

ISSUE 12; October 2015

Description

- Standard 7 x 5mm crystal oscillator
- 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: $3.3\text{V} \pm 10\%$

Operating Temperature Ranges

- 0 to 70°C
- -40 to 85°C

Output Details

- Output Compatibility: HCMOS

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

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: $10\mu\text{A}$ max

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

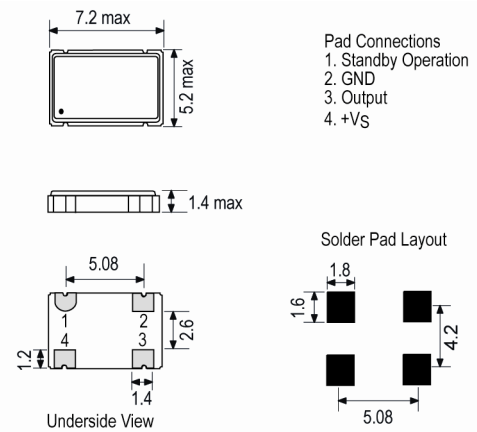
- Shock: MIL-STD-202, Method 213, Condition E
- Vibration: MIL-STD-883, Method 2007, Condition A
- Storage Temperature Range: -55 to 125°C

Compliance

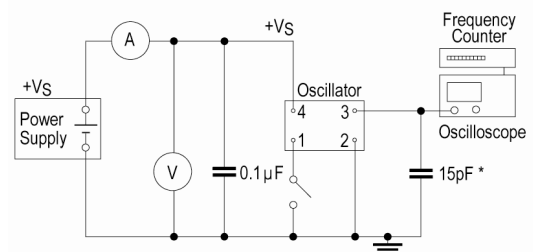
- RoHS Status (2011/65/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



Outline (mm)



Test Circuit



* Inclusive of jigging and equipment capacitance

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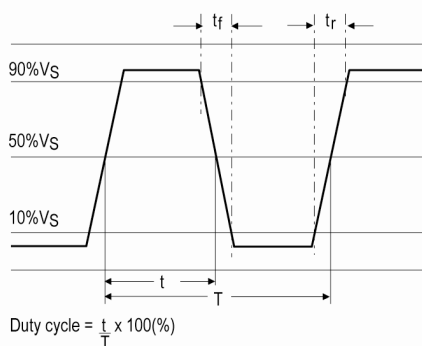
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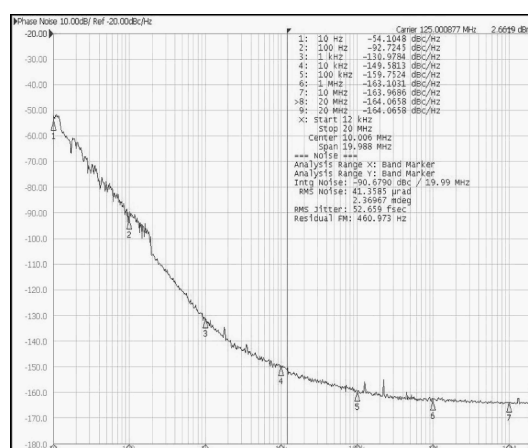
Packaging Details

- Pack Style: R500 Tape and reel of 500pcs
Pack Size: 500
- Pack Style: Bulk Loose in bulk pack
Pack Size: 100
- Pack Style: R250 Tape and reel of 250pcs
Pack Size: 250
- 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 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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