

规格书编号 : HDBF09620A21SP02

SPEC NO : HDBF09620A21SP02

# 产品规格书

# SPECIFICATION

CUSTOMER 客户: \_\_\_\_\_  
PRODUCT 产品: \_\_\_\_\_ SAW FILTER \_\_\_\_\_  
MODEL NO 型号: \_\_\_\_\_ HDBF09620A21 SMD-21 \_\_\_\_\_  
PREPARED 编制: 俞虹 CHECKED 审核: 邓攀  
APPROVED 批准: 倪山林 DATE 日期: 2009-03-30

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
2009.03.27	HDBF09620A 21SP01	HDBF09620A 21			Ver.01
2009.03.30	HDBF09620A 21SP02	HDBF09620A 21		更改匹配电路, 更新测 试图	Ver.02

## 1. SCOPE

This specification shall cover the characteristics of SAW filter with HDBF09620A21 used for the page system.

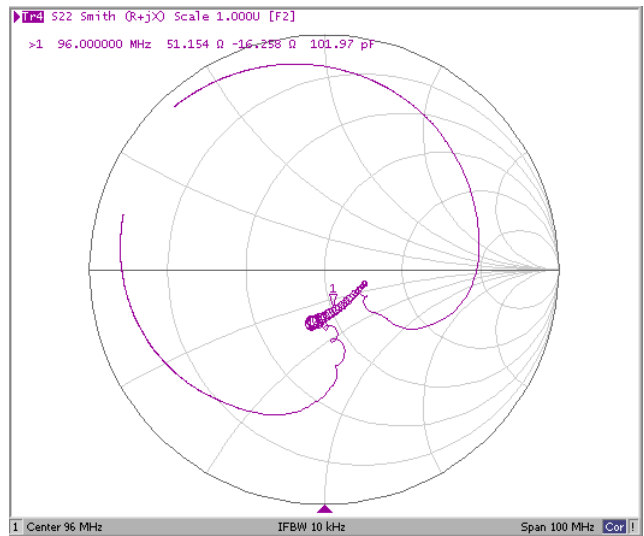
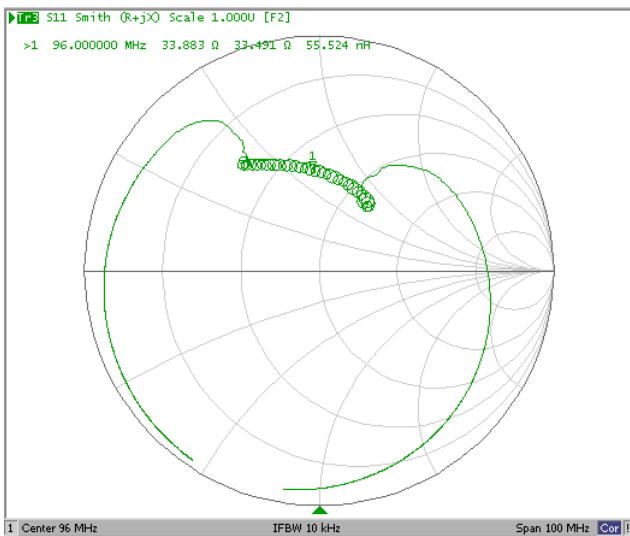
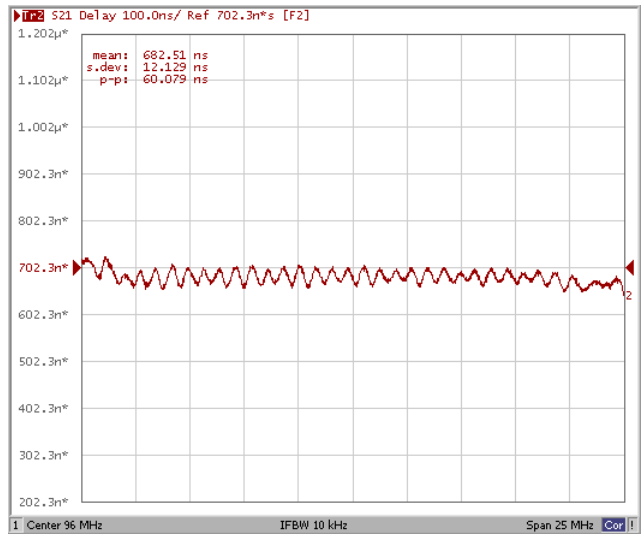
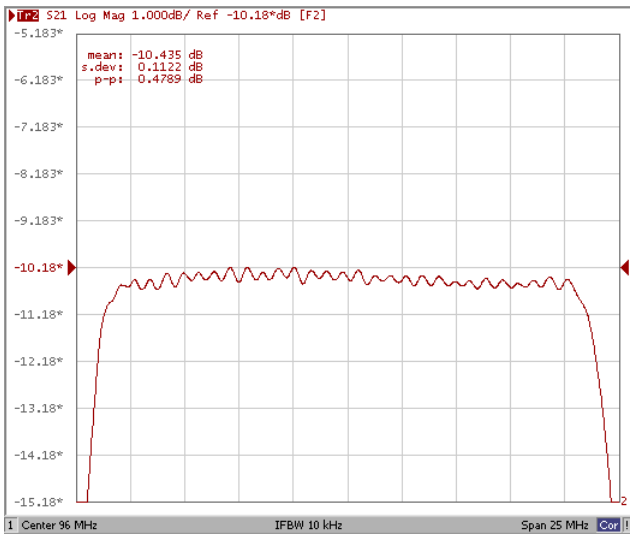
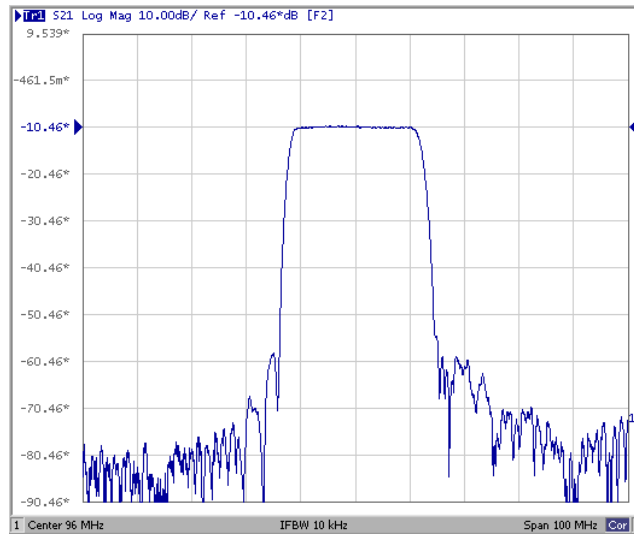
## 2. ELECTRICAL SPECIFICATION

