



# Digi ConnectCore 93 Development Kit

Complete embedded, wireless development platform based on the NXP i.MX 93 with AI/ML NPU, designed for longevity and scalability in industrial IoT applications

The **Digi ConnectCore® 93 Development Kit** features a tightly integrated, secure, industrial-specified system-on-module (SOM) platform, based on the NXP® i.MX 93 application processor, with Wi-Fi 6 and Bluetooth® 5.2 wireless connectivity.

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

The ConnectCore SOM solution provides ready-to-use building blocks, a complete, embedded Linux software platform based on the Yocto® Project, and development tools. This helps OEMs lower research and development costs, realize a lower total cost of ownership, and streamline time-to-market.

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.

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 Wireless Design Services** (WDS) offer additional support, certification assistance, and custom design services to get your products to market smarter and faster.



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

The kit includes:

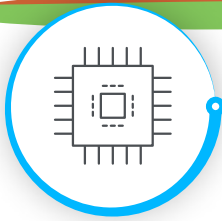
- ✓ Digi ConnectCore 93 development board with SOM
- ✓ Console port cable
- ✓ Dual-band wireless antenna
- ✓ Power supply and accessories
- ✓ Reference designs and online documentation

PART NUMBER	DESCRIPTION
CC-WMX93-KIT	Digi ConnectCore 93 Development Kit

## Key features, benefits and applications

- Industrial i.MX 93 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 monitoring, device management and IoT application enablement with **Digi ConnectCore Cloud Services**
- **Digi Embedded Yocto** Linux support
- Turnkey development services available from **Digi WDS**





## DIGI CONNECTCORE 93 DEVELOPMENT KIT

# Specifications

SPECIFICATIONS	DIGI CONNECTCORE 93 SOM
<b>APPLICATION PROCESSOR</b>	NXP i.MX 93 <ul style="list-style-type: none"> <li>Up to 2x Cortex-A55 cores at 1.7 GHz</li> <li>1x Cortex-M33 core at 250 MHz core for real-time processing</li> </ul>
<b>MEMORY</b>	Up to 32 GB flash (eMMC), up to 2 GB of LPDDR4 / LPDDR4X (16-bit)
<b>NPU</b>	AI/ML Arm Ethos U65 micro neural processor
<b>PMIC</b>	NXP PCA9451
<b>GRAPHICS / DISPLAY</b>	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
<b>CAMERA</b>	1x 1080p 60 MIPI-CSI (2-lane, 1.5 Gbps/lane) with PHY 8-bit parallel YUV/RGB
<b>SECURITY</b>	<b>Digi TrustFence:</b> 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)
<b>PERIPHERALS/ INTERFACES</b>	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 (LPSP) 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
<b>ETHERNET</b>	2x 10/100/1000M Ethernet with EEE, AVB and IEEE 1588 (1x TSN)
<b>WI-FI</b>	Wi-Fi 6 802.11ax dual-band 1x1 wireless
<b>BLUETOOTH</b>	Bluetooth 5.2
<b>802.15.4</b>	802.15.4 (optional)
<b>ON-MODULE MICROCONTROLLER ASSIST</b>	Digi Microcontroller Assist™ for advanced power management, security, peripheral support and system reliability (optional) <ul style="list-style-type: none"> <li>Independent Cortex-M0+ microcontroller subsystem</li> <li>Supporting ultra-low power modes</li> </ul>
<b>OPERATING TEMPERATURE</b>	Industrial: -40 °C to 85 °C (-40 °F to 185 °F), depending on use case and enclosure/system design
<b>STORAGE TEMPERATURE</b>	-50 °C to 125 °C (-58 °F to 257 °F)
<b>RELATIVE HUMIDITY</b>	5% to 90% (non-condensing)
<b>RADIO APPROVALS</b>	US, Canada, EU, Japan, Australia/New Zealand, Brazil, Mexico
<b>EMISSIONS/ IMMUNITY/ SAFETY</b>	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 <a href="http://www.digi.com/resources/certifications">www.digi.com/resources/certifications</a> for latest updates
<b>DESIGN VERIFICATION</b>	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
<b>MECHANICAL DIMENSIONS</b>	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)
<b>PRODUCT WARRANTY</b>	3-year



## DIGI CONNECTCORE 93 DEVELOPMENT KIT

### 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 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



For more information, please visit [digi.com](https://digi.com)

For more information about Digi ConnectCore, visit [www.digi.com/connectcore](https://www.digi.com/connectcore)

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