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： HDR299M-F11

PREPARED 编 制： CHECKED 审 核：

APPROVED 批 准： DATE 日 期： 2017-03-03

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

1. SCOPE

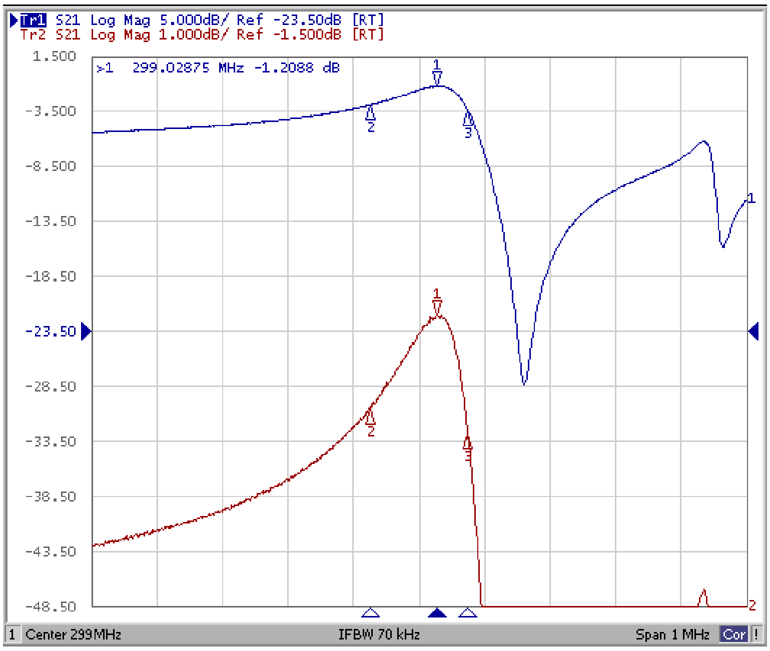
This specification shall cover the characteristics of 1-port SAW resonator with used for remote-control security.

2. ELECTRICAL SPECIFICATION

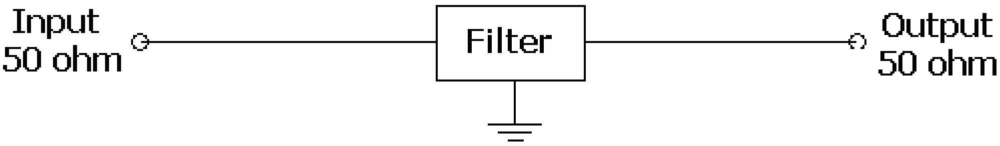
DC Voltage VDC	10V
AC Voltage Vpp	10V50Hz/60Hz
Operation temperature	-40℃ to +85℃
Storage temperature	-45℃ to +85℃
RF Power Dissipation	0dBm

2.2Electronic Characteristics

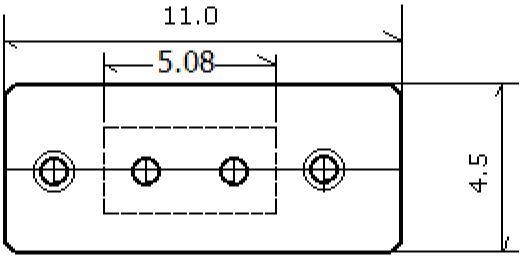
Item		Unites	Minimum	Typical	Maximum
Center Frequency		MHz	298.925	299.000	299.075
Insertion Loss		dB		1.5	2.2
Quality Factor Unload Q			8000	12800	
50Ω Loaded Q			850	1500	
Temperature Stability	Turnover Temperature	℃	10	25	40
	Freq.temp.Coefficient	ppm/℃2		0.032	
Frequency Aging		ppm/yr		≤±10	
DC. Insulation Resistance		MΩ	1.0		
RF Equivalent RLC Model	Motional Resistance R1	Ω		21	
	Motional Inductance L1	μ H		174.83	
	Motional Capacitance C1	fF		1.6163	
Transducer Static Capacitance		pF		2.0	

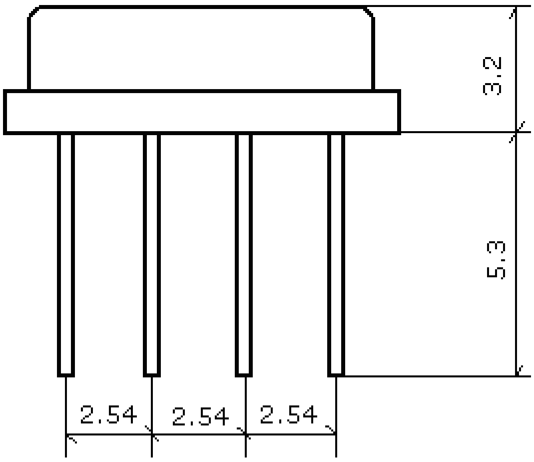


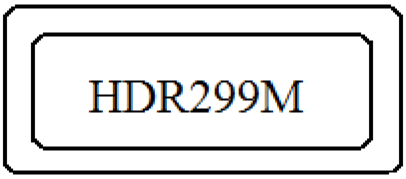
3. TEST CIRCUIT



4. DIMENSION







5. ENVIRONMENTAL CHARACTERISTICS

5-1 High temperature exposure

Subject the device to +85℃ for 16 hours. Then release the resonator into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in 2.2.

5-2 Low temperature exposure

Subject the device to -40℃ for 16 hours. Then release the device into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in 2.2.

5-3 Temperature cycling

Subject the device to a low temperature of -40℃ for 30 minutes. Following by a high temperature of +85℃ for 30 Minutes. Then release the device into the room conditions for 24 hours prior to the measurement. It shall meet the specifications in 2.2.

5-4 Resistance to solder heat

Dip the device terminals no closer than 1.5mm into the solder bath at 260℃±10℃ for 10±1 sec. Then release the device into the room conditions for 4 hours. The device shall meet the specifications in 2.2.

5-5 Solderability

Subject the device terminals into the solder bath at 245℃±5℃ for 5s, More than 95% area of the terminals must be covered with new solder. It shall meet the specifications in 2.2.

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 2.2.

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 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.