



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 Rx Filter 1842.5 MHz LTE Band 3 SMD 1.1x0.9mm (BW=75 MHz)

TST Parts No.: TA1857D

Customer Parts No.: _____

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

Checked by: _____ David Chang *David*

Approval by: _____ Andy Yu *Andy Yu*

Date: _____ 2019/01/16

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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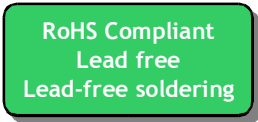
SAW Filter 1842.5 MHz

MODEL NO.:TA1857D

REV.3.0

A. MAXIMUM RATING:

1. Maximum Input Power: 15 dBm
2. DC Voltage: 0 V
3. Operating Temperature: -30 °C to +85 °C
4. Storage Temperature Range: -40 °C to +85 °C
5. Moisture Sensitive Level: Level 3 (MSL 3)
6. ESD: 50 V(MM), 100 V(HBM)



Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

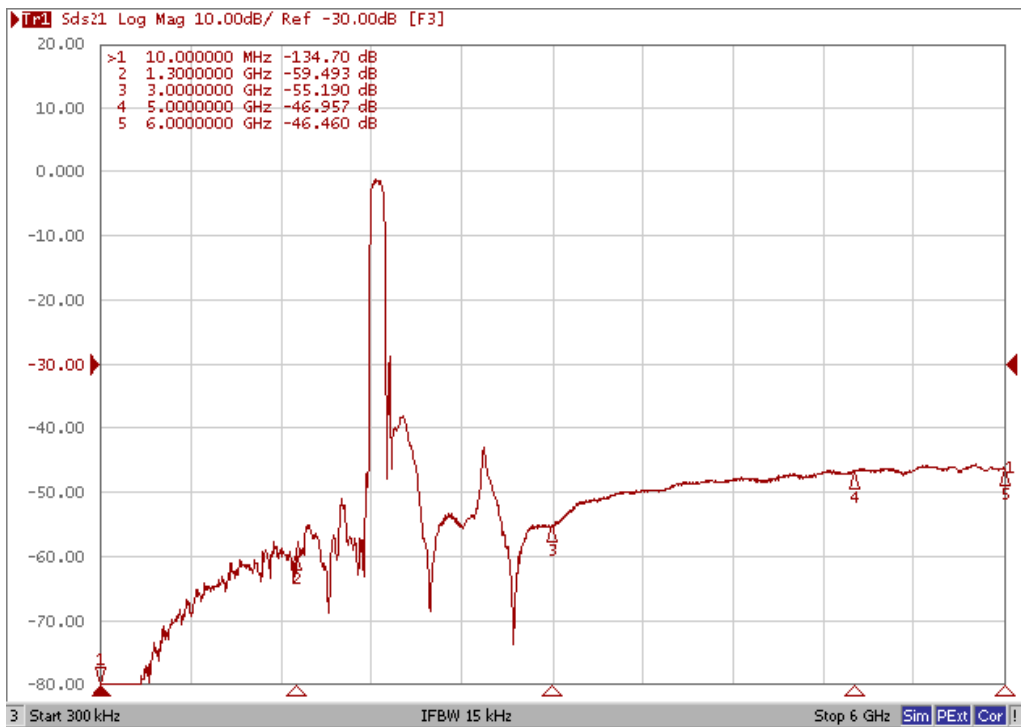
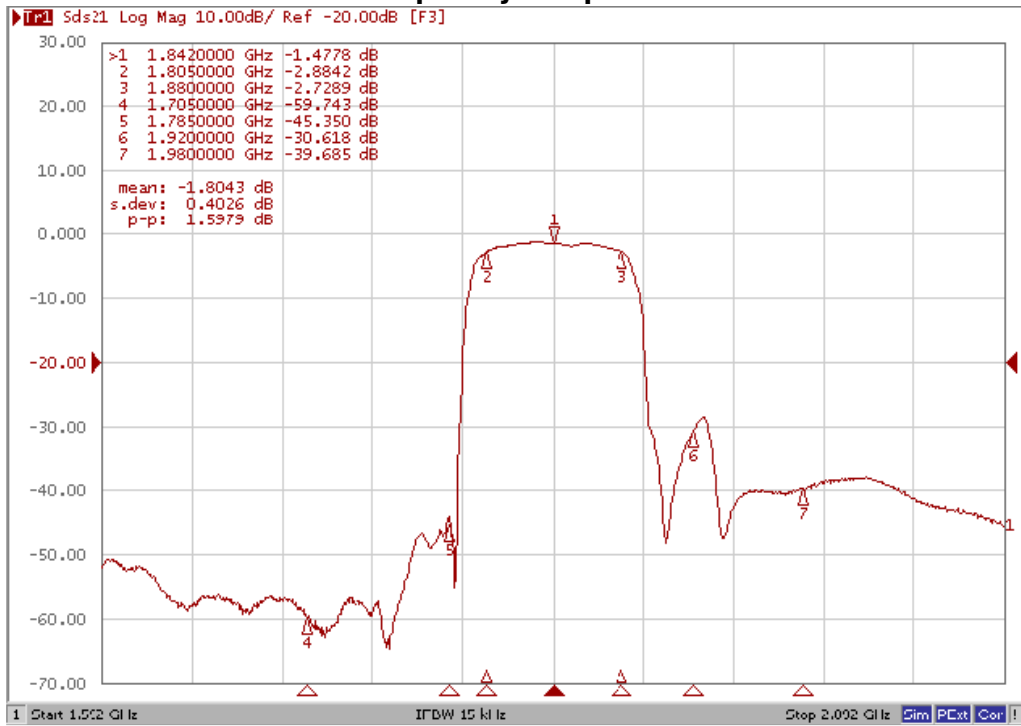
Terminating source impedance: $Z_s = 50 \Omega$ (Unbalanced)

