



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Description: SAW Filter 374MHz WLAN

TST Parts No.: TB374EA

Customer Parts No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Kazuma Lee *Kazuma Lee*

Approval by: _____ Andy Yu *Andy Yu*

Date: _____ 2019/09/05

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 374MHz WLAN

MODEL NO.: TB374EA

REV. NO.:6.0

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. Operating Temperature: -10 °C to 85 °C
3. Storage Temperature: -40 °C to 85 °C
4. Moisture Sensitivity Level: Level 1(MSL1)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device

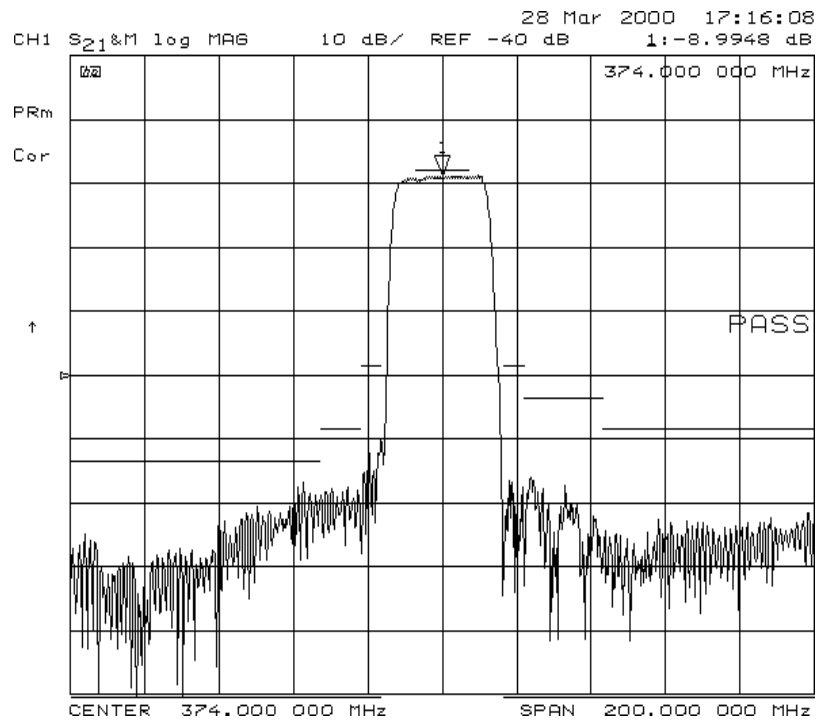
B. ELECTRICAL CHARACTERISTICS:

Item	Unit	Min.	Type.	Max.	Note
Center frequency, Fc	MHz	-	374	-	1
Insertion Loss, IL	dB	-	8.9	10	1
Passband width, BW3	MHz	17	23	-	1
Amplitude Ripple in $Fc \pm 7\text{MHz}$, AR	dB	-	0.8	1	1
Group delay ripple in $Fc \pm 7\text{MHz}$, GDT	nS	-	67	100	1
Triple transit suppression	dB	30	38	-	1
Attenuation:(Reference level from Min IL)					
Fc -100 to -33MHz	dB	45	49	-	
Fc -33to -22MHz	dB	40	51	-	
Fc -22 to -16.5MHz	dB	30	45	-	
Fc +16.5 to +22MHz	dB	30	39	-	
Fc +22 to +43 MHz	dB	35	39		
Fc +43 to +100MHz	dB	40	45	-	

