

ISSUE 1; March 2016

### Description

- Simple package crystal oscillator in a hermetically sealed 8-pin DIL package with tri-state function



### Frequency Parameters

- Frequency: 1.0MHz to 100.0MHz
- Frequency Stability:  $\pm 25.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing:  $\pm 5\text{ppm}$  max in 1st yr @ 25°C

### Electrical Parameters

- Supply Voltage: 5.0V  $\pm 10\%$

### Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C

### Output Details

- Output Compatibility: HCMOS

Drive Capability	
1.0MHz to 40.0MHz	50pF
40.0MHz to 80.0MHz	30pF
80.0MHz to 100.0MHz	15pF

### Output Control

- Tri-state Operation:
  - Logic '1' to pin 1 enables oscillator output
  - Logic '0' to pin 1 disables oscillator output, the oscillator output goes to a high impedance state
  - No connection to pin 1 enables oscillator output
- Start Up Time: 10ms max

### Output Levels

- VoH: 90% Vs min
- VoL: 10% Vs max

### Noise Parameters

- Phase Jitter (12kHz-20MHz): 1ps rms max

### Environmental Parameters

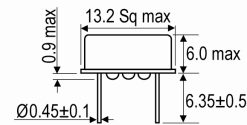
- Shock: 1500G, 0.5ms, 5 times in each of 6 directions, along 3 mutually perpendicular planes
- Vibration: 20G (20Hz-2000Hz), 1.5mm amplitude, cross-over frequency 80Hz, in 3 mutually perpendicular planes
- Storage Temperature Range: -55 to 125°C

### Ordering Information

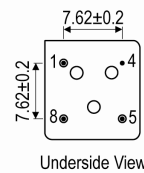
- Frequency\*
  - Model\*
  - Frequency Stability (over operating temperature range)\*
  - Operating Temperature Range\*
  - Supply Voltage
  - (\*minimum required)
- Example
  - 20.0MHz IQXO-826
  - HCMOS  $\pm 50\text{ppm}$  -40 to 85C 5V



### Outline (mm)



Pin Connections  
 1. Tri-State  
 4. GND  
 5. Output  
 8. +VS



### Sales Office Contact Details:

UK: +44 (0)1460 270200

France: 0800 901 383

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

Germany: 0800 1808 443

USA: +1.760.318.2824

Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

#### Compliance

- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JEDEC-STD-033): Not Applicable

#### Packaging Details

- Pack Style: Bulk Loose in Bulk Pack  
Pack Size: 40

#### Electrical Specification - maximum limiting values 5.0V ±10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	19.999999MHz	-10 to 70	±25.0	20	6	45/55%
		-40 to 85	±25.0	20	6	45/55%
20.0MHz	49.999999MHz	-10 to 70	±25.0	40	5	45/55%
		-40 to 85	±25.0	40	5	45/55%
50.0MHz	79.999999MHz	-10 to 70	±25.0	50	4	45/55%
		-40 to 85	±25.0	50	4	45/55%
80.0MHz	100.0MHz	-10 to 70	±25.0	70	4	45/55%
		-40 to 85	±25.0	70	4	45/55%

*This document was correct at the time of printing; please contact your local sales office for the latest version.*

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Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)