

Features

- Two independent clock channels
- Programmable synthesizers generate any clock-rate from 1 kHz to 720 MHz
- One precision synthesizers generate clocks with jitter below 0.7 ps RMS for 10 G PHYs
- One general purpose synthesizers generate a wide range of digital bus clocks
- Programmable digital PLLs synchronize to any clock rate from 1 kHz to 720 MHz
- Flexible two-stage architecture translates between arbitrary data rates, line coding rates and FEC rates
- Digital PLLs filter jitter from 14 Hz, 28 Hz, 56 Hz, 112 Hz, 224 Hz, 448 Hz or 896 Hz
- Automatic hitless reference switching and digital holdover on reference fail
- Four reference inputs configurable as single ended or differential
- Eight LVPECL outputs and four LVCMOS outputs

Ordering Information

ZL30157GGG2 100 Pin CABGA* Trays
 *Pb Free Tin/Silver/Copper
 -40°C to +85°C

- Eight outputs configurable as LVCMOS or LVDS/LVPECL/HCSL
- Operates from a single crystal resonator or clock oscillator
- Configurable via SPI/I2C interface

Applications

- 10 Gigabit line cards
- Synchronous Ethernet, 10 GBASE-R and 10 GBASE-W
- OTN multiplexers and transponders
- SONET/SDH, Fibre Channel, XAUI

