SHOULDER

规格书编号

SPEC NO: HDF1747ES6SP00

产品规格书
SPECIFICATION

CUSTOMER 客 户：

PRODUCT 产 品： SAW FILTER

MODEL NO 型 号： HDF1747E-S6

MARKING 印 字： HDF6G21

PREPARED 编 制： CHECKED 审 核：

APPROVED 批 准： D A T E 日 期： 2013-12-13

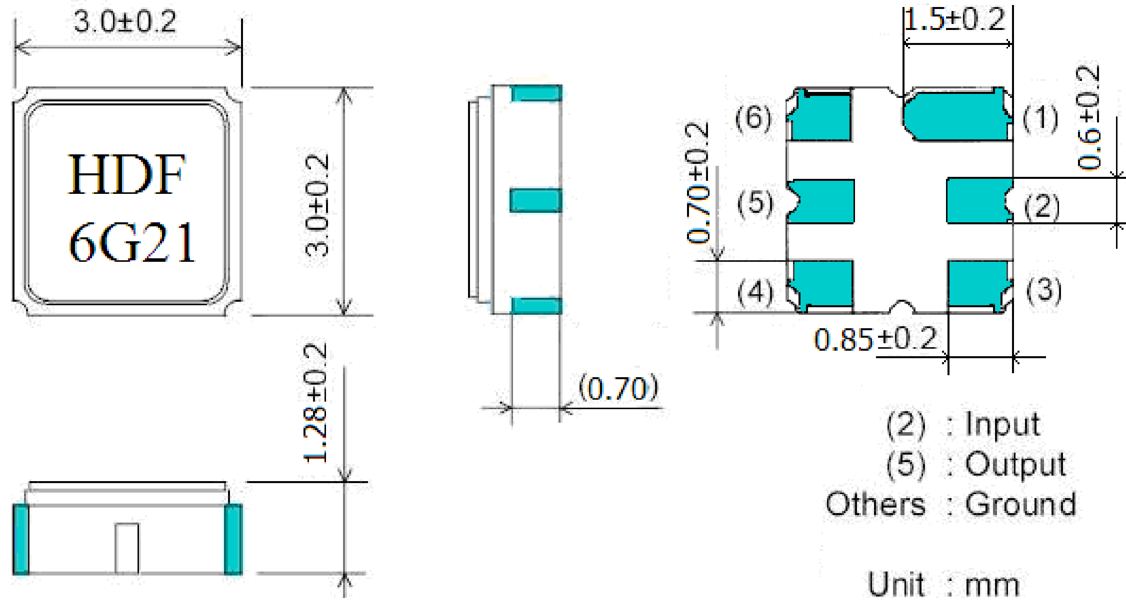
客户确认 CUSTOMER RECEIVED:		
审核 CHECKED	批准 APPROVED	日期 DATE

无锡市好达电子有限公司
Shoulder Electronics Limited

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
2013-12-13	HDF1747ES6 SP00	HDF1747E-S 6		New SPECIFICATION	

