

ISSUE 1; April 2016

### Description

- Simple package crystal oscillator in a hermetically sealed 14-pin DIL package

### Frequency Parameters

- Frequency: 1.0MHz to 166.0MHz
- 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: 3.3V  $\pm 10\%$

### 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 166.0MHz	15pF

### Output Control

- 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

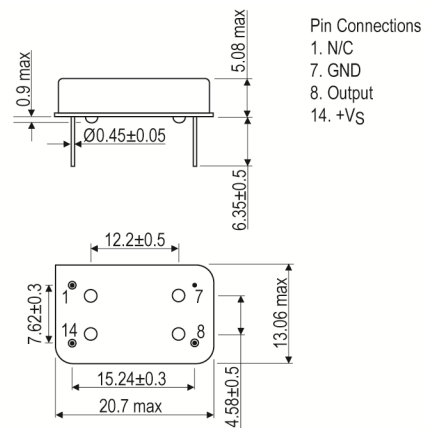
- Frequency\*  
Model\*  
Frequency Stability (over operating temperature range)\*  
Operating Temperature Range\*  
Supply Voltage  
(\*minimum required)
- Example  
20.0MHz IQXO-822  
HCMOS  $\pm 50\text{ppm}$  -40 to 85C 3.3V

### Compliance

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



### Outline (mm)



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### Packaging Details

- Pack Style: Bulk      Loose in Bulk Pack  
Pack Size: 25

### Electrical Specification - maximum limiting values 3.3V $\pm$ 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	$\pm$ 25.0	10	6	45/55%
		-40 to 85	$\pm$ 25.0	10	6	45/55%
20.0MHz	49.999999MHz	-10 to 70	$\pm$ 25.0	30	6	45/55%
		-40 to 85	$\pm$ 25.0	30	6	45/55%
50.0MHz	79.999999MHz	-10 to 70	$\pm$ 25.0	40	5	45/55%
		-40 to 85	$\pm$ 25.0	40	5	45/55%
80.0MHz	124.999999MHz	-10 to 70	$\pm$ 25.0	50	4	45/55%
		-40 to 85	$\pm$ 25.0	50	4	45/55%
125.0MHz	166.0MHz	-10 to 70	$\pm$ 25.0	60	3	45/55%
		-40 to 85	$\pm$ 25.0	60	3	45/55%

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