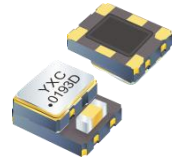


Programmable Differential Oscillator YSO250PT TCXO



Applications

- networking
- industrial

Features

- With low current consumption (44 mA for PECL 212.500 MHz at 3.3V)
- Low jitter design with new developed IC
- Package Size: 3.2*2.5mm, 7.0*5.0mm

Specifications

| Output Type | PECL | LVDS |
|--|--|---|
| Frequency Range | 10MHz to 1500MHz | 10MHz to 1500MHz |
| Supply Voltage VDD | 2.5V, 3.3V | 2.5V, 3.3V |
| Operating Temperature Range | -40~+85°C, or specify | -40~+85°C, or specify |
| Storage Temperature Range | -55~+150°C | -55~+150°C |
| Output Load | 50 Ω into Vcc - 2V or Thevenin equivalent | 100 Ω |
| Rise Time/Fall Time (Tr / Tf : 10% ↔ 90% waveform) | 0.2 nsec. (typ.) , 0.5 nsec. (max.) | 0.2 nsec. (typ.) , 0.4 nsec. (max.) |
| Duty Cycle | 45~55% | 45~55% |
| Start-up Time | 5.0 msec. (max.) | 5.0 msec. (max.) |
| RMS Jitter [12 kHz ~ 20 MHz] | 1.5 psec (typ.) | 1.5 psec (typ.) |
| Current Consumption (max.) (VDD = + 2.5V) | 50 MHz : 46 mA | 50 MHz : 32 mA |
| | 125 MHz : 50 mA | 125 MHz : 40 mA |
| | 200 MHz : 60 mA | 200 MHz : 44 mA |
| Current Consumption (max.) (VDD = + 3.3V) | 50 MHz : 50 mA | 50 MHz : 35 mA |
| | 125 MHz : 55 mA | 125 MHz : 40 mA |
| | 200 MHz : 62 mA | 200 MHz : 44 mA |
| Current with Output Disabled | 18 mA (Typ.) | 18 mA (Typ.) |
| Initial Calibration Tolerance | ±2.0 ppm (max.) at +25°C±2°C (at the shipment) | |
| Frequency Stability | Temperature (ref to +25°C) | ± 2.5 ppm over -30°C to +85°C (default) |
| | | ± 1.0 ppm over -40°C to +85°C (available) |
| | Aging at Ta = +25°C | ± 2.0 ppm max, first year at 25°C |
| | Voltage Change | ± 0.2 ppm max, for a ±5% input voltage change. |
| | Load Change | ± 0.2 ppm max, for a ±10% load condition change. |
| | Reflow | ± 1.0 ppm max, 1 reflow and measured 24 hours afterwards. |
| Output Enable Function on pad 2 | | |
| OE Control on Pad 2 | 70% of VDD (min.) to enable output. (Open connection prohibit.) | |
| | 30% of VDD (max.) to disable output. | |
| Output Enable Time / Disable Time | 200 nsec. (max.) / 50 nsec. (max.) | |

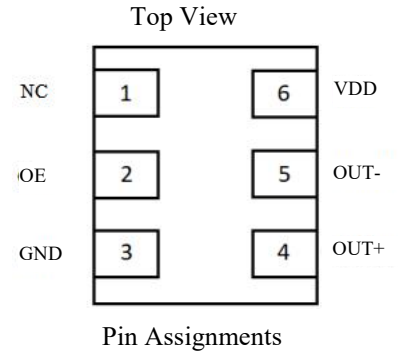
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Pin Dimension

| | | | |
|----------|------|------|-----|
| Pin | #1 | #2 | #3 |
| FUNCTION | NC | OE | GND |
| Pin | #4 | #5 | #6 |
| FUNCTION | OUT+ | OUT- | VDD |



Dimensions and Recommended land pattern

| Package Size – Dimensions (Unit: mm) | Recommended Land Pattern (Unit: mm) |
|--------------------------------------|-------------------------------------|
| <p>3.2*2.5mm</p> | |
| <p>7.0*5.0mm</p> | |

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Test Circuit

