

规格书编号

SPEC NO : KH-SAWD1718A

产品规格书

SPECIFICATION

CUSTOMER 客户: _____
PRODUCT 产品: _____ SAW DUPLEXER
MODEL NO 型号: _____ KH-SAWD1718A
MARKING 印字: _____ ● 2 B
PREPARED 编制: _____ CHECKED 审核: _____
APPROVED 批准: _____ DATE 日期: _____ 2020-08-12

客户确认 CUSTOMER RECEIVED:		
审核 CHECKED	批准 APPROVED	日期 DATE

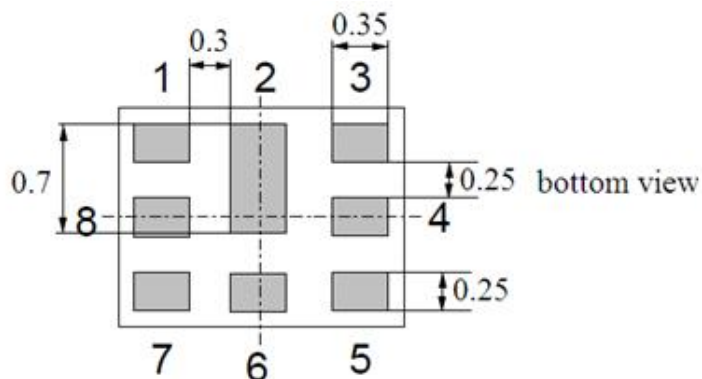
深圳市金航标电子有限公司
SHENZHEN KINGHELM ELECTRONCO., LTD.

SAW DUPLEXER **KH-SAWD1718A**

1. Application

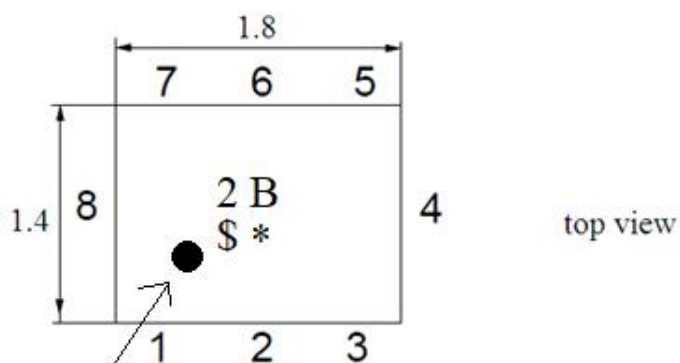
- Low-loss Saw duplexer for mobile telephone LTE and WCDMA Band3 systems.
- Low insertion attenuation and low passband ripple.
- Usable passband 75MHz
- High isolation between Tx and Rx.
- RoHS compatible

2. DIMENSION (PKG SIZE 1.8 x 1.4 x 0.6mm)



Pin configuration

- 3. Tx Input
- 6. Antenna
- 1. Rx Output
- 2,4,5,7,8 To be grounded



Dot Marking

Marking: Laser Printing

- \$: EIAJ Code
(Refer to the table 1)
- * : Date Code
(Refer to the table 2)

Table 1 \$: EIAJ Code

This rule of code is applied repeatedly every four year.

2019 2023 2027	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	A	B	C	D	E	F	G	H	J	K	L	M
2020 2024 2028	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	N	P	Q	R	S	T	U	V	W	X	Y	Z
2021 2025 2029	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	a	b	c̄	d	e	f	g	h	j	k	l	m
2022 2026 2030	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	n	o	p	q	r	s	t	u	v	w	x	y

SAW DUPLEXER

KH-SAWD1718A

Table 2 *: Date Code

date	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
code	A	B	C	D	E	F	G	H	J	K	
date	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	
code	L	M	N	P	Q	R	S	T	U	V	
date	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
code	W	X	Y	Z	a	b	c	d	e	f	g

3. Maximum Rating

Items	Conditions
Operation temperature rang	-30°C ~ +85°C
Storage temperature rang	-40°C ~ +85°C
ESD voltage	ESD(MM) : 50VDC
Sensitive discharge device	ESD(HBM) : 175VDC
DC Voltage VDC	5V
Moisture Sensitivity Level	MSL 2

