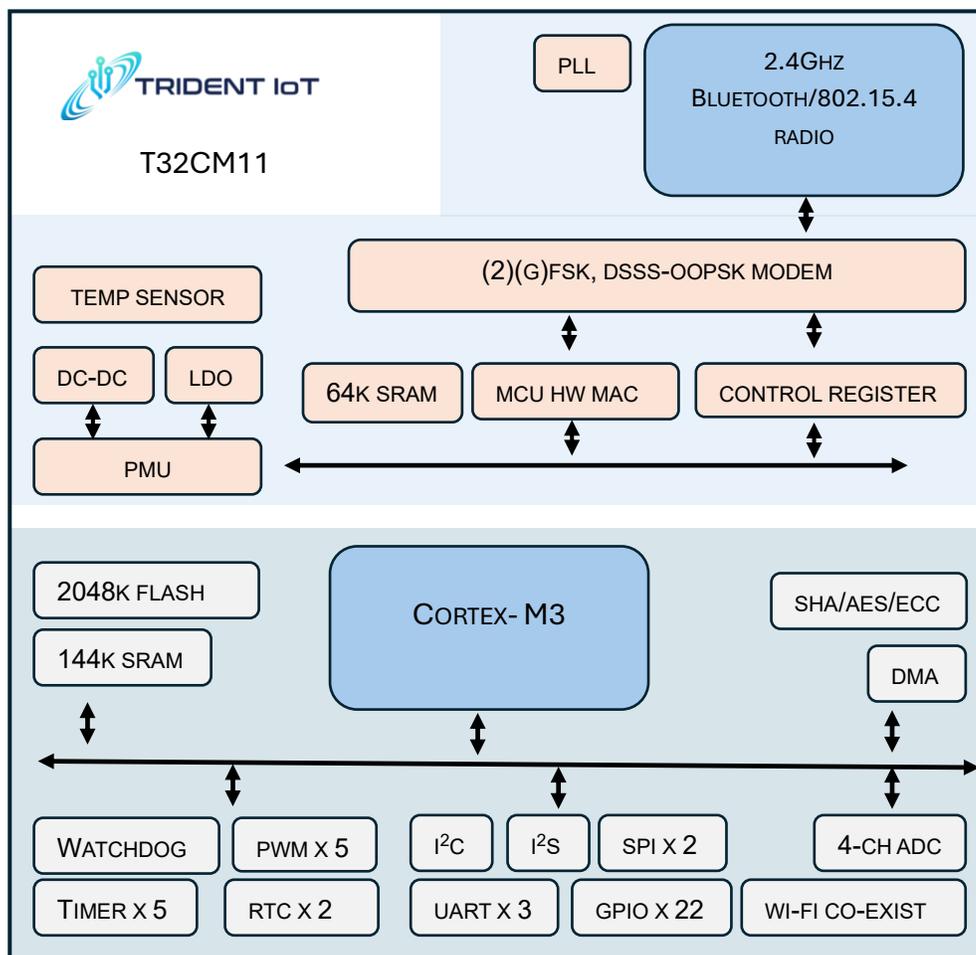


The T32CM11 is an ultra-low power, high-performance ARM® Cortex®-M3 based RF SoC with a 2.4GHz transceiver that is compliant with Bluetooth Low Energy 5.3 and IEEE® 802.15.4 requirements.

The “CM11” supports multiple protocols including Bluetooth Low Energy 5.3, Zigbee 3.0, Thread, Matter and proprietary 2.4GHz networking stacks to facilitate home & building automation, smart lighting, smart locks, sensor network applications, etc.

A comprehensive mix of analog and digital peripherals integrated with the 2.4GHz RF transceiver, coupled with ultra-low current consumption in the RF receive & transmit modes and power-down modes create the ideal platform to deliver on the latest IoT applications.

Embrace the future of smart, robust, and energy-efficient solutions.



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**Protocols:**

- Bluetooth LE 5.3
  - BQB certified as PHY component
- Zigbee 3.0
- Thread
- Thread/Matter with BLE commissioning

**Radio Performance:**

- +10dBm TX Bluetooth
- +10dBm <2% EVM TX Zigbee/Thread
- -104dBm RX @ 125kbps Bluetooth
- -100dBm RX Zigbee/Thread
- Frequency Hopping capability
- Programmable channel filter bandwidth
- RSSI read-out

**Modulation:**

- GFSK
- DSSS-OQPSK

**Data Rates:**

- Bluetooth
  - 125kbps, 500kbps, 1Mbps, 2Mbps
- Zigbee/Thread
  - 250kbps

**Energy Consumption:**

- +1.8V to +3.6Vdc
  - Power On Reset
  - Under Voltage Lockout
  - Integrated DC-DC and LDO Register
  - Power Management Unit
- 11mA RX
- 25mA @+10dBm TX
- 15mA @ +0dBm TX
- 1.5uA Deep Sleep

**MCU Specification:**

- 32 Bit ARM® Cortex®-M3
- Up to 64MHz
- 2048kB Flash program memory
- 208kB RAM data memory
- 2 pin Serial Wire Debug

**Integrated Peripherals:**

- 22 x GPIO
- DMA Controller
- 4 channel 12bit 350ksps ADC
- 3 x UART
- I<sup>2</sup>S
- I<sup>2</sup>C
- 2 x SPI
- 5 x PWM 32bit
- 5x 32-bit timers
- 2 x 32-bit Real Time Clock
- External 32MHz crystal & internal low frequency RC oscillator
- Wi-Fi Co-existence interface
- Watchdog Timer
- Internal Temperature Sensor

**Security Features:**

- Hardware Accelerator: AES/SHA/ECC
- Secure Debug
- Secure Boot
- True Random Number Generator

**Environment:**

- -40°C to 85°C
- ESD: HBM 2KV/CDM 300V; 150m Latch up
- Halogen-free/RoHS 2.0/Reach Annex 14/17

**Package:**

QFN40 5x5x0.75 mm

**Order number:**

T32CM11C10GQ40-AR - 2500/reel