

ISSUE 4; April 2016

### Description

- High frequency 3.3V surface mount oscillator in a ceramic package, with a hermetically sealed metal lid and LVPECL outputs



### Frequency Parameters

- Frequency: 12.0MHz to 800.0MHz
- Frequency Stability:  $\pm 25.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Frequency Stabilities:  $\pm 25\text{ppm}$ ,  $\pm 50\text{ppm}$ ,  $\pm 100\text{ppm}$  (inclusive of supply voltage and output load variations over the operating temperature range)

### Electrical Parameters

- Supply Voltage: 3.3V  $\pm 5\%$

### Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C

### Output Details

- Output Compatibility: LVPECL
- Drive Capability: 50Ω terminated to  $V_s - 2.0V$

### Output Control

- Enable/Disable Operation:  
 Logic '0' to pad 2 (<1.7V) enables oscillator output  
 Logic '1' to pad 2 (>2.2V) disables oscillator output; oscillator output goes to the high impedance state  
 No connection to pad 2 enables oscillator output

### Output Levels

- '0' Level  $V_{ol} + 1.7V$  max
- '1' Level  $V_{oh} + 2.2V$  min

### Noise Parameters

- Phase Jitter(12kHz to 20MHz): 5ps rms max
- Phase Noise (max): -110dBc/Hz @ 10kHz

### Environmental Parameters

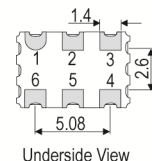
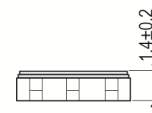
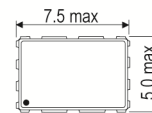
- Storage Temperature Range: -40 to 85°C
- Shock: MIL-STD-202F, Method 213B (1000G, 0.5ms, 1/2 sinewave)
- Vibration: MIL-STD-202F, Method 204D, test condition D20G, freq range 10-2000Hz, 4 hours for X, Y & Z axes (total 12 hours)

### Ordering Information

- (minimum required\*):  
 Frequency\*  
 Model\*  
 Output  
 Frequency Stability\*  
 Operating Temperature Range\*  
 Supply Voltage
- Example:  
 100.0MHz CFPS-64  
 LVPECL  $\pm 100\text{ppm}$  -10 to 70C 3.3V



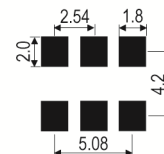
### Outline (mm) E/D on pad 2, pad 1 N/C



#### Pad Connections

- N/C
- Enable/Disable
- GND
- Output 1
- Output 2
- +Vs

#### Solder Pad Layout



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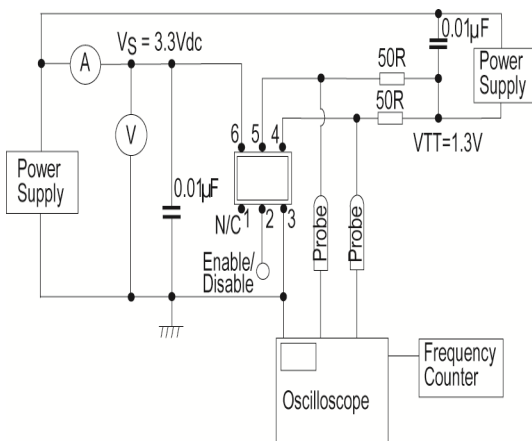
### Compliance

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

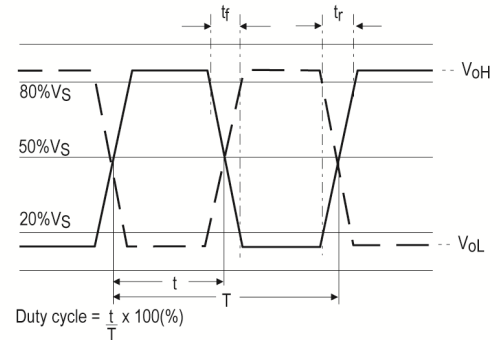
### Packaging Details

- 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

### Test Circuit



### Wave Form



### Electrical Specification - maximum limiting values 3.3V ±5%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
12.0MHz	99.999999MHz	-10 to 70	±25.0	120	1	40/60%
		-40 to 85	±50.0	120	1	40/60%
100.0MHz	800.0MHz	-10 to 70	±25.0	120	0.5	40/60%
		-40 to 85	±50.0	120	0.5	40/60%

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