CRYSTAL OSCILLATOR - XO

QEN 49/55-DH

INDUSTRIAL & MILITARY DIL XO

Description

To complete our standard QEN 14-H and QEN 4-H, we propose our QEN 49/55-DH that uses an Ag/Pd hybrid circuit board and a crystal resonator mounted on 3 points in a DIL 14. These low cost oscillators are designed for high vibration resistance clock oscillator and extended temperature range up to -55° C to +125° C.
The QEN 55-DH utilizes HCMOS active circuit technology up to 100 MHz. The same performances are presented for higher environmental severity in a 14 pins DIL package under the designation QEN 49-DH.
The tristate output is ideal for automated test or frequency switching applications.

Frequency range

1 MHz to 100 MHz

Applications

Airborne indoor applications
Railroad security equipment
Every outdoor electronics

Features

Temperature ranges:	up to -55° C to +125° C
Frequency stability:	±25 to ±100 ppm
Supply voltage:	+5 V
Current consumption:	10 to 30 mA
Load:	15 pF-25pF/2-6TTL-gates
Option duty cycle:	
Up to 14 MHz	50/50 ± 5%
From 14 MHz	50/50 ± 10%
Option:	Enable/Disable
Option :external trimmer	3 to 20 pF
	up to 33 MHz on pin 1

Ageing (45°C/1st year) : ≤ ± 5 ppm

Minimum ordering information requirement

(See Table 1 for available combinations)
(See page 3-19 for package drawing)

Example: QEN 55 - DHR 16 MHz AY50 /T

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Package
55 = DIL 4 pins
49 = DIL 14 pins
Option
R = 50/50 ± 10 % (or ± 5 %)
I = tristate *
T = trimmer *
Temperature range
DT = -40° C ~ +85° C
AY = -55° C ~ +125° C ∞
Frequency stability
± 25 ppm ∞
± 50 ppm
± 100 ppm
Tinned pins: T

Note:
1. **Options with the same marker may not be combined with each other.**
2. **Frequency stability inclusive of 25° C calibration, temperature, Vcc and load change.**

Table 1:
Other temperature ranges and stability available

	QEN 49/55-DH	Option Enable/disable on pin 1
1 MHz - 14 MHz	2TTL-gates/15 pF 10 ns	"0" on pin 1 =High Z on pin 3 "1" on pin 1 =enable on pin 3 Attention: should pin 1 not be used, please always tie to Vcc
14 MHz - 100 MHz	6 TTL-gates/25 pF 5 ns	