# CTM-200
## Wireless Gateway

Industrial LTE cellular gateway for fixed and mobile applications.

## Versatile, Compact, Advanced Logic

The CTM-200 is a Linux based platform powered by ARM Cortex-A8 800 MHz superscalar processor. Its ruggedized design makes it versatile to handle a variety of harsh and demanding environments.
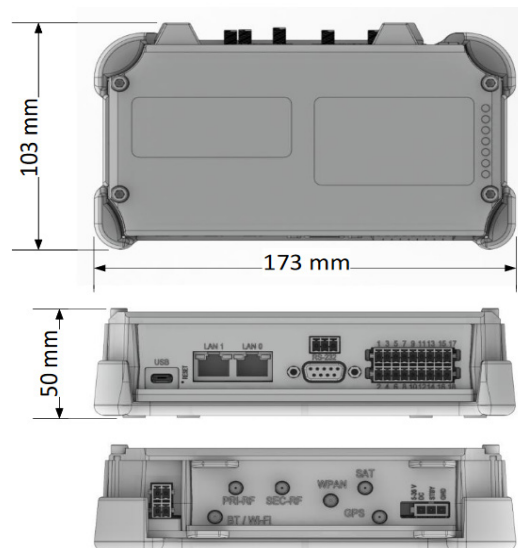
For your fleet tracking needs, the CTM-200 can be used with Cypress VUE tracking platform to generate comprehensive reports that highlight driver behavior and habits. The gateway also has the ability to 'trigger' on events such as a hard brake or a hard acceleration and allows reports to be generated in real time. As a result, your fleet management can be optimized for safety and efficiency.

The wireless gateway uses advanced logic to calculate cumulated values for fuel, odometer, idle and engine hours. As the CAN Bus support system is integrated, user can utilize advanced features such as check engine light, seat belt status, cruise control and progressive shifting detection.

## Features

- Rugged design suitable for extreme operating environments
- Tested to meet MIL-STD 810F/SAE standards for shock, temperature, vibration and humidity
- Tested to meet Class I Div 2 standards for hazardous locations
- Dual sim support
- LTE (MIMO), Wi-Fi and GNSS external antennas
- Integrated cloud based device management via Cypress IoT platform
- Multiple interface support: Ethernet, Serial, RS-485, CAN, GPIO, RFID,USB
- Compact - W175 mm x D100 mm x H50 mm

103 mm

173 mm

50 mm

## Cellular Wireless

- LTE (category 6: FDD: Band 2,4,5,7,12,13,25, 29, 30,66)
- WCDMA (bands: II,IV,V)
- HSDPA (category: 14); HSUPA (category 6)
- DC-HSPA+(category 24)
- MIMO support
- On board logic for always on, always connected operation

Note: Cellular bands may vary based on type of cellular module installed.

## Wi-Fi/Bluetooth

- IEEE 802.11b,g,n compliant
- Bluetooth 2.1 +EDR, and BLE

## Ethernet

- 2 x RJ45/Ethernet 10/100 base T
- Switched or non-switched

## Serial

- Serial RS-232 , DB-9 port
- 15kV ESD protection to 61000-4-2
- 3 pin second serial port RXD/TXD or isolated RS485
- 2 x inputs
- 2 x outputs

## USB

- USB on the go
- Micro USB type AB style

## Power

- 6-36 VDC with transient (spike) protection
- Ignition sense
- Locking 3 wire connection
- 300-400 mA @ 12V
- 20mA @ 12V (suspend mode)
- 2mA @ 12V (shutdown mode)

## GPIO

### 8 Inputs (Analog or Digital)

- 2 x differential inputs that can be configured for voltage or 4-20 mA loop current sense
- 4 x single ended inputs

- 0-10V dynamic range (12 bit resolution, 0.3% accuracy)
- 2 inputs available on RS-232

### 6 Digital Outputs

- 500 mA sink capability, overload protection
- Open drain configuration
- 1 x output power (fused) (6-36 V)
- 2 outputs available on RS-232 RFID reader input (Wiegand or iButton™)

## CAN 2.0B Bus

- J1939 (Heavy Duty), ISO15765-2 (OBD II)

## Other

- 7 status LEDs
- On board 3-axis accelerometer
- Real time clock with battery backup
- Shock absorbing elastomer mounting bracket

## GPS

- 32 channel
- GNSS (GPS, Glonass, Galileo, QZSS)
- Sensitivity: -162 dBm (tracking)
- Pos. accuracy (CEP50) 1.5 m
- TTFF Hot start 1 sec, cold start < 35 sec
- Supports A-GPS and Jammer rejection

## Environmental

MIL-STD-810G:

- Clause 501.5: Procedure II – High Temp (+75°C operational test)
- Clause 502.5: Procedure II - Low Temp (-35°C operational test)
- Clause 503.5: Procedure I-C - Thermal Shock (+75°C to -35°C operational test)
- Clause 507.5: Procedure II - Humidity 95% RH operational test

MIL-STD-810F:

- Method 514.5C - Random Vibration
- Freq. range 5-500 Hz, 0.008 g2/hz spectral
- density
- Method 516-I - Shock - 40g, 11ms, saw-tooth pulse shape, 3 axis operational test

## Certifications

- FCC, CE, IC, PTCRB, applicable carriers

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