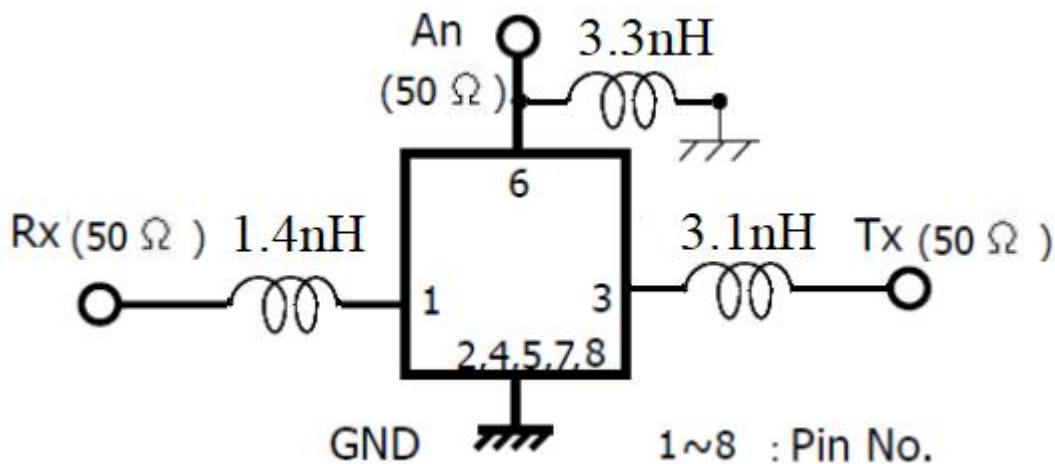
4. ELECTRICAL SPECIFICATION

Item	Condition (MHz)	Specification			Unit	
		Min	Typ	Max		
TX to ANT	Center Frequency	-	1747.5	-	MHz	
	Insertion loss	1710~1785	-	2.3	2.6	dB
		1712.5~1782.5	-	2.2	2.4	dB
	Amplitude ripple Any 5MHz	1710~1785	-	0.6	1.0	dB
	VSWR	1710~1785	-	1.6	2.0	-
			-	1.6	2.0	-
	Input Power	1710~1785	+30dBm Ta=+50°C 5000h,CW			-
	Absolute attenuation	10~960	30	38	-	dB
		1164~1189	28	37	-	dB
		1559~1606	28	33	-	dB
		1606~1680	15	30	-	dB
		1805~1880	42	46	-	dB
		1920~1980	30	42	-	dB
		2110~2170	27	30	-	dB
2400~2500		28	31	-	dB	
2620~2690		27	30	-	dB	
3420~3570	25	29	-	dB		
4900~5850	8	28	-	dB		

