NXP’s comprehensive edge computing portfolio extends across general-purpose LPC and Kinetis MCUs, i.MX RT crossover MCUs and i.MX applications processors based on Arm® Cortex®-M and A class cores, multicore architectures, hardware accelerators, coprocessors, on-chip USB controllers, multimedia interfaces and rich peripheral sets. Our wireless SoCs and ICs support a broad array of connectivity options including Bluetooth® Low Energy, Wi-Fi, ultra-wideband (UWB), near field communication (NFC) and MiGLO technology with near field magnetic induction (NFMI).

NXP offers developers the silicon, software and support they need to create a wide range of wired and wireless gaming accessories including consoles, controllers and gamepads, AR/VR headsets, hearables, gaming cases, and keyboards and mice.

Gaming Case Block Diagram
Recommended Products for Gaming Case

**MCU**
- **LPC11U00**: Scalable Entry Level 32-bit Microcontroller (MCU) based on Arm® Cortex®-M0+ and Cortex®-M0 Cores
- **LPC51U68**: High-Performance, Power-Efficient and Cost Sensitive Arm® Cortex®-M0+ MCUs
- **LPC541XX**: Low-Power Microcontrollers (MCUs) Based on Arm® Cortex®-M4 Cores With Optional Cortex®-M0+ Coprocessor
- **LPC546XX**: Power-Efficient Microcontrollers (MCUs) With Advanced Peripherals Based on Arm® Cortex®-M4 Core
- **LPC5500 Arm Cortex-M33**: LPC5500 Series: Arm® Cortex®-M33 Based Microcontroller Series for Mass Market, Leveraging 40nm Embedded Flash Technology

Gaming Keyboard Block Diagram

Recommended Products for Gaming Keyboard

**MCU**
- **LPC11U00**: Scalable Entry Level 32-bit Microcontroller (MCU) based on Arm® Cortex®-M0+ and Cortex®-M0 Cores
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**Security (EdgeLock Discrete)**
- **EdgeLock® SE050**: Plug and Trust Secure Element Family – Enhanced IoT security with high flexibility
- **EdgeLock® SE051**: Proven, Easy-to-Use IoT Security Solution with Support for Updatability and Custom Applets
- **EdgeLock® A5000 Plug and Trust Secure Authenticator**: Authentication Made Secure, Scalable and Easy

Keyboard and Mouse Block Diagram
Desktop / Gaming System

USB Dongle

Keyboard/ Mouse Combo

Security (EdgeLock Discrete)

USB 2.0 HS/FS/Type C

Recommended Products for Keyboard and Mouse

<table>
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<tr>
<th>Product Type</th>
<th>Products Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB Dongle</td>
<td>• QN908x: Ultra-Low-Power Bluetooth Low Energy System on Chip Solution</td>
</tr>
<tr>
<td>Keyboard/Mouse</td>
<td>• QN9090/30: Bluetooth Low-Energy MCU with Arm® Cortex®-M4 CPU, Energy Efficiency, Analog and Digital Peripherals and NFC Tag Option</td>
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<td>• PTN5150: CC Logic for USB Type-C Applications</td>
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Low-Latency Headsets Block Diagram
Recommended Products for Low-Latency Headsets

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<tr>
<th>USB Dongle</th>
<th>Wireless Headsets</th>
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<tr>
<td>• KL2x: Kinetis® KL2x-72/96 MHz, USB Ultra-Low-Power Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core</td>
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Gamepad Block Diagram
### Recommended Products for Gamepad

**MCU**
- **LPC546XX**: Power-Efficient Microcontrollers (MCUs) With Advanced Peripherals Based on Arm® Cortex®-M4 Core

**Drivers**
- **PCA9955BTW**: 16-Channel Fm+ I²C-Bus 57 MA/20 V Constant-Current LED Driver
- **TEA1721AT**: HV Start-Up Flyback Controller with Integrated MOSFET for 5 W Applications, F=burst = 430 Hz
- **NX5P2190UK**: Logic-Controlled High-Side Power Switch

**USB**
- **NX5P3290UK**: USB PD and Type-C Current-Limited Power Switch
- **PTN5150**: CC Logic for USB Type-C Applications

**Wireless**
- **PN7150**: High-Performance NFC Controller with Integrated Firmware for Smart Devices
- **NTAG213F, NTAG216F**: NFC Forum Type 2 Tag Compliant IC with 144/888 B User Memory and Field Detection
- **QN908x**: Ultra-Low-Power Bluetooth Low Energy System on Chip Solution

**GPIO Expander**
- **PCAL9554B_PCAL9554C**: Low-Voltage 8-Bit I²C-Bus and SMBus Low-Power I/O Port with Interrupt, Weak Pull-Up and Agile I/O

**Wireless**
- **PN7160**: NFC Plug and Play Controller with Integrated Firmware and NCI Interface
- **NTAG213F, NTAG216F**: NFC Forum Type 2 Tag Compliant IC with 144/888 B User Memory and Field Detection
- **QN908x**: Ultra-Low-Power Bluetooth Low Energy System on Chip Solution

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View our complete solution for **Gaming Accessories**.

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

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