



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Name: Dual Band SAW Filter 1223/1582.5 MHz SMD 3.0X3.0 mm

TST Parts No.: TE0151A (AEC-Q200 Compliant)

Customer Parts No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Sam Lin *Sam Lin*

Approval by: _____ Andy Yu *Andy Yu*

Date: _____ 2020/05/22

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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Dual Band SAW Filter 1223/1582.5 MHz SMD 3.0X3.0 mm(BW 52/47MHz)

MODEL NO.:TE0151A

REV. NO.:1.0

A. MAXIMUM RATING:

1. Input Power Level: 15 dBm
2. DC voltage: 3 V
3. Operating Temperature: -40 °C to +85 °C
4. Storage Temperature: -40 °C to +85 °C
5. Moisture Sensitivity Level: Level 1 (MSL1)

RoHS Compliant

Lead-free soldering

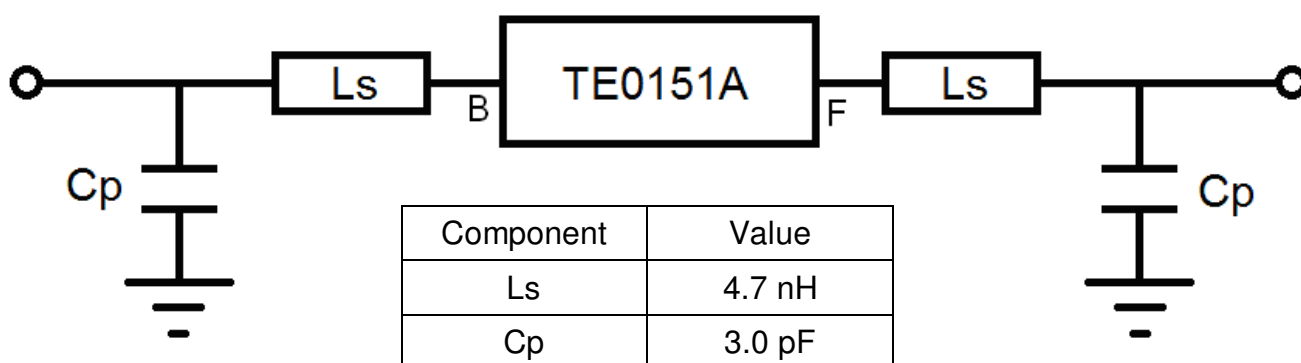
Electrostatic Sensitive Device

B. ELECTRICAL CHARACTERISTICS:

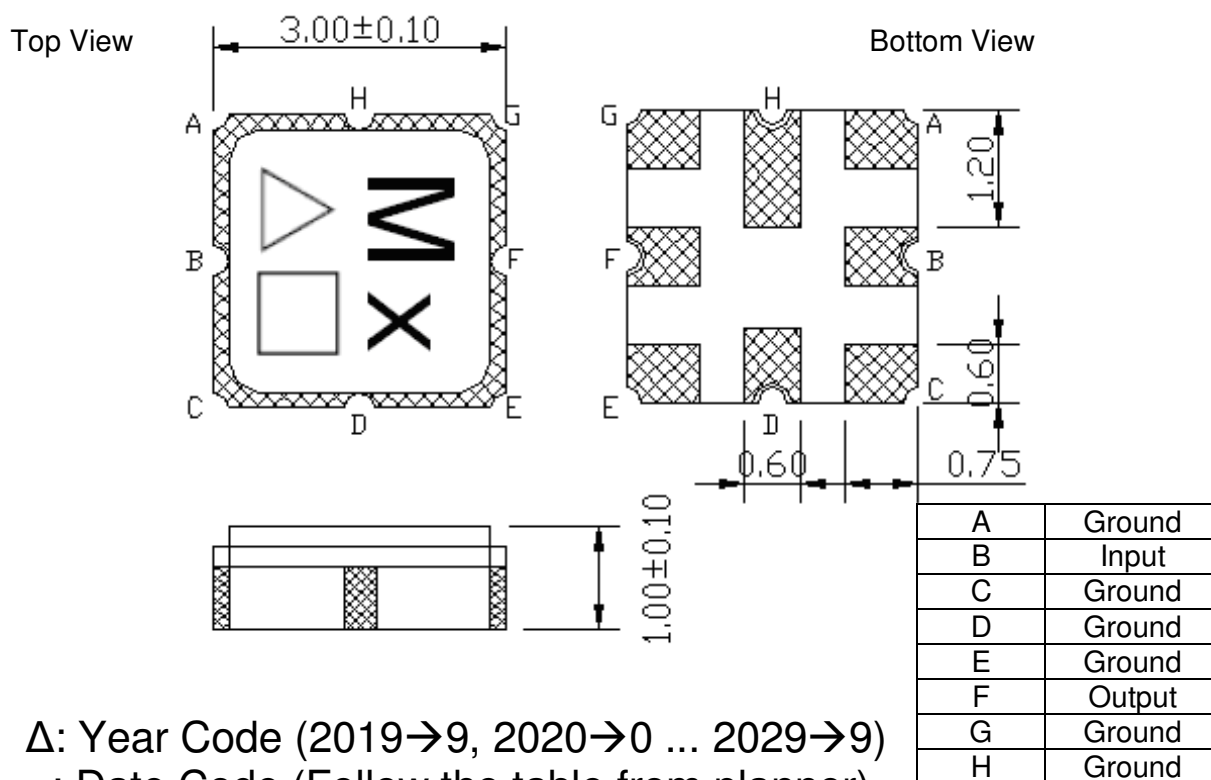
Item	Unit	Min.	Typ.	Max.
L2 Band				
Center frequency	MHz	-	1223	-
Insertion Loss (1197 ~ 1249 MHz)	dB	-	3.0	3.5
