

ZL30237 Dual Channel Universal NCO Clock Generator

Data Sheet

April 2011

Features

- Operates from a single crystal resonator, clock oscillator or voltage controlled oscillator
- Two independently programmable Numerically Controlled Oscillators (NCOs) generate any clock rate from 1 kHz to 720 MHz
- NCOs generate clocks with jitter below 0.7 ps RMS for 10 G PHYs
- Frequency of each synthesizers can be fine tuned up to +/-5% by corresponding fine frequency adjustment circuit with resolution of 0.24 ppb
- Fine frequency adjustment circuit dynamically configurable via SPI/I2C interface
- Supports programmable frequency offsets for clock margining.
- Eight LVPECL outputs; max rate 720 MHz
- Four LVCMOS outputs; max rate 177.5 MHz

Ordering Information

ZL30237GGG 100 CABGA 11mm x 11mm Trays ZL30237GGG2 100 CABGA* 11mm x 11mm Trays

*Pb Free Tin/Silver/Copper

-40°C to +85°C

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

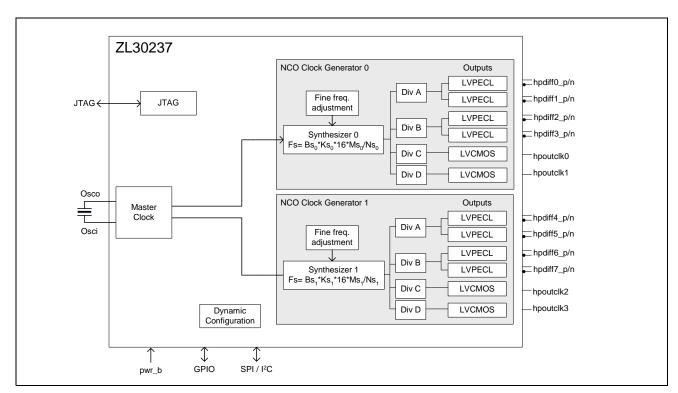


Figure 1 - Functional Block Diagram

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Description

The ZL30237 Dual Channel Universal NCO Clock Generator, part of Zarlink's ClockCenter platform of Free Run Clock devices, delivers industry-leading synchronization performance for a range of applications. The free-run synchronization solution allows designers to replace multiple, costly components with a highly integrated, single-chip solution.

Change Summary

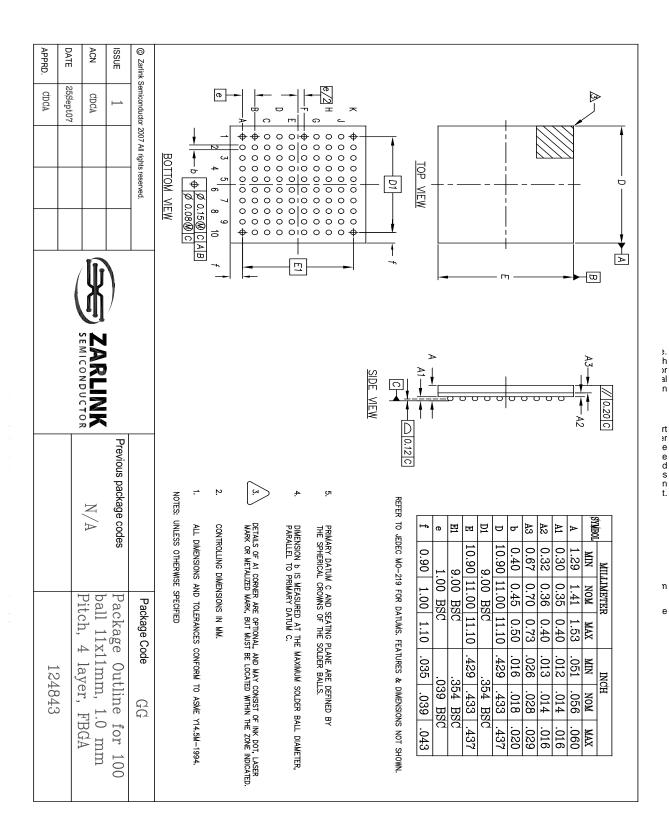
Below are the changes from the March 2011 issue to the April 2011 issue .

Page	Item	Change
1	Date	Date changed to reflect full data sheet. No changes in shortform data sheet.

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

Page	Item	Change
1	Features	Max. rate for LVCMOS outputs was changed to 177.5 MHz

Mechanical Drawing



ZL30237 Data Sheet



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