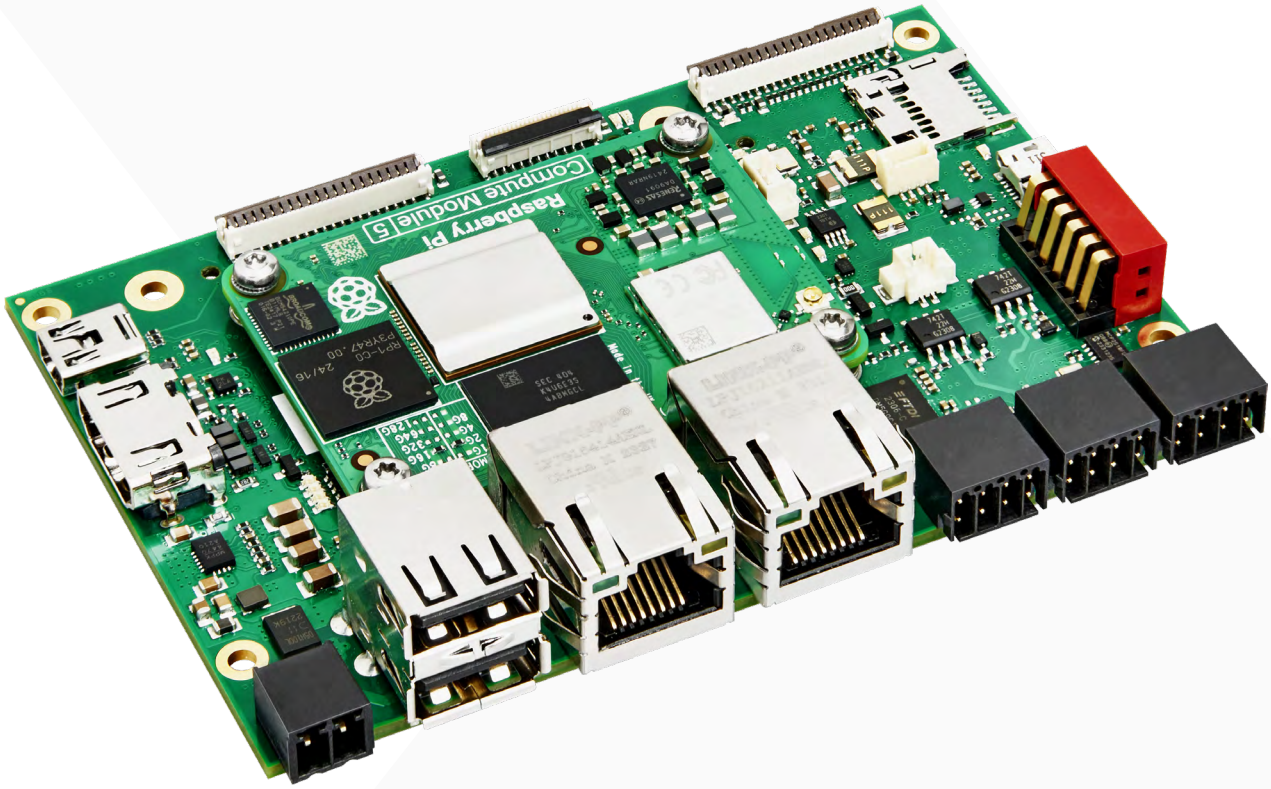
BL Pi-Tron CM5

Bord-Line



Powered by Raspberry Pi

Raspberry Pi Design Partner

Raspberry Pi Compute Module 5 for demanding applications

- Significantly more computing power
- Optional Pre-certified WLAN/Bluetooth® connectivity
- M.2 B key slot with PCIe connectivity
- Rapid migration from Raspberry Pi prototype to series product
- High-performance interfaces for harsh industrial application

