CTM-500
Wireless Gateway

Superior connectivity in a compact, all-in-one solution.

Higher Speed for Unparalleled Connectivity

The all-powerful CTM-500 is built with an advanced processor to process data at the highest speed. With the option of LTE or 5G connectivity for fixed site or mobile applications, the CTM-500 can integrate seamlessly into any environment. The dual Ethernet ports offer more integration options with different sensors or power sources.

Eliminate downtime and keep your operations running smoothly with the powerful removable battery. Cypress IOT device management platform offers secure and reliable control over your devices after deployment.

The CTM-500 is an ideal solution for mobile fleet tracking as well as for a primary or failover network.
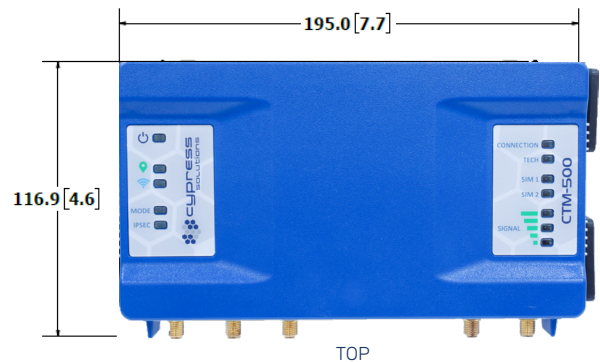

BACK

Features

- Industrial and rugged design suitable for extreme operating environments
- Optional interchageable battery
- Dual SIM support
- All antennas are external
- Securely configure, monitor and deploy devices with Cypress IOT
- Flexible for various industries and applications
- Compact - W195 mm x D117 mm x H64 mm / W7.7 in x D4.6 in x H2.5 in

195.0 [7.7]

116.9 [4.6]

TOP

64.0 [2.5]

FRONT

smart solutions for connected operations

Cellular Wireless

	LTE Cat12	5G
5G bands		**NSA**: n2/n5/n7/n12/n25/n30/n38/n41/n66/n71/n77/n78/n79 **SA**: n2/n5/n7/n12/n13/n14/n25/26/n30/n38/n41/n48/n66/n70/n71/n77/n78
LTE category supported	LTE-A Cat12	LTE DL Cat 19/UL Cat 18
LTE bands	**FDD**: B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B21/B25/B26/B28/B29/B30/B32/B66 **TDD**: B38/39/B40/B41	**FDD**: B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71 **TDD**: B34/B38/B39/B40/B41/B42/B43/B46(LAA)/B48
WCDMA bands	B1/B2/B3/B4/B5/B8/B9/B19	B1/B2/B4/B5/B8/B19
Antenna connection	2x SMA	4x SMA
MIMO	2x2, 4x2, DL	4x4
SIM	Dual 2FF	Dual 2FF
Data speed	**LTE FDD**: Max. 600Mbps (DL) /Max. 150 Mbps (UL) **LTE TDD**: Max. 430 Mbps (DL) / Max. 90 Mbps (UL)	**5G SA** DL 2.1 Gbps; UL 900 Mbps **5G NSA** DL 3.3 Gbps; UL 600/650 Mbps **LTE** 2 Gbps (DL) / 200 Mbps (UL) **WCDMA** DL 384 Kbps; UL 384 Kbps

Wi-Fi and Bluetooth

- Triple Band 2.4GHz, 5GHz and 6GHz 802.11a/b/g/n/ac/ax
- Multiple SSID
- Concurrent dual band
- 2x RP-SMA for antenna connection
- 2.4GHz radio: 2x2 MU-MIMO 20/40 MHz channel bandwidth
- 5GHz radio: 2x2 MU-MIMO 20/40/80/160 MHz channel bandwidth
- Support Bluetooth (BT) v5.1

Power Supply

- Main DC voltage 7-32VDC
- Main power input typical current draw 300mA @12V
- Optional PoE PD
- Optional back up battery

Power Management

- Standby mode 10mA @12VDC
- Wake on: power applied, reset switch, RTC, CAN, ignition

External Interfaces

- RJ45 2x port 10/100/1000 BaseT Ethernet; Optional PoE/PoE+
- 1 RS-232 serial port
- GPIO 4x digital outputs, 4x analog inputs
- 2x CAN 2.0B
- 1-Wire
- USB-C dual role port

Internal Features

- Power accessory detection
- Soft reset switch
- L1 receiver with automotive dead reckoning for GNSS
- Temperature sensor
- 12-bit ADC
- Watchdog

Processing System

- Quad core Cortex A53 @ 1.8GHz
- RAM 1GB LPDDR4
- Flash 8GB eMMC
- Boot device eMMC

Environmental

- Operating temperature: -30°C to +70°C
- Operating humidity: 5% to 95% non-condensing
- Designed to meet or exceed MIL-STD- 810F/G for shock, temperature, vibration and humidity

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

- FCC
- IC
- PTCRB
- Applicable carriers

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