

Digi ConnectCore 95 SMARC

High-performance wireless all-in-one SMARC SOM solution based on NXP i.MX 95 with integrated cloud, security, AI/ML services and scalability for industrial IoT applications

Digi ConnectCore 95 SMARC redefines the SMARC[®] system-on-module (SOM), delivering integrated intelligence, connectivity and security – built in from the start. Based on the NXP[®] i.MX 95 application processor, the high-performance wireless all-in-one SMARC SOM platform provides a complete, connected solution to simplify the development and management of intelligent devices.

By integrating hardware, cloud services, security services and lifecycle management in a single platform, companies can innovate faster, improve product resilience and future-proof their solutions in evolving markets. With seamless connectivity and remote management with secure over-the-air (OTA) software updates, it reduces complexity, accelerates time-to-market and ensures long-term compliant operations, including CRA-ready security requirements and scalability.

ConnectCore 95 empowers businesses to deliver smarter medical devices, secure industrial systems and advanced retail solutions. The globally certified Wi-Fi 6E tri-band connectivity (2.4/5/6 GHz) with 80 MHz channel bandwidth provides high throughput for higher-end use cases and reduces congestion and interference issues from existing networks and older devices.

The Digi ConnectCore 95 SMARC SOM is designed for reliability across a wide range of applications with up to six power-efficient Arm[®] Cortex[®]-A55 cores for performance, plus Cortex-M33, Cortex-M7, AI/ML NXP eIQ[®] Neutron NPU, 4K VPU, ISP and NXP PMICs for maximum power efficiency. The SMARC form factor offers a standardized, connector-based solution for easy integration, replacement and maintenance.

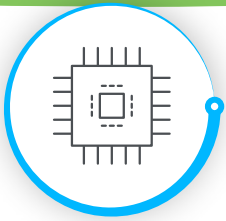
Digi ConnectCore SOM solutions provide built-in security with **Digi TrustFence**, a fully integrated device-security framework simplifying the process of securing connected devices. **Essential Digi ConnectCore Cloud Services** are included with every SOM. **Premium Digi ConnectCore Cloud Services** (with flexible pay-per-use option), **Digi ConnectCore Security Services** and **Expert Support** extend capabilities for additional development, deployment, maintenance and long-term lifecycle support.

Digi Embedded Yocto[®], Digi's feature-rich Linux distribution – with many extensions for embedded product design – provides a fully tested, validated and maintained Linux software platform. **Digi Wireless Design Services** (WDS) provides additional solutions to get your products and solutions to market smarter and faster.

SOM	Development Tools	Essential Cloud Services	Security	Longevity / Lifecycle Management
PMICs	Up to 128 GB eMMC	Up to 16 GB LPDDR5	Wi-Fi 6E 802.11ax	Bluetooth 5
SMTplus / SMARC		Secure Element (optional)		
2-6x Arm[®] Cortex[®]-A55 up to 1.8 GHz L1 32 kB I L1 32 kB D NEON 64 kB L2 Cache FPU 512 kB L3 Cache (ECC)		1x Arm[®] Cortex[®]-M7 up to 800 MHz L1 32 kB I L1 32 kB D NVIC MPU FPU 512 kB TCM (ECC)		
Low Power Real Time Domain				
SYSTEM CONTROL	LOW POWER SECURITY MCU	CONNECTIVITY AND I/O		
DMA	Arm Cortex-M33	2x UART/USART, 2x SPI		
Watchdog, Periodic Timer	16 kB+16kB Code+Sys Cache	2x I2C, I3C		
6x PWM with 16-bit counter	FPU MPU NVIC	CAN-FD		
Temperature Sensor	512 kB TCM/OCRAM w/ ECC	2-lane I2S TDM Tx/Rx		
		8-ch PDM Mic Input		
		MQS		
Flex Domain				
SYSTEM CONTROL/MEMORY	ML AND MULTIMEDIA	CONNECTIVITY AND I/O		
2x DMA	eIQ [®] Neutron N3-1024S NPU	6x UART/USART, 6x SPI		
3x Watchdog, Periodic Timer	3D GPU + 2D GPU	6x I2C, I3C		
6x PWM with 16-bit counter	4K VPU, ISP	4x CAN-FD		
Secure JTAG	15-lane I2S TDM Tx/Rx, SPDIF	2x FlexIO (32-bit)		
3x SD SDIO 3.0/eMMC 5.1	2x MIPI-CSI 2-lane (1x w/ DSI)	ADC (8-channel, 12-bit)		
Octal SPI Flash w/ Inline Crypto	MIPI-DSI 4-lane w/ PHY	1x 10GbE + 2x GbE (w/ TSN)		
1376 kB OCRAM w/ ECC	2x 4- or 1x 8-lane LVDS w/ PHY	1x USB-C 3.0, 2x USB 2.0		
System Clock		External DRAM		
Oscillator	PLLs	32x LPDDR5/LPDDR5X (Inline ECC)		
SMARC				
Temperature Sensor	MCU	EEPROM	RTC	TPM 2.0
				DSI to DP Bridge
				USB 3.0 Hub
				Gbe ENET PHY
EdgeLock[®] Secure Enclave				
Crypto	Tamper Detection	Secure Clock	Secure Boot	eFuse Key Storage
				Random Number

