



Smart Lock

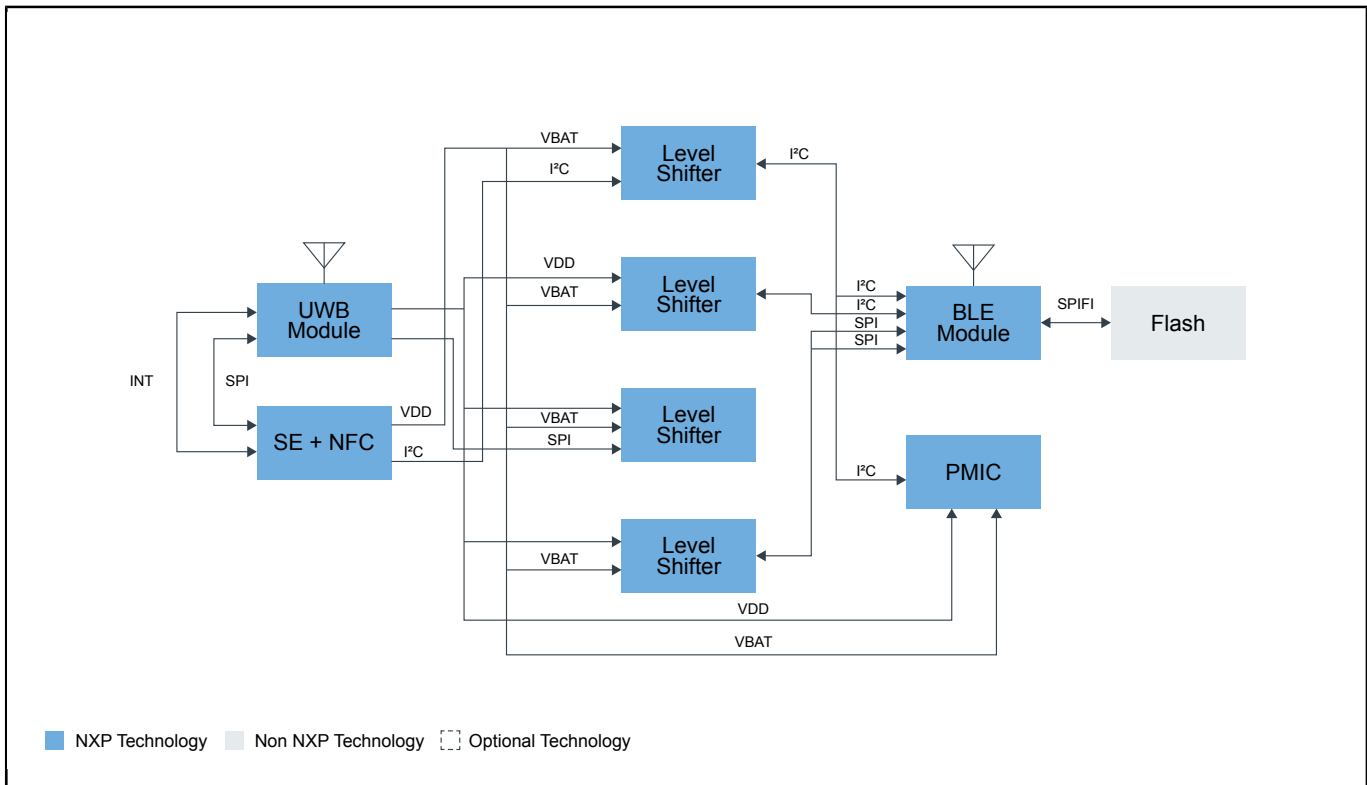
Last Updated: Apr 8, 2025

Physical and information security is a growing concern in the connected world. Smart locks are one piece of the puzzle in controlling access to both information and physical spaces.