VSWR (1197 ~ 1249 MHz)	-	-	2.0	2.5
Amplitude Ripple p-p (1197 ~ 1249 MHz)	dB	-	1.1	1.5
Group Delay Ripple				
1196.0 ~ 1250.0 MHz	ns	-	8.8	17.0
1196.9 ~ 1217.4 MHz	ns	-	6.3	17.0
1197.4 ~ 1205.1 MHz	ns	-	2.1	15.0
1205.0 ~ 1209.2 MHz	ns	-	2.2	10.0
1227.0 ~ 1228.2 MHz	ns	-	1.5	17.0
1242.4 ~ 1249.2 MHz	ns	-	5.1	17.0
L1 Band				
Center frequency	MHz	-	1582.5	-
Insertion Loss (1559 ~ 1606 MHz)	dB	-	3.6	4.2
VSWR (1559 ~ 1606 MHz)	-	-	1.5	2.5
Amplitude Ripple p-p (1559 ~ 1606 MHz)	dB	-	0.6	1.5
Group Delay Ripple				
1559.0 ~ 1563.2	ns	-	5.9	11.0
1559.0 ~ 1606.0	ns	-	3.8	11.0
1573.3 ~ 1577.5	ns	-	2.6	7.0
1587.6 ~ 1591.8	ns	-	2.5	7.0
1597.6 ~ 1605.9	ns	-	2.3	11.0

Attenuation (reference level from 0 dB)					
10 ~ 600 MHz	dB	40	45	-	
600 ~ 1000 MHz	dB	32	41	-	
1000 ~ 1120 MHz	dB	25	35	-	
1120 ~ 1160 MHz	dB	14	31	-	
1285 ~ 1305 MHz	dB	18	36	-	
1305 ~ 1500 MHz	dB	21	28	-	
1500 ~ 1525 MHz	dB	15	27	-	
1645 ~ 1650 MHz	dB	23	38	-	
1650 ~ 2000 MHz	dB	26	31	-	
Temperature Coefficient of Frequency	ppm/K	-	-36	-	