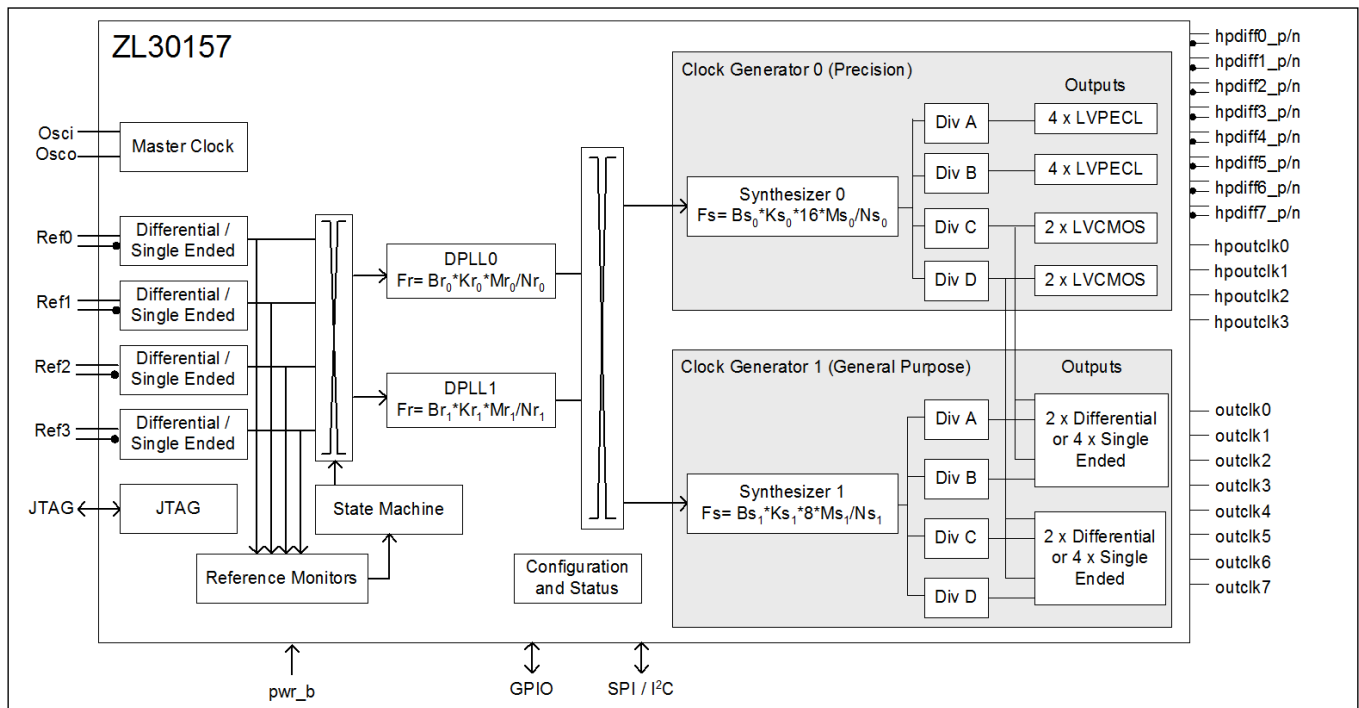
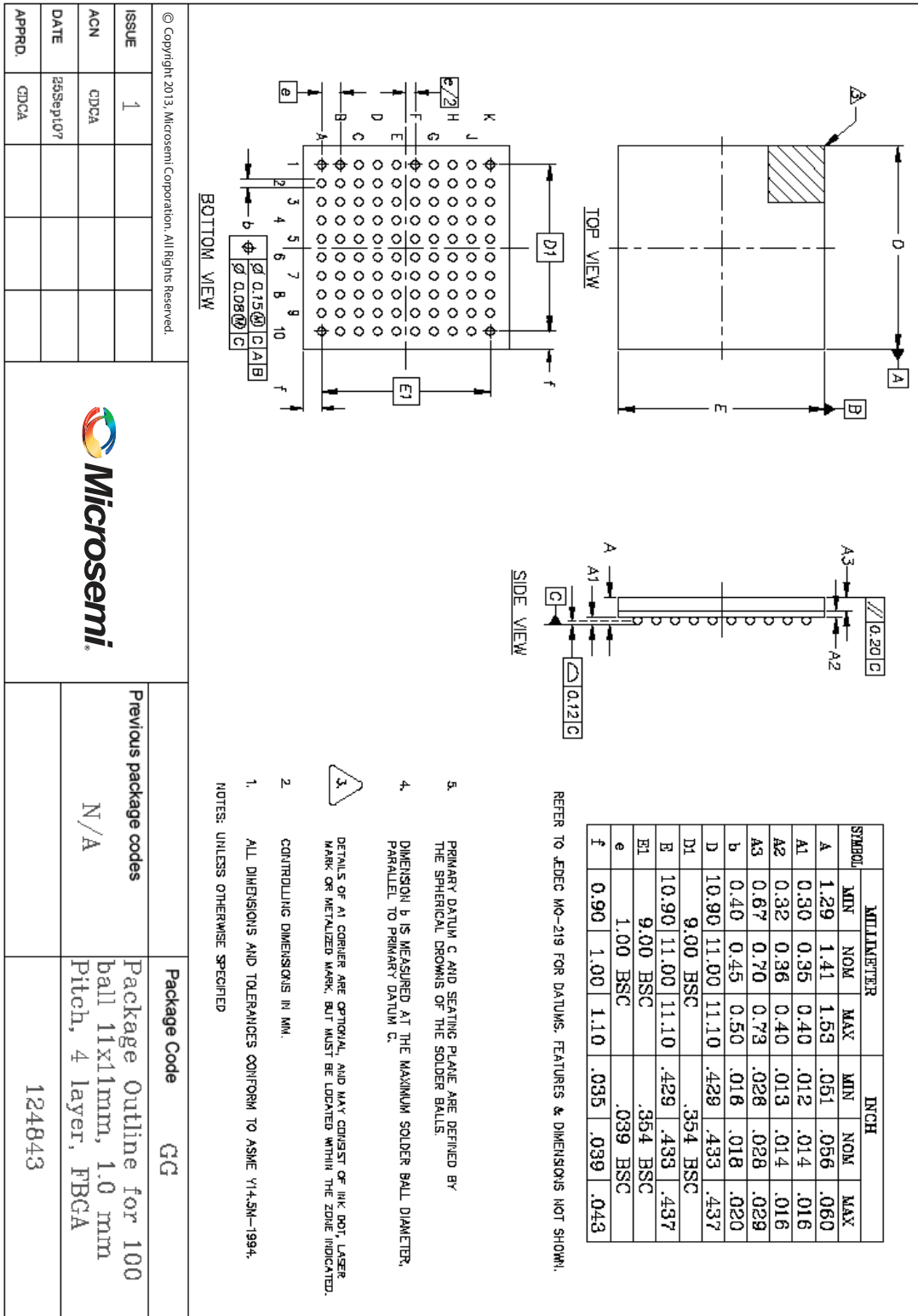


Figure 1 - Functional Block Diagram

Description

The ZL30157 Dual Channel Universal Clock Translator, part of ClockCenter platform of Synchronous Clock devices by Microsemi®, delivers industry leading synchronization performance for high-speed complex applications. The highly integrated and programmable solution provides translation from any input reference frequency to any output clock frequency and allows designers to replace multiple components with a single chip, simplifying design, and reducing component count and power.

The ZL30157 integrates two independent digital phase-locked loops (PLLs), accepts 4 input references, and generates 12 programmable clock outputs. One precision synthesizers generates clocks with jitter performance that can directly drive 10 G PHY devices. One general purpose synthesizers generates a wide range of digital bus clocks.

1.0 Mechanical Drawing


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