SHOULDER

规格书编号

SPEC NO : HDF1575AB2SP03

产品规格书
SPECIFICATION

CUSTOMER 客 户：	
PRODUCT 产 品：	SAW FILTER
MODEL NO 型 号：	HDF1575A-B2
MARKING 印 字：	C162

PREPARED 编 制：		CHECKED 审 核：	
APPROVED 批 准：		D A T E 日 期：	2016-5-17

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

好达电子 SHOULDER

无锡市好达电子有限公司

Shoulder Electronics Limited

Factory Address: NO. 115, Gaoyun Road, Binhu Economic & Technology Development Area, Wuxi, Jiangsu, China. Tel：86-510-85629111

Country of origin: China

更改历史记录
History Record

更改日期 Date	规格书编号 Spec. No.	产品型号 Part No.	客户产品型号 Customer No.	更改内容描述 Modify Content	备注 Remark
2016-2-3	SP01	HDF1575A-B2		New specification.	
2016-5-3	SP02	HDF1575A-B2		Complete specifications. Add product application, reliability and other information.	
2016-5-17	SP03	HDF1575A-B2		Modify marking form 'B162' to 'C162'.	

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1. Features

•SAW filter for GPS.
•High stability and reliability with good performance and no adjustment.
•Narrow and sharp pass band characteristics.
•Low insertion loss and deep stop band attenuation for interference.
•Low – loss SAW filter for GPS.