C. MEASUREMENT CIRCUIT:



D. OUTLINE DRAWING:



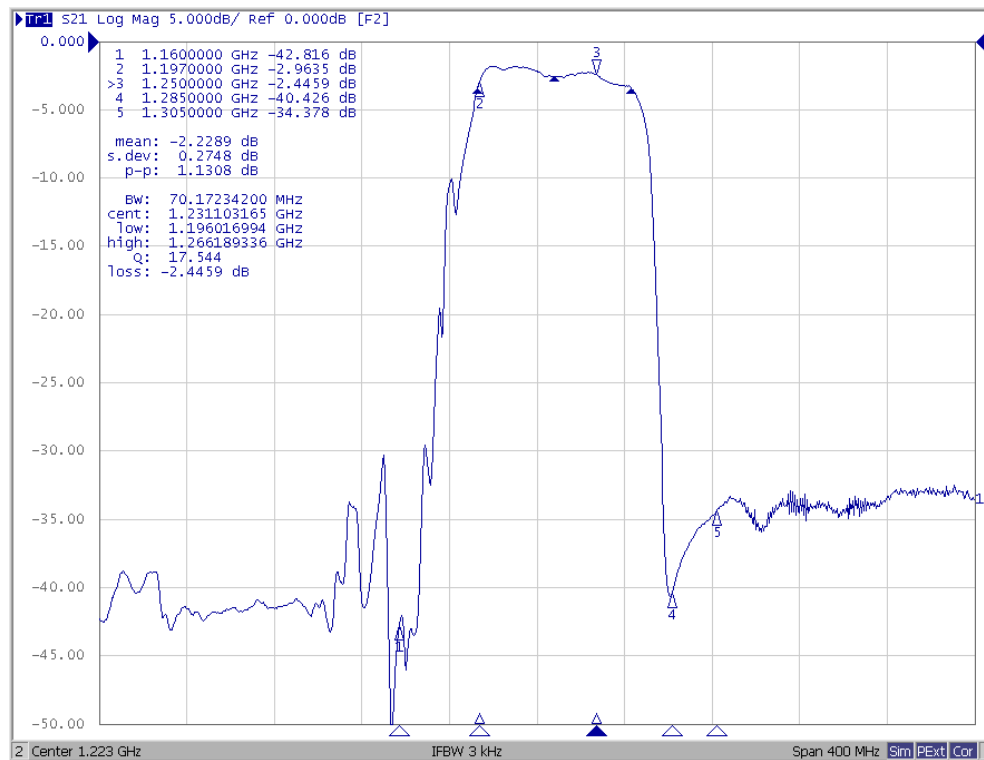
Δ: Year Code (2019→9, 2020→0 ... 2029→9)

□: Date Code (Follow the table from planner)

