

深圳市炬烜科技有限公司

CHIP SUN TECHNOLOGY CO., LTD

APPROVAL SHEET



CUSTOMER:

DESCRIPTION:

SMD5035 433.920MHz SAW Resonator

MANUFACTURER PART NO.:

FTR433.92M75-SM53

CUSTOMER PART NO:

USED IN MODEL:

REVISION

A1

承 认 APPROVAL		
工程部 TECHNOLOGY DEPT.	品质部 QUALITY DEPT.	采购部 PURCHASING DEPT.

Date: 三月 24, 2023



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Longhua New District, Shenzhen, China

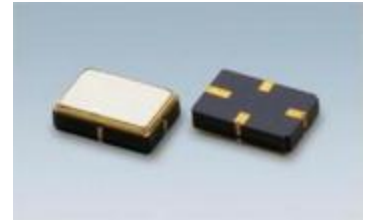
电话TEL: 86-755-83458796 传真FAX: 86-755-83459818

网址WEB ADD: <http://www.chinachipsun.com>

E-MAIL: sales01@chinachipsun.com

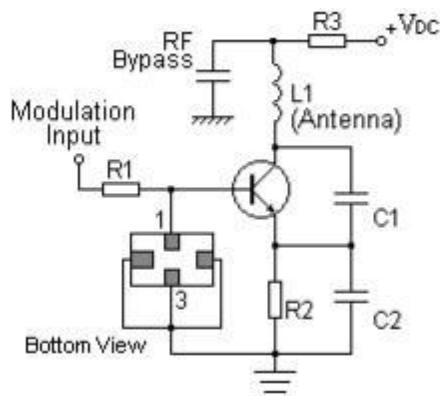
Features

- Ceramic Package for **Surface Mounted Technology (SMT)**
- **RoHS** compatible
- Package size 5.00x3.50x1.50mm³
- Package Code QCC4A

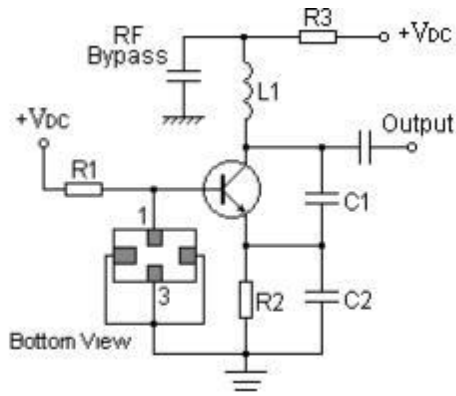


Application

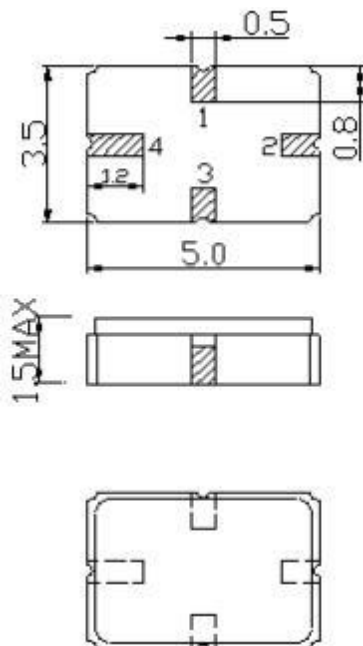
Typical Low-Power Transmitter Application



Typical Local Oscillator Application



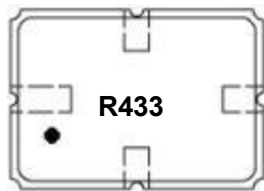
Package Dimensions (QCC4A)



Pin Configuration

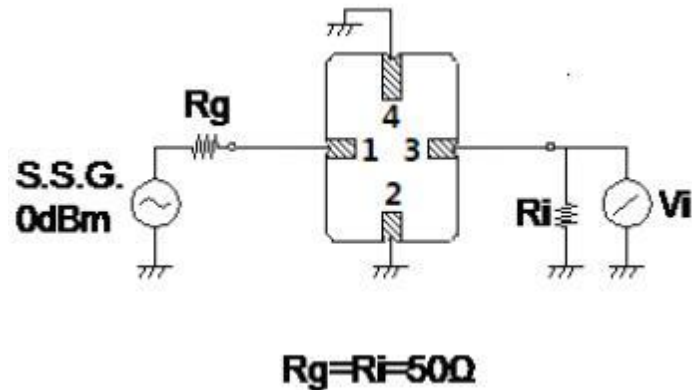
Pin No.	Description
1	Input/Output
3	Output/Input
2,4	Case Ground

