

BF2000LA

**2442 MHz
BAW Filter**



SM1109-5

MAXIMUM RATING:

- Input Power Level : (2402.5~2481.5MHz) 25dBm (Ta=+50deg C,5000h)
- DC Voltage : 0V
- Operating Temperature: -40°C to +105°C
- Storage Temperature: -40°C to +105°C
- Moisture Sensitivity Level: Level 1
- ESD 50V(MM) 100V(HBM)
- AEC-Q200 Qualified

ELECTRICAL CHARACTERISTICS:

Terminating source impedance : $Z_s = 50 \parallel 8.2nH \ \Omega$ (Single-ended)

Terminating load impedance : $Z_L = 50 \parallel 8.2nH \ \Omega$ (Single-ended)

Item	Unit	Min.	Typ.	Max.	Note	
Center Frequency Fc	MHz	-	2442			
Insertion Loss(*1)(*2)	(2402.5~2421.5MHz) IL	dB	-	1.2	3.0	(*1) (*2) CH1
	(2407.5~2426.5MHz) IL	dB	-	1.1	2.0	(*1) (*2) CH2
	(2412.5~2471.5MHz) IL	dB	-	0.9	1.6	(*1) (*2) CH3 to 11
	(2457.5~2476.5MHz) IL	dB	-	0.9	2.8	(*1) (*2) CH12
	(2462.5~2481.5MHz) IL	dB	-	1.0	3.2	(*1) (*2) CH13
	(2402.5~2481.5MHz) IL	dB	-	1.2	2.0	(*1) (*2) Ta=+25 °C
Amplitude Ripple (2402.5 ~ 2481.5MHz)	dB	-	1.0	3.5	Any 19 MHz	
VSWR(Input) (2402.5 ~ 2481.5MHz)			1.6	2.2		
VSWR(Output) (2402.5 ~ 2481.5MHz)			1.6	2.2		
Attenuation (reference level from 0 dB)						

699 ~ 960 MHz	dB	45	48	-	-
1425 ~ 2170 MHz	dB	35	39	-	
2300 ~ 2365 MHz	dB	45	49	-	
2365 ~ 2370 MHz	dB	43	52	-	(*3)
2370 ~ 2380 MHz	dB	10	46	-	(*3)
2496 ~ 2500 MHz	dB	11	48	-	(*3) Ta=-30 to -20°C
	dB	13	48	-	(*3) Ta=-20 to +85°C
2500 ~ 2505 MHz	dB	31	61	-	(*3) Ta=-30 to -20°C
	dB	35	61	-	(*3) Ta=-20 to -10°C
	dB	40	61	-	(*3) Ta=-10 to +85°C
2505 ~ 2570 MHz	dB	45	52	-	
2505 ~ 2690 MHz	dB	40	45	-	
4900 ~ 5805 MHz	dB	35	48	-	
7200 ~ 7500 MHz	dB	30	44	-	

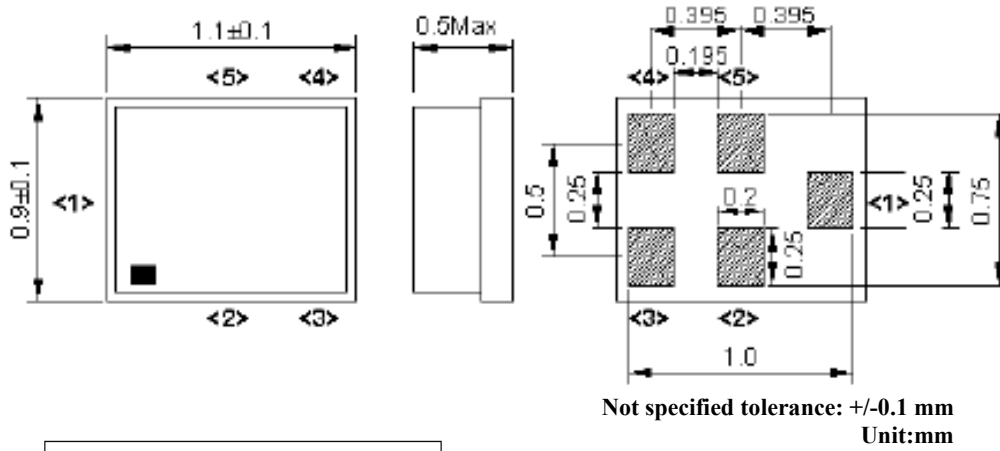
(*1) Specification of insertion loss excludes loss that comes from the test board.