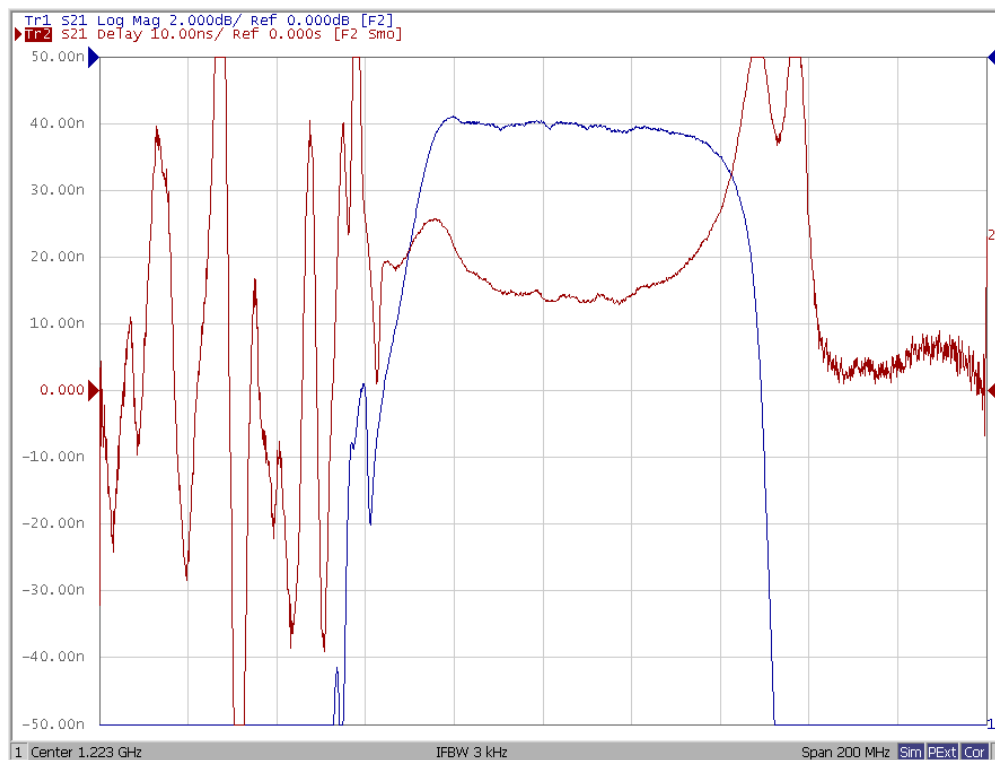
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45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

E. Frequency Characteristics :

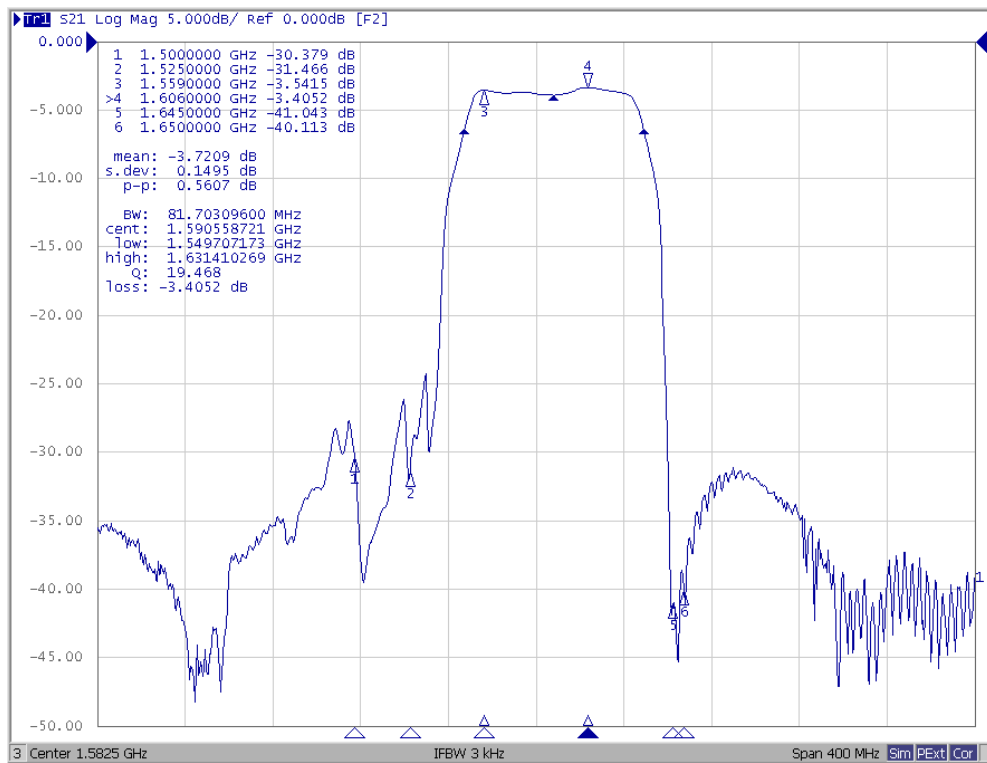
L2 Band (1223 MHz Filter)



