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/ FRDM i.MX 8M Plus Development Board

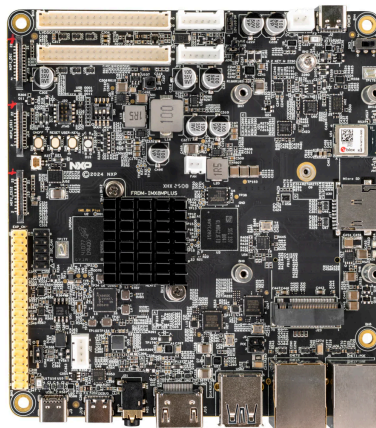
FRDM i.MX 8M Plus Development Board

FRDM-IMX8MPLUS NEW ⓘ PREPRODUCTION (/support/sample-and-buy/product-lifecycle:PRDLIFCYC)

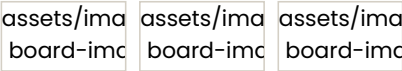
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Overview Product Details Documentation Design Resources ⓘ Support GET STARTED



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The FRDM i.MX 8M Plus development board is a low-cost and compact development board featuring the i.MX 8M Plus applications processor. Equipped with an onboard IW612 module, featuring NXP's Tri-Radio solution with Wi-Fi 6 + Bluetooth Low Energy 5.3 + 802.15.4, the board is ideal for developing modern Industrial and IoT applications. This development board includes LPDDR4, eMMC storage for quick boot times, PMIC and expansion capabilities.

DESIGN FILES SOFTWARE

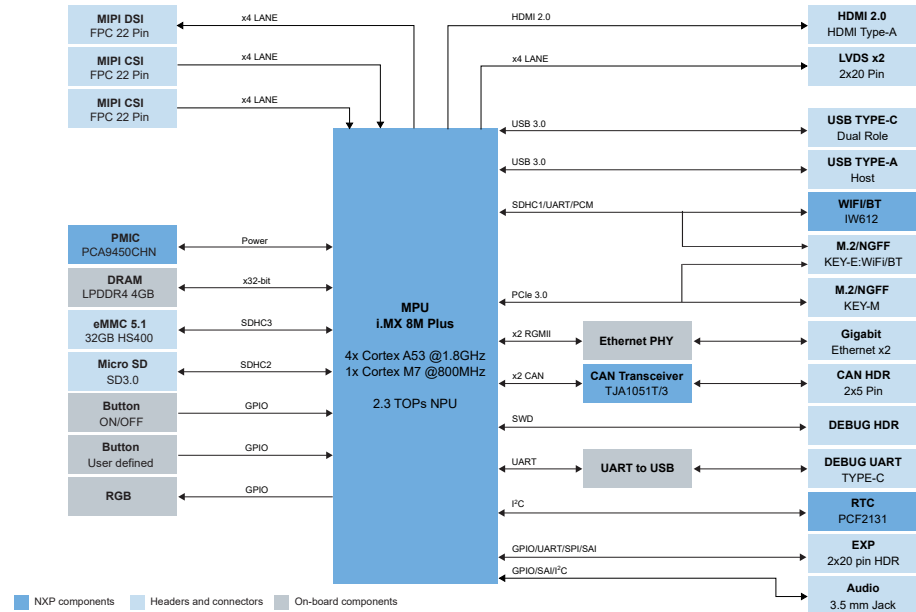
Product Details

Block Diagram | Supported Devices | Features | Applications

Block Diagram



FRDM i.MX 8M Plus Development Board



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Supported Devices

Analog and Mixed Signal

Real-Time Clocks

- **PCF2131** (/products/PCF2131): Nano-Power Highly Accurate RTC with Integrated Quartz Crystal

Interfaces

3.3 V / 5 V IO CAN Transceivers

- **TJA1051** (/products/interfaces/can-transceivers/can-with-flexible-data-rate/high-speed-can-transceiver:TJA1051): High-Speed CAN Transceiver

General Purpose I/O (GPIO)

- **PCAL6416A** (/products/PCAL6416A): Low-Voltage Translating 16-Bit I²C-Bus/SMBus I/O Expander

USB Interfaces

- **PTN5110** (/products/interfaces/usb-interfaces/usb-pd-tcpc-phy-ic:PTN5110): USB PD TCPC PHY IC

Processors and Microcontrollers

i.MX 8 Applications Processors

- **IMX8MPLUS** (/products/IMX8MPLUS): i.MX 8M Plus – Arm® Cortex®-A53, Machine Learning, Vision, Multimedia and Industrial IoT

Power Management

5 V PMIC Solutions

- **PCA9450** (/products/PCA9450): Power Management IC (PMIC) for i.MX 8M Mini/Nano/Plus

More ▾

Features

Processor

- i.MX 8M Plus Quad applications processor
- 4x Arm® Cortex-A53 up to 1.8 GHz
- 1x Arm® Cortex-M7 up to 800 MHz
- Cadence® Tensilica® HiFi4 DSP up to 800 MHz
- Neural Processing Unit

Memory

- 4 GB LPDDR4
- 32 GB eMMC 5.1
- 32 MB QSPI NOR

Display and Camera Interfaces

- 1x MIPI-DSI interface (FPC 22-Pin connector)
- 1x LVDS interface (40-Pin header)
- 2x MIPI-CSI interfaces (FPC 22-Pin connector)
- 1x HDMI 2.0a connector with eARC

Wireless

- u-blox MAYA-W276-00B Tri-Radio Wi-Fi 6, Bluetooth LE 5.3 and 802.15.4 module; 802.15.4 radio supporting Thread and Zigbee

Audio

- Audio DAC
- Microphone/headphone jacks

Connectivity

- 2x 10/100/1000 Ethernet port (1x w/ TSN)
- USB 3.0 Type A
- USB 3.0 Type C
- PCIe M.2 interface
- 2x20 EXP1
- I²C and CAN HDR

Debug

- JTAG Connector
- UART via USB-Type C

Less ^

Applications

Industrial

- Automatic Vehicle Identification (/applications/AUTOMATIC-VEHICLE-ID)

Building Safety Detectors (/applications/BUILDING-SAFETY)

Building Security and Surveillance (/applications/BUILDING-SECURITY)

Factory Automation

Fleet Management (/applications/FLEET-MANAGEMENT)

General Avionics (/applications/AVIONICS)

In-Home Energy Display (/applications/IN-HOME-ENERGY-DISPLAY)
- Industrial HMI (/applications/INDUSTRIAL-HMI)

Intermediate Flight Controller (/applications/INTERMEDIATE-FLIGHT-CONTROLLER)

Power Grid Converter (/applications/ELECTRICITY-GRID-DISTRIBUTION)

Solar Photovoltaic (PV) Energy Generation System (/applications/ELECTRICITY-GENERATION)

Vision and Advanced Sensing (/applications/ADVANCED-SENSING-BOARD)

Documentation

Quick reference to our documentation types (/design/documentation/nxp-technical-documentation:NXP-TECHNICAL-DOCUMENTATION#docs)

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Secure ⓘ

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DONE

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Document Types

Release Note

Supporting Information

User Guide

User Manual

Filter by keyword

5 documents

Compact List ⓘ

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Release Note (1)

Release Notes for i.MX FRDM Yocto Software
(<https://docs.nxp.com/bundle/RN00265/page/topics/overview.html>) [RN00265]

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Jun 26, 2025

Rev 4.0

Supporting Information (2)