(*2) Integrated Insertion Loss over 19MHz CH BW.

(*3) Integrated attenuation over 5MHz CH BW.

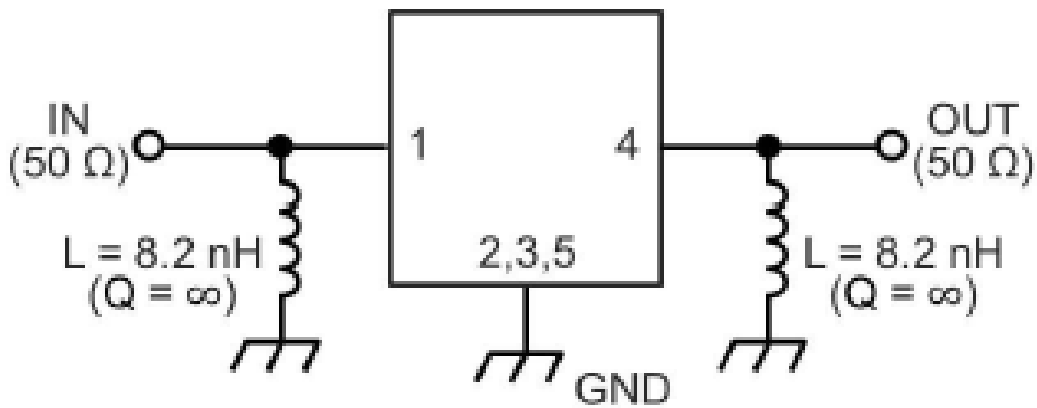
(*4) DC resistance at all ports might be less than 100MΩ at operating temperatures.

Outline Drawing

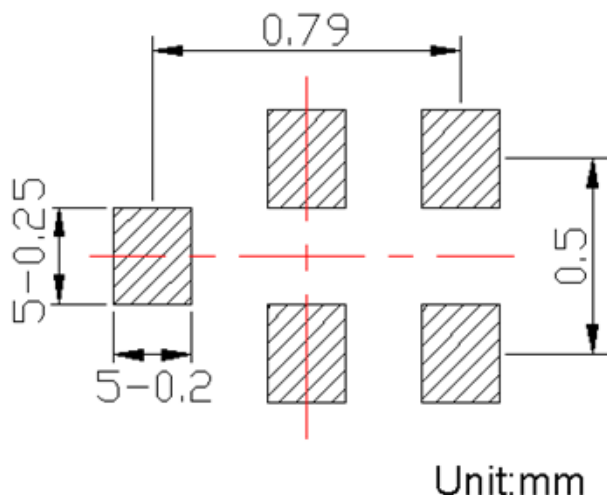


Pin Configuration		
1	IN	Input
2	GND	Ground
3	GND	Ground
4	OUT	Output
5	GND	Ground

Measurement Circuit

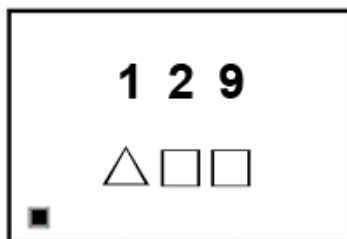


PCB Footprint



Top view (mass production)

Top View (Mass Production)



