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: BAW Filter 2593 MHz SMD 1.1x0.9(BW=194MHz)

TST Part No.: TA2774AA1222

Customer Part No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____Alisa Kuo_____

Approved by:_____Kazuma Lee_____

Date:_____2021/11/23_____

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.

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BAW Filter 2593 MHz SMD 1.1x0.9(BW=194MHz)

MODEL NO.: TA2774AA1222 REV. NO.:2

A. MAXIMUM RATING:

1. Input Power Level : 29dBm
2. DC Voltage : 3V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +125°C
5. Moisture Sensitivity Level: Level 3
6 .ESD 50V(MM) 100V(HBM)

RoHS Compliant
Lead free
Lead-free soldering

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

B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance : Zs = 50 Ω

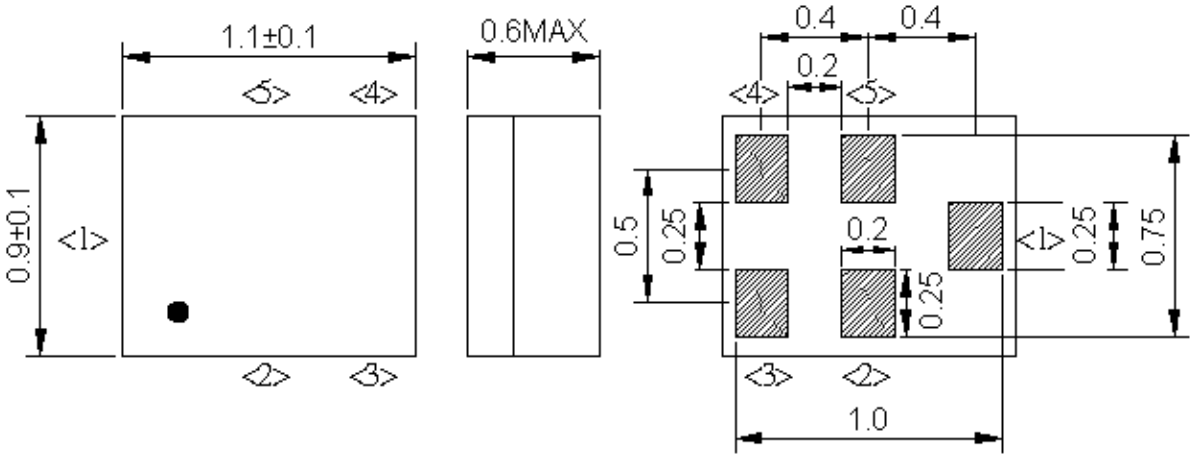
Terminating load impedance : Z_L = 50Ω

Item			Unit	Min.	Typ.	Max.	Note
Center Frequency		**Fc**	MHz	-	2593		
Insertion Loss	(2496~2500MHz)	**IL**		-	3.2	3.6	
	(2500~2680MHz)	**IL**		-	2.5	3.3	
	(2535~2675MHz)	**IL**		-	2.4	3.1	
	(2555~2655MHz)	**IL**		-	1.8	2.3	
	(2680~2690MHz)	**IL**		-	3.3	4.3	
Amplitude Ripple	(2496 ~ 2960MHz)			-		1.7	
VSWR(Input)	(2496 ~ 2960MHz)				1.6	2.1	
VSWR(Output)	(2496 ~ 2960MHz)				1.7	2.0	

Minimum Attenuation					
300 ~ 925 MHz	dB	36	51		
1565 ~ 1980 MHz	dB	31	34		
2110 ~ 2170 MHz	dB	31	34		
2200 ~ 2300 MHz	dB	33	37		
2300 ~ 2400 MHz	dB	35	43		
(WIFI ch1-10) 2402 ~ 2467 MHz	dB	30	38		
2467 ~ 2472 MHz	dB	15	38		
2472 ~ 2482 MHz	dB	5	22		
2775 ~ 2850 MHz	dB	40	49		
3300 ~ 4200 MHz	dB	35	48		
4400 ~ 5380 MHz	dB	22	34		
7487 ~ 8000 MHz	dB	19	25		

