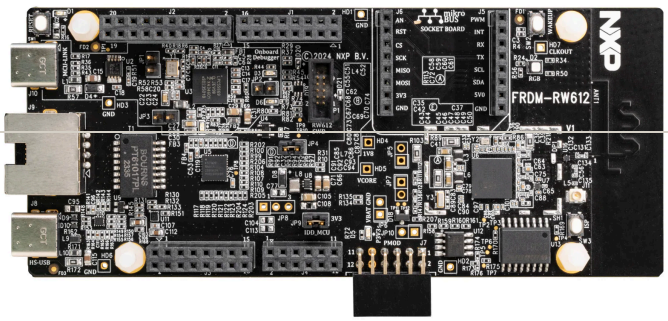
FRDM Development Board for RW612 Wi-Fi 6 + Bluetooth Low Energy + 802.15.4 Tri-Radio Wireless MCU

FRDM-RW612 NEW ACTIVE Receive alerts

(//www.nxp.com)

FRDM Development Board for RW612 Wi-Fi 6 + Bluetooth Low Energy + 802.15.4 Tri-Radio Wireless MCU

NEW ACTIVE



Roll over image to zoom in

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FRDM-RW612 is a compact and scalable development board for rapid prototyping of the RW61x family of Wi-Fi 6 + Bluetooth Low Energy + 802.15.4 tri-radio wireless MCUs.

It offers easy access to the MCU's I/Os and peripherals, integrated open-standard serial interfaces, external flash memory and on-board MCU-Link debugger.

NXP's Expansion Board Hub (/design/design-center/software/development-software/expansion-board-hub:EXP-BOARD-HUB) for add-on boards, the Application Code Hub (/design/design-center/software/development-software/mcuxpresso-software-and-tools-/application-code-hub:APP-CODE-HUB) for software examples and more are available through the MCUXpresso Developer Experience (/design/design-center/software/development-software/mcuxpresso-software-and-tools-:MCUXPRESSO).

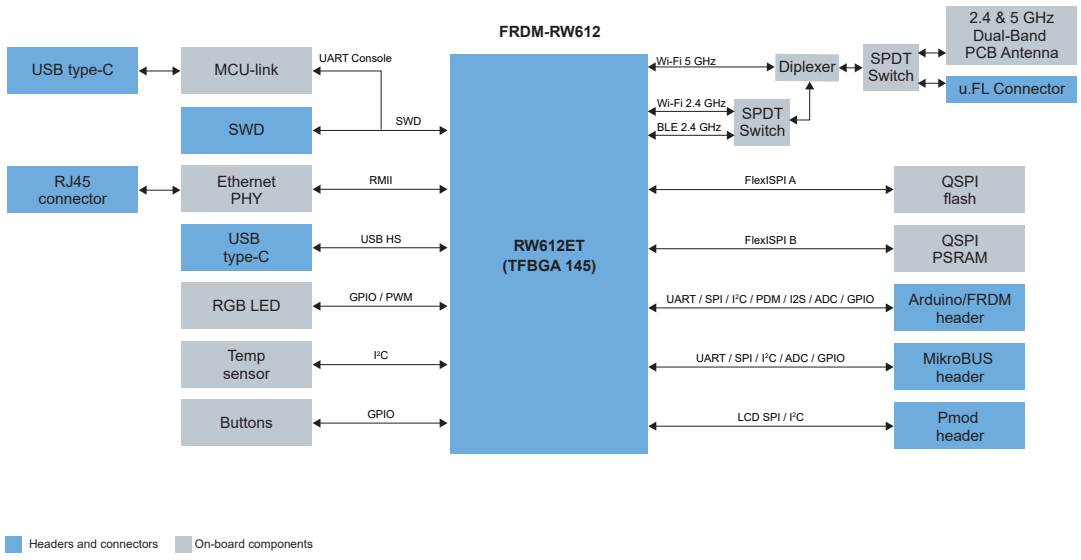
SOFTWARE

Product Details

Block Diagram | Supported Devices | Features | Hardware | Applications

Block Diagram

FRDM-RW612



GET DIAGRAM PDF (/ASSETS/BLOCK-DIAGRAM/EN/FRDM-RW612.PDF)

