

规格书编号

SPEC NO :

# 产品规格书

# SPECIFICATION

CUSTOMER 客户: \_\_\_\_\_  
PRODUCT 产品: \_\_\_\_\_ SAW RESONATOR \_\_\_\_\_  
MODEL NO 型号: \_\_\_\_\_ HDR318M-D11 \_\_\_\_\_  
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

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



## 1. SCOPE

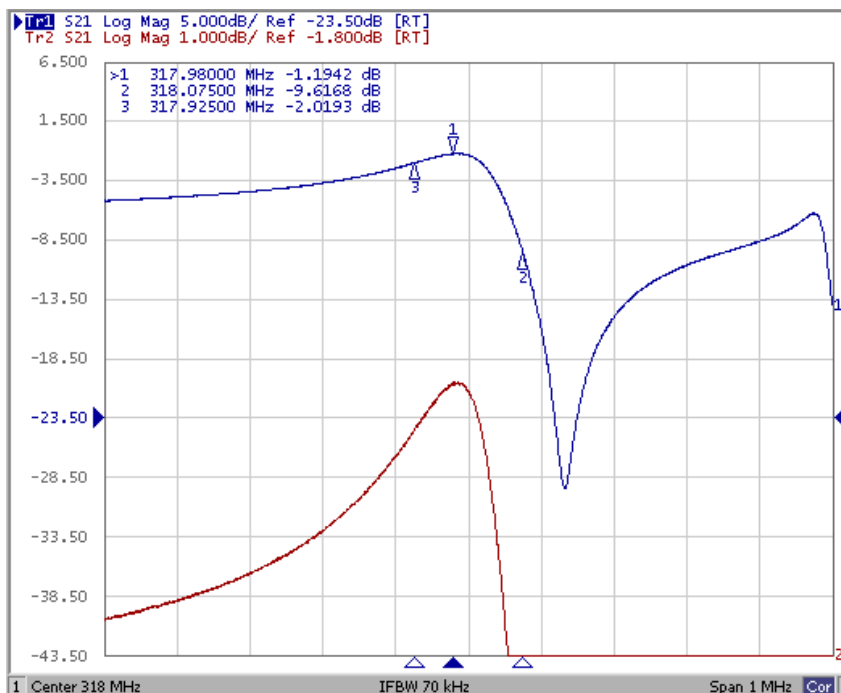
This specification shall cover the characteristics of 1-port SAW resonator with 318M used for remote-control security.

## 2. ELECTRICAL SPECIFICATION

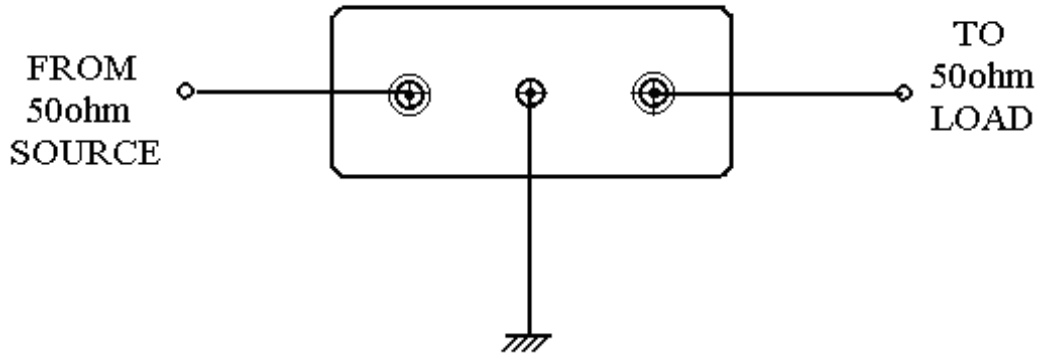
DC Voltage VDC	10V
AC Voltage Vpp	10V50Hz/60Hz
Operation temperature	-40°C to +85°C
Storage temperature	-45°C to +85°C
RF Power Dissipation	0dBm

### 2.2 Electronic Characteristics

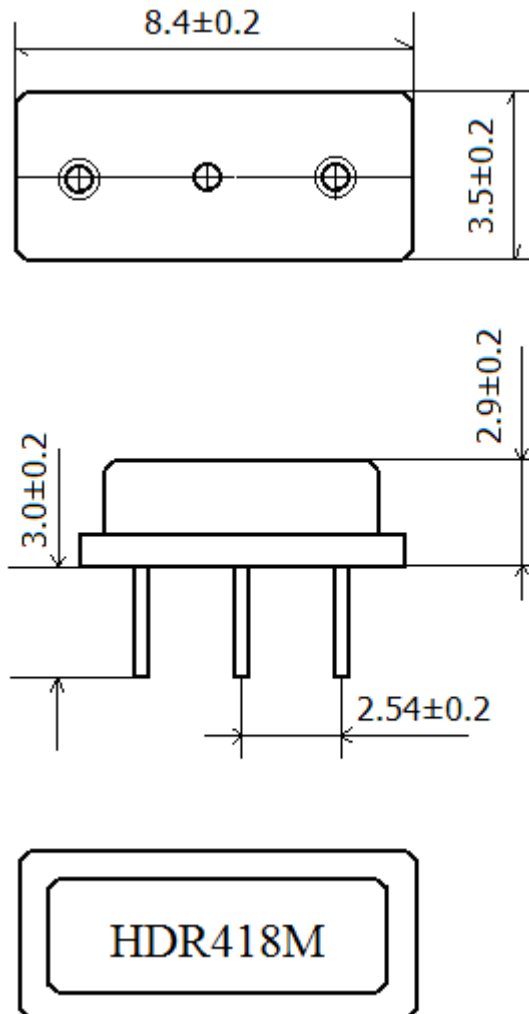
Item	Unites	Minimum	Typical	Maximum
Center Frequency	MHz	317.925	318.000	318.075
Insertion Loss	dB		1.6	2.2
Quality Factor	Unload Q	8000	12800	
	50Ω Loaded Q	1000	1500	
Temperature Stability	Turnover Temperature	°C	10	25
	Freq.temp.Coefficient	ppm/°C		0.032
Frequency Aging	ppm/yr		<±10	
DC. Insulation Resistance	MΩ	1.0		
RF Equivalent RLC Model	Motional Resistance R1	Ω	20	26
	Motional Inductance L1	μH	160.55	
	Motional Capacitance C1	fF	1.56	
Transducer Static Capacitance C0	pF		2.0	



### 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

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.