



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Name: SAW Filter 1090 MHz (BW 10MHz) SMD 3.0X3.0 mm

TST Parts No.: TA1992A

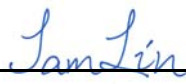
Customer Parts No.: _____

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Sam Lin 

Approval by: _____ Bob Chau 

Date: _____ 2016/05/26

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



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SAW Filter 1090MHz

MODEL NO.:TA1992A

REV. NO.:1.0

A. MAXIMUM RATING:

1. Input Power Level: 15 dBm
2. DC Voltage : 3 V
3. Operating Temperature: -55°C to +85°C
4. Storage Temperature: -55°C to +85°C

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

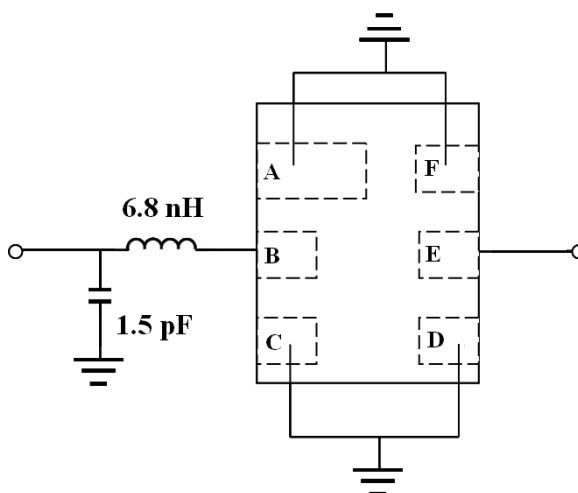
B. ELECTRICAL CHARACTERISTICS:

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

Terminating load impedance(single) : $Z_L = 50 \Omega$

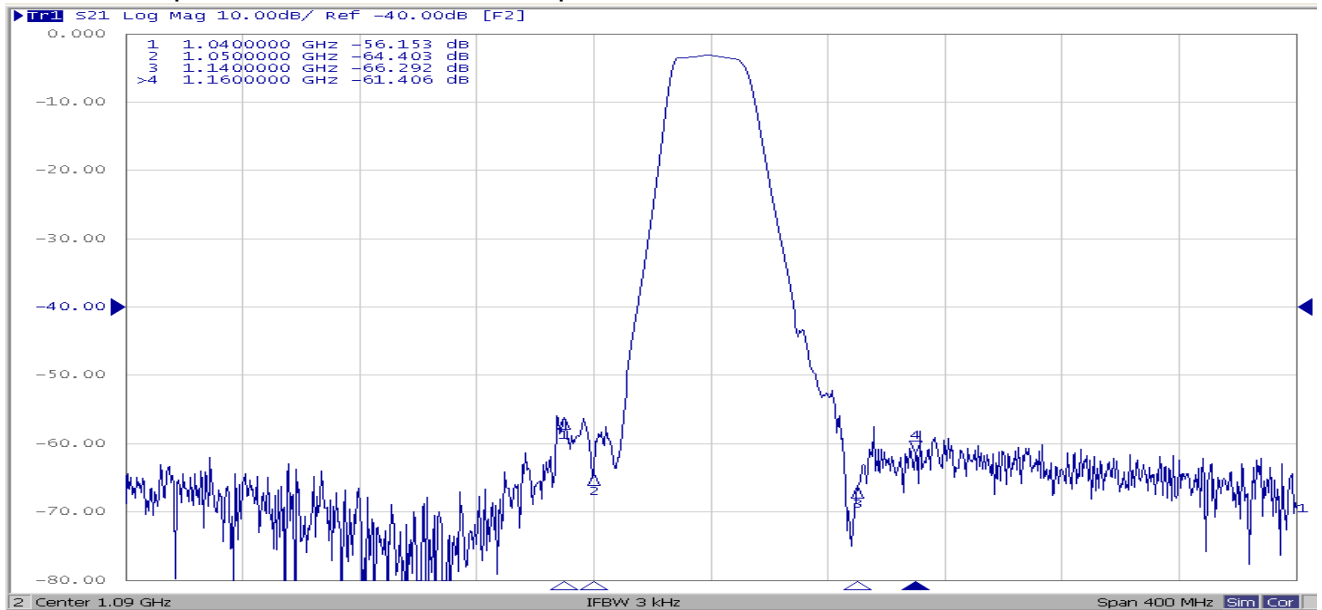
Item	Unit	Min.	Typ.	Max
Center frequency Fc	MHz	-	1090	-
Insertion Loss (1085 ~ 1095 MHz) IL	dB	-	3.0	4.0
Amplitude ripple (1085 ~ 1095 MHz)	dB	-	0.8	1.2
Group Delay Variation (1085 ~ 1095 MHz)	ns	-	20	37
Attenuation (Reference level from 0 dB)				
500 ~ 1006 MHz	dB	54	60	-
1006 ~ 1040 MHz	dB	50	55	-
1040 ~ 1050 MHz	dB	48	53	-
1140 ~ 1160 MHz	dB	50	55	-
1160 ~ 1300 MHz	dB	54	60	-
1300 ~ 1600 MHz	dB	48	53	-
Temperature coefficient of frequency	ppm/°C	-	-36	-

