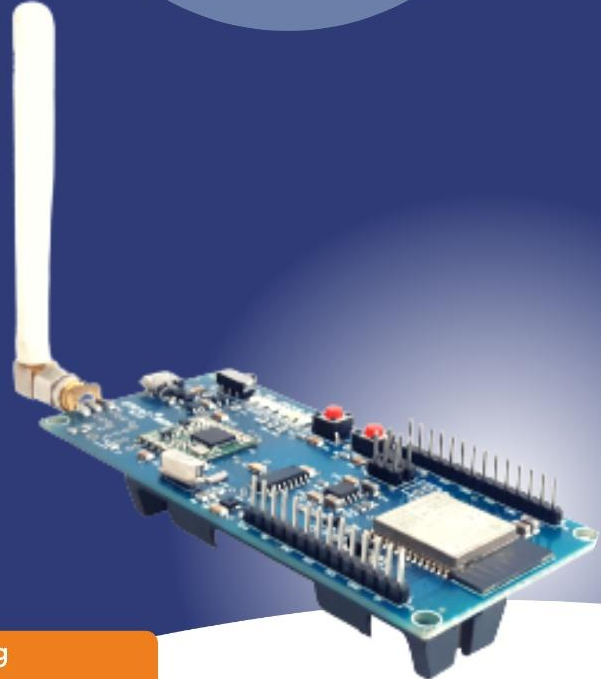


ETS IoT - Wireless Development Module (WDM)

ETS IoT[®] Wireless Development Module

Features:

- Communication: LoRa, LoRaWAN, WiFi, Bluetooth, BLE
- 8x Hybrid Digital IO with Special Functions
- Special Functions: 1x I2C, 1x SPI, 1x UART
- 4x Hybrid Analog & Digital IO: 4 No's
- 2x Hybrid Analog & Digital IN: 2 No's
- Onboard Temperature & Humidity Sensor
- Onboard Battery Connector with Rechargeable option



Plug & Play devices | Easy Coding
Compatible with Arduino IDE



www.enthutech.in



MCU Specifications:

- CPU: Xtensa dual-core 32-bit LX6 microprocessor, up to 240MHz
- ROM: 448KB for booting and core functions
- SRAM: 520KB for booting and instructions
- SRAM: 16 KB in RTC
- SPI Flash: 4MB
- Ultra-Low Power (ULP) Co-processor
- Crystal oscillator: 40 MHz
- 8x Hybrid Digital IO with Special Functions
- Special Functions: 1x I2C, 1x SPI, 1x UART
- 4x Hybrid Analog & Digital IO: 4 No's
- 2x Hybrid Analog & Digital IN: 2 No's
- Analog Resolution: 8,10,12-bit configurable
- Pulse Width Modulation (PWM)
- Onboard Temperature Sensing (typ., -40°C to 90°C with Accuracy ± 0.3 °C)
- Onboard Humidity Sensing (typ., 0%RH to 100%RH with Accuracy ± 2 %RH)
- Onboard LED: 1xRED
- Baud rate configurable
- 802.11 b/g/n Wi-Fi
- Bluetooth Classic and Bluetooth Low Energy (BLE) in the 2.4GHz band
- General ISM < 1GHz LoRa™ Transceiver 868MHz Surface Mount
- Onboard Antenna for Wi-fi & Bluetooth
- Open source software

LoRa Specification:

- LoRa Chip: RF96
- Data Rate: 300kbps
- Power Output: 20dBm
- Sensitivity: -148dBm
- Current Transmitting: 120mA
- Operating Temperature: -20°C ~ 70°C
- RF Family/Standard: General ISM < 1GHz
- Protocol: LoRa™
- Modulation: FSK, GFSK, GMSK, MSK, OOK
- Frequency: 865-867 MHz
- Antenna Type - External Antenna via SMA / I-Pex connector
- Supply Voltage: 1.8V ~ 3.7V
- Receiving Current: 12.1mA
- Transmitting Current: 120mA
- Operating Temperature: -20°C ~ 70°C

Wi-Fi:

- 802.11b/g/n
- Bit rate: 802.11n up to 150 Mbps
- A-MPDU and A-MSDU aggregation
- 0.4 μs guard interval support
- Center frequency range of operating channel: 2412 ~ 2484 MHz

Bluetooth Specification:

- Bluetooth v4.2 BR/EDR and BLE specification
- Class-1, class-2 and class-3 transmitter
- Adaptive Frequency Hopping (AFH)

Common DC Characteristics:

- Supply Voltage: 5 V
- Operating Voltage: 3.0 - 3.6 V
- Minimum current delivered by power supply: 500 mA
- Battery Voltage: 3.7 V Li-Poly
- operating temperature range: - 40 °C ~ 85 °C
- Wake up from GPIO interrupt, timer, ADC measurements

Applications:

- Home Automation
- Smart Building
- Industrial Automation
- Smart Agriculture