





FROM CONCEPT TO CREATION

Unlocking the Potential of Digi ConnectCore® MP1 and 93

- Global Distribution of System-on-Modules and Development Kits
- Data Sheets, User Manuals and Guides
- Key Applications
- Cloud Remote Management, Security, Support and Wireless Design Services
- Value-Added Services



Our Components. Your Innovation.



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 Value-Added Services

ABOUT DIGI INTERNATIONAL

Digi International (Digi) is a leading global provider of mission-critical and businesscritical machine-to-machine (M2M) and Internet of Things (IoT) connectivity products and services. We help our customers create next generation connected products and deploy and manage critical communications infrastructures in demanding environments. Our embedded modules and off-the-shelf routers, gateways and network products are designed for relentless reliability and deliver unquestioned performance and security. Our cloud-based software and professional services help customers put their connected products and assets to work across a broad range of mission-critical industry applications. Founded in 1985, we've helped our customers connect over 100 million things, and growing.

ABOUT SYMMETRY ELECTRONICS

Established in 1998, Symmetry Electronics, a division of Braemac, is a global distributor of electronic components and systems. Combining premier components and comprehensive value-added services with an expert in-house engineering team—Symmetry supports engineers in the design, development, and deployment of a broad range of connected technologies.

SYMMETRY ELECTRONICS

866-506-8829 info@symmetryelectronics.com





FROM CONCEPT TO CREATION

Unlocking the Potential of Digi ConnectCore® MP1 and 93

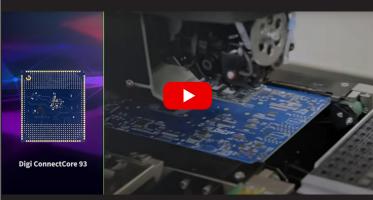
Symmetry Electronics and Digi International have joined forces to offer engineers and OEMs our From Concept to Creation: Unlocking the Potential of Digi ConnectCore® MP1 and 93 e-book. This e-book was designed to be an indispensable resource for those looking to harness the power of the Digi ConnectCore MP1 and 93 product families. Within this guide, you will discover the key features and benefits of these advanced SOM and development solutions, along with practical insights into their diverse use cases. Whether you're in the initial stages of product design or gearing up for deployment, this guide provides a comprehensive

supply chain solution from start to finish, ensuring you have all the tools and knowledge needed to succeed.

Our goal is to streamline your journey from concept to creation, offering detailed information on how to purchase, design, prototype, test, manufacture, deploy, manage, and scale your project. With links to essential resources and expert guidance, this e-book empowers you to innovate with confidence and efficiency. Dive in and unlock the full potential of these cutting-edge technologies to elevate your projects and stay ahead in the ever-evolving field of electronics engineering.







Digi ConnectCore 93: The Next Generation





Product Catalog - Data Sheets and User Manuals

Symmetry Electronics offers global distribution of Digi International's products with available-to-ship inventory and technical engineering consulting.

Digi ConnectCore® MP1

Industrial Grade and Scalable Embedded SOMs

SYSTEM-ON-MODULES

Digi ConnectCore MP157

Based on STMicroelectronics' STM32MP15 – Optimal for display devices with advanced HMIs powered by a 3D GPU and camera support



CC-WST-DW69-NM SECURE WIRELESS MODULE

BUY NOW >

CC-ST-DW69-ZM
SECURE ETHERNET MODULE

BUY NOW >

DATA SHEET)

USER MANUALS & GUIDES)

Digi ConnectCore MP133

Based on STMicroelectronics' STM32MP13 – Optimal for headless gateway products with rich connectivity requirements



CC-WST-DX58-NK
SECURE WIRELESS MODULE

BUY NOW >

CC-ST-DX58-ZK
SECURE ETHERNET MODULE

BUY NOW >

DATA SHEET >

USER MANUALS & GUIDES)





Digi ConnectCore® MP1

DEVELOPMENT KITS

Digi ConnectCore MP157 and MP133 development kits provide comprehensive and versatile solutions for developers working with the ConnectCore MP1 SOMs.

