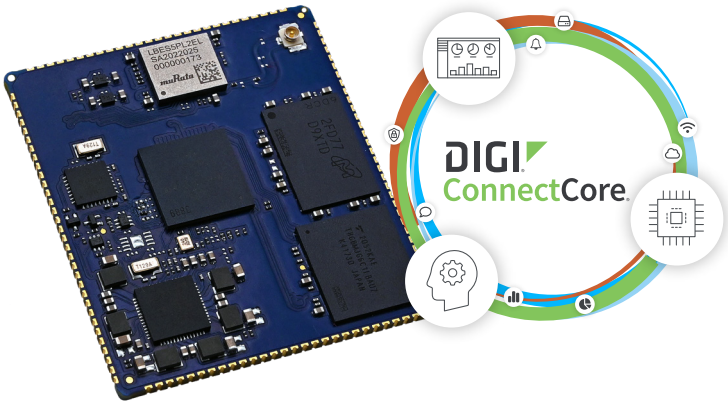


Digi ConnectCore 93

Embedded, wireless system-on-module based on the NXP i.MX 93 processor, with AI/ML NPU, designed for longevity and scalability in industrial IoT applications

Digi ConnectCore® 93, based on the NXP® i.MX 93 application processor, is an integrated system-on-module (SOM) platform with Wi-Fi 6 and Bluetooth® 5.2 wireless connectivity.

The ConnectCore 93 SOM is designed for a wide range of medical, industrial, energy, and transportation applications, including Internet of Things (IoT), automation, human-machine interface (HMI), equipment monitoring, audio/voice, edge computing and machine learning (e.g. anomaly detection).

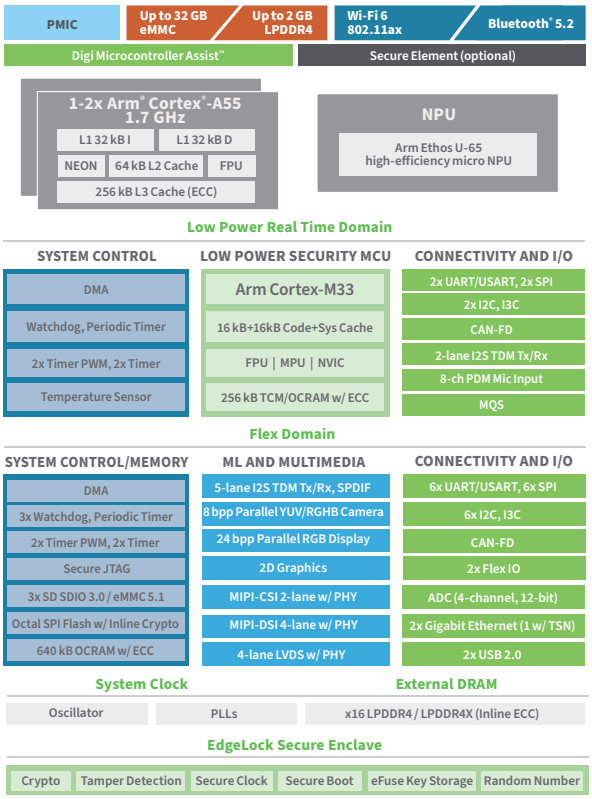
Digi ConnectCore 93 features up to two power-efficient Arm® Cortex®-A55 cores, with a Cortex-M33 core, AI/ML Arm Ethos U65 NPU and NXP PMIC for maximum power efficiency. This SOM is designed for industrial reliability and 10+ year product lifecycles of embedded devices. The Digi SMTplus® surface-mount form factor provides simplified design integration, efficiency and reliability.

Embedded device security is a critical design aspect for the growing number of connected IoT applications. **Digi ConnectCore SOM solutions** provide built-in security with **Digi TrustFence®**, a fully integrated device-security framework simplifying the process of securing connected devices.

Digi ConnectCore Cloud Services, **Digi ConnectCore Security Services** and **Expert Support** provide additional capabilities for development, deployment and maintenance.

Digi Embedded Yocto®, Digi's feature-rich Linux distribution with many extensions for embedded product design provides a fully tested, validated and maintained turnkey Linux software platform This helps OEMs lower research and development costs, realize a lower total cost of ownership and streamline time-to-market.

With over 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 Wireless Design Services** (WDS) also offers additional cellular integration support, certification assistance, and custom design and build services to get your products to market smarter and faster.



