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PRODUCTS

APPLICATIONS

Sign In / Register (https://www.nxp.com/security/login?TARGET=https%3A%2F%2Fwww.nxp.com%2Fdesign%2Fdesign-center%2Fdevelopment-boards%2Fgeneral-purpose-mcus%2Ffrdm-developmen

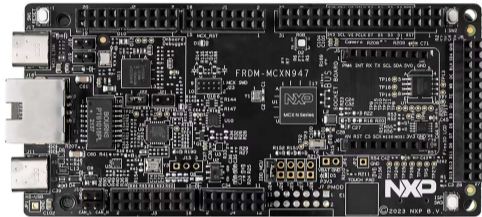DESIGN CENTER

SUPPORT

COMPANY

Home (/) / Design Center (/design/design-center:DESIGN) / Development Boards (/design/design-center/development-boards:EVDEBRDSSYS)
/ General-Purpose MCUs (/design/design-center/development-boards/general-purpose-mcus:FREDEVPLA) / FRDM-MCXN947 | MCUXpresso Developer Experience

FRDM Development Board for MCX N94/N54 MCUs

FRDM-MCXN947   NEW   Receive alerts ⓘ

| Overview | Product Details | Documentation | Design Resources ⓘ | Support | | BUY OPTIONS | GET STARTED (/DOCUMENT/GUIDE/GETTING-STARTED-WITH-FRDM-MCXN947:GS-FRDM-MCXNXX) |

FRDM-MCXN947 are compact and scalable development boards for rapid prototyping of MCX N94 and N54 MCUs. They offer industry standard headers for easy access to the MCU's I/Os, integrated open-standard serial interfaces, external flash memory and an on-board MCU-Link debugger. Additional tools like our Expansion Board Hub (/design/design-center/software/development-software/expansion-board-hub:EXP-BOARD-HUB) for add-on boards and the Application Code Hub (/design/design-center/software/development-software/mcuxpresso-software-and-tools-/application-code-hub:APP-CODE-HUB) for software examples are available through the MCUXpresso Developer Experience (/design/design-center/software/development-software/mcuxpresso-software-and-tools-:MCUXPRESSO).

Roll over image to zoom in

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board-imc board-imc board-imc /ANCED-S

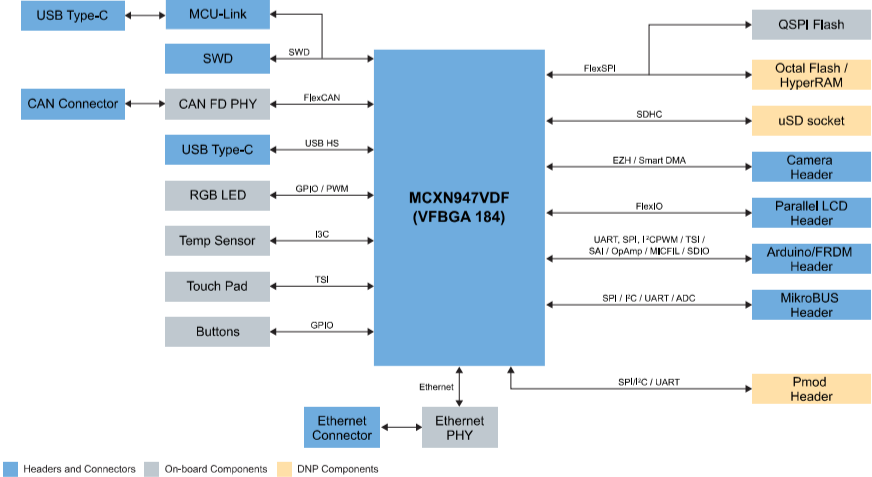**DESIGN FILES**   **SOFTWARE**

Product Details

Select a section:

Block Diagram | Features | Hardware | Applications

Block Diagram

FRDM-MCXN947 Block Diagram

GET DIAGRAM PDF (/ASSETS/BLOCK-DIAGRAM/EN/FRDM-MCXN947.PDF)
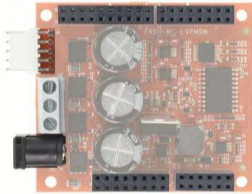
Supported Devices

Processors and Microcontrollers

Features

Microcontroller	• MCX-N947 Dual Arm™ Cortex™ -M33 cores @150MHz each with optimized performance efficiency, Up to 2MB dual-bank flash with optional full ECC RAM, External flash • Accelerators: ○ Neural Processing Unit, PowerQuad, Smart DMA, etc.
Memory Expansion	• *DNP Micro SD card socket .
Connectivity	• Ethernet Phy and connector • HS USB Type-C connectors • SPI/I2C/UART connector (PMOD/mikroBUS, DNP) • WIFI connector (PMOD/mikroBUS, DNP) • CAN-FD transceiver
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/I²C Temp Sensor, Touch Pad
Expansion Options	• Arduino® Header (with FRDM expansion rows) • FRDM Header • FlexIO/LCD Header

