



ISSUE 12; August 2012 - RoHS 2011/65/EU



### Description

- Standard 7 x 5 crystal oscillators
- 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
- MEMS capability: IQMS-500 series oscillators are the nearest equivalent MEMS model

### Frequency Range

- Frequency 0.5 to 156.0 MHz

### Supply Voltage

- Voltage 3.3V  $\pm 10\%$

### Ageing

- Ageing  $\pm 3$ ppm per year max

### Output Compatibility & Load

- Output Compatibility HCMOS

| Maximum Capacitive Load |          |
|-------------------------|----------|
| 0.5MHz to 50MHz         | 50pF max |
| >50MHz to 80MHz         | 30pF max |
| >80MHz to 160MHz        | 15pF max |

### Frequency Stabilities

- Frequency Stability  $\pm 20$ ppm,  $\pm 25$ ppm,  $\pm 50$ ppm,  $\pm 100$ ppm (inclusive of supply voltage and output load variations over the operating temperature range)

### Operating Temperature Ranges

- 0 to 70°C
- 40 to 85°C

### Output Control

- 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: 10 $\mu$ A max

### Environmental Parameters

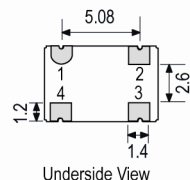
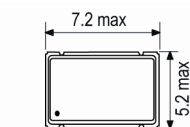
- Shock: MIL-STD-202, Method 213, Condition E
- Vibration: MIL-STD-883, Method 2007, Condition A
- Storage Temperature Range: -55 to 125°C

### Packing Details

- Pack Style: **Bulk** Loose in bulk pack
- Pack Size 100
- Pack Style: **Reel** Tape and reel in accordance with EIA-481-D
- Pack Size 1,000
- Alternative packing options available

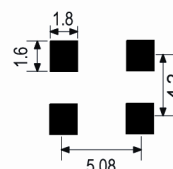


### Outline (mm)

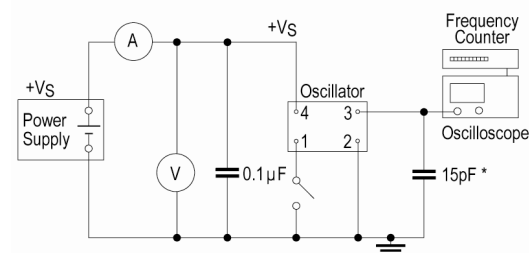


Pad Connections  
1. Standby Operation  
2. GND  
3. Output  
4. +VS

### Solder Pad Layout



### Test Circuit



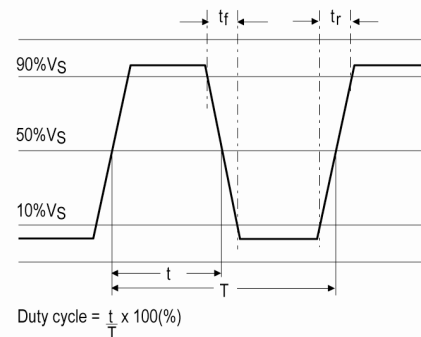
\* Inclusive of jigging and equipment capacitance

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**Wave Form****Electrical Specification - maximum limiting values 3.3V ±10%**

| Frequency Range      | Temp Range  | Stability Inclusive |         | Current Draw | Rise & Fall (10 to 90%) | Duty Cycle % |
|----------------------|-------------|---------------------|---------|--------------|-------------------------|--------------|
|                      |             | Min                 | Max     |              |                         |              |
| 0.5 to 19.999999MHz  | 0 to 70°C   | ±20ppm              | ±100ppm | 7.0mA        | 10ns                    | 45/55        |
|                      | -40 to 85°C | ±25ppm              | ±100ppm | 7.0mA        | 10ns                    | 45/55        |
| 20.0 to 31.999999MHz | 0 to 70°C   | ±20ppm              | ±100ppm | 12.0mA       | 10ns                    | 45/55        |
|                      | -40 to 85°C | ±25ppm              | ±100ppm | 12.0mA       | 10ns                    | 45/55        |
| 32.0 to 49.999999MHz | 0 to 70°C   | ±20ppm              | ±100ppm | 20.0mA       | 10ns                    | 45/55        |
|                      | -40 to 85°C | ±25ppm              | ±100ppm | 20.0mA       | 10ns                    | 45/55        |
| 50.0 to 79.999999MHz | 0 to 70°C   | ±20ppm              | ±100ppm | 25.0mA       | 8ns                     | 45/55        |
|                      | -40 to 85°C | ±25ppm              | ±100ppm | 25.0mA       | 8ns                     | 45/55        |
| 80.0 to 99.999999MHz | 0 to 70°C   | ±20ppm              | ±100ppm | 30.0mA       | 5ns                     | 45/55        |
|                      | -40 to 85°C | ±25ppm              | ±100ppm | 30.0mA       | 5ns                     | 45/55        |
| 100.0 to 156.0MHz    | 0 to 70°C   | ±20ppm              | ±100ppm | 40.0mA       | 4ns                     | 45/55        |
|                      | -40 to 85°C | ±25ppm              | ±100ppm | 40.0mA       | 4ns                     | 45/55        |

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

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