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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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### Features

- Precision synthesizer generates any clock-rate from 1 Hz to 177.5 MHz with jitter below 1ps
- Programmable digital PLL synchronize to any clock rate from 1 Hz (1 pps) to 750 MHz
- Input reference configurable as single ended LVCMOS (up to 177.5 MHz) or differential LVPECL (up to 750 MHz)
- Flexible two-stage architecture translates between arbitrary data rates, line coding rates and FEC rates
- Programmable Digital PLL loop filter: 30 MHz, 14 Hz, 28 Hz, 56 Hz, 112 Hz, 224 Hz, 448 Hz or 896 Hz
- Two LVCMOS outputs —from 1 Hz (1 pps) to 177.5 MHz

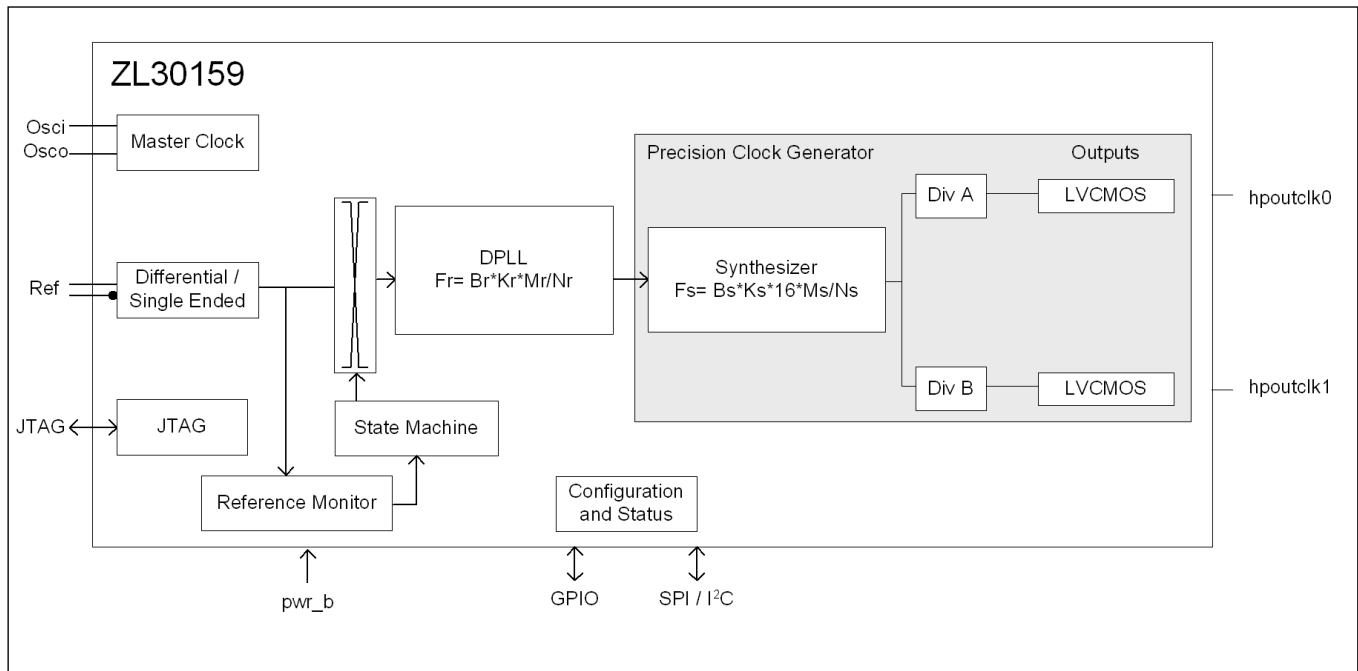
### Ordering Information

ZL30159GGG2 64 Pin LPGA\* Trays  
 \*Pb Free Tin/Silver/Copper  
**-40°C to +85°C**

- Operates from a single crystal resonator or clock oscillator
- Configurable via SPI/I2C interface