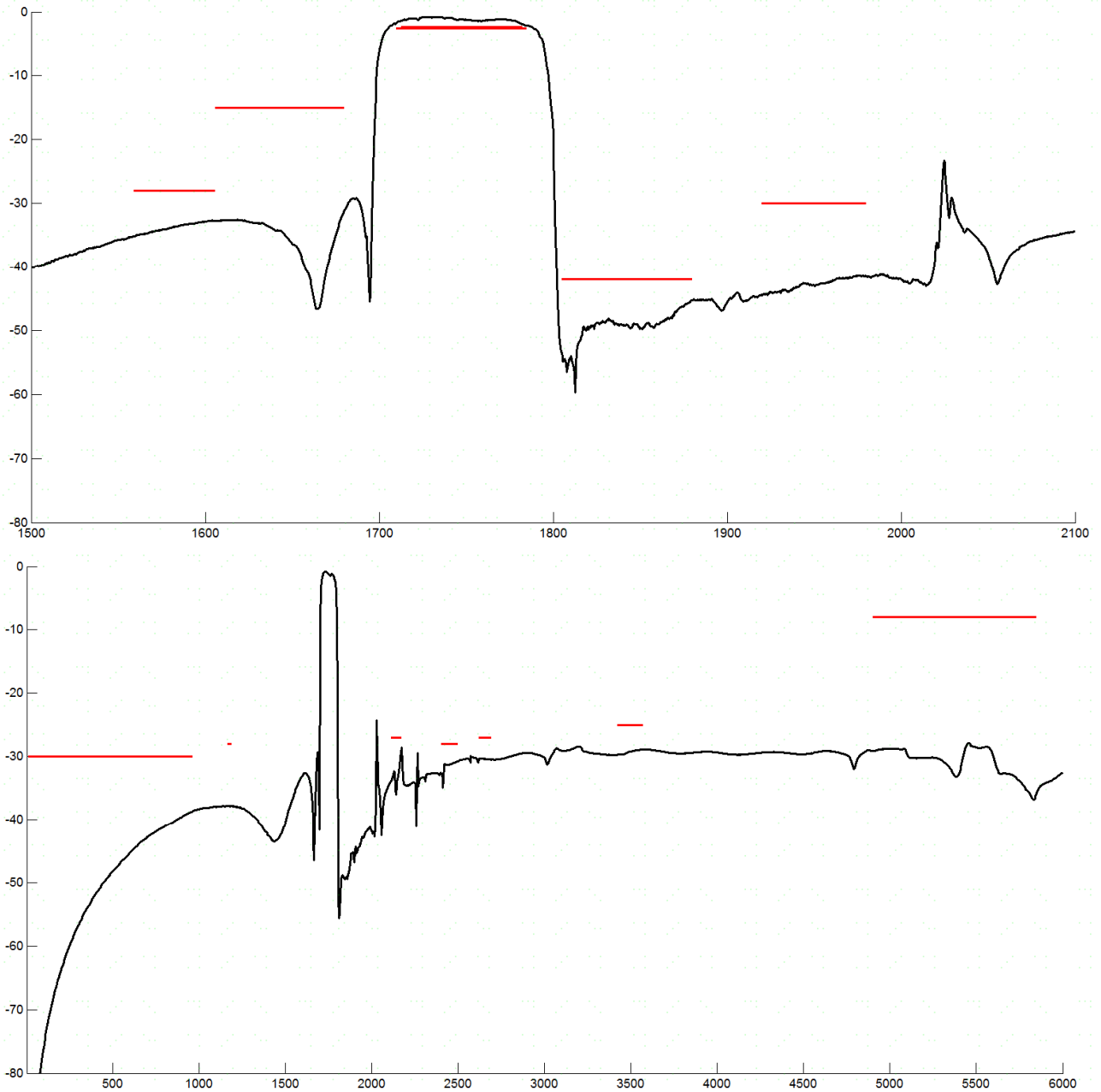
Item		Condition (MHz)	Specification			Unit	
ANT to RX	Center Frequency		-	1842.5	-	dB	
	Insertion loss	1805~1880	-	2.7	3.4	dB	
		1807.5~1877.5	-	2.3	3.0	dB	
	Pass band ripple Any 5MHz	1805~1880	-	0.5	1.0	dB	
	VSWR	ANT	1805~1880	-	1.7	2.0	-
		Rx		-	1.6	2.0	-
	Absolute attenuation	10~1710	40	43	-	dB	
		718~748	40	54	-	dB	
		814~849	40	52	-	dB	
		832~862	40	51	-	dB	
		880~915	40	50	-	dB	
		1447~1463	40	43	-	dB	
		1710~1785	42	50	-	dB	
1920~2400		38	41	-	dB		
2400~2500		40	46	-	dB		
2500~2570		40	48	-	dB		
2570~3760	35	50	-	dB			
4900~5950	30	48	-	dB			

Item		Condition (MHz)	Specification			Unit
			Min	Typ	Max	
TX to RX	Isolation	1710~1785	50	53	-	dB
		1805~1880	50	53	-	dB