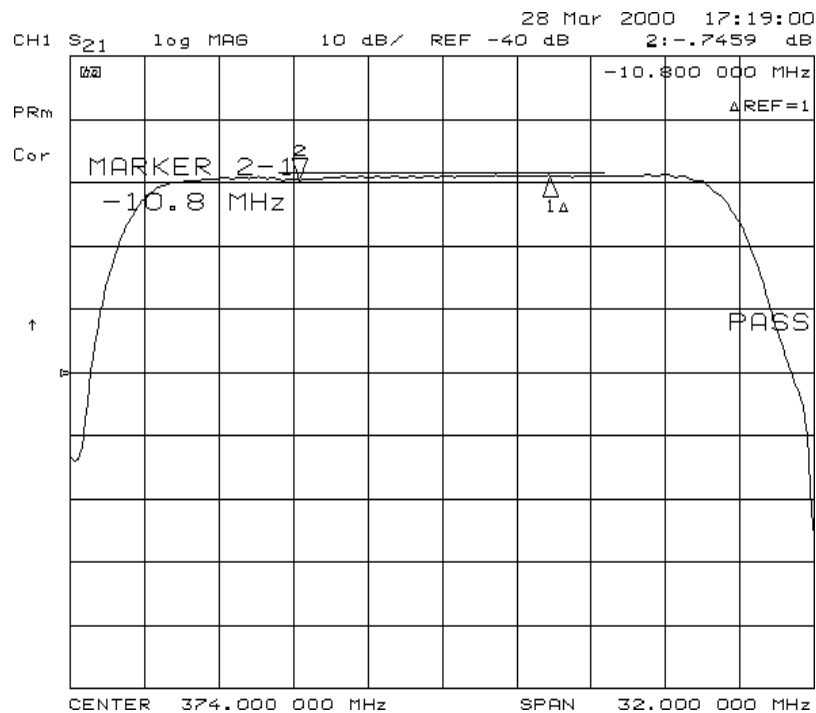
Note1. The standard definitions is in JIS C 6703

C.FREQUENCY CHRACTERISTICS:

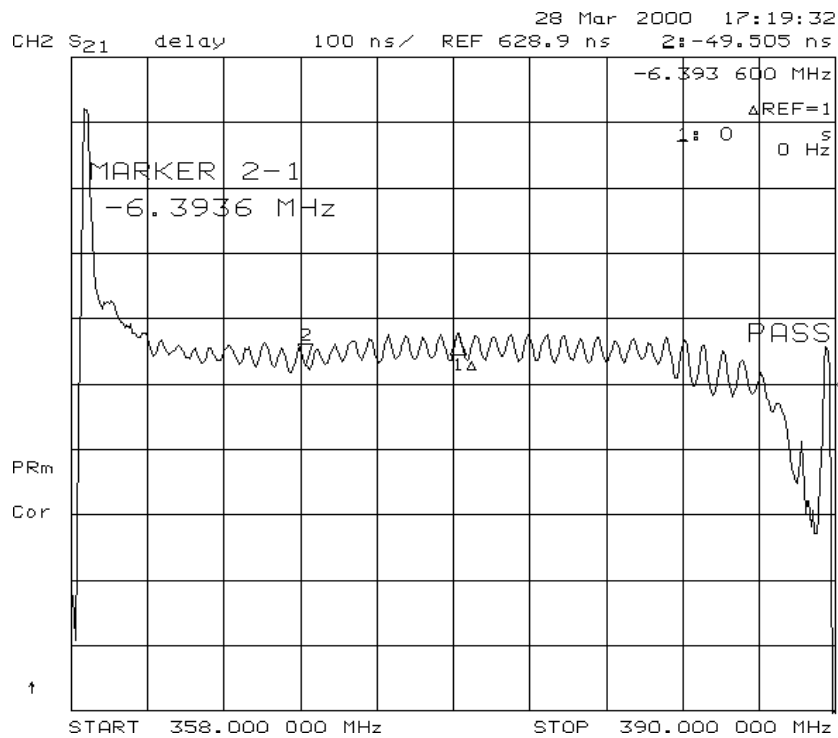
(1) Wide-band of S21:



