

**ISSUE 7; August 2014 - RoHS 2011/65/EU**
**Description**

- Standard 7 x 5mm Voltage Controlled Crystal Oscillator  
Ceramic package with a seam sealed metal lid, hermetically sealed  
For pulling of  $\pm 100$ ppm please see our CFPV-44 range  
For pulling of  $\pm 100$ ppm min APR please see our CFPV-45 range  
For a 5.0V version, please see our CFPV-41 range


**Frequency Parameters**

- Frequency 1.0MHz to 125.0MHz
- Frequency Stability  $\pm 25.00$ ppm to  $\pm 100.00$ ppm

**Electrical Parameters**

- Supply Voltage 3.3V  $\pm 0.3$ V
- Start-Up Time: 10ms max
- Linearity: Positive  $\pm 10\%$  max
- Modulation Bandwidth: 20kHz min

**Frequency Adjustment**

- Pulling  $\pm 50$ ppm min
- Control Voltage 1.65V  $\pm 1.5$ V
- Input Impedence 1-80MHz 100k $\Omega$  typ, >80-125MHz 5

**Operating Temperature Ranges**

- -10 to 70°C
- -40 to 85°C

**Output Details**

- Output Compatability HCMOS
- Drive Capability 15pF max
- Logic '1' (>70%VS) to pad 2 enables oscillator output  
Logic '0' (<30%VS) to pad 2 disables oscillator output; when disabled the oscillator output goes to the high impedance state  
No connection pad 2 enables oscillator output

**Noise Parameters**

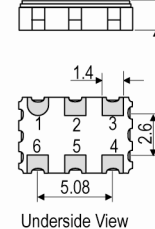
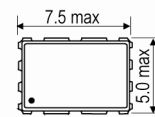
- Phase Jitter: 20MHz max 1ps rms (12kHz - 1MHz)

**Environmental Parameters**

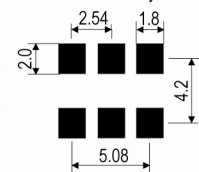
- Storage Temperature Range: -40 to 85°C
- Shock: MIL-STD-202F, Method 213B (1000G, 0.5ms, 1/2 sine)
- Vibration: Sinewave, frequency range 10-55Hz, amplitude 1.52mm, 2hrs in X, Y, Z axes (total 6 hrs)

**Ordering Information**

- Frequency\*  
Model\*  
Output  
Frequency Stability (over operating temperature range)\*  
Operating Temperature Range\*  
Supply Voltage  
Pullability  
(\*minimum required)
- Example  
20.0MHz CFPV-42  
HCMOS  $\pm 50$ ppm -40 to 85C 3.3V  $\pm 50$ ppm min


**Outline (mm)**


Pad Connections  
 1. Voltage Control  
 2. Tri-State Operation  
 3. GND  
 4. Output  
 5. N/C  
 6. +VS

**Solder Pad Layout**

**Sales Office Contact Details:**

UK: +44 (0)1460 270200

France: +33 (0)5 34 50 91 18

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

Germany: +49 (0) 30 408 192 300

USA: +1 408.273.4530

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



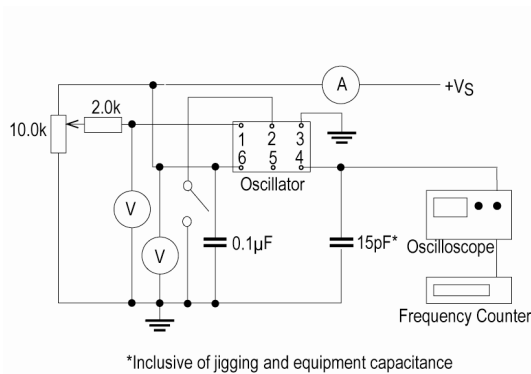
**Compliance**

- RoHS Status                           Compliant
- REACH Status                         Compliant
- MSL Rating (JDEC-STD-033):    Not Applicable

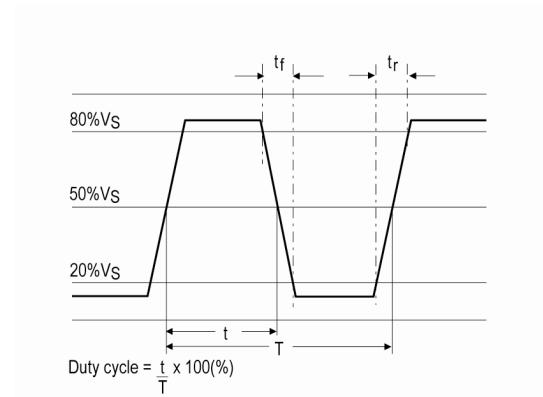
**Packaging Details**

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

**Test Circuit**



**Wave Form**



**Electrical Specification - maximum limiting values 3.3V ±0.3V**

Frequency Min	Frequency Max	Temperature Range	Stability (min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	30.0MHz	-40 to 85	±25.0	15	5	40/60
		-10 to 70	±25.0	15	5	40/60
30.000001MHz	52.0MHz	-40 to 85	±25.0	25	5	40/60
		-10 to 70	±25.0	25	5	40/60
52.000001MHz	125.0MHz	-40 to 85	±50.0	35	5	40/60
		-10 to 70	±50.0	35	5	40/60

*This document was correct at the time of printing; please contact your local sales office for the latest version.*  
[Click to view latest version on our website.](#)

**Sales Office Contact Details:**

UK: +44 (0)1460 270200

Germany: +49 (0) 30 408 192 300

France: +33 (0)5 34 50 91 18

USA: +1 408.273.4530

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

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