

ZL30230 Four Channel Universal Clock Generator

Short Form Data Sheet

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

June 2011

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, PCle, Serial MII, Star Fabric, Fibre Channel, XAUI
- Processor clock, Processor bus clock, SDRAM clock, DDR clock

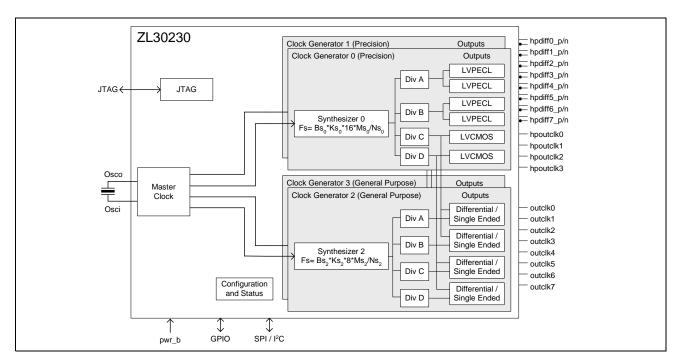


Figure 1 - Functional Block Diagram

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

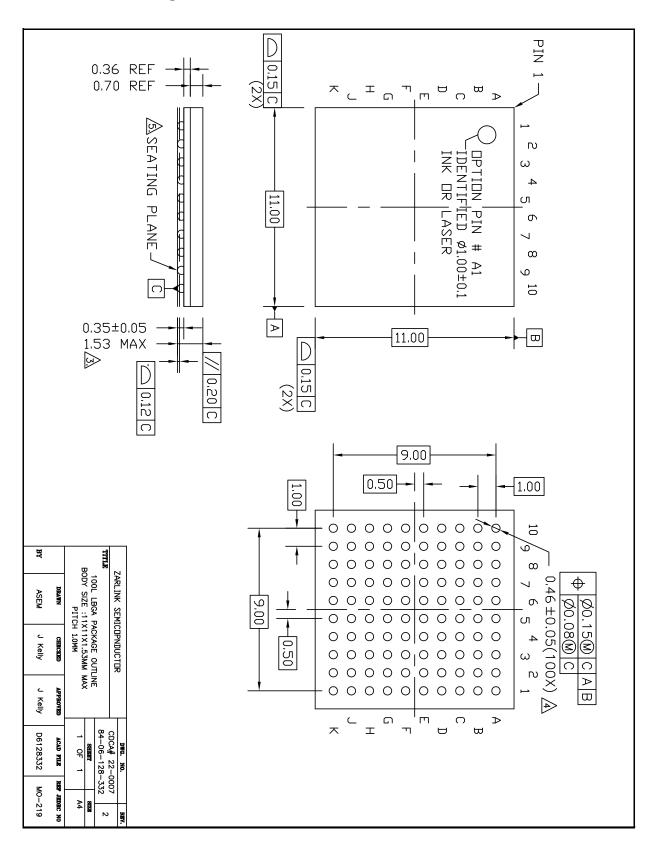
Below are the changes from the June 2011 issue to the July 2011 issue.

Page	ltem	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





For more information about all Zarlink products visit our Web Site at www.zarlink.com

Information relating to products and services furnished herein by Zarlink Semiconductor Inc. or its subsidiaries (collectively "Zarlink") is believed to be reliable. However, Zarlink assumes no liability for errors that may appear in this publication, or for liability otherwise arising from the application or use of any such information, product or service or for any infringement of patents or other intellectual property rights owned by third parties which may result from such application or use. Neither the supply of such information or purchase of product or service conveys any license, either express or implied, under patents or other intellectual property rights owned by Zarlink or licensed from third parties by Zarlink, whatsoever. Purchasers of products are also hereby notified that the use of product in certain ways or in combination with Zarlink, or non-Zarlink furnished goods or services may infringe patents or other intellectual property rights owned by Zarlink.

This publication is issued to provide information only and (unless agreed by Zarlink in writing) may not be used, applied or reproduced for any purpose nor form part of any order or contract nor to be regarded as a representation relating to the products or services concerned. The products, their specifications, services and other information appearing in this publication are subject to change by Zarlink without notice. No warranty or guarantee express or implied is made regarding the capability, performance or suitability of any product or service. Information concerning possible methods of use is provided as a guide only and does not constitute any guarantee that such methods of use will be satisfactory in a specific piece of equipment. It is the user's responsibility to fully determine the performance and suitability of any equipment using such information and to ensure that any publication or data used is up to date and has not been superseded. Manufacturing does not necessarily include testing of all functions or parameters. These products are not suitable for use in any medical products whose failure to perform may result in significant injury or death to the user. All products and materials are sold and services provided subject to Zarlink's conditions of sale which are available on request.

Purchase of Zarlink's I₂C components conveys a license under the Philips I₂C Patent rights to use these components in an I₂C System, provided that the system conforms to the I₂C Standard Specification as defined by Philips.

Zarlink, ZL, the Zarlink Semiconductor logo and the Legerity logo and combinations thereof, VoiceEdge, VoicePort, SLAC, ISLIC, ISLAC and VoicePath are trademarks of Zarlink Semiconductor Inc.

TECHNICAL DOCUMENTATION - NOT FOR RESALE