



**BE2A**  
А Б С О Л Ю Т

**VEGA**



**FLEET MANAGEMENT  
SOLUTIONS**



# History

■ «Vega-Absolute» was founded in Novosibirsk in 1996 and for more than a quarter of the century has been developing and manufacturing high-tech radio-electronic equipment for communication and transport industries.

■ The company develops and produces devices for tracking, video monitoring, navigation, as well as security systems, climate control systems for vehicles, devices for the IoT market and etc.

Therefore, the company implements contract development and equipment production for individual orders, while providing regular technical support for a client at all project stages.

«Vega-Absolute» is a backbone organization that influences employment and social stability in the Novosibirsk region.

For two years in a row, the company is the winner of the regional award «Best Enterprise» in the «Innovation» category.

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**VEGA**

# Production cycle



1. Idea



2. Project



3. Software development



4. Cases and boards development



5. Mold production



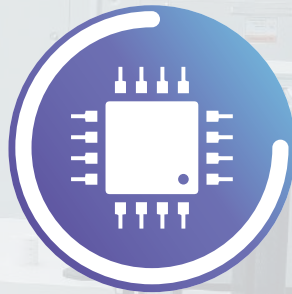
6. Case manufacturing

■ «Vega-Absolute» is the company with the full production cycle from idea to final product.

■ The company has implemented more than 200 projects in the areas of fleet management systems, building IoT networks, established effective cooperation with market leaders, built partner network, both in Russia and abroad.



7. Harnes production



8. Mounting components on printed circuit boards



9. Programming



10. Assembling



11. Function test



12. Packaging and distribution

**27+**

years on the market

**200+**

product names

**1 000 000+**

manufactured devices per year

# Certificates

In 2021, «Vega-Absolute» has confirmed the compliance of the quality management system implemented at the enterprise with the requirements of international standards ISO 9001 and IATF 16949



## СЕРТИФИКАТ



настоящим удостоверяет, что предприятие

### ООО «Вега-Абсолют»

ул. Керова, 113/1,  
630008, Новосибирск,  
Российская Федерация

внедрило и использует  
**Систему Менеджмента Качества**

Область деятельности:  
Проектирование и производство продукции для мониторинга, выработки/контроля, охранно-противопожарной электроники, электронной информатики/таблиц, телеметрии

Путем аудита, задокументированного в отчете. Было доказано, что эта система менеджмента качества соответствует требованиям следующего международного стандарта автоматизированной промышленности:

### IATF 16949:2016

(в разрабатываемой отрасли)

Рис.  
Дат.  
Стр.  
Дат.  
Изд.  
  
Дл.  
  
Изд.  
Диа.  
  
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# MT-5



■ Vega MT-5 is a popular solution for vehicle fleet control.

Available upon request: with or without a battery on board, as well as a choice of interface – RS-485 or CAN bus support. The basic version of the device is supplied without CAN and RS-485 interfaces.

The built-in Bluetooth module allows you to work with BLE sensors.

Supported protocols: Wialon IPS, Wialon Combine, VEGA.



## Size/weight in package

84 x 115 x 30 mm; without battery  
109 g / with battery 112 g

## Order options

with battery / without battery  
CAN / RS-485 / without CAN and  
RS-485 interfaces



- 1 GSM connection indicator
- 2 Power indicator
- 3 GNSS indicator
- 4 CAN1 H / RS-485 B
- 5 A digital output
- 6 Ignition monitoring input
- 7 Power +
- 8 CAN1 L/ RS-485 A
- 9 1-Wire
- 10 A multifunctional input
- 11 Ground -
- 12 Micro-USB connector



## Characteristics



Ingress Protection Rating  
(IP 40)



Built-in Battery  
200 mAh\*



Integrated GSM antenna and  
GLONASS/GPS antennas



2 SIM card slots



Supply voltage



GSM/GPRS/GNSS modem

\*availability of battery depends on the  
delivery option



## Device dimensions

59 x 60 x 18 mm

## Interfaces



RS-485 for connecting  
digital fuel level sensors\*



Operation with  
CAN-buse\*



A multifunctional input



A digital output of the  
«open collector» type



Ignition control input



BT3.0 + BLE



1-Wire






Micro-USB

\*availability of interfaces depends on  
the delivery option

# MT X CAN

■ Vega MT X is available in three versions to suit different needs. In conditions of a strong signal, a unit with integrated antennas is suitable. If you need to use remote antennas, the best solution would be MT X Ext; and in cities with high traffic, an LTE modem will help out.

