



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 Name: SAW DPX 710/740MHz LTE Band 17 SMD 2016

TST Parts No.: TF0092A

Customer Part No.: _____

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

Checked by: _____ Andy Yu 

Approved by: _____ Bob Chau 

Date: _____ 2017/04/26

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 changes



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 710/740MHz LTE Band 17 SMD 2016 (12MHz BW)

MODEL NO.: TF0092A

REV. No.: 2.0

A. MAXIMUM RATING:

1. Maximum Input Power: 29 dBm
2. DC voltage: 0 V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 1
6. ESD 100V (MM) 200V (HBM)

RoHS Compliant

Lead-free soldering

B. ELECTRICAL CHARACTERISTICS:

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

Terminating impedance(Rx Port): 100 Ω (Balanced-ended)

Terminating impedance(Ant Port): 50 Ω//12nH(Q=∞) (Single-ended)

Tx to Ant

Parameters Description	Condition [MHz]	Unit	Mini.	Typical	Max.
Insertion Loss	704.0 ~ 716.0	dB	-	1.9	2.6
Ripple	704.0 ~ 716.0	dB _{p-p}	-	0.8	1.5
VSWR	Ant	704.0 ~ 716.0	-	1.5	2.0
	Tx	704.0 ~ 716.0	-	1.7	2.1
Attenuation:					
DC ~ 686.0 MHz		dB	30	42	-
686.0 ~ 698.0 MHz		dB	1	3.5	-
722.0 ~ 728.0 MHz		dB	2	5.5	-
728.0 ~ 734.0 MHz		dB	18	48	-
734.0 ~ 746.0 MHz		dB	45	58	-
746.0 ~ 768.0 MHz		dB	30	42	-
768.0 ~ 805.0 MHz		dB	25	39	-
869.0 ~ 894.0 MHz		dB	30	39	-
1408.0 ~ 1432.0 MHz		dB	35	51	-
1574.0 ~ 1577.0 MHz		dB	45	51	-
1805.0 ~ 1880.0 MHz		dB	30	42	-
1930.0 ~ 1990.0 MHz		dB	30	40	-
2110.0 ~ 2170.0 MHz		dB	34	38	-
2400.0 ~ 2500.0 MHz		dB	30	34	-
2500.0 ~ 3000.0 MHz		dB	15	30	-

Ant to Rx

Parameters Description		Condition [MHz]	Unit	Mini.	Typical	Max.
Insertion Loss		734.0 ~ 746.0	dB	-	2.0	2.6
Ripple		734.0 ~ 746.0	dB _{p-p}	-	0.8	1.4
VSWR	Ant	734.0 ~ 746.0	-	-	1.5	2.0
	Rx	734.0 ~ 746.0	-	-	1.6	2.0
Attenuation						
DC ~ 704.0 MHz			dB	53	61	-
704.0 ~ 716.0 MHz			dB	50	64	-
716.0 ~ 722.0 MHz			dB	40	59	-
722.0 ~ 727.0 MHz			dB	15	39	-
727.0 ~ 728.0 MHz			dB	2	38	-
776.0 ~ 805.0 MHz			dB	35	38	-
805.0 ~ 6000.0 MHz			dB	30	49	-
Amplitude balance(S ₃₁ /S ₄₁)		734.0 ~ 746.0	dB	-1.3	-0.7/+0.7	+1.3
Phase balance $\Phi(S_{31})-\Phi(S_{41})+180^\circ$		734.0 ~ 746.0	deg	-10	-3/+3	+10

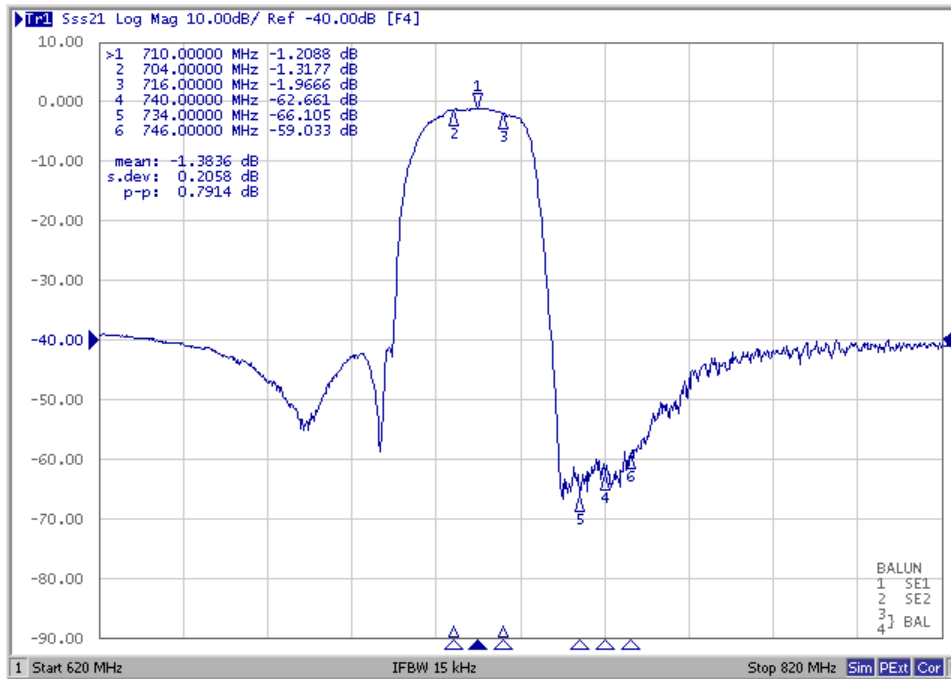
Tx to Rx

Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation	704.0 ~ 716.0	dB	55	63	-
	734.0 ~ 746.0	dB	50	60	-