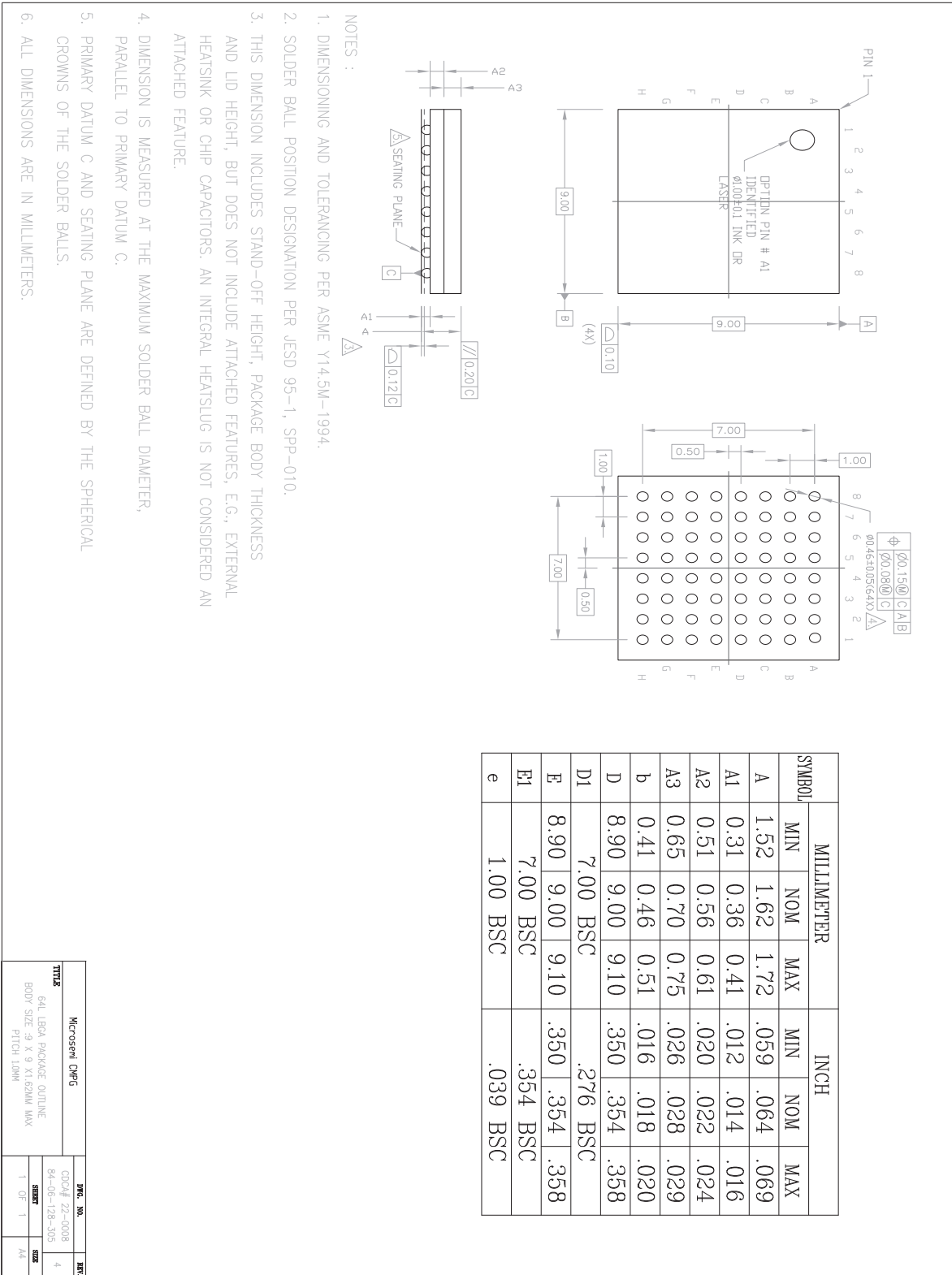
### Applications

- General purpose clock rate translator
- GPS receiver clock synthesizer



**Figure 1 - Functional Block Diagram**

Mechanical Drawing



- NOTES :
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
  2. SOLDER BALL POSITION DESIGNATION PER JESD 95-1, SPP-010.
  3. THIS DIMENSION INCLUDES STAND-OFF HEIGHT, PACKAGE BODY THICKNESS AND LID HEIGHT, BUT DOES NOT INCLUDE ATTACHED FEATURES, E.G., EXTERNAL HEATSINK OR CHIP CAPACITORS. AN INTEGRAL HEATSLUG IS NOT CONSIDERED AN ATTACHED FEATURE.
  4. DIMENSION IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM C.
  5. PRIMARY DATUM C AND SEATING PLANE ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.
  6. ALL DIMENSIONS ARE IN MILLIMETERS.

| SYMBOL | MILLIMETER |      |      | INCH     |      |      |
|--------|------------|------|------|----------|------|------|
|        | MIN        | NOM  | MAX  | MIN      | NOM  | MAX  |
| A      | 1.52       | 1.62 | 1.72 | .059     | .064 | .069 |
| A1     | 0.31       | 0.36 | 0.41 | .012     | .014 | .016 |
| A2     | 0.51       | 0.56 | 0.61 | .020     | .022 | .024 |
| A3     | 0.65       | 0.70 | 0.75 | .026     | .028 | .029 |
| b      | 0.41       | 0.46 | 0.51 | .016     | .018 | .020 |
| D      | 8.90       | 9.00 | 9.10 | .350     | .354 | .358 |
| D1     | 7.00 BSC   |      |      | .276 BSC |      |      |
| E      | 8.90       | 9.00 | 9.10 | .350     | .354 | .358 |
| E1     | 7.00 BSC   |      |      | .354 BSC |      |      |
| e      | 1.00 BSC   |      |      | .039 BSC |      |      |

|                               |  |               |  |      |  |
|-------------------------------|--|---------------|--|------|--|
| Microsemi Chip                |  | DWG. NO.      |  | REV. |  |
| TTTT8                         |  | CDA# 22-0008  |  | 4    |  |
| 64L LEGA PACKAGE OUTLINE      |  | 84-06-128-305 |  | SIZE |  |
| BODY SIZE : 9 X 9 X1.62MM MAX |  | PITCH 1.0MM   |  | REV. |  |



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