More ⌄

Hardware

EVALUATION BOARD

3-Phase PMSM Motor Control FRDM Expansion Board (/design/design-center/development-boards/general-purpose-mcus/nxp-freedom-development-platform-for-low-voltage-3-phase-pmsm-motor-control:FRDM-MC-LVPMSM)

FRDM Expansion board for Low-Voltage, 3-Phase Permanent Magnet Motor Control.
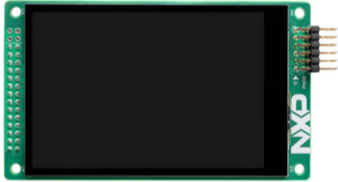
FRDM-MC-LVPMSM

EVALUATION BOARD

3-axis IoT accelerometer FRDM Expansion Board (/design/design-center/software/sensor-toolbox/evaluation-boards/sensor-toolbox-development-board-for-fxls8974cf-3-axis-iot-accelerometer:FRDM-XXXX-A8974)

FRDM Expansion board for FXLS8974CF 3-Axis IoT Accelerometer .

FRDM-XXXX-A8974

EVALUATION BOARD

3.5" TFT LCD Module (/design/design-center/development-boards/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

AI and Machine Learning	Factory Automation
Air Conditioning (AC) (/applications/smart-home/smart-appliance/air-conditioning-ac:AIR-CONDITIONING)	Home Control and Security
	Industrial HMI (/applications/industrial/factory-automation/industrial-hmi:INDUSTRIAL-HMI)
Brushless DC Motor (BLDC) Control (/applications/industrial/aerospace-and-mobile-robotics/brushless-dc-motor-bldc-control:BRUSHLESS-DC-MOTORS)	Motor Drives (/applications/industrial/factory-automation/motor-drives:MOTOR-DRIVES)
Building Control	Permanent Magnet Synchronous Motor (PMSM) (/applications/industrial/aerospace-and-mobile-robotics/pmsm:PMSM-MOTORS)
Electricity Meter (/applications/industrial/power-and-energy/electricity-meter:ELECTRICITY-METER)	Vital Signs Monitors (/applications/industrial/secure-healthcare-solutions/vital-signs-monitors:VITAL-SIGN-MONITORS)
Smart City	
Smart Appliance	Smart Lock (/applications/smart-city/access/smart-lock:SMART-LOCK)
Smart Home	
Home Security and Surveillance (/applications/smart-home/home-control-and-security/home-security-and-surveillance:HOME-SECURITY-SURVEILLANCE)	

Buy Options

$25.00 USD
For a quantity of 1

Availability: In stock   **Inventory:** >100
Shipping: Normally ships 1-2 business days

BUY FROM NXP (HTTPS://STORE.NXP.COM/WEBAPP/ECOMMERCE.ADD_ITEM.FRAMEWORK?PART_NUMBER=FRDM-MCXN947&QUANTITY=1&ITEM_TYPE=TOOL_HW)
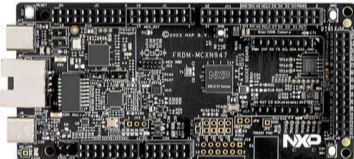
BUY FROM DISTRIBUTOR

FRDM-MCXN947 (/part/FRDM-MCXN947)
FRDM Development Board for MCX N94 and N54 MCUs.

Kit Contains:

- FRDM-MCXN947
- Quick Start Guide
- USB Cable Type-C

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Documentation

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

Filter by keyword

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☐ Data Sheet
☐ Application Note
☐ User Guide
☐ User Manual
☐ Application Note Software
☐ Errata
☐ Quick Reference Guide

1-5 of 27 documents

Sort by | Relevance ⌄

DATA SHEET
MCXNx4x (/docs/en/data-sheet/MCXNx4xDS.pdf)   NEW
PDF   Rev 4   Jan 24, 2024   2.8 MB   MCXNX4X-DS   English

APPLICATION NOTE
USB Remote Wake-up on MCXN947 ⬈
(https://docs.nxp.com/bundle/AN14195/page/topics/introduction_to_usb_on_mcxn9.html)
NEW
HTML|PDF (/docs/en/application-note/AN14195.pdf)   Rev 1   Jan 29, 2024   1.8 MB   AN14195   English

APPLICATION NOTE
DCDC Usage on MCXNx4x/Nx3x ⬈
(https://docs.nxp.com/bundle/AN14185/page/topics/mcxnx4xnx3x_dcdc_overview.html)
NEW
HTML|PDF (/docs/en/application-note/AN14185.pdf)   Rev 1   Jan 29, 2024   1.2 MB   AN14185   English

APPLICATION NOTE

MCXNx4x Flash Command Example ⧉
(https://docs.nxp.com/bundle/AN14178/page/topics/introduction.html)   NEW
HTML|PDF (/docs/en/application-note/AN14178.pdf)   Rev 1   Jan 29, 2024   2.1 MB   AN14178   English

