Digi ConnectCore MP133 Development Kit

Complete development platform for intelligent, connected and secure embedded industrial products with a broad suite of tools and turnkey Linux software support

The **Digi ConnectCore® MP133 Development Kit** is a complete platform. It features an integrated, secure, industrial system-on-module (SOM) with wireless connectivity, based on the STM32MP13 microprocessor, and a complete, embedded Linux software platform based on the Yocto® Project.

The kit seamlessly integrates pre-certified dual-band Wi-Fi 5 (802.11a/b/g/n/ac), Bluetooth® 5.2 and Gigabit Ethernet connectivity. Digi ConnectCore MP133 is designed for industrial and medical use with high levels of security, reliability, performance and 10+ year longevity. The Digi SMTplus® surface mount form factor provides simplified design integration, flexibility 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.

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.

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) offer additional cellular integration support, certification assistance, and custom design and build services to get your products to market smarter and faster.

Connect this device with Digi ConnectCore Cloud Services. Create. Configure. Deploy. Manage.
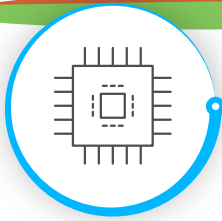
The kit includes:

✓ Digi ConnectCore MP133 development board with SOM

✓ Console port cable

✓ Dual-band wireless antenna

✓ Power supply and accessories

✓ Reference designs and online documentation

PART NUMBER	DESCRIPTION
CC-WMP133-KIT	Digi ConnectCore MP133 Development Kit

Key features, benefits and applications

- 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 ultimate reliability
- High level of pin-compatibility with **ConnectCore 6UL SOMs**
- Built-in **Digi TrustFence** device security, identity and privacy
- Seamless cellular modem and **Digi XBee®** integration
- 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**

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Specifications

SPECIFICATIONS	DIGI CONNECTCORE MP133 SOM
FEATURES	
APPLICATION PROCESSOR	STMicroelectronics STM32MP133C, Arm® Cortex®-A7 at 650 MHz, secure boot, crypto engine
MEMORY	256 MB SLC NAND flash, 256 MB DDR3L
SECURITY	Secure boot, TrustZone® 12x tamper pins incl. 5x active tamper, 1x TRNG (6 triple oscillators), 1x CRC calc. unit, 1x cryptographic processor, hardware acceleration with DMA support; Encryption/decryption: DES/TDES: ECB (electronic codebook) and CBC (cipher block chaining) 64-, 128- or 192-bit key; AES: ECB, CBC, GCM, CCM, and CTR (counter mode) chaining algorithms, 128-, 192- or 256-bit key; Universal HASH: SHA-1, SHA-224 and SHA-256, SHA-384, SHA-512, SHA-3, HMAC; **Digi TrustFence** embedded security framework
PERIPHERALS / INTERFACES	5x I2C, 4x UART + 4x USART, 5x SPI (4 with full duplex I2S) 2x SAI (stereo audio: I2S, PDM, SPDIF Tx), SPDIF Rx (4 inputs) 2x SDMMC up to 8-bit (SD / eMMC™ / SDIO) 2x CAN FD (including 1x TTCAN) 2x USB 2.0 high-speed host or 1x USB 2.0 high-speed host + 1x USB 2.0 full-speed OTG, up to 135 I/O ports with interrupt capability 2x ADCs (up to 12-bit), 1x temperature sensor, 1x DFSDM (4 channels/2 filters), internal or external ADC reference VREF+ 2x 32-bit timers with up to 4 IC/OC/PWM or pulse counter and quadrature (incremental) encoder input 2x 16-bit advanced timers, 10x 16-bit general-purpose timers (including 2 basic timers without PWM) 5x 16-bit low-power timers, Secure RTC, 4 Cortex-A7 system timers (secure, nonsecure, virtual, hypervisor) 2x independent watchdogs
ETHERNET	2x 10/100 M or Gigabit Ethernet GMAC IEEE 1588v2, MII/RMII/RGMII
WIRELESS	Wi-Fi 5 dual-band 802.11a/b/g/n/ac 1x1 radio (up to 433.3 Mbps) with strong WPA3-Enterprise authentication/encryption −40 °C to 85 °C (−40 °F to 185 °F) full temperature range; Bluetooth 5.2 (Basic Rate, Enhanced Data Rate and Bluetooth Low Energy)
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
MOUNTING / PIN COUNT	Common Digi SMTplus surface mount footprint using 76-pad edge castellated pads (1.27 mm pitch) or 245-pad LGA (1.27 mm pitch) option
MECHANICAL DIMENSIONS	29 mm x 29 mm x 3 mm (1.14 in x 1.14 in x 0.12 in)
PRODUCT WARRANTY	3-year

PART NUMBERS	DIGI CONNECTCORE MP133 DEVELOPMENT KIT
CC-WMP133-KIT	Digi ConnectCore MP133 development kit with development board and Digi ConnectCore MP133 256 MB/256 MB 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

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For more information, please visit digi.com

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