5. TEST CIRCUIT

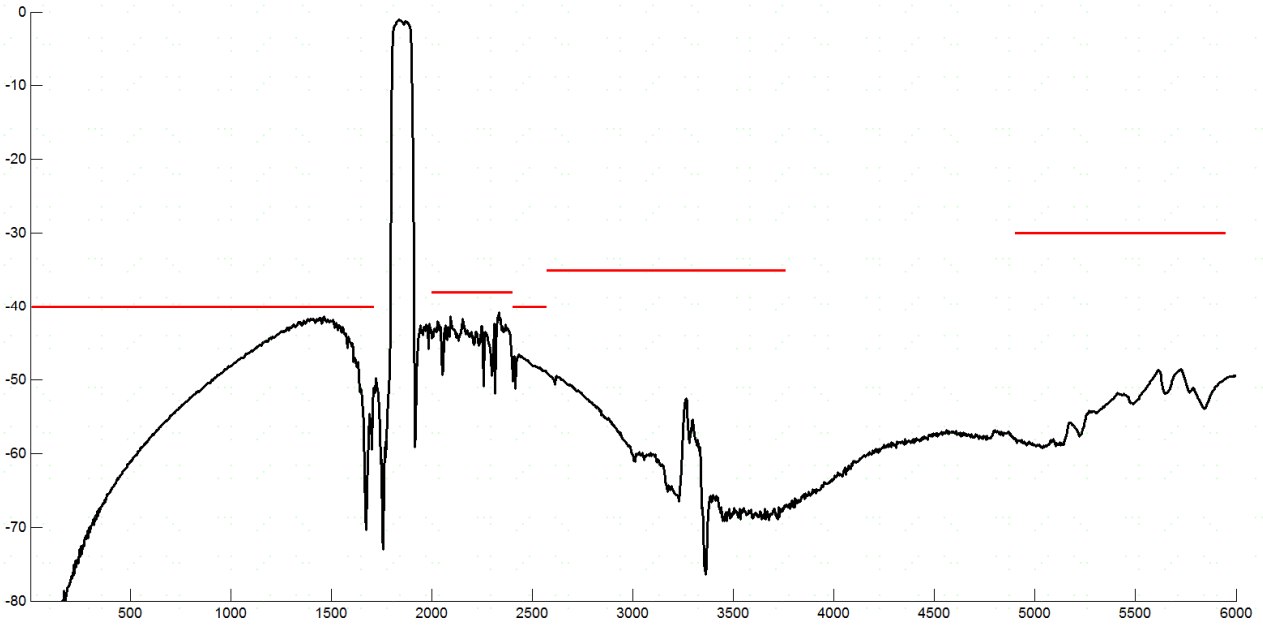
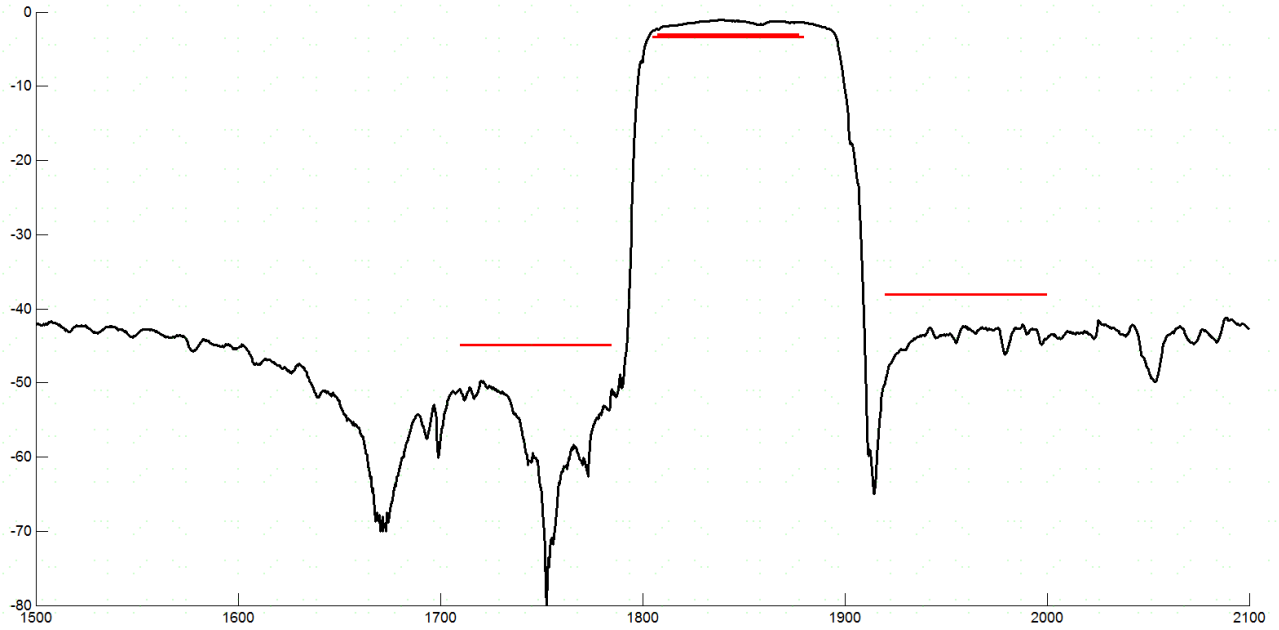