A smart lock can be accessed via NFC contact or contactless technology and use Bluetooth® low energy or ultra-wide band(UWB) to communicate with a user’s smartphone, adding an additional level of security. Interaction with smart locks can range from something as simple as status LEDs to LCD panels with touchscreen control.

NXP provides a variety of connectivity options like low-power NFC, Bluetooth Low Energy or UWB. We also have analog components to complete the design of the smart lock.

UWB Smart Lock Block Diagram



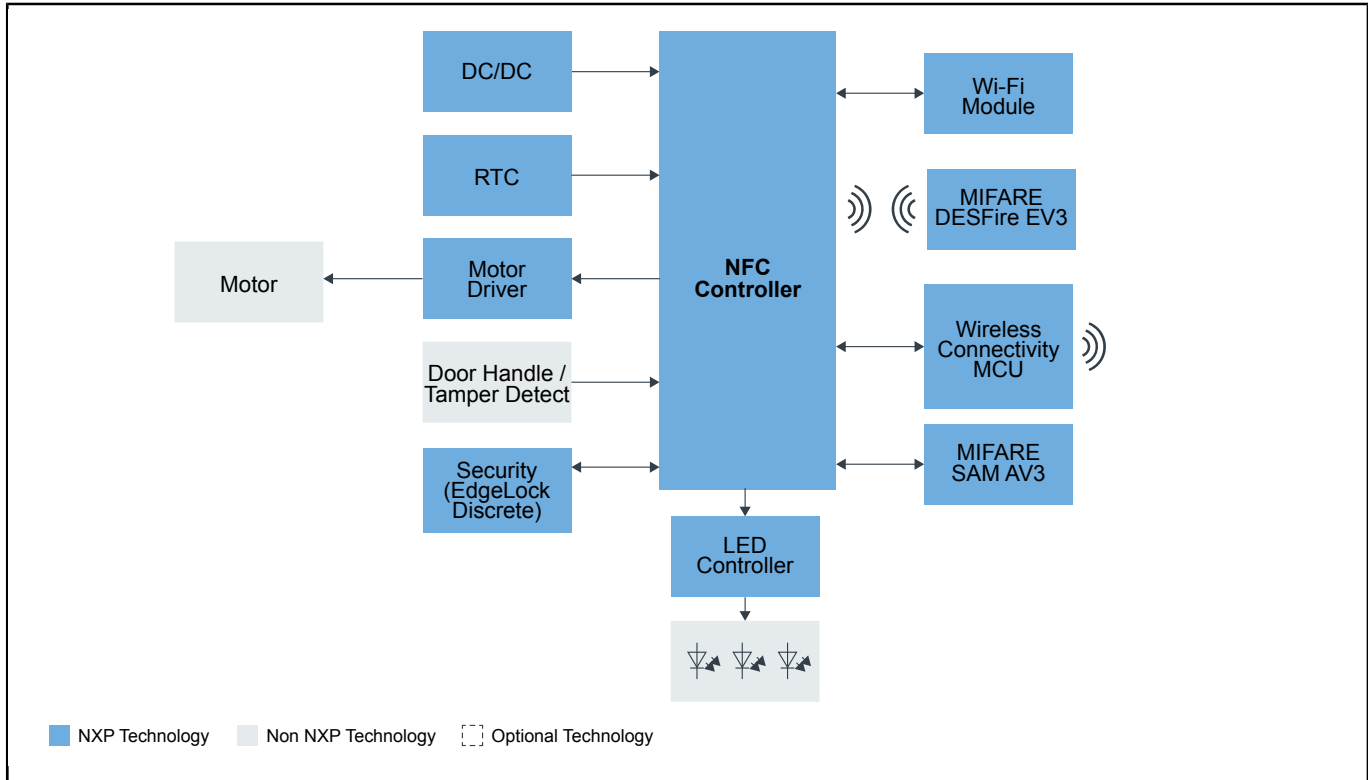
Recommended Products for UWB Smart Lock

UWB Module	<ul style="list-style-type: none"> • SR150: Trimension™ SR150 : IoTデバイス向けのセキュアなUWBソリューション
Level Shifter	<ul style="list-style-type: none"> • NTS0102: Dual-Supply Translating Transceiver (Open-Drain, Auto-Direction Sensing) • NTB0104: Dual-Supply Translating Transceiver (Auto-Direction Sensing, Three-State)
BLE Module	<ul style="list-style-type: none"> • QN9090-30: QN9090/30: Bluetooth Low-Energy MCU with Arm®Cortex®-M4 CPU, Energy Efficiency, Analog and Digital Peripherals and NFC Tag Option

PMIC

- [PF1510](#): Power Management Integrated Circuit (PMIC) for Low Power Application Processors

