

## QEV14

20.7 x 13.1 mm, 14 pin DIL package



### Frequency and Electrical Characteristics

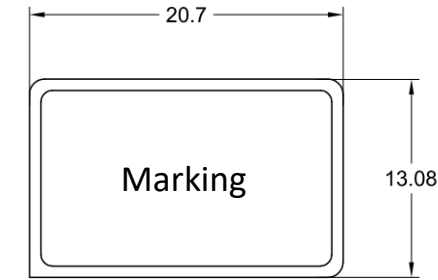
Parameter	Min.	Typ.	Max.	Unit	Test condition / Description
Nominal frequency (Fn)	1		160	MHz	
Operating temperature range		0 to +70	-40 to +85	°C	See 'Order Part Example'
Storage temperature range	-55		+125	°C	
Calibration		±15		ppm	@ 25°C
Frequency stability over temperature <sup>1</sup>			±15 to ±100	ppm	See 'Order Part Example'
Stability vs supply voltage variation			±5	ppm	V <sub>CC</sub> ± 5%
Stability vs load variation			±3	ppm	15pF ± 10%
Long-term stability (Ageing)			±5	ppm	Frequency drift over 1 year at 25°C
Power supply voltage(V <sub>CC</sub> )					
3.3V (BH option)	3.135	3.3	3.465	V <sub>DC</sub>	See 'Order Part Example'
5.0V (KH option)	4.750	5.0	5.250		
HCMOS output load			15	pF	
Output logic levels					
Output logic high (V <sub>OH</sub> )	90% V <sub>CC</sub>			V	
Output logic low (V <sub>OL</sub> )			10% V <sub>CC</sub>		
Pullability	±50 ~ ±150 ±50 ~ ±200			ppm	See 'Order Part Example'
Linearity			10	%	
Duty cycle	45	50	60	%	
Rise & fall time			10	ns	From 10% V <sub>CC</sub> to 90% V <sub>CC</sub>
Start-up time			10	ms	
Input current					
1.000 to 19.999MHz		20		mA	V <sub>CC</sub> = 5V, CL = 15pF
20.00 to 39.999MHz		40			
40.00 to 99.999MHz		60			
100.0 to 160.00MHz		90			
1.000 to 19.999MHz		10		mA	V <sub>CC</sub> = 3.3V, CL = 15pF
20.00 to 39.999MHz		30			
40.00 to 99.999MHz		50			
100.0 to 160.00MHz		80			

### Order Part Example – QEV14KH 100LQ50 / 16.384MHZ

Parameter	Product family and package	Supply Voltage (V <sub>CC</sub> )	Pullability	Operating temperature range	Frequency stability (FvT)	Nominal Frequency (Fn. MHz)
Code	<b>QEV14</b>	<b>KH</b>	<b>100</b>	<b>LQ</b>	<b>50</b>	<b>16.384MHZ</b>
Decode	<b>QEV</b> = VCXO <b>14</b> = 14 pin, DIL	<b>KH</b> = 5.0V <b>BH</b> = 3.3V	<b>50</b> = ±50ppm <b>75</b> = ±75ppm <b>100</b> = ±100ppm <b>150</b> = ±150ppm <b>200</b> = ±200ppm	<b>LQ</b> = 0 to 70°C <b>JQ</b> = -10 to 70°C <b>HQ</b> = -20 to 70°C <b>DT</b> = -40 to 85°C	<b>15</b> = ±15ppm <b>25</b> = ±25ppm <b>50</b> = ±50ppm <b>100</b> = ±100ppm	Please enter Fn

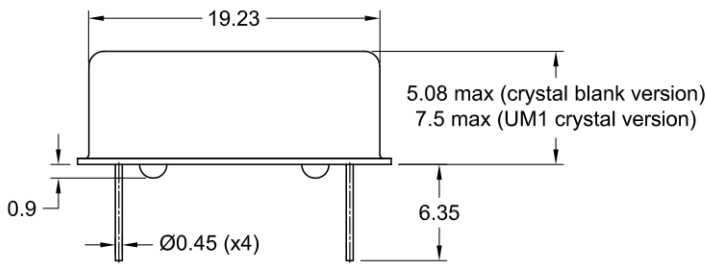
<sup>1</sup> Include 25°C tolerance, operating temperature range, input voltage change (V<sub>CC</sub>±5%), load change (15pF ±10%), first year ageing, shock and vibration.

**Model Outline, Recommended Pad Layout, Marking and Packaging**

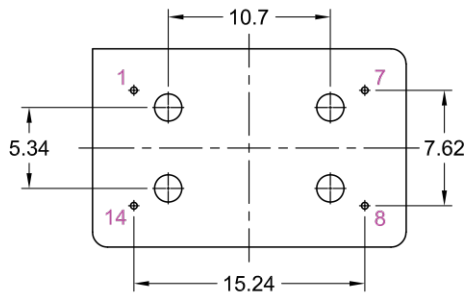


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TOP VIEW

Marking		Note
Line 1	QEV14KH 100LQ50	Product code: See order example
Line 2	16.384	Frequency in MHz (6 digits)
Line 3	0624-G	Date code (YYWW), Manufacturing code



FRONT VIEW



BOTTOM VIEW

Pin	Connections
1	Voltage Control (Vc)
7	GND
8	Output
14	V <sub>CC</sub>

**NOTE:**

- Packaging: Antistatic Tube. Standard Packing Quantity (SPQ) is 25 pcs/tube
- Dimension unit is in millimetre.