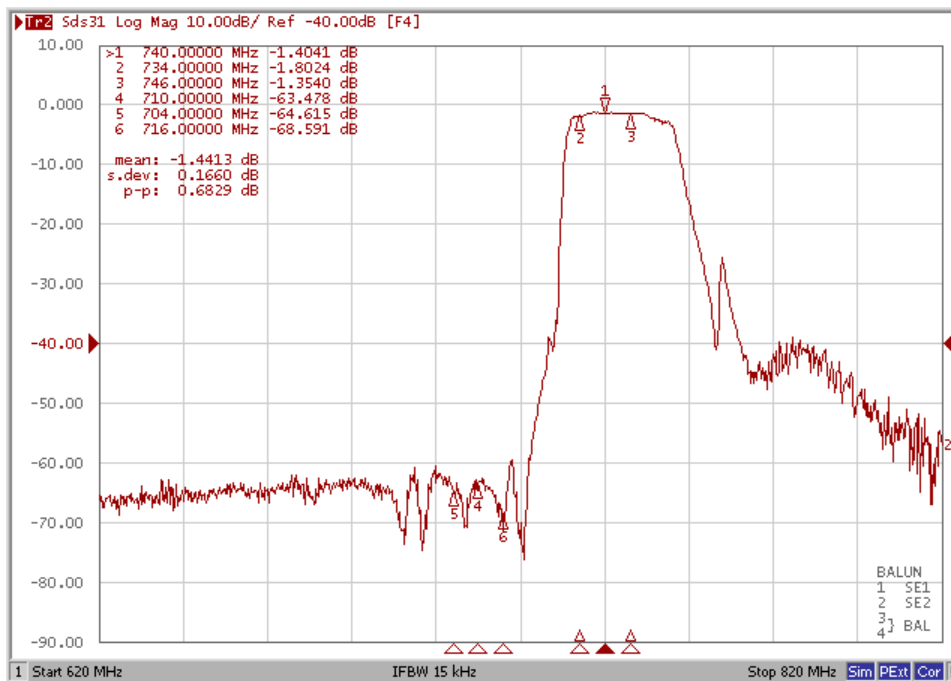
Notes : (1) With Matching Network .

