# ZL30230
# Four Channel Universal Clock Generator

Short Form Data Sheet

June 2011

## Features

- Generates clock signals at power-up per user defined custom OTP (One Time Programmable) configuration
- Operates from a single crystal resonator, clock oscillator or voltage controlled oscillator
- Four independently programmable clock synthesizers generate any clock rate from 1 kHz to 720 MHz
- Precision synthesizers generate clocks with jitter below 0.7 ps RMS for 10 G PHYs
- General purpose synthesizers generate a wide range of digital bus clocks
- Supports programmable frequency offsets for clock margining; or for use as a digitally controlled oscillator
- Eight LVPECL outputs; max rate 720 MHz
- Four LVCMOS outputs; max rate 177.5 MHz

**Ordering Information**

| | | |
|---|---|---|
| ZL30230GGG | 100 Pin LBGA | 11mmx11mm Trays |
| ZL30230GGG2 | 100 Pin LBGA* | 11mmx11mm Trays |

*Pb Free Tin/Silver/Copper

**-40°C to +85°C**

- Eight outputs configurable as LVCMOS at 3.3/2.5/1.8 or 1.5 V, max rate160 MHz; or LVDS/LVPECL/HCSL, max rate 350 MHz
- Dynamically Configurable via SPI/I2C interface

## Applications

- Timing for NPUs, FPGAs, Ethernet switches and PCIe switches
- Timing for 10 Gigabit CDRs, Rapid-IO, PCIe, Serial MII, Star Fabric, Fibre Channel, XAUI
- Processor clock, Processor bus clock, SDRAM clock, DDR clock

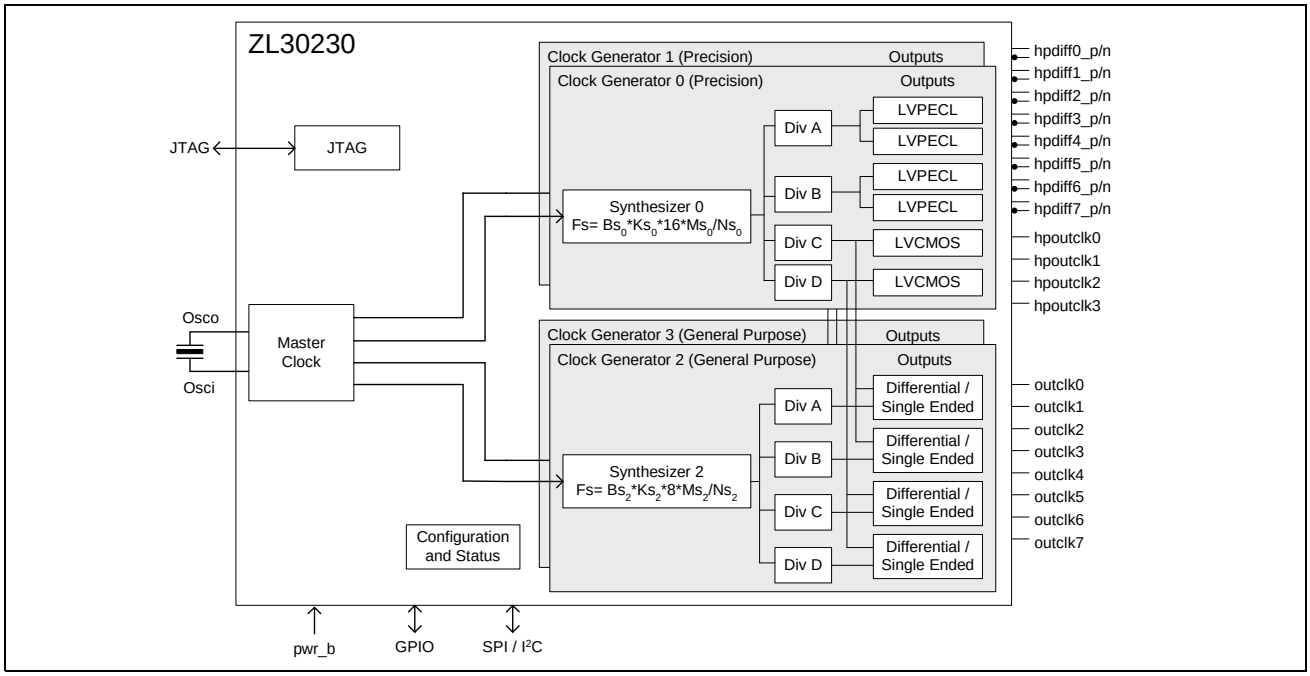



**Figure 1 - Functional Block Diagram**

## Description

The ZL30230 Four Channel Universal Clock Generator, part of Zarlink's ClockCenter platform of Free Run Clock devices, delivers industry leading performance for a range of free run applications. The free run synchronization solution allows designers to replace multiple, costly components with a highly integrated and programmable, singlechip solution.