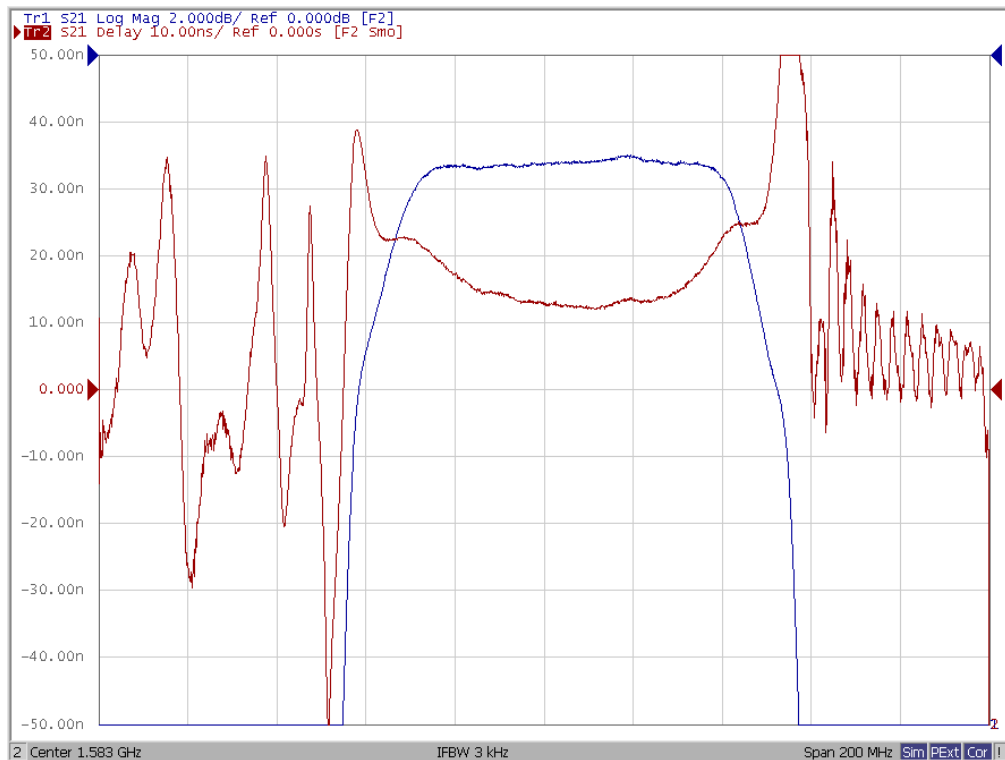
GDD L2 Band (1223 MHz Filter)



