

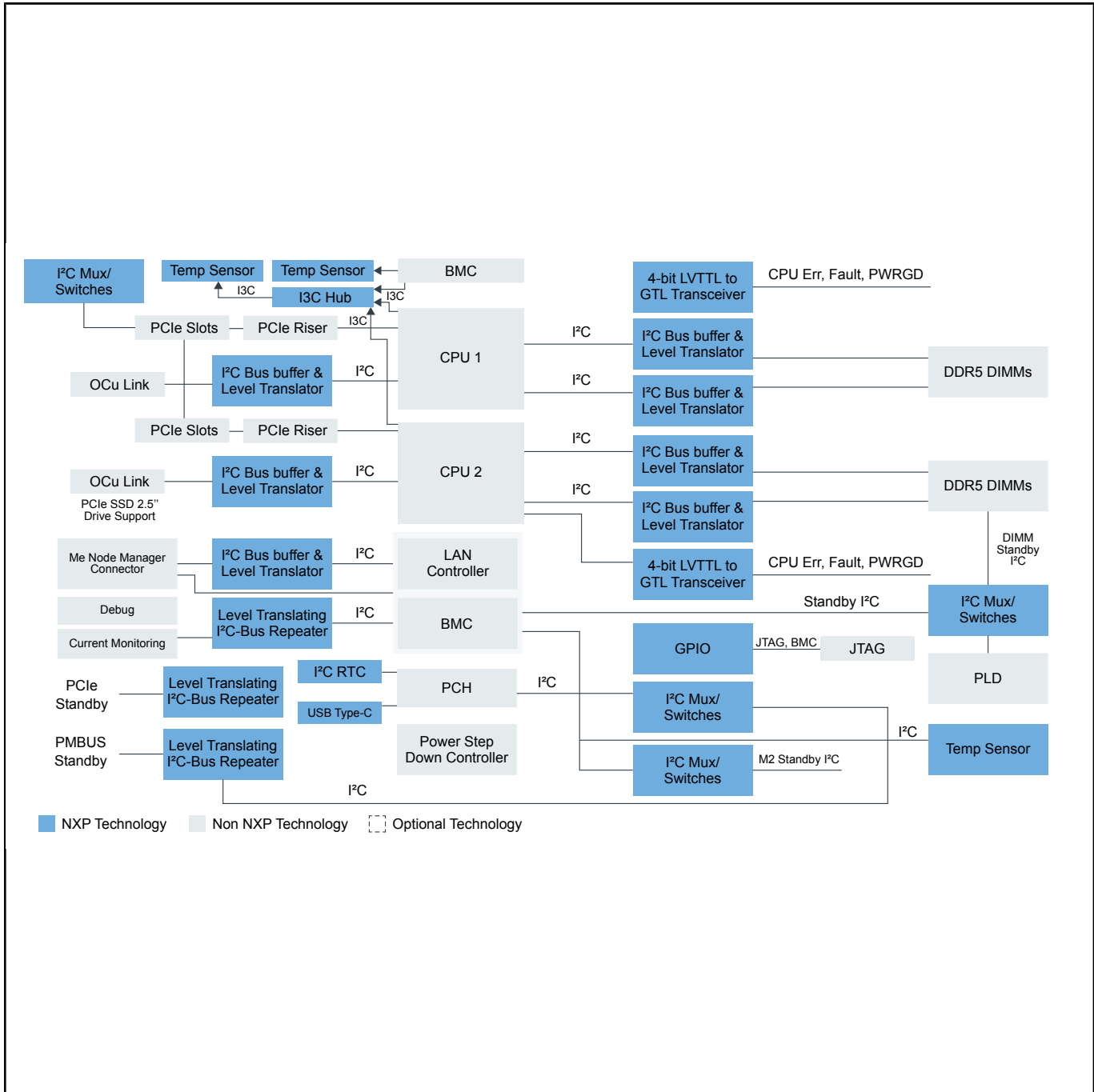


# Interface ICs for Servers used in Data Centers

Last Updated: Jan 23, 2025

Invented by NXP (then Philips Semiconductors) more than 30 years ago, the I<sup>2</sup>C bus has enabled a wide portfolio of trusted bus enablement ICs that are used widely in modern servers and server add-in cards in the industry. These range from bi-directional I<sup>2</sup>C and I<sup>3</sup>C bus buffers, multiplexers, switches, smart DIP switches, real time clocks, GPIO expanders, temperature sensors, bi-directional voltage level translators and GTL to LVTTTL level translators with direction pin.