C. TEST CIRCUIT: (NA simulation)

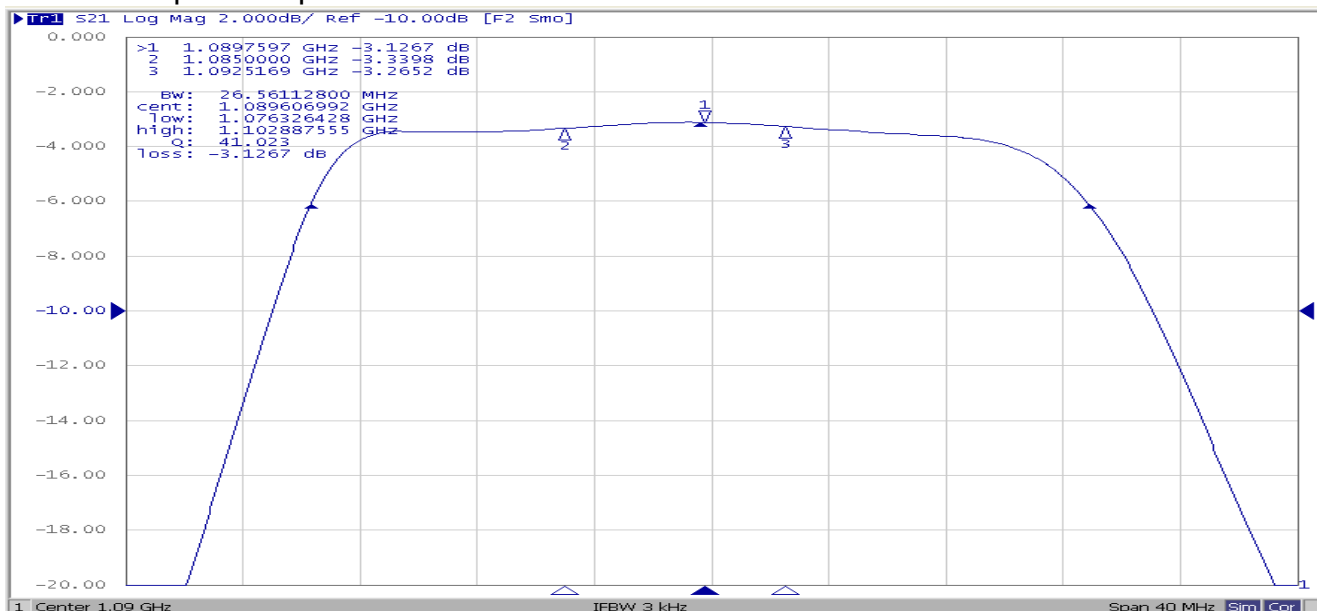


D. Frequency Characteristics:

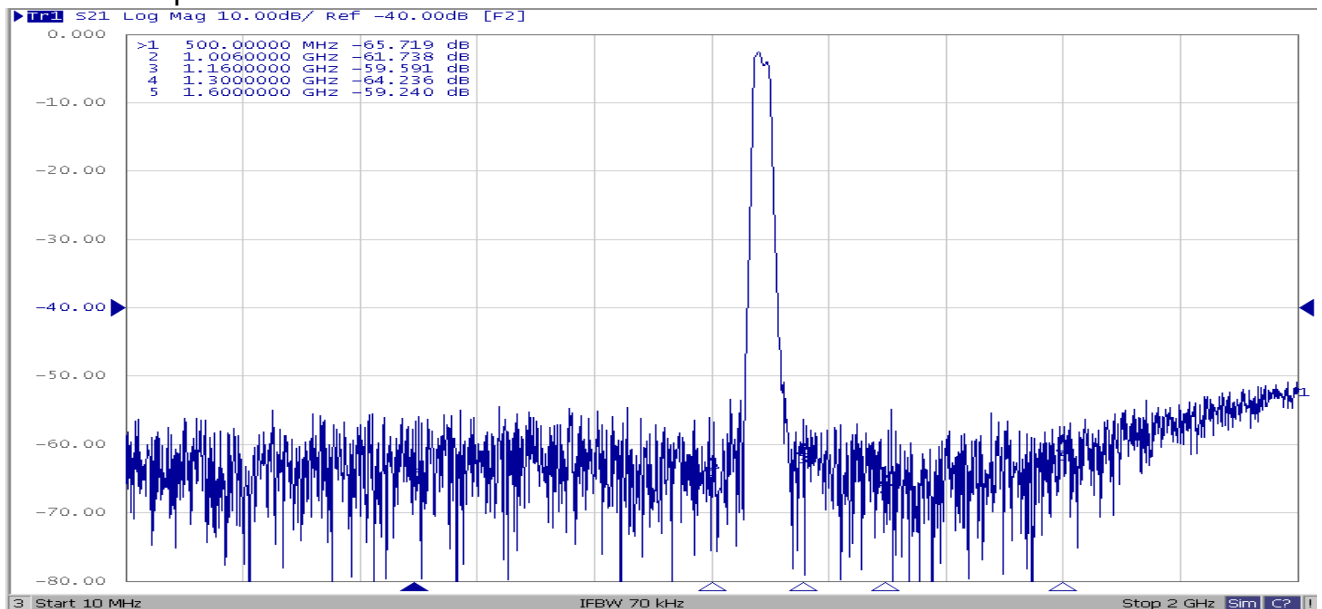
S21 response: Center 1090MHz, Span 400MHz



