

# CRYSTAL OSCILLATOR - XO

QEN 14 & QEN 4



## CONSUMER & INDUSTRIAL DIL XO

### Description

Our standard clock oscillators QEN 14-H and QEN 4-H use a high precision crystal resonator sealed with a 2 points mount on a hybrid circuit board. There are designed to operate at temperature up to -40° C to +85° C. These low cost oscillators are particularly well suited, for microprocessors and outdoor electronics. The tristate output is ideal for automated test or frequency switching applications. Both the DIL and half DIL are able to drive TTL and CMOS loads for more design flexibility.



### Frequency range

1 MHz to 125 MHz

### Features

Temperature ranges: 0° C to +70° C  
 -20° C to +70° C  
 -40° C to +85° C

Frequency stability (1): ±25, ±50, ±100 ppm

Supply voltage: +5 V, +3.3 V

Current consumption: 30 mA max.

Rise & fall time: 7 nS (TTL), 10 nS (CMOS)

Start up time: 10 mS max.

Load HCMOS/TTL compatible: 50 pF or 10 N-TTL

Duty cycle: 40/60 %

Option : Tristate  
 45/55 % duty cycle (f < 40 MHz)

### Note :

(1). Frequency stability inclusive of 25° C calibration, temperature, VCC, load changes, and 1st year ageing at 45° C.

### Minimum ordering information requirement

(See [Table 1](#) for available combinations)  
 (See [page 4-19](#) for package drawing)

Example: QEN 14 - HR 32 MHz DT50 / TR

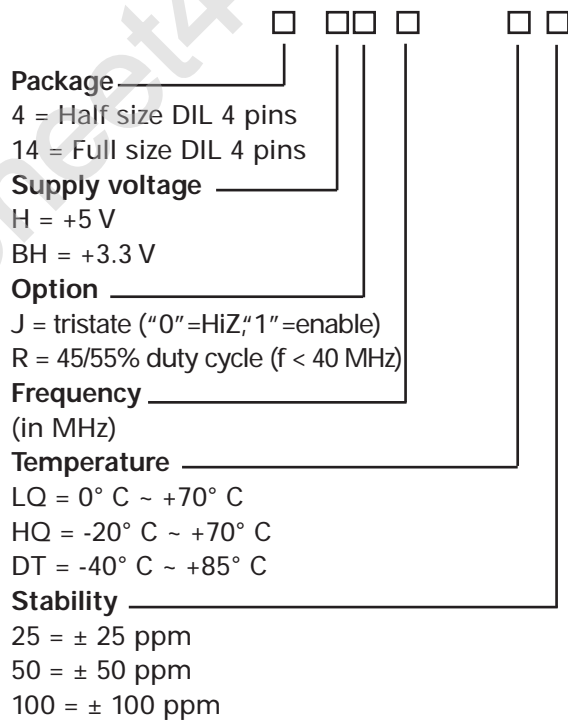


Table 1:  
 Other temperature ranges  
 and stabilities available

		QEN 4			QEN 14		
		± 25 ppm	±50 ppm	±100 ppm	±25 ppm	±50 ppm	±100 ppm
0 to +70° C	1 - 50 MHz	Yes	Yes	Yes	Yes	Yes	Yes
	50 - 80 MHz	Yes	Yes	Yes	Yes	Yes	Yes
	80 - 125 MHz		Yes	Yes		Yes	Yes
-20 to +70° C	1 - 50 MHz		Yes	Yes	Yes	Yes	Yes
	50 - 80 MHz		Yes	Yes		Yes	Yes
	80 - 125MHz						