(*1) The typical value is average value of each frequency band at 25°C

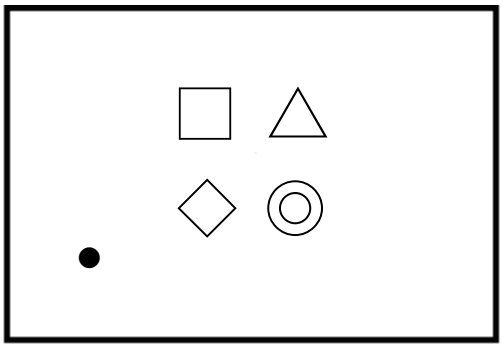
C.OUTLINE DRAWING:



All tolerances are +/-0.05 mm unless otherwise specified
Coplanarity : 0.1 mm max.
1 to 5 : Pin No.
Unit : mm

Pin No.	Symbol	DESCRIPTION
1	IN	RF input
2	GND	Ground connection
3	GND	Ground connection
4	OUT	ANT Antenna Port
5	GND	Ground connection

Marking



Product code (□ : E or P)

△: Date code(2021 May → S ,……., 2027 Dec→z.)

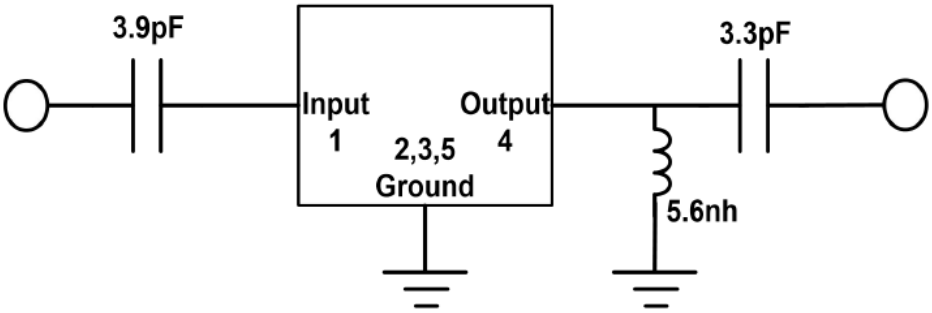
◇:week Code. (A ~ E , 1~5 circles of the moon.)

◎ : Lot No. (Indicated by A~Z or a to z, except I, O, o and l)

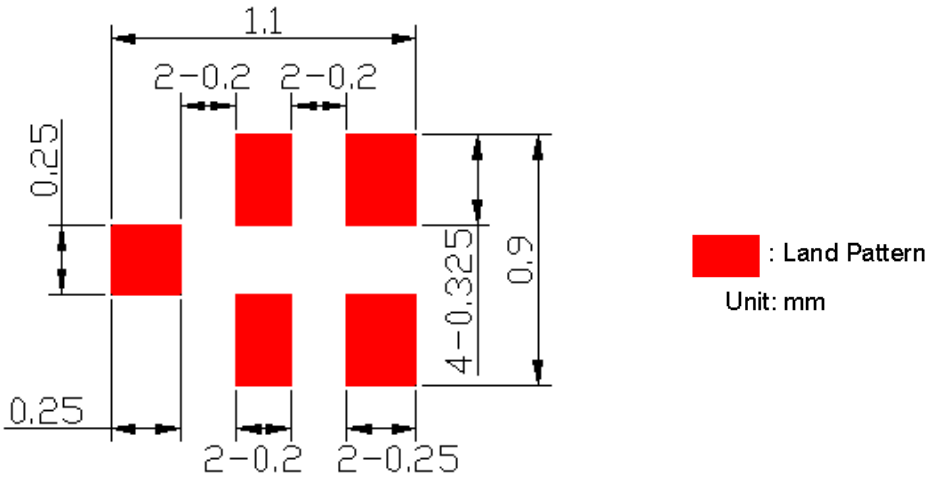
Product Date Code. Follow below table. **(4-year cycle)**

