



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Name: BAW Rx Filter 2442 MHz SMD 1.4x1.1 mm (BW=79 MHz)

TST Parts No.: TA1869A

Customer Part No.: _____

Customer signature required

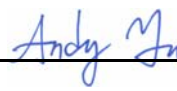
Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Jia Yu 

Approved by: _____ Andy Yu 

Date: _____ 2021/05/21

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 2442 MHz

MODEL NO.: TA1869A

REV. No.:3.0

A. MAXIMUM RATING:

1. Maximum Input Power: 28 dBm (In passband, CW, 50 °C, 10kh)
2. DC Voltage: +/-5 V
3. Operating Temperature: -30 °C to +85 °C
4. Storage Temperature: -40 °C to +100 °C
5. Moisture Sensitivity Level: Level 1 (MSL 1)
6. ESD: 50 V(MM), 100 V(HBM)



Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance: $Z_s = 50 // 15nH (Q=\infty) \Omega$ (Single-ended)

Terminating load impedance: $Z_L = 50 // 15nH (Q=\infty) \Omega$ (Single-ended)

Parameters Description		Unit	Min.	Typ.	Max.	Remark
Center Frequency Fc		MHz	-	2442	-	-
Insertion Loss	2402.5 ~ 2421.5 MHz	dB	-	1.9	2.3	(*1)(*2)
	2407.5 ~ 2426.5 MHz	dB	-	1.6	2.2	(*1)(*2)
	2412.5 ~ 2471.5 MHz	dB	-	1.6	2.2	(*1)(*2)
	2457.5 ~ 2476.5 MHz	dB	-	1.8	2.2	(*1)(*2)
	2462.5 ~ 2481.5 MHz	dB	-	2.5	3.0	(*1)(*2)
Amplitude Ripple	2402.5 ~ 2421.5 MHz	dB	-	0.3	1.9	(*2)
	2407.5 ~ 2426.5 MHz	dB	-	0.2	1.7	(*2)
	2412.5 ~ 2471.5 MHz	dB	-	0.5	1.7	(*2)
	2457.5 ~ 2476.5 MHz	dB	-	0.4	1.7	(*2)
	2462.5 ~ 2481.5 MHz	dB	-	0.8	2.5	(*2)
VSWR (Input)	2402.5 ~ 2481.5 MHz	-	-	1.8	2.2	+25°C
VSWR (Output)	2402.5 ~ 2481.5 MHz	-	-	1.8	2.2	+25°C
Attenuation (Reference level from 0 dB)						
800 ~ 2300 MHz		dB	37	40	-	-
2300 ~ 2365 MHz		dB	48	54	-	-
2365 ~ 2370 MHz		dB	48	56	-	(*3)
2500 ~ 2505 MHz		dB	40	56	-	-30~-10°C(*3)
		dB	47	56	-	-10~+25°C(*3)
		dB	52	56	-	+25~+85°C(*3)
2505 ~ 2690 MHz		dB	45	49	-	(*3)

