Power Adapters and Chargers

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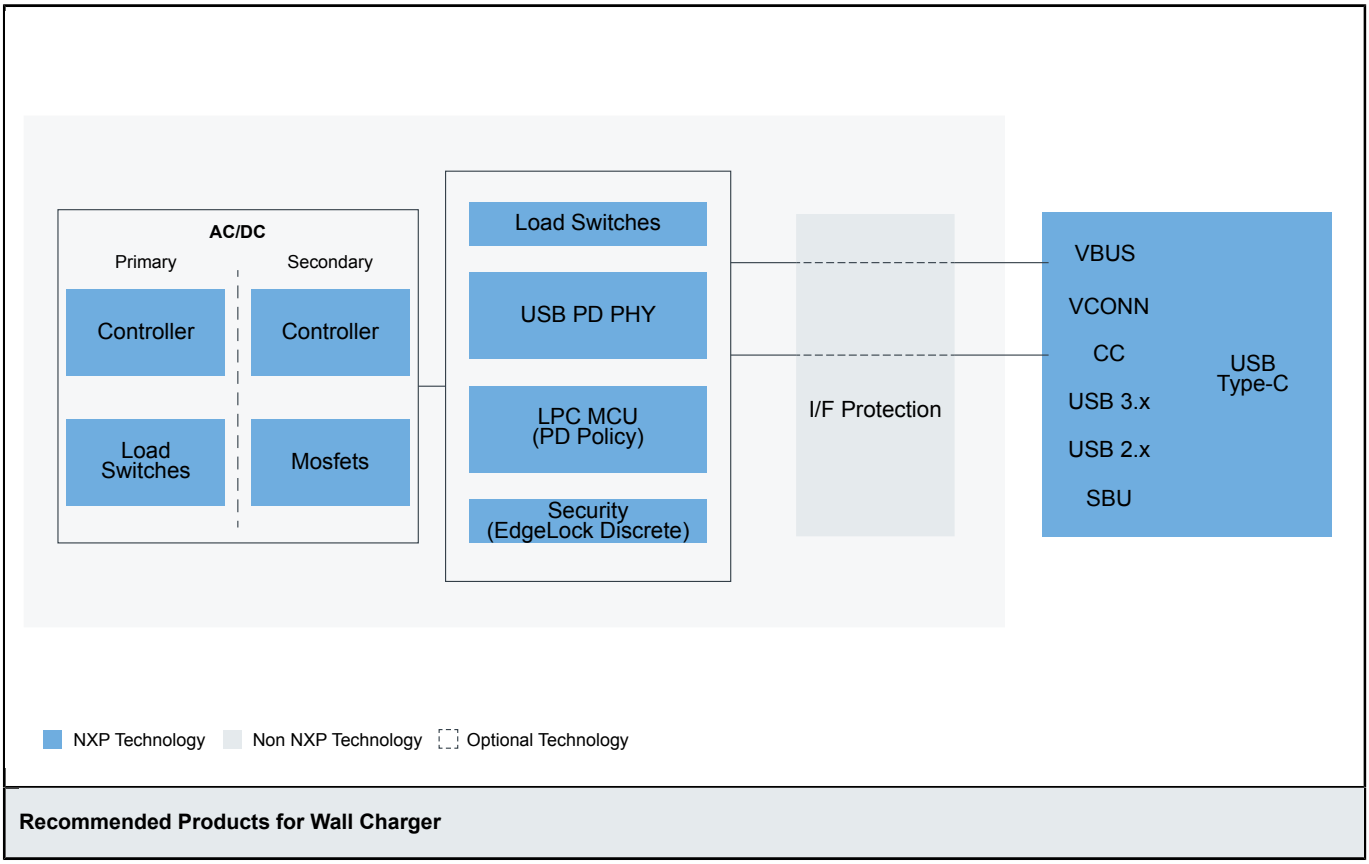
NXP® has a proven track record on high-efficiency, low-power standby power supply solutions. Our Type-C wall charger uses our latest solutions to enable USB Power Delivery PD 2.0 up to 5 A and 20 V. This allows USB connections to complement data exchange with high power charging capabilities.

The PD format runs at up to 100 W, which is suitable for use with 5, 12, and 20 V systems – a big step up from the traditional USB battery charger or BC spec. Our application outlines how you can now build USB Type-C wall chargers that rapidly charge larger batteries, or can even power a hub or display.