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	V̄	W	X	Y	Z

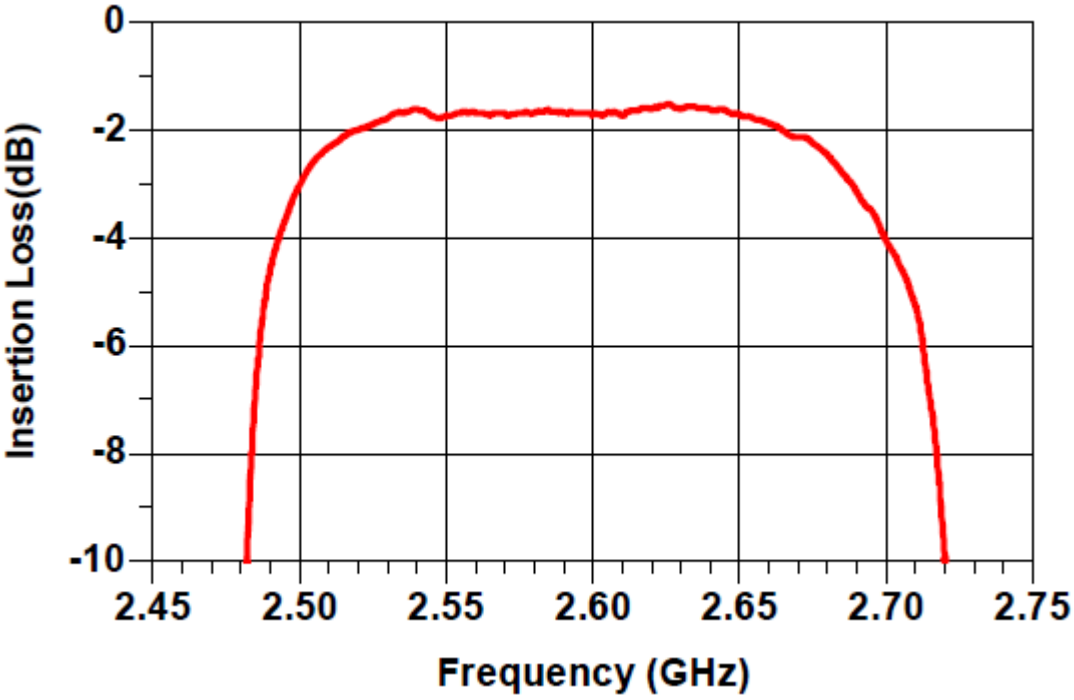
D.MEASUREMENT CIRCUIT:

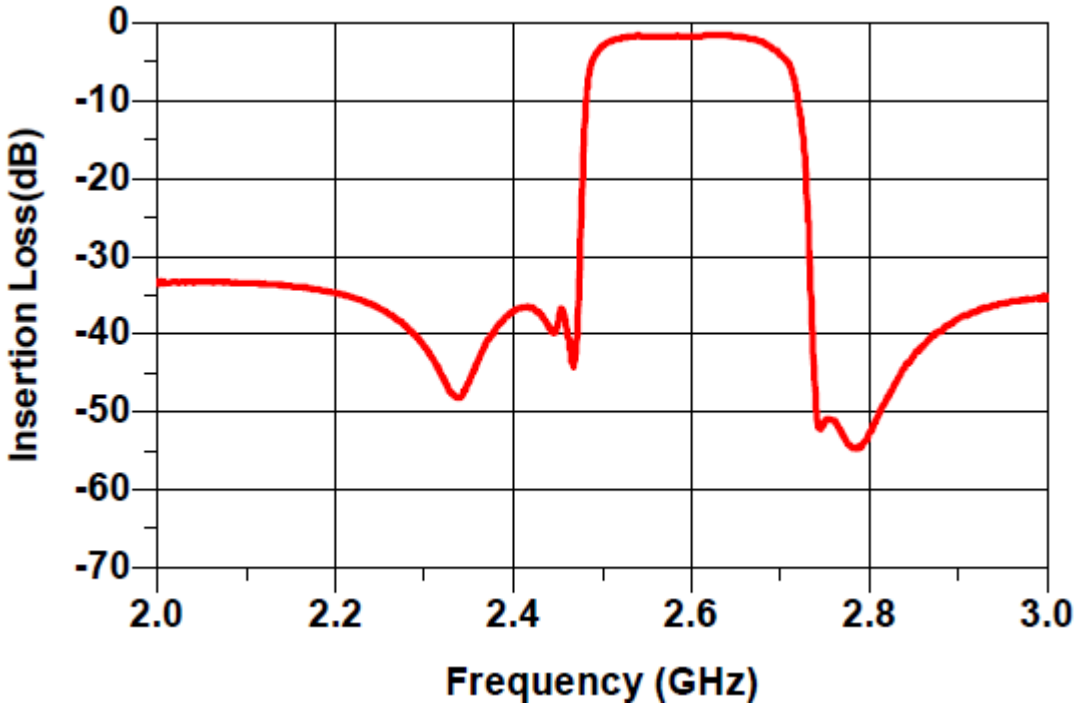


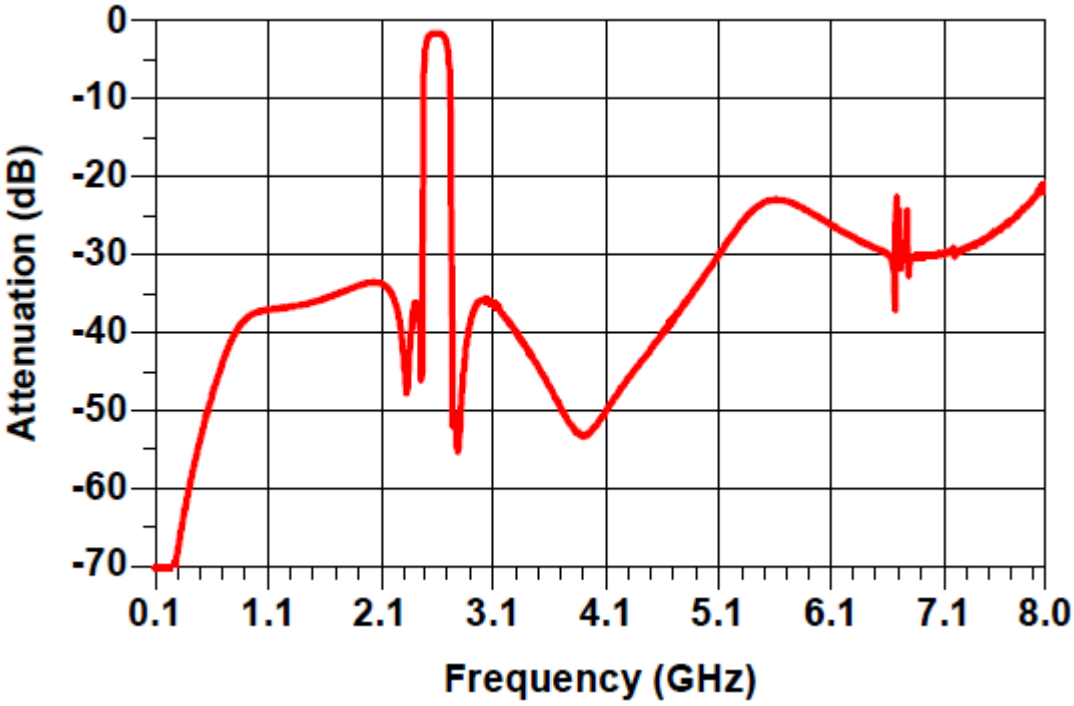
E.PCB Footprint：



F.Frequency Characteristics