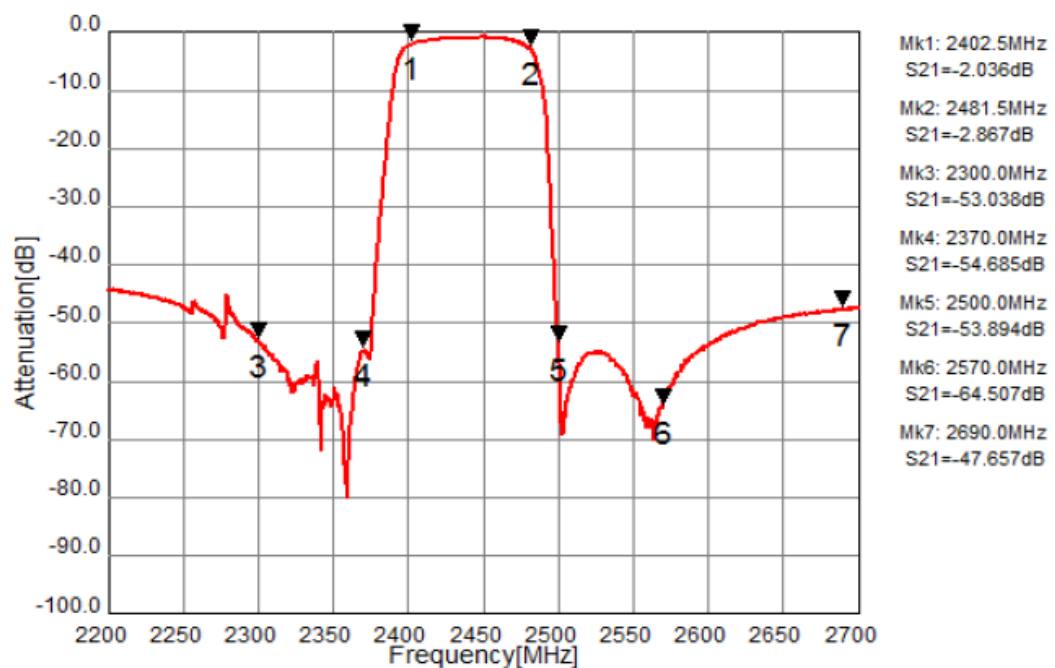
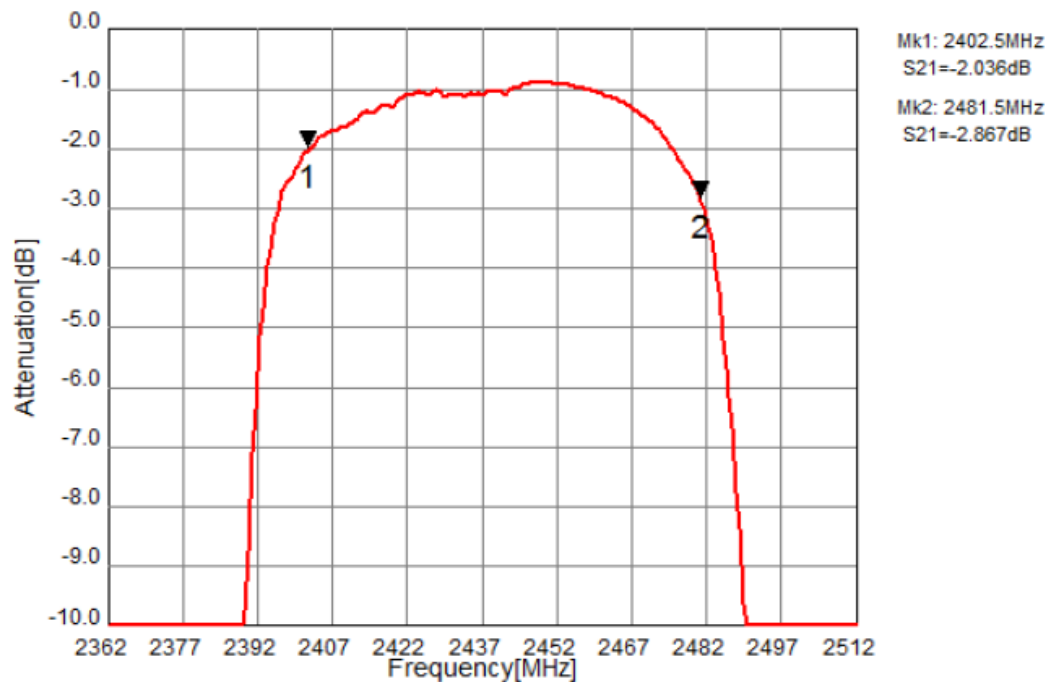
2570 ~ 2620 MHz	dB	47	53	-	(*3)
2690 ~ 7500 MHz	dB	30	37	-	-