Key features, benefits and applications

- Industrial i.MX 93 single/dual-core embedded SOM platform
- AI/ML Arm Ethos U65 micro neural processing unit (NPU)
- Pre-certified dual-band 802.11ax Wi-Fi 6 and Bluetooth 5.2
- Digi SMTplus® form factor (40 x 45 mm) for ultimate reliability
- Superior power management, hardware and software support
- Seamless cellular modem and **Digi XBee®** integration
- High level of pin-compatibility with **Digi ConnectCore 8 SOMs**
- Built-in **Digi TrustFence** device security, identity and privacy
- Remote management with **Digi ConnectCore Cloud Services**
- **Digi Embedded Yocto** Linux support

DIGI CONNECTCORE 93

Specifications

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

SPECIFICATIONS	DIGI CONNECTCORE 93
APPLICATION PROCESSOR	NXP i.MX 93 • Up to 2x Cortex-A55 cores at 1.7 GHz • 1x Cortex-M33 core at 250 MHz core for real-time processing
MEMORY	Up to 32 GB flash (eMMC), up to 2 GB of LPDDR4 / LPDDR4X (16-bit)
NPU	AI/ML Arm Ethos U65 micro neural processor
PMIC	NXP PCA9451
GRAPHICS / DISPLAY	2D GPU: Blended/composition, resize, color space conversion 1x 1080p 60 MIPI DSI (4-lane, 1.5 Gbps/lane) with PHY 1x 720p 60 LVDS (4-lane) 18-bit parallel RGB
CAMERA	1x 1080p 60 MIPI-CSI (2-lane, 1.5 Gbps/lane) with PHY 8-bit parallel YUV/RGB
SECURITY	**Digi TrustFence**: secure boot, filesystem encryption, tamper detection, secure JTAG, secure console, secure build environments, secure firmware updates; EdgeLock secure enclave: crypto, tamper detection, secure clock, secure boot, eFuse key storage, random number; Arm TrustZone (Cortex-A and Cortex-M)
PERIPHERALS/ INTERFACES	2x USB 2.0 OTG controllers with integrated PHY interfaces 1x Ultra Secure Digital Host Controller (uSDHC) interfaces 8x Low Power Universal Asynchronous Receiver / Transmitter (LPUART) modules 8x Low Power I2C modules, 2x I3C 8x Low Power SPI (LPSPI) modules 2x FlexCAN with flexible data-rate (FD) support 4x pulse-width modulator (PWM) with 16-bit counter 1x 12-bit ADC module with accurate internal voltage reference, up to 4 channels 3x Synchronous Audio Interface (SAI) modules (up to 4 lanes) 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	2x 10/100/1000M Ethernet with EEE, AVB and IEEE 1588 (1x TSN)
WI-FI	Wi-Fi 6 802.11ax dual-band 1x1 wireless
BLUETOOTH	Bluetooth 5.2
802.15.4	802.15.4 (optional)
ON-MODULE MICROCONTROLLER ASSIST	Digi Microcontroller Assist™ for advanced power management, security, peripheral support and system reliability (optional) • Independent Cortex-M0+ microcontroller subsystem • Supporting ultra-low power modes
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, Brazil, Mexico
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); visit **www.digi.com/resources/certifications** for latest updates
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

DIGI CONNECTCORE 93

Part Numbers

PART NUMBERS	DIGI CONNECTCORE 93 DEVELOPMENT KIT
CC-WMX93-KIT	Digi ConnectCore 93 Development Kit with development board , i.MX 93 dual-core, NPU, 8GB eMMC, 1 GB LPDDR4 wireless SOM

PART NUMBERS	DIGI CONNECTCORE 93 SOMS
CC-WMX-YC7D-KN	Digi ConnectCore 93 — dual-core, NPU, 8 GB eMMC, 1 GB LPDDR4 wireless
CC-MX-YC7D-ZN	Digi ConnectCore 93 — dual-core, NPU, 8 GB eMMC, 1 GB LPDDR4 Ethernet
CC-WMX-ZC6D-L1	Digi ConnectCore 93 — single-core, 8 GB eMMC, 512 MB LPDDR4 wireless
CC-MX-ZC6D-Z1	Digi ConnectCore 93 — single-core, 8 GB eMMC, 512 MB LPDDR4 Ethernet

PART NUMBERS	ACCESSORIES
CC-ACC-LCDH-10	LCD application kit, including 10 in WXGA (1280x800) LCD panel with PCAP touch