Max.DC voltage between any 2 terminals	30VDC
Storage temperature range	-40°C to +85°C
Operation temperature range	-40°C to +85°C
Maximum Input Power	10dBm

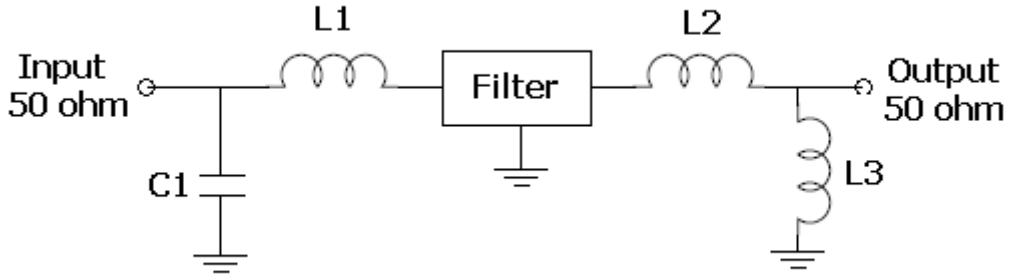
### Electronic Characteristics

Item	Requirement			Unit
	Min.	Typical.	Max.	
Nominal center Frequency	-	96	-	MHz
Insertion loss (86.0MHz~106.0MHz)	-	9.5	12	dB
-1dB Bandwidth	-	22.0	-	MHz
-40dB Bandwidth	-	28.3	-	MHz
Relative attenuation				dB
0MHz ~68.4MHz	51	60	-	
76.8MHz	40	50	-	
123.6MHz~162.8MHz	56	63	-	
162.8MHz~1000MHz	35	45	-	
Amplitude ripple (86.0MHz~106.0MHz)		0.65	1.2	dB
Group delay ripple (86.0MHz~106.0MHz)		60	100	ns
Input IP3	35	45		dBm
VSWR		3		
Temperature Coefficient			-86	ppm/°C

