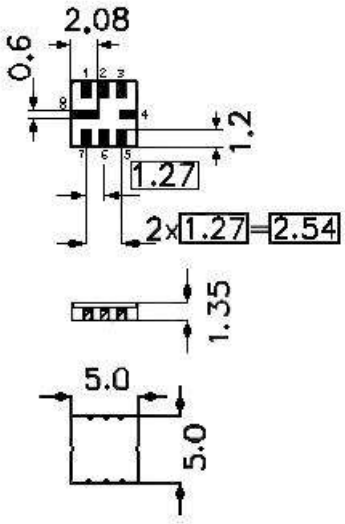
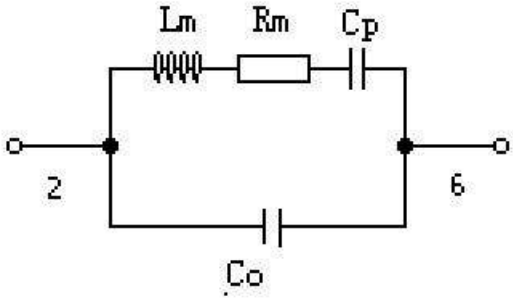
1.Package

Ceramic package QCC8C Dimensions in mm, approx.weight 0.1g



Pin configuration

2 input
6 output
4,8 Ground(case)



2.Marking

Rugular

2.1.Center Frequency (MHz): 433.92

3.Performance

3.1 Absolute Maximum Ratings

Rating	Value	Units
CW RF Power	+0	dBm
DC Voltage between	±30	VDC
Case Temperature	-35 to +85	¢ J

3.2Electrical Characteristics

Characteristic		Sym	Minimum	Typical	Maximum	Units
Nominal Frequency		f_c		433.920		MHz
Insertion Loss		IL		3.0	5.5	dB
3dB Bandwidth		BW_3		600		kHz
Passband Ripple					¡ 1Ó0	dB
Temperature Stability	Turnover Temperature	T_0	15	25	35	¢ J
	Turnover Frequency	f_o		fc		kHz
	Frequency Temperature Coefficient	FTC		0.032		ppm/ ¢ J
Frequency Aging Absolute Value during the First Year		fA		10		ppm/yr
DC Insulation Resistance between Any Two Pins			1.0			M £ [
Rejection	at f_c-21.4MHz(Image)		40	50		dB
	at f_c-10.7MHz(Low)		15	30		
	Ultimate			80		

¡ ÇAUTION: Electrostatic Sensitive Device. Observe precautions for handling

NOTES ¡ ·

1.Frequency aging is the change in f_c with time and is specified at +65 ¢ Jor less. Aging may exceed the specification for prolonged temperatures above +65 ¢ JTypically, aging is greatest the first year after manufacture, decreasing in subsequent years.

2.The frequency f_c id the frequency of minimum IL with the resonator in the specified test fixture in a 50 Ω test system with VSWR ≤ 1.2 : 1. Typically, $f_{oscillator}$ or $f_{transmitter}$ is less than the resonator f_c.

3.Typically, equipment utilizing this device requires emissions testing and government approval, which is the responsibility of the equipment manufacturer.