The kits come equipped with all necessary tools, software, and documentation–enabling developers to quickly prototype, debug, and deploy their solutions.

Digi ConnectCore MP157



BUY NOW

DATA SHEET >

Digi ConnectCore MP133



BUY NOW

DATA SHEET >

Need assistance with your project? Jump to our Services section—with support spanning from concept all the way to creation.

VIEW SERVICES







Digi ConnectCore® 93

Embedded SOMs with Al/ML, Wi-Fi 6, and Bluetooth® 5.3

SYSTEM-ON-MODULE

Based on the NXP® i.MX 93 application processor with pre-certified dual-band Wi-Fi 6 and Bluetooth 5.3 connectivity



BUY NOW

DATA SHEET

USER MANUALS & GUIDES >

DEVELOPMENT KIT

The Digi ConnectCore 93 Development Kit features all the needed building blocks to help OEMs lower research and development costs, establish a lower total cost of ownership (TCO), and accelerate time-to-market.



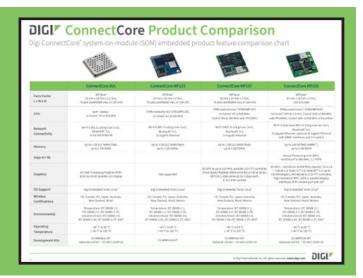
BUY NOW

DATA SHEET

Not sure which solution is best for your application?

Check out the Digi ConnectCore Product Comparison Guide.

GET GUIDE





Empowering Seamless Integration and Smart IoT Innovation – Digi ConnectCore® MP1

Seamless and secure connectivity is paramount for powering Internet of Things (IoT) innovation. Digi International, a leading provider of embedded connectivity solutions, offers the Digi ConnectCore® MP1 product family as a versatile and reliable solution for a wide range of IoT applications. Based on the STMicroelectronics STM32MP1 MPU family, Digi ConnectCore MP1 provides an intelligent and secure embedded system-on-module (SOM) solution that meets the demands of modern industrial applications. With modules designed to meet diverse industry needs, including Digi ConnectCore MP15 and MP13, the ConnectCore MP1 family empowers businesses to harness the full potential of connected devices.

Digi ConnectCore MP1 offers turnkey Linux support and comes in the robust Digi SMTplus® form factor. At just 29 x 29 mm, this module line offers high reliability and pin-compatibility with Digi ConnectCore 6UL SOMs. In this industrial-grade and scalable platform, the module features pre-certified dual-band Wi-Fi 5 (802.11ac) and Bluetooth® 5.2 for wireless connectivity, as well as power management with hardware and software support. Security is prioritized with built-in Digi TrustFence® device security, identity, and privacy.

Additionally, seamless integration with Digi XBee® cellular and RF modems allows for versatile connectivity options. Digi ConnectCore MP1 supports Digi ConnectCore Cloud Services for remote

monitoring, device management, and IoT application enablement. It is backed by Digi Embedded Yocto Linux support, and Digi offers turnkey development services through Digi WDS as well.

Intelligent Connectivity for Secure Devices: ConnectCore MP157 and MP133

Digi ConnectCore MP157 and Digi ConnectCore MP133 both offer powerful embedded system-on-module solutions, showcasing industrial-grade, scalable platforms with pre-certified dual-band Wi-Fi 5 (802.11ac) and Bluetooth 5.2 connectivity. Despite their similarities, there are distinct differences between the two modules that make them suitable for different use cases.

The MP157 is powered by the STMicroelectronics STM32MP157C microprocessor, which features dual Arm Cortex-A7 and a Cortex-M4 cores, delivering



The Digi ConnectCore® MP1 Family is Empowering Seamless Integration and Smart IoT Innovation





exceptional processing capabilities. This module stands out with its integrated 3D graphics processing unit (GPU) and display interface, making it an ideal choice for advanced human-machine interface (HMI) development. Additionally, ConnectCore MP157 incorporates Gigabit Ethernet connectivity, ensuring reliable and fast connections. Its high levels of security, reliability, and performance make it specifically designed for demanding industrial and medical applications.