Smart Lock PN7362 Block Diagram

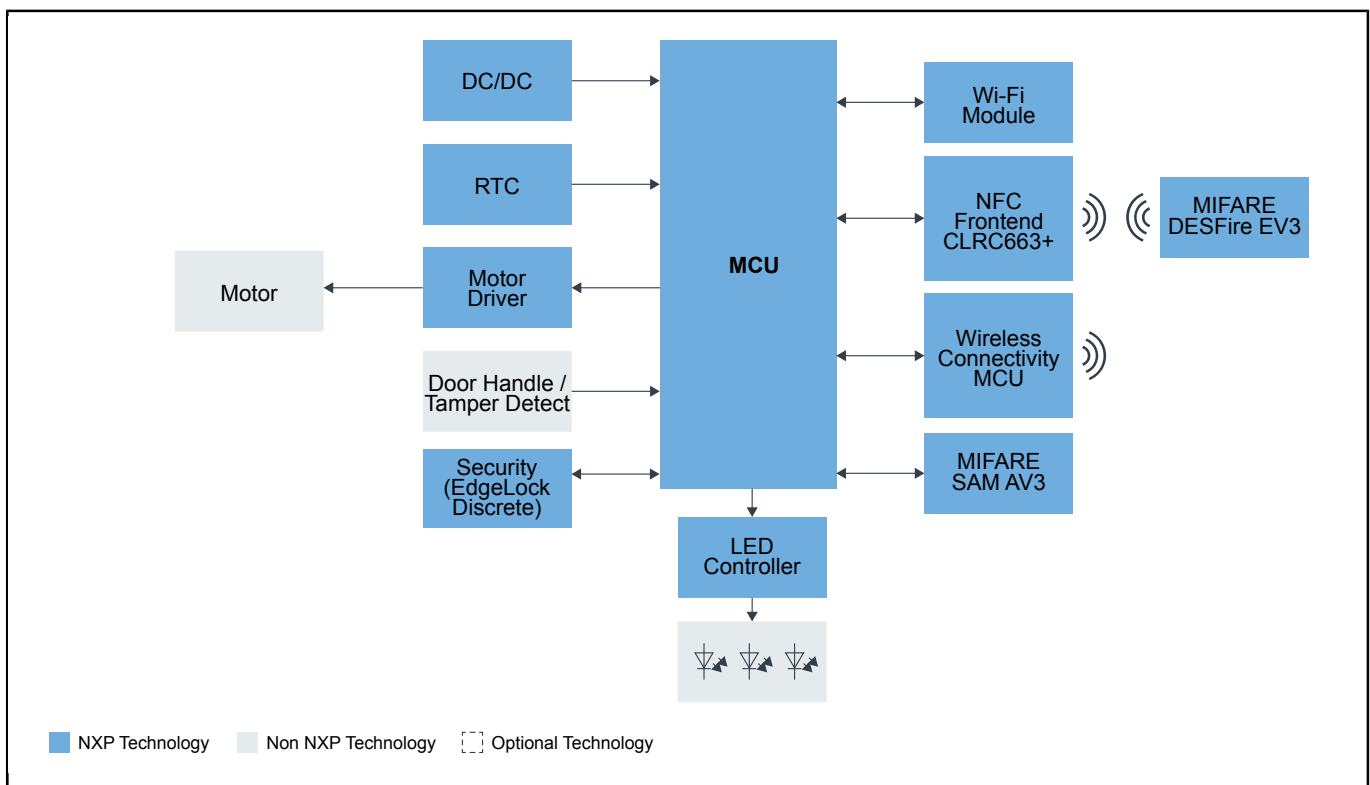


Recommended Products for Smart Lock PN7362

NFC Controller	<ul style="list-style-type: none"> • PN736X: NFC Cortex-M0 Microcontroller • PN5190: 困難なRF環境にも対応する、決済および物理的アクセス制御向けNFCフロントエンド • CLRC66303HN: CLRC663 plus Family: High-Performance NFC Frontends
Wireless Connectivity MCU	<ul style="list-style-type: none"> • KW31Z: Kinetis[®] KW31Z-2.4 GHz Bluetooth Low Energy Wireless Radio Microcontroller (MCU) based on Arm[®] Cortex[®]-M0+ Core
DC-DC	<ul style="list-style-type: none"> • PCA9410_9410A: 3.0 MHz, 500 mA, DC-to-DC Boost Converter
RTC	<ul style="list-style-type: none"> • PCF8523: 100 NA Real-Time Clock/Calendar with Battery Backup
LED Controller	<ul style="list-style-type: none"> • PCA9956BTW: 24チャンネルFm+ I²Cバス57 mA/20 V定電流LEDドライバ
MIFARE DESFire EV3	<ul style="list-style-type: none"> • MF3DHx3: MIFARE[®] DESFire[®] EV3 : 非接触型スマートシティ・サービス向け高セキュリティIC
