u>	<u>f</u>	<u>g</u>	<u>h</u>	<u>i</u>	<u>k</u>	<u>l</u>	<u>m</u>
2020	<u>n</u>	<u>p</u>	<u>q</u>	<u>r</u>	<u>s</u>	<u>t</u>	<u>u</u>	<u>v</u>	<u>w</u>	<u>x</u>	<u>y</u>	<u>z</u>

G. PACKING:

1. REEL DIMENSION

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



Materials of Reel

Material : Polystyrene + Carbon

Characteristics : Conforms to EIAJ-ET-7200A

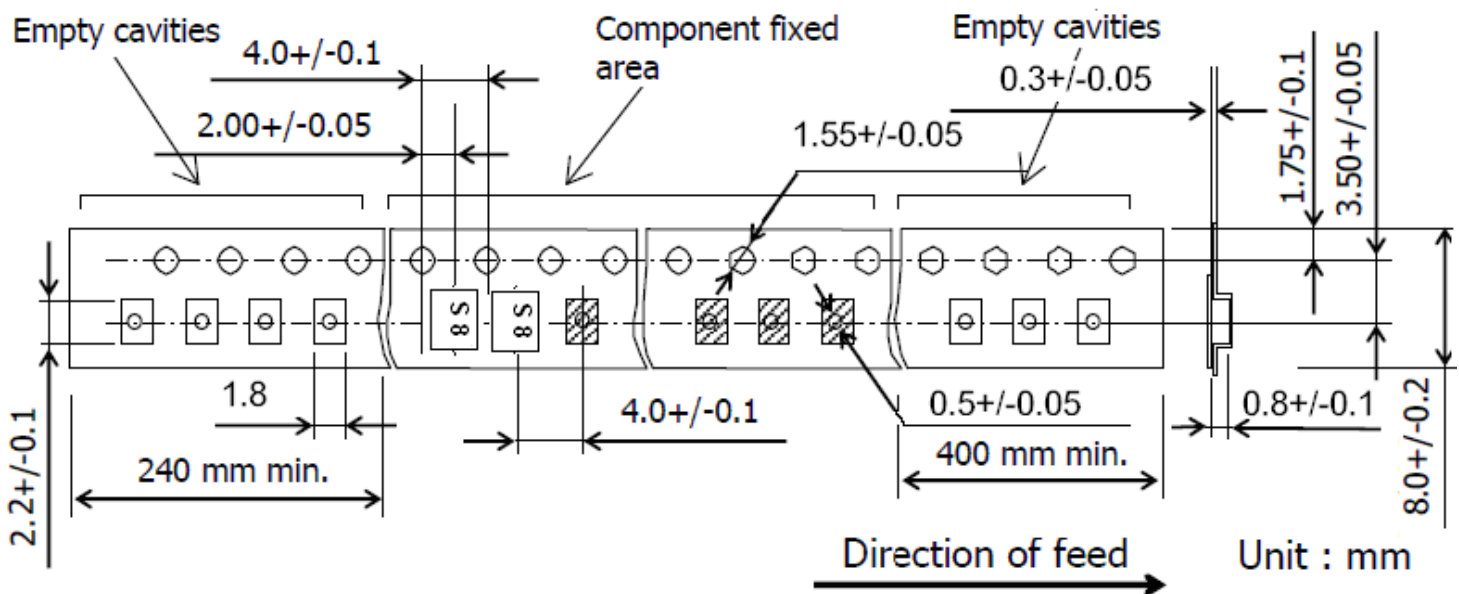
Color : Black

Surface resistance (reference value) : $10^9\Omega/\text{sq}$ Max.

Unit : mm

Code	Quantity	A	B	C	W1	W2
Z	3,000 pcs	$\phi 180.0 +0.0/-1.5$	$\phi 66.0 +/-0.5$	$\phi 13.0 +/-0.2$	$9.0 +1.0/-0.0$	$11.4 +/-1.0$

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.