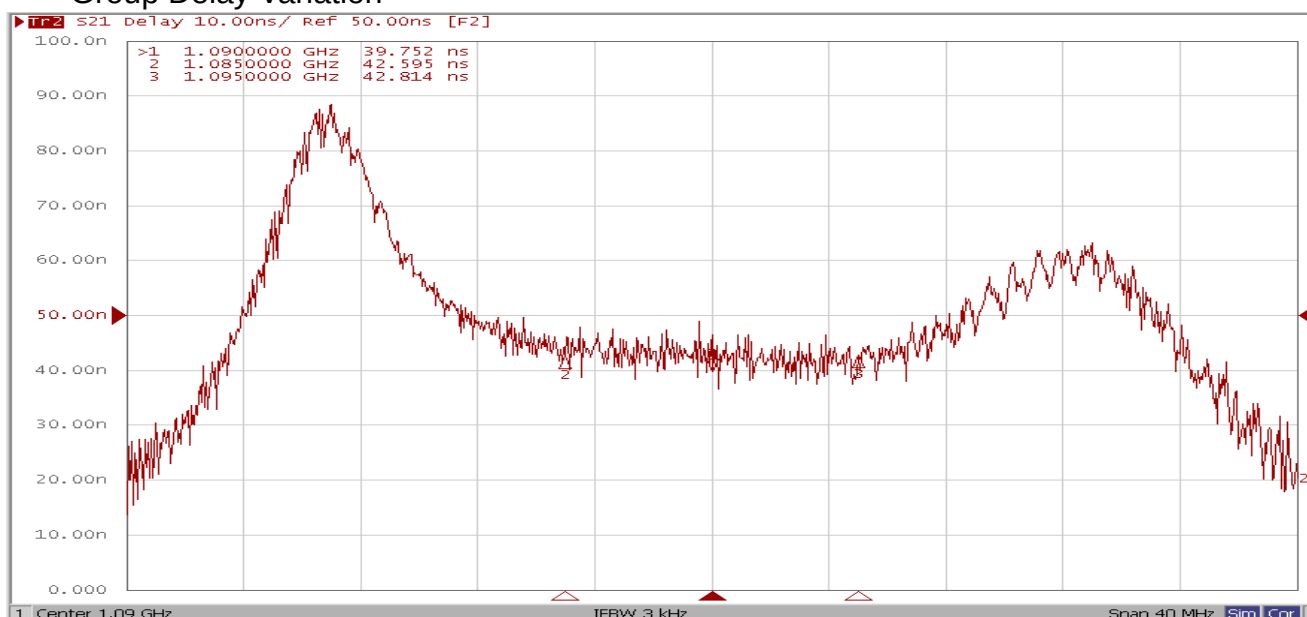
S21 response: Span 40MHz



S21 response: 10MHz ~ 2000MHz

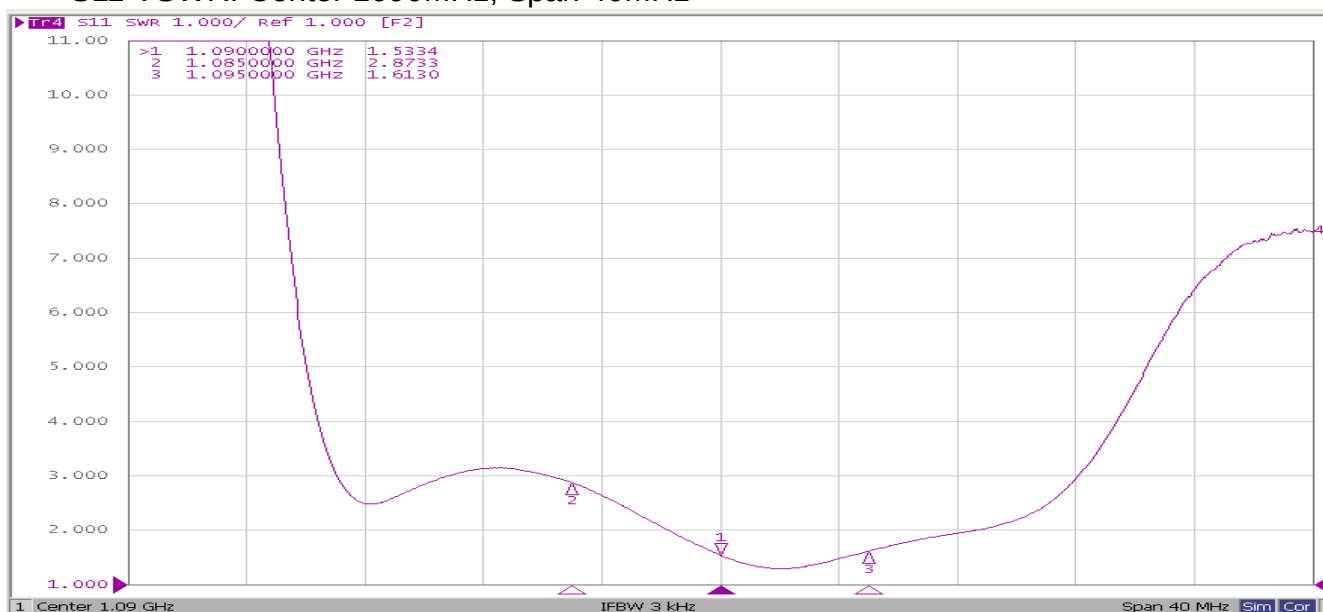


Group Delay Variation

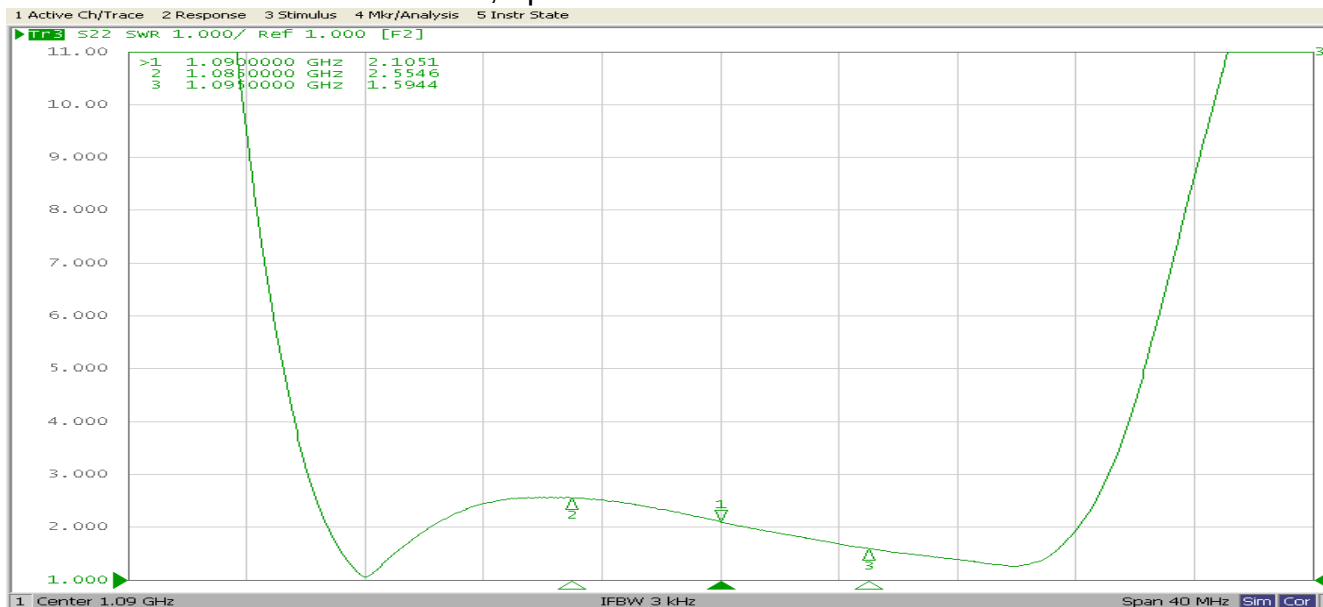


Reflection Functions

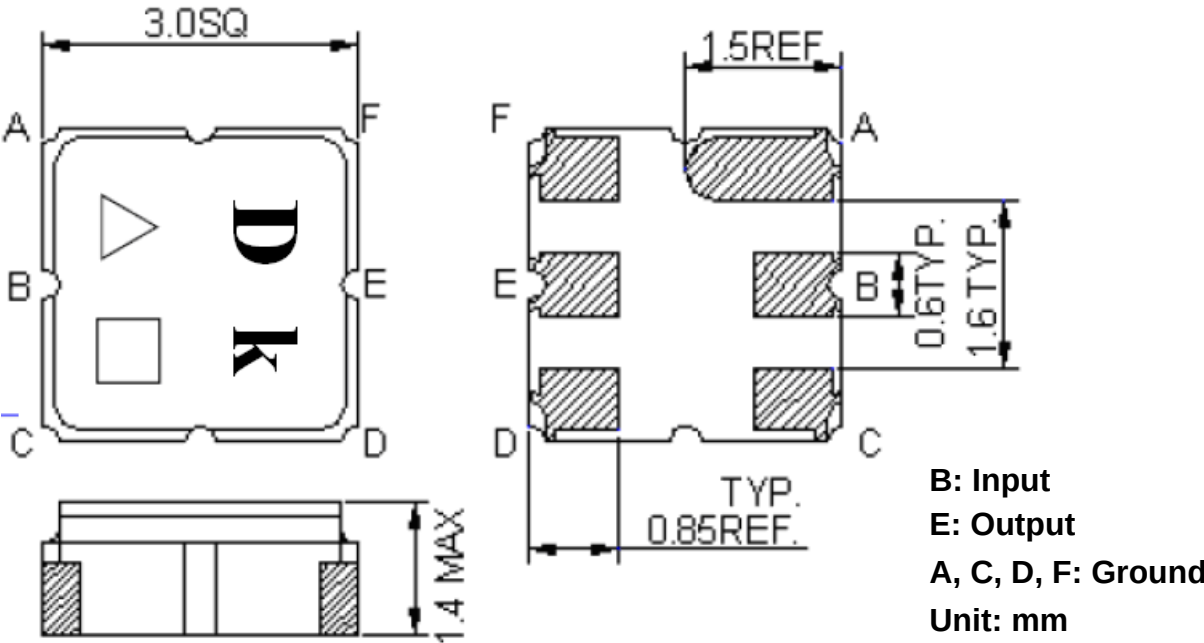
S11 VSWR: Center 1090MHz, Span 40MHz



S11 VSWR: Center 1090MHz, Span 40MHz



E.OUTLINE DRAWING:

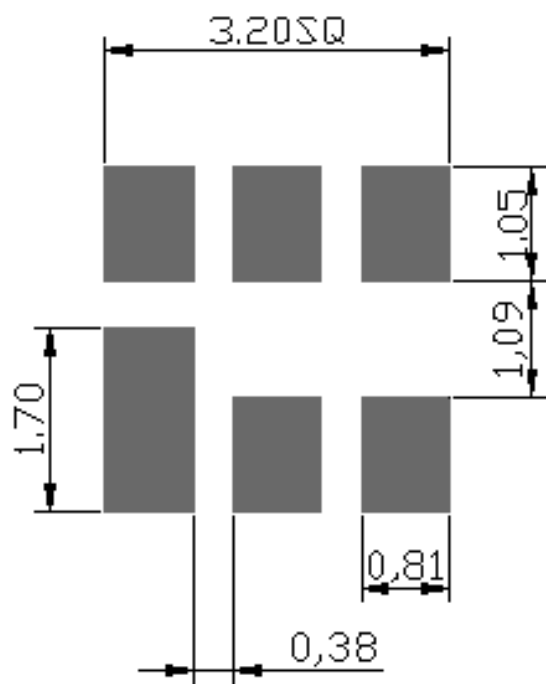


△ : Year Code (2009->9, 2010->0,..., 2018->8)