1. Package Dimension



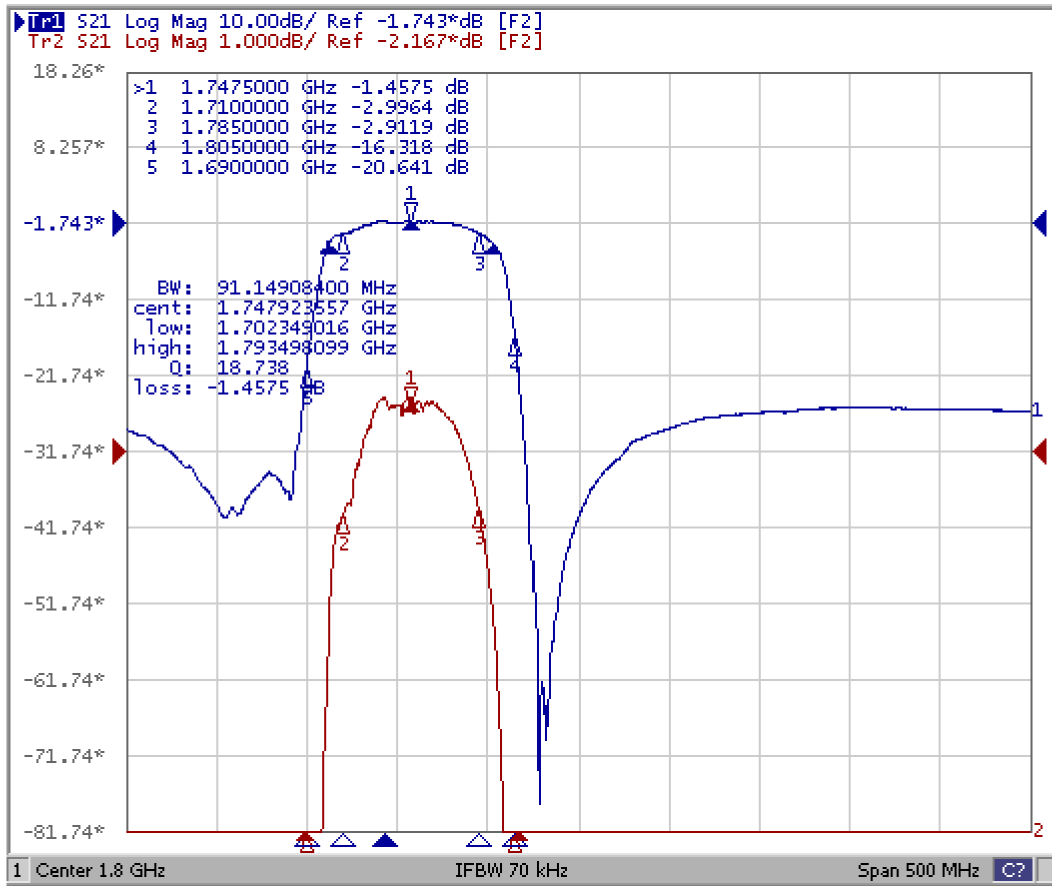
2. Performance

2.1 Maximum Rating

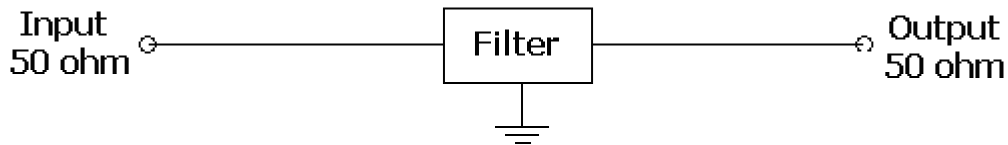
Items	Rating	unit
Maximum Working Voltage	10	V_{dc}
Maximum Working Power	10	dBm
Operating Temperature Range	-40 ~ +85	℃
Storage Temperature Range	-40 ~ +85	℃

2.2 Electronic Characteristics

	Unit	Minimum	Typical	Maximum
Center Frequency Fc	MHz	-	1747.5	-
Insertion Loss (In 1710~1785 MHz)	dB		3.0	4.5
Amplitude Ripple (In 1710~1785 MHz)	dB		1.8	2.5
Absolute Attenuation DC~1500 MHz 1500~1670 MHz 1670~1690 MHz 1805~1880 MHz 1880~2200 MHz 2200~4500 MHz 4500~5200 MHz	dB	 16 20 16 12 20 16 12	 20 24 20 16 25 20 20	-
Input/Output Impedance	Ohms		50	



3. Test Circuit



4. ENVIRONMENTAL CHARACTERISTICS

4.1 Temperature cycling

Subject the device to a low temperature of -40℃ for 30 minutes. Following by a high temperature of +25℃ for 5 Minutes and a higher temperature of +80℃ for 30 Minutes. Then release the device into the room conditions for 1 to 2 hours prior to the measurement. It shall meet the specifications in 2-2.

4.2 Resistance to solder heat（耐焊接热）

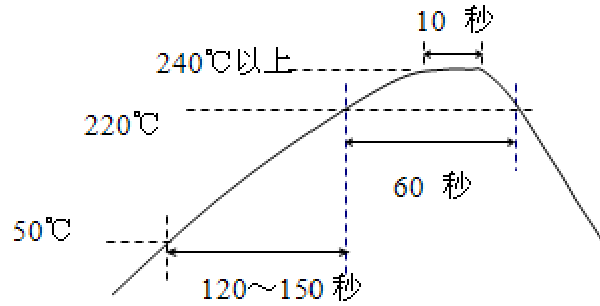
1、immerge the solder bath at 260℃ for 10 sec.（浸入 260℃焊锡槽 10 秒）

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

4.3 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%）

4.4 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.

4.5 Mechanical shock

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

4.6 Vibration

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

5. REMARK

5.1 Static voltage

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

5.2 Ultrasonic cleaning

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

5.3 Soldering

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

6. Packing

6.1 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.

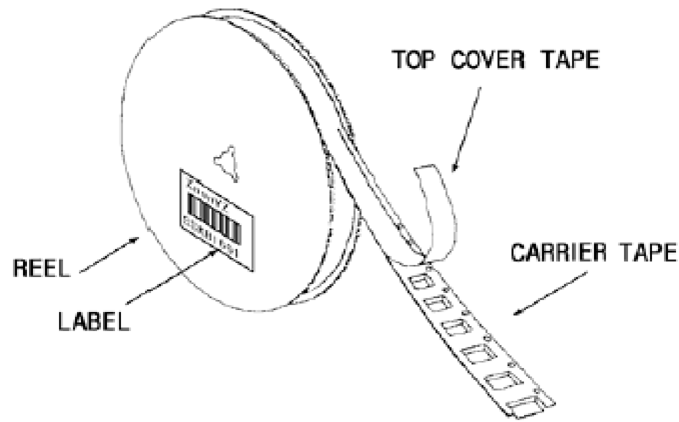
6.2 Reeling Quantity

1000 pcs/reel 7”

3000 pcs/reel 13”

