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

- ±25ppm, ±50ppm @ V_C=2.5V
  (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

- ±100ppm min

Voltage Control Pin 1

- 2.5V ±2.0V

Modulation Bandwidth

- >15kHz

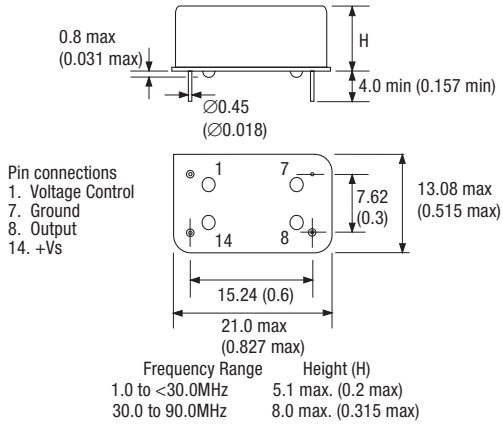
Marking

- Model number
- Frequency Stability Code
- Frequency Tolerance Code (Optional)
- Frequency
- Date code (Year/Week)

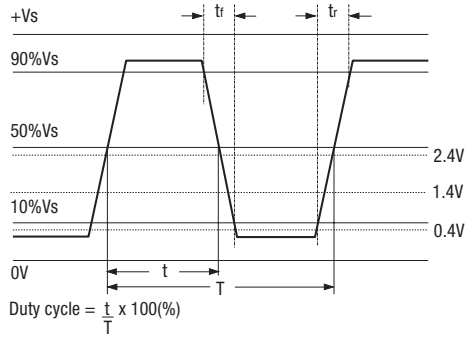
Minimum Order Information Required

- Frequency + Model Number + Operaturing Temperature + Frequency Stability

Outline in mm (inches)



Output Waveform - HCMOS/TTL



VCXOs

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

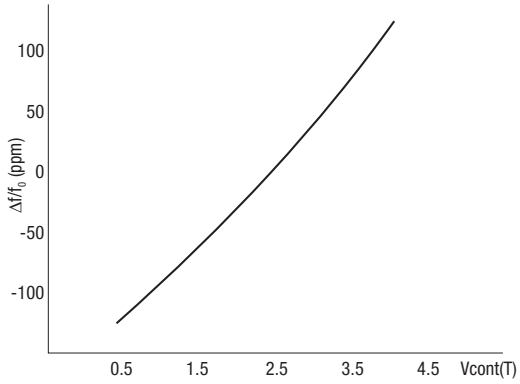
Frequency Range	Frequency Stability	Supply Voltage	Output Frequency Change	Supply Current	Rise Time (t_r)	Fall Time (t_f)	Duty Cycle	Model Number
1.0 to < 24.0MHz	±25ppm ±50ppm	5V±0.25V	±100ppm	15mA	10ns	10ns	40/60%	IQVCXO-161
24.0 to < 30.0MHz	±25ppm ±50ppm	5V±0.25V	±100ppm	40mA	10ns	10ns	40/60%	IQVCXO-161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

Ordering Example 22.0MHz IQVCXO-161 S B

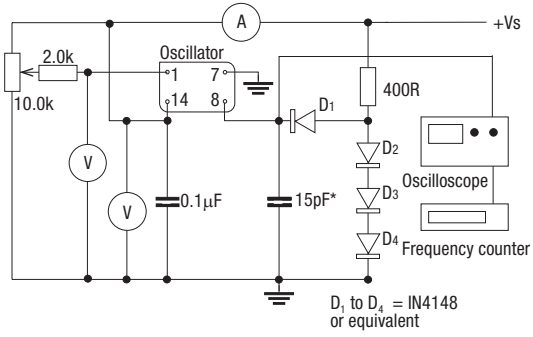
Frequency
Model No
Operating Temperature Code: *X = –40 to 85°C, S = -20 to 70°C, Not applicable for 0 to 70°C
Frequency Stability: A = ±25ppm; B = ±50ppm

*Please note: Available 30.0 to 90.0MHz only

Typical Voltage Control Curve @ 25°C & 20.0MHz

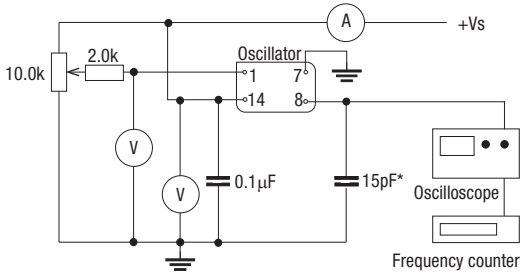


Test Circuit - TTL



*Inclusive of jigging & equipment capacitance

Test Circuit - HCMOS



*Inclusive of jigging & equipment capacitance

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