Motor Driver	<ul style="list-style-type: none"> • MC33926: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 20 kHz
Secure Element	<ul style="list-style-type: none"> • MIFSAMAV3: MIFARE SAM AV3

	<ul style="list-style-type: none"> • SE050: EdgeLock[®] SE050 : Plug & Trustセキュア・エレメント・ファミリー - 柔軟性に優れた、IoT向けの高度なセキュリティ
Wi-Fi	<ul style="list-style-type: none"> • IW416: 2.4/5 GHzデュアルバンド1x1 Wi-Fi[®] 4 (802.11n) およびBluetooth[®] 5.2ソリューション • RW610: 無線内蔵ワイヤレスMCU : 1x1 Wi-Fi[®] 6 + Bluetooth[®] Low Energy 5.4無線 • RW612: トライラジオ内蔵ワイヤレスMCU : 1x1 Wi-Fi[®] 6 + Bluetooth[®] Low Energy 5.4 / 802.15.4 • IW610: 2.4/5GHz Dual-Band 1x1 Wi-Fi[®] 6 + Bluetooth Low Energy 5.4 + 802.15.4 Tri-Radio Solution
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> • SE050: EdgeLock[®] SE050 : Plug & Trustセキュア・エレメント・ファミリー - 柔軟性に優れた、IoT向けの高度なセキュリティ • SE051: EdgeLock[®] SE051 : 更新機能とカスタム・アプレットのサポートを備えた実証済みで使いやすいIoTセキュリティ・ソリューション • EDGELOCK-A5000: EdgeLock[®] A5000 Plug and Trustセキュア・オーセンティケータ : セキュア、スケーラブルかつ簡単に認証を実現