C. Frequency Characteristics :

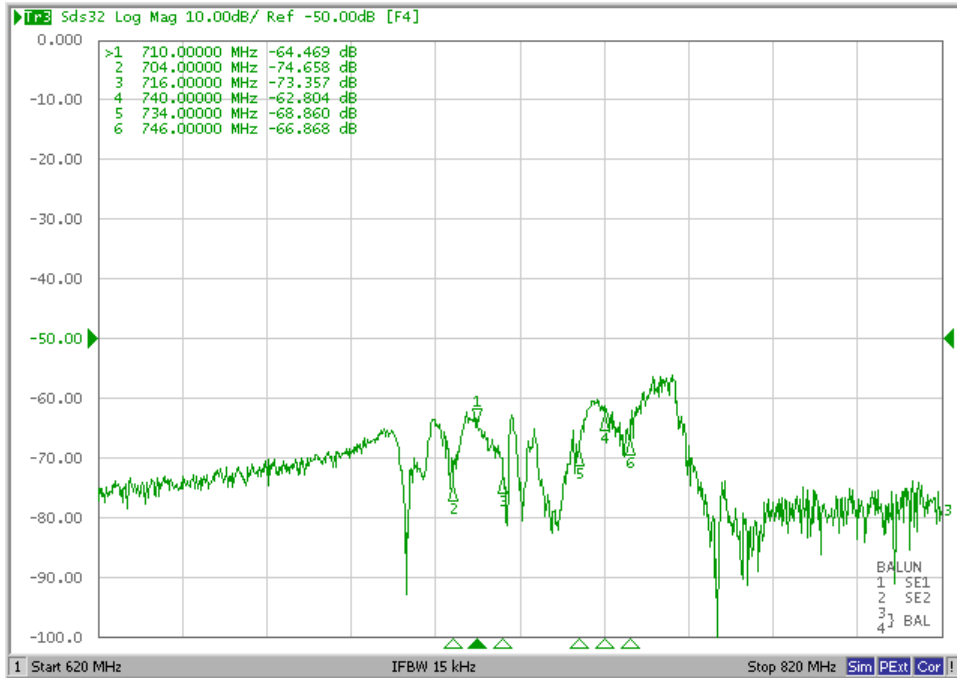
Tx to Ant



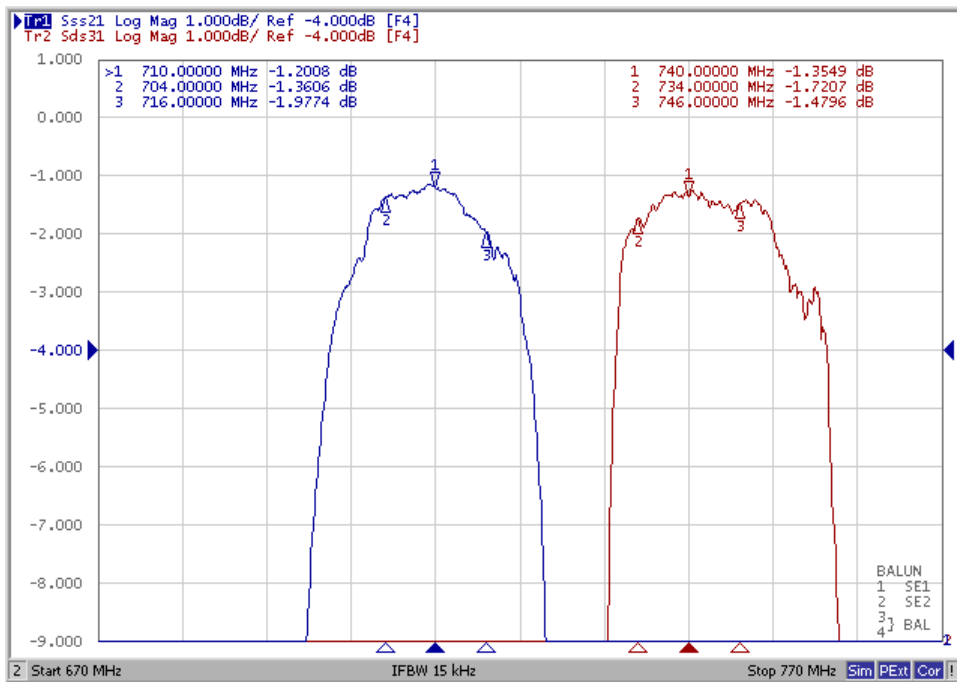
Ant to Rx



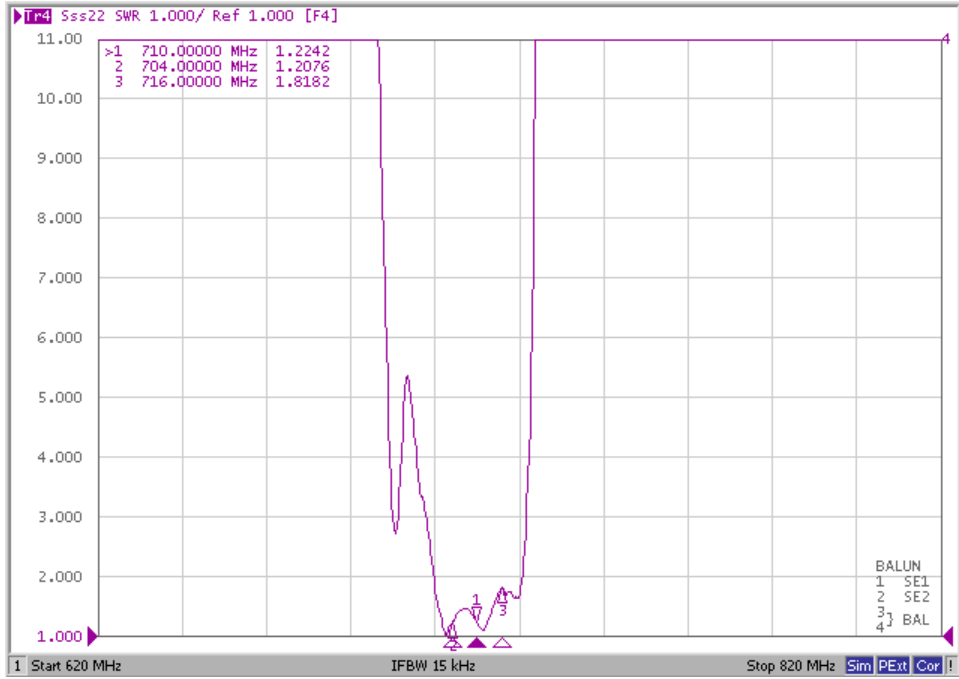