6. Frequency Response TX-ANT

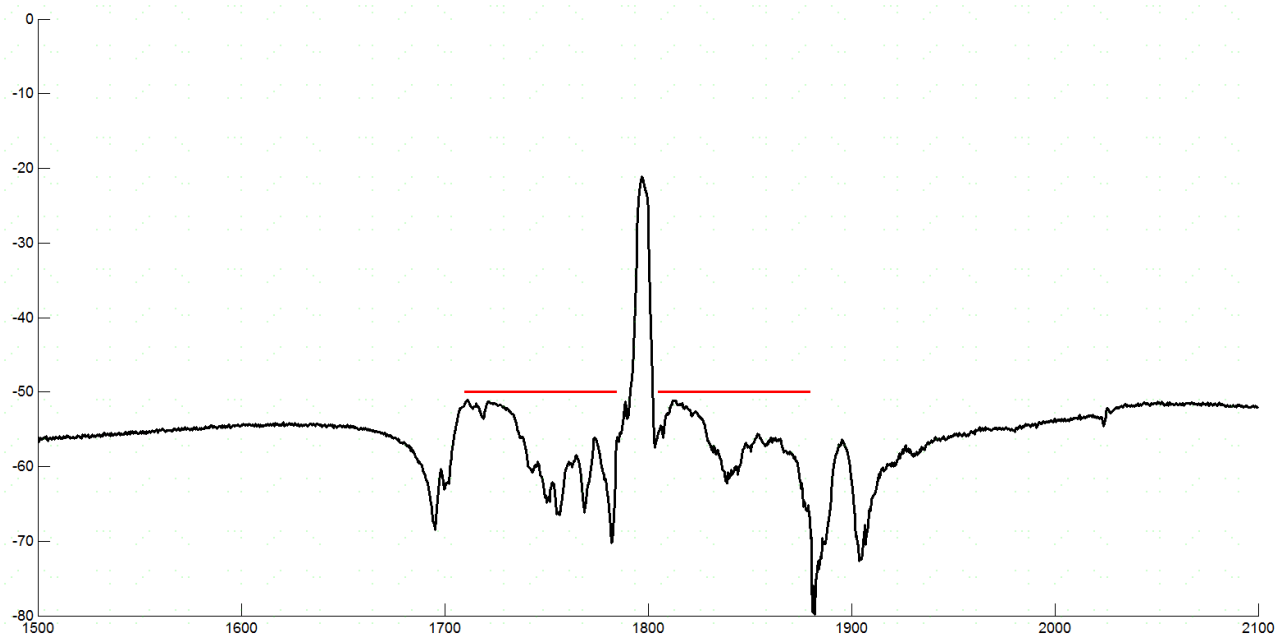


SAW DUPLEXER **KH-SAWD1718A**

ANT-RX



Isolation TX-RX



7. Reliability test item & condition

Category	Reliability test items		Test condition	Quantity	Description
Environment Test	1	Low temperature storage	-40±5°C 240h	23	JESD22-A119
	2	High temperature storage	125±5°C 240h	23	JESD22-A103E
	3	High temperature humidity	85°C 85%RH, 240h	23	JESD22-A106B
	4	Thermal Shock	-40 /30min~ +85 °C/30 min 100 cycle	23	JESD22-A106A
Mechanical Test	5	Drop Test	152mm 12times Steel floor JIG(110g~150g)	23	IEC 1178-1.4.8.9
	6	Vibration	10~55Hz, amplitude 1.5mm Sweep time:1min, X.Y.Z direction, 2h/direction	23	IEC 1178-1.4.8.7
Physical Test	7	Soldering heat resistance	Reflow with 260±5°C, 10±1s (Solder Pot)	23	JIS C 5201 4.18
	8	Solderability test	235±5°C 3 sec. (Solder Pot)	50	JIS C 5201 4.17
	9	Board adhesion	0.5mm/sec 1point push	11	IEC 68-2-21 Ue3