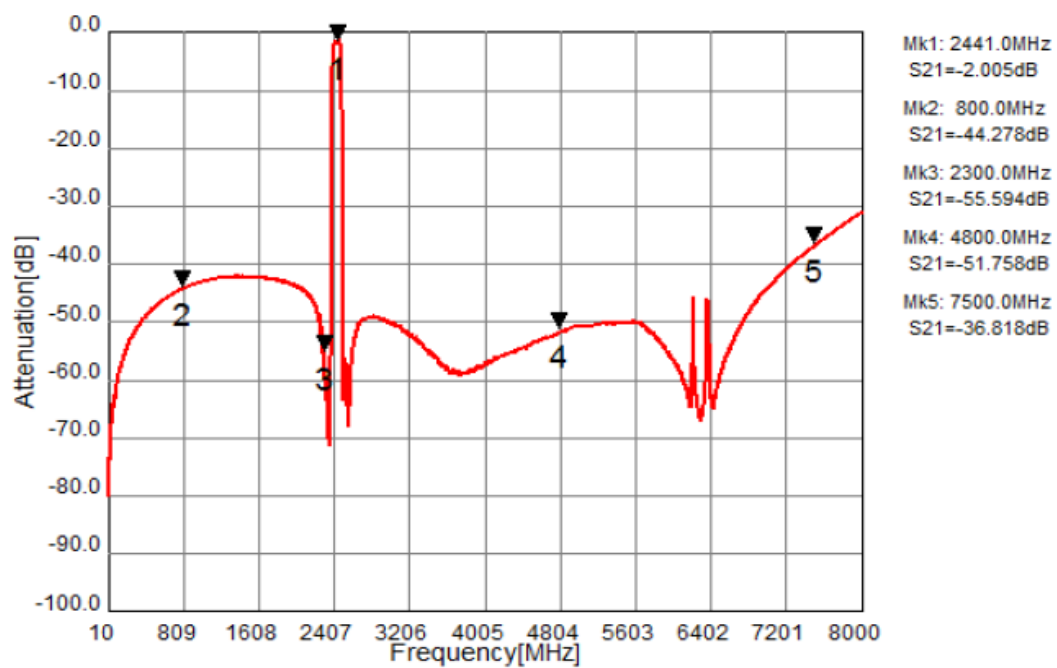
(*1) Specification of insertion loss excludes loss that comes from the test board.

(*2) The integrated loss over any 19 MHz channel within the band.

(*3) The integrated loss over any 5 MHz channel within the band.

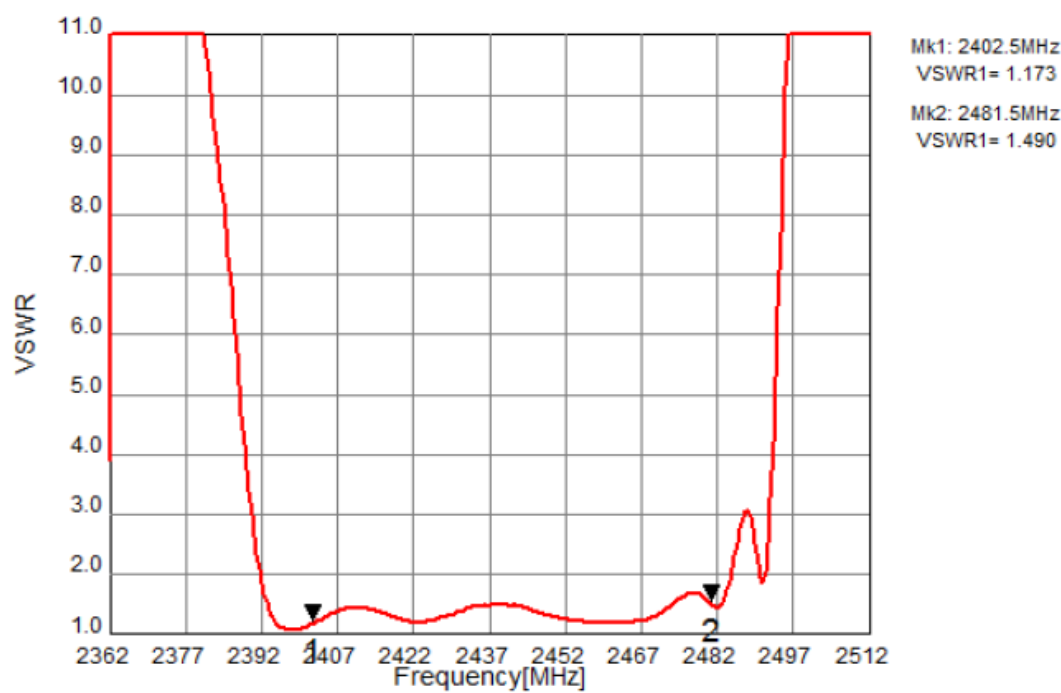
C. FREQUENCY CHARACTERISTICS:



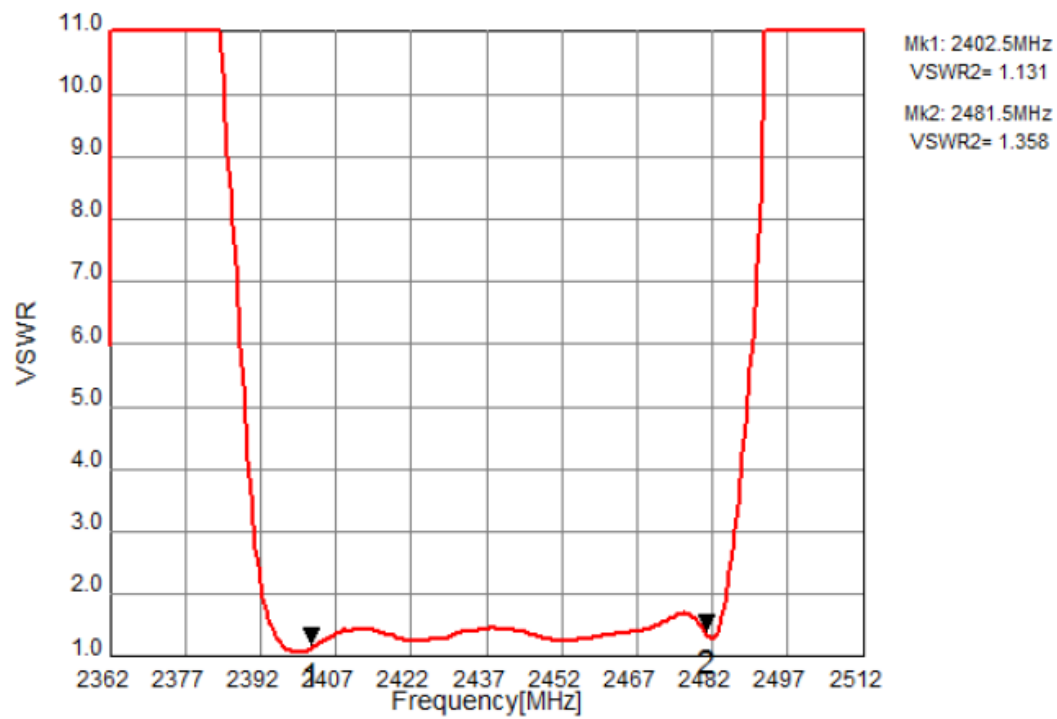


Reflection Functions:

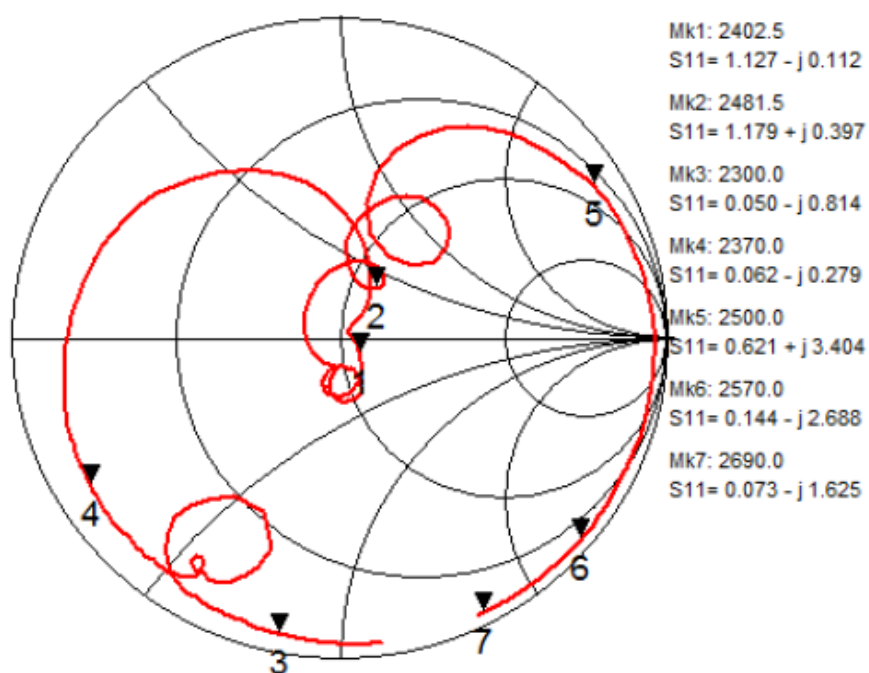
VSWR (Input)