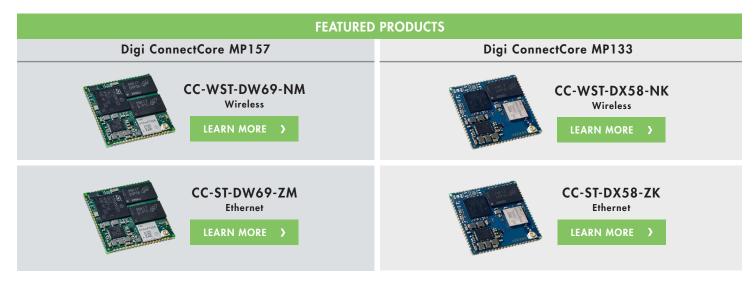
Digi ConnectCore MP133 is based on the STMicroelectronics' STM32MP13 processor and is designed with a focus on low-power applications while maintaining performance. Like the MP157 SOM, it also offers pre-certified dual-band Wi-Fi 5 (802.11ac) and Bluetooth 5.2 connectivity, but it does not include integrated 3D GPU and Gigabit Ethernet. Instead, the strength of the MP133 SOM lies in its compact form factor. ConnectCore MP133 is ideal for developers seeking a solution for space-constrained designs, yet still require reliability and industrial-grade durability.

When considering Digi ConnectCore MP157 or ConnectCore MP133 for a design solution, developers should consider the desired capabilities and intended application of their device. If your IoT development requires a robust and powerful solution with advanced graphic capabilities for industrial and medical

applications, then MP157 is the optimal choice. However, if your focus is on low-power IoT innovation in a compact device form factor, Digi ConnectCore MP133 is a more suitable option.

Digi ConnectCore MP157 and MP133 Key Features:

- 3D GPU, rich display and camera capabilities (Digi ConnectCore MP157 only)
- Industrial-grade, scalable, embedded SOM platform
- Pre-certified dual-band Wi-Fi 5 (802.11ac) and Bluetooth 5.2
- Power management with hardware and software support
- Digi SMTplus form factor (29 x 29 mm) for superior reliability
- High level of pin-compatibility with Digi ConnectCore
 6UL SOMs
- Built-in Digi TrustFence device security, identity, and privacy
- Seamless Digi XBee cellular and RF modem integration
- Remote monitoring, device management, and IoT application enablement with <u>Digi ConnectCore Cloud</u> Services
- Monitor and analyze security risks and vulnerabilities with <u>Digi ConnectCore Security Services</u>.
- Digi Embedded Yocto Linux support
- Turnkey development services available from <u>Digi</u> <u>Wireless Design Services</u>







Digi ConnectCore MP157 and MP133 Development Kits

The Digi ConnectCore MP157 Development Kit and Digi ConnectCore MP133 Development Kit are both industrial-grade, scalable, embedded SOM platforms designed for secure connected devices in industrial and medical applications. They boast a lifespan of over 10 years, ensuring high levels of security, reliability, and performance. Both development kits feature the Digi SMTplus form factor (29 x 29 mm) for simplified design integration, flexibility, and ultimate reliability.

The Digi ConnectCore MP157 stands out as the world's first development kit with remote capabilities. Powered by the STMicroelectronics STM32MP157C, it's an intelligent communication engine for advanced HMI development. Its integrated 3D GPU and display interface options make it an optimal platform for advanced graphical applications. The MP157 development kit seamlessly combines Gigabit Ethernet and pre-certified dual-band Wi-Fi 5 with Bluetooth 5 connectivity, providing comprehensive wireless options. It's a formidable solution for secure embedded devices as it also supports Digi TrustFence device security, identity, and privacy features. Moreover, its compatibility with Digi XBee cellular and RF modems and Digi ConnectCore Cloud Services enables remote monitoring, device management, and IoT application enablement.

