

ISSUE 7; February 2017

Description

- Standard 7 x 5mm Voltage Controlled Crystal Oscillator Ceramic package with a seam sealed metal lid, hermetically sealed
- For pulling of $\pm 100\text{ppm}$ please see our CFPV-43 range
- For pulling of $\pm 100\text{ppm}$ min APR please see our CFPV-46 range
- For a 3.3V version, please see our CFPV-42 range



Frequency Parameters

- Frequency: 1.0MHz to 80.0MHz
- Frequency Stability: $\pm 25.00\text{ppm}$ to $\pm 100.00\text{ppm}$

Electrical Parameters

- Supply Voltage: 5.0V $\pm 0.25\text{V}$
- Start-Up Time: 10ms max

Frequency Adjustment

- Pulling: $\pm 50\text{ppm}$ min
- Control Voltage: 2.5V $\pm 2.0\text{V}$
- Input Impedance: 100k Ω typ
- Linearity: Positive $\pm 10\%$ max
- Modulation Bandwidth: 20kHz min

Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C

Output Details

- Output Compatibility: HCMOS
- Drive Capability: 15pF max
- Logic '1' ($>70\%V_S$) to pad 2 enables oscillator output
- Logic '0' ($<30\%V_S$) 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

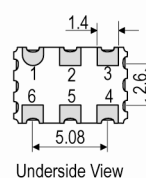
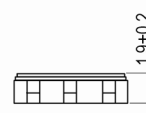
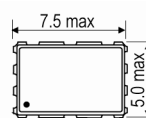
- Storage Temperature Range: -40 to 85°C
- Shock: MIL-STD-202F, Method 213B (1000G, 0.5ms, 1/2 sine)
- Vibration: Sinewave, frequency range 10-55Hz, amplitude 1.52mm, 2hrs in X, Y, Z axes (total 6 hrs)

Ordering Information

- Frequency*
- Model*
- Output
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Supply Voltage
- Pullability
- (*minimum required)
- Example
- 20.0MHz CFPV-41
- HCMOS $\pm 50\text{ppm}$ -40 to 85C 5.0V $\pm 50\text{ppm}$ min

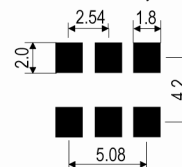


Outline (mm)



- Pad Connections
- Voltage Control
 - Tri-State Operation
 - GND
 - Output
 - N/C
 - +V_S

Solder Pad Layout



Sales Office Contact Details:

UK: +44 (0)1460 270200

Germany: 0800 1808 443

France: 0800 901 383

USA: +1.760.318.2824

Email: info@iqdfrequencyproducts.com

Web: www.iqdfrequencyproducts.com

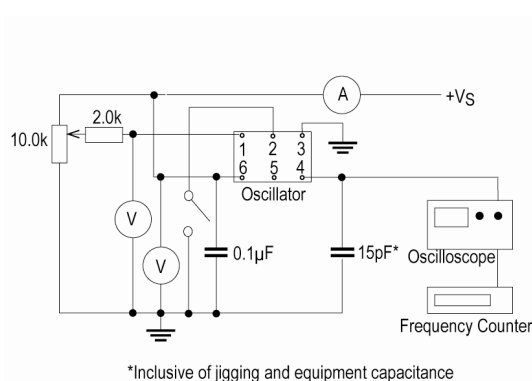
Compliance

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

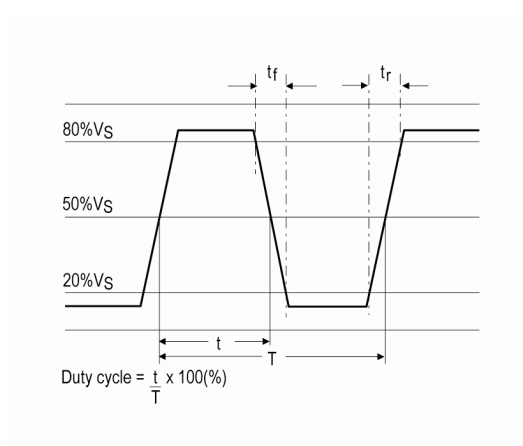
Packaging Details

- 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: 100
- Pack Style: Bulk Loose in bulk pack
Pack Size: 100

Test Circuit



Wave Form



Electrical Specification - maximum limiting values 5.0V ±0.25V

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	18.0MHz	-10 to 70	±25.0	20	5	40/60%
		-40 to 85	±25.0	20	5	40/60%
18.000001MHz	30.0MHz	-10 to 70	±25.0	30	5	40/60%
		-40 to 85	±25.0	30	5	40/60%
30.000001MHz	36.0MHz	-10 to 70	±25.0	30	5	40/60%
		-40 to 85	±25.0	30	5	40/60%
36.000001MHz	52.0MHz	-10 to 70	±25.0	40	5	40/60%
		-40 to 85	±25.0	40	5	40/60%
52.000001MHz	80.0MHz	-10 to 70	±50.0	50	5	40/60%
		-40 to 85	±50.0	50	5	40/60%

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

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Sales Office Contact Details:

UK: +44 (0)1460 270200

Germany: 0800 1808 443

France: 0800 901 383

USA: +1.760.318.2824

Email: info@iqdfrequencyproducts.com

Web: www.iqdfrequencyproducts.com