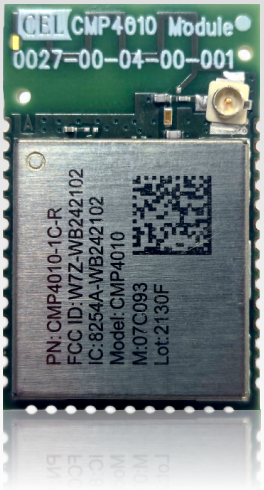
CMP4010

Wi-Fi and BLE Connectivity for IoT

Feature Rich and High Performing

Inquiry



- Surface Mounted
- PCB-Trace Antenna
- Antenna Connector
- Castellation Edge
- 16.7 x 26.3 mm
- Swaps with CMP4020

OVERVIEW

Built for high performance and harsh environments, CEL's Hosted or Hostless IoT connectivity module is perfect for applications requiring multiple technologies for local+remote connectivity, a simple method for commissioning Wi-Fi, low power, processing at the edge, running a complete application, data/audio/video applications, and more. Below are some key highlights of this leading-edge solution.

WIRELESS FEATURES

- **Single-Band 802.11b/g/n**
  - Tx: +18 dBm
  - Wi-Fi Direct & Soft AP
  - Wake on RF
- **BLE 5.0 and BT Mesh**
  - Tx: +4.5 dBm
  - 2 Mbit PHY
  - Co-existence Manager
- Low Power, Long Range, Broad Coverage
- High Noise Immunity, High Throughput

OTHER DETAILS

- Dual-Core Armv8-M
  - Cortex-M33 @ 200 MHz
  - Cortex-M23 @ 20 MHz
- 2 / 8 MB Flash, 4 MB PSRAM, 512 kB SRAM
- 35 x GPIO
- USB, UART, SPI, I2C
- RTC, I2S & Audio CODEC
- Cap Touch & Keyscan
- AES / DES / SHA HW engine
- Secure Boot, WPA3, Trust Zone
- −20°C to +85°C

SOFTWARE DEVELOPMENT TOOLS

- HOSTED: AT Command Set
- HOSTLESS: FreeRTOS, Arm Mbed
- Toolchain Support: IAR, GCC
- AWS / Google Cloud / Azure
- Alexa / Smart Assistant

NETWORKING SUPPORT

- APP – HTTP, MQTT, COAP, TLS, SSL
- Internet – IPv4, IPv6
- Transport – TCP, UDP

REFERENCE CODE AVAILABLE

- Wi-Fi Provisioning via BLE
- USB UVC Camera Interface @720p 30 fps (~3.5 MB/s)
- OTA FW Updates
- Fast Connect
- Remote Connectivity

APPLICATIONS

- Home IoT
- Safety and Security
- Residential HVAC: AC Units, Furnace
- Lighting Control
- Building Automation
- Smart Energy

EVALUATION BOARDS

- Mouser – CMP4010-1-EVB
- DigiKey – CMP4010-1-EVB

Questions? Call Us
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