Marking name : 129

△ : Date Code

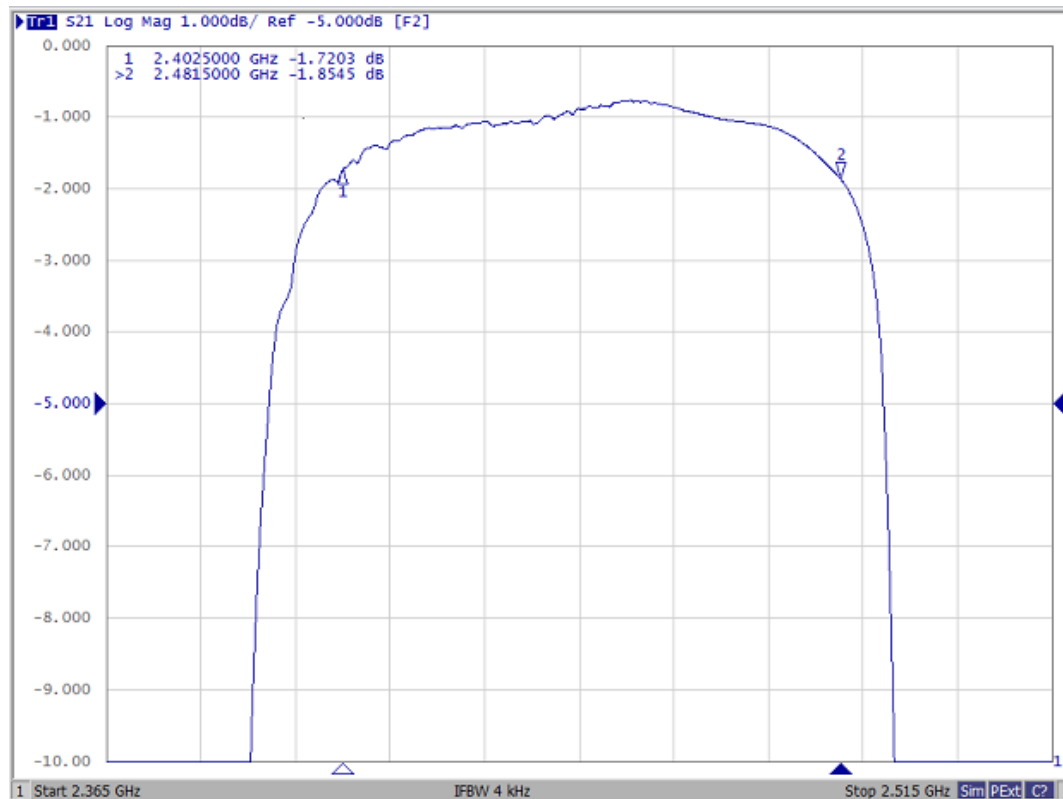
□ □ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

Date Code. Follow below table. (4-year cycle)

