

ISSUE 14; April 2022

## Description

- Standard 7 x 5mm crystal oscillator in a ceramic package with a seam sealed metal lid, hermetically sealed.  
Stock parts are available.  
Fast Make capability: CFPP-73 series programmable oscillators are the nearest equivalent fast make model.



## Frequency Parameters

- Frequency: 500.0kHz to 157.0MHz
- Frequency Stability:  $\pm 20.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing:  $\pm 3\text{ppm}$  per year max

## Electrical Parameters

- Supply Voltage:  $3.3\text{V} \pm 10\%$
- Note: parameters are referenced to 15pF load

## Operating Temperature Ranges

- 0 to 70°C
- 40 to 85°C

## Output Details

- Output Compatibility: HCMOS
- Start up time: 10ms max.  
0.9ms typ to 90% of final amplitude ( under ideal conditions @ 25°C)

Drive Capability	
0.5MHz to 50.0MHz	15pF std, 50pF max
50.0MHz to 80.0MHz	15pF std, 30pF max
80.0MHz to 157.0MHz	15pF max

## Output Control

- Standby Operation:  
Logic '1' (>70% VS) to pad 1 enables oscillator output  
Logic '0' (<30% VS) to pad 1 disables oscillator output; the oscillator output goes to the high impedance state  
No connection to pad 1 enables oscillator output  
Standby Current: 10µA max, 0.9µA typ @ 25°C

## Noise Parameters

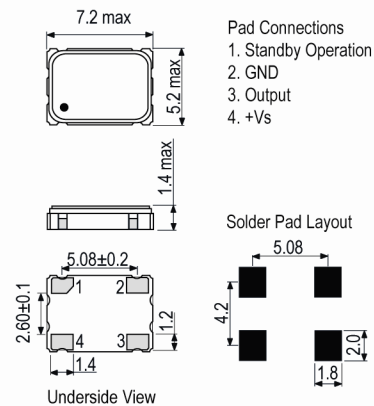
- Phase Noise @125MHz (typical):  
10Hz -54dBc  
100Hz -92dBc  
1kHz -130dBc  
10kHz -149dBc  
100kHz -159dBc  
1MHz -163dBc
- RMS Phase Jitter @125MHz: 52fs typical

## Environmental Parameters

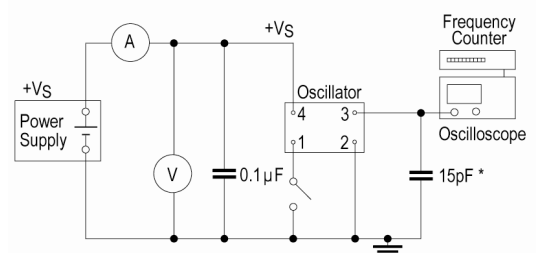
- Shock: MIL-STD-202, Method 213, Condition E
- Vibration: MIL-STD-883, Method 2007, Condition A
- Storage Temperature Range: -55 to 125°C



## Outline (mm)



## Test Circuit



\* Inclusive of jigging and equipment capacitance

## Sales Office Contact Details:

UK: +44 (0)1460 270200

USA: +1.760.318.2824

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

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

### Manufacturing Details

- RoHS Terminations: NiAu
- RoHS Reflow: 260degC 10s

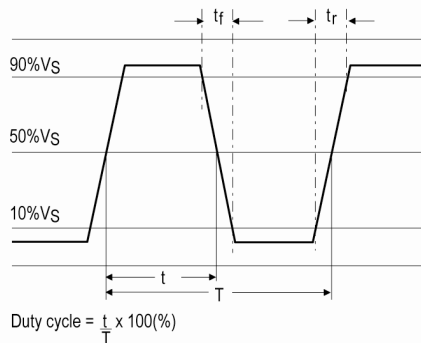
### Compliance

- RoHS Status (2015/863/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

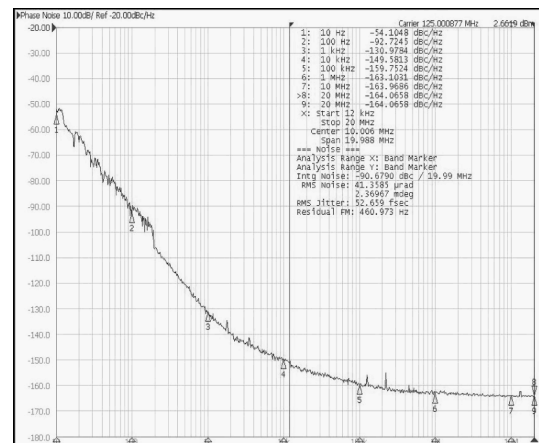
### Packaging Details

- Pack Style: Cutt: In tape, cut from a reel  
Pack Size: 100
- Pack Style: Reel: Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000

### Wave Form



### Phase Noise / Jitter



### Electrical Specification - maximum limiting values @ 15pF and 3.3V ±10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
500.0kHz	19.999999MHz	0 to 70 -40 to 85	±20.0 ±25.0	7 7	10 10	45/55 45/55
20.0MHz	31.999999MHz	0 to 70 -40 to 85	±20.0 ±25.0	12 12	10 10	45/55 45/55
32.0MHz	49.999999MHz	0 to 70 -40 to 85	±20.0 ±25.0	20 20	10 10	45/55 45/55
50.0MHz	79.999999MHz	0 to 70 -40 to 85	±20.0 ±25.0	25 25	8 8	45/55 45/55
80.0MHz	99.999999MHz	0 to 70 -40 to 85	±20.0 ±25.0	30 30	5 5	45/55 45/55
100.0MHz	157.0MHz	0 to 70 -40 to 85	±20.0 ±25.0	40 40	4 4	45/55 45/55

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