MSP500 General description

MSP500 is a special tracking terminal with GNSS/GSM/Bluetooth connectivity, which is able to collect device coordinates and transfer them via GSM network to server. Sevice contains integrated buzzer and relay for a speed limiting functionality based on a fuel pump power supply switching. Device have internal GNSS/GSM antennas, RS232 interface for ESC/POS printer support and internal Ni-Mh battery This device is perfectly suitable for applications, which need location acquirement of remote objects, fuel pump control from overpseeding.

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Contents

Package contents

The MSP500 device is supplied to the customer in a cardboard box containing all the equipment that is necessary for operation. The package contains:

- Already implemented MSP500 device;
- Top and bottom device cover parts;
- Ni-Mh battery.

Basic characteristics

GSM / GPRS / GNSS features:

- Teltonika TM2500 multi-band module (GSM 850 / 900 / 1800 / 1900 MHz);
- GPRS class 12;
- SMS (text, data);
- Integrated GNSS receiver;
- Up to -165 dBm GNSS receiver sensitivity.

Hardware features:

- Built-in relay;
- Built-in buzzer;
- Built-in movement sensor;
- Built-in Bluetooth 4.0;

- Internal High Gain GNSS antenna;
- Internal High Gain GSM antenna;
- 128MB internal flash memory;
- 400 mAh rechargeable 7.2 V Ni-MH battery.

Interface features:

- Power supply: 10 ÷ 30 V;
- USB B-TYPE port;
- 2 LEDs indicating device status.

Special features:

- Intergated Relay terminal for Speed limiting based on a fuel pump power supply switching;
- Integrated buzzer;
- RS232 interface for ESC/POS printer support;
- Fast position fix;
- High Quality track even in high density urban canyon;
- High gain internal GNSS and GSM antennas;
- 2 LED status indication;
- Real-time tracking;
- Smart data acquisition based on:
    - Time;
    - Angle;
    - Distance;
    - Ignition or any other I/O event.
- Sending acquired data via GPRS;
- GPRS and SMS I/O events;
- Virtual odometer;
- Jamming detection;
- Configurable using Secured SMS Commands;
- Overvoltage protection.

Description	Voltage	Duration
Normal operation	+10 ... +30 V	Unlimited
Protection turns on, device turns off	34 V	Unlimited
Maximum voltage	<70 V	Unlimited
Maximum voltage impulse	90 V	5 ms

Technical features

Part name	Physical specification
Navigation indication	LED

Modem indication	LED
USB	USB TYPE-B socket
GNSS	Internal GNSS antenna
GSM	Internal GSM antenna

Technical details

2 W max. Current consumption at 12 V (Power supply 10...30 V DC)	GPRS: average 6.5 mA Nominal: average 26.6 mA, GNSS sleep: average 8.6 mA Deep Sleep: average 3.8 mA Online Deep Sleep: average 4.1 mA Ultra Deep Sleep: average 1.4 mA
Battery charge current	Average 200 mA
Rated current	250 mA
Operating temperature (without battery)	-40..+85 °C
Storage temperature (without battery)	-40..+85 °C
Storage relative humidity	5..95% (no condensation)
Device + case + battery weight	350 g

Technical information about internal battery

Internal back-up battery	Battery voltage (V)	Nominal capacity (mAh)	Power (Wh)	Charging temperature (°C)
Ni-MH Battery	6.8□7.2	400	2.82 – 2.88	0 – 45

Batteries are covered by 6 month warranty support.

CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Battery should not be disposed of into general household waste.
Bring damaged or worn-out batteries to your local recycling center or dispose them into a battery recycle bin commonly found in supermarkets.

Electrical characteristics

Characteristic description	Value			
	Min.	Typ.	Max.	Unit
Supply Voltage:				

Supply Voltage (Recommended Operating Conditions)	+10		+30	V

Absolute maximum ratings

Characteristic description	Value			
	Min.	Typ.	Max.	Unit
Supply Voltage (Absolute Maximum Ratings)	-30		+30	V