

QEV4

12.6 x 12.6 mm, 8 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 ¹			±15 to ±100	ppm	See 'Order Part Example'
Stability vs supply voltage variation			±5	ppm	V _{CC} ± 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 _{CC})					
3.3V (BH option)	3.135	3.3	3.465	V _{DC}	See 'Order Part Example'
5.0V (KH option)	4.750	5.0	5.250		
Output load (HCMOS)			15	pF	
Output logic levels					
Output logic high (V _{OH})	90% V _{CC}			V	With 15pF HCMOS load
Output logic low (V _{OL})			10% V _{CC}		
Pullability					
3.3V (V _C = 1.65±1.50V)	±50 ~ ±150			ppm	See 'Order Part Example'
5.0V (V _C = 2.50±2.00V)	±50 ~ ±200				
Linearity			10	%	
Duty cycle	45	50	60	%	
Rise & fall time			10	ns	From 10% V _{CC} to 90% V _{CC}
Start-up time			10	ms	
Input current					
1.000 to 19.999MHz		20		mA	V _{CC} = 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 _{CC} = 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 – QEV4KH100LQ25 / 27.000MHZ

Parameter	Product family and package	Supply Voltage (V _{CC})	Pullability	Operating temperature range	Frequency stability (FvT)	Nominal Frequency (Fn. MHz)
Code	QEV4	KH	100	LQ	25	27.000MHz
Decode	QEV = VCXO 4 = 8 pin, Half size DIL	KH = 5.0V BH = 3.3V	50 = ±50ppm 75 = ±75ppm 100 = ±100ppm 150 = ±150ppm 200 = ±200ppm	LQ = 0 to 70°C JQ = -10 to 70°C HQ = -20 to 70°C DT = -40 to 85°C	15 = ±15ppm 25 = ±25ppm 50 = ±50ppm 100 = ±100ppm	Please enter Fn

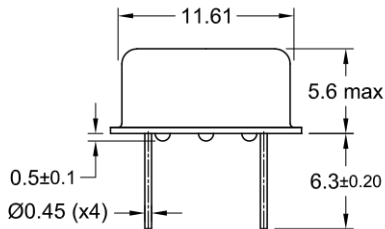
¹ Include 25°C tolerance, operating temperature range, input voltage change (V_{CC}±5%), load change (15pF ±10%), first year ageing, shock and vibration.

Model Outline, Recommended Pad Layout, Marking and Packaging

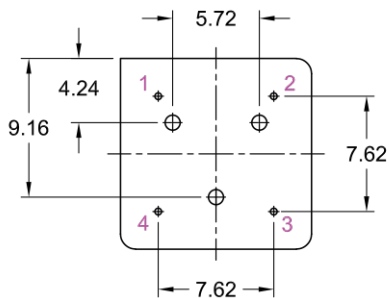


1
TOP VIEW

Marking	Note	
Line 1	QEV4KH100LQ25	Product code: See order example
Line 2	27.000	Frequency in MHz (6 digits)
Line 3	0624-G	Year code (YY): 06 = 1016, Week code (WW): 24 = Week 24 of the year, G = Manufacturing code



FRONT VIEW



BOTTOM VIEW

Pin	Connections
1	Voltage Control (Vc)
2	GND
3	Output
4	V _{CC}

NOTE:

- Packaging: Antistatic Tube. Standard Packing Quantity (SPQ) is 40 pcs/tube.
- Dimension unit is in millimetre.