Isolation



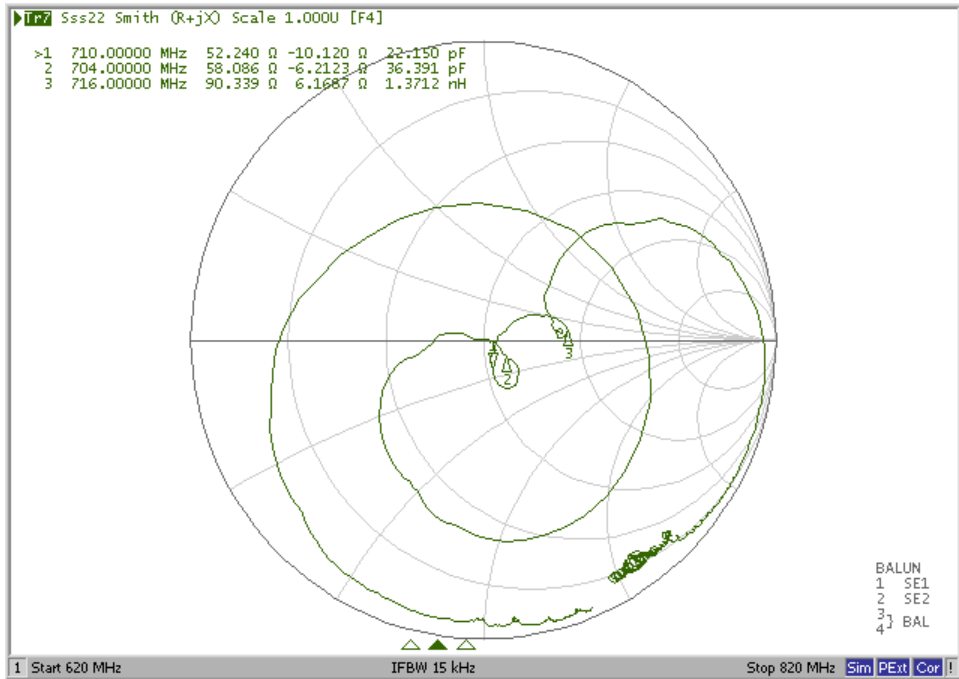
Ripple



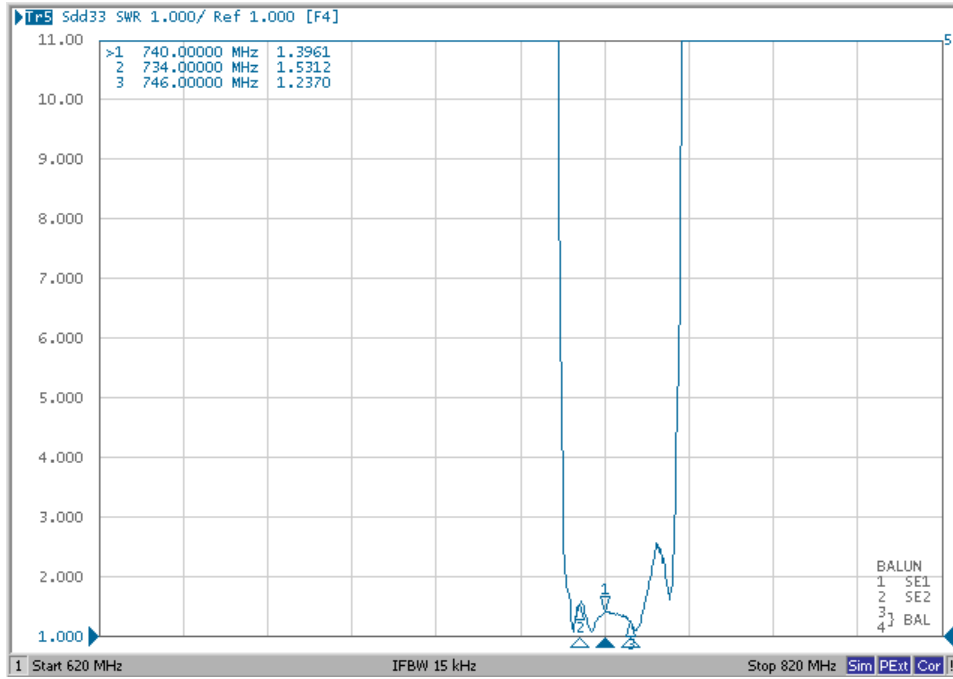
VSWR (Tx Port)



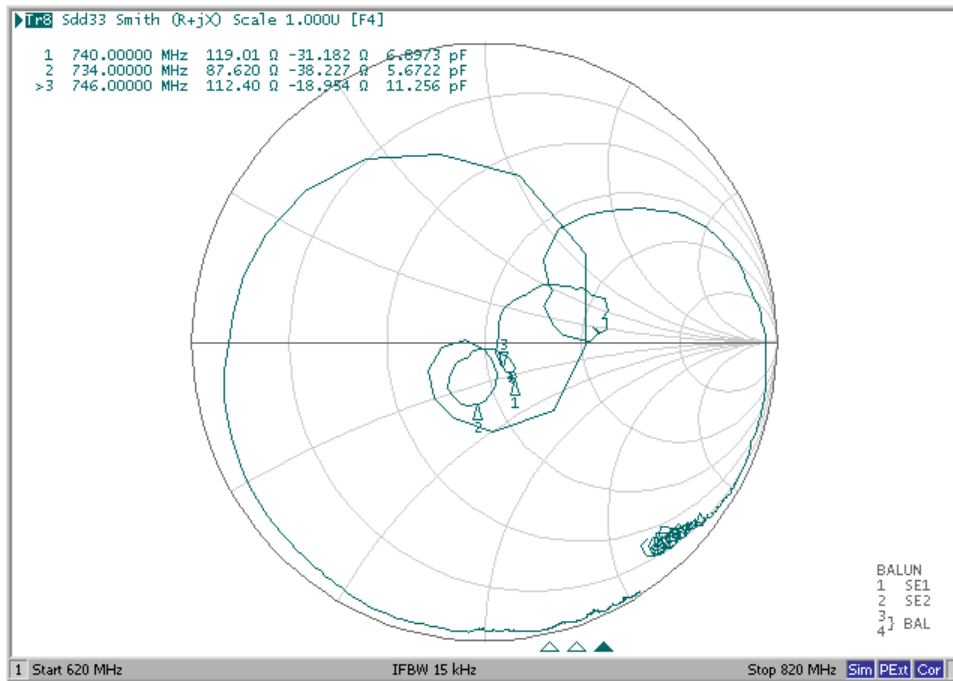
Smith Chart (Tx Port)