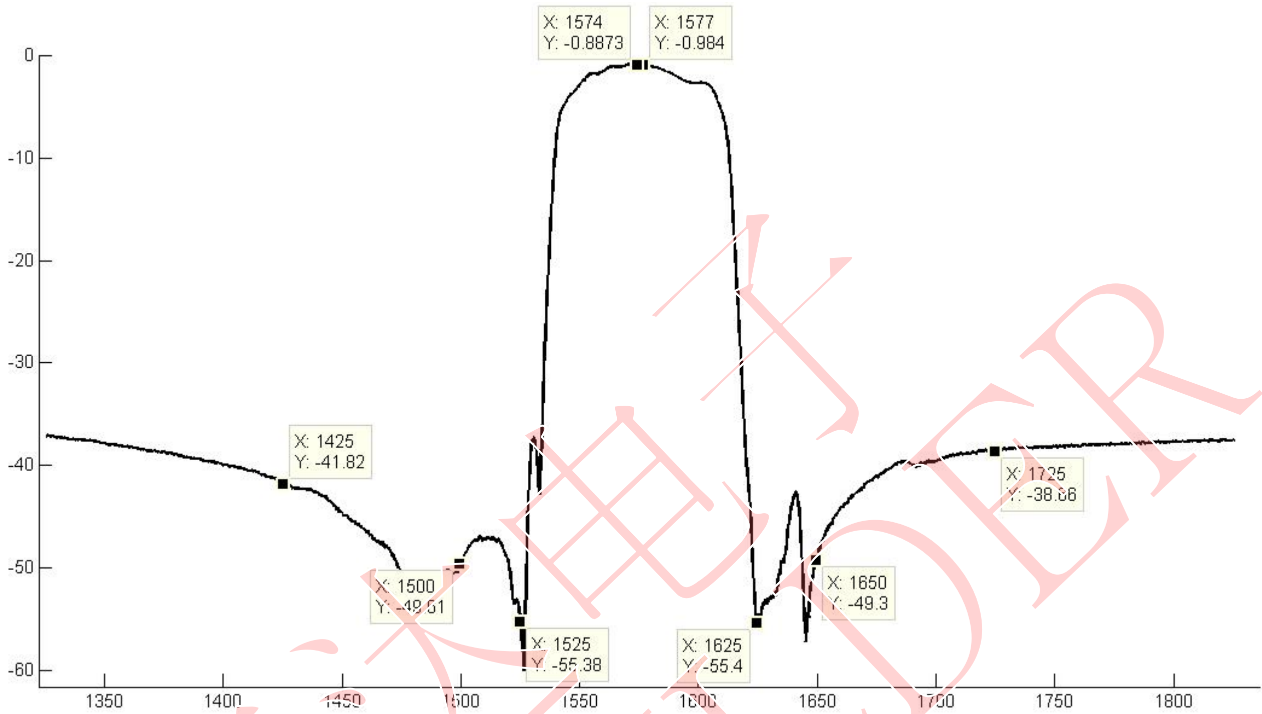
2. ELECTRICAL SPECIFICATION

Items	Conditions
Operation temperature rang	-30℃ ~ +85℃
Storage temperature rang	-40℃ ~ +85℃
ESD voltage Sensitive discharge device	ESD(MM) : 50VDC ESD(HBM) : 175VDC
DC Voltage VDC	5V
Max Input Power	15dBm 2000h
Moisture Sensitivity Level	MSL 2

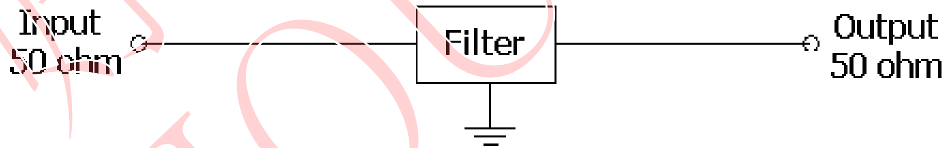
2-1.Electrical characteristics
AT 25℃±5℃

Items	Test Condition	Min	Typ	Max	Unit
Center Frequency	-	-	1575.42	-	MHz
Insertion Loss	F0±1.2 MHz	-	0.9	1.3	dB
Ripple Level	F0±1.2 MHz	-	0.1	0.5	dB
Attenuation	D.C~1425MHz	30	35	-	dB
	1425~1500MHz	38	42	-	dB
	1500~1525MHz	42	47		
	1625~1650MHz	40	43	-	dB
	1650~1725MHz	35	38		
	1725~1850MHz	35	38	-	dB
	1850~2000MHz	30	35	-	dB
	2000~3000MHz	30	35	-	dB
VSWR	1574.22~1576.62MHz	-	1.2	1.6	-
Input/Output Impedance	-	-	50	-	ohm

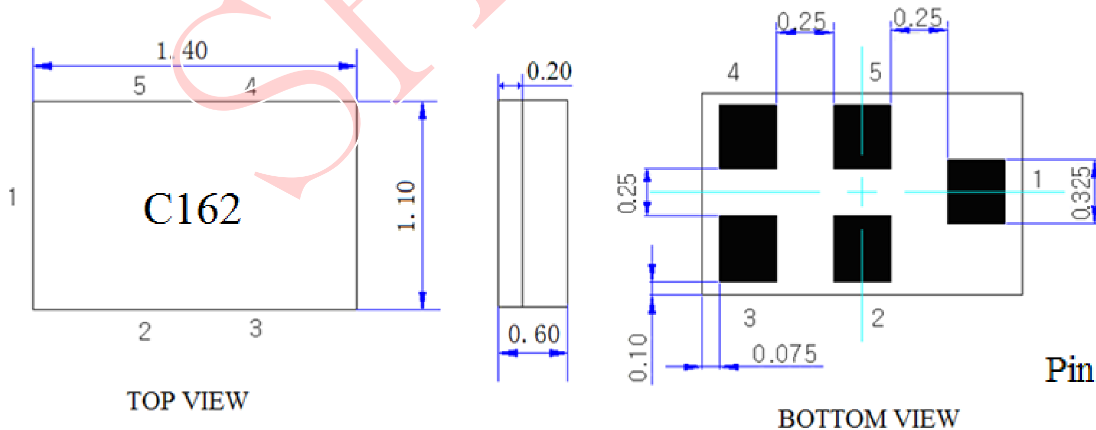
2-2.Typical frequency response



3. TEST CIRCUIT



4. DIMENSION



Pin configuration

1. Input
4. Output
2,3,5 To be grounded

5. ENVIRONMENTAL CHARACTERISTICS

5-1 High temperature exposure

Subject the device to +85℃ for 16 hours. Then release the filter into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in 2-2.

