

**ISSUE 7; April 2016**
**Description**

- Standard 7 x 5mm Voltage Controlled Crystal Oscillators  
Pulling of  $\pm 100$ ppm min APR  
Available in 5.0V supply  
Ceramic package with a seam sealed metal lid, hermetically sealed


**Frequency Parameters**

- Frequency: 1.5MHz to 51.84MHz
- Frequency Stability:  $\pm 100.00$ ppm

**Electrical Parameters**

- Supply Voltage: 5.0V  $\pm 0.25$ V

**Frequency Adjustment**

- Pulling:  $\pm 100$ ppm min APR
- Control Voltage: 2.5V  $\pm 2.0$ V
- Input Impedence: 50k $\Omega$  min
- Modulation Bandwidth: >10kHz (@-3dB, Vc=2.5V)
- Linearity: Positive <  $\pm 10\%$

**Operating Temperature Ranges**

- 0 to 70°C

**Output Details**

- Output Compatability: HCMOS
- Drive Capability: 15pF max
- Logic '1' (>2.5V) to pad 2 enables oscillator output  
Logic '0' (<0.5V) 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: 20ps max @ 1sigma

**Environmental Parameters**

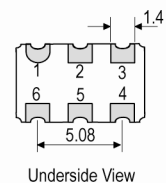
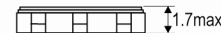
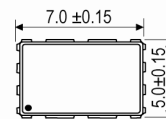
- Operable Temperature Range: -40 to 85°C
- Shock: MIL-STD-202, Method 213, Cond. E
- Vibration: MIL-STD-883, Method 2007, Cond. A
- Storage Temperature Range: -55 to 125°C

**Ordering Information**

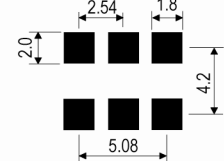
- Frequency\*  
Model\*  
Output  
Frequency Stability (over operating temperature range)  
Operating Temperature Range  
Supply Voltage  
Pullability
- Example  
20.0MHz CFPV-46  
HCMOS  $\pm 100$ ppm 0 to 70C 5.0V  $\pm 100$ ppm min

**Compliance**

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


**Outline (mm)**


- Pad Connections
- Voltage Control
  - Tri-State Operation
  - Ground
  - Output
  - N/C
  - +VS

**Solder Pad Layout**

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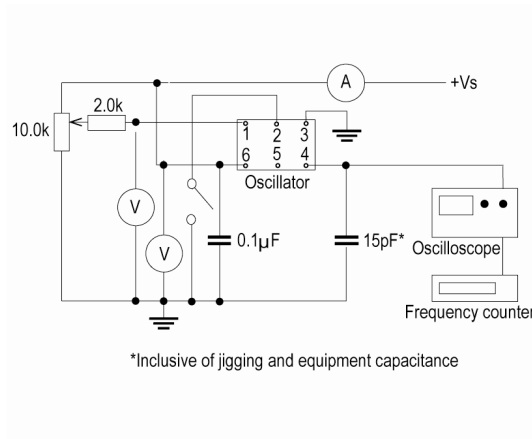
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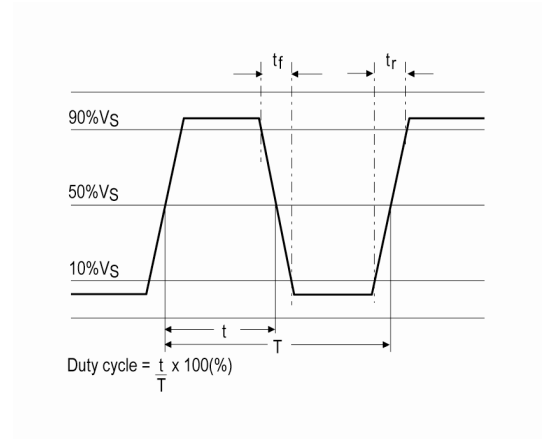
**Packaging Details**

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

**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	%
1.5MHz	51.84MHz	0 to 70	±100.0	60	10	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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