

CMP53x

Ultra Low Power with Superior Connectivity

High-Performance Zigbee, BT5.0, Matter Thread + NFC

Today's multi-protocol wireless applications are demanding extended range, lower power consumption, lowest cost of ownership, and reliable connectivity. The CMP53x is built to deliver superior results on all of these fronts. Its RF performance was meticulously designed and tested to maximize range in noisy and harsh environments. The optimized antenna, combined with the low power radio and MCU make it ideal for power restricted applications. NFC technology and reliable connectivity reduce network provisioning and operating costs. The efficient Cortex M4 processor and onboard resources enable it to be used as a standalone end device. Simple tools and reference code make it easy to integrate.

WIRELESS FEATURES

- Zigbee 3.0 Certified Stack
- Matter
- Thread 1.1 Certified Stack
- BT5.0
 - 2Mbit/1Mbit PHY
 - 8 simultaneous Connections
- Low Power Consumption
 - Rx I ~4.3mA, 3.3V
 - Tx I ~ 20.3mA/95mA, +10dBm/+20dBm, 3.3V
 - Deep Sleep ~350nA, Wake on IO
- Long Range & Broad Coverage
 - Tx: +10dBm or +20dBm
 - BT/802.15.4 Rx Sensitivity: -97dBm/-100dBm
- NFC Forum Type 2 Tag



- 2.4 GHz
- PCB-trace or RF pin
- Castellated Edge Connector
- +10/+20dBm Tx Power
- NFC Type 2 Tag

APPLICATION RESOURCES

- ARM Cortex M4 with 1.64MB/640kB Flash, 152kB SRAM
- 22 GPIO, 2 x I2C/SPI/USART, 10 x PWM, 8 ch 12-bit ADC
- RTC, I2S & Audio CODEC

OTHER

- PCB Trace or RF Castellated
- 16.7 x 26.3 mm, -40 to +85 Deg C

DEVELOPMENT TOOLS, SOFTWARE

- MCUXpresso IDE
- GCC Toolchain
- NXP SDK
- CEL Plug-n-play Module Cards
- CEL Software Repository

REFERENCE DESIGN SUPPORT

- Network Creation and Provisioning
- OTA Server and Management
- Gateway Examples
- End-Node Examples

APPLICATIONS

- Industrial
- Building Automation
- HVAC
- Connected Home
- Smart Energy
- Security Systems
- C&I Lighting Controls
- Sensor Networks