Supported protocols: Wialon IPS, Wialon Combine, VEGA, EGTS, NDTP.

|                             | Vega MT X CAN Int  | Vega MT X CAN Ext  | Vega MT X CAN LTE   |
|-----------------------------|--|--|---|
|                             |   |    |    |
| Features                    | <ul style="list-style-type: none"> <li>■ Integrated antennas</li> <li>■ GSM modem 850/900/1800/1900, GPRS class 12</li> <li>■ BLE sensors support</li> </ul> | <ul style="list-style-type: none"> <li>■ External antennas</li> <li>■ GSM modem 850/900/1800/1900, GPRS class 12</li> <li>■ BLE sensors support</li> </ul> | <ul style="list-style-type: none"> <li>■ External antennas</li> <li>■ LTE Cat 1</li> <li>■ GSM / GPRS / EDGE 900/1800</li> <li>■ Modification with BLE sensors support</li> </ul> |
| Device dimensions           | 110 x 67 x 20 mm   | 110 x 67 x 20 mm   | 110 x 67 x 20 mm  |
| Size/weight in package      | 152 x 123 x 38 mm, 271 g   | 152 x 123 x 38 mm, 385 g   | 152 x 123 x 38 mm, 372 g  |
| QR code on the product page |   |    |    |

## Characteristics



Ingress Protection Rating (IP 53)



Built-in Battery 580 mAh



Integrated or external GSM antenna and GLONASS/GPS antennas



2 slots for SIM cards or 2 SIM chip to choose from



Supply voltage



GSM/GPRS/GNSS modem

## Interfaces



RS-485 for connecting digital fuel level sensors



3 multi-function inputs



1-Wire



RS-232 for connecting external devices



4 digital outputs of the «open collector» type



Mini-USB



Lin/K-Line interface



Ignition control input



UART



Operation with 3 CAN-buses



# Comparative characteristics



|                           | CAN-buse | Battery | Voice | GSM modem | GSM antenna | GNSS antenna | MFI* | DO** |
|---------------------------|----------|---------|-------|-----------|-------------|--------------|------|------|
| <b>MT-5</b>               | -        | +<br>-  | -     | 2G        | int.        | int.         | 1    | 1    |
| <b>MT-5 RS-485</b>        | -        | +<br>-  | -     | 2G        | int.        | int.         | 1    | 1    |
| <b>MT-5 CAN</b>           | 1        | +<br>-  | -     | 2G        | int.        | int.         | 1    | 1    |
| <b>MT X CAN Int</b>       | 3        | +       | -     | 2G        | int.        | int.         | 3    | 4    |
| <b>MT X CAN Ext</b>       | 3        | +       | -     | 2G        | ext.        | ext.         | 3    | 4    |
| <b>MT X CAN LTE</b>       | 3        | +       | -     | LTE       | ext.        | ext.         | 3    | 4    |
| <b>MT X CAN LTE BLE</b>   | 3        | +       | -     | LTE       | ext.        | ext.         | 3    | 4    |
| <b>MT-21</b> (in archive) | -        | -       | -     | 2G        | int.        | int.         | 2    | 2    |
| <b>MT-23</b> (in archive) | -        | +       | -     | 2G        | int.        | int.         | 2    | 2    |
| <b>MT-24</b> (in archive) | 2        | +       | -     | 2G        | int.        | int.         | 2    | 2    |
| <b>MT-25</b> (in archive) | 2        | +       | +     | 2G        | int.        | ext.         | 4    | 4    |

\* MFI – multi-function input

\*\* DO – digital outputs

|                             | Bluetooth     | RS-232 | RS-485 | UART | SIM | USB   | 1-Wire | Tamper sensor |
|-----------------------------|---------------|--------|--------|------|-----|-------|--------|---------------|
| <b>MT-5</b>                 | BT3.0<br>+BLE | -      | -      | -    | 2   | micro | +      | -             |
| <b>MT-5<br/>RS-485</b>      | BT3.0<br>+BLE | -      | 1      | -    | 2   | micro | +      | -             |
| <b>MT-5<br/>CAN</b>         | BT3.0<br>+BLE | -      | -      | -    | 2   | micro | +      | -             |
| <b>MT X<br/>CAN Int</b>     | BT3.0<br>+BLE | 1      | 1      | 1    | 2   | mini  | +      | +             |
| <b>MT X<br/>CAN Ext</b>     | BT3.0<br>+BLE | 1      | 1      | 1    | 2   | mini  | +      | +             |
| <b>MT X<br/>CAN LTE</b>     | -             | 1      | 1      | 1    | 2   | mini  | +      | +             |
| <b>MT X CAN<br/>LTE BLE</b> | BT3.0<br>+BLE | 1      | 1      | 1    | 2   | mini  | +      | +             |
| <b>MT-21</b> (in archive)   | BT3.0         | -      | 1      | 1    | 1   | micro | +      | -             |
| <b>MT-23</b> (in archive)   | BT3.0         | -      | 1      | 1    | 1   | micro | +      | -             |
| <b>MT-24</b> (in archive)   | BT3.0         | -      | 1      | 1    | 1   | micro | +      | -             |
| <b>MT-25</b> (in archive)   | BT3.0         | 1      | 1      | -    | 2   | mini  | +      | +             |