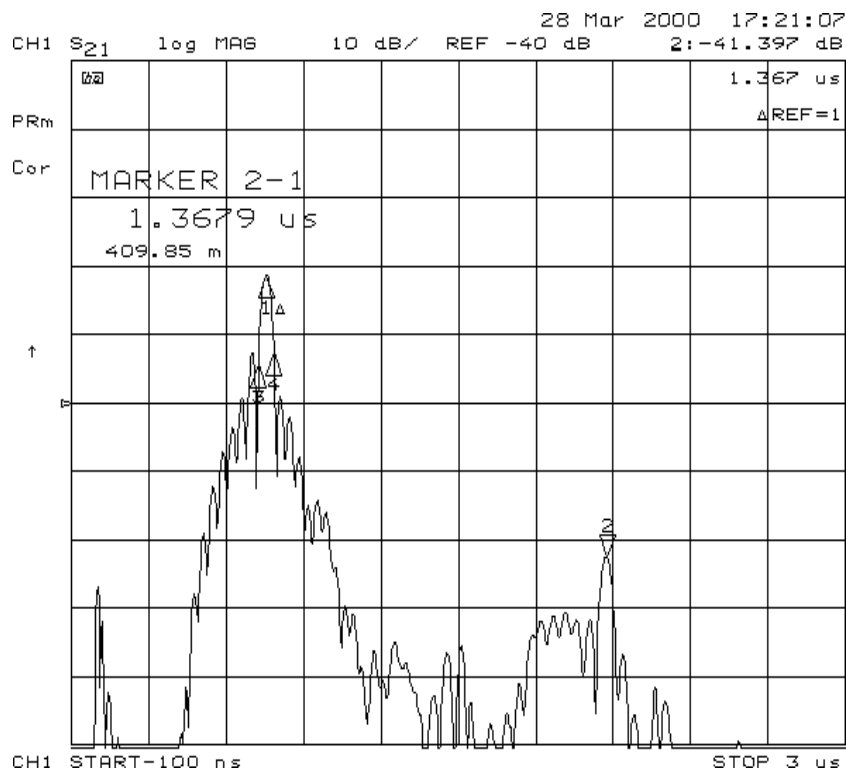
(2) Amplitude ripple:



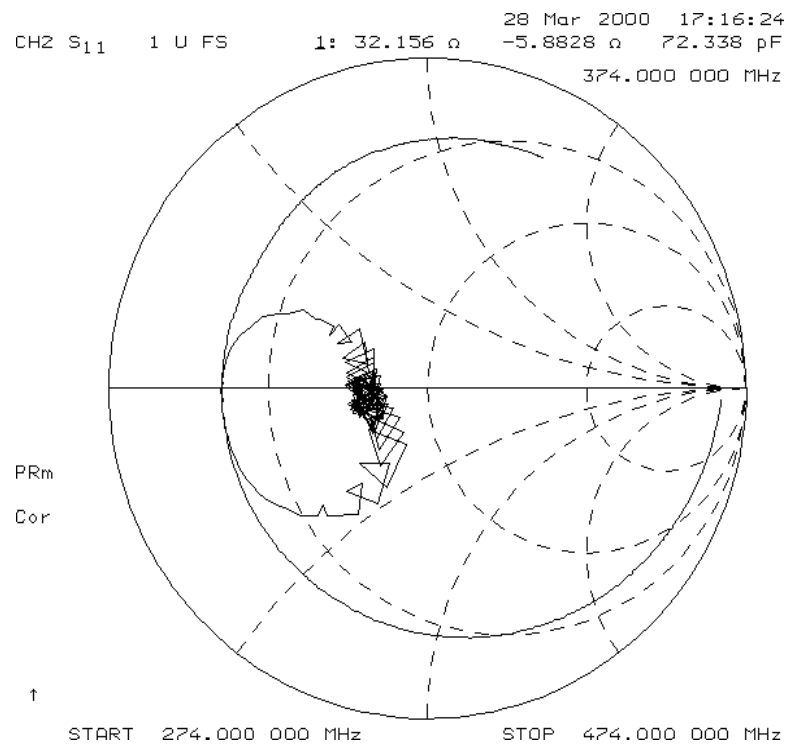
(3) Group delay:



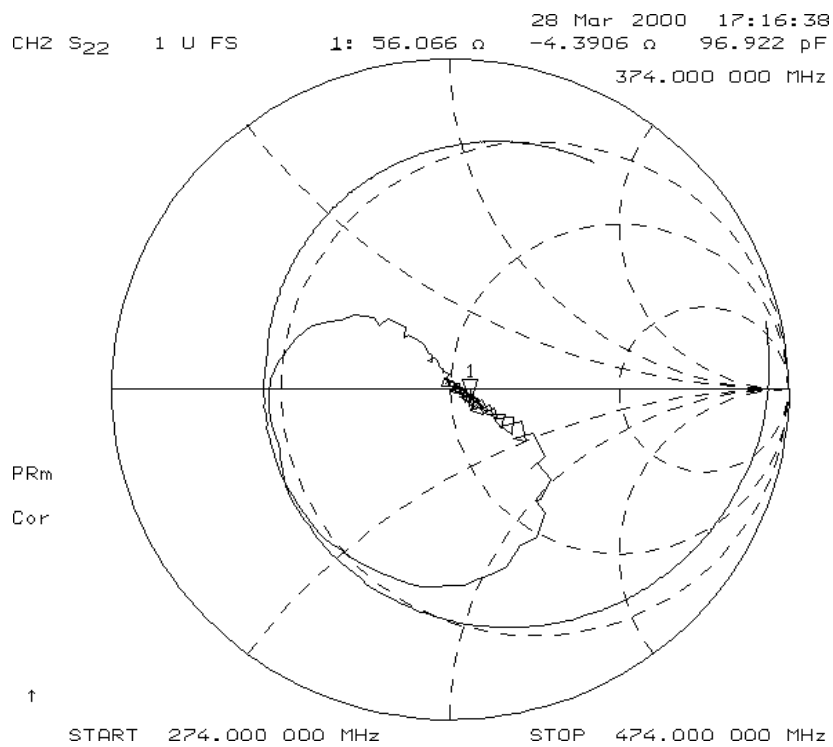
(4) Triple transit suppression:



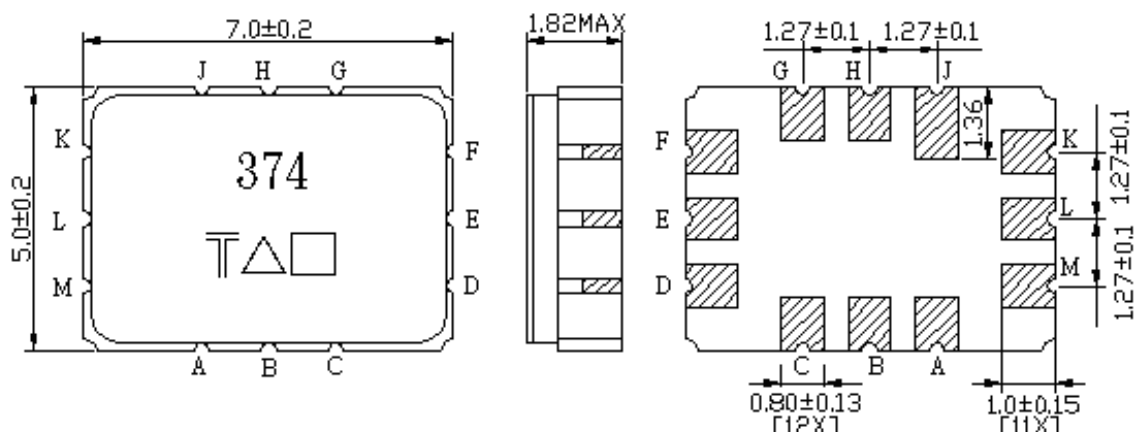
(5) Smith chart of S₁₁:



(6) Smith chart of S₂₂:



D. OUTLINE DRAWING:



Pin configuration:

J: input

K: input or input ground

C: output

D: output or output ground

A,G,E,F,L,M: case ground

B,H: to be ground

□ : Week Code

△ : Product / Year Code

Unit: mm

Product / Year Code- 4year cycle

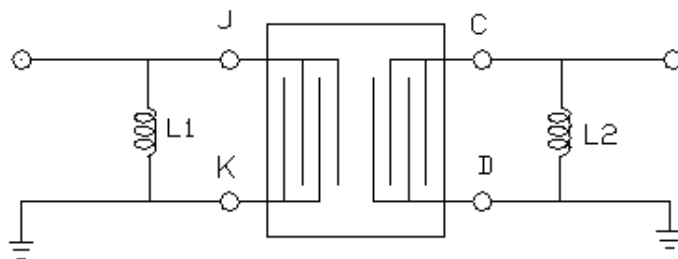
Year	2017 2021	2018 2022	2019 2023	2020 2024
Product Code	E	e	<u>E</u>	<u>e</u>