Terminating load impedance: $Z_L = 100//18nH \Omega$ (Balanced / differential)

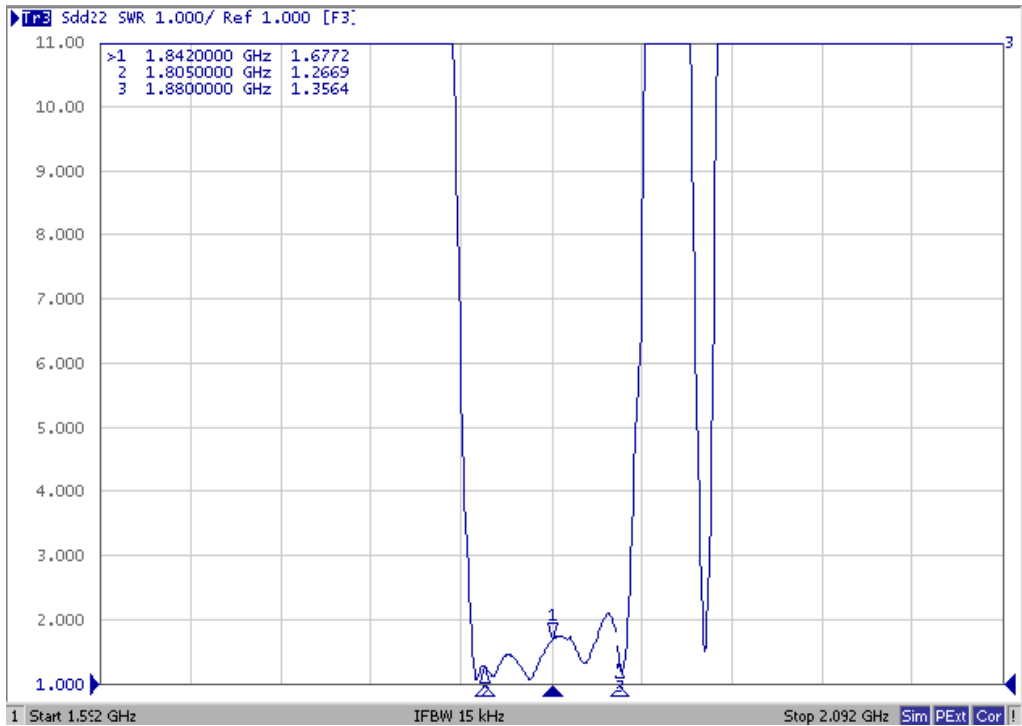
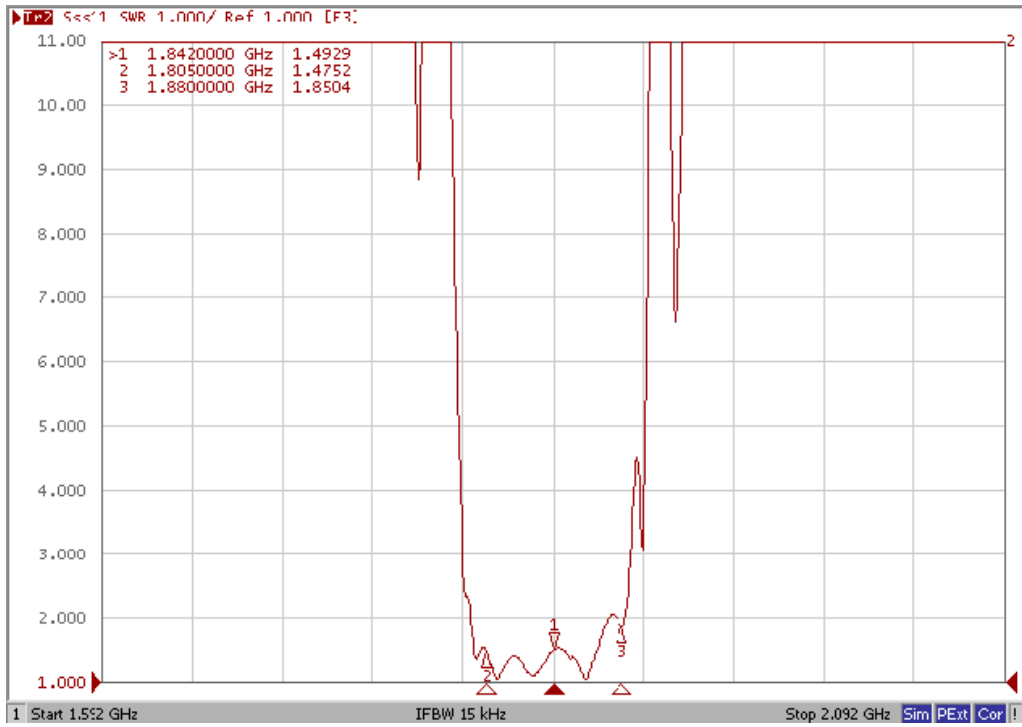
Item	Unit	Min.	Typ.	Max.	
Center Frequency	MHz	-	1842.5	-	
Insertion Loss	1805 ~ 1880 MHz	dB	-	2.9	4.5
Amplitude Ripple	1805 ~ 1880 MHz	dB	-	1.6	3.3
VSWR (Input)	1805 ~ 1880 MHz	-	-	2.1	2.5
VSWR (Output)	1805 ~ 1880 MHz	-	-	2.1	2.3
Amplitude Balance (S_{21} / S_{31})	1805 ~ 1880 MHz	dB	-1.3	-0.6/+1.0	+1.3
Phase Balance ($(\Phi S_{21} - \Phi S_{31}) + 180$)	1805 ~ 1880 MHz	deg	-12	-3/+3	+12
Attenuation (Reference level from 0 dB)					
10 ~ 1300 MHz	dB	40	58	-	
1300 ~ 1705 MHz	dB	40	53	-	
1705 ~ 1785 MHz	dB	38	45	-	
1920 ~ 1980 MHz	dB	24	28	-	
1980 ~ 3000 MHz	dB	30	38	-	
3000 ~ 5000 MHz	dB	30	58	-	
5000 ~ 6000 MHz	dB	30	46	-	