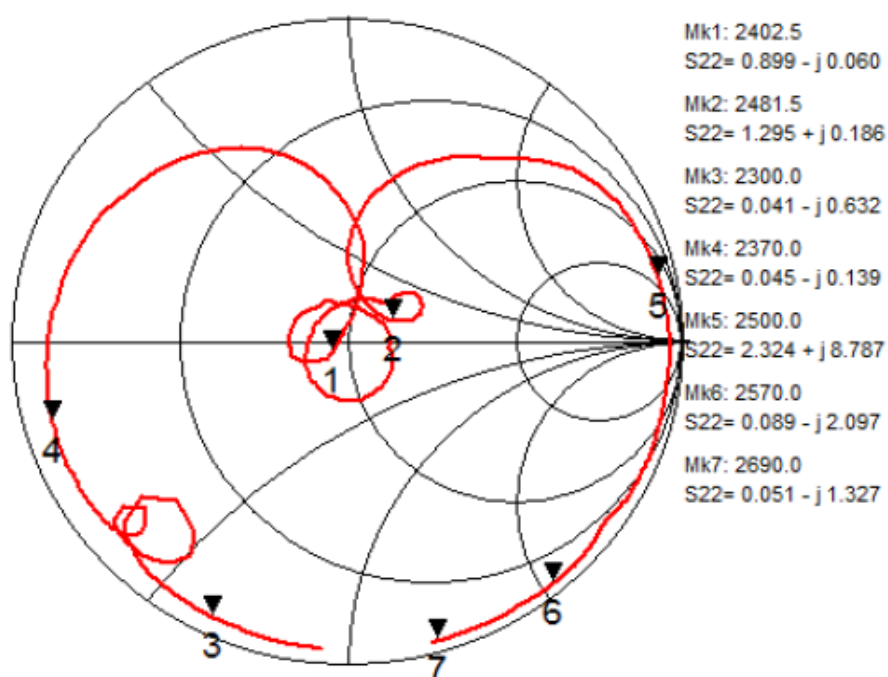
VSWR (Output)



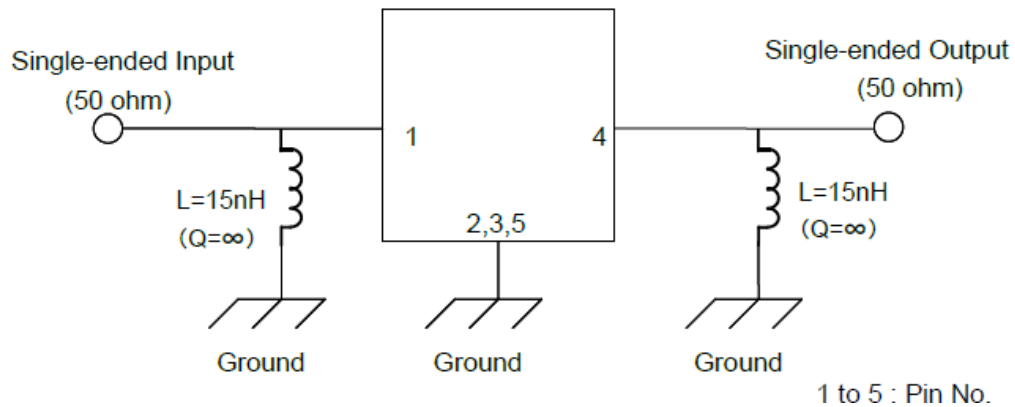
Smith Chart (Input)