Smart Lock w/CLRC663 Block Diagram

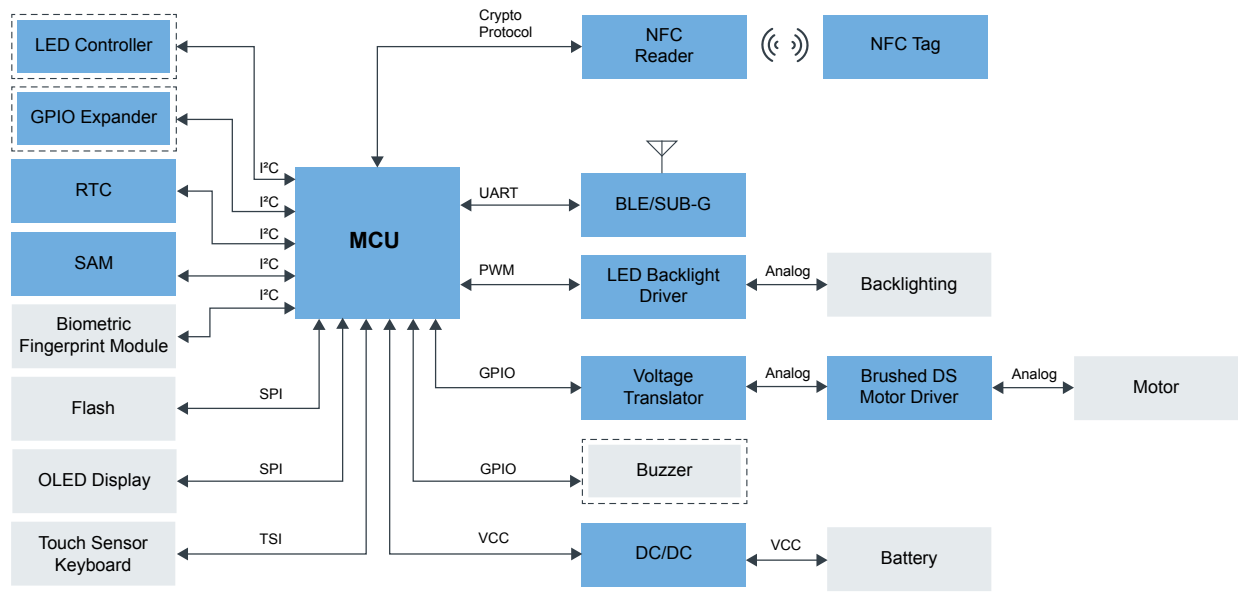


Recommended Products for Smart Lock w/CLRC663

MCU	<ul style="list-style-type: none"> • CLRC66303HN: CLRC663 plus Family: High-Performance NFC Frontends
NFC	<ul style="list-style-type: none"> • CLRC66303HN: CLRC663 plus Family: High-Performance NFC Frontends • PN736X: NFC Cortex-M0 Microcontroller • PN5190: 困難なRF環境にも対応する、決済および物理的アクセス制御向けNFCフロントエンド
Wireless Connectivity MCU	<ul style="list-style-type: none"> • KW31Z: Kinetis[®] KW31Z-2.4 GHz Bluetooth Low Energy Wireless Radio Microcontroller (MCU) based on Arm[®] Cortex[®]-M0+ Core
DC-DC	<ul style="list-style-type: none"> • PCA9410_9410A: 3.0 MHz, 500 MA, DC-to-DC Boost Converter