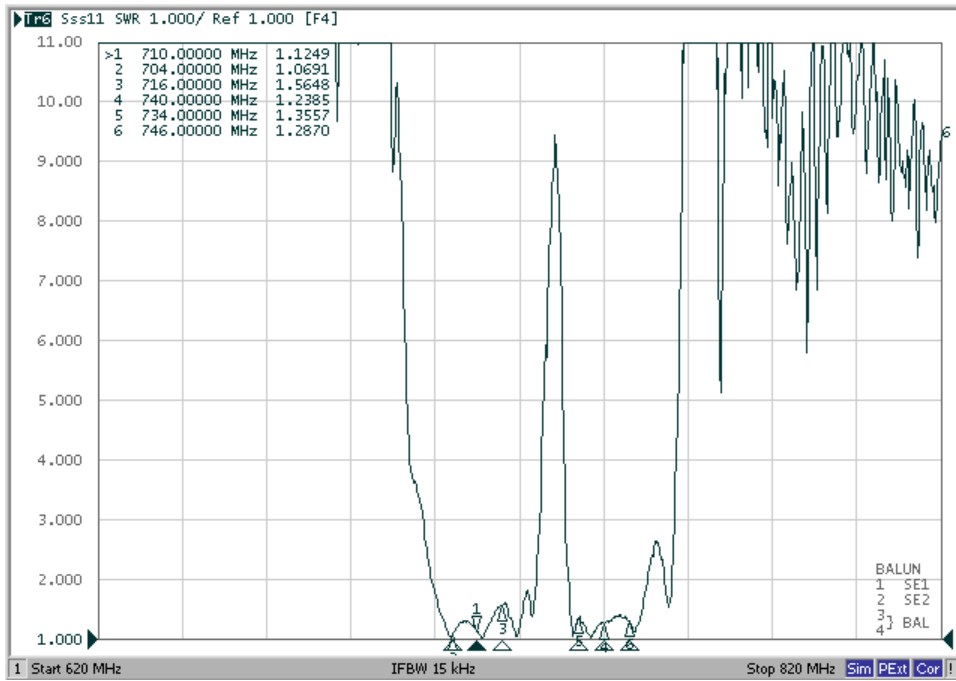
VSWR (Rx Port)



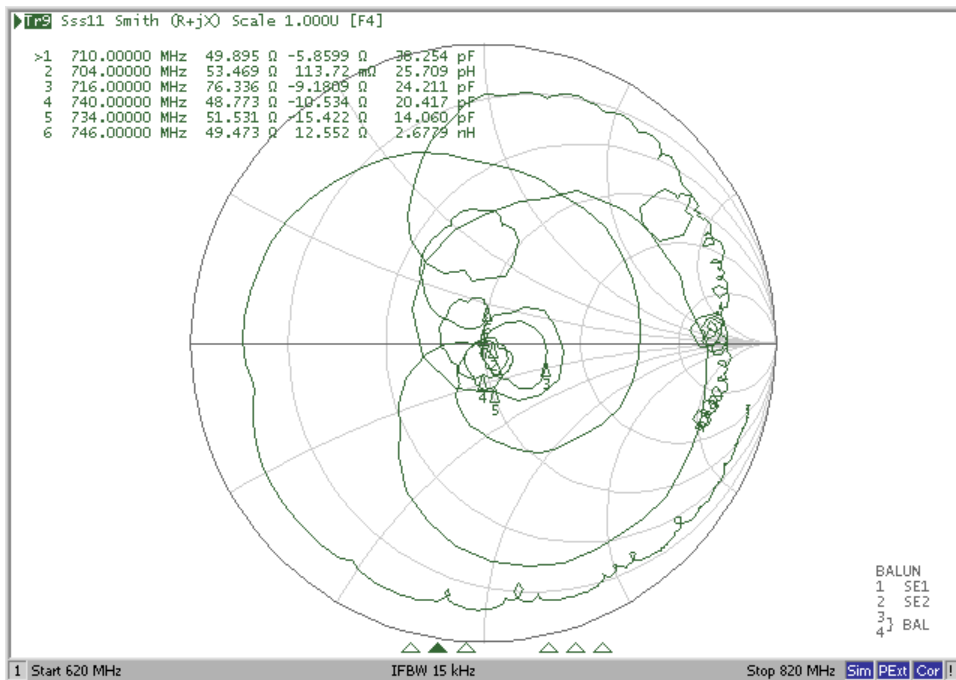
Smith Chart (Rx Port)