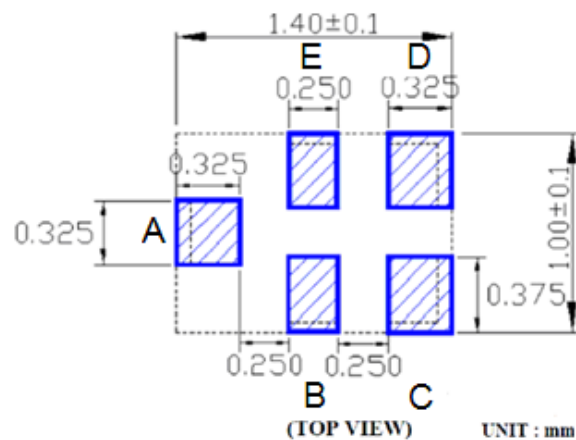
Smith Chart (Output)



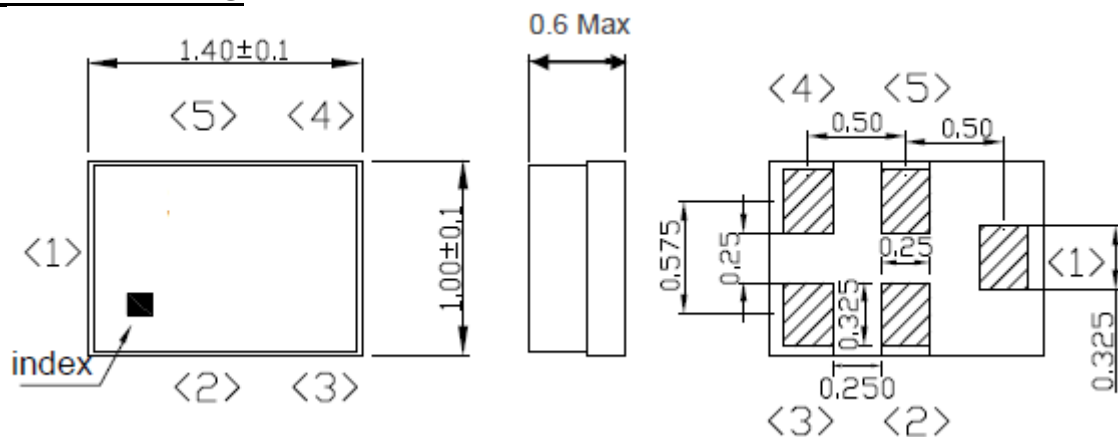
D. MEASUREMENT CIRCUIT:



E. PCB FOOTPRINT:



F. OUTLINE DRAWING:



All tolerances are ± 0.05 mm unless otherwise specified.

Unit: mm

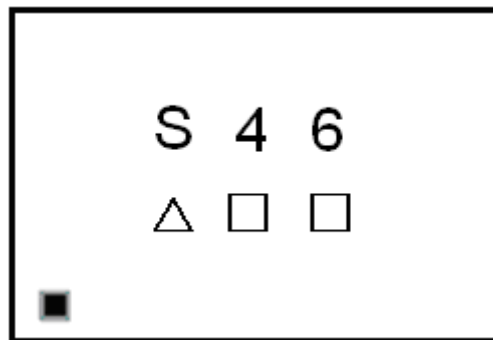
Pin Configuration

Pin No.	Symbol	Function
1	IN	Single-ended pin
2	GND	Ground
3	GND	Ground
4	OUT	Single-ended pin
5	GND	Ground

Top View (Sample Production):



Top View (Mass Production):