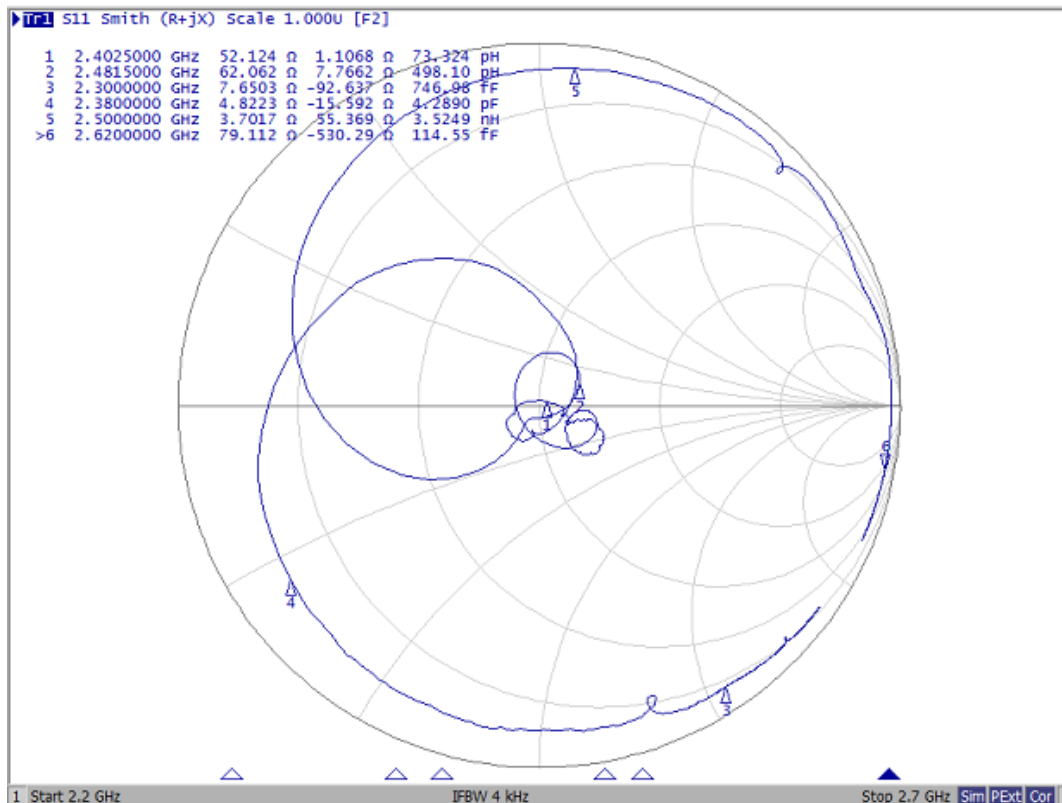
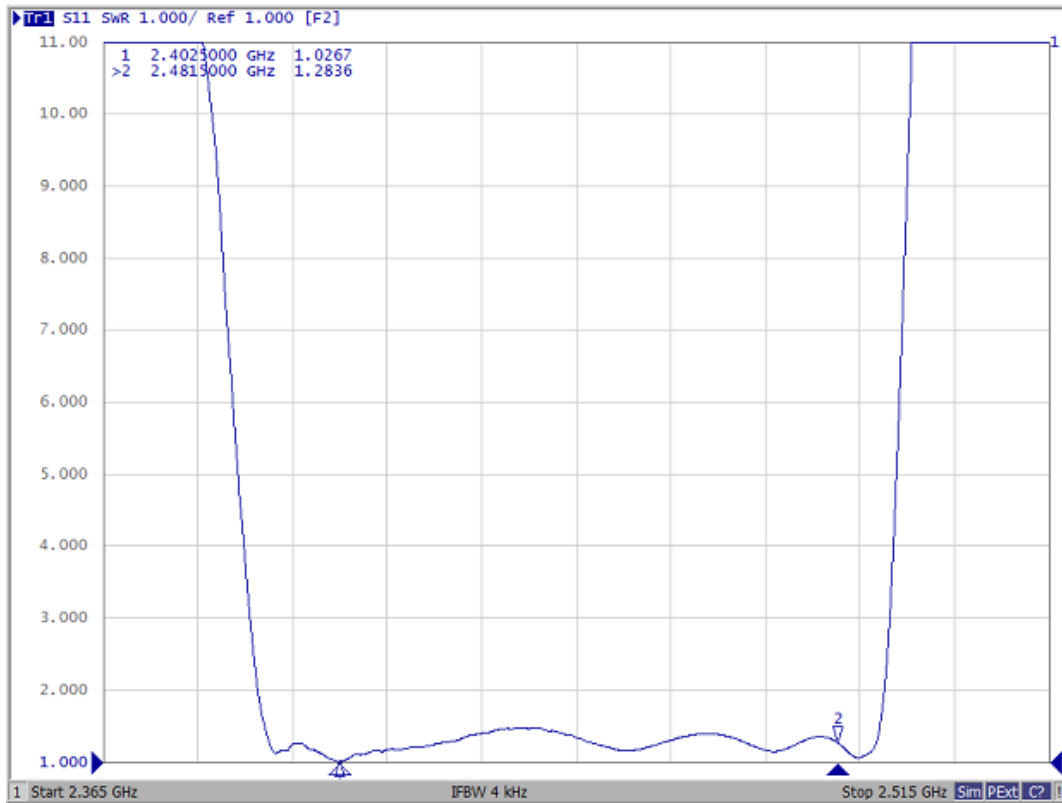
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019 / 2023	a	b	c	d	e	f	g	h	i	k	l	m
2020 / 2024	n	p	q	r	s	t	u	v	w	x	y	z
2021 / 2025	A	B	C	D	E	F	G	H	J	K	L	M
2022 / 2026	N	P	Q	R	S	T	U	V	W	X	Y	Z