RTC	<ul style="list-style-type: none"> • PCF8523: 100 NA Real-Time Clock/Calendar with Battery Backup
LED Controller	<ul style="list-style-type: none"> • PCA9956BTW: 24チャンネルFm+ I²Cバス57 mA/20 V定電流LEDドライバ
MIFARE DESFire EV3	<ul style="list-style-type: none"> • MF3DHx3: MIFARE[®] DESFire[®] EV3 : 非接触型スマートシティ・サービス向け高セキュリティIC
Motor Driver	<ul style="list-style-type: none"> • MC33926: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 20 kHz
Secure Element	<ul style="list-style-type: none"> • MIFSAMAV3: MIFARE SAM AV3 • SE050: EdgeLock[®] SE050 : Plug & Trustセキュア・エレメント・ファミリー - 柔軟性に優れた、IoT向けの高度なセキュリティ
Wi-Fi	<ul style="list-style-type: none"> • IW416: 2.4/5 GHzデュアルバンド1x1 Wi-Fi[®] 4 (802.11n) およびBluetooth[®] 5.2ソリューション • RW610: 無線内蔵ワイヤレスMCU : 1x1 Wi-Fi[®] 6 + Bluetooth[®] Low Energy 5.4無線 • RW612: トライラジオ内蔵ワイヤレスMCU : 1x1 Wi-Fi[®] 6 + Bluetooth[®] Low Energy 5.4 / 802.15.4 • IW610: 2.4/5GHz Dual-Band 1x1 Wi-Fi[®] 6 + Bluetooth Low Energy 5.4 + 802.15.4 Tri-Radio Solution
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> • SE050: EdgeLock[®] SE050 : Plug & Trustセキュア・エレメント・ファミリー - 柔軟性に優れた、IoT向けの高度なセキュリティ • SE051: EdgeLock[®] SE051 : 更新機能とカスタム・アプレットのサポートを備えた実証済みで使いやすいIoTセキュリティ・ソリューション • EDGELOCK-A5000: EdgeLock[®] A5000 Plug and Trustセキュア・オーセンティケータ : セキュア、スケーラブルかつ簡単に認証を実現

E-Lock KL1x Block Diagram



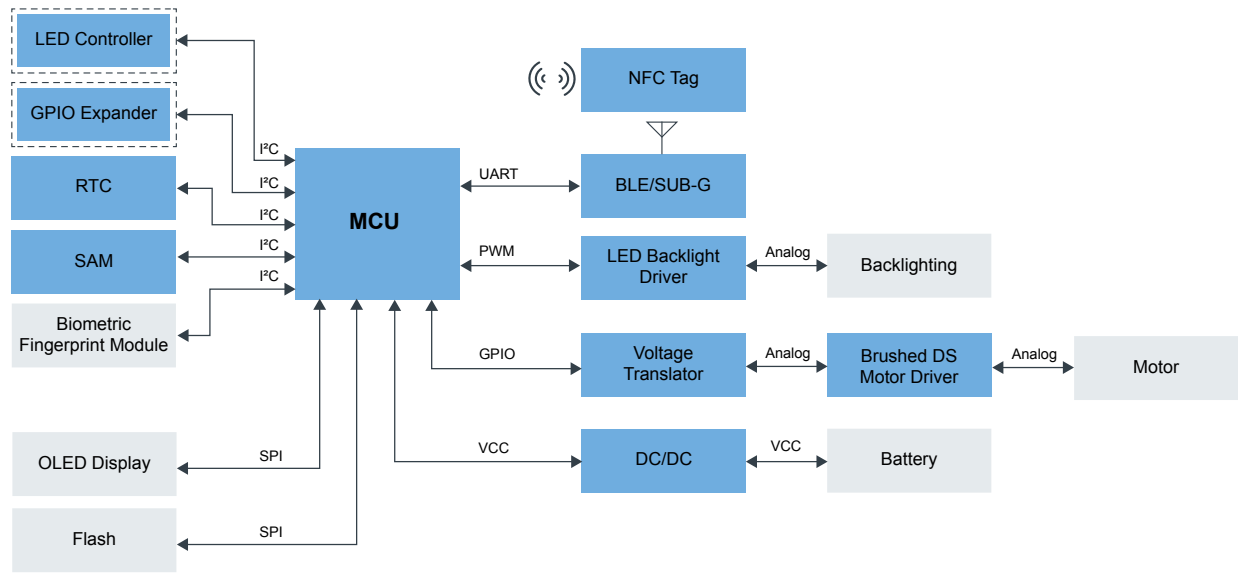
■ NXP Technology
 ■ Non NXP Technology
 Optional Technology

