



CMP4612

Hostless Wi-Fi 6 + BLE 5.4 + 802.15.4 for IoT

Feature Rich and High Performing

Inquiry



- Dual-Band Wi-Fi
- Cortex-M33
- Advanced Security
- Industrial Temp.
- FCC + IC + CE Certified
- 16.7 x 28.6 mm

OVERVIEW

Designed for multi-protocol applications, the CMP4612 offers Wi-Fi 6, BLE 5.4, and 802.15.4 technologies to utilize in your application. Included are a rich set of application resources like, an ARM-Cortex-M33, up to 16 MB Flash, 1.2 MB SRAM. Numerous configurable serial interfaces, a wide variety of peripherals, and excellent security features allow the CMP4612 to fit into any application. The module has a compact footprint and includes either an integrated antenna or connector for external antenna usage.

WIRELESS FEATURES

- **Dual-Band 802.11 a/b/g/n/ac/ax**
 - ▶ SISO
 - ▶ Tx: +20 dBm, Wi-Fi 6 Extended Range
 - ▶ TWT, Low-Power Idle, Standby, and Sleep Modes
- **BLE 5.4**
 - ▶ Isochronous Channels Support Including LE Audio
 - ▶ Tx: +14.1 dBm
 - ▶ BLE 2Mbps and LR Coded PHY
 - ▶ I2S and PCM Audio Interface
- **802.15.4 Thread/MATTER**
 - ▶ Operate as Matter Controller or Thread Border Router

SECURITY

- TRNG, Secure boot, Software Update and Debug
- NXP EdgeLock Assurance
- 2GO Trust Provisioning
- Trusted Execution Environment
- Hardware Root of Trust
- Hardware Crypto Accelerators
- Physical Unclonable Function

OS AND APPLICATION RESOURCES

- FreeRTOS, Zephyr, NCP Mode
- 260 MHz ARM Cortex-M33 with TrustZone-M
- **Memory**
 - ▶ 1.2 MB SRAM
 - ▶ 8 / 16 MB Flash
 - ▶ External PSRAM Interface
- **Interfaces**
 - ▶ 5 x Configurable Serial Interfaces
 - ▶ SPI, I2C, I2S, UART
 - ▶ SDIO 3.0, High speed USB 2.0
 - ▶ IEEE 1588 RMII/Fast Ethernet interface
 - ▶ QVGA (320 x 240) LCD
 - ▶ 16-bit ADC and 10-bit DAC
 - ▶ 32-bit General Purpose Timers / PWM
 - ▶ 4x Digital Microphone Support

MECHANICAL

- 16.7 x 28.6 x 3.6 mm
- Castellation Edge and LGA Pins
- On-Board Antenna
- MHF4 Connector
- -40°C to +85°C Operation

APPLICATIONS

- Home IoT, HVAC
- Security or Lighting Systems
- Smart Appliances
- Building Automation
- Smart Energy

Questions? Call Us
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