Frequency Characteristics

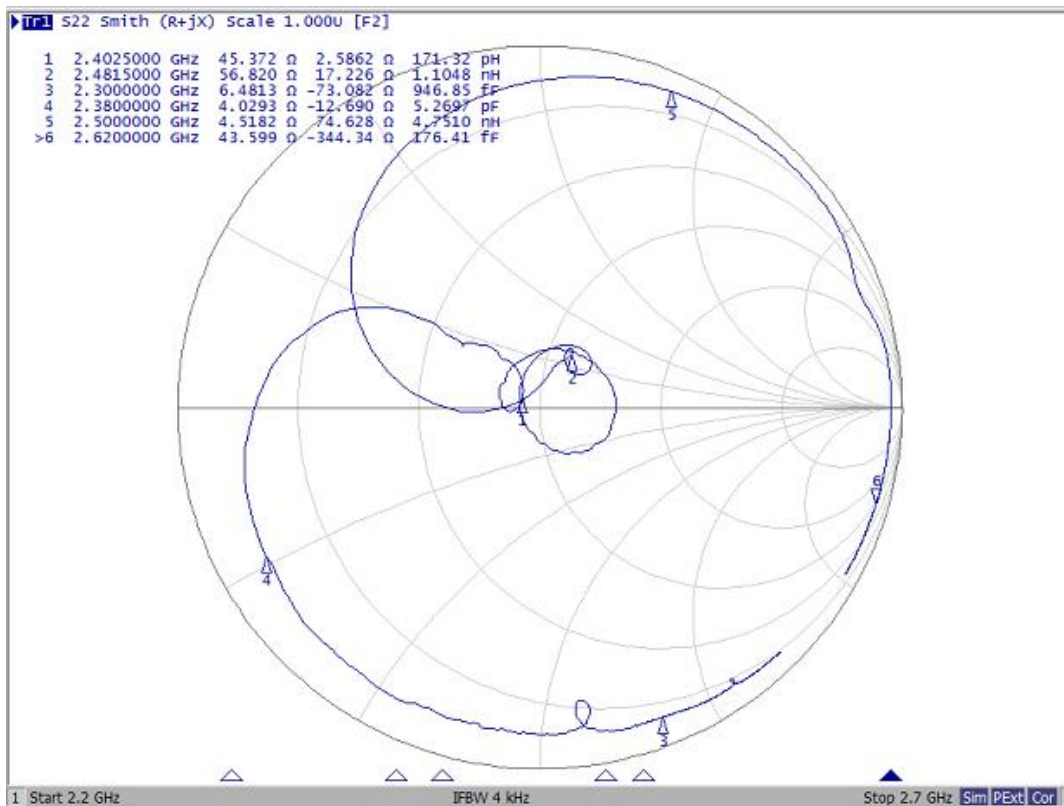
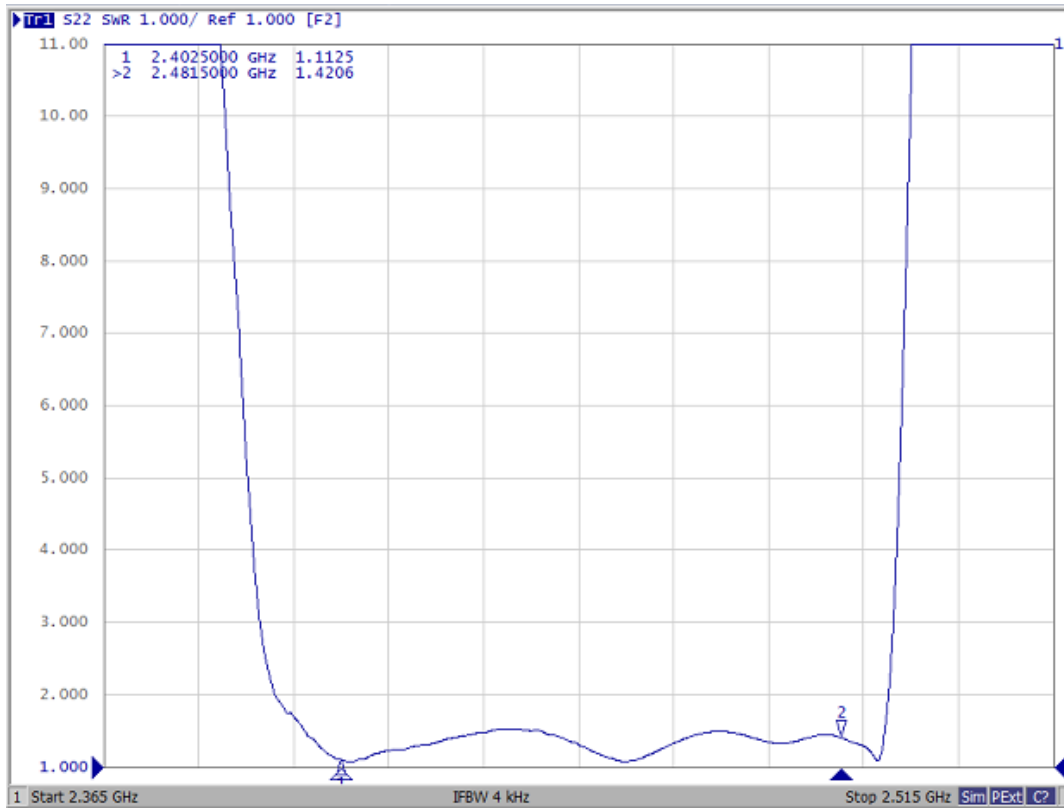
Passband



