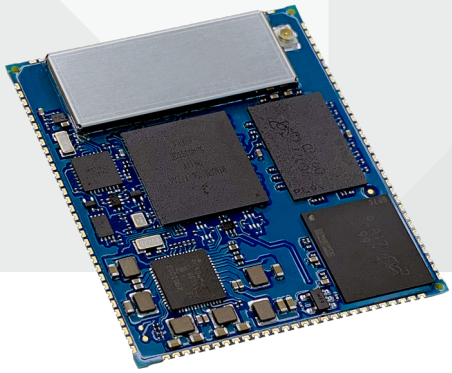




Connect this device with
Digi ConnectCore Cloud Services.
Create. Configure. Deploy. Manage.

DIGI CONNECTCORE 8M MINI

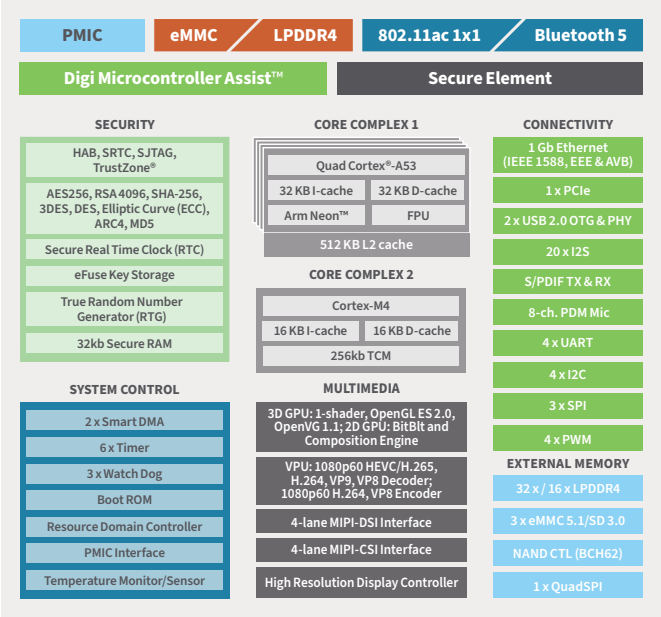
Embedded system-on-module based on the NXP i.MX 8M Mini processor with built-in security; designed for longevity and scalability in industrial IoT applications

Digi ConnectCore® 8M Mini, based on the NXP® i.MX 8M Mini application processor, is a secure integrated system-on-module (SOM) platform. The Mini is designed for a wide range of industrial, medical, agricultural and transportation applications, including Internet of Things (IoT), human-machine interface (HMI), equipment monitoring, audio/voice, graphics/video, edge computing and machine learning.

Digi ConnectCore 8M Mini features four power-efficient Arm® Cortex®-A53 cores, one Cortex-M4 core, and the Digi Microcontroller Assist Cortex-M0, which allow it to minimize power consumption while maintaining a high standard of performance.

With a 10+ year product lifecycle, OEMs can reduce their development costs and achieve a lower total cost of ownership by leveraging pre-certified wireless connectivity, remote management, cloud integration, and complete Linux Yocto Project and Android software platform support.

BLOCK DIAGRAM



BENEFITS

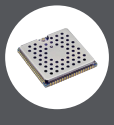
- Industrial i.MX 8M Mini quad-core system-on-module
- Digi SMTplus® form factor (40 mm x 45 mm) for ultimate reliability and design freedom
- Power management with both hardware and software support for low-power designs
- Display and camera capabilities with graphics and video hardware acceleration
- Video capabilities with built-in VPU
- Pre-certified dual-band 802.11a/b/g/n/ac 1x1 and Bluetooth® 5 connectivity
- Seamless cellular modem and Digi XBee® wireless integration
- Cloud and edge-compute services integration
- Built-in device security, identity and privacy with Digi TrustFence® and a hardware Secure Element
- Remote management with Digi ConnectCore® Cloud Services
- Digi Embedded Yocto Linux® and Android support

