

# 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  $1 \times 10^{-8}$  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:  $981\text{m/s}^2$  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)

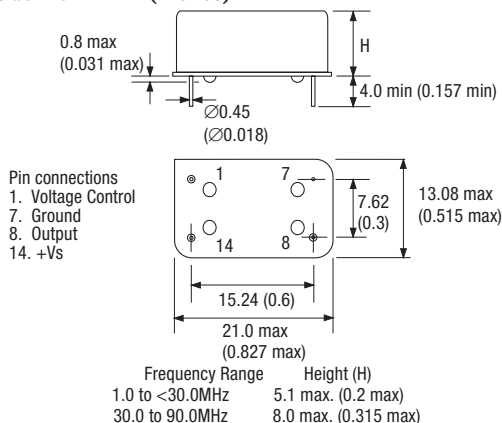
- Frequency

- Date code (Year/Week)

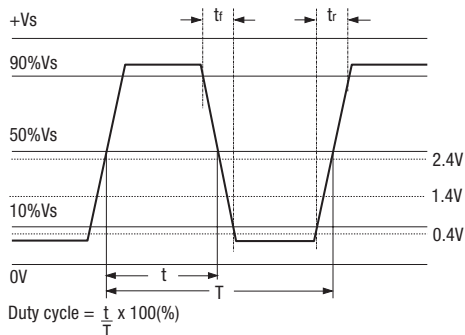
## Minimum Order Information Required

- 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 <sub>r</sub> )	Fall Time (t <sub>f</sub> )	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

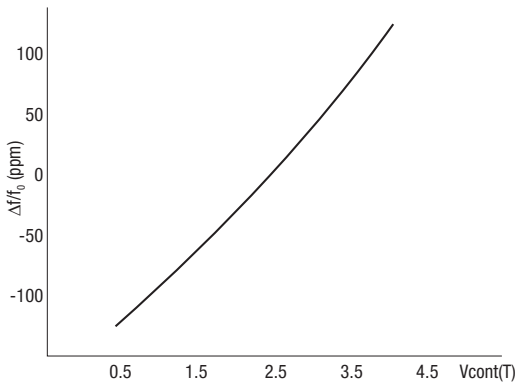
Model No \_\_\_\_\_ IQVCXO-161

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

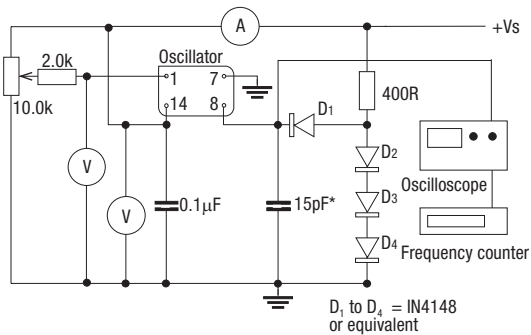
Frequency Stability: A = ±25ppm; B = ±50ppm \_\_\_\_\_ B

\*Please note: Available 30.0 to 90.0MHz only

## Typical Voltage Control Curve @ 25°C & 20.0MHz

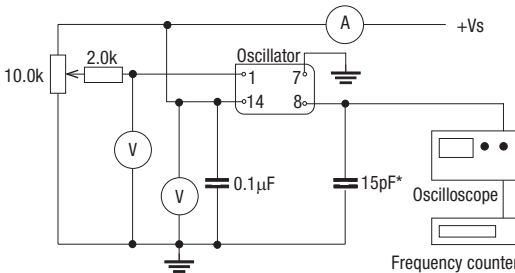


## Test Circuit - TTL



\*Inclusive of jigging & equipment capacitance

## Test Circuit - HCMOS



\*Inclusive of jigging & equipment capacitance