Supported Devices

Wireless Connectivity

Wi-Fi® + Bluetooth® + 802.15.4	• **RW610** (/products/wireless-connectivity/wi-fi-plus-bluetooth-plus-802-15-4/wireless-mcu-with-integrated-radio-1x1-wi-fi-6-plus-bluetooth-low-energy-5-4-radios:RW610)**:** Wireless MCU with Integrated Radio: 1x1 Wi-Fi® 6 + Bluetooth® Low Energy 5.4 Radios • **RW612** (/products/wireless-connectivity/wi-fi-plus-bluetooth-plus-802-15-4/wireless-mcu-with-integrated-tri-radio-1x1-wi-fi-6-plus-bluetooth-low-energy-5-4-802-15-4:RW612)**:** Wireless MCU with Integrated Tri-radio: 1x1 Wi-Fi® 6 + Bluetooth® Low Energy 5.4 / 802.15.4

Power Management

Load Switches	• **NX5P3090UK** (/products/power-management/load-switches/usb-pd-and-type-c-current-limited-power-switch:NX5P3090UK)**:** USB PD and Type-C Current-Limited Power Switch

Sensors

I3C/I²C Digital Temp. Sensors	• **P3T1755DP** (/products/sensors/i3c-ic-digital-temp-sensors/i3c-ic-bus-0-5-c-accurate-digital-temperature-sensor:P3T1755DP)**:** I3C/I²C-Bus ±0.5 °C Accurate Digital Temperature Sensor

Features

Microcontroller	• RW612 Arm™ Cortex™-M33 core @260MHz with optimized performance efficiency, 1.2 MB on-chip SRAM
Memory Expansion	• Winbond QSPI flash (512Mbit): W25Q512JV • AP Memory QSPI pSRAM (64 Mbit): APS6404L-SQN-SN
Connectivity	• SPI/I2C/UART connector (mikroBUS, Pmod™) • Ethernet Phy and connector • HS USB Type-C connectors • Dual-band, 1x1 Wi-Fi 6 radio with 20 MHz channel bandwidth • Bluetooth LE radio • 802.15.4 radio supporting Zigbee and Thread
Debug	• On-board MCU-Link debugger with CMSIS-DAP • JTAG/SWD connector
Sensor	• P3T1755 (/products/sensors/i3c-ic-digital-temp-sensors/i3c-ic-bus-0-5-c-accurate-digital-temperature-sensor:P3T1755DP) I3C temperature sensor

Expansion Options

- Arduino® Header (with FRDM expansion rows)
- FRDM Header
- Pmod™
- MikroBUS™

User Interface

- RGB user LED, Reset, ISP, Wakeup buttons

Less

Hardware

EVALUATION BOARD

3.5” TFT LCD Module (/design/design-center/development-boards-and-designs/general-purpose-mcus/3-5-480x320-ips-tft-lcd-module:LCD-PAR-S035)

The LCD-PAR-S035 is a 3.5” 480x320 IPS TFT LCD module with wide viewing angle and 5-point capacitive touch functionality.

LCD-PAR-S035

Applications

Industrial

Air Conditioning (AC) (/applications/smart-home/smart-appliance/air-conditioning-ac:AIR-CONDITIONING)

Electricity Meter (/applications/industrial/power-and-energy/electricity-meter:ELECTRICITY-METER)

EV Supply Equipment (EVSE) (/applications/smart-city/infrastructure/ev-supply-equipment-evse:EV-CHARGER-STATION)

Factory Automation

Industrial HMI (/applications/industrial/factory-automation/industrial-hmi:INDUSTRIAL-HMI)

Vital Signs Monitors (/applications/industrial/secure-healthcare-solutions/vital-signs-monitors:VITAL-SIGN-MONITORS)

Smart City

Smart Lock (/applications/smart-city/access/smart-lock:SMART-LOCK)

Smart Home

Home Control Panel (/applications/smart-home/smart-appliance/home-control-panel:HOME-CONTROL-PANEL)

Home Security and Surveillance (/applications/smart-home/home-control-and-security/home-security-and-surveillance:HOME-SECURITY-SURVEILLANCE)

Major Home Appliances (/applications/smart-home/smart-appliance/major-home-appliances:MAJOR-HOME-APPLIANCE)

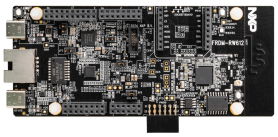
Buy Options

FRDM-RW612 (/part/FRDM-RW612)

FRDM Development Board for RW612 Wi-Fi 6 + Bluetooth Low Energy + 802.15.4 Tri-Radio Wireless MCU.

Kit Contains

- FRDM-RW612
- Quick Start Guide
- USB Cable Type-C



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