The Digi ConnectCore MP133 Development Kit utilizes the STMicroelectronics STM32MP13 microprocessor and still offers pre-certified dual-band Wi-Fi 5 (802.11ac) and Bluetooth 5.2 connectivity. It shares several key features with the MP157, including power management support, Digi SMTplus form factor, pincompatibility with Digi ConnectCore 6UL SOMs, and built-in Digi TrustFence device security, identity, and privacy features. It also supports Digi ConnectCore Cloud Services for remote monitoring, device management, and IoT application enablement, so it

is well-suited for similar applications as the MP157. However, the MP157 stands out for its unique remote capabilities, advanced HMI development potential, and integration of a 3D GPU. The MP133 offers slightly updated Bluetooth connectivity (version 5.2) and may be preferred in scenarios where the specific Bluetooth version matters.

Determine whether your device design would benefit from either the MP157 or MP133 development kits would largely depend on the specific requirements of the project. The Digi ConnectCore MP157 development kit is ideal for applications demanding remote capabilities and advanced graphical processing, while the Digi ConnectCore MP133 development kit is a suitable option for projects where Bluetooth 5.2 is essential or for scenarios where its availability or pricing may be more attractive.

Digi ConnectCore MP157 and MP133 Development Kit Key Features:

- 3D GPU, rich display and camera capabilities (Digi ConnectCore MP157 only)
- Industrial-grade, scalable, embedded SOM platform
- Pre-certified dual-band Wi-Fi 5 (802.11ac) and Bluetooth 5.0
- Power management with hardware and software support
- Digi SMTplus form factor (29 x 29 mm) for ultimate design flexibility
- High level of pin-compatibility with Digi ConnectCore 6UL SOMs
- Built-in Digi TrustFence device security, identity and privacy
- Seamless Digi XBee cellular and RF modem integration
- <u>Digi ConnectCore Cloud Services</u> for remote monitoring, device management and IoT application enablement
- Monitor and analyze security risks and vulnerabilities with <u>Digi ConnectCore Security Services</u>.
- Digi Embedded Yocto Linux support
- Turnkey development services available from Digi Wireless Design Services





FEATURED PRODUCTS



CC-WMP157-KIT

LEARN MORE >



CC-WMP133-KIT

LEARN MORE

Get Started with the Digi ConnectCore MP1 Family

The Digi ConnectCore MP1 product family delivers robust and secure embedded connectivity solutions for a wide range of IoT applications. With their intelligent connectivity, high-performance processors, built-in security features and full suite of tools and services, these modules enable businesses to design and deploy innovative and secure IoT solutions, get to market fast, and manage their deployed products over the complete lifecycle. Whether it's the powerful capabilities of the Digi ConnectCore MP157 module or the compact yet versatile design of the Digi ConnectCore MP133, the ConnectCore MP1 product family offers a scalable and reliable platform to unlock the true potential of connected devices in the IoT era.

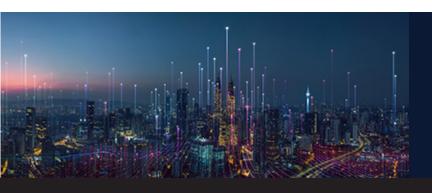
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Jari Haiston is a valued member of the expanding digital marketing team at the Exponential Technology Group (XTG). With a foundation in technical writing and event coordination, Jari brings a unique blend of skills to her current role. She excels in content creation and social media management. As a dedicated writer, Jari's primary goal is to craft captivating content that remains approachable and informative for a diverse audience.



BY JARI HAISTON
TECHNICAL MARKETING
CONTENT SPECIALIST



QUESTIONS?

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Unifying AI/ML, Wi-Fi 6, and Bluetooth® 5.3 for Embedded Excellence – Digi ConnectCore® 93

In a dynamic technological landscape fully immersed in Industry 4.0, the demand for cutting-edge industrial IoT (IIoT) solutions has never been more pronounced. As industries strive for heightened efficiency, connectivity, and data-driven insights, the need for robust and adaptable technologies is paramount.

To support the evolving needs of engineers and businesses, the Digi ConnectCore® 93 system-on-module from Digi International represents a comprehensive solution that forward-thinking engineers can utilize to propel their projects into the future. Designed with a focus on longevity and scalability in IIoT applications, Digi ConnectCore 93 is an embedded, wireless system-on-module (SOM) that seamlessly unites Artificial Intelligence (AI), Machine Learning (ML), Wi-Fi 6, and Bluetooth® 5.3 for unparalleled embedded excellence.

