



**TECHNICAL CRYSTAL LIMITED**

**德力高石英有限公司**

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## Specification for SAW Resonator (TO39) 433.92MHz (1-Port)

To: UNION INSTRUMENTS CO., LTD.

Attn: Mr. TSUI

From: Mr. Ivan Wei

Date: 03-12-2003

SPEC #: 433M92

### 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°C to +85°C
Storage temperature	-45°C to +85°C
RF Power Dissipation	0dBm

#### Electronic Characteristics

Item		Unites	Minimum	Typical	Maximum
Center Frequency		MHz	433.690	433.920	434.150
Insertion Loss		dB		1.5	2.5
Quality Factor Unload Q				12,800	
50Ω Loaded Q				2,000	
Temperature Stability	Turnover Temperature	°C		39	
	Turnover Frequency	MHz		433.92	
	Freq.temp.Coefficient	ppm/°C 2		0.037	
Frequency Aging		ppm/yr		<± 10	
DC. Insulation Resistance		MΩ	1.0		
RF Equivalent RLC Model	Motional Resistance	Ω		18	26
	Motional Inductance	μ H		86	
	Motional Capacitance	pF		1.5	
Pin 1 to Pin 2 Static Capacitance		pF	1.7	2.0	2.3
Transducer Static Capacitance		pF		1.9	