



Features and Benefits

- Frequency range: 1-170MHz
- Supply voltage: 3.3V
- Steady current: 50mA Max
- Output waveform: CMOS
- Frequency stability vs. operating temperature: ±20ppm
- Aging: ±3.0ppm per year
- Operating temperature: -40°C to +85°C
- Size: 14x9.6x5.6mm

Typical Applications

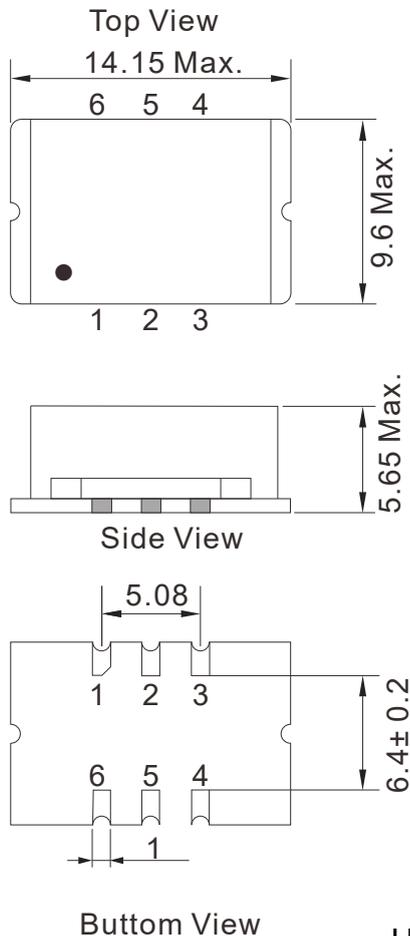
- Fiber channel
- Ethernet
- SDH
- Serial ATA
- SCSI
- SONET

Description

XO1490AL offers good frequency stability and low phase jitter performance.

Mechanical Drawing & Pin Connections

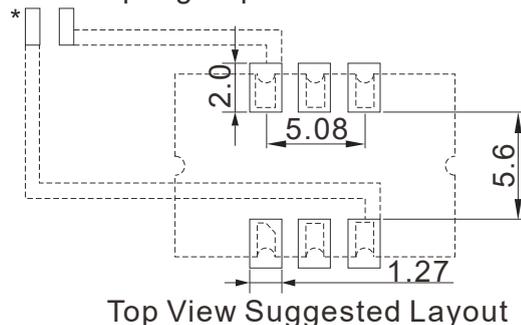
Drawing No: A8 & \$\$\$&!%



Pin Connections

| Pin No. | Connection |
|---------|------------|
| 1 | OE or NC |
| 2 | OE or NC |
| 3 | GND |
| 4 | Output |
| 5 | NC |
| 6 | Vcc |

* External high frequency power supply decoupling required.



Unit in mm
1mm = 0.0394 inches



Specifications

| Oscillator Specification | Sym | Condition | Value | | | Unit | Note |
|---------------------------------|------------------|-------------|---------------------|------|---------------------|------|------|
| | | | Min. | Typ. | Max. | | |
| Operational Frequency | F _{nom} | | 1 | | 170 | MHz | |
| Output | | | | CMOS | | | |
| Output load | | | | 15 | | pF | |
| Duty cycle | | | 40 | | 60 | % | |
| Rise/Fall time | | | | | 10 | nS | |
| Level | High Level | | 0.9*V _{cc} | | | V | |
| | Low Level | | | | 0.1*V _{cc} | V | |
| Power Supply | | | | | | | |
| Voltage | V _{cc} | | 1.8 | 3.3 | 5.0 | V | |
| Current | | | | | 50 | mA | |
| Start up time | | | | | 10 | mS | |
| Frequency Stability | | | | | | | |
| Versus Temperature | | | ±20, ±25 or Specify | | | ppm | |
| Aging/Year | | At +25°C | | | ±3 | ppm | |
| Phase Jitter | | 12KHz-20MHz | | | 1 | pS | |
| Period Jitter | | | | | 40 | pSec | |
| Environmental Conditions | | | | | | | |
| Operating temperature range | -40°C to +85°C | | | | | | |
| Storage temperature range | -55°C to +125°C | | | | | | |