# MX600L



■ Vega MX600L is a new generation GNSS Beacon with 2 SIM-cards.

Autonomous power provide ability to place device hidely and thanks to a sealed case and a special magnetic mount (order option), the device can be installed outside the car (for example, under the hood or on the external elements of the body).

Supported protocols: Wialon IPS 2.0, VEGA.



Device dimensions

∅ 64 x 30 mm

Size/weight in package

94 x 68 x 47 mm, 110 g

Order options

magnets, clamps

■ The personal account has received a modern design and has been seriously redesigned: a one-time addition of devices has been implemented by uploading a file with an IMEI list, functions have appeared for combining devices into groups, creating reports and controlling entry/exit from a geofence.



## Characteristics



Ingress Protection Rating  
(IP 67)



Total battery capacity  
3000 mAh



GSM/GPRS/GNSS modem



2 slots for SIM cards or  
2 SIM chip to choose from



Integrated GSM antenna and  
GLONASS/GPS antennas



Magnetic mount

■ The updated functionality opens up wide possibilities for the user. These include flexible settings for the communication schedule, determining the fact of removal from an object using a light sensor, working with geofences, and the new case allows you to change the battery without removing the main mount.

## Functional



The wake-up period  
is adjustable from 1 minute  
to 30 days



Ability to set up to 6 alarms  
to wake up the device at  
a specified time



Black box with storage  
capacity for up to  
5000 messages



Control of entry and exit to  
a given geofence



Light sensor



Coordinates are sent to the  
user by choose: with SMS  
and/or on the server



Built-in three-axis motion  
sensor



Flexible settings sensor  
settings, GNSS receiver  
settings, device actions





# MX500, MX510



## Functional


 The wake-up period is adjustable from 1 minute to 30 days

 Coordinates are sent to the user by choose: with SMS and/or on the server

 Ability to set up to 6 alarms to wake up the device at a specified time

 Built-in three-axis motion sensor

 Black box with storage capacity for up to 5000 messages



 Flexible settings sensor settings, GNSS receiver settings, device actions

 Control of entry and exit to a given geofence

■ Vega MX500 and MX510 is a new generation GNSS beacon with two SIM cards.

Autonomous power supply allows hidden installation of the device, and thanks to the hermetic case, the device can be installed outside the car (for example, under the hood or on external body elements).

Supported protocols: Wialon IPS 2.0, VEGA.


|   | Characteristics  | Dimensions   |
|---|--|--|
|  <p>Bera MX500</p>   | <ul style="list-style-type: none"> <li>■ Ingress Protection Rating (IP 50)</li> <li>■ Total 2 battery capacity 3000 mAh</li> <li>■ GSM/GPRS/GNSS modem</li> <li>■ Integrated GSM antenna and GLONASS/GPS antennas</li> </ul>                           | <p>Device dimensions<br/>70 x 40 x 20 mm</p> <p>Size/weight in package<br/>115 x 84 x 30 mm, 83 g</p>  |
|  <p>Bera MX510</p> | <ul style="list-style-type: none"> <li>■ Ingress Protection Rating (IP 65)</li> <li>■ Total 2 battery capacity 3000 mAh</li> <li>■ GSM/GPRS/GNSS modem</li> <li>■ Integrated GSM antenna and GLONASS/GPS antennas</li> <li>■ Magnetic mount</li> </ul> | <p>Device dimensions<br/>85 x 60 x 25 mm</p> <p>Size/weight in package<br/>115 x 84 x 30 mm, 155 g</p> |




## Functional



The wake-up period is adjustable from 1 minute to 30 days



Coordinates are sent to the user by choose: with SMS and/or on the server




Ability to set up to 6 alarms to wake up the device at a specified time



Built-in three-axis motion sensor



Black box with storage capacity for up to 5000 messages



Flexible settings sensor settings, GNSS receiver settings, device actions



Control of entry and exit to a given geofence

## Device dimensions

93 x 78 x 37 mm

## Size/weight in package

110 x 80 x 47 mm, 285 g

■ Vega MX710 is a new generation GNSS beacon with 2 SIM cards.