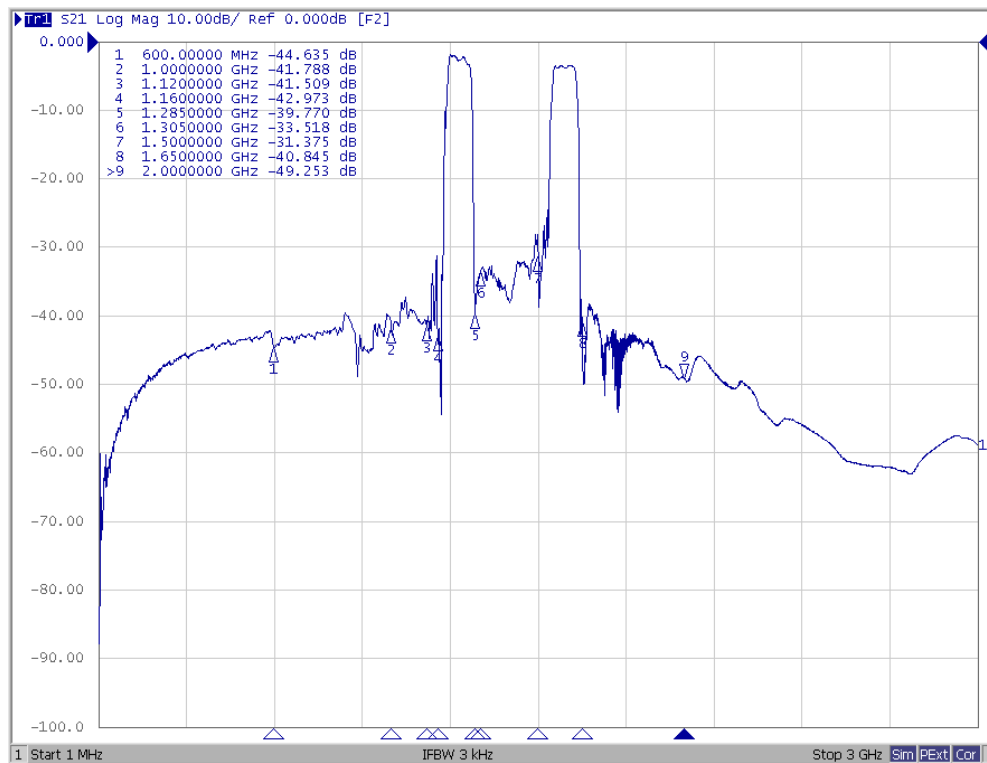
L1 Band (1582.5 MHz Filter)



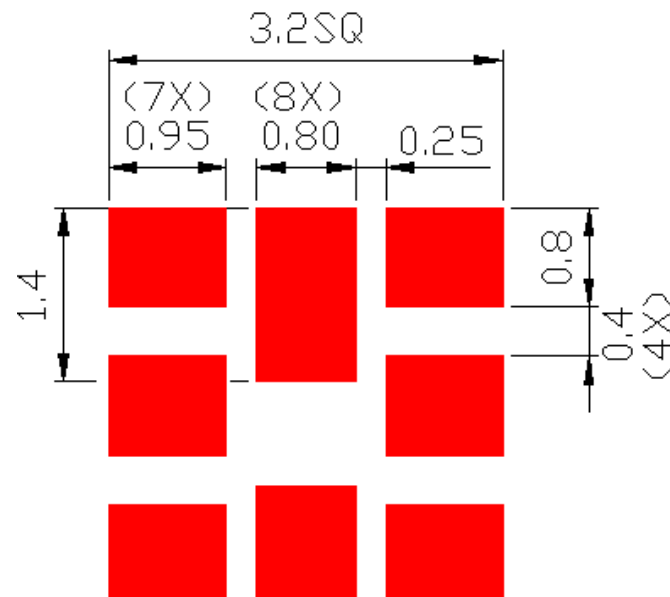
GDD L1 Band (1582.5 MHz Filter)



Rejection – Wide Range



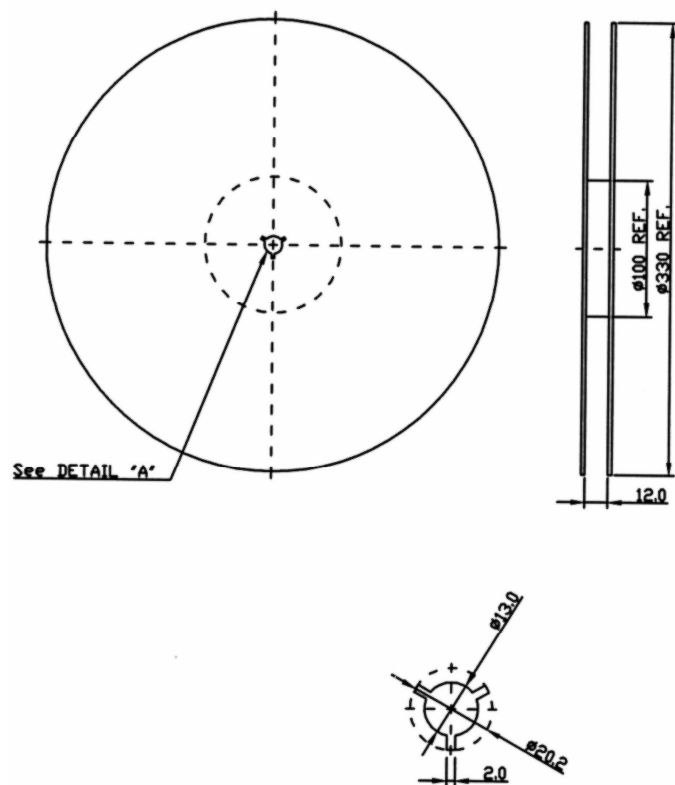
F. PCB FOOTPRINT:



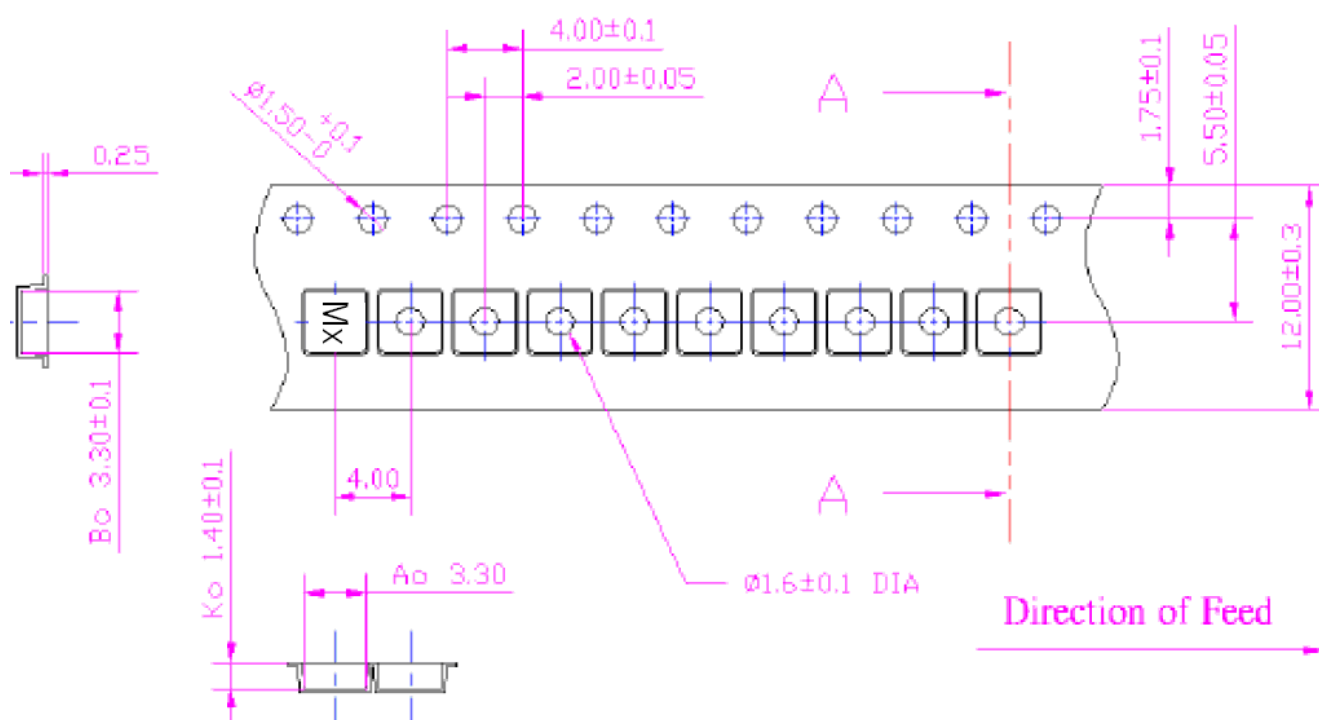
G. PACKING:

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.