RELATED PRODUCTS


ConnectCore 8M Mini Dev Kit


ConnectCore 8M Nano


ConnectCore 8X


ConnectCore 6UL


Digi XBee® Modules

SPECIFICATIONS	DIGI CONNECTCORE 8M MINI	
APPLICATION PROCESSOR	NXP® i.MX8 Mini • Four Cortex®-A53 cores at 1.6 GHz • Cortex-M4 400 MHz core processor for low-power processing	
MEMORY	Up to 8 GB eMMC, up to 2 GB of LPDDR4 (32-bit)	
PMIC	NXP PCA9450	
GRAPHICS / VIDEO	Graphic Processing Unit: • GCNanoUltra for 3D acceleration • GC320 for 2D acceleration • LCDIF display controller, supporting up to 1080 p 60 fps display through MIPI DSI • MIPI DSI (4-lane) with PHY (display interface) • MIPI CSI (4-lane) with PHY (camera interface)	Video Processing Unit: • 1080 p 60 HEVC H.265 (decode) • VP9, H.264, VP8 (encode/decode)
SECURITY	Digi TrustFence®, TRNG, TrustZone, Secure RTC, Secure JTAG, Secure Element	
PERIPHERALS / INTERFACES	1x PCI Express 2.0 (PCIe) 2x USB 2.0 OTG controllers with integrated PHY interfaces 3x Ultra Secure Digital Host Controller (uSDHC) interfaces 5x Universal Asynchronous Receiver / Transmitter (UART) modules 4x I2C modules 3x SPI modules 1x Quad SPI 10x PWM channels 1x 16-bit ADC module with accurate internal voltage reference, up to 20 channels 5x Synchronous Audio Interface (SAI) modules supporting I2S, AC97, TDM, codec/DSP and DSD interfaces 1x S/PDIF input and output, including a raw capture input mode 8-channel Pulse Density Modulation (PDM) input Up to 112 GPIOs	
ETHERNET	10/100/1000M Ethernet + AVB	
WI-FI	802.11a/b/g/n/ac dual-band wireless	
BLUETOOTH	Bluetooth® 5	
ON-MODULE MICROCONTROLLER ASSIST	Digi Microcontroller Assist™ • Independent Cortex-M0+ microcontroller subsystem • Supporting ultra-low power modes at <3 µA	
OPERATING TEMPERATURE	Industrial: -40 °C to 85 °C (-40 °F to 185 °F), depending on use case and enclosure/system design	
STORAGE TEMPERATURE	-50 °C to 125 °C (-58 °F to 257 °F)	
RELATIVE HUMIDITY	5% to 90% (non-condensing)	
RADIO APPROVALS	US, Canada, EU, Japan, Australia/New Zealand	
EMISSIONS / IMMUNITY / SAFETY	FCC Part 15 Class B, EN 55022 Class B, EN 61000-3-2, EN 61000-3-3, ICES- 003 Class B, VCCI Class II, AS 3548, FCC Part 15 Subpart C Section 15.247, IC (Industry Canada), RSS-210 Issue 5 Section 6.2.2(o), EN 300 328, EN 301 489-17, EN 55024, EN 301 489-3, Safety (IEC 62368-1)	
DESIGN VERIFICATION	Temperature: IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-78 Vibration/shock: IEC 60068-2-6, IEC 60068-2-64, IEC 60068-2-27, HALT	
MECHANICAL DIMENSIONS	118 castellated vias, LGA-474, 1.27 mm pitch, 40 mm x 45 mm x 3.5 mm (1.6 in x 1.8 in x 0.1 in)	
PRODUCT WARRANTY	3-year	

PART NUMBERS	DIGI CONNECTCORE 8M MINI DEVELOPMENT KITS
CC-WMX8MM-KIT	Digi ConnectCore 8M Mini development kit with development board - quad core, 8 GB eMMC, 2 GB LPDDR4 wireless

PART NUMBERS	DIGI CONNECTCORE 8M MINI SYSTEM-ON-MODULES
DIGI CONNECTCORE 8M MINI WIRELESS SOMS	
CC-WMX-ET8D-NN	Digi ConnectCore 8M Mini - quad core, 8 GB eMMC, 2 GB LPDDR4 wireless
DIGI CONNECTCORE 8M MINI ETHERNET SOMS	
CC-MX-ET8D-ZN	Digi ConnectCore 8M Mini - quad core, 8 GB eMMC, 2 GB LPDDR4 Ethernet
CC-MX-ET7D-ZN	Digi ConnectCore 8M Mini - quad core, 8 GB eMMC, 1 GB LPDDR4 Ethernet

PART NUMBERS	DIGI CONNECTCORE 8M MINI ACCESSORIES
CC-ACC-LCDH-10	LCD application kit, including 10 in WXGA (high resolution) LCD panel

PART NUMBERS	DIGI CONNECTCORE CLOUD SERVICES
CC-CS-ESS-1-1YR	Digi ConnectCore Cloud Services — Essential 1-year (1 device)
CC-CS-ESS-100-1YR	Digi ConnectCore Cloud Services — Essential 1-year (100 devices)
CC-CS-ESS-100-3YR	Digi ConnectCore Cloud Services — Essential 3-year (100 devices)
CC-CS-ESS-100-5YR	Digi ConnectCore Cloud Services — Essential 5-year (100 devices)
CC-CS-PRM-1-1YR	Digi ConnectCore Cloud Services — Premium 1-year (1 device)
CC-CS-PRM-100-1YR	Digi ConnectCore Cloud Services — Premium 1-year (100 devices)
CC-CS-PRM-100-3YR	Digi ConnectCore Cloud Services — Premium 3-year (100 devices)
CC-CS-PRM-100-5YR	Digi ConnectCore Cloud Services — Premium 5-year (100 devices)

PART NUMBERS	DIGI CONNECTCORE SECURITY SERVICES
CC-SEC-ESS	Digi ConnectCore Security Services — Essential 1-year
CC-SEC-PRM	Digi ConnectCore Security Services — Premium 1-year
CC-SEC-ENT	Digi ConnectCore Security Services — Enterprise 1-year
CC-SEC-ENT-ADD	Digi ConnectCore Security Services — Additional product (same duration as main contract)

PART NUMBERS	EXPERT SUPPORT
DG-EXPE-12	Expert 12x5 support for end users
DG-EXPE-24	Expert 24x7 support for end users

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