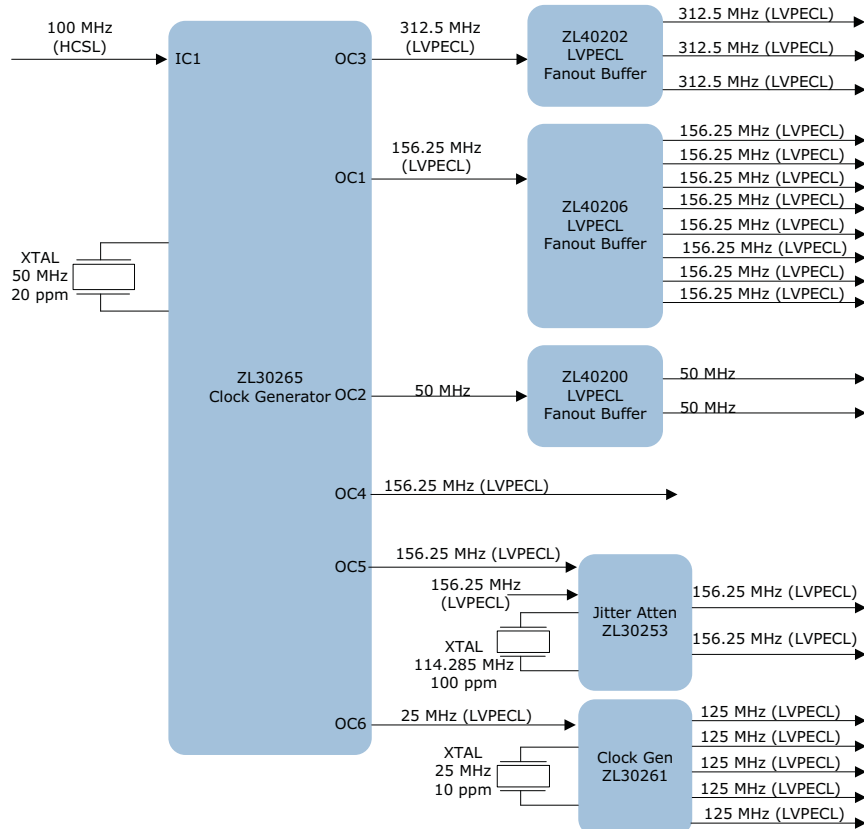


miClockManagement™

Microsemi's miClockManagement portfolio provides ultra low-jitter devices for clock synthesis, frequency conversion, jitter attenuation, and fanout buffers to reduce clock-tree BOM and board space requirements, improve performance reliability, and simplify design.

miClockManagement Clock Tree Example



Clock Synthesis (miClockSynth™)

Select a device from the broad miClockSynth portfolio to generate ultra-low jitter clock signals and generate independent frequencies with integrated integer and fractional dividers

Clock Fanout Buffers

miClockBuffer™

Choose from a comprehensive portfolio to create multiple copies of ultra-low jitter clock signals while interfacing to various devices

miSmartBuffer™

With integrated output dividers, these devices can generate multiple clock frequencies while the outputs can be configured to generate native signal types (allowing the devices to more easily interface to other components)

Rate Conversion/Jitter Attenuation (miJitterAtten™)

Attenuate and generate ultra-low jitter clock signals from an input clock using Microsemi's jitter attenuators

Easy to Design

- Pin-selectable custom configurations (up to 4 for miJitterAtten products and up to 8 for miSmartBuffer and miClockSynth products)
- Create factory pre-programmed devices using miClockDesigner™

Applications

- Clocks for NPUs, FPGAs, CDRs, high-speed ADCs and DACs, PCIe interface devices, Ethernet switches, and PHYs
- Timing generation for data center, enterprise, storage servers, ethernet, optical, networking, wireless, and broadcast video applications

Availability and Support

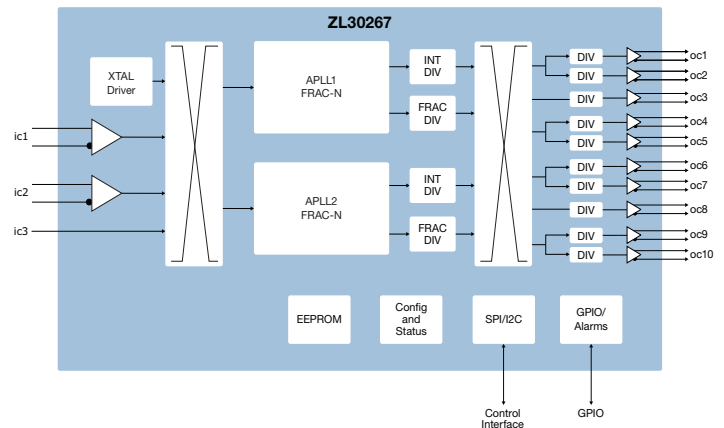
Microsemi clock management products are in volume production. To learn more, visit www.microsemi.com/products/timing-and-synchronization/timing-and-synchronization. Full information, including complete datasheets and design manuals, are available to registered MyMicrosemi customers. To register for a MyMicrosemi account, visit www.microsemi.com/create-an-account.

miClockManagement™

miClockSynth 26x Family:

Clock-tree-on-a-chip

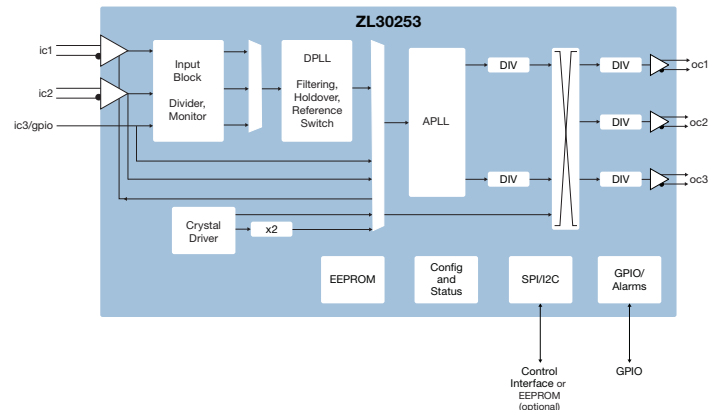
- Replaces multiple devices—4 independent frequency families as low as 170 fs RMS jitter from integer divider
- Ideal for PCIe Gen 1–4—with Spread-Spectrum, HCSL, and ultra low-jitter output
- Replaces expensive high-end analog VCXOs—accurate NCO; 0.01 ppb resolution
- Easily interfaces without level shifters—each output configurable as LVDS, LVPECL, HCSL, 2x CMOS, or HSTL



miJitterAtten 25x Family:

High Performance in a Small Package

- Industry-leading low jitter (250 fs)—ideal for >10G line card applications
- Low bandwidth jitter filtering (>14 Hz)—cleans reference clock with glitchless switching
- Accurate numerically controlled oscillator—replaces expensive high end analog VCXOs



miSmartBuffer 4025x Family:

Your Clock Tree Simplified

- 4 flexible input clocks allows interfacing to a wide variety of devices—crystal/XO, two differential/CMOS, and one single-ended/CMOS
- Frequency conversion—each output has independent divider
- Improve alignment and skew with per-output skew adjustment, per-output enable/disable and glitchless start/stop
- Easily interface without level shifters—each output configurable as LVDS, LVPECL, HCSL, 2x CMOS or HSTL

