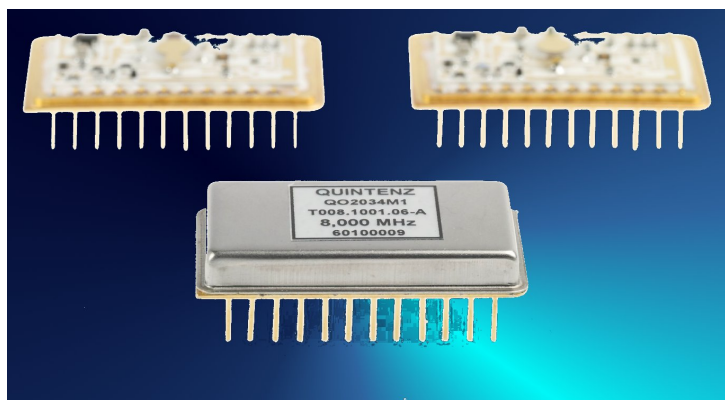


# Precision Crystal Clock-Oscillator Series **QX2034**



## Features:

- Standard DIL-24 package
- Hermetically sealed enclosure
- Low power consumption
- HC-MOS technology
- Wide temperature range
- MIL-STD Screening

## Typical Applications:

- Test Equipment
- Clock
- Rough environmental conditions

Base models can be modified to your specification within the performance ranges shown below.

## General Performance of **QX2034..series**

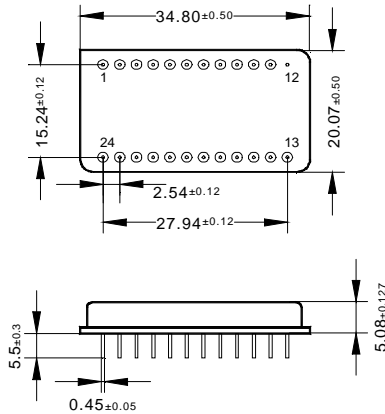
		available	from	typ.	to		
1.	Frequency range		1		60 000	MHz	
2.	HF- Output		HC-MOS				
2.1	Symmetry		45/55 .. 55/45 @ Vcc/2				
3.	Frequency stability						
3.1	Frequency overall tolerances <sup>1)</sup>	<=±	5	30	70	ppm	
3.2	Aging <sup>2)</sup>	<=±	0,50	1	2	ppm	first year
5.1	Operating temperature range		0 ... +50	-20...+70	-55...+115	°C	
5.2	Operable temperature range			-55 ...+115		°C	
5.3	Storage temperature range			-62 ...+125		°C	
7.	Supply voltage		3,3	5	5	V	±5%
8.1	Current consumption <sup>3)</sup>	<=	3	10	40	mA	
9.	Enclosure		20 x 34,8 x 5,08			mm <sup>3</sup>	
10.	Weight	<=	12			g	

Further frequencies, tolerances and specifications upon request possible

Notes:

- 1) Including adj. tol., tol. vs temperature range, vs supply voltage change, vs. load change and 15 years aging
- 2) depends on specification; after 15 days continuous operation
- 3) depends on nominal frequency and load

### Drawing:



Pin	connections
1..11	n.c.
12	Case / GND
13	HF out
14..23	n.c.
24	Vcc

*all dimensions in mm*

**QX2034 M: Hi-Reliability Hybrid Clock Oscillator including Burn-In and Screening acc. MIL-O-55310 class B**

### Marking:

Manufacturer name, Article/Series code, Center Frequency, date code and series no.

### Environmental conditions:

The crystal oscillators are approved in the following environmental conditions:

Test	IEC 68 -	MILSTD-	Test conditions
Sealing test	2-17	883E - Meth. 1014	Fine leak: A1 2 x 10-8
Shock	2-27	202F - Meth. 213B F:	1500g; 0,5ms; half-sine
Vibration, sinus	2-6	202F - Meth. 204D A:	10..2000 Hz 10g; 20 min/axis
Thermal Shock	2-14	883E - Meth. 1014 A:	100°C to 0°C, water, 15 cycles

**Endurance tests: burn in 72 h @ 125°C; aging 10 days @ 55°C (100%); >1000 days @ 55°C (approval samples)**

**The oscillator hybrid microcircuit design and construction is in accordance with applicable design and construction requirements.**

**The final test procedure includes all points of electrical specification especially a 100% test of**

- frequency adjustment – calibration
- frequency stability vs. operating temperature range
- long-term stability measurement
- output waveform