

STANDARD SPECIFICATIONS

Frequency Range	7.6 MHz to 54.0 MHz (Fundamental) 40.0 MHz to 156.25 MHz (3 rd Overtone)		
Vibration Mode	Fundamental		
Frequency Tolerance (25°C)	± 10 ppm (see Crystal Part Number Guide for more details)		
Load Capacitance (CL)	16pF, 18pF (see Crystal Part Number Guide for more details)		
Equivalent Series Resistance (E.S.R.)	Frequency (MHz)	Mode	ESR
	7.6 ~ 11.9	Fundamental	100 Ohms Max.
	12.0 ~ 13.9	Fundamental	60 Ohms Max.
	14.0 ~ 19.9	Fundamental	50 Ohms Max.
	20.0 ~ 54.0	Fundamental	40 Ohms Max.
	40.0 ~ 59.0	3 rd	70 Ohms Max.
	60.0 ~ 156.25	3 rd	60 Ohms Max.
Aging (First Year @ 25°C)	±2 ppm/year max, ±5 ppm/year max		
Frequency Stability over Operating Temperature	± 50 ppm Standard (see Crystal Part Number Guide for more details)		
Drive Level	300µW Max.		
Operating Temperature Range	-40°C ~+125°C Standard (see Crystal Part Number Guide for more details)		
Storage Temperature Range	-50 °C ~+150 °C Standard		

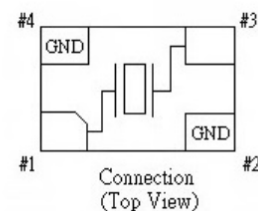
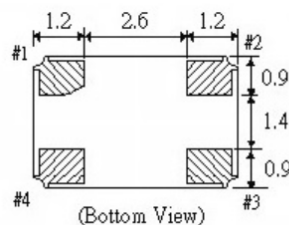
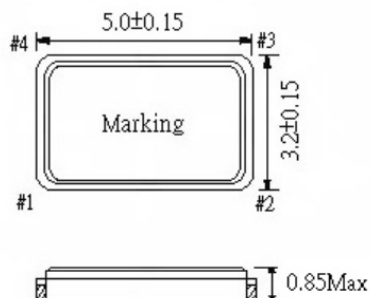
Ordering Instructions (see Crystal Part Number Guide for more details)

Example: QVS Part # = QCA210-21KF18-20.000

QCA210 -	±50ppm(@ 25°)	±50ppm(Over Temp)	-40°C~+125°C	Fundamental	Load Cap.	Freq.
	2	1	K	F	18pF	-20.000MHz

See Engineering-Technical Info for Solder Re-flow and Tape and Reel Specs

Dimensions (Unit:mm)



QVS TECH INC

6965 El Camino Real, Ste 105 Carlsbad, CA 92009 Phone: 760-929-8677 Fax: 760-929-8077

email: sales@qvstech.com

Specifications subject to change without notice (Rev IR)