CUSTOMER：	
DESCRIPTION：	**SAW RESONATOR** **SMD3.8*3.8 433.92MHz**
MANUFACTURER PART NO.:	**FTR433.92M75-SM38-FI**
CUSTOMER PART NO:	
USED IN MODEL:	

1. Scope：

This specification shall cover the characteristics of 1-port SAW resonator with R433.92M used for remote-control security.

2. Electrical Specification：

2.1 Maximum Rating

DC Voltage VDC	10V
AC Voltage Vpp	10V 50Hz/60Hz
Operation temperature	-40℃ to +85℃
Storage temperature	-45℃ to +85℃
Max Input Power	0dBm

2.2 Electronic Characteristics

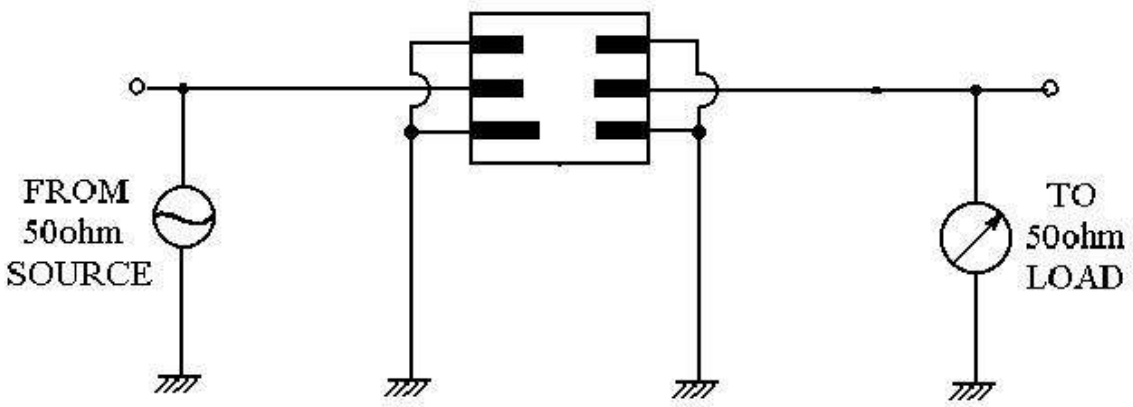
Test Temperature: 25℃±2℃

Terminating source impedance: 50Ω

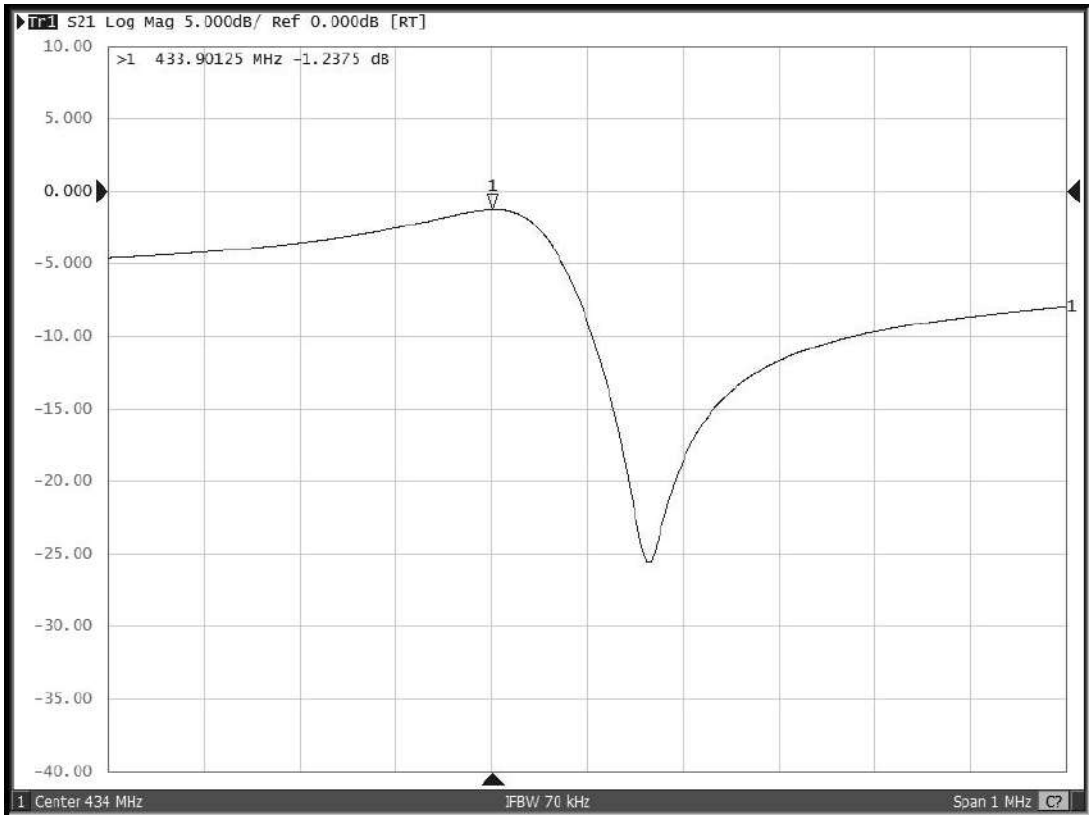
Terminating load impedance: 50Ω

Item			Minimum	Typical	Maximum	Unit
Center Frequency	Absolute Frequency	f_c	433.845	433.920	433.995	MHz
	Tolerance from 433.920MHz	$\triangle f_c$		±75		KHz
Insertion Loss		IL		1.5	2.5	dB
Quality Factor	Unloaded Q	Q_U	1000	5000		
	50Ω Loaded Q	Q_L	500	1000		
Temperature Stability	Turnover Temperature	T_0	10	25	40	℃
	Frequency Temperature Coefficient	FTC		0.032		ppm/℃
Frequency Aging	Absolute Value during the First Year	$\|f_A\|$		≤±10		ppm/yr
DC Insulation Resistance			1.0			MΩ
RF Equivalent RLC Model	Motional Resistance	R_M		20	26	Ω
	Motional Inductance	L_M		65.605		μH
	Motional Capacitance	C_M		2.0504		fF
Transducer Static Capacitance		C		2.8		pF