Autonomous power supply allows hidden installation of the device, and thanks to the hermetically sealed case and special magnetic attachment, the device can be installed outside the car (for example, under the hood or on external body elements).

Supported protocols: Wialon IPS 2.0, VEGA.




## Characteristics



Ingress Protection Rating (IP 67)



Integrated GSM antenna and GLONASS/GPS antennas



2 slots for SIM cards or 2 SIM chip to choose from



GSM/GPRS/GNSS modem



Total battery capacity 12,8 Ah



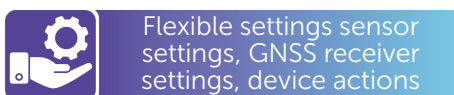
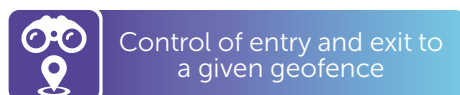
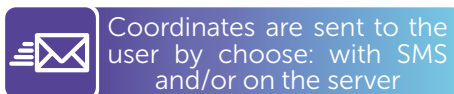
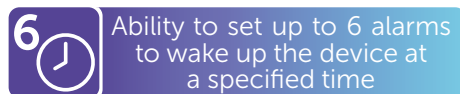
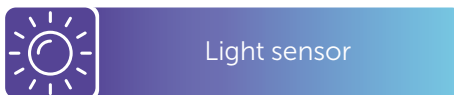
Magnetic mount



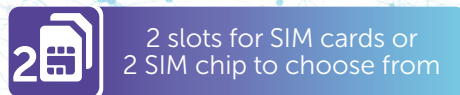
# MX810



## Functional



## Characteristics

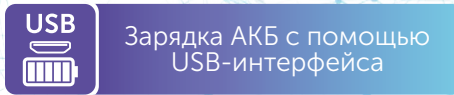


## Device dimensions

93 x 78 x 37 mm

Size/weight in package

110 x 80 x 47 mm, 285 g

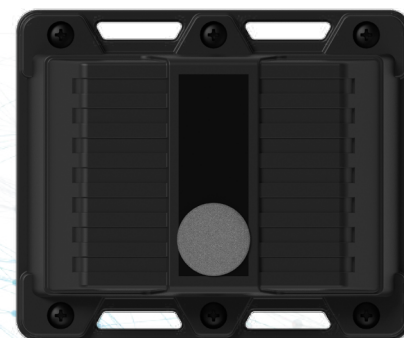


■ Vega MX810 is a new generation GNSS beacon with 2 SIM cards.

Autonomous power supply allows hidden installation of the device, and thanks to the hermetically sealed case and special magnetic attachment, the device can be installed outside the car (for example, under the hood or on external body elements).

The body of the device is equipped with a sealed silicone plug, which allows you to charge the Vega MX810 without disassembling the device.

Supported protocols: Wialon IPS 2.0, VEGA.



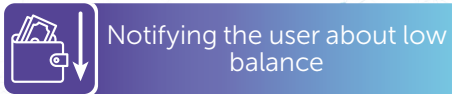
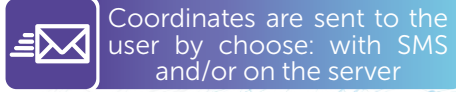
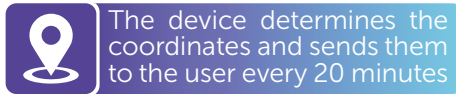
## Характеристики



■ Vega M50 is a GNSS Beacon with an extended functionality in a compact case with IP54 protection rating. Designed to determine the exact location of the device using GNSS satellites or GSM base stations. Compact size and autonomous power provide ability to place device hidely.

Supported protocols: Wialon IPS 2.0, VEGA.

## Functional



Device dimensions

55 x 40 x 20 mm

Size/weight in package

115 x 84 x 30 mm, 63 g

# M100, M110

## Functional



The device exits from sleep mode 1, 2 or 3 times a day



Built-in three-axis motion sensor



The device determines the coordinates and sends them to the user every 20 minutes



Notifying the user about low balance



Control of entry and exit to a given geofence



Free personal account



Coordinates are sent to the user by choose: with SMS and/or on the server



Notifying the user when the battery is low

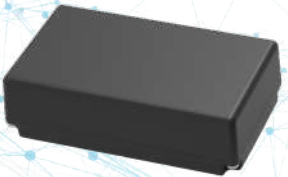

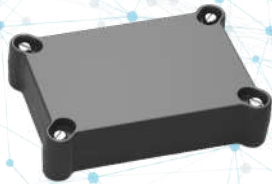

■ Vega M100 is a GNSS Beacon with an extended functionality in a compact case with IP54 protection rating. Compact size and autonomous power provide ability to place device hidely.