Wall Charger Block Diagram



Recommended Products for Wall Charger

MCU	• LPC11U00: Scalable Entry Level 32-bit Microcontroller (MCU) based on Arm® Cortex®-M0+ and Cortex®-M0 Cores
Load Switches	• NX20P5090UK: High-Voltage USB PD Power Switch • NX5P3090UK: USB PD and Type-C Current-Limited Power Switch • NX5P3290UK: USB PD and Type-C Current-Limited Power Switch
Load Switches	• NX5P2190UK: Logic-Controlled High-Side Power Switch • NX20P5090UK: High-Voltage USB PD Power Switch • NX5P3090UK: USB PD and Type-C Current-Limited Power Switch • NX5P3290UK: USB PD and Type-C Current-Limited Power Switch
USB PD PHY	• PTN5110: USB PD TCPC PHY IC • PTN5150: CC Logic for USB Type-C Applications
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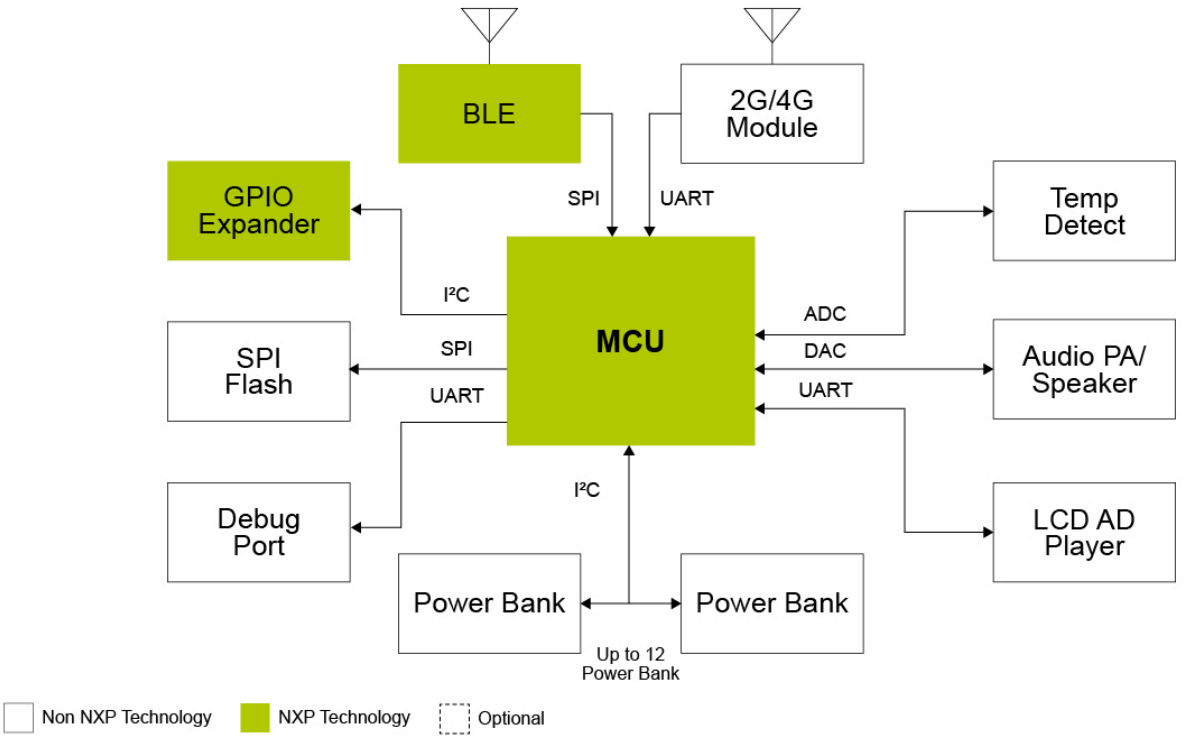
Security (EdgeLock Discrete)	• EdgeLock® SE050: Plug and Trust Secure Element Family – Enhanced IoT security with high flexibility • EdgeLock® A5000 Plug and Trust Secure Authenticator: Authentication Made Secure, Scalable and Easy
AC/DC	• TEA1721AT: HV Start-Up Flyback Controller with Integrated MOSFET for 5 W Applications, F~burst = 430 Hz • TEA2093: GreenChip Synchronous Rectifier Controller
AC/DC	• TEA1721AT: HV Start-Up Flyback Controller with Integrated MOSFET for 5 W Applications, F~burst = 430 Hz

Shared Power Bank Block Diagram



Recommended Products for Shared Power Bank

MCU	• K22_100: Kinetis® K22-100 MHz, Cost Effective, Full-Speed USB Microcontrollers (MCUs) based on Arm® Cortex®-M4 Core
Bluetooth	• QN908x: Ultra-Low-Power Bluetooth Low Energy System on Chip Solution
Peripherals	• PCA9535A: Low-Voltage 16-Bit I²C-Bus I/O Port with Interrupt

View our complete solution for Power Adapters and Chargers.

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