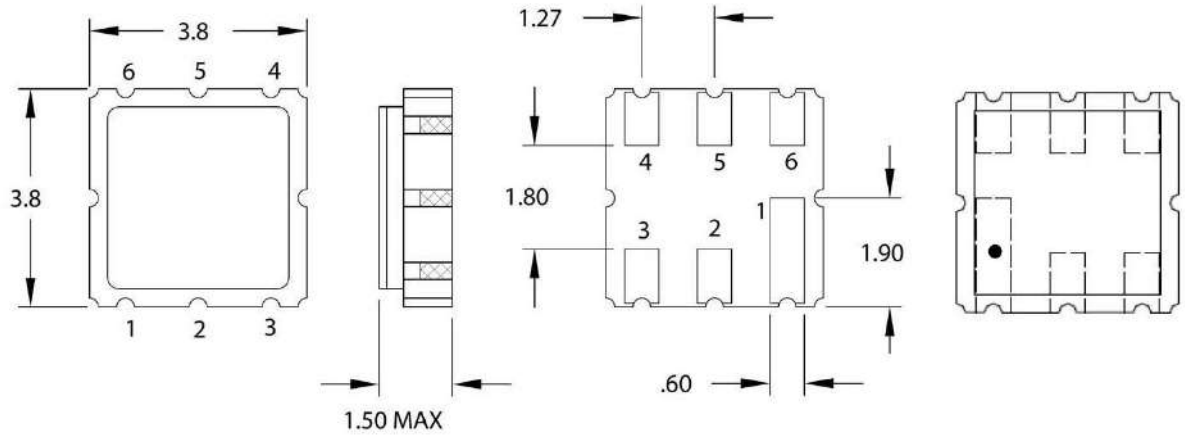
3. Test Circuit：



4. Frequency Response：



5. Dimension：

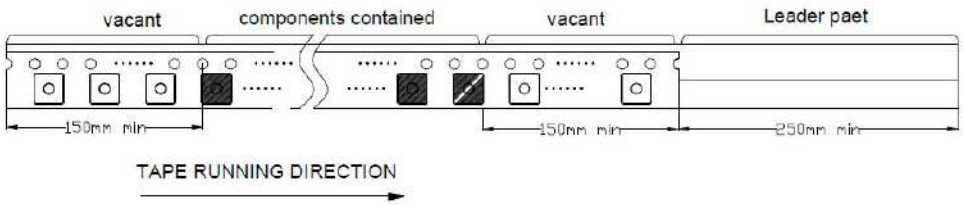


Pin Configuration

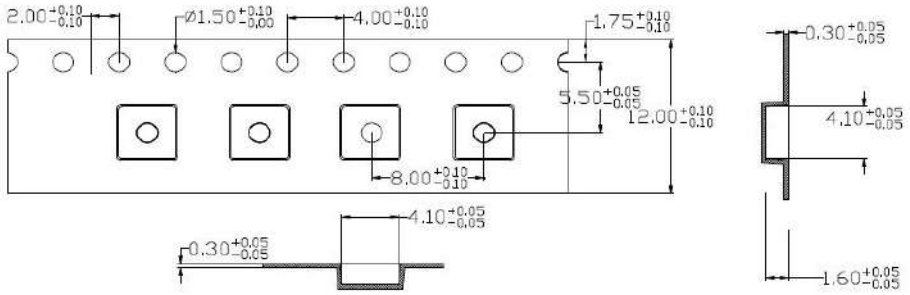
2	Input
5	Output
1, 3, 4, 6	To Be Ground

Packing Information

Carrier Tape

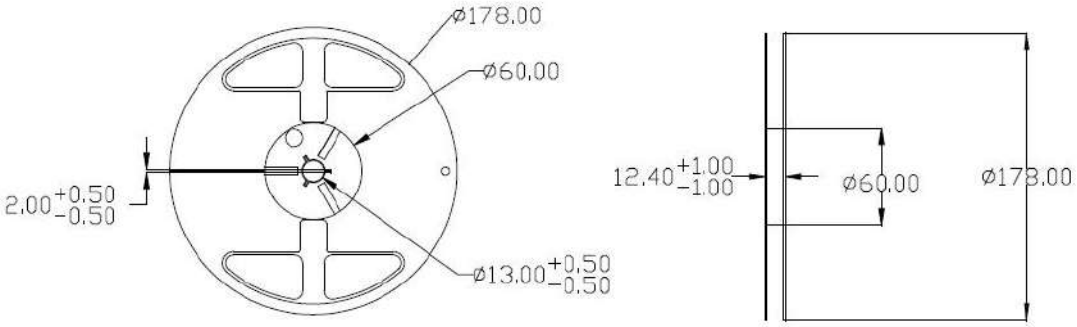