**NXP Interface Products used on Server Platforms Block Diagram**



### Recommended Products for NXP Interface Products used on Server Platforms

4-Channel I2C Bus Switch	<ul style="list-style-type: none"> <li>• <a href="#">PCA9543A_43B</a>: Two-Channel I<sup>2</sup>C-Bus Switch with Interrupt Logic and Reset</li> <li>• <a href="#">PCA9544A</a>: Four-Channel I<sup>2</sup>C-Bus Multiplexer with Interrupt Logic</li> <li>• <a href="#">PCA9548A</a>: Eight-Channel I<sup>2</sup>C-Bus Switch with Reset</li> </ul>
Temp Sensor	<ul style="list-style-type: none"> <li>• <a href="#">P3T1755DP</a>: I3C/I<sup>2</sup>C-Bus ±0.5 °C Accurate Digital Temperature Sensor</li> <li>• <a href="#">P3T1750DP</a>: I3C/I<sup>2</sup>C-Bus, ±1 °C Accuracy, Digital Temperature Sensor</li> <li>• <a href="#">P3T1035xUK</a>: I3C, I<sup>2</sup>C-Bus, ±0.5 °C Accuracy, Digital Temperature Sensor</li> <li>• <a href="#">PCT2075</a>: I<sup>2</sup>C-Bus Fm+, 1 Degree C Accuracy, Digital Temperature Sensor and Thermal Watchdog</li> </ul>
Temp Sensor	<ul style="list-style-type: none"> <li>• <a href="#">PCT2075</a>: I<sup>2</sup>C-Bus Fm+, 1 Degree C Accuracy, Digital Temperature Sensor and Thermal Watchdog</li> <li>• <a href="#">P3T1755DP</a>: I3C/I<sup>2</sup>C-Bus ±0.5 °C Accurate Digital Temperature Sensor</li> <li>• <a href="#">P3T1750DP</a>: I3C/I<sup>2</sup>C-Bus, ±1 °C Accuracy, Digital Temperature Sensor</li> <li>• <a href="#">P3T1035xUK</a>: I3C, I<sup>2</sup>C-Bus, ±0.5 °C Accuracy, Digital Temperature Sensor</li> </ul>

USB Type-C	<ul style="list-style-type: none"> <li>• <a href="#">PTN36043x</a>: USB Type-C SuperSpeed Active Switch</li> </ul>
4-bit LVTTTL to GTL Transceiver	<ul style="list-style-type: none"> <li>• <a href="#">GTL2014PW</a>: 4-Bit LVTTTL-to-GTL Transceiver</li> </ul>
I2C Bus buffer and Level Translator	<ul style="list-style-type: none"> <li>• <a href="#">PCA9617A</a>: Level Translating Fm+ I<sup>2</sup>C-Bus Repeater</li> <li>• <a href="#">PCA9517A</a>: Level Translating I<sup>2</sup>C-Bus Repeater</li> <li>• <a href="#">PCA9511A</a>: Hot Swappable I<sup>2</sup>C-Bus and SMBus Bus Buffer</li> </ul>
Level translating I2C-bus repeater	<ul style="list-style-type: none"> <li>• <a href="#">PCA9517A</a>: Level Translating I<sup>2</sup>C-Bus Repeater</li> </ul>
I2C Mux / Switches	<ul style="list-style-type: none"> <li>• <a href="#">PCA9546A</a>: Four-Channel I<sup>2</sup>C-Bus Switch with Reset</li> <li>• <a href="#">PCA9548A</a>: Eight-Channel I<sup>2</sup>C-Bus Switch with Reset</li> <li>• <a href="#">PCA9846</a>: Four-Channel Ultra-Low Voltage, Fm+ I<sup>2</sup>C-Bus Switch with Reset</li> <li>• <a href="#">PCA9545A_45B_45C</a>: Four-Channel I<sup>2</sup>C-Bus Switch with Interrupt Logic and Reset</li> <li>• <a href="#">PCA9543A_43B</a>: Two-Channel I<sup>2</sup>C-Bus Switch with Interrupt Logic and Reset</li> </ul>
GPIO	<ul style="list-style-type: none"> <li>• <a href="#">PCAL9714</a>: 14-Bit SPI I/O Expander with Agile I/O Features</li> <li>• <a href="#">PCAL9722</a>: 22-Bit SPI I/O Expander with Agile I/O Features</li> <li>• <a href="#">PCA9535A</a>: Low-Voltage 16-Bit I<sup>2</sup>C-Bus I/O Port with Interrupt</li> <li>• <a href="#">PCA9555</a>: 16-Bit I<sup>2</sup>C-Bus and SMBus I/O Port with Interrupt</li> <li>• <a href="#">PCA9554_PCA9554A</a>: 8-Bit I<sup>2</sup>C-Bus and SMBus I/O Port with Interrupt</li> <li>• <a href="#">PCA9538</a>: 8-Bit I<sup>2</sup>C-Bus and SMBus Low-Power I/O Port with Interrupt and Reset</li> <li>• <a href="#">PCA9539A</a>: Low Voltage 16-Bit I<sup>2</sup>C-Bus I/O Port with Interrupt and Reset</li> </ul>
PCIe Riser	<ul style="list-style-type: none"> <li>• <a href="#">PTN3944</a>: Multi-Channel PCIe Gen 4 Linear Equalizer</li> </ul>
I2C RTC	<ul style="list-style-type: none"> <li>• <a href="#">PCF85053A</a>: Bootable CPU RTC with Two I<sup>2</sup>C Buses, 128 Byte SRAM and Alarm Function</li> </ul>

View our complete solution for [Interface ICs for Servers used in Data Centers](#).

**Note:** The information on this document is subject to change without notice.

**www.nxp.com**

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2025 NXP B.V.