

### 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  $\pm 50$ ppm over  $-40^{\circ}$  to  $85^{\circ}$ 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

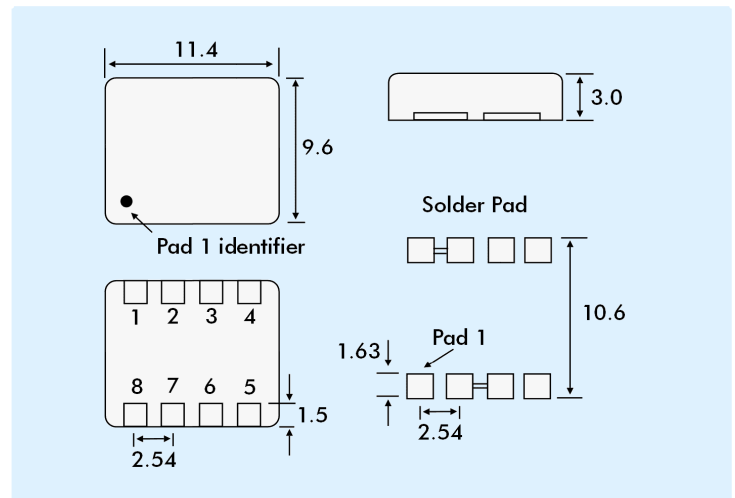
<b>Package Type:</b>	8 pad SMD, sealed package
<b>Frequency Range:</b>	1.0MHz to 133.0MHz
<b>Supply Voltage:</b>	5.0 Volts $\pm 5\%$ or 3.3 Volts $\pm 5\%$
<b>Frequency Stability*:</b>	$\pm 25$ ppm to $\pm 100$ ppm (over operating temperature range)
<b>Operating Temperature Range:</b>	$-20^{\circ}$ ~ $+70^{\circ}$ C, Commercial $-40^{\circ}$ ~ $+85^{\circ}$ C, Industrial
<b>Storage Temperature Range:</b>	$-55^{\circ}$ to $+125^{\circ}$ C
<b>Ageing:</b>	$\pm 5$ ppm/year maximum ( $T_a = 25^{\circ}$ C, $V_{dd} = 3.3V$ or $5.0V$ )
<b>Packaging:</b>	Bulk pack or tubed
<b>Output Levels:</b>	LVDS
<b>Power Supply Current:</b>	40mA maximum
<b>Output Waveform</b>	
<b>Symmetry:</b>	45/55% to 55/45% (1.25 volt level)
<b>Steady-State Common Mode:</b>	1.125 Volts to 1.375 volts
<b>Differential Output:</b>	0.247 Volts to 0.470 Volts p-p
<b>Rise/fall Times:</b>	1ns maximum
<b>Output Load:</b>	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  $25^{\circ}$ 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	$\pm 100$	$-20^{\circ}$ ~ $+70^{\circ}$
XOPL81050UD	$\pm 50$	$-20^{\circ}$ ~ $+70^{\circ}$
XOPL81025UD	$\pm 25$	$-20^{\circ}$ ~ $+70^{\circ}$
XOPL81100UI	$\pm 100$	$-40^{\circ}$ ~ $+85^{\circ}$
XOPL81050UI	$\pm 50$	$-40^{\circ}$ ~ $+85^{\circ}$

#### 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 = $-20^{\circ}$ ~ $+70^{\circ}$ C I = $-40^{\circ}$ ~ $+85^{\circ}$ C	Blank = 5.0 Volts A = 3.3 Volts

EXAMPLE: 72.600MHz XOPL81050UDA

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