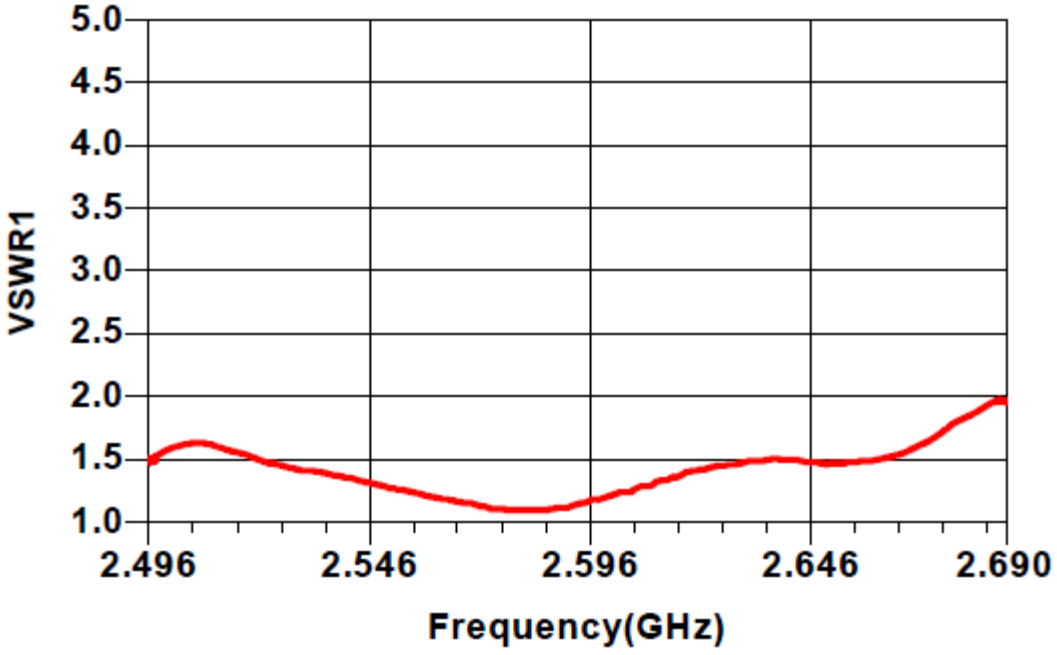


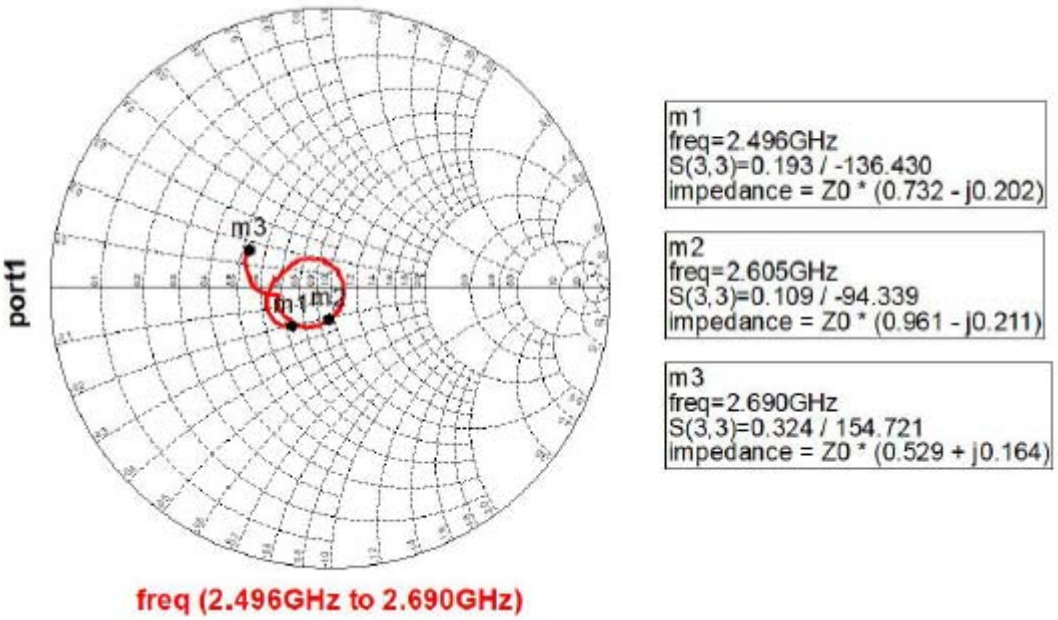



0
-10
-20
-30
-40
-50
-60
-70