Key features, benefits and applications

- Complete industrial i.MX 95 embedded SOM platform
- All-in-one solution with integrated SOC 2[®] Type 2 compliant **Essential Digi ConnectCore Cloud Services** and **Digi ConnectCore Security Services**
- AI/ML NXP eIQ Neutron neural processing unit (NPU)
- Pre-certified tri-band 802.11ax Wi-Fi 6E and Bluetooth 5
- SMARC 2.2 plugable form factor (82 x 50 mm)
- Superior power management, hardware and software support
- Seamless cellular modem and **Digi XBee** integration
- High level of pin compatibility with **Digi ConnectCore SOMs**
- Built-in **Digi TrustFence** device security, identity and privacy
- **Digi Embedded Yocto** Linux support



DIGI CONNECTCORE 95 SMARC Solution and Services



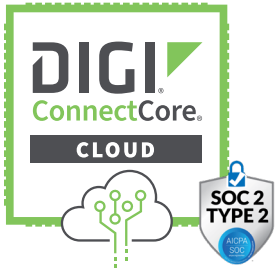
Connect this device with Digi ConnectCore Cloud Services. Create. Configure. Deploy. Manage.

A complete all-in-one SMARC system-on-module solution

Digi ConnectCore 95 delivers a complete solution with **Essential Digi ConnectCore Cloud Services** included with every SOM for integrated edge-to-cloud connectivity to enable over-the-air software updates, remotely manage deployments, improve product quality and ease-of-use, automate processes and reduce costs. Digi ConnectCore 95 has everything you need to launch products faster, protect investments, scale and stay ahead.

Manage your network and connected devices from edge-to-cloud (SOC 2 Type 2 compliant)

Digi ConnectCore Cloud Services enable OEMs in a wide range of industries to create connected devices with remote-dashboard, -service and -application capabilities using Digi ConnectCore system-on-modules (SOMs).



- ✓ Industry-leading cloud and edge tools for rapid device deployment, and easier asset management
- ✓ Automate mass firmware and software updates to enhance functionality, stay in compliance and scale your deployment
- ✓ Access data from edge devices that were previously out of reach
- ✓ Receive real-time alerts and detailed network reports
- ✓ Integrate device data through open APIs for greater insights and control with third-party applications
- ✓ Monitor network, device, and asset performance and security with bi-directional communications
- ✓ Accelerate development, testing and deployment of web applications for connected devices with a flexible, scalable **IoT application framework and IoT device simulator**

Keep your product secure during the entire product lifecycle

Digi ConnectCore Security Services enable customers to keep products secure and meet requirements like the **Cyber Resilience Act**. These are services and tools that enable you to maintain the security of your devices throughout the entire product lifecycle.



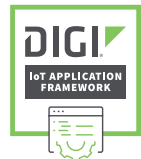
- ✓ Make security easier and more accessible by providing a curated security analysis
- ✓ Provide visibility on the Digi Embedded Yocto (DEY) security status with available vulnerability reports
- ✓ Identify security issues in Digi ConnectCore DEY-based customer products
- ✓ Monitor and maintain security in devices throughout the entire product lifecycle
- ✓ Utilize Digi engineering and consulting services to help resolve security issues
- ✓ Take advantage of SBOM analysis and CVE monitoring, whitelisting and filtering for actionable reports
- ✓ Review binary image scans for additional vulnerability insights

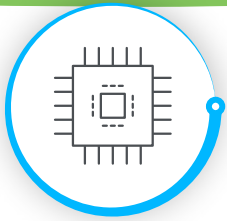
Build, deploy and manage throughout the lifecycle

Digi ConnectCore Tools are included as part of the complete Digi ConnectCore 95 solution to help companies build, deploy and manage throughout the lifecycle.