kontron
The Power of IoT

Technical Information

FUNCTION		STANDARD
MICROPROZESSOR	CPU	Broadcom BCM2712 BCM2712, Quad Core Cortex®-A76, 64-bit SoC @2.4 GHz 4K @60 fps HEVC-Decoder OpenGL ES 3.1 graphics, Vulkan 1.2
MEMORY	LPDDR4-RAM eMMC* EEPROM SD CARD	2 GByte, optional 4 GByte/8 GByte/16 GByte 16 GByte optional 32 GByte and 64 GByte 4 kByte 1x microSD Card Slot for data
COMMUNICATION	ETHERNET USB I/O DIO SERIAL CAN WLAN/BLUETOOTH	1x 1 Gbit/s, 1x 10/100 Mbit/s 2x 2.0 Host, 1x 2.0 OTG: only to program eMMC Up to 28x GPIO, 5x UART, 5x I²C, 5x SPI, 4x PWM, 1x SDIO, M.2 B-KEY 3042 (PCIe 1-lane Host, Gen 2 (5 Gbps)) 4x DIO (24 V/up to 800 mA) 1x RS232, 1x RS485 (Modbus-capable) 1x CAN 2.0B/FD 2.4 GHz/5,0 GHz IEEE 802.11b/g/n/ac wireless / BT 5.0, BLE
DISPLAY/TOUCH	LCD/CAMERA INTERFACE TOUCH	1x MIPI 4-lane (DSI or CSI-2) 1x HDMI 2.0 (up to 4K @60 fps – HDMI-Socket) 1x HDMI 2.0 (up to 4K @60 fps – 40 pol. FFC) via I²C or USB
OTHER	POWER SUPPLY POWER CONSUMPTION TEMPERATURE RANGE OPERATING SYSTEM FORM FACTOR EXTERNAL RTC RTC BUFFERING DEBUG EXPANSION PLUG APPROVALS	24 V DC ±20 % TBD TBD Raspbian, Linux (not preinstalled) 105.5 x 69.6 mm (4.3") 1x on Baseboard CR2032 1x Console M.2 B-Key, Raspberry Pi GPIO-Header 40-Pin CE
SECURITY	HARDWARE OPTIONS COMPUTE MODULE 5	Secure boot, hard disk encryption CM5 complies with strict EU regulations ETSI EN 303 645 and EN 18031 for Cyber security Standards, with documentation and support for the definition of levels of cybersecurity standards, as defined in ISO 14508

*When using eMMC memory, booting from SD card is not possible.

Product Highlights

The BL Pi-Tron CM5 offers increased performance over its predecessor and is ideal for demanding applications. Equipped with a Broadcom BCM2712 Quad Core Cortex®-A76 processor at 2.4 GHz, it offers high computing power. Graphics capabilities include a 4Kp60 HEVC decoder, OpenGL ES 3.1 and Vulkan 1.2 for smooth, high quality visuals.

A key feature is the M.2 B-Key slot with PCIe connectivity, allowing for additional expansion options. The device features high-performance interfaces designed specifically for industrial applications and offers memory options from 1 GB to 8 GB of LPDDR4-4267 SDRAM with ECC, as well as 16 GB, 32 GB or 64 GB of eMMC Flash memory. The maximum bandwidth of the eMMC memory is 200 MBps. In addition, the BL Pi-Tron CM5 offers expansion and communication options such as PCIe Gen 2, WLAN 2.4/5 GHz and Bluetooth 5.0 BLE.

Client Benefits

- Industrial-use interfaces, customizable
- Ready for custom AI solutions
- Fast prototype construction
- Large community through open-source software
- Short time to market
- Good value for money

Applications

- Human-machine interface
- Industrial communication
- M2M (machine-to-machine) Gateway
- Automation
- POS/POI displays
- Infotainment/Entertainment

About Kontron

Kontron AG is a leading IoT technology company. For more than 20 years, Kontron has been supporting companies from a wide range of industries to achieve their business goals with intelligent solutions. From automated industrial operations, smarter and safer transport to advanced communications, connectivity, medical, and energy solutions, the company delivers technologies that add value for its customers. With the acquisition of Katek SE in early 2024, Kontron significantly strengthens its portfolio with the new GreenTec division, focusing on solar energy and eMobility, and grows to around 8,000 employees in over 20 countries worldwide. Kontron is listed on the SDAX® and TecDAX® of the German Stock Exchange.

For more information, please visit: **www.kontron.com**

About Kontron Electronics

Kontron Electronics GmbH is a full-service provider in the electronics industry, offering comprehensive services in development, rapid prototyping, and manufacturing. The company's portfolio includes proprietary and customer-specific products, development and engineering services for complex electronic components, modules, and systems, as well as production and assembly services for complete assemblies. The company is part of the Kontron AG technology group.

For more Information please visit: **www.kontron-electronics.com**

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