



Twenty-Output PCIe 4.0 and 5.0 Buffer for Server and Data-Center Applications

The DIODES™ PI6CB332001A is a 20-output, low-power, PCIe 4.0 and 5.0 clock buffer capable of distributing reference clocks for PCIe®, UPI, SAS, SATA, and other interfaces.

The device takes a reference input and provides fanout for twenty 100MHz-differential HCSL outputs with on-chip terminations. This in turn saves up to 80 external resistors.

With a very low additive jitter and a small size, the device is an ideal solution for server, high-performance computing (HPC), and data-center applications.

The PI6CB332001A is packaged in the small-footprint 80-aQFN (6mm x 6mm) package.



The DIODES™ Advantage

- Intel DB2000QL-Compliant Clock Buffer**
 Follows Intel® DB2000QL pinout/function definition;
 Intel P/N: K20599-009;
 Supports ultra-low jitter to meet PCIe 4.0 & 5.0 requirements with a small 6x6mm package
- On-Chip Termination Saves Up to 80 External Resistors**
 Reduces bill-of-materials (BOM) cost, saves board space, and simplifies PCB layout
- Very Low Additive Jitter: DB2000Q <30fs RMS**
 Provides jitter margin for system designs
- Power-Down-Tolerant OE Pins**
 Allows the OE pins to be driven by external signals when the device is in a power-down or reset condition

Applications

- Servers
- Data centers
- High-performance computing (HPC) devices

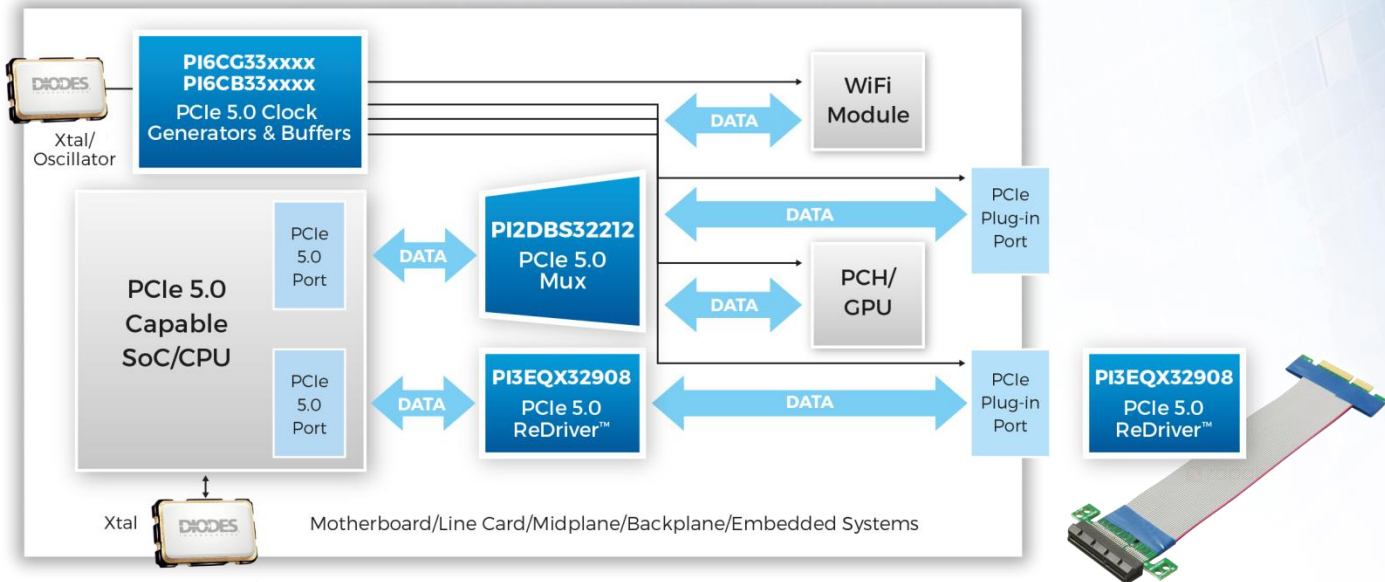
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Typical Application



Product Portfolio

Part Number	Number of Outputs	Output Impedance	Voltage Support	Package
PI6CB332001A	20	85Ω	3.3V	80-aQFN (6mm x 6mm)
PI6CB33201	2	85Ω	3.3V	24-TQFN (4mm x 4mm)
PI6CB33202	2	100Ω	3.3V	24-TQFN (4mm x 4mm)
PI6CB33401	4	85Ω	3.3V	32-TQFN (5mm x 5mm)
PI6CB33402	4	100Ω	3.3V	32-TQFN (5mm x 5mm)
PI6CB33601	6	85Ω	3.3V	40-TQFN (5mm x 5mm)
PI6CB33602	6	100Ω	3.3V	40-TQFN (5mm x 5mm)
PI6CB33801	8	85Ω	3.3V	48-TQFN (6mm x 6mm)
PI6CB33802	8	100Ω	3.3V	48-TQFN (mm6 x 6mm)

Ordering Information

Orderable Part Number	Family	Package Code	MOQ
PI6CB332001AZXBIE	Clock Buffer	ZXB	3,000