Supported protocols: Wialon IPS 2.0, VEGA.

■ Vega M110 is a GNSS Beacon with an extended functionality in a sealed case with IP67 protection rating.

Autonomous power provide ability to place device hidely and thanks to a sealed case and a special magnetic mount, the device can be installed outside the car (for example, under the hood or on the external elements of the body).

Supported protocols: Wialon IPS 2.0, VEGA.

|   | Characteristics  | Dimensions   | QR code   |
|---|--|--|---|
|  <p><b>Bera M100</b></p>  | <ul style="list-style-type: none"> <li>■ Ingress Protection Rating (IP 50)</li> <li>■ Total 2 battery capacity 3000 mAh</li> <li>■ GSM/GPRS/GNSS modem</li> <li>■ Integrated GSM antenna and GLONASS/GPS antennas</li> </ul>                           | <p>Device dimensions<br/>70 x 40 x 20 mm</p> <p>Size/weight in package<br/>115 x 84 x 30 mm, 83 g</p>  |   |
|  <p><b>Bera M110</b></p> | <ul style="list-style-type: none"> <li>■ Ingress Protection Rating (IP 65)</li> <li>■ Total 2 battery capacity 3000 mAh</li> <li>■ GSM/GPRS/GNSS modem</li> <li>■ Integrated GSM antenna and GLONASS/GPS antennas</li> <li>■ Magnetic mount</li> </ul> | <p>Device dimensions<br/>85 x 60 x 25 mm</p> <p>Size/weight in package<br/>115 x 84 x 30 mm, 155 g</p> |  |





■ Vega M410 is a GNSS Beacon with 2 SIM-cards in a sealed case with IP67 protection rating.

For operation in severe climatic conditions, the Vega M410 is equipped as standard with a high-capacity battery designed for operation in the temperature range from -55 to +85 °C.

Supported protocols: Wialon IPS 2.0, VEGA.



## Characteristics

-  Ingress Protection Rating (IP 67)
-  Total battery capacity 12,8 Ah
-  Integrated GSM antenna and GLONASS/GPS antennas
-  GSM/GPRS/GNSS modem

## Functional

-  The device exits from sleep mode 1, 2 or 3 times a day
-  The device determines the coordinates and sends them to the user every 20 minutes
-  Control of entry and exit to a given geofence
-  Coordinates are sent to the user by choose: with SMS and/or on the server
-  Built-in three-axis motion sensor
-  Notifying the user about low balance
-  Free personal account
-  Notifying the user when the battery is low



## Device dimensions

93 x 78 x 37 mm

**Size/weight  
in package**

110 x 80 x 47 mm, 285 g

# Comparative characteristics

|                           | <b>MX600L</b>   | <b>MX500</b>      | <b>MX510</b> | <b>MX710</b>      | <b>MX810</b> | <b>M50</b>        | <b>M100</b>  | <b>M110</b>  | <b>M410</b>     |
|---------------------------|-----------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|--------------|-----------------|
| Device dimensions, mm     | ∅ 64 x 30       | 70 x 40 x 20      | 85 x 60 x 25 | 93 x 78 x 37      | 93 x 78 x 37 | 55 x 40 x 20      | 70 x 40 x 20 | 85 x 60 x 25 | 93 x 78 x 37    |
| Ingress Protection Rating | IP 67           | IP 50             | IP 65        | IP 67             | IP 67        | IP 50             | IP 50        | IP 65        | IP 67           |
| Mounting                  | Magnets, clamps | Double sided tape | Magnets      | Magnets or clamps |              | Double sided tape |              | Magnets      | Magnets, clamps |
| Total batteries capacity  | 3000 mAh        | 3000 mAh          | 3000 mAh     | 12800 mAh         | 5300 mAh     | 1500 mAh          | 3000 mAh     | 3000 mAh     | 12800 mAh       |
| SIM cards quantity        | 2*              | 2*                | 2*           | 2*                | 2*           | 1                 | 1            | 1            | 2*              |
| Modem                     | 2G              | 2G                | 2G           | 2G                | 2G