5-2 Low temperature exposure

Subject the device to -40℃ for 16 hours. Then release the device into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in 2-2.

5-3 Temperature cycling

Subject the device to a low temperature of -40℃ for 30 minutes. Following by a high temperature of +85℃ for 30 Minutes. Then release the device into the room conditions for 24 hours prior to the measurement. It shall meet the specifications in 2-2.

5-4 Resistance to solder heat（耐焊接热）

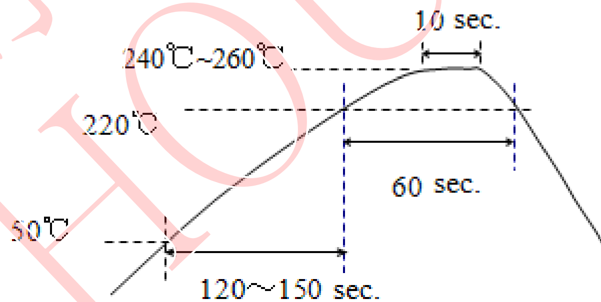
1、immerge the solder bath at 260℃ for 10 sec.（浸入 260℃焊锡槽 10 秒）

2、the iron at 370℃ for 3 sec（烙铁 370℃3 秒）

5-5 Solderability （可焊性）

Submerge the device terminals into the solder bath at 245℃ ±5℃ for 5s, More than 95% area of the soldering pad must be covered with new solder. It shall meet the specifications in 2-2.（浸没在温度 245℃+5/-0℃的焊锡中，持续 3 秒，焊锡覆盖面积大于 95%）

5-6 Reflow soldering（回流焊）



The specimen shall be passed through the reflow furnace with the condition shown in the above profile for 1 time.

The specimen shall be stored at standard atmospheric conditions for 1h, after which the measurement shall be made. Test board shall be 1.6 mm thick. Base material shall be glass fabric base epoxy resin.

5-7 Mechanical shock

Drop the device randomly onto the concrete floor from the height of 1m 3 times. the device shall fulfill the specifications in 2-2.

5-8 Vibration

Subject the device to the vibration for 1 hour each in x,y and z axes with the amplitude of 1.5 mm at 10 to 55 Hz. The device shall fulfill the specifications in 2-2.

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6. REMARK

6.1 Static voltage

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

6.2 Ultrasonic cleaning

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

6.3 Soldering

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

7. Packing

7.1 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.

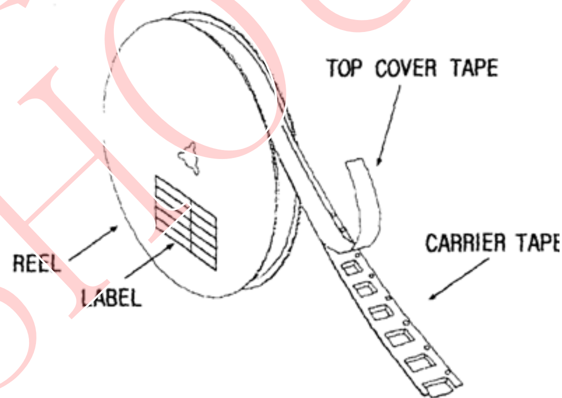
7.2 Reeling Quantity

3000 pcs/reel φ 178mm

10000 pcs/reel φ 259mm

7.3 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.

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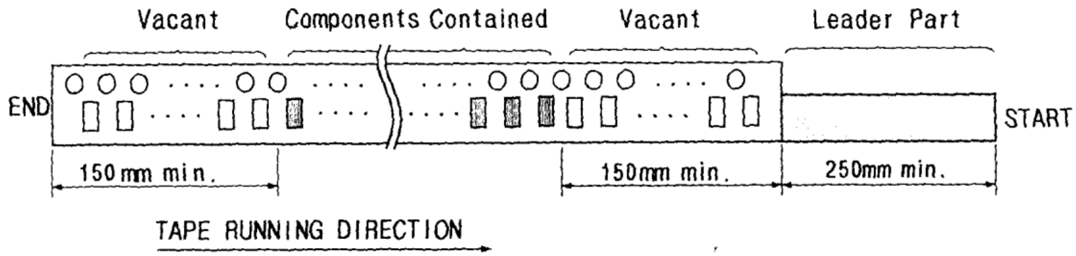


