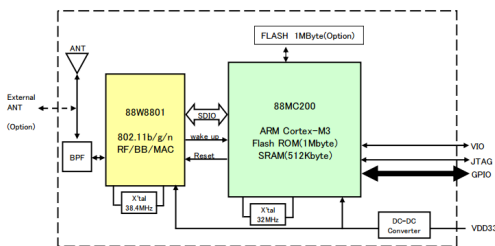




## Features

- 802.11b/g/n 2.4GHz Wi-Fi interface implemented with a Marvell 8801 Wi-Fi transceiver
- Compact 37.5mm x 20mm x 3.7mm stamp module form factor to simplify embedding into a variety of devices
- Marvell 88MC200 microcontroller for running a device application and executing the LonTalk®/IP control networking protocol
- IzoT® CPM 4200 Wi-Fi EVK available for rapid application development and testing
- IzoT Device Stack DX for simple installation and peer-to-peer connectivity
- Compatible with the IzoT Commissioning Tool for easy installation with a wide variety of IzoT and classic LON® devices
- Interoperates with other LonTalk/IP and classic LON devices implemented with the IzoT SDK, IzoT FT 6000 EVK, or earlier generations of LON development tools
- Supports a rich set of LONMARK® and IoT standard profiles and data types to reduce application development time
- ARM Cortex M3 architecture for supporting advanced device applications with comprehensive I/O capability
- 1MB on-board flash memory for CPM 4200 system firmware, application firmware, and non-volatile data
- 512KB RAM for data storage and the runtime stack
- Supports expansion with additional off-chip serial flash memory
- Two antenna options: on-board for ease-of-implementation or external for increased range
- -40°C to 85°C industrial temperature range



## Build Wireless Devices for the Industrial IoT

Create smart communicating wireless devices for the Industrial Internet of Things (IIoT) using the IzoT CPM 4200 Wi-Fi Module. The CPM 4200 module includes a powerful ARM Cortex M3 processor for implementing an IIoT device application and for wireless network communication with the LonTalk/IP protocol.

A Marvell 8801 Wi-Fi transceiver is included that implements an 802.11b/g/n 2.4GHz Wi-Fi interface. The Wi-Fi interface makes the CPM 4200 module compatible with both existing and readily available Wi-Fi infrastructure.

The CPM 5200 module is implemented in a compact 37.5mm x 20mm x 3.7mm stamp module form factor to simplify embedding into a variety of devices. A flexible set of GPIO pins is available on the module for interfacing to a variety of sensor and actuator hardware.

You can develop applications for the CPM 4200 Wi-Fi Module using the CPM 4200 Wi-Fi EVK Evaluation and Development Kit. The CPM 4200 EVK includes all the hardware and software required to develop and test applications for the CPM 4200 module.

The CPM module includes a LonTalk/IP communications protocol stack that makes it easy to create devices that can automatically discover other compatible LonTalk/IP devices and automatically interact with the devices with direct peer-to-peer communication.

For more complex networks, you can use the IzoT Commissioning Tool included with the CPM 4200 Wi-Fi EVK to design the networks and automatically configure all the LonTalk/IP devices in the network. You can use the IzoT Commissioning Tool to create networks with LonTalk/IP and classic LON devices implemented with the IzoT SDK, IzoT FT 6000 EVK, or earlier generations of LON development tools.

A rich set of LONMARK and IoT standard profiles and data types is included that you can use to reduce application development time.

## Specifications

### Hardware Platform

#### Processor

- Marvell 88MC200 32MHz ARM Cortex-M3

#### Memory

- 1Mbyte flash on CPM 4200 module
- 512Kbyte SRAM
- External memory expansion

#### Radio

- Marvell 88W8801 Wi-Fi SoC
- IEEE 802.11bgn, channels 1 – 13
- 2.4GHz band
- DSSS and OFDM modulation
- Up to 54Mbps transfer rate
- -82 dBm minimum sensitivity
- STA mode and AP mode, can be used simultaneously
- On-board or external antenna, selectable by application

#### Protocols

- LonTalk/IP, TCP/IP, HTTP, HTTPS, TLS/SSL, DNS, DHCP, WPA, WPS

#### Radio Standards and Certifications

- USA: FCC 15C – FCC ID EW4DWMW077E
- Europe (Modules and EVK/EVB Global Editions only):
  - » EN300 328 – Test Report 10614990S-B
  - » EN301 489-1/-17 – Test Report 10614990S-A
  - » EN60950-1 – Test Report 10614576H
  - » EN62311
- Canada (Modules and EVK/EVB Global Editions only): RSS-Gen Issue 4:2014 – IC 8093A-DWMW077E
- Japan (Modules and EVK/EVB Global Editions only): TELEC T-401 – ID 007-AD0006

#### Available I/O Peripherals

- 4 32-bit general purpose timers with selectable clock source, programmable clock divider, and pre-scalar
- 2 universal asynchronous receiver transmitters (UARTs) supporting up to 115.2 kbps with auto flow control support and programmable data format
- 2 I2C interfaces supporting up to 2 Mbps
- 1 quad serial peripheral interface (QSPI) supporting up to 200 Mbps synchronous serial communication
- 1 synchronous serial protocol (SSP) interface supporting SSP and SPI devices
- 2 analog to digital converters (ADCs) with selectable decimation rates providing effective resolutions from 10 to 16 bits
- 1 digital to analog converter (DAC) with 10-bit resolution and up to 500 kHz throughput

- 17 general purpose input/outputs (GPIO) that can be configured as general purpose inputs or outputs

#### Operating Input Voltage

- 5VDC

#### Environmental Specifications

- -40°C to +85°C (operating and non-operating)
- 20% to 85% RH @ 50°C (operating and non-operating)

#### Dimensions

- 37.5mm x 20mm x 3.7mm (1.48" x 0.79" x 0.15")

## Ordering Information

**Model 10080R-10-133U:** IzoT CPM 4200 Wi-Fi EVK US Edition

**Model 10080R-10-133:** IzoT CPM 4200 Wi-Fi EVK Global Edition

**Model 28133R-US:** IzoT CPM 4200 Wi-Fi EVB US Edition

**Model 28133R:** IzoT CPM 4200 Wi-Fi EVB Global Edition

**Model 56550R:** IzoT CPM 4200 Wi-Fi Module

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