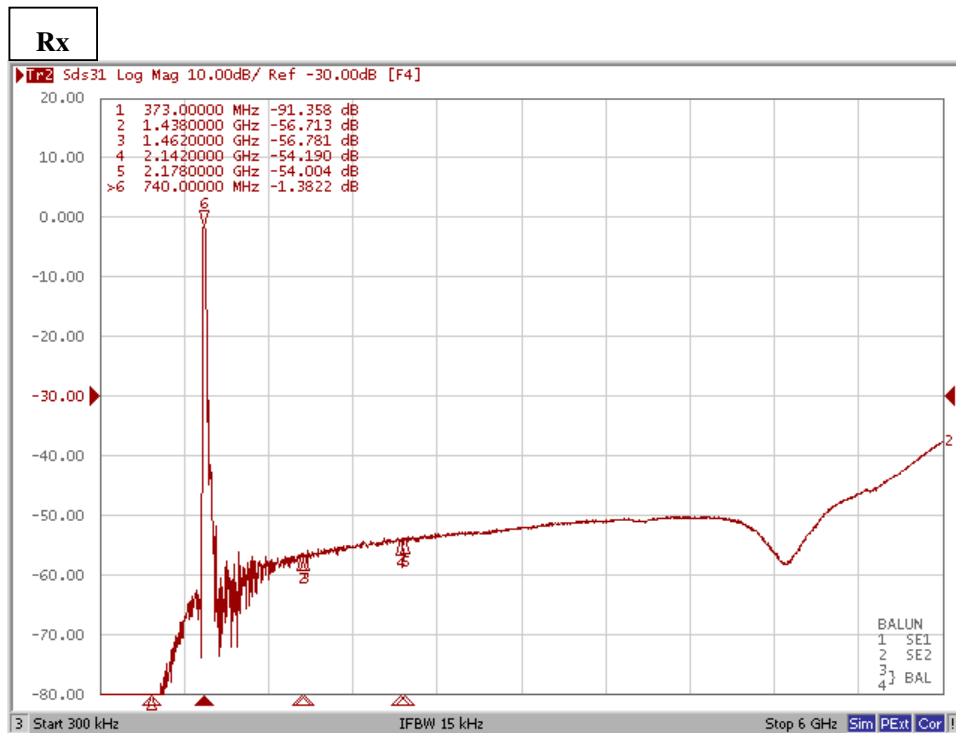
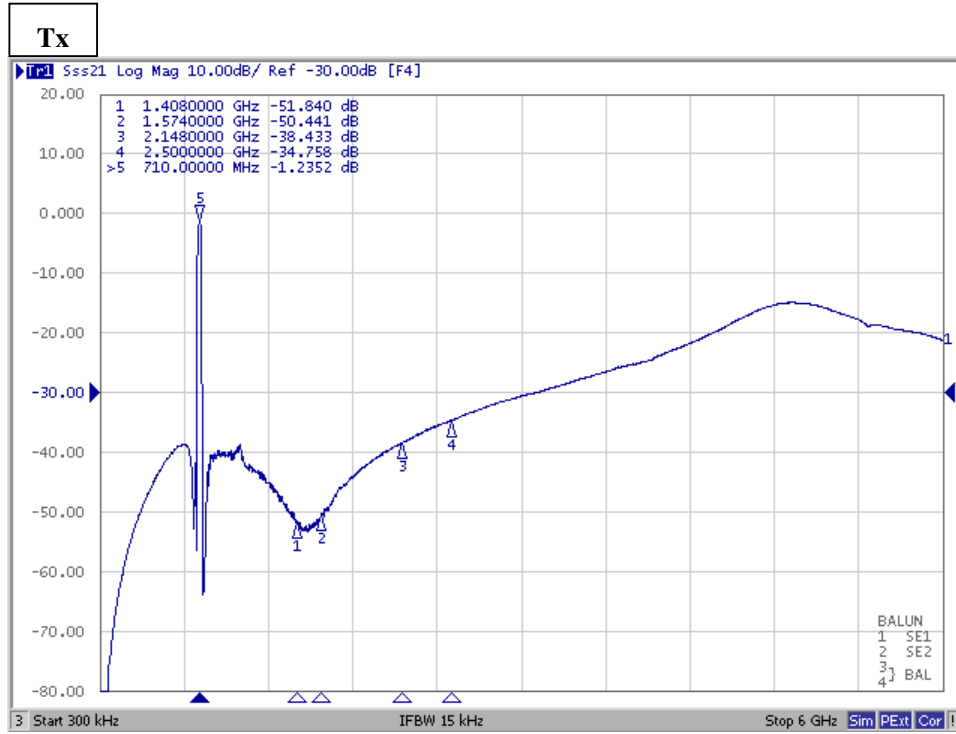
VSWR (ANT Port)