C. EFREQUENCY CHARACTERISTICS:

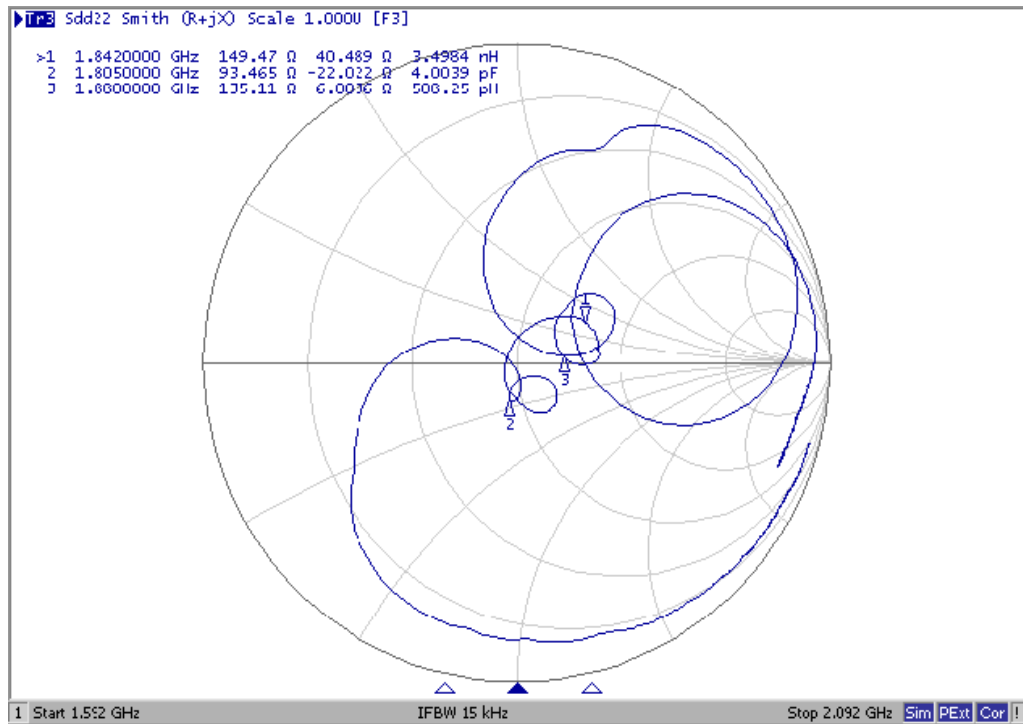
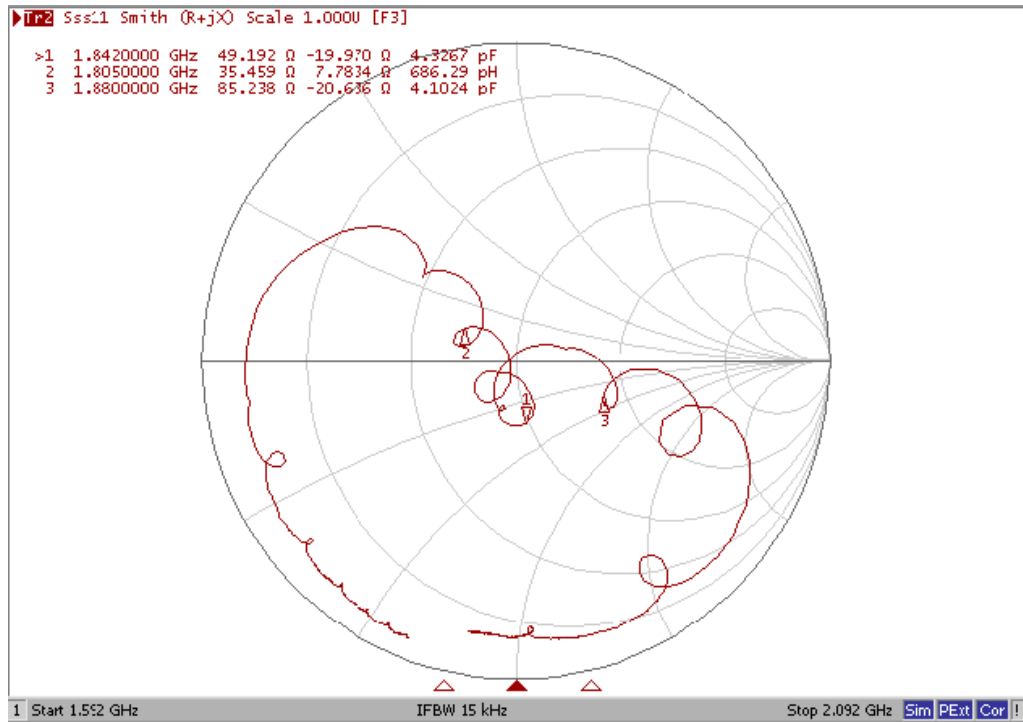
Frequency Response