Week Code Table

WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

E. MEASUREMENT CIRCUIT:

50Ω unbalanced:

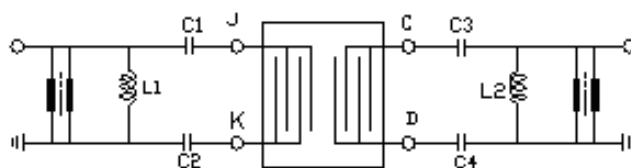


$$L1=18nH$$

$$L2=15nH$$

200Ω balanced:

(1)

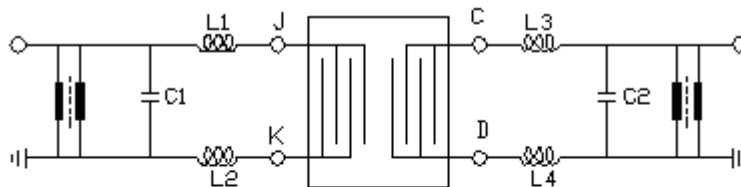


$$C1=C2=20PF \quad C3=C4=20PF$$

$$L1=22NH$$

$$L2=22NH$$

(2)



$$L1=L2=22nH \quad L3=L4=22nH$$

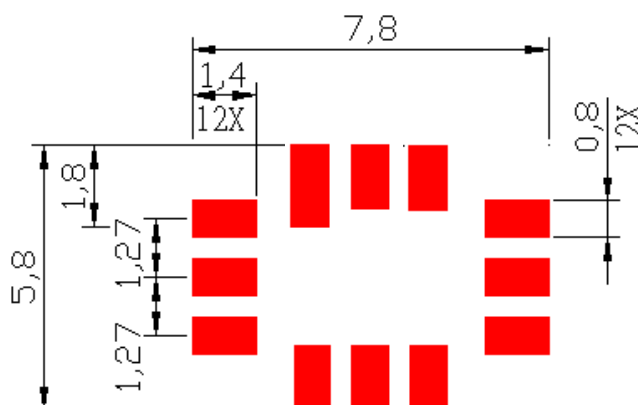
$$C1=5PF$$

$$C2=4PF$$

F. MECHANICAL & ENVIRONMENTAL CHRACTERISTICS:

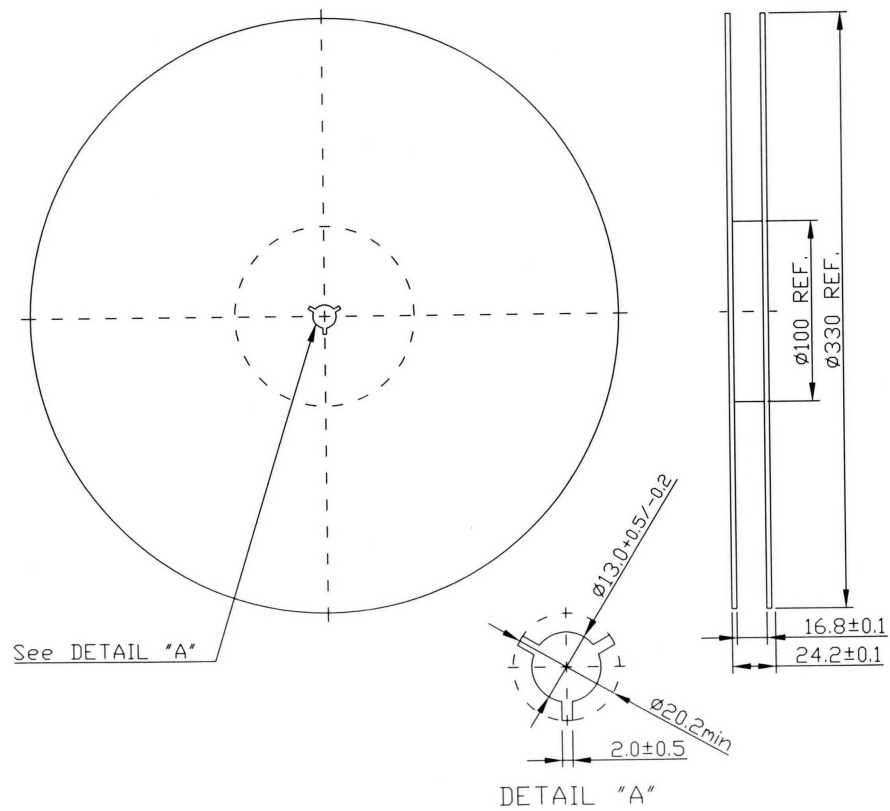
Test Item	Condition of Test	Requirements
Shock (Drop test)	random free drops 3 times from height of 0.75 meter onto hardwood board.	The specimens shall meet the electrical specifications
Vibration	Total peak amplitude : 1.5mm Vibration frequency : 10 to 55 Hz Sweep period : 1.0 minute Vibration directions : 3 mutually perpendicular Duration : 2 hr / direc.	