4.Unless noted otherwise , case temperature T_c=+25 ¢ J¡ 2Ó¢ J

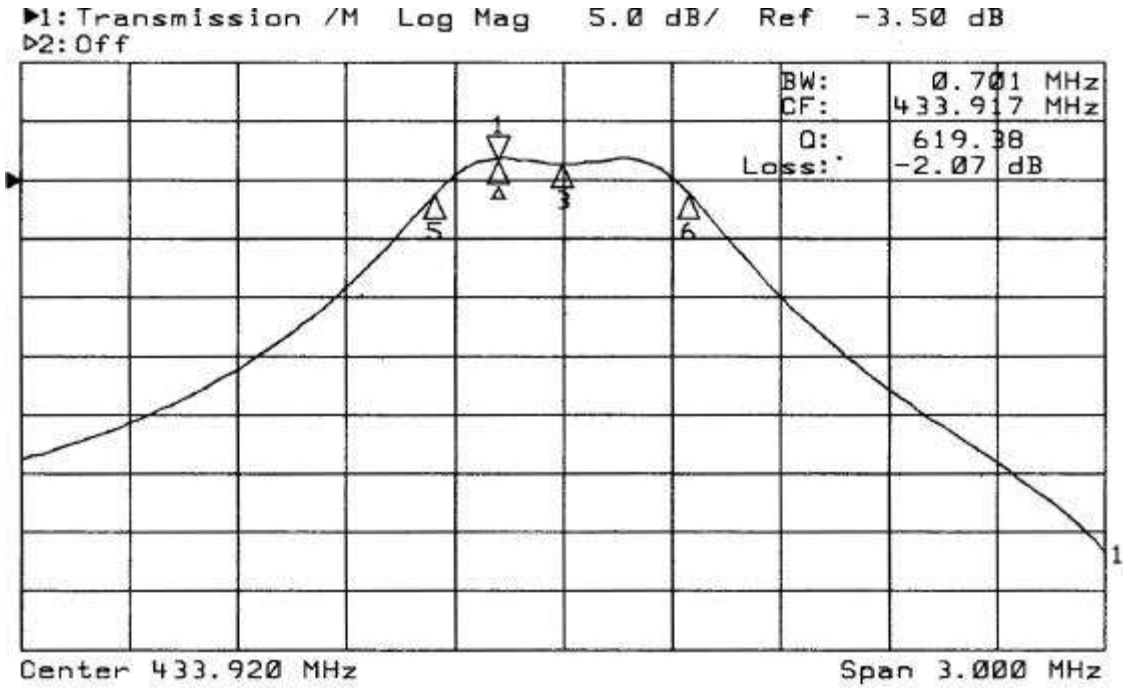
5.The design, manufacturing process, and specifications of this device are subject to change without notice.

6.Derived mathematically from one or more of the following directly measured parameters: f_c, IL, 3 dB bandwidth, f_c versus T_c , and C_0.

7.Turnover temperature, T_O, is the temperature of maximum (or turnover) frequency, f_O, The nominal center frequency at any case temperature , TC, may be calculated from :f = f_O ¡ 1-FTC $(T_O-T_C)^2$ ¡ fTypically, oscillator $T_0$is 20° less than the specified resonator T_o.

8.This equivalent RLC model approximates resonator performance near the resonant frequency and is provided for reference only . The capacitance C_0 is the measured static (nonmotional) capacitance between either pin 1 and ground or pin 2 and ground .The measurement includes case parasitic capacitance

4. Typical Frequency Response



5.Reliability

5.1 Mechanical Shock: The components shall remain within the electrical specifications after 1000 shocks, acceleration 392m/s^2,duration 6 milliseconds.

5.2 Vibration Fatigue: The components shall remain within the electrical specifications after loaded vibration at 20 Hz , amplitude 1.5mm , for 2 hours.

5.3 Terminal Strength: The components shall remain within the electrical specifications after pulled 2 Kgs weight for 10 seconds towards an axis of each terminal.

5.4 High Temperature Storage: The components shall remain within the electrical specifications after being kept at the 85 ¢ J±2 ¢ J for 48 hours, then kept at room temperature for 2 hours.

5.5 Low Temperature Storage: The components shall remain within the electrical specifications after being kept at the -25 ¢ J±2 ¢ J for 48 hours ,then kept room temperature for 2 hours.

5.6 Temperature Cycle: The components shall remain within the electrical specifications after 5 cycles of high and low temperature testing(one cycle: 80 ¢ J for 30 minutes →25 ¢ J for 5 minutes → -25 ¢ J for 30 minutes) than kept at room temperature for 2 hours.

5.7 Solder-heat Resistance : The components shall remain within the electrical specifications after dipped in the solder at 260 ¢ J for 10±1seconds,then kept at room temperature for 2 hours .(Terminal must be dipped leaving 1.5 mm from the case).

5.8 Solder ability: Solder ability of terminal shall be kept at more than 80% after dipped in the solder flux at 230 ¢ J±5 ¢ J for 5±1 seconds.

6.Remarks

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.