CEL
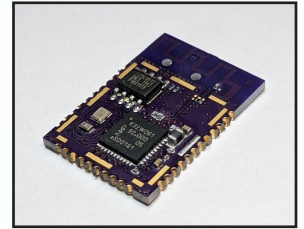
ULTRA LOW POWER WITH SUPERIOR CONNECTIVITY

Today's Bluetooth applications are demanding extended range, lower power consumption, and reliable connectivity in noisy and harsh environments. The CBT250 is built to deliver superior results on all of these fronts. Its RF performance was carefully designed and tested to deliver maximum range and coverage in the most challenging surroundings. The optimized antenna, combined with the low power radio, make it ideal for power restricted applications. The integrated and efficient Cortex M4 processor can be used in power-starved applications, and the onboard resources allow it to be used as a standalone end device. Simple tools and reference code make it easy to integrate.

WIRELESS FEATURES

- BT5.0
  - Tx: +10 dBm
  - 2Mbit/1Mbit PHY
  - Rx Sensitivity: -97dBm
  - 8 simultaneous Connections
- Low Power Consumption
  - Rx I ~4.3mA, 3.3V
  - Tx I ~ 20.3mA, 3.3V
  - Deep Sleep ~350nA, Wake on IO
- Long Range & Broad Coverage
- NFC Forum 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 Castellation
- Certifications: FCC/IC/CE
- 16.7 x 26.3 mm
- -40 to +105 Deg C

DEVELOPMENT TOOLS, SOFTWARE

- MCUXpresso IDE
- GCC Toolchain
- 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

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