

规格书编号

SPEC NO :

# 产品规格书

# SPECIFICATION

CUSTOMER 客 户 : \_\_\_\_\_

PRODUCT 产 品 : \_\_\_\_\_ SAW FILTER

MODEL NO 型 号 : \_\_\_\_\_ HDF420M F11

PREPARED 编 制 : \_\_\_\_\_ CHECKED 审 核 : \_\_\_\_\_

APPROVED 批 准 : \_\_\_\_\_ D A T E 日 期 : \_\_\_\_\_ 2006-5-11

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

无锡市好达电子股份有限公司

Shoulder Electronics Limited



## History Record

Page 3 of 8

## 1.SCOPE

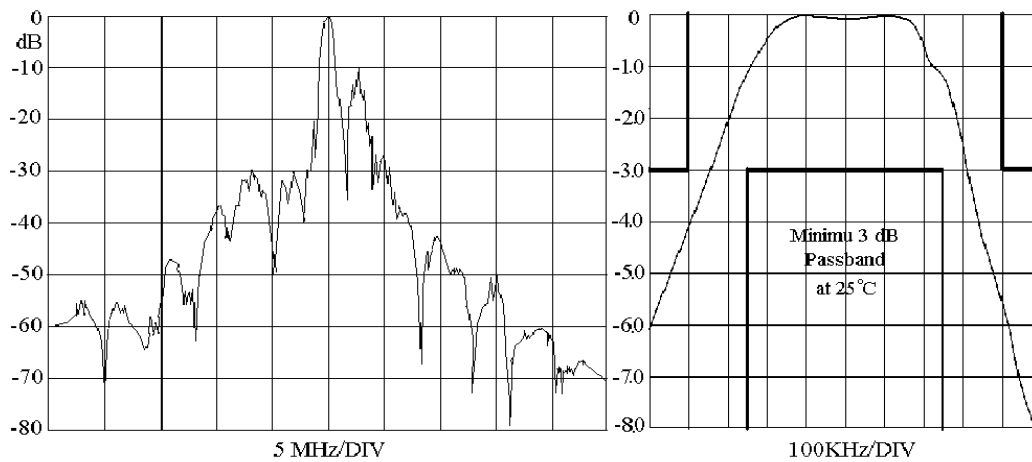
This specification shall cover the characteristics of SAW filter With 420MHz used for remote-control security.

## 2. ELECTRICAL SPECIFICATION

DC Voltage VDC	10V
AC Voltage Vpp	10V50Hz/60Hz
Storage temperature	-45°C to +85°C
RF Power Dissipation	0dBm

### Electronic Characteristics

#### 2-1.Type frequency response



#### 2-2.Electrical characteristics

Characteristics		Sym	Notes	Min.	Typical	Max.	Units
Center Frequency	Absolute Frequency	Fc	1.2	419.850	420.000	420.150	M Hz
	tolerance from Nominal	$\Delta f_c$				$\pm 150$	KHz
Insertion Loss		IL	1		1.7	3.0	dB
3dB Bandwidth		BW <sub>3</sub>	1.2	500	700	800	KHz
Rejection	At fo-21.4MHz (Image)		1	40	50		dB
	At fo-10.7 MHz (LO)			16	40		
	Ultimate				80		
Temperature characteristics	Operating case temp.	Tc	3.4	-35		+85	°C
	Turnover temp.	To		22	37	62	°C
	Turnover Frequency	fo			fc		MHz
Freq.temp.coefficient		FTC			0.032		ppm/°C

