

CTM-400FX Wireless Gateway

Visibility and Control for Modern Fleet Operations

Purpose-Built for the Connected Fleet

The CTM-400FX is a next-generation wireless gateway designed for mobile fleet operations, offering the same advanced performance and intelligence as the CTM-400F with an enhanced, ruggedized enclosure.

Engineered with additional cable protection, tamper-resistant design, and improved dust and water ingress protection, the CTM-400FX provides increased durability for demanding field environments. Its advanced processor supports continuous data acquisition, telematics, and edge intelligence, ensuring reliable operation across varied and challenging fleet deployments.



FRONT OF CTM-400FX



Features

- Industrial and rugged design suitable for extreme operating environments
- Ideal for mission-critical mobile applications
- Securely configure, monitor and deploy devices with Cypress IOT
- Compact - W175 mm x D161 mm x H53.7 mm



TOP OF CTM-400FX



BACK OF CTM-400FX

Cellular Wireless

	4G LTE
LTE category supported	Category 6
LTE bands	2,4,5,7,12,13,14,17,25,26,41,66,71
Performance	Max cell UL 50Mbps; Max cell DL 300Mbps
Antenna connection	External (2x SMA)
MIMO	2x2
SIM	1x 4FF Nano SIM removable 1x MFF2 soldered down (optional)
Supported Mobile Network Operator (MNO)	Telus, Bell, Rogers, AT&T, TMO, Verizon

Wi-Fi

- Support 802.11abgn/ac
- Dual AP, dual client, concurrent AP/Client
- 1x internal antenna and 1x external RP-SMA antenna
- Support Bluetooth v5.1, BLE

GNSS

- Dual band with DR (L1 & L5)
- 1x SMA external antenna (active)
- 3V active antenna voltage

Power Supply

- Sources: external DC, OBDII/J1939 (optional)
- External DC Voltage: 6-36 VDC
- CANBus (optional)

Power Management

- **States:** ON, LPM with wakeup
- **LPM wakeup sources:** RTC, ignition, CAN

Typical power consumption

- ON: 300mA @ 12V
- LPM: 5mA @ 12V

Internal Features

- Automotive DR
- HW watchdog
- Temperature sensor internal to processing system

External Interfaces

Power	Molex™ Micro-Fit locking connector
Ethernet	2x RJ45 10/100/1000 BaseT

RS-232	Single port RXD/TxD/GND only
GPIO inputs	• 4x analog/digital • 0-5V • Maximum withstand voltage $\pm 60V$ • Capable of sensing pulses up to 200Hz on each input • Molex™ Micro-Fit locking connector
GPIO outputs	• 4x open drain • Max current: 0.5ADC • Max withstand voltage $\pm 60V$ • Molex™ Micro-Fit locking connector
CANBus	2x CAN 2.0B; Molex™ Micro-Fit locking connector
Ignition Sense	• 3V threshold • Maximum withstand voltage $\pm 60V$ • Molex™ Micro-Fit locking connector
USB-C	As a device: for internal use only
LED lights	1x blue and 4x dual color (green/red) LEDs indicators: Power (Blue), SIM, Cell, Wi-Fi, GNSS
Reset switch	Recessed push-button accessible with a paperclip or similar tool

Processing System

- RAM 2GB LPDDR4X
- Flash 16GB eMMC
- Security: secure boot

Environmental

- Operating temperature: -30°C to +70°C
- Operating humidity: 5% to 95% non-condensing
- IP66 (to be used with cable glands)
- Designed to meet or exceed MIL-STD- 810F/G for shock and vibration
- **EMC**
 - FCC Part 15B Class B radiated
 - Electrostatic discharge EN 61000-4-2
 - Radiated immunity EN 61000-4-3
 - Electrical fast transient/burst EN 61000-4-4
 - Conducted immunity EN 61000-4-6

Certifications

- PTCRB

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