The ZL30230 device generates up to 20 clocks from a single crystal, allowing designers to replace numerous oscillators traditionally used to provide timing for various components with one chip.

## Change Summary

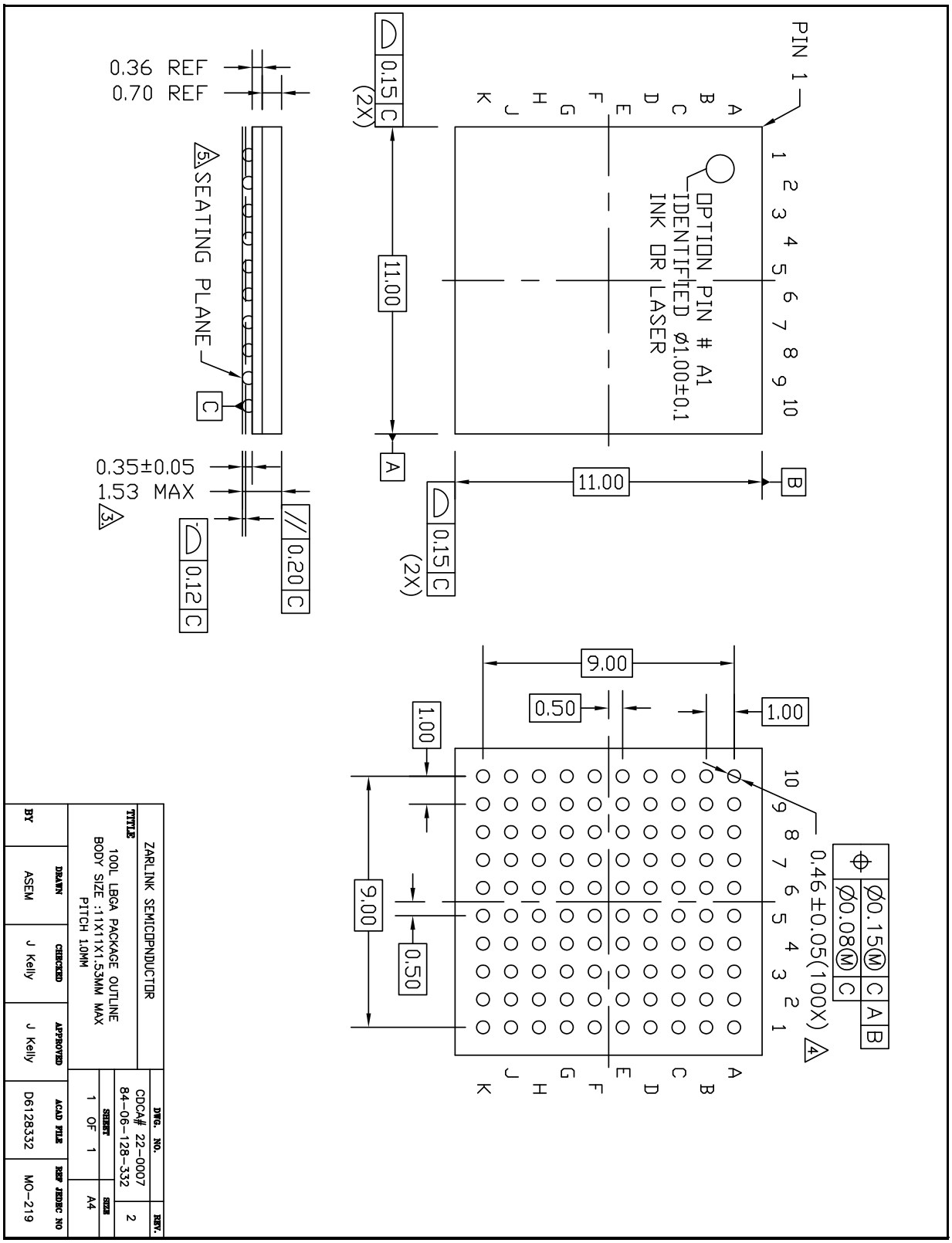
Below are the changes from the June 2011 issue to the July 2011 issue.

| Page | Item | Change |
|---|---|---|
| 1 | Features | Added OTP feature. |

Below are the changes from the January 2011 issue to the June 2011 issue.

| Page | Item | Change |
|---|---|---|
| 1 | Ordering Information | Corrected package description in ordering information to LBGA. |
| 3 | Mechanical Drawing | Replaced drawing to reflect correct package description. |

## Mechanical Drawing



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**www.zarlink.com**