

Features

- Fully compliant SEC (G.813), EEC (G.8262) and Stratum 3E flexible rate conversion DPLL
- Three programmable digital PLLs/Numerically Controlled Oscillators (NCOs)
- Synchronize to any clock rate from 1 Hz to 750 MHz
- Four programmable synthesizers generate any clock rate from 1 Hz to 750 MHz with low jitter for 10G PHYs
- Flexible two-stage architecture translates between arbitrary data rates, line coding rates and FEC rates
- Digital PLLs filter jitter from 0.1 mHz up to 1 kHz
- Automatic hitless reference switching and digital holdover on reference fail
- Nine input references configurable as single ended or differential and two single ended input references
- Any input reference can be fed with sync (frame pulse) or clock

Ordering Information

ZL30164GDG2 144 Pin LBGAs Trays
 Pb Free Tin/Silver/Copper
-40°C to +85°C
 Package Size: 13 x 13 mm

- Programmable DPLLs can synchronize to sync pulse and sync pulse/clock pair
- Eight LVPECL outputs and eight LVCMOS outputs
- Operates from a single crystal resonator or clock oscillator
- Field programmable via SPI/I²C interface

Applications

- SyncE/SONET/SDH Timing Cards
- Synchronous Ethernet, 10 GBASE-R and 10 GBASE-W
- SONET/SDH, Fibre Channel, XAUI

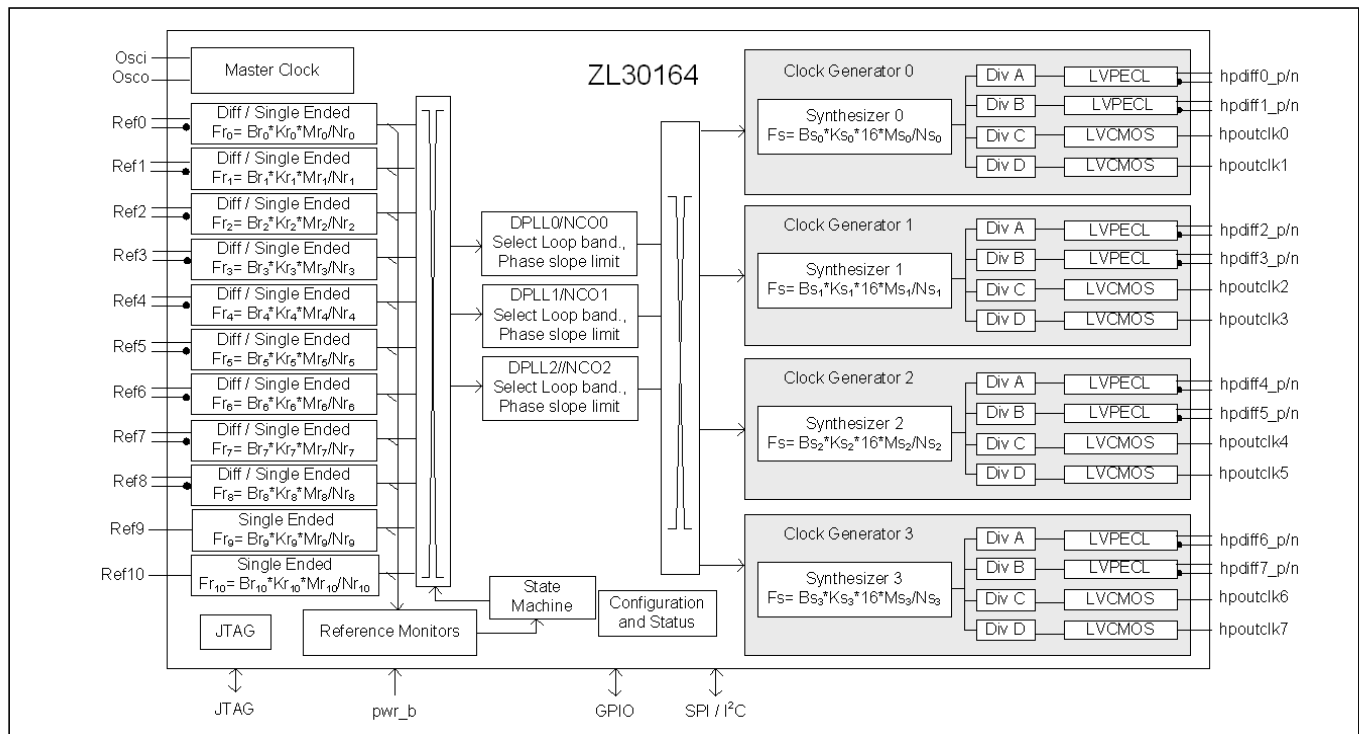


Figure 1 - Functional Block Diagram



**For more information about all Microsemi products
visit our Web Site at**

www.microsemi.com/timing-and-synchronization

Information relating to products and services furnished herein by Microsemi Corporation or its subsidiaries (collectively "Microsemi") is believed to be reliable. However, Microsemi 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 Microsemi or licensed from third parties by Microsemi, whatsoever. Purchasers of products are also hereby notified that the use of product in certain ways or in combination with Microsemi, or non-Microsemi furnished goods or services may infringe patents or other intellectual property rights owned by Microsemi.

This publication is issued to provide information only and (unless agreed by Microsemi 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 Microsemi 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 **and other** 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 Microsemi's conditions of sale which are available on request.

Purchase of Microsemi'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.

Microsemi, ZL, and combinations thereof, VoiceEdge, VoicePort, SLAC, ISLIC, ISLAC and VoicePath are trademarks of Microsemi Corporation.

TECHNICAL DOCUMENTATION - NOT FOR RESALE