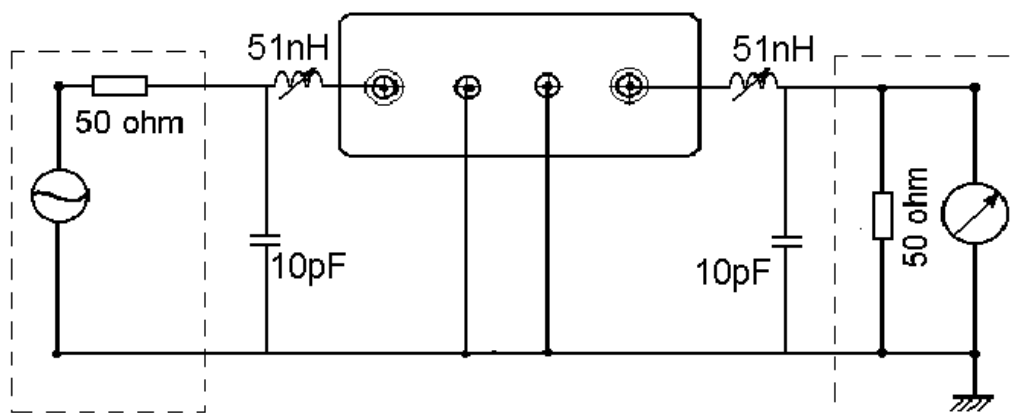
Frequency aging

5

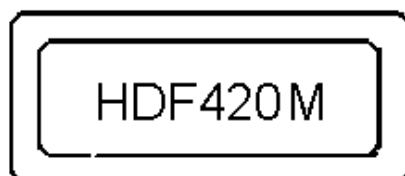
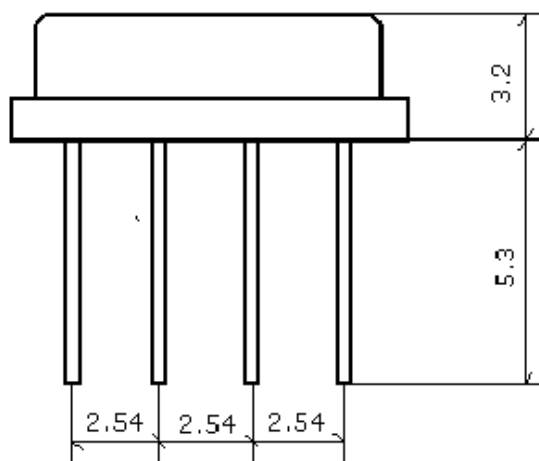
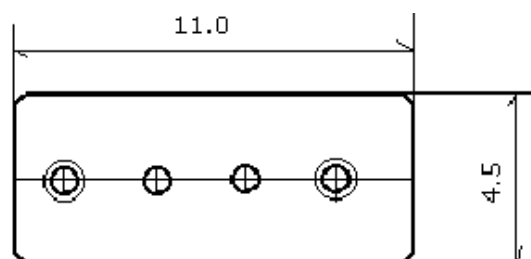
< $\pm 10$ 

ppm/y

### 3. TEST CIRCUIT



### 4. DIMENSION



## **5. ENVIRONMENTAL CHARACTERISTICS**

### **5-1 High temperature exposure**

Subject the device to +85°C for 16 hours. Then release the filter into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in table 1.

### **5-2 Low temperature exposure**

Subject the device to -20°C for 16 hours. Then release the device into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in table 1.

### **5-3 Temperature cycling**

Subject the device to a low temperature of -40°C for 30 minutes. Following by a high temperature of +80°C for 30 Minutes. Then release the device into the room conditions for 24 hours prior to the measurement. It shall meet the specifications in table 1.

### **5-4 Resistance to solder heat**

Dip the device terminals no closer than 1.5mm into the solder bath at 260°C  $\pm 10^\circ\text{C}$  for  $10 \pm 1$  sec. Then release the device into the room conditions for 4 hours. The device shall meet the specifications in table 1.

### **5-5 Solderability**

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

### **5-6 Mechanical shock**

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

### **5-7 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 table 1.

### **5-8 Lead fatigue**

#### **5-8-1 Pulling test**

Weight along with the direction of lead without an shock 1kg. The device shall satisfy all the initial Characteristics.

#### **5-8-2 Bending test**

Lead shall be subject to withstand against 90°C bending with 450g weight in the direction of thickness. This operation shall be done toward both direction. The device shall show no evidence of damage and shall satisfy all the initial electrical characteristics.

## **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.