The Digi ConnectCore 93 Advantage

Part of the Digi International Digi ConnectCore family of modules, Digi ConnectCore 93 SOMs are a pioneering force that transcend traditional boundaries and exemplify the convergence of cutting-edge technology, reliability, and comprehensive support. There is a wide range of distinctive advantages that sets ConnectCore 93 above the competition, making it an ideal solution for engineers navigating the challenges of Industry 4.0 and beyond.



NEXT-GEN TECHNOLOGY AT THE CORE

Based on the NXP® i.MX 93 application processor, a state-of-the-art edge computing solution, ConnectCore 93 SOMs are empowered with next-generation processing capabilities. The integrated processor ensures seamless execution of complex tasks, real-time data processing, and optimal responsiveness. As industries evolve, ConnectCore 93 SOMs offer a future-proof solution that anticipates the need for advanced technology in embedded systems.



The Digi ConnectCore 93 Unifies AI/ML, Wi-Fi 6, and Bluetooth® 5.3







ROBUST CONNECTIVITY FOR VARIED APPLICATIONS

ConnectCore 93 SOMs support next generation wireless connectivity by incorporating Wi-Fi 6 and Bluetooth 5.3 technologies. Tailored for a diverse range of sectors, including medical, industrial, energy, and transportation, the ConnectCore 93 module is a versatile solution for the Internet of Things (IoT), automation, human-machine interface (HMI), equipment monitoring, audio/voice applications, and more.



ENHANCED POWER AND EFFICIENCY IN ONE COMPACT DESIGN

Underneath its compact form factor lies up to two power-efficient Arm® Cortex®-A55 cores, complemented by a Cortex-M33 core and an AI/ML Arm Ethos U65 neural processing unit (NPU). With the inclusion of the NXP PMIC, ConnectCore 93 achieves maximum power efficiency, ensuring optimal performance for a variety of applications. Its design emphasizes industrial reliability, with the capability to support 10+ year product lifecycles—a critical feature for embedded devices in demanding environments.

FORTIFIED SECURITY FOR A CONNECTED WORLD

With the rising prevalence of connected IoT applications, embedded device security is paramount. ConnectCore

93 SOM solutions address this concern by incorporating Digi TrustFence®, a fully integrated device-security framework. This built-in set of security features simplifies the process of securing connected devices, ensuring the integrity and confidentiality of data in an interconnected environment.

Comprehensive Development Support: Digi ConnectCore 93 Development Kits

The Digi ConnectCore® 93 Development Kit is a comprehensive and secure solution that unlocks the full potential of connected applications. Centered around the industrial-specified SOM platform, ready-to-use building blocks, an embedded Linux software platform, and development tools, this kit facilitates cost-effective development and accelerated time to market for OEMs.

When developing products with the ConnectCore 93 Development Kit, OEMs can get to market fast with the custom design services, support and certification assistance of Digi Wireless Design Services (WDS).

Digi ConnectCore 93 Key Features:

- Industrial i.MX 93 dual-core embedded SOM platform
- AI/ML Arm Ethos U65 NPU
- Pre-certified dual-band 802.11ax Wi-Fi 6 and Bluetooth 5.3
- 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 <u>Digi ConnectCore Cloud Services</u>
- Monitor and analyze security risks and vulnerabilities with <u>Digi ConnectCore Security Services</u>.
- Digi Embedded Yocto® Linux support
- Turnkey development services available from Digi WDS











SHAPING TOMORROW'S EMBEDDED LANDSCAPE

With key features that unite an industrial i.MX 93 dual-core embedded SOM platform, Al/ML Arm Ethos U65 NPU, and pre-certified dual-band Wi-Fi 6 and Bluetooth 5.3, Digi ConnectCore 93 solutions not only meet but exceed the demands of forward-thinking engineers. As we stand on the cusp of a new era of embedded solutions, the Digi ConnectCore ecosystem is positioned as a pioneering force with its robust connectivity, power efficiency, and innovation.

