

FIRST LINE-CARD TIMING IC TO ENABLE 1G AND 10G SYNCHRONOUS ETHERNET

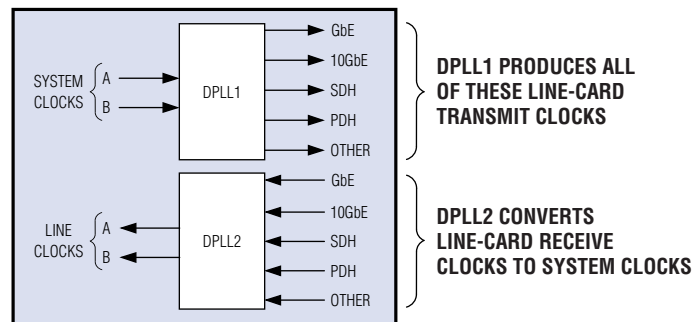
Complete Single-IC Solution for Traditional and Next-Generation Line Cards

The DS3104-SE is a low-cost, feature-rich, line-card IC that supports all traditional SONET/SDH clocks and includes additional clock rates that enable Synchronous Ethernet architectures. Gigabit Ethernet (GbE), 10-Gigabit Ethernet (10GbE), and Fast Ethernet xMII clock rates are all supported, allowing clock synchronization at the physical layer per ITU-T Recommendation G.8262.

Key Features

- ◆ Hitless Reference Switching
- ◆ Holdover on Loss of All Inputs
- ◆ Programmable 1Hz to 400Hz PLL Bandwidth
- ◆ Frequency Conversion Between SONET/SDH Rates and Ethernet MII/GMII/xGMII Rates

COMPLETELY INDEPENDENT DPLLs



Supports More Industry-Standard Clock Rates than Any Other Single IC

- ◆ Ethernet xMII
- ◆ SONET/SDH
- ◆ PDH
- ◆ Base Stations
- ◆ Cable Routers
- ◆ Wireless, GPS, and More

| Feature | DS3104-SE | Competitor A | Competitor B |
|--------------------------------------------------------------------|----------------------------------------|----------------|--------------|
| Clock Inputs | 8 | 8 | 3 |
| Clock Outputs | 14 | 6 | 2 |
| Two Independent DPLLs | ✓ | ✓ | |
| Locks to 25MHz MII Clock | ✓ | ✓ | ✓ |
| Synthesizes 25MHz MII Clock | ✓ | ✓ | |
| Locks to 125MHz GMII Clock | ✓ | | ✓ |
| Synthesizes 125MHz GMII Clock | ✓ | | |
| Locks to/Synthesizes 156.25MHz xGMII Clock | ✓ | | |
| Synthesizes SONET/SDH, MII, GMII, and xGMII Rates at the Same Time | ✓ | | |
| Custom Frequency Synthesis (Hz) | n x 2k to 77.76M, n x 8k to 388.79M | n x 8k to 100M | — |



www.maxim-ic.com/DS3104-info

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