

IQXO-350 Commercial Oscillator

ISSUE 17; 1 SEPTEMBER 2001

Delivery Options

- Common frequencies are available from stock, please contact our sales office for current leadtimes

Output Compatibility

- HCMOS/TTL/LSTTL
- Drive Capability: 50pF or 10TTL (<70.0MHz)
30pF (≥70.0 to 160.0MHz)
(1.0 to < 100.0kHz 15pF or 10 LSTTL only)

Package Outline

- 14-pin DIL compatible resistance welded enclosure, hermetically sealed with glass to metal seal. Available over 0 to 70°C (IQXO-350) or -40 to 85°C (IQXO-350I)

Standard Frequency Stabilities

- ±25ppm, ±50ppm, ±100ppm
(over operating temperature range)

Operating Temperature Ranges

- 0 to 70°C (IQXO-350)
- 40 to 85°C (IQXO-350I)

Storage Temperature Range

- 55 to 125°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/s² for 6ms, three shocks in each direction along the three mutually perpendicular planes

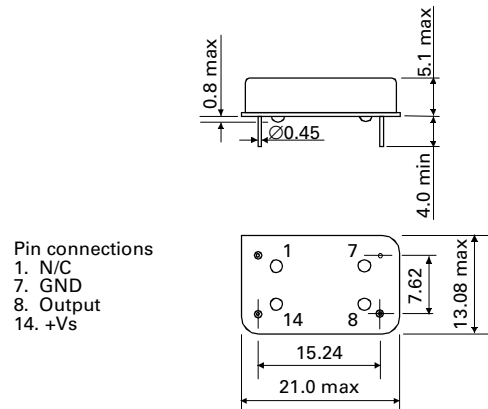
Marking

- Model number + Operating Temperature Code (if applicable)
- Frequency Stability Code
- Frequency Tolerance Code (Optional)
- Frequency
- Date Code (Year/Week)

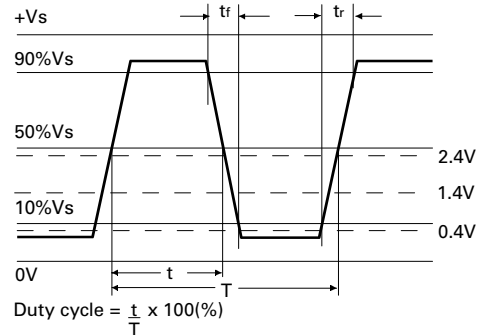
Minimum Order Information Required

- Frequency + Model Number + Operating Temperature (if applicable) + Frequency Stability

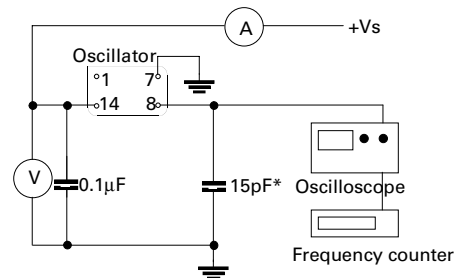
Outline in mm



Output Waveform - HCMOS/TTL



Test Circuit - HCMOS



*Inclusive of jigging & equipment capacitance

LEADED SPXOs

Ordering Example 22.0MHz IQXO-350I B

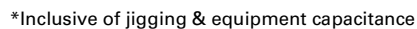
Frequency _____

Model number: -350 _____

Operating Temperature Code: I = -40 to 85°C Not applicable for 0 to 70°C _____

Frequency Stability: A = ± 25 ppm, B = ± 50 ppm, C = ± 100 ppm _____

Test Circuit - TTL



The circuit diagram shows a power supply $+V_s$ connected to a $2.0k\Omega$ resistor. The other end of the resistor is connected to a series combination of four diodes $D_1, D_2, D_3,$ and D_4 . A voltmeter (V) is connected in parallel with the diodes. An ammeter (A) is connected in series with the positive supply line. An oscillator circuit is connected to the junction between D_1 and D_2 . The oscillator consists of a variable capacitor (14-8pF), a $0.1\mu F$ capacitor, and a $15pF$ capacitor. The output of the oscillator is connected to the junction between D_1 and D_2 . The diodes D_1 to D_4 are BAT85 or equivalent.

Note: Pin 1 = No connection on non tri-state models