

### Features

- Four independent clock channels
- Programmable synthesizers generate any clock-rate from 1 Hz to 750 MHz
- Four precision synthesizers generate clocks with maximum jitter below 0.63 ps RMS
- Four programmable digital PLLs/Numerically Controlled Oscillators (NCOs)/OTN clock generators based on buffer-fill levels
  - Programmable digital PLLs synchronize to any clock rate from 1 kHz to 750 MHz
  - Flexible two-stage architecture translates between arbitrary data rates, line coding rates and FEC rates
- Digital PLLs filter jitter with bandwidths from 5 to 896 Hz
- Automatic hitless reference switching and digital holdover on reference fail
- Eight reference inputs configurable as single ended or differential

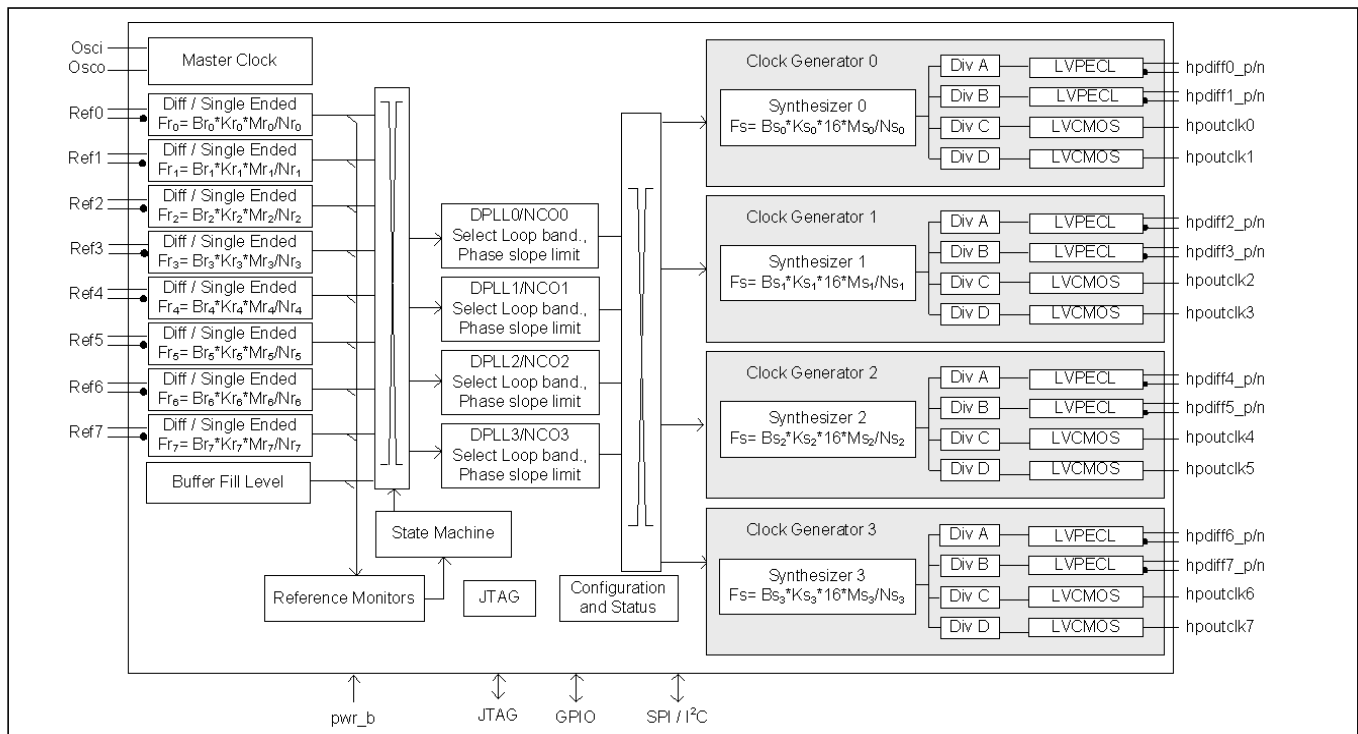
### Ordering Information

ZL30168GDG2 144 Pin LPGA Trays  
 Pb Free Tin/Silver/Copper  
**-40°C to +85°C**  
 Package size: 13 x 13 mm

- Eight LVPECL outputs and eight LVCMOS outputs
- Operates from a single crystal resonator or clock oscillator
- Configurable via four selectable default configurations or field programmable via SPI/I<sup>2</sup>C interface

### Applications

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



**Figure 1 - Functional Block Diagram**



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