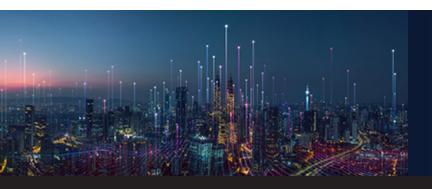
ABOUT THE AUTHOR

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BY JARI HAISTONTECHNICAL MARKETING
CONTENT SPECIALIST



QUESTIONS?

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APPLICATIONS IN ACTION

Digi ConnectCore MP1 and 93 SOMs support a diverse range of applications and are pre-certified, scalable, and come with built-in Digi TrustFence® security to support simplified engineering and accelerated time-to-market. Leverage the Digi ConnectCore MP1 and 93 dev kits and accompanying user manuals for rapid development.



INDUSTRIAL IOT

Did you know that you're currently witnessing a revolution? The fourth industrial revolution, commonly referred to as Industry 4.0, is upon us. Unlike its historical predecessors, Industry 4.0 is not driven by steam or gas; it's far more advanced.

READ ARTICLE



PRECISION AGRICULTURE

Precision irrigation involves using interconnected sensors and devices to optimize water usage in agriculture-leading to benefits like reduced water consumption, enhanced cost-efficiency, improved crop yields, and environmental sustainability.

READ ARTICLE



SMART MEDICAL

Internet of Medical Things (IoMT) is uniquely positioned to offer healthcare systems increased savings, ease of care, positive **READ ARTICLE** patient experiences, and more.

VIEW DIGI'S MEDICAL E-BOOK >



EV CHARGING

The electrical vehicle charging market is exploding today, due to the ongoing development of the infrastructure network to support the growing requirement for EV charging stations everywhere.

WATCH WEBINAR >



ARTIFICIAL INTELLIGENCE

AloT is at the forefront of technological innovation, but what's holding corporations back from implementing this technology?

READ ARTICLE

symmetryelectronics.com/blog



DIGI INTERNATIONAL SERVICES

Pair Digi ConnectCore MP1 and 93 with Digi's comprehensive cloud, security, design, and support services to simplify and streamline your project.



Digi ConnectCore Cloud Services

Remotely configure, monitor, and maintain connected devices with integrated edge-to-cloud connectivity provided by Digi ConnectCore Cloud Services.

ESSENTIAL 1 YEAR - 1 DEVICE

ESSENTIAL 1 YEAR - 100 DEVICES

ESSENTIAL 3 YEARS - 100 DEVICES

ESSENTIAL 5 YEARS - 100 DEVICES

PREMIUM 1 YEAR - 1 DEVICE

PREMIUM 1 YEAR - 100 DEVICES

PREMIUM 3 YEARS - 100 DEVICES

PREMIUM 5 YEARS - 100 DEVICES





Digi ConnectCore Security Services

Achieve product security throughout the entire lifecycle through services and tools that enable the monitoring and analysis of security risks and vulnerabilities.

> **ESSENTIAL** 1 YEAR

PREMIUM 1 YEAR

ENTERPRISE 1 YEAR

ENTERPRISE ADDITIONAL PRODUCT







SUPPORT SERVICES

Gain assistance deploying, managing, connecting, customizing, or enhancing your Digi solution.

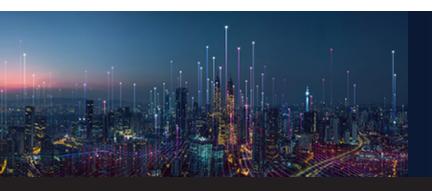




WIRELESS DESIGN SERVICES

Comprehensive, expert-level design services for new projects and redesigns. Definition and planning, development, testing, certification, and transition to manufacturing.

LEARN MORE >



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SYMMETRY ELECTRONICS VALUE-ADDED SERVICES

In addition to electronic component and system distribution, Symmetry offers a comprehensive suite of value-added services to support engineers from concept all the way through to production.

Contact us to get started.















Symmetry Electronics' Value-Added Services



QUESTIONS?

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Our Components. Your Innovation.

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