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DIGI TRUSTFENCE | yocto PROJECT | GOLD PARTNER NXP | WiFi ALLIANCE MEMBER | Bluetooth® | powered by aws

DIGI CONNECTCORE 8M MINI DEVELOPMENT KIT

Complete development platform for embedded industrial product designs

The Digi ConnectCore® 8M Mini development kit is a cohesive and cost-effective System-on-Module (SOM) platform built on the NXP® i.MX 8M Mini applications processor. It integrates memory, Digi Microcontroller Assist™ power management, a pre-certified wireless connectivity and advanced **Digi TrustFence**® device security with a complete, open-source Linux software platform based on the Yocto Project and complete Android support through Digi Embedded Android.

The SOM platform simplifies embedded product development by eliminating the complexity and risk of custom board designs. The Digi ConnectCore 8M Mini development kit provides multiple display interfaces, camera, audio, **Digi XBee**® modules and other hardware options for optimal flexibility and user experience.

Digi ConnectCore 8M Mini strikes an optimal balance of performance, power and cost. It's suitable for a wide range of industrial, medical, transportation and agricultural products, and features scalable, power-efficient ARM® Cortex®-A53 and Cortex-M4 processors, rich multimedia and advanced connectivity. Digi ConnectCore 8M Mini is ideal for Internet of Things (IoT) applications such as Human Machine Interface (HMI), equipment monitoring, audio/voice, edge compute and machine learning. The development board includes two Digi XBee connectors to enable cellular, short- and long-range connectivity.

With twenty years of embedded SOM experience enabling millions of globally connected products, Digi is a trusted embedded and IoT solutions provider, simplifying the way customers design, build and deploy connected applications. Digi also offers cellular integration support, certification assistance, and custom design and build services to get your products to market smarter and faster.

THE KIT INCLUDES:

✓ Digi ConnectCore® 8M Mini development board
✓ Console port cable
✓ Dual-band antenna
✓ Power supply and accessories
✓ Reference designs for LVDS, HDMI and CAN-FD

PART NUMBER	DESCRIPTION
CC-WMX8MM-KIT	Digi ConnectCore 8M Mini development kit

FEATURES AND BENEFITS

– Industrial i.MX 8M Mini quad-core System-on-Module (SOM)
– Digi Embedded Yocto (Linux) providing full Yocto Project support
– Digi Embedded Android providing full Android support
– Video capabilities with built-in VPU
– **Digi TrustFence**, a complete IoT device security framework
– Digi Microcontroller Assist™ for advanced power management, security, peripheral support and system reliability operations
– Pre-certified dual-band 802.11a/b/g/n/ac and Bluetooth® 5 connectivity
– Cloud and edge compute services integration
– Dev board includes on-board interfaces for:
  • HDMI or LVDS displays
  • **Digi XBee** integration to extend wireless connectivity to a global family of modules spanning popular IoT protocols

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PERFORMANCE

APPLICATION PROCESSOR	NXP® i.MX 8M Mini Quad GPU Industrial • Four Cortex®-A53 cores up to 1.6 GHz • Cortex-M4 400 MHz core processor for low-power processing
MEMORY	Up to 8 GB eMMC, up to 2 GB LPDDR4 (32-bit)

WIRED NETWORK CONNECTIVITY

ETHERNET	Gigabit Ethernet 10/100/1000 with RJ-45 connector

WIRELESS NETWORK CONNECTIVITY

WI-FI	802.11a/b/g/n/ac 1x1 (MCS 0-9) with strong WPA2-enterprise authentication/encryption for Wi-Fi connections
BLUETOOTH®	Bluetooth 5 with Bluetooth Low Energy support
ANTENNAS	SMA antenna connector
DIGI XBEE® RF	Two Digi XBee sockets, one supporting Digi XBee Cellular

PERIPHERALS/INTERFACES

USB	Two USB host (dual Type A)
GPIO	Five GPIOs
UART / CONSOLE	USB console
OTHER CONNECTIVITY	CAN-FD; RS-485
PCI EXPRESS MINI CARD	Full-size card support with USB connection and on-board micro-SIM slot support
EXTERNAL STORAGE	MicroSD connector
AUDIO	3.5 mm headphone jack; 3.5 mm microphone jack; two speaker output; line-out output; two line-in input
BUTTONS / SWITCHES	Reset button; on/off button (supporting power-on/off and suspend/resume functionality); two user buttons
DEBUG	SW for MCA (Tag-connect); JTAG for i.MX 8M Nano CPU; USB for System-on-Module recovery
LEDS	Three user LEDs

MULTIMEDIA

DISPLAY	HDMI; LVDS with backlight control and I2C touch interface; MIPI-DSI; note: only one display interface can work at a time
CAMERA	MIPI-CSI camera connector supporting two data lanes (two additional data lanes available in expansion connector)

POWER REQUIREMENTS

SUPPLY VOLTAGE	5 VDC
POWER CONNECTORS	5 V input power jack connector; supercap populated in development board supporting RTC applications; coin-cell/supercap connector; battery connector

ENVIRONMENTAL

OPERATING TEMPERATURE	-40° C to 85° C (-40° F to 185° F)
STORAGE TEMPERATURE	-50° C to 125° C (-58° F to 257° F)
RELATIVE HUMIDITY	5% to 90% (non-condensing)
MECHANICAL DIMENSIONS	130 mm x 210 mm (5.12 in x 8.27 in)

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