# IQTCXO-250, -251, -252, -253

## **ISSUE 5; 8 JULY 1999**

#### **Delivery Options**

 Common frequencies are available from stock. Please see p79 for details

#### Description

■ IQTCXO-250, -251, -252, -253 are temperature compensated crystal oscillators providing a high degree of frequency stability over a wide temperature range. They are particularly suited to applications where space is at a premium

#### Waveform

- Clipped Sine 1V peak to peak
- Clipped Sine 0.7V peak to peak
- Square HCMOS

## Package Outline

• 14-pin DIL compatible enclosure with internal trimmer

## Ageing

■ ±1ppm typical first year

#### Frequency Adjustment

■ ±3ppm minimum internal trimmer adjustment

## Storage Temperature Range

■ -40 to 85°C

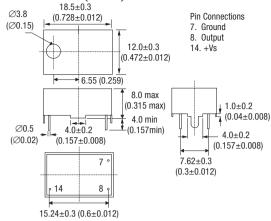
#### Marking

- Model number
- Frequency Stability Code /Temperature Range Code
- Frequency
- Date code (Year/Week)

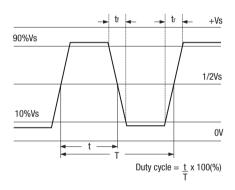
## **Minimum Order Information Required**

 Frequency + Model Number + Frequency Stability + Operating Temperature Range

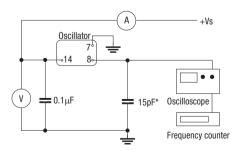
#### Outline in mm (inches)



#### **Output Waveform - HCMOS**



#### **Test Circuit - HCMOS**



\*Inclusive of jigging & equipment capacitance

## Electrical Specification - maximum limiting values when measured in test circuit

Frequency Range	Supply Voltage	Supply Current	Output Waveforms	Output	Duty cycle	Model Number
3.20 to 40.0MHz	5V±0.25V	5mA	Clipped Sine	1Vp-p min	_	IQTCXO-250
3.20 to 40.0MHz	5V±0.25V	20mA	Square	HCMOS	40/60%	IQTCXO-251
3.20 to 40.0MHz	3V±0.15V	3mA	Clipped Sine	0.7Vp-p min	_	IQTCXO-252
1.50 to 24.0MHz	5V±0.25V	20mA	Square	HCMOS	40/60%	IQTCXO-253

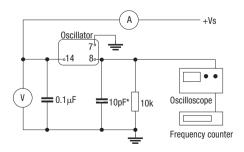
## Frequency Stabilities Available Over Operating Temperature Ranges

Operating Temperature Ranges	Frequency Stabilities Vs Operating Temperature Range							
	±1.0ppm	±2.0ppm	±2.5ppm	±3.0ppm	±5.0ppm	±10.0ppm		
0 to 50°C	Code FP	Code GP	Code HP	Code JP	Code KP	Code LP		
–10 to 60°C	_	Code GR	Code HR	Code JR	Code KR	Code LR		
–20 to 70°C	_	Code GS	Code HS	Code JS	Code KS	Code LS		
-30 to 75°C	_	_	Code HU	Code JU	Code KU	Code LU		
-30 to 85°C	_	_	_	Code JW	Code KW	Code LW		
-40 to 85°C	_	_	_	Code JX	Code KX	Code LX		
rdering Example	24.0MHz IQTCXO-250 GS							

Frequency Model No

Frequency Stability Vs Operating Temperature Code

# **Test Circuit - Clipped Sine**



\*Inclusive of jigging & equipment capacitance