

XOPL81 SERIES LVDS Oscillator 11.4 x 9.6mm SMD Package

DESCRIPTION

The XOPL81 range of factory programmable LVDS oscillators provide custom frequency and specification oscillators within very short lead times. The parts are very reliable in use and have stabilities from ± 50 ppm over -40° to 85°C . In addition to the stability over operating temperature range customers may also choose from supply voltages of 3.3 and 5.0 Volts. The 3.3 Volt supply version will drive 2.5 Volt logic arrays.

FEATURES

- Very quick delivery available
- Miniature 11.4 x 9.6mm SMD package
- Frequency range 1MHz to 133MHz
- Supply Voltage 3.3 Volts or 5.0 Volts
- Applications: XAUI, 1 & 10 Gigabit Ethernet, Fibre Channel, iSCSI, Sonet, Infiniband, Hypertransport, PCI Express, SPI 4.2, Serial ATA

GENERAL SPECIFICATION

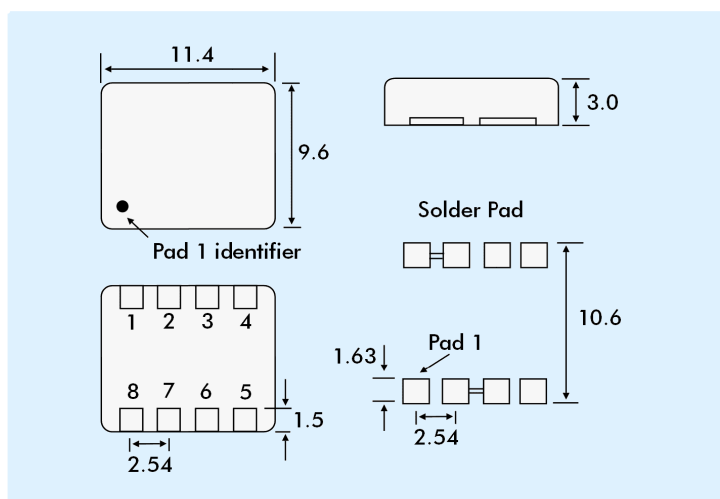
Package Type:	8 pad SMD, sealed package
Frequency Range:	1.0MHz to 133.0MHz
Supply Voltage:	5.0 Volts $\pm 5\%$ or 3.3 Volts $\pm 5\%$
Frequency Stability*:	± 25 ppm to ± 100 ppm (over operating temperature range)
Operating Temperature Range:	-20° ~ $+70^{\circ}\text{C}$, Commercial -40° ~ $+85^{\circ}\text{C}$, Industrial
Storage Temperature Range:	-55° to $+125^{\circ}\text{C}$
Ageing:	± 5 ppm/year maximum ($T_a = 25^{\circ}\text{C}$, $V_{dd} = 3.3\text{V}$ or 5.0V)
Packaging:	Bulk pack or tubed
Output Levels:	LVDS
Power Supply Current:	40mA maximum
Output Waveform	
Symmetry:	45/55% to 55/45% (1.25 volt level)
Steady-State Common Mode:	1.125 Volts to 1.375 volts
Differential Output:	0.247 Volts to 0.470 Volts p-p
Rise/fall Times:	1ns maximum
Output Load:	RL = 100 ohms maximum CL = 10 pF maximum (scope with 10pF maximum probe from VoD+ to Gnd and VoD- to Gnd)

* The frequency stability parameter is an inclusive figure and includes adjustment tolerance at 25°C , stability over operating temperature range, variations due to load change and shock and vibration.

PRODUCT SELECTION

Model Number	Frequency Stability (ppm)	Operating Temperature Range
XOPL81100UD	± 100	-20° ~ $+70^{\circ}$
XOPL81050UD	± 50	-20° ~ $+70^{\circ}$
XOPL81025UD	± 25	-20° ~ $+70^{\circ}$
XOPL81100UI	± 100	-40° ~ $+85^{\circ}$
XOPL81050UI	± 50	-40° ~ $+85^{\circ}$

OUTLINE & DIMENSIONS



PAD CONNECTIONS

- Pad 1 NC
- Pad 2 Connected to Pad 3
- Pad 3 Connected to Pad 2
- Pad 4 Ground
- Pad 5 LVDS-
- Pad 6 LVDS+
- Pad 7 Supply Voltage
- Pad 8 Supply Voltage

Note: Pad 2 & 3 connect
Pad 7 & 8 connect

PART NUMBER GENERATION

Frequency	Model No.	Temperature Range	Supply Voltage
Nominal Frequency (MHz)	See table	D = -20° ~ $+70^{\circ}\text{C}$ I = -40° ~ $+85^{\circ}\text{C}$	Blank = 5.0 Volts A = 3.3 Volts

EXAMPLE: 72.600MHz XOPL81050UDA

Frequency = 72.600MHz, XOPL81 package, ± 50 ppm -20° ~ $+70^{\circ}\text{C}$, supply voltage 3.3 Volts, LVDS Output