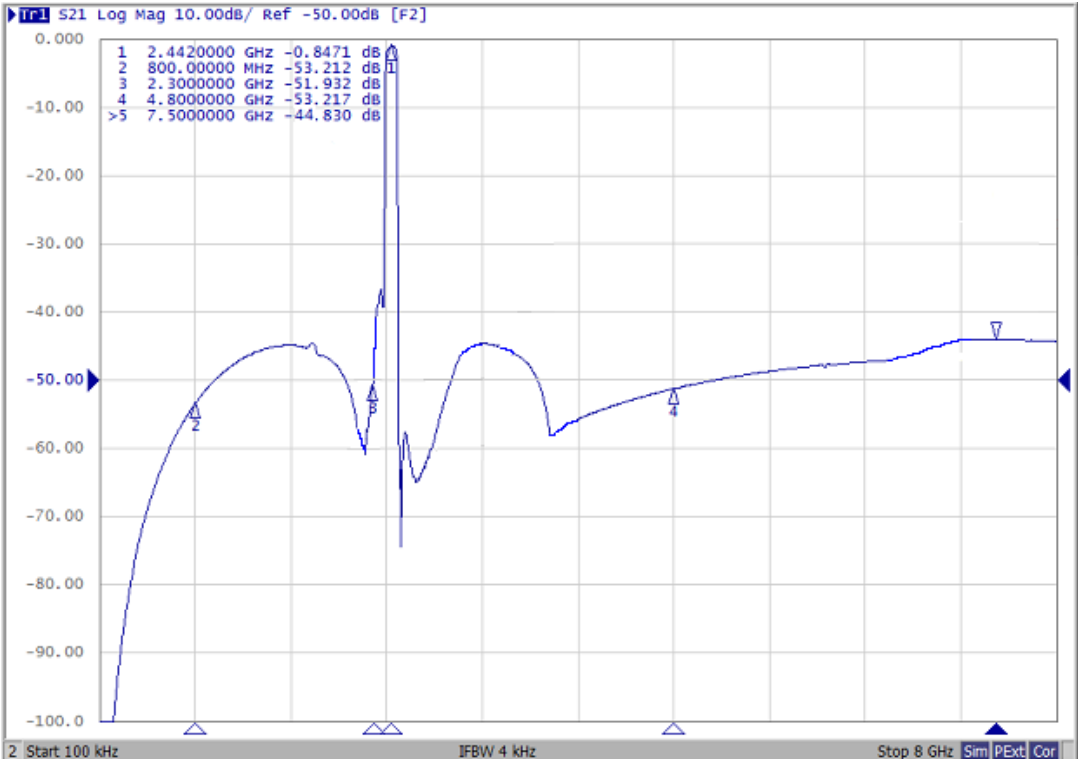
Ant Port



Tx/Rx Port



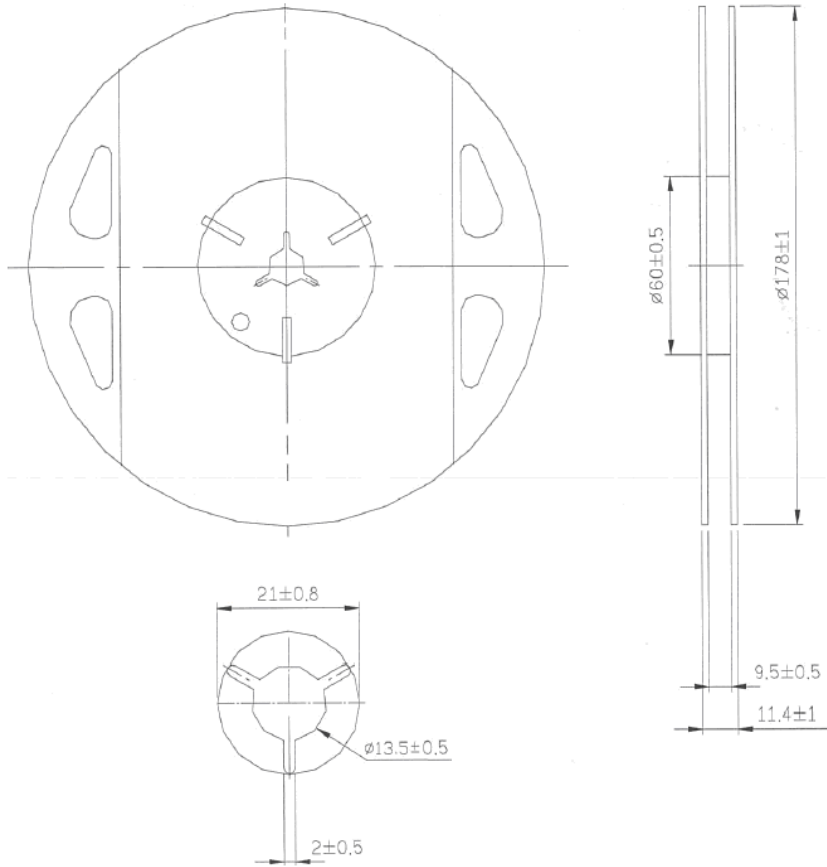
Wide span



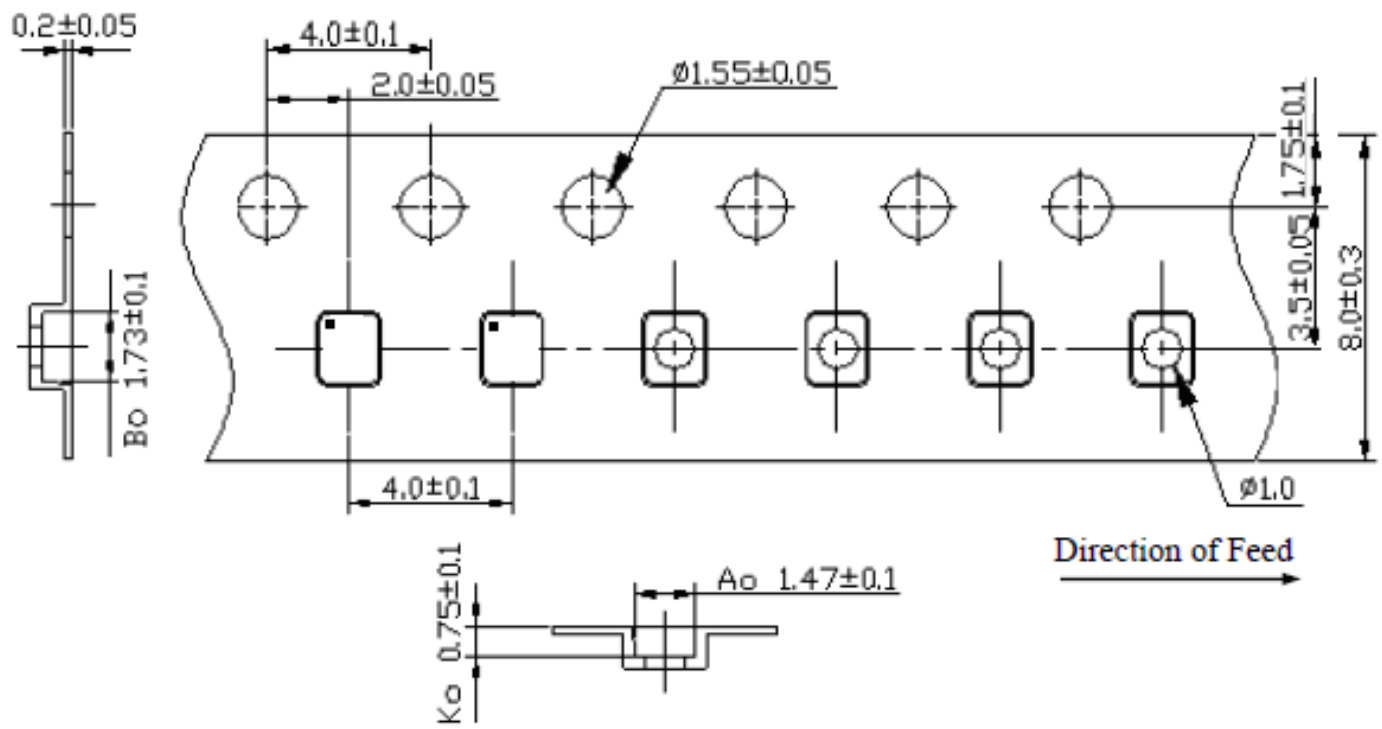
Packing:

Reel Dimension

Reel Count:
7" = 2000
13" = 10,000



TAPE DIMENSION



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 245~260°C peak (min. 10sec).
4. Time : 2 times.