Unit: mm

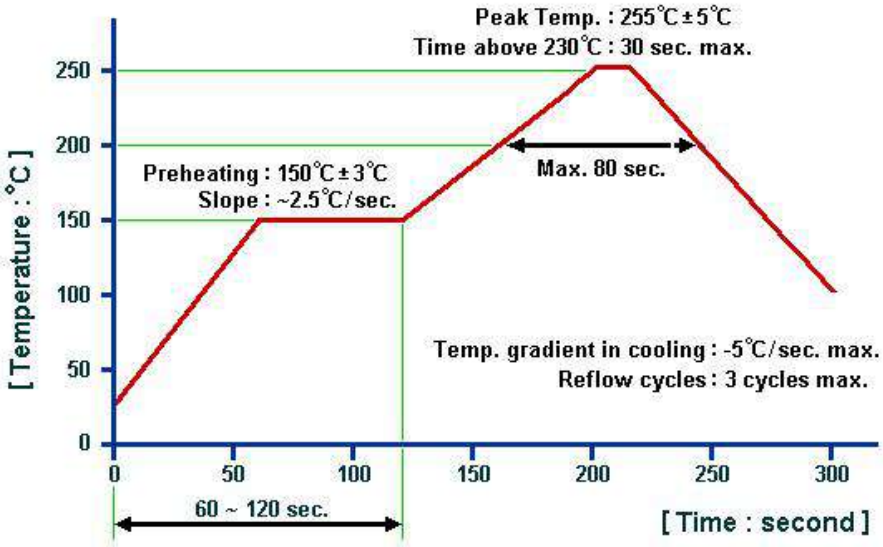


Unit: mm

Reel Dimensions



Recommended Soldering Profile



6. Environment Characteristic：

5-1 High temperature exposure

Subject the device to +85℃ for 16 hours. Then release the filter 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.