- ✓ **ConnectCore Smart IOmux**
Simplify design and software configuration
- ✓ **ConnectCore Quick Setup**
Provisioning during development and in production
- ✓ **IoT Application Framework**
Enable customized front-end web applications for products
- ✓ **IoT Device Simulator**
Create virtual devices to test your solution





DIGI CONNECTCORE 95 SMARC

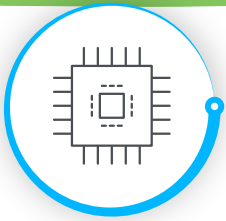
Specifications



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

Specifications	Digi ConnectCore 95 All-in-One SMARC SOM Solution
APPLICATION PROCESSOR	<p>NXP i.MX 95</p> <ul style="list-style-type: none"> Up to 6× Arm Cortex-A55 core, up to 1.8 GHz (64-bit) 1× Arm Cortex-M7 core at 800 MHz and 1× Arm Cortex-M33 core at 250 MHz for real-time processing
MEMORY	Up to 128 GB flash (eMMC), up to 16 GB LPDDR5 (32-bit, ECC) EEPROM — population option
ARTIFICIAL INTELLIGENCE*	AI/ML NXP eIQ Neutron NPU N3-1024S, 2 TOPS (hardware), up to 8 TOPS sparse model performance
PMIC	NXP PF09 + PF53 and Energy Flex Multi-Domain architecture for maximum power efficiency
VIDEO / GRAPHICS	<p>GPU: Arm Mali G310 GPU (OpenGL® ES 3.2, Vulkan® 1.2, OpenCL 3.0), 2D Blitter</p> <p>VPU: 4K60p H.265/H.264 decode or encode (4K30p H.265/H.264 simultaneous encode and decode)</p> <p>LCD: Up to 3 simultaneous displays, 1× 333 M pixel/s MIPI-DSI (4-lane, 2.5 Gbps/lane) supporting 4K30p or 3840 x 1440p60, up to 1080p60</p> <p>LVDS Tx (1× 8-lane) or 2× 1080p30 (2× 4-lane)</p>
CAMERA	MIPI-CSI (2× 4-lane, 2.5 Gbps/lane) with PHY (1 mux with DSI) with up to 8 virtual channels; up to 500 M pixel/s throughput to scale from 1× 4K30p to 4× 1080p30 cameras
IMAGE SIGNAL PROCESSOR	NXP ISP (12 MP at 45 fps, 8 MP at 30 fps) with RGB-IR support (4×4 array pattern), YUV 420, YUV 422, YUV 444, RGB 888
SECURITY	<p>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)</p> <p>i.MX Safety Concept targeting ISO-26262 (ASIL-B) / IEC 61508 (SIL-2)</p> <p>NXP Safety Manager and NXP SafeAssure™ Software Framework [Arm Cortex-M33]</p> <p>H/W Safety Checkers and Safe 2D display pipeline</p> <p>PQC Dilithium 3.1 signature verification (secure boot and debug)</p>
TRUSTED PLATFORM MODULE	Trusted Platform Module (TPM) — population option
PERIPHERALS / INTERFACES	<p>2× PCIe Gen 3.0 (1-lane)</p> <p>1× USB 3.0 5 Gbps Type C with PHY</p> <p>4× USB 2.0 Host with PHY</p> <p>3× SD 3.0 / SDIO 3.0 / eMMC 5.1</p> <p>8× Low Power Universal Asynchronous Receiver / Transmitter (LPUART) modules</p> <p>8× Low Power I2C modules, 2× I3C</p> <p>8× Low Power SPI (LPSPi) modules, XSPi responder</p> <p>2× FlexCAN with flexible data-rate (FD) support</p> <p>6× Timer/Pulse-Width Modulator (PWM) with 16-bit counter</p> <p>1× 12-bit ADC module with accurate internal voltage reference, up to 8 channels</p> <p>2× 32-pin FlexIO interfaces (bus or serial I/O)</p> <p>Up to 112 GPIOs</p>
AUDIO	<p>17-lane I2S TDM (32-bit at 768 KHz)</p> <p>8-channel PDM microphone input, Medium Quality Sound (MQS) output</p> <p>1× S/PDIF input and output</p>
TEMPERATURE SENSOR	Temperature sensor — population option
ETHERNET	2× 1 GbE with TSN, AVB, IEEE 1588 PTP and Energy Efficient Ethernet (EEE); 1× 10 GbE
WI-FI	Wi-Fi 6E 802.11ax tri-band, 80 MHz channel bandwidth, high throughput, 1×1 wireless (2×2 MIMO ready)
BLUETOOTH	Bluetooth 5

*TOPS varies based on model optimization, data type, and data size. 5 TOPS calculated by dividing VIP8000 2.3 TOPS rating by performance relative to N3-1024S (2.3 / 0.41 = 5.7).