△ : Date Code

□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

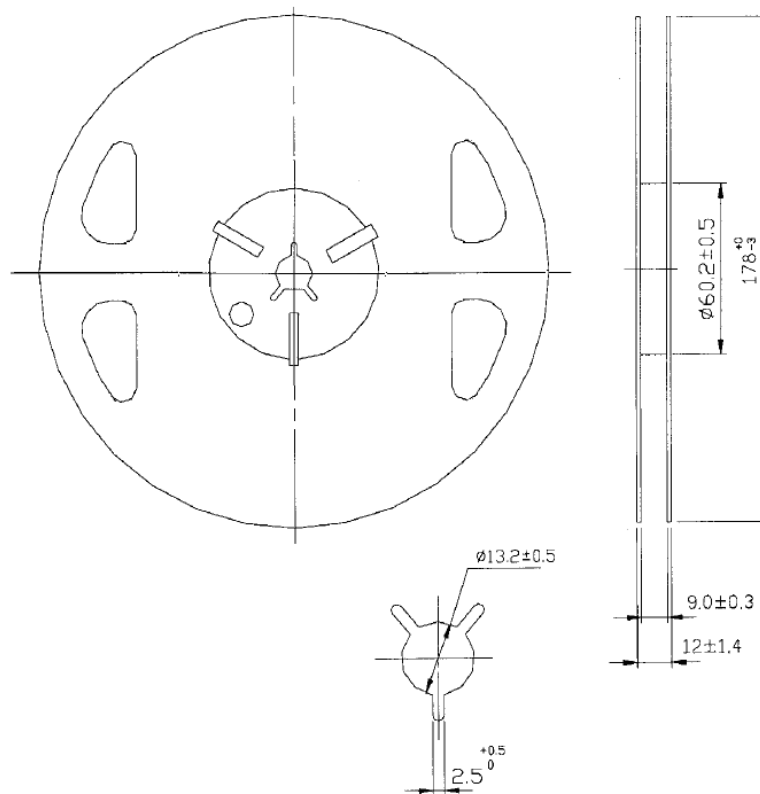
Date Code:

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2020	n	p	q	r	s	t	u	v	w	x	y	z
2021	A	B	C	Đ	E	F	G	H	J	K	L	M
2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2023	a	b	c	d	e	f	g	h	j	k	l	m

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

1. REEL DIMENSION

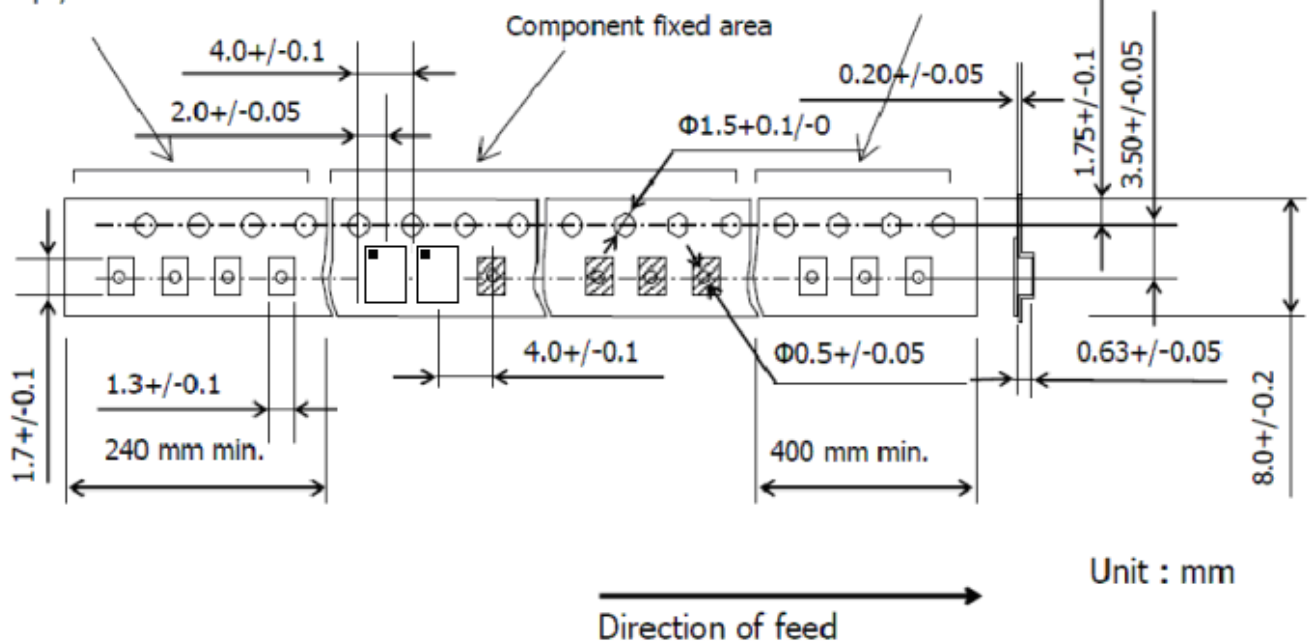
(Please refer to FR-75D10 for packing quantity)



2. TAPE DIMENSION

Empty cavities

Empty cavities



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.