6.3 Taping Structure

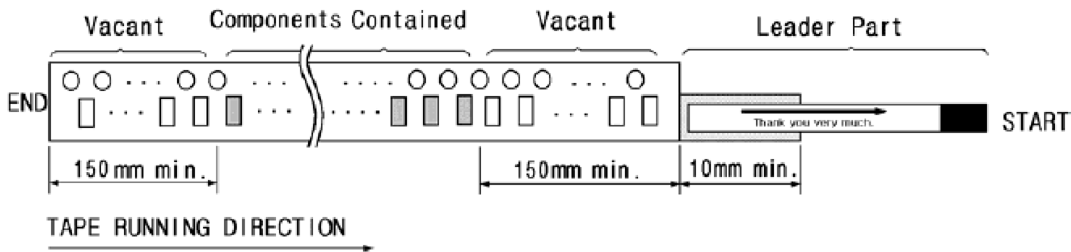
(1) The tape shall be wound around the reel in the direction shown below.



(2) Label

Device Name	
User Product Name	
Quantity	
Lot No.	

(3) Leader part and vacant position specifications.



7. TAPE SPECIFICATIONS

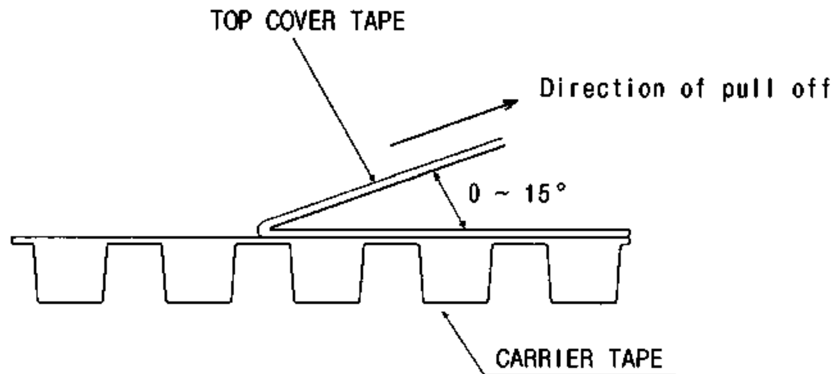
7.1 Tensile Strength of Carrier Tape: 4.4N/mm width

7.2 Top Cover Tape Adhesion (See the below figure)

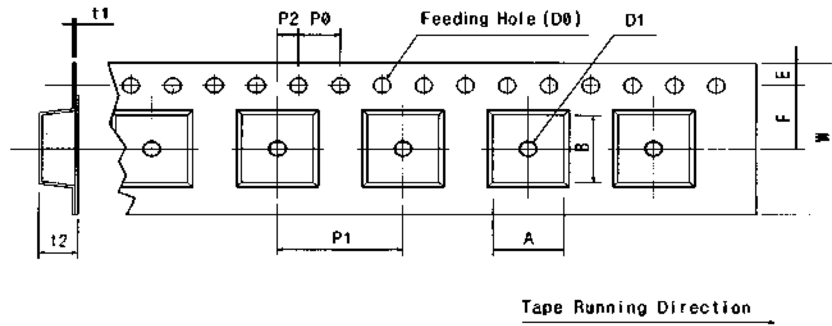
(1) pull off angle: 0~15°

(2) speed: 300mm/min.

(3) force: 20~70g



[Figure 1] Carrier Tape Dimensions

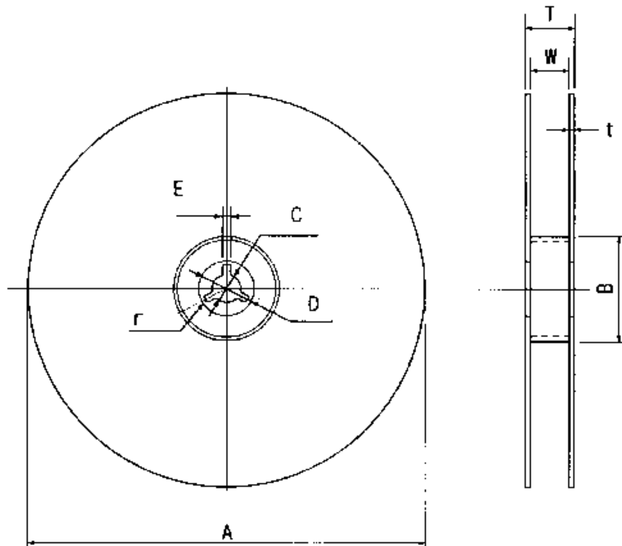


[Unit:mm]

W	F	E	P0	P1	P2	D0	D1	t1	t2	A	B
12.00 ±0.30	5.50 ±0.10	1.75 ±0.10	4.00 ±0.10	4.00 ±0.10	2.00 ±0.10	Ø1.50	Ø1.5 ±0.25	0.31 ±0.05	1.30 ±0.10	3.4 MAX.	3.4 MAX

[Figure 2]

[Unit:mm]



A	B	C	D	E	W	t	r
Ø330 ±1.0	Ø100 ±0. 5	Ø13 ±0. 5	Ø21 ±0. 8	2 ±0. 5	13 ±0. 3	3 max.	1.0 max.