Solderability (solder heat)	immersed pad in soldering bath at $245 \pm 5^{\circ}\text{C}$ for 5 ± 0.5 seconds.	75% or more of the immersed surface shall be covered with solder
Temperature Characteristics	Specimens shall be measured within -10°C to $+50^{\circ}\text{C}$ temperature range	The specimens shall meet the electrical specifications
Dry heat (Aging test)	Temperature : $125 \pm 2^{\circ}\text{C}$ Duration : 250 hours	
Cold resistance	Temperature : $-40 \pm 3^{\circ}\text{C}$ Duration : 96 hours	
Thermal Shock	Heat cycle conditions -55°C 25°C 85°C (30 min) (5 min) (30 min) Cycle time : 5 times	

G. PCB FOOTPRINT:

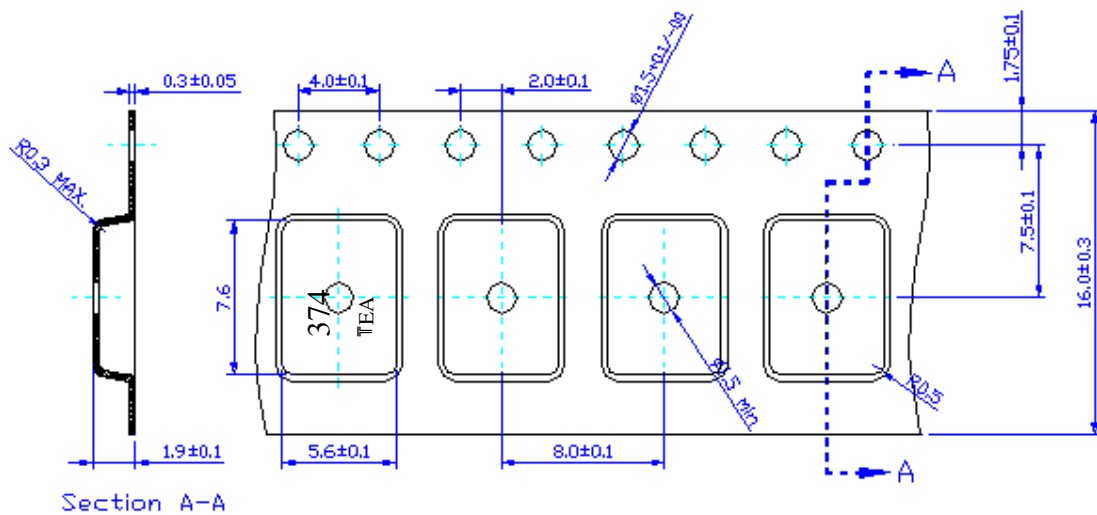


H. PACKING:

1. REEL DIMENSION: (Please refer to FR-75D10 for packing quantity)



2. TAPE DIMENSION



Direction of Feed →

I. 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.