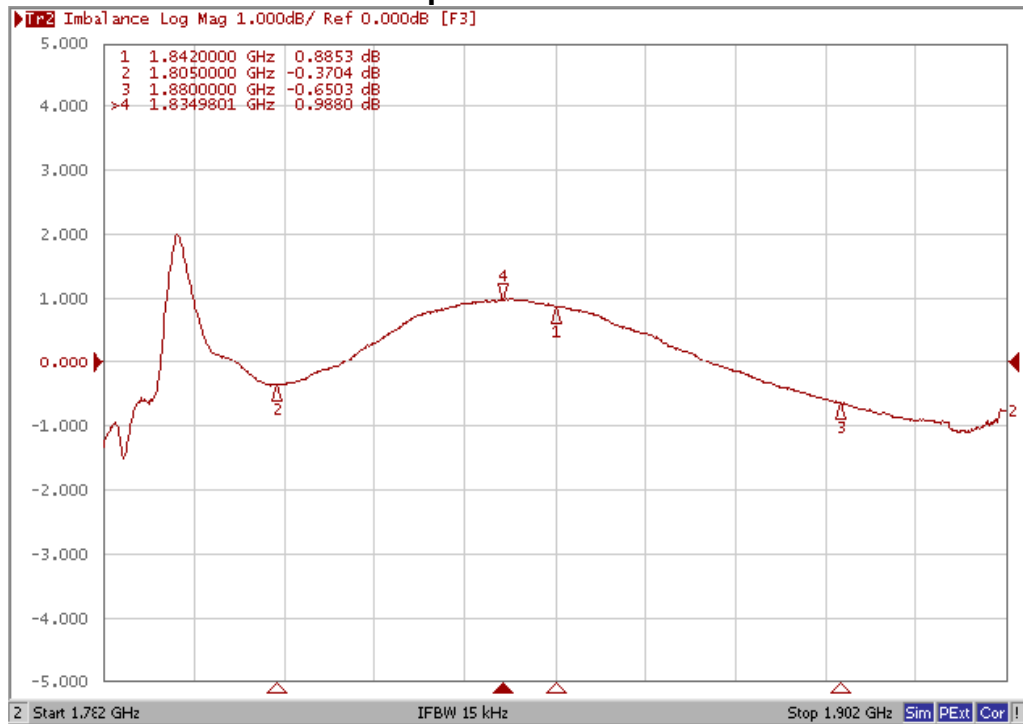
VSWR



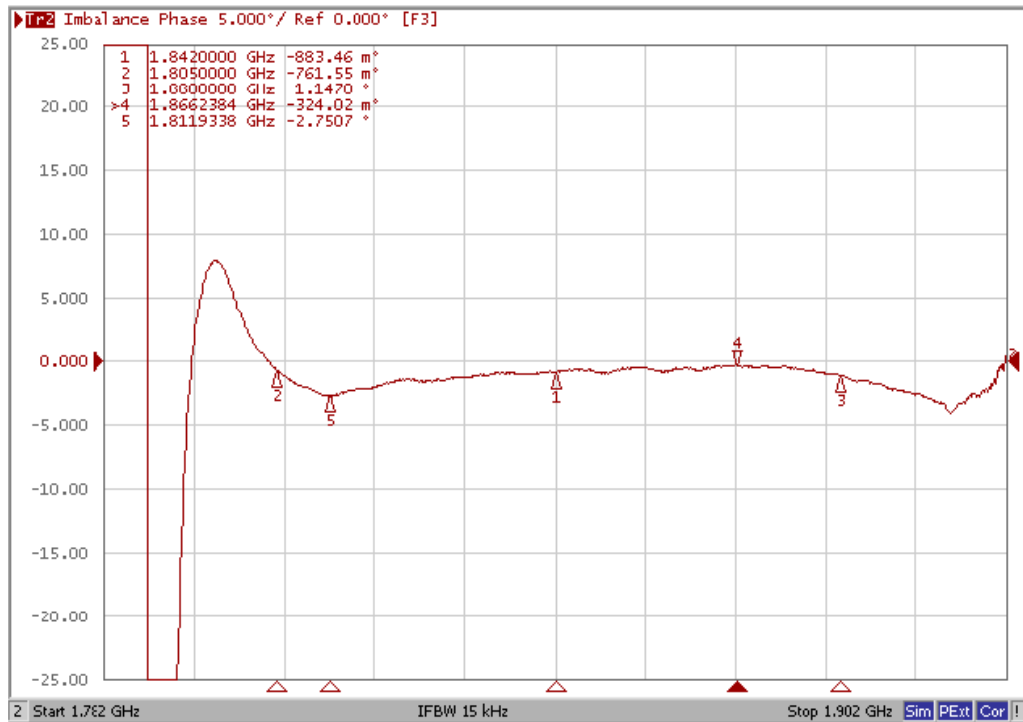
Smith Chart



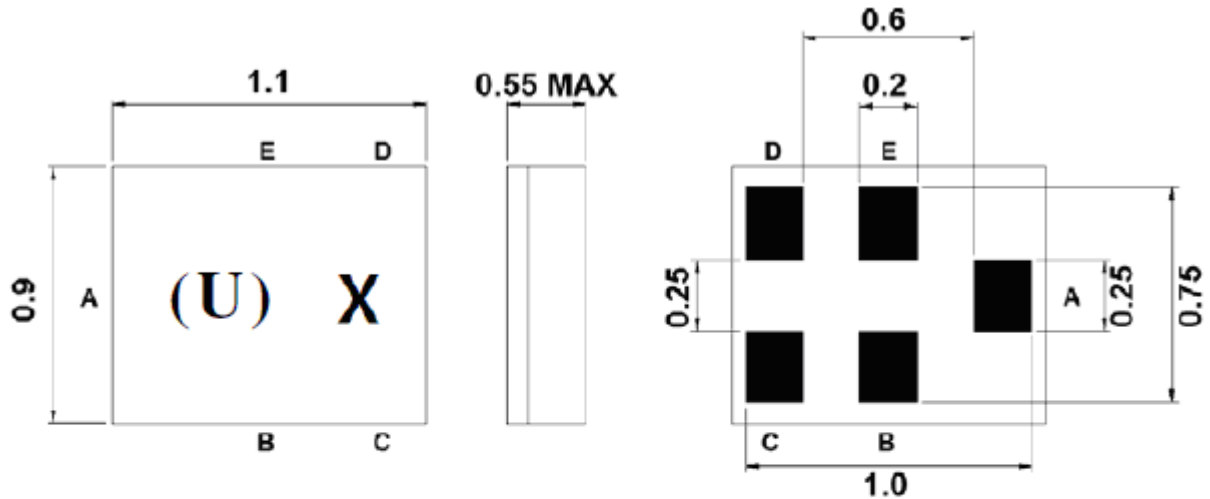
Amplitude balance



Phase balance



D. OUTLINE DRAWING:



Pin Description	
B, E	Ground
A	Input
C, D	Balanced Output

Marking Descriptions:

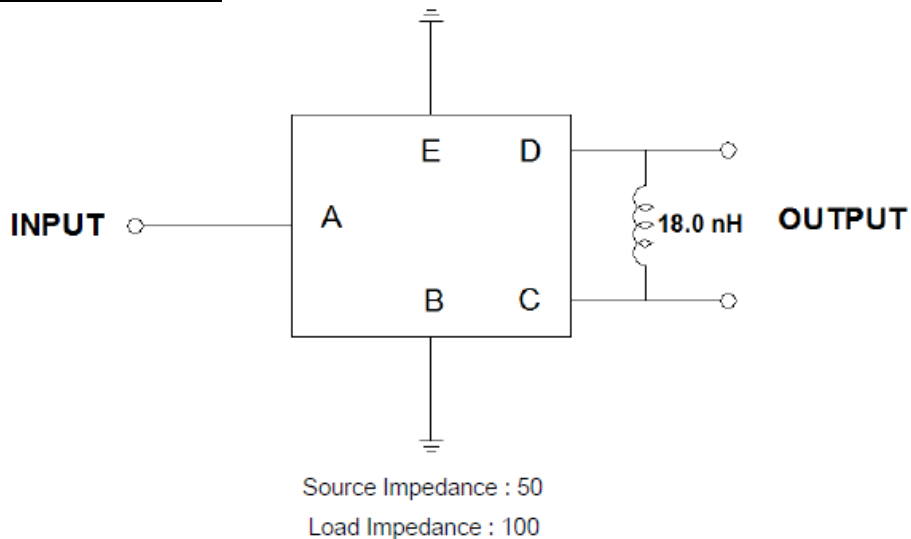
(U): Series Number

X : Date Code (Year/Month Code)(Follow the table)