Typical frequency response

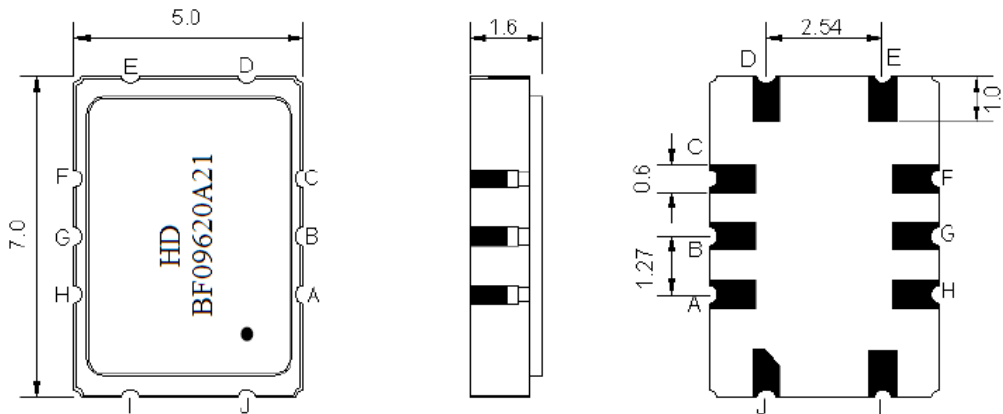


**3. TEST CIRCUIT**



Input : L1 = 82 nH , C1 = 39 pF  
 Output : L2 = 27 nH , L3 = 56 nH

**4. DIMENSION**



- ① HD : Brand
- ② BF09620A21 : Model Name
- Index Dot

Pin Description	
A,B,C,F,G,H	Ground
I	Input
J	Ground
D	Output
E	Ground

## 5. ENVIRONMENTAL CHARACTERISTICS

### 5-1 Temperature cycling

Subject the device to a low temperature of  $-40^{\circ}\text{C}$  for 30 minutes. Following by a high temperature of  $+25^{\circ}\text{C}$  for 5 Minutes and a higher temperature of  $+85^{\circ}\text{C}$  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 table 1.

### 5-2 Resistance to solder heat

Submerge the device terminals into the solder bath at  $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$  for  $10 \pm 1$  sec. Then release the device into the room conditions for 4 hours. It shall meet the specifications in table 1.

### 5-3 Solderability

Submerge the device terminals into the solder bath at  $245^{\circ}\text{C} \pm 5^{\circ}\text{C}$  for 5s, More than 95% area of the soldering pad must be covered with new solder. It shall meet the specifications in table 1.

### 5-4 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 table 1.

### 5-5 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 table 1.

## 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 soldered. Please avoid soldering another part of component.

## 7. Packing

### 7.1 Dimensions

(1) Carrier Tape: Figure 1

(2) Reel: Figure 2

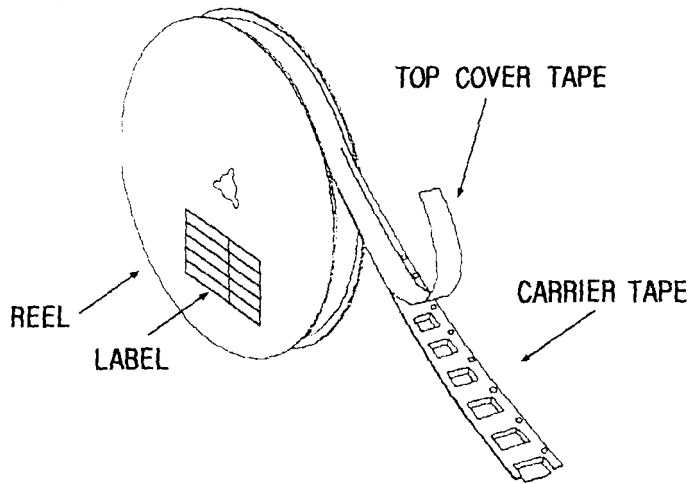
(3) The product shall be packed properly not to be damaged during transportation and storage.

7.2 Reeling Quantity

- 1000 pcs/reel 7"
- 3000 pcs/reel 13"

7.3 Taping Structure

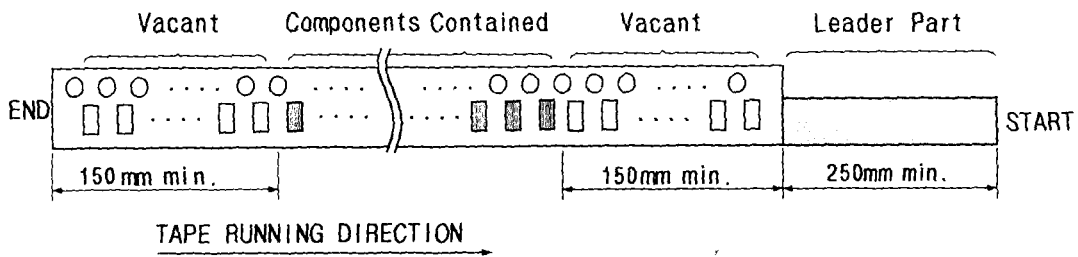
(1) The tape shall be wound around the reel in the direction shown below.