Recommended Products for E-Lock KL1x

LED Controller	<ul style="list-style-type: none"> • PCA9685: 16チャンネル、12ビットPWM Fm+ I²CバスLEDコントローラ
GPIO Expander	<ul style="list-style-type: none"> • PCAL6416A: 低電圧変換16ビットI²Cバス/SMBus I/Oエキスパンダ
RTC	<ul style="list-style-type: none"> • PCF85263A: Tiny Real-Time Clock/Calendar with Alarm Function, Battery Switch-Over, Time Stamp Input and I²C-Bus
SAM	<ul style="list-style-type: none"> • MIFSAMAV3: MIFARE SAM AV3

NFC Reader	<ul style="list-style-type: none"> • PN5190: 困難なRF環境にも対応する、決済および物理的アクセス制御向けNFCフロントエンド
BLE/SUB-G	<ul style="list-style-type: none"> • QN9090-30: QN9090/30: Bluetooth Low-Energy MCU with Arm®Cortex®-M4 CPU, Energy Efficiency, Analog and Digital Peripherals and NFC Tag Option
LED BacklightDriver	<ul style="list-style-type: none"> • MC34844: 10 Channel LED Backlight Driver with Power Supply
Voltage Translator	<ul style="list-style-type: none"> • NTS0304E: 4ビットのデュアル電源変換トランシーバ (オープン・ドレイン、自動方向検出)
DC/DC	<ul style="list-style-type: none"> • PCA9410_9410A: 3.0 MHz, 500 MA, DC-to-DC Boost Converter
NFC Tag	<ul style="list-style-type: none"> • MF3DHx3: MIFARE® DESFire® EV3 : 非接触型スマートシティ・サービス向け高セキュリティIC
Brushed DS Motor Driver	<ul style="list-style-type: none"> • MC33926: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 20 kHz
MCU	<ul style="list-style-type: none"> • KL1x: Kinetis® KL1x-48 MHz, Mainstream Small Ultra-Low Power Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core

E-Lock PN7462 Block Diagram



NXP Technology
 Non NXP Technology
 Optional Technology

Recommended Products for E-Lock PN7462

MCU	<ul style="list-style-type: none"> • PN7462: 接触型インターフェース・オプションを備えた、アクセス制御向けNFC Cortex[®]-M0オールインワン・マイクロコントローラ
Led Controller	<ul style="list-style-type: none"> • PCA9685: 16チャンネル、12ビットPWM Fm+ I²CバスLEDコントローラ
GPIO Expander	<ul style="list-style-type: none"> • PCAL6416A: 低電圧変換16ビットI²Cバス/SMBus I/Oエキスパンダ
RTC	<ul style="list-style-type: none"> • PCF85263A: Tiny Real-Time Clock/Calendar with Alarm Function, Battery Switch-Over, Time Stamp Input and I²C-Bus

BLE/SUB-G	<ul style="list-style-type: none"> • QN9090-30: QN9090/30: Bluetooth Low-Energy MCU with Arm®Cortex®-M4 CPU, Energy Efficiency, Analog and Digital Peripherals and NFC Tag Option
NFC Tag	<ul style="list-style-type: none"> • MF3DHx3: MIFARE® DESFire® EV3 : 非接触型スマートシティ・サービス向け高セキュリティIC
LED BacklightDriver	<ul style="list-style-type: none"> • MC34844: 10 Channel LED Backlight Driver with Power Supply
DC/DC	<ul style="list-style-type: none"> • PCA9410_9410A: 3.0 MHz, 500 MA, DC-to-DC Boost Converter
Brushed DSMotor Driver	<ul style="list-style-type: none"> • MC33926: H-Bridge, Brushed DC Motor Driver, 5-28 V, 5 A, 20 kHz
VoltageTranslator	<ul style="list-style-type: none"> • NTS0304E: 4ビットのデュアル電源変換トランシーバ (オープン・ドレイン、自動方向検出)
SAM	<ul style="list-style-type: none"> • MIFSAMAV3: MIFARE SAM AV3

View our complete solution for [Smart Lock](#).

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