8. TAPE SPECIFICATIONS

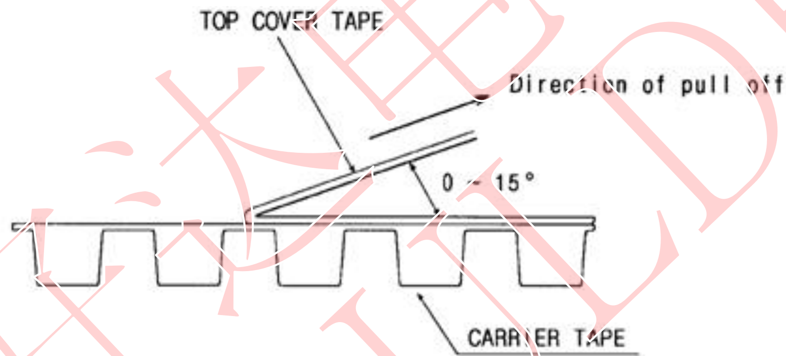
8.1 Tensile Strength of Carrier Tape: 4.4N/mm width

8.2 Top Cover Tape Adhesion (See the below figure)

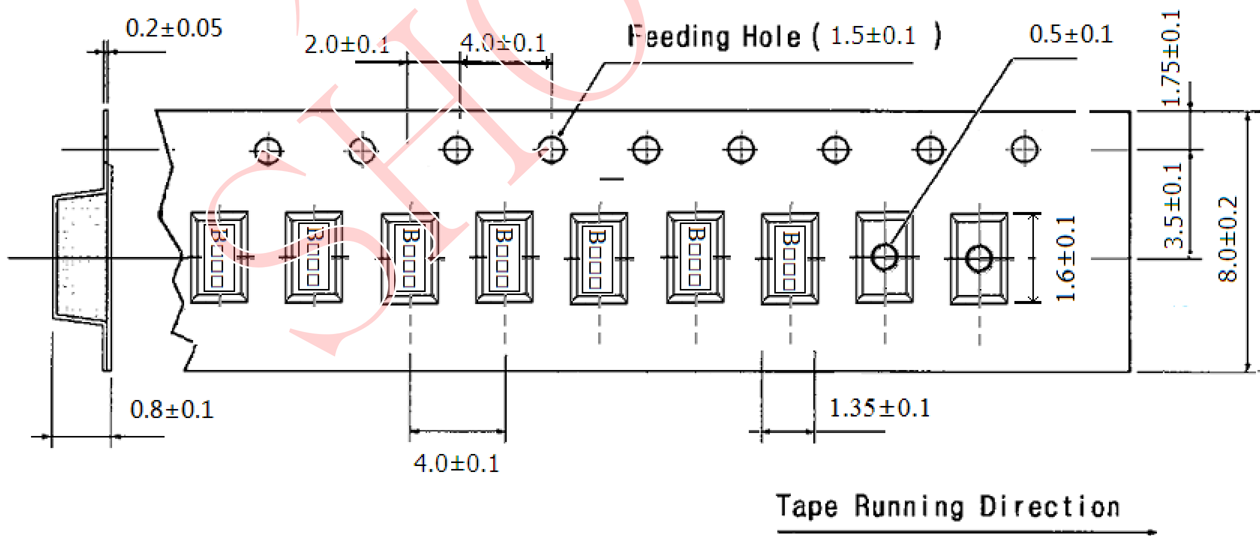
(1) pull off angle: 0~15°

(2) speed: 300mm/min.