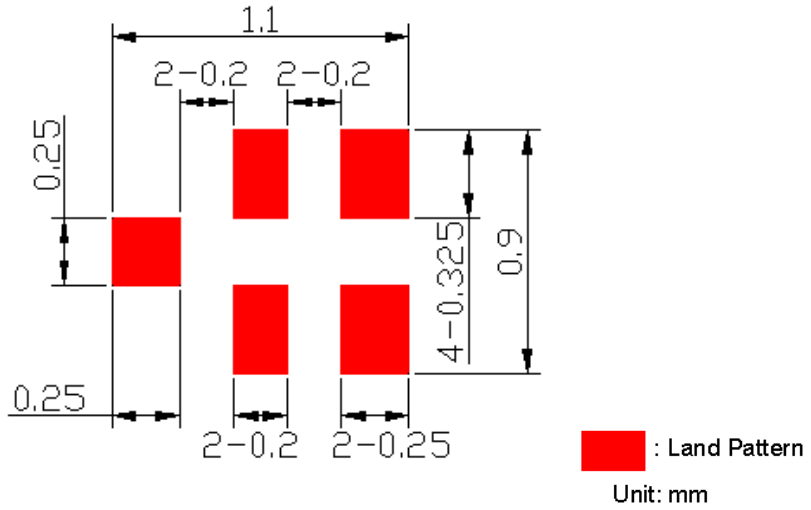
Date Code (Year/Month Code)

YEAR/Month	1	2	3	4	5	6	7	8	9	10	11	12
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>j</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>

E. MEASUREMENT CIRCUIT:



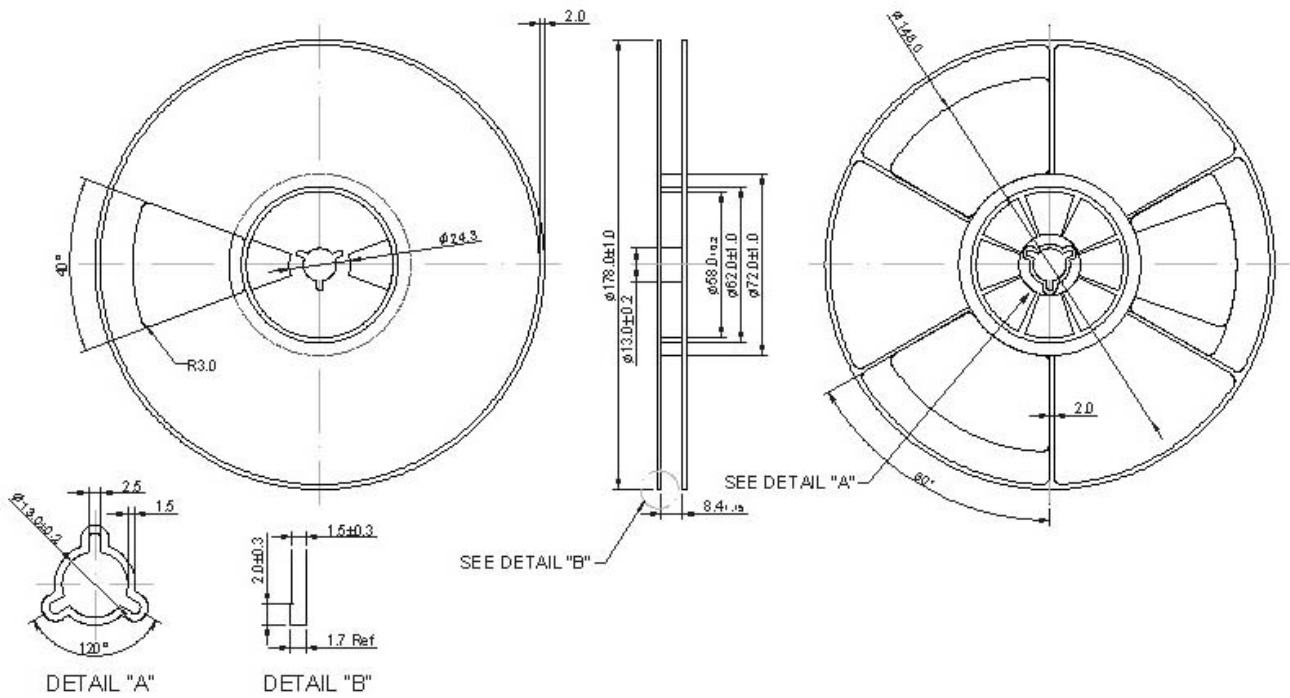
F. PCB Footprint:



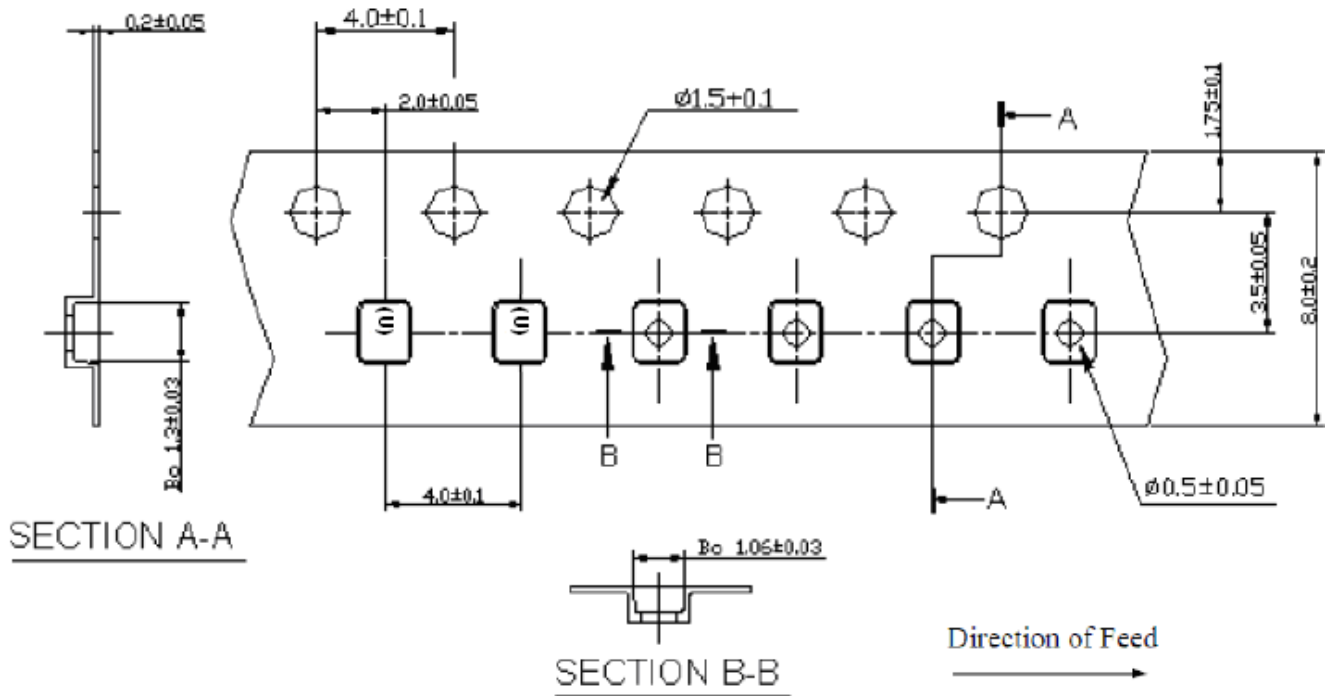
G. PACKING: (Ref: WI-75M03)

1. REEL DIMENSION

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



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 260°C +0/-5°C peak (20~40sec).
4. Time: 2 times.

