



CBT250

Ultra Low Power with Superior Connectivity

High-Performance BT5.0 + NFC

Inquiry



- 2.4 GHz
- PCB-Trace or RF Pin
- Castellated Edge Connector
- +10 dBm Tx Power
- NFC Type 2 Tag
- 16.7 x 23.9 mm

OVERVIEW

The CBT250, utilizing the NXP QN9090 SoC, is a BLE/NFC combo device with integrated ARM Cortex-M4 MCU core. This module supports BLE v5.0 while hosting the end-user application. The integrated NFC Forum Type 2 tag allows for easy network provisioning. The architecture is optimized for low-power consumption to provide the maximum battery life to smart devices. Customers can select from several supported RTOS implementations and interface to a variety of peripherals or external MCUs.

WIRELESS FEATURES

- **BT5.0 / BLE**
 - ▶ Tx Power: +10 dBm
 - ▶ Rx Sensitivity: -97 dBm
 - ▶ 2Mbit / 1Mbit PHY
 - ▶ 8 Simultaneous Connections
- **Low Power Consumption**
 - ▶ Tx: 17.1 / 10.8 mA
 - ▶ Rx: 3.2 mA
 - ▶ Deep Sleep: 13 μ A
 - ▶ Deep Power Down: 87 μ A
- Long Range & Broad Coverage
- NFC Forum Type 2 Tag

OTHER

- PCB Trace or RF Castellated
- FCC + IC + CE Certified
- 16.7 x 23.9 mm
- -40°C to +105°C

APPLICATION RESOURCES

- ARM® Cortex®-M4 @ 48 MHz
- 640 kB On-Die Flash + 1.0 MB Add-On Flash
- 152 kB SRAM
- 22 x GPIO
- 2 x I2C / SPI / USART
- 10x PWM
- 8 Channel, 12-bit ADC
- RTC, I2S, Audio CODEC

DEVELOPMENT TOOLS, SOFTWARE

- MCUXpresso IDE
- GCC Toolchain, IAR
- NXP SDK
- CEL Plug-n-Play Module Cards
- CEL Software Repository

REFERENCE DESIGN SUPPORT

- Beacon, Proximity Reporter
- OTA Client
- Monitor, Notification Server
- Coin Cell Hardware Reference Design

APPLICATIONS

- Building Automation
- HVAC Equipment
- Home IoT
- Smart Energy
- Security Systems
- Lighting Controls
- Medical Equipment

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