APPLICATION NOTE
Estimating Device Lifetime for MCX Nx4x ⧉
(https://docs.nxp.com/bundle/AN14180/page/topics/introduction.html)   NEW
HTML|PDF (/docs/en/application-note/AN14180.pdf)   Rev 1   Jan 23, 2024   178.2 KB   AN14180   English

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Design Resources

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Design Files | Software

Design Files

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Design Tools & Files

☐ Printed Circuit Boards and Schematics

☐ Design Files – miscellaneous

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2 design files   Sort by | Relevance ⌄

PRINTED CIRCUIT BOARDS AND SCHEMATICS
FRDM-MCXN947 Schematics   NEW
PDF   Rev B2   Jan 29, 2024   3.8 MB   90818-MCXN947SH
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DOWNLOAD (/WEBAPP/DOWNLOAD?COLCODE=90818-MCXN947SH)

DESIGN FILES – MISCELLANEOUS
FRDM-MCXN947 Design Files   UPDATED
ZIP   Rev B   Jan 29, 2024   35.5 MB   FRDM-MCXN947-DESIGN-FILES
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Software

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Embedded Software

☐ Application Example Software

Software Development Tools

☐ Debugging and Visualization Tools

☐ Development IDEs and Build Tools

☐ Software Development Resources

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4 software files   Sort by | Relevance ⌄

APPLICATION EXAMPLE SOFTWARE
Application Code Hub (/design/design-center/software/development-software/mcuxpresso-software-and-tools-/application-code-hub:APP-CODE-HUB)

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DEBUGGING AND VISUALIZATION TOOLS
FreeMASTER Run-Time Debugging Tool (/design/design-center/software/development-software/freemaster-run-time-debugging-tool:FREEMASTER)

DOWNLOAD OPTIONS (/DESIGN/DESIGN-CENTER/SOFTWARE/DEVELOPMENT-SOFTWARE/FREEMASTER-RUN-TIME-DEBUGGING-TOOL:FREEMASTER#DOWNLOADS)

DEVELOPMENT IDES AND BUILD TOOLS
MCUXpresso Integrated Development Environment (IDE) (/design/design-center/software/development-software/mcuxpresso-software-and-tools-/mcuxpresso-integrated-development-environment-ide:MCUXpresso-IDE)

DOWNLOAD OPTIONS (/DESIGN/DESIGN-CENTER/SOFTWARE/DEVELOPMENT-SOFTWARE/MCUXPRESSO-SOFTWARE-AND-TOOLS-/MCUXPRESSO-INTEGRATED-DEVELOPMENT-ENVIRONMENT-IDE:MCUXPRESSO-IDE#DOWNLOADS)

SOFTWARE DEVELOPMENT RESOURCES
Expansion Board Hub (/design/design-center/software/development-software/expansion-board-hub:EXP-BOARD-HUB)

DOWNLOAD OPTIONS (/DESIGN/DESIGN-CENTER/SOFTWARE/DEVELOPMENT-SOFTWARE/EXPANSION-BOARD-HUB:EXP-BOARD-HUB#DOWNLOADS)

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What do you need help with?

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RECOMMENDED COMMUNITIES

MCUXpresso General⧉

MCUXpresso SDK⧉

MCX Microcontrollers⧉

Related hardware you may be interested in:

(/design/design-center/development-boards/general-purpose-mcus/nxp-freedom-development-platform-for-low-voltage-3-phase-pmsm-motor-control:FRDM-MC-LVPMSM)

NXP® Freedom Development Platform for Low-Voltage, 3-Phase PMSM Motor Control (/design/design-center/development-boards/general-purpose-mcus/nxp-freedom-development-platform-for-low-voltage-3-phase-pmsm-motor-control:FRDM-MC-LVPMSM)

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FRDM-MC-LVPMSM

(/design/design-center/development-boards/sensor-developer-resources/touch-module-for-freedom-board:FRDM-TOUCH)

Touch Module for Freedom Board (/design/design-center/development-boards/sensor-developer-resources/touch-module-for-freedom-board:FRDM-TOUCH)
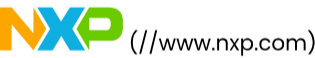
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FRDM-TOUCH

(/design/design-center/software/sensor-toolbox/evaluation-boards/sensor-toolbox-development-board-for-fxls8974cf-3-axis-iot-accelerometer:FRDM-XXXX-A8974)

Sensor ToolBox Development Board for FXLS8974CF 3-Axis IoT Accelerometer (/design/design-center/software/sensor-toolbox/evaluation-boards/sensor-toolbox-development-board-for-fxls8974cf-3-axis-iot-accelerometer:FRDM-XXXX-A8974)

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FRDM-XXXX-A8974

(/design/design-center/development-boards/general-purpose-mcus/3-5-480x320-ips-tft-lcd-module:LCD-PAR-S035)

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

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LCD-PAR-S035

News Jan 9, 2024 | Read More (https://media.nxp.com/news-releases/news-release-details/nxp-extends-industry-first-28-nm-rfcmos-radar-one-chip-family)

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