□ : Date Code (Follow the table from planner each year)

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

F. PCB FOOTPRINT:



1. REEL DIMENSION

Technical drawing of a circular part. The main view shows a large circle with a central hole. The hole is defined by a dashed circle. A leader line points from the text "See DETAIL 'A'" to the central hole. To the right of the main view, there is a vertical dimension line with two horizontal reference lines. The top reference line is labeled "ø100 REF." and the bottom reference line is labeled "ø330 REF.". Below the main view, there is a detail view labeled "A" showing a cross-section of the central hole. The detail view shows a circular hole with a diameter of 130 (ø130) and a thickness of 2.0. The hole is surrounded by a material with a diameter of 20.2 (ø20.2). The detail view is rotated 45 degrees.

Technical drawing of a multi-hole punch die. The main view shows a rectangular die with 10 holes. Dimensions include: overall width 12.00 ± 0.3 , hole pitch 4.00 ± 0.1 , hole diameter $\varnothing 1.6 \pm 0.1$ DIA, and hole depth 4.00 . A detail view of the hole shows a diameter of $\varnothing 1.50^{+0.1}_{-0}$. A side view shows the die thickness with dimensions 0.25 , $B_0 3.30 \pm 0.1$, and $K_0 1.40 \pm 0.1$. A cross-section view shows the die with dimensions $A_0 3.30$ and 4.00 ± 0.05 . A dashed line indicates the 'Direction of Feed'.

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.