(2) Label

Device Name	
User Product Name	
Quantity	
Lot No.	

(3) Leader part and vacant position specifications.

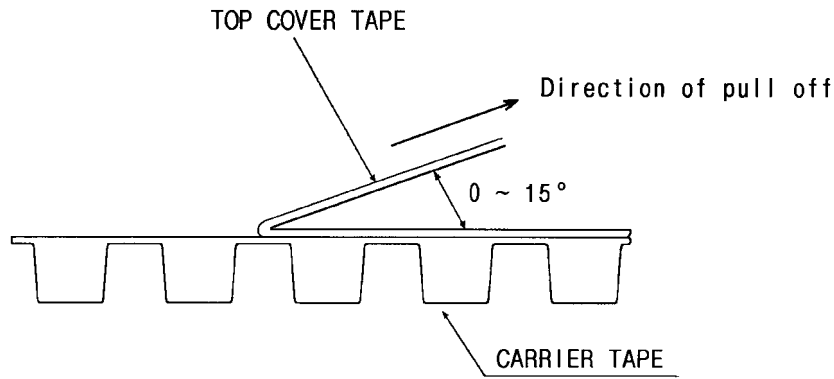


## 8. TAPE SPECIFICATIONS

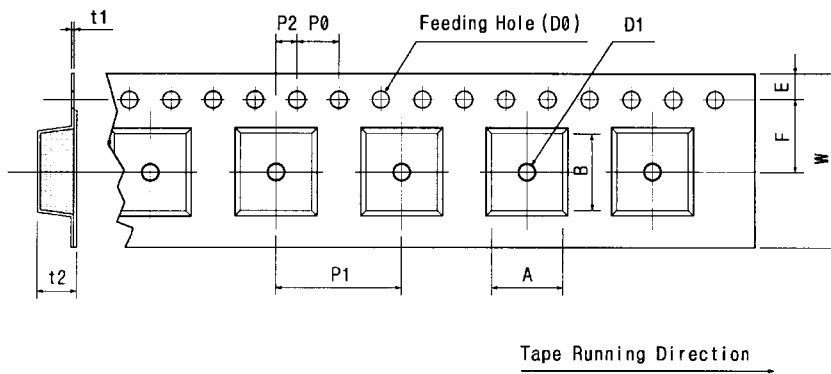
8.1 Tensile Strength of Carrier Tape: 4.4N/mm width

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



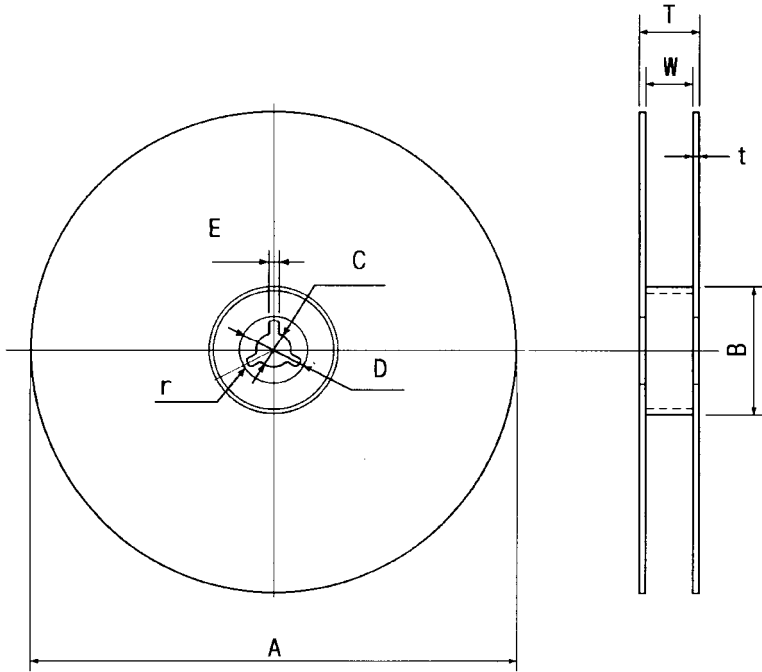
[Unit:mm]

W	F	E	P0	P1	P2	D0	D1	t1	t2	A	B
12.00	7.50	1.75	4.00	8.00	2.00	Ø1.50	Ø1.5	0.25	2.20	5.30	7.30
±0.30	±0.10	±0.10	±0.10	±0.10	±0.10		±0.25	±0.05	±0.10	±0.10	±0.10



[Figure 2]

[Unit:mm]



A	B	C	D	E	W	t	r
Ø330	Ø100	Ø13	Ø21	2	16.8	3	1.0
±1.0	±0.5	±0.5	±0.8	±0.5	±0.3	max.	max.