Panel-mounted controllers and large distributed control systems require PLCs and remote I/Os to precisely control and manage machines and processes for synchronized operations across a factory. For the tiniest IO application up to the most powerful high performance PLC application, NXP’s solutions portfolio offers key components, including low power edge microcontrollers and processors with multiple communications interfaces and TSN, high-precision and high-performance analog and digital front ends, security and functional safety.
Recommended Products for Programmable Logic Controller (PLC)

**MCU/MPU**
- General Purpose MCUs: General Purpose MCUs
- i.MX RT Crossover MCUs: i.MX RT Crossover MCUs
- Layerscape Processors: Layerscape® Processors
- i.MX Applications Processors: i.MX Applications Processors

**AFE-AI**
- NAFEx1388: Highly Configurable 8 Channel ±25 V Universal Input Low Power Analog Front-End

**Power Management**
- PMICs: Power Management Integrated ICs (PMICs)
- Safety SBCs: Safety System Basis Chips (Safety SBCs)
- PF3000: 12-Channel Configurable PMIC for i.MX6 and i.MX7 Application Processors
- MC34VR500: Multi-Output DC/DC Regulator
| Interfaces | CAN Transceivers: CAN Transceivers  
|            | TJA1052IT: Galvanically-Isolated High-Speed CAN Transceiver |
| Smart Switches and Drivers | High Side Switches: High Side Switches  
|            | Pre-Drivers: Pre-Drivers  
|            | Low Side Switches: Low Side Switches  
|            | Configurable Switches: Configurable Switches |
| USB Type-C | USB PD-PHY and CC-Logic: USB PD-PHY and CC-Logic Controllers  
|            | PTN5150: CC Logic for USB Type-C Applications  
|            | PTN5110: USB PD TCPC PHY IC |
| Load Switch | Load Switches: Load Switches  
|            | NXSP0900UK: USB PD and Type-C Current-Limited Power Switch |
| USB Protection | NX20P0477: USB Type-C CC Smart Protection |
| USB Switch | High-Speed Signal Switches: High-Speed USB Signal Switches  
|            | USB Redrivers: USB Redrivers - Signal Conditioners  
|            | CBTL02043A_CBT02043B: 3.3 V, Two Differential Channel, 2-1 Multiplexer/Demultiplexer Switch  
|            | PTN38007: Multiprotocol USB 4 20 Gbps Linear Redriver |
| NFC | PTN7160: NFC Plug and Play Controller with Integrated Firmware and NCI Interface |
| Non-Voltaire Storage | NXH5104UK: 4 Mbit Serial SPI EEPROM |
| Security (EdgeLock Discrete) | EdgeLock® SE050: Plug and Trust Secure Element Family – Enhanced IoT security with high flexibility |
| AC/DC | AC-DC Controllers: AC-DC Controllers |
| Voltage Translator | Voltage Level Translators: Voltage Level Translators |
| Ethernet | Layerscape® 1028A Applications Processor  
|            | LMX RT1180: Crossover MCU with TSN Switch and EdgeLock®  
|            | SJA1110: Multi-Gig Safe and Secure TSN Ethernet Switch with Integrated 100BASE-T1 PHYs |
| Interfaces | MC34975: MSDI with Suppressed Wake-up and 32 mA Wetting Current  
|            | Bridges: Bridge IC Solutions  
|            | I²C, SPI, I3C Interface Devices: I²C, SPI, I3C Interface Devices |
| RTC | PCF85053A: Bootable CPU RTC with Two I²C Buses, 128 Byte SRAM and Alarm Function  
|            | Real-Time Clocks: Real-Time Clocks |
| Temperature Sensors | P3T1035xUK: I3C, I²C-Bus, ±0.5 °C Accuracy, Digital Temperature Sensor  
|            | P3T2030xUK: I3C, I²C-Bus, 2.0 °C Accuracy, Digital Temperature Sensor  
|            | I3C/PC Digital Temp. Sensors: I3C/I²C Digital Temperature Sensors  
|            | PCT2075: I²C-Bus Fm+, 1 Degree C Accuracy, Digital Temperature Sensor And Thermal Watchdog |
Recommended Products for Remote I/O

**MCU/MPU**
- LMX RT Crossover MCUs: LMX RT Crossover MCUs
- KV Series Arm Cortex-M4/M0+/M7: KV Series: Real-Time Motor Control and Power Conversion MCUs Based on Arm® Cortex®-M0+/M4/M7
- LPC5500 Arm Cortex-M33: LPC5500 Series: Arm® Cortex®-M33 Based Microcontroller Series for Mass Market, Leveraging 40nm Embedded Flash Technology
- S32K Auto General-Purpose MCUs: S32K Automotive General-Purpose Microcontrollers

**AFE-AI**
- NAFEx1388: Highly Configurable 8 Channel ±25 V Universal Input Low Power Analog Front-End

**NFC**
- PN7150: High-Performance NFC Controller with Integrated Firmware for Smart Devices
### PMIC
- **PMICs**: Power Management Integrated ICs (PMICs)

### RTC
- **PCF85053A**: Bootable CPU RTC with Two \( I^2C \) Buses, 128 Byte SRAM and Alarm Function
- **Real-Time Clocks**: Real-Time Clocks

### Wireless Connectivity
- 2.4/5 GHz Dual-Band 1x1 Wi-Fi\(^\text{®}\) 4 (802.11n) + Bluetooth\(^\text{®}\) 5.2 Solution
- 88W8987: 2.4/5 GHz Dual-Band 1x1 Wi-Fi\(^\text{®}\) 5 (802.11ac) + Bluetooth\(^\text{®}\) 5.2 Solution
- 88W8997: 2.4/5 GHz Dual-Band 2x2 Wi-Fi\(^\text{®}\) 5 (802.11ac) + Bluetooth\(^\text{®}\) 5.3 Solution
- IW620: 2.4/5 GHz Dual-Band 2x2 Wi-Fi\(^\text{®}\) 6 (802.11ax) + Bluetooth\(^\text{®}\) 5.1 Solution

### CAN Transceivers
- **CAN Transceivers**: CAN Transceivers

### Security (EdgeLock Discrete)
- **EdgeLock\(^\text{®}\) SE050**: Plug and Trust Secure Element Family – Enhanced IoT security with high flexibility

### Temperature Sensors
- **P3T1035xUK**: I3C, \( I^2C \)-Bus, ±0.5 °C Accuracy, Digital Temperature Sensor
- **P3T2030xUK**: I3C, \( I^2C \)-Bus, 2.0 °C Accuracy, Digital Temperature Sensor
- **I3C/PC Digital Temp. Sensors**: I3C/\( I^2C \) Digital Temperature Sensors
- **PCT2075**: \( I^2C \)-Bus Fm+, 1 Degree C Accuracy, Digital Temperature Sensor And Thermal Watchdog

### I2C LED Drivers
- **LED Controllers**: LED Controllers

### Ethernet
- **Layerscape\(^\text{®}\) 1028A Applications Processor**
- **i.MX RT1180**: Crossover MCU with TSN Switch and EdgeLock\(^\text{®}\)

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View our complete solution for **Programmable Logic Controller (PLC) and Remote I/O**.

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