

# MSP500

## SPECIAL GNSS/GSM/BLUETOOTH TRACKER WITH SPEED LIMITING FUNCTIONALITY

MSP500 is a special tracking terminal with GNSS/GSM/Bluetooth connectivity, internal GNSS/GSM antennas, RS232 interface for ESC/POS printer support and internal Ni-Mh battery. Moreover, device contains integrated buzzer and relay for a speed limiting functionality based on a fuel pump power supply switching.



RS232 is an industrial standard for serial communication



Integrated buzzer



External voltage range



Allows device to work without external power source



Allows device to limit vehicle speed



Bluetooth for exchanging data over short distances

## MANAGEMENT

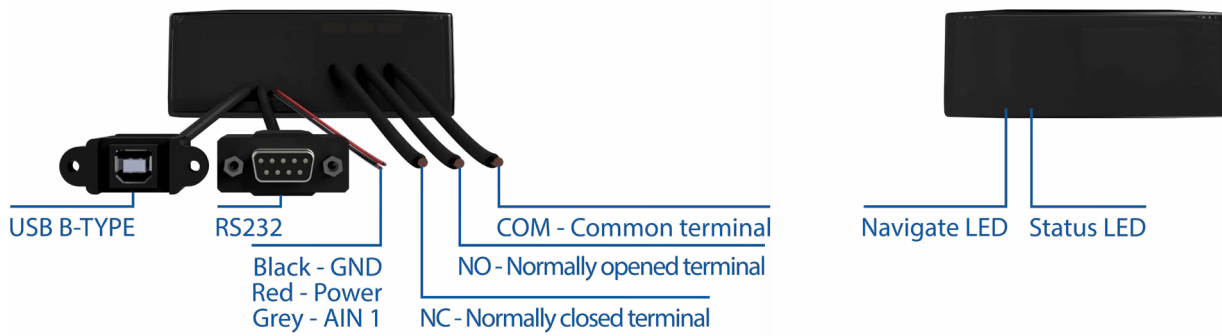
- User - friendly configurator
- Cloud based updates
- Easy access

## FEATURES

- Overspeeding detection
- Speed limiting
- Unplug detection

## CAPABILITIES

- Position acquisition
- I/O element statuses
- Special events



### Module

Name	TM2500
Technology	GSM/GPRS/GNSS/BLUETOOTH

### GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS
Receiver	Tracking: 33
Tracking sensitivity	-165 dBm
Position accuracy	< 2.5 CEP
Velocity Accuracy	< 0.1 m/s (within +/- 15% error)
Hot start	< 1 s
Warm start	< 25 s
Cold start	< 35 s

### Cellular

Technology	GSM
2G bands	Quad-band 850 / 900 / 1800 / 1900 MHz
Data transfer	GPRS Multi-Slot Class 12 (up to 240 kbps), GPRS Mobile Station Class B
Data support	SMS (text/data)

### Power

Input voltage range	10 - 30 V DC with overvoltage protection
Internal Back-up battery	400 mAh Ni-MH battery 7.2 V (2.88 Wh)
Power consumption	At 12V < 1,4 mA (Ultra deep sleep) At 12V < 3,8 mA (Deep sleep) At 12V < 4,1 mA (Online deep sleep) At 12V < 8,6 mA (GNSS sleep) At 12V < 26,6 (Nominal)

### Bluetooth

Specification	4.0 + LE
Supported peripherals	Temperature and Humidity sensor, Headset, OBDII dongle, Inateck Barcode Scanner

### Physical specification

Dimensions	103 x 86 x 39 mm (L x W x H)
Weight	250 g

**Operating environment**

Operating temperature (without battery)	-40 °C to +85 °C
Storage temperature (without battery)	-40 °C to +85 °C
Operating humidity	5% to 95% non-condensing

**Interface**

Analog Input	1
RS232	1
Internal relay	1
Internal buzzer	1
Terminal block	3 contacts
GNSS antenna	Internal High Gain
GSM antenna	Internal High Gain
USB	Type-B
LED indication	2 status LED lights
SIM	Micro-SIM + eSIM possibility
Memory	128MB internal flash memory

**Features**

Sensors	Accelerometer
Scenarios	Green Driving, Over Speeding detection with relay control, Jamming detection, GNSS Fuel Counter, DOUT Control Via Call, Excessive Idling detection, Unplug detection, Towing detection, Crash detection, Auto Geofence, Manual Geofence, Trip
Sleep modes	GPS Sleep, Online Deep Sleep, Deep Sleep, Ultra Deep Sleep
Configuration and firmware update	FOTA Web, FOTA, Teltonika Configurator (USB, Bluetooth)
SMS	Configuration, Events, Debug
Time Synchronization	GNSS, NITZ, NTP
Fuel monitoring	RS232 Fuel sensor, OBDII dongle
Ignition detection	Accelerometer, External power voltage, Engine RPM (OBDII dongle)
RS232 modes	Log mode, NMEA, LLS, TCP ASCII/Binary, LCD, RFID HID/MF7, Garmin FMI, POS Printer

**Certification & Approvals**

CE (RED)	Pending
E-Mark	Pending