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 ($\geq$70.0 to 160.0MHz)
  (1.0 to < 100.0kHz 15pF or 10 LS TTL 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 x 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
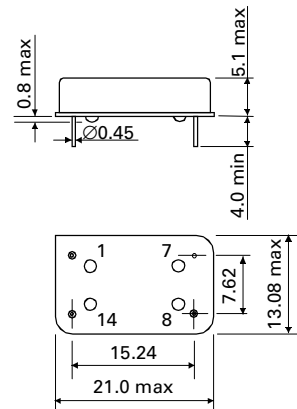
Marking

- Model number + Operating Temperature Code (if applicable)

- Frequency Stability Code

- Frequency Tolerance Code (Optional)
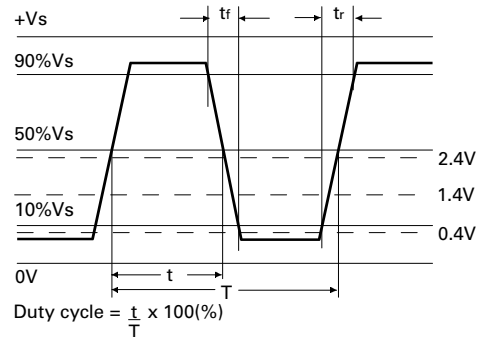
- Frequency

- Date Code (Year/Week)

Minimum Order Information Required

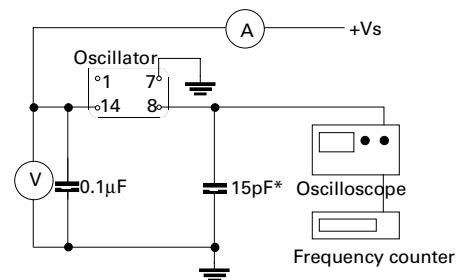- Frequency + Model Number + Operating Temperature (if applicable) + Frequency Stability

Outline in mm

Pin connections
1. N/C
7. GND
8. Output
14. +Vs

Output Waveform - HCMOS/TTL

Duty cycle = $\frac{t}{T}$ x 100(%)

Test Circuit - HCMOS

*Inclusive of jigging & equipment capacitance

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Electrical Specifications - maximum limiting values when measured in HCMOS test circuit.

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	*Rise Time(t_r)	*Fall Time(t_f)	**Duty Cycle	Model Number
1.0 to < 100.0kHz	±25ppm, ±50ppm, ±100ppm	5V±0.25V	10mA	10ns	10ns	45/55%	IQXO-350, -350I
100.0 to < 250.0kHz	±25ppm, ±50ppm, ±100ppm	5V±0.25V	10mA	15ns	15ns	45/55%	IQXO-350, -350I
250.0kHz to < 5.0MHz	±25ppm, ±50ppm, ±100ppm	5V±0.25V	30mA	15ns	15ns	45/55%	IQXO-350, -350I
5.0 to < 16.0MHz	±25ppm, ±50ppm, ±100ppm	5V±0.25V	15mA	10ns	10ns	45/55%	IQXO-350, -350I
16.0 to < 30.0MHz	±25ppm, ±50ppm, ±100ppm	5V±0.25V	30mA	10ns	10ns	45/55%	IQXO-350, -350I
30.0 to < 50.0MHz	±25ppm, ±50ppm, ±100ppm	5V±0.25V	40mA	8ns	8ns	45/55%	IQXO-350, -350I
50.0 to < 70.0MHz	±25ppm, ±50ppm, ±100ppm	5V±0.25V	50mA	6ns	6ns	40/60%	IQXO-350, -350I
70.0 to 160.0MHz	±25ppm, ±50ppm, ±100ppm	5V±0.25V	70mA	5ns	5ns	40/60%	IQXO-350, -350I

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 = ±25ppm, B = ±50ppm, C = ±100ppm ⎯⎯⎯⎯⎯⎯⎯

LEADED SPXOs

Please note that the rise and fall times listed are the maximum values we specify to cover various frequency breaks. In practise the actual values are generally lower depending upon the spot frequency chosen. For typical values please contact our sales office.

Test Circuit - TTL

D1 to D4 = IN4148 or equivalent
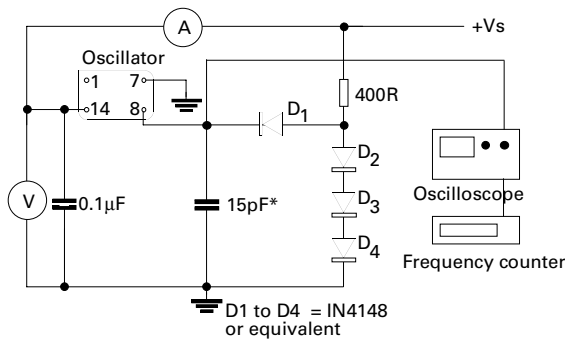
*Inclusive of jigging & equipment capacitance

Test Circuit - LSTTL

D1 to D4 = BAT85 or equivalent
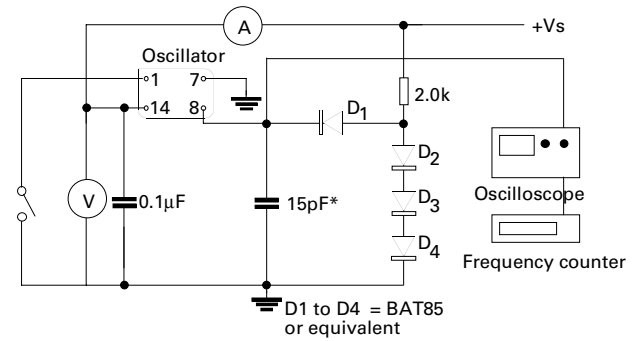
*Inclusive of jigging & equipment capacitance

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

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