DIGI CONNECTCORE 95 SMARC Specifications



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

Specifications	Digi ConnectCore 95 All-in-One SMARC SOM Solution
OPERATING TEMPERATURE	Industrial-rated -40 °C to 85 °C (-40 °F to 185 °F), -25 °C to 85 °C (-13 °F to 185 °F) or 0 °C to 70 °C (32 °F to 158 °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 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	SMARC 2.2, 314 pins 82 mm x 50 mm (3.23 in x 1.97 in)
PRODUCT WARRANTY	3-year

**Visit digi.com/resources/certifications for latest updates.



Digi Wireless Design Services (WDS)

Digi WDS helps companies solve business problems and create innovative IoT products with embedded SOMs, wireless technologies, a library of proven IP and a dedicated team of creative designers and engineers. Let our RF experts and world class engineering team guide you through the development cycle from concept to certification and production.





DIGI CONNECTCORE 95 SMARC

Part Numbers

Part Numbers	Digi ConnectCore 95 Development Kit*
CC-WMX95-KIT	Digi ConnectCore 95 Development Kit for SMTplus and SMARC with development board and Digi ConnectCore 95 wireless SOM, NPU, ISP, 8 GB LPDDR5, 32 GB eMMC, Digi ConnectCore Cloud Services Premium 1-year license and Digi ConnectCore Security Services trial account
CC-WMX95-2G-KIT	Digi ConnectCore 95 Development Kit for SMTplus and SMARC with development board and Digi ConnectCore 95 wireless SOM, NPU, ISP, 2 GB LPDDR5, 16 GB eMMC, Digi ConnectCore Cloud Services Premium 1-year license and Digi ConnectCore Security Services trial account

Part Numbers	Digi ConnectCore 95 SMARC SOM Solution*
CC-WMX-B30F-BS	Digi ConnectCore 95 SMARC SOM Solution — i.MX 959, Hexa A55, NPU, ISP, 8 GB LPDDR5, 32 GB eMMC, Wi-Fi 6E 802.11ax, Bluetooth 5.4, dual Ethernet, -40 °C to 85 °C (-40 °F to 185 °F), Digi ConnectCore Cloud Services, SMARC
CC-WMX-B38E-BS	Digi ConnectCore 95 SMARC SOM Solution — i.MX 959, Hexa A55, NPU, ISP, 2 GB LPDDR5, 16 GB eMMC, Wi-Fi 6E 802.11ax, Bluetooth 5.4, dual Ethernet, -25 °C to 85 °C (-13 °F to 185 °F), Digi ConnectCore Cloud Services, SMARC
CC-MX-B88D-BS	Digi ConnectCore 95 SMARC SOM Solution — i.MX 952, Quad A55, NPU, 2 GB LPDDR5, 8 GB eMMC, single Ethernet, 0 °C to 70 °C (32 °F to 158 °F), Digi ConnectCore Cloud Services, SMARC

Part Numbers	Accessories
CC-ACC-LCDH-10	LCD application kit, including 10 in WXGA (1280x800) LCD panel with PCAP touch

*Digi ConnectCore 95 SMT SOM Solutions are also available. Additional part numbers and population options available by request (MOQ applies). Contact Digi to learn more.



DIGI CONNECTCORE 95 SMARC

Part Numbers

Part Numbers

Digi ConnectCore Cloud Services*

DIGI CONNECTCORE CLOUD SERVICES — FLEXIBLE PAY-PER-USE SUBSCRIPTION

OEM-CS-PPU-BASE	Digi ConnectCore Cloud Services — Premium pay-per-use subscription Monthly usage fee per active device count including 60 MB/month/active device pooled telemetry data and unlimited OTA data
OEM-CS-PPU-DATA	Digi ConnectCore Cloud Services — Premium pay-per-use subscription Per overage MB usage fee (with OEM-CS-PPU-BASE)

*Essential Digi ConnectCore Cloud Services included with Digi ConnectCore 95 SOM. Premium licensing and pay-per-use subscriptions offer additional capabilities and flexible options.

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 — Enterprise for additional product (same duration as main contract)

Part Numbers

Expert Support

DG-EXPE-24-15HRS	Expert Support Agreement — 1 year
------------------	-----------------------------------

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



For more information about Digi ConnectCore 95 SMARC, visit www.digi.com/connectcore95smarc.

877-912-3444 | 952-912-3444

