

IQVCXO-161

ISSUE 6; 23 AUGUST 1998

Delivery Options

- Common frequencies are available from stock. Please see p67 for details

Output Compatibility

- HCMOS/TTL
- Drive Capability: 15pF/10 TTL

Package Outline

- 14-pin DIL compatible resistance welded enclosure, hermetically sealed with glass to metal seals.

Standard Frequency Stabilities

- $\pm 25\text{ppm}$, $\pm 50\text{ppm}$ @ $V_C=2.5\text{V}$
(inclusive of supply voltage & output load variations over the operating temperature range)

Operating Temperature Ranges

- 0 to 70°C
- 20 to 70°C
- 40 to 85°C (available 30.0 to 90.0MHz only)

Storage Temperature Range

- 40 to 85°C

Environmental Specification

- Terminal Strength: 0.91kg max. Force perpendicular to top & bottom.
- Hermetic Seal: not to exceed 1×10^{-8} mBar litres of Helium leakage
- Solderability: MIL-STD-202E, Method 208C
- Vibration: 10 to 55Hz 0.76mm displacement, sweep 60 seconds, duration 2 hours.
- Rapid Change of Temperature over Operating Temperature Range: 10 cycles
- Shock: 981m/s^2 for 6ms, three shocks in each direction along the three mutually perpendicular planes

Output Frequency Change

- $\pm 100\text{ppm}$ min

Voltage Control Pin 1

- $2.5\text{V} \pm 2.0\text{V}$

Modulation Bandwidth

- $>15\text{kHz}$

Marking

- Model number
- Frequency Stability Code

- Frequency Tolerance Code (Optional)

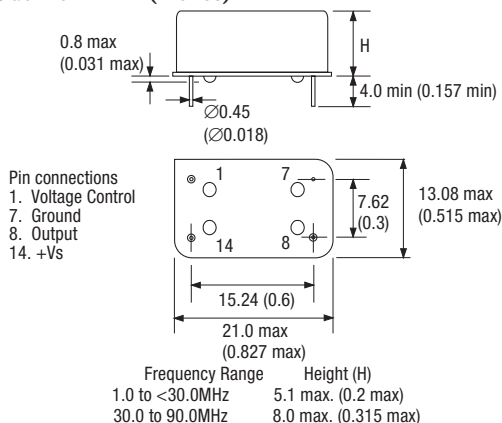
- Frequency

- Date code (Year/Week)

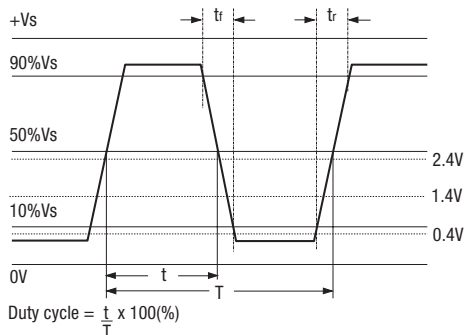
Minimum Order Information Required

- Frequency + Model Number + Operating Temperature + Frequency Stability

Outline in mm (inches)



Output Waveform - HCMOS/TTL



Electrical Specification – maximum limiting values when measured in HCMOS test circuit

Frequency Range	Frequency Stability	Supply Voltage	Output Frequency Change	Supply Current	Rise Time (t _r)	Fall Time (t _f)	Duty Cycle	Model Number
1.0 to < 24.0MHz	±25ppm ±50ppm	5V±0.25V	±100ppm	15mA	10ns	10ns	40/60%	IQVCXO-161
24.0 to < 30.0MHz	±25ppm ±50ppm	5V±0.25V	±100ppm	40mA	10ns	10ns	40/60%	IQVCXO-161
30.0 to 90.0MHz	±25ppm ±50ppm	5V±0.25V	±100ppm	30mA	5ns	5ns	40/60%	IQVCXO-161

Ordering Example

Frequency _____ 22.0MHz

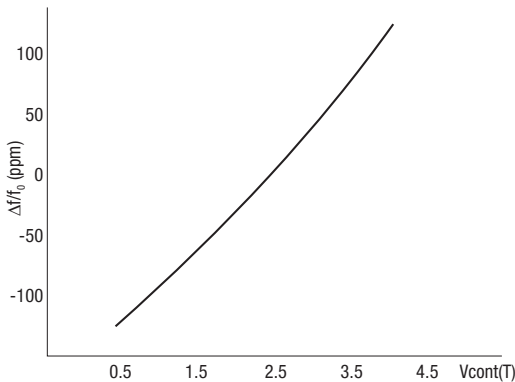
Model No _____ IQVCXO-161

Operating Temperature Code: *X = -40 to 85°C, S = -20 to 70°C, Not applicable for 0 to 70°C _____ S

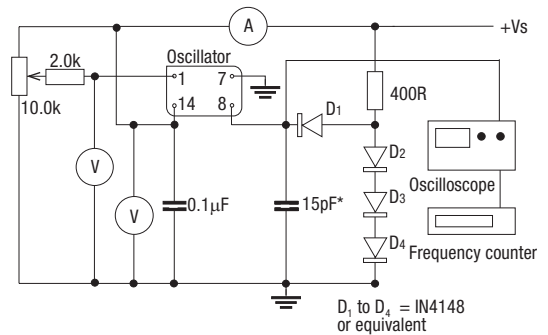
Frequency Stability: A = ±25ppm; B = ±50ppm _____ B

*Please note: Available 30.0 to 90.0MHz only

Typical Voltage Control Curve @ 25°C & 20.0MHz

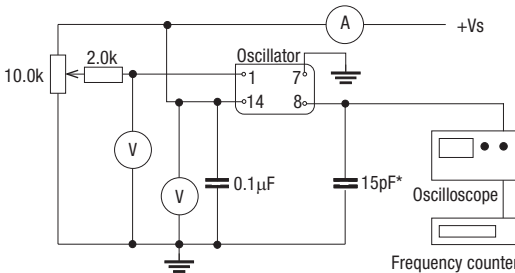


Test Circuit - TTL



*Inclusive of jigging & equipment capacitance

Test Circuit - HCMOS



*Inclusive of jigging & equipment capacitance