	10	Leak Hunting	125°C Fluorocarbon oil leak Hunting (30±1)s	20	MIL-STD-883E 1014.9

8. REMARK

8.1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the component. Please avoid static voltage.

8.2 Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning

8.3 Soldering

Only pad component may be solded. Please avoid soldering another part of component.

9. Packing

9.1 Dimensions

(1) Carrier Tape: Figure 1

(2) Reel: Figure 2

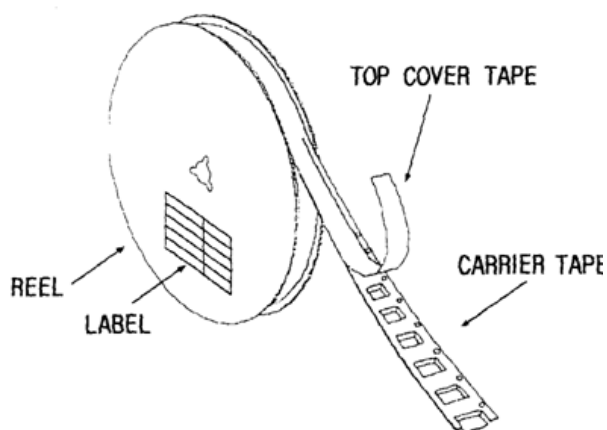
(3) The product shall be packed properly not to be damaged during transportation and storage.

9.2 Reeling Quantity

10000 pcs/reel ϕ 257.5mm

9.3 Taping Structure

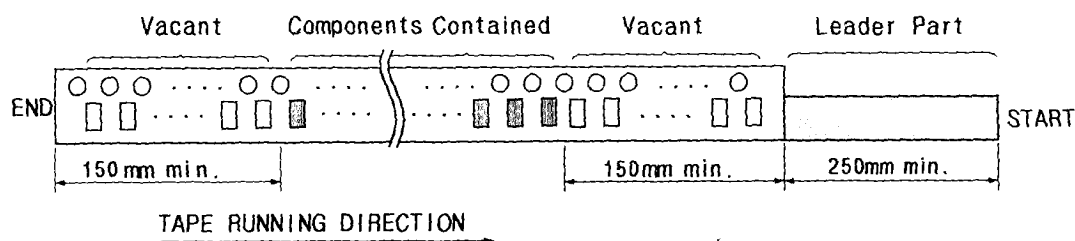
(1) The tape shall be wound around the reel in the direction shown below.



(2) Label

Device Name	
Marking	
User Product Name	
Quantity	
Lot No.	

(3) Leader part and vacant position specifications.