Marking Description

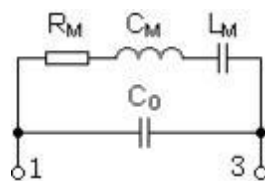


●	Pin 4
R	SAW Resonator
433	Part Number

Test Circuit



Equivalent LC Model



Performance

Maximum Rating

Item		Value	Unit
DC Voltage	V_{DC}	± 30	V
Operation Temperature	T	-40 ~ +85	°C
Storage Temperature	T_{stg}	-40 ~ +85	°C
RF Power Dissipation	P	15	dBm

Electronic Characteristics

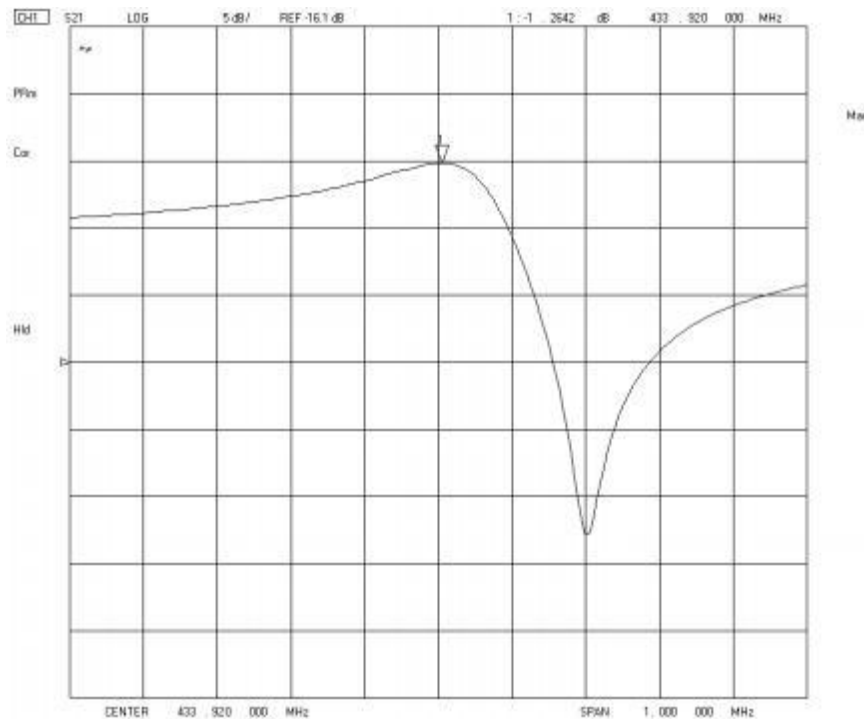
Test Temperature: 25°C±2°C

Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

Item			Minimum	Typical	Maximum	Unit
Center Frequency	Absolute Frequency	f_c		433.92		MHz
	Tolerance from 433.92MHz	Δf_c		±75		KHz
Insertion Loss(min)		IL		1.3	1.8	dB
Quality Factor	Unloaded Q	Q_U		15174		
	50Ω Loaded Q	Q_L		1771		
Frequency Aging	Absolute Value during the First Year	$ f_A $		≤10		ppm/yr
DC Insulation Resistance between Any Two Pins			1.0			MΩ
RF Equivalent RLC Model	Motional Resistance	R_M		13.0	22.0	Ω
	Motional Inductance	L_M		73.6		μH
	Motional Capacitance	C_M		1.83		fE
	Static Capacitance	C_0	2.1	2.4	2.7	bE

Frequency Response



Notes

1. As a result of the particularity of inner structure of SAW products, it easy to be breakdown by electrostatic, so we should pay attention to **ESD protect** in the test.
2. **Static voltage** between signal load and ground may cause deterioration and destruction of the component. Please avoid static voltage.
3. **Ultrasonic cleaning** may cause deterioration and destruction of the component. Please avoid ultrasonic cleaning.
4. Only leads of component may **be soldered**. Please avoid soldering another part of component.
5. There is a close relationship between the device's performance and **matching network**. The specifications of this device are based on the test circuit shown above. L and C values may change depending on board layout. Values shown are intended as a guide only.