(3) force: 20~70g



[Figure 1] Carrier Tape Dimensions



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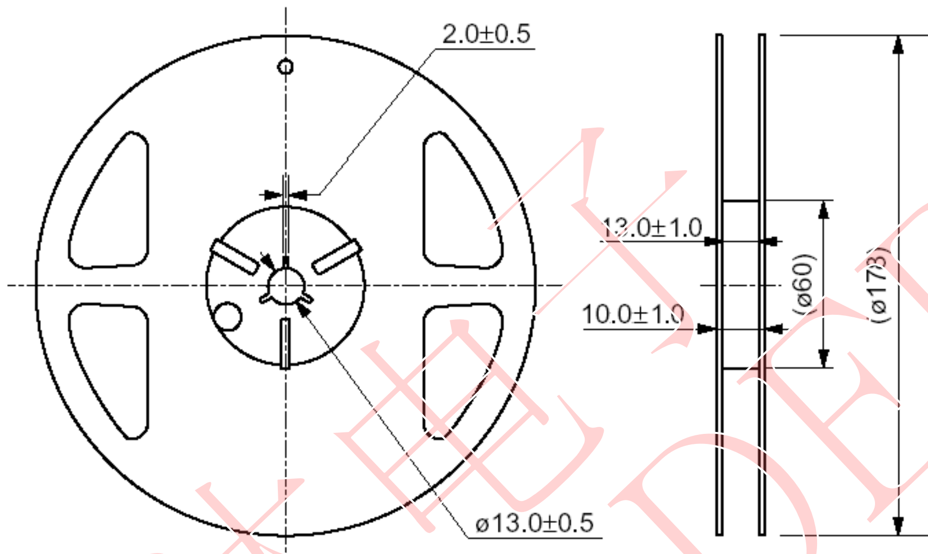
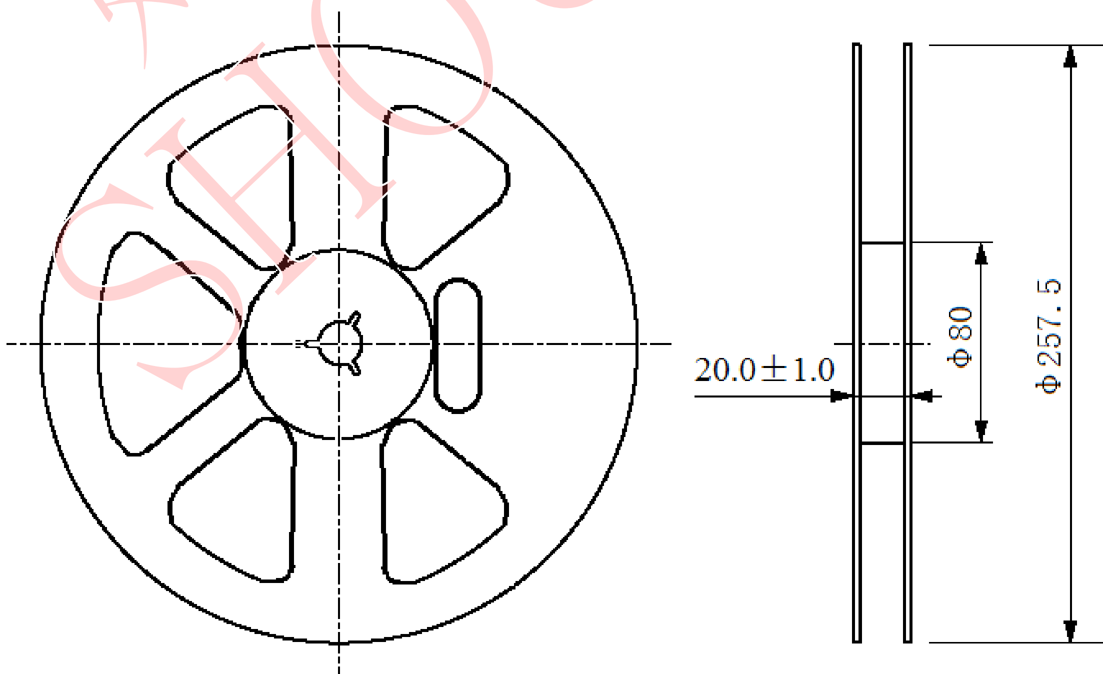
[Figure 2] 3000 pcs/reel φ 178mm



ø178 Reel Dimension

(in mm)

10000 pcs/reel φ 257.5mm



Φ257.5 Reel Dimension

(in mm)