

CUSTOMER 客户:

规格书编号

**SPEC NO:** 

# 产品规格书 SPECIFICATION

| _                       |                |           |  |  |  |  |  |  |
|-------------------------|----------------|-----------|--|--|--|--|--|--|
| PRODUCT 产品:_            | SAW RESONATOR  |           |  |  |  |  |  |  |
| MODEL NO 型 号:_          | HDR857.65M S3B |           |  |  |  |  |  |  |
| PREPARED 编 制: _         | CHECKED 审 核:   | :         |  |  |  |  |  |  |
| APPROVED 批准:_           | D A T E 日 期:   | 2012-7-18 |  |  |  |  |  |  |
| 客户确认 CUSTOMER RECEIVED: |                |           |  |  |  |  |  |  |
| 审核 CHECKED              | 批准 APPROVED    | 日期 DATE   |  |  |  |  |  |  |
|                         |                |           |  |  |  |  |  |  |
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## 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<br>Date | 规格书编号<br>Spec. No. | 产品型号<br>Part No. | 客户产品型号<br>Customer No. | 更改内容描述<br>Modify Content | 备注<br>Remark |
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### 1. SCOPE

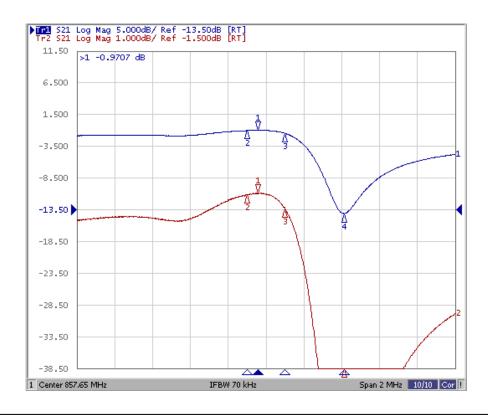
This specification shall cover the characteristics of 1-port SAW resonator with 857.65M used for remote-control security.

#### 2. ELECTRICAL SPECIFICATION

| DC Voltage VDC        | 10V            |  |  |
|-----------------------|----------------|--|--|
| AC Voltage Vpp        | 10V50Hz/60Hz   |  |  |
| Operation temperature | -40°C to +85°C |  |  |
| Storage temperature   | -45°C to +85°C |  |  |
| RF Power Dissipation  | 0dBm           |  |  |

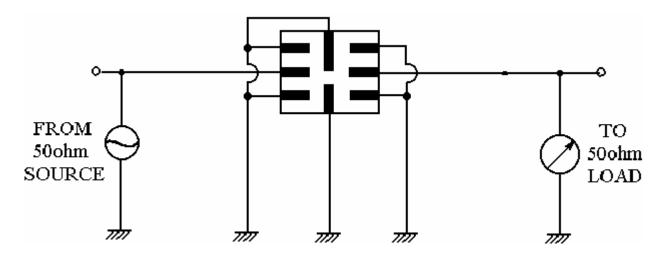
#### 2.2 Electronic Characteristics

| Item                          |                       | Unites              | Minimum | Typical | Maximum |
|-------------------------------|-----------------------|---------------------|---------|---------|---------|
| Center Frequency              |                       | MHz                 | 857.400 | 857.650 | 857.900 |
| Insertion Loss                |                       | dB                  |         | 1.5     | 3.5     |
| Quality Factor Unload Q       |                       |                     | 5000    | 10000   |         |
| 50 Ω Loaded Q                 |                       |                     | 1000    | 2000    |         |
| Temperature                   | Turnover Temperature  | $^{\circ}$          |         | 39      |         |
| Stability                     | Freq.temp.Coefficient | ppm/°C2             |         | 0.037   |         |
| Frequency Aging               |                       | ppm/yr              |         | <±10    |         |
| DC. Insulation Resistance     |                       | $\mathbf{M} \Omega$ | 1.0     |         |         |
| Transducer Static Capacitance |                       | pF                  |         | 1.8     |         |

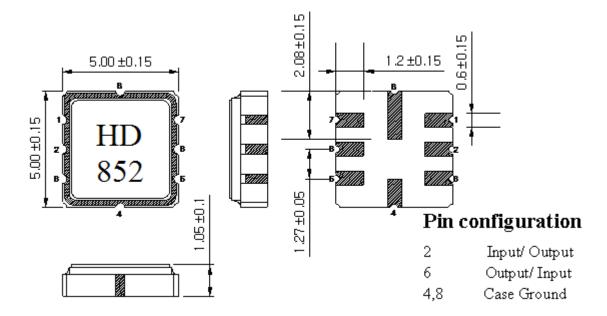




#### 3. TEST CIRCUIT



#### 4. DIMENSION



#### 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 2.2.

#### 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 2.2.

#### 5-3 Solderability



### **SAW RESONATOR**

#### HDR857.65M S3B

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 2.2.

#### 5-4 Mechanical shock

Drop the device randomly onto the concrete floor from the height of 1 m 3 times. the resonator shall fulfill the specifications in 2.2.

#### 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 resonator shall fulfill the specifications in 2.2.

#### 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.