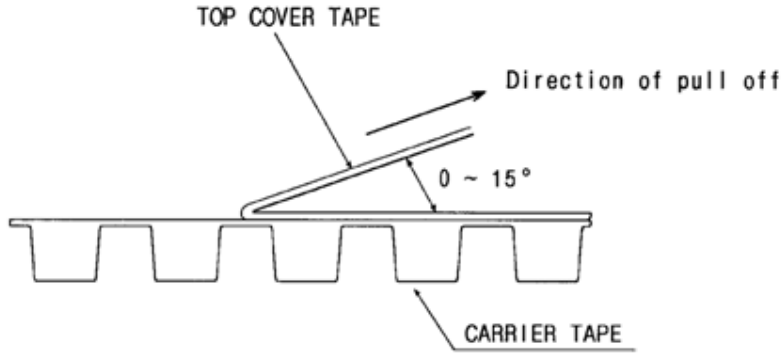


10. TAPE SPECIFICATIONS

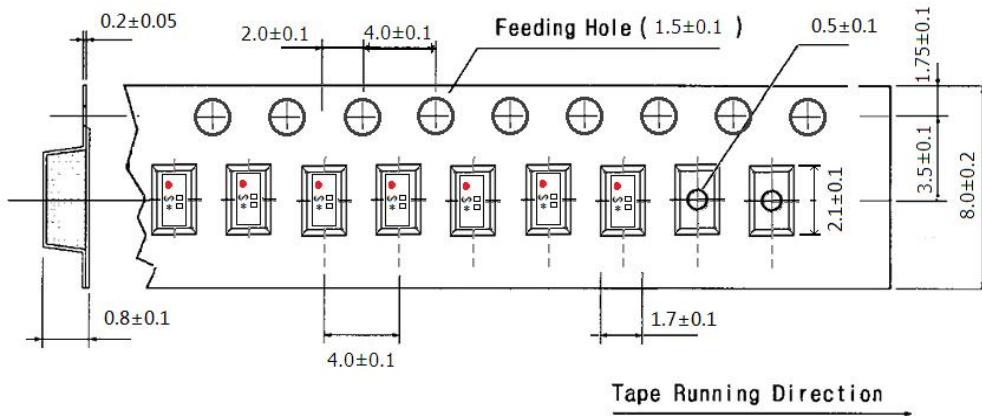
10.1 Tensile Strength of Carrier Tape: 4.4N/mm width

10.2 Top Cover Tape Adhesion (See the below figure)

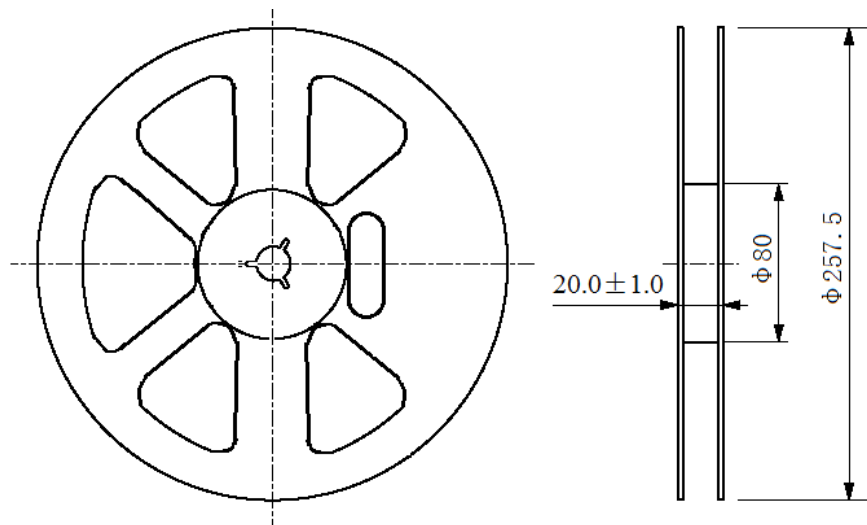
- (1) pull off angle: 0~15°
- (2) speed: 300mm/min.
- (3) force: 20~70g



[Figure 1] Carrier Tape Dimensions



[Figure 2] 10000 pcs/reel ϕ 257.5mm



ϕ 257.5 Reel Dimension

(in mm)