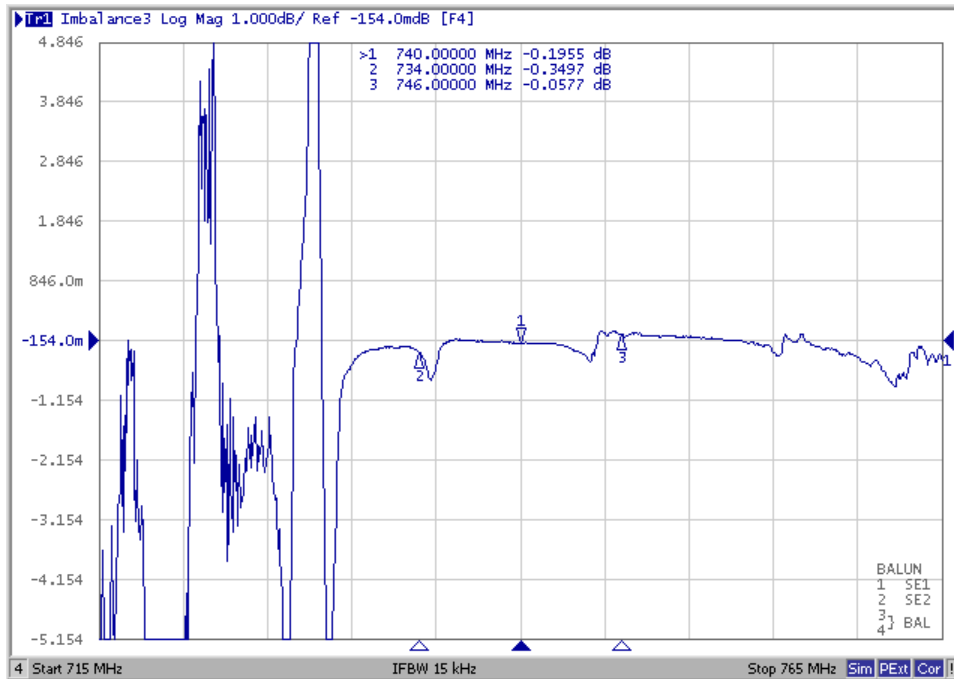
Smith Chart (ANT Port)



Wide Span



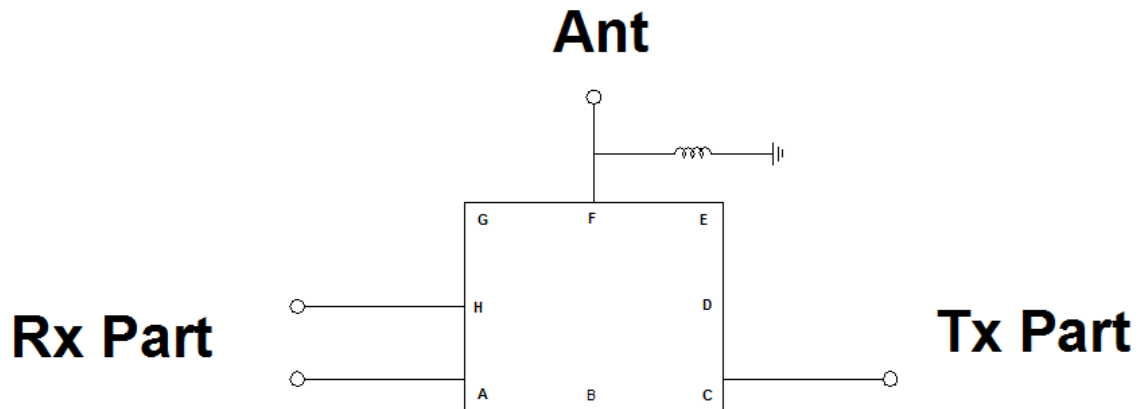
Amplitude balance of Ant to Rx+/Rx-



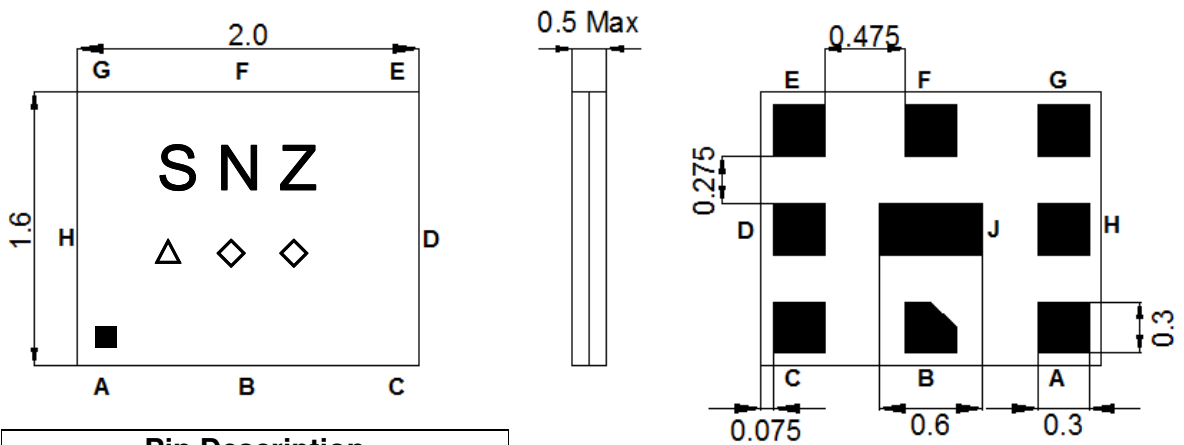
Phase balance of Ant to Rx+/Rx-



D. MEASUREMENT CIRCUIT:



E. OUTLINE DRAWING:



Pin Description	
B, D, E, G, J	Ground
F	Ant
C	Tx (710MHz)
A, H	Rx (740MHz)

Marking name : **SNZ**

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

◇◇: Lot Code.

Product Date Code. Follow below table.

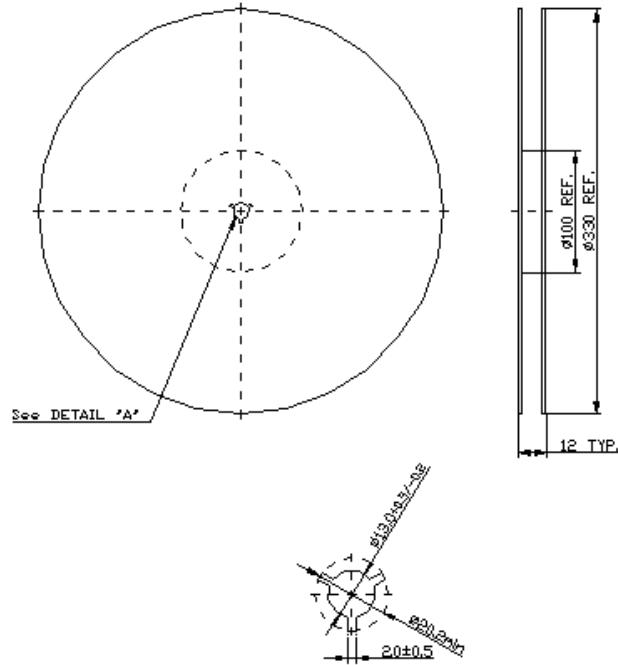
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	n	p	q	r	s	t	u	v	w	x	y	z

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

F. PACKING:

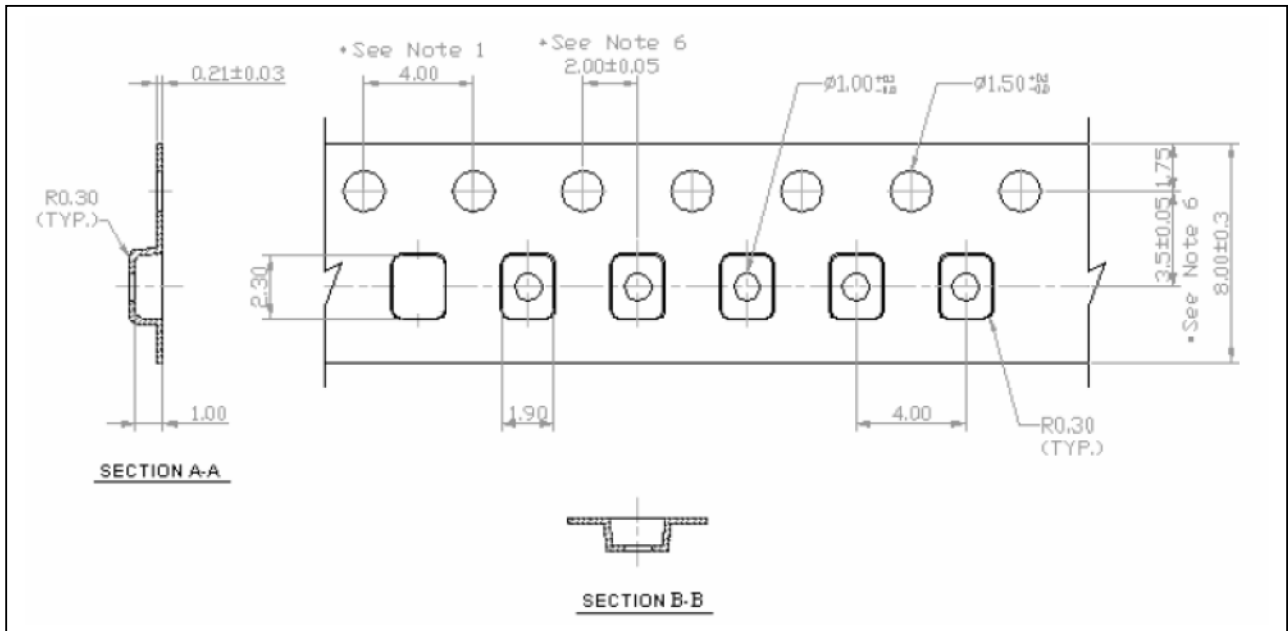
1. REEL DIMENSION

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



2. TAPE DIMENSION

ZNS



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