Attenuation (dB)
0.1
1.1
2.1
3.1
4.1
5.1
6.1
7.1
8.0
Frequency (GHz)

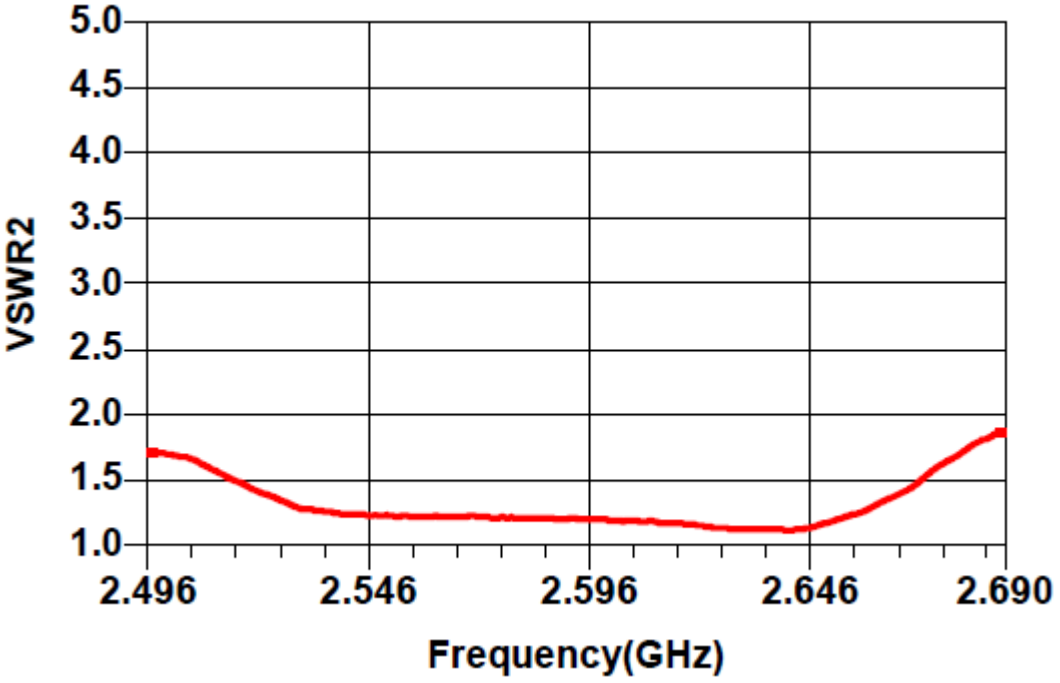
Reflection Functions :

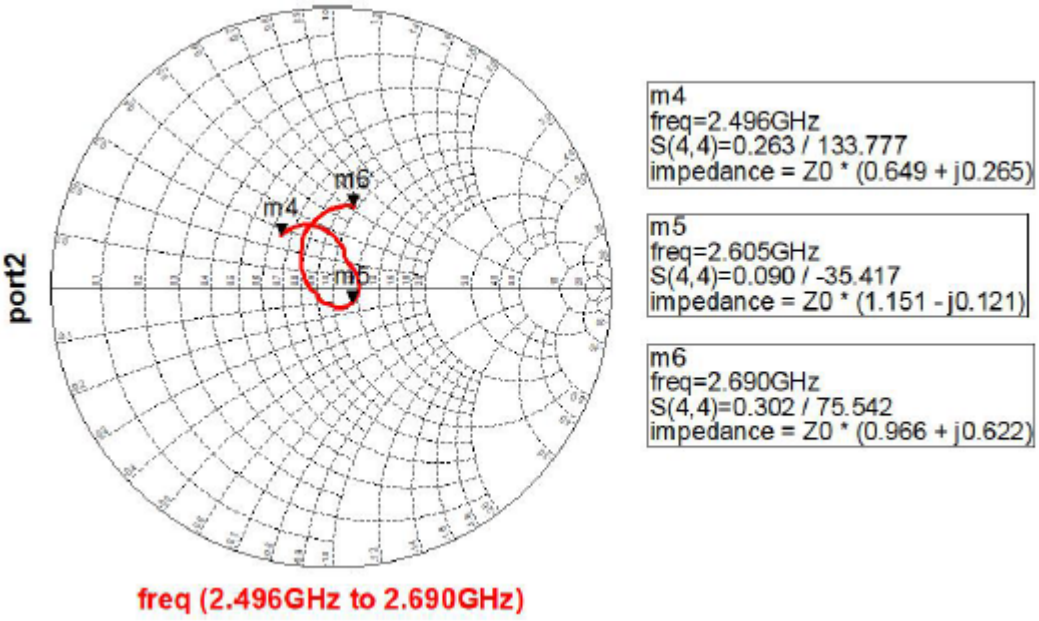
S11 VSWR





S22 VSWR

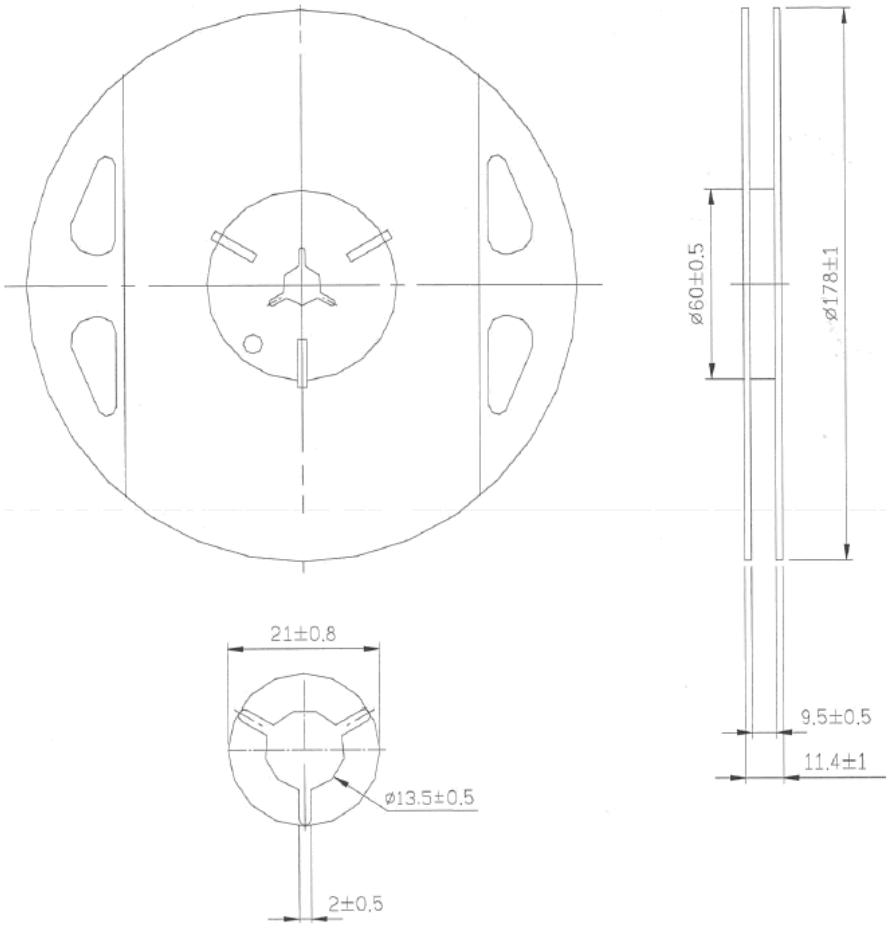

5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
VSWR2
2.496
2.546
2.596
2.646
2.690
Frequency(GHz)


port2
m4
m6
m5
freq (2.496GHz to 2.690GHz)
m4
freq=2.496GHz
S(4,4)=0.263 / 133.777
impedance = Z0 * (0.649 + j0.265)
m5
freq=2.605GHz
S(4,4)=0.090 / -35.417
impedance = Z0 * (1.151 - j0.121)
m6
freq=2.690GHz
S(4,4)=0.302 / 75.542
impedance = Z0 * (0.966 + j0.622)

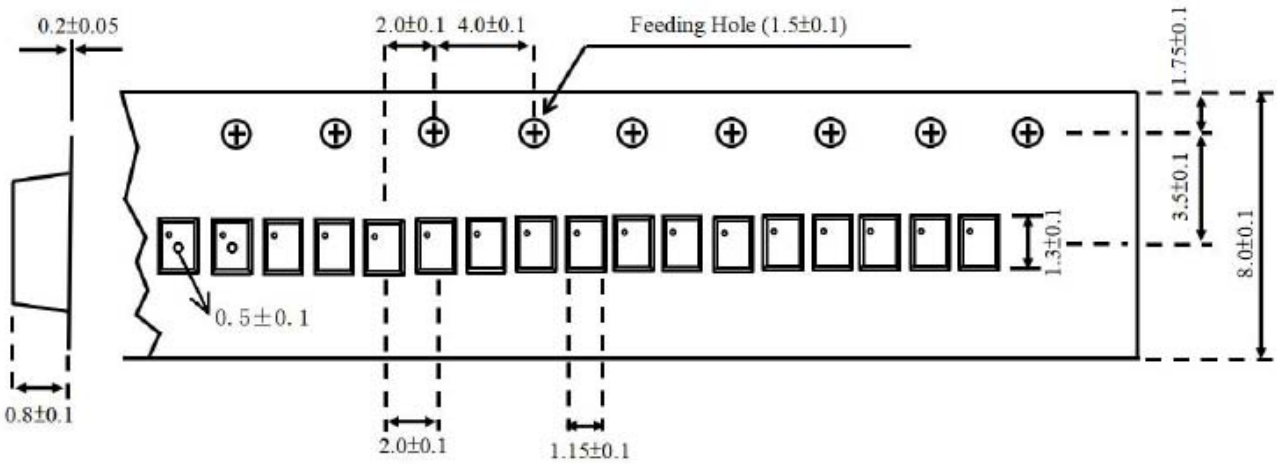
G. PACKING:

1. REEL DIMENSION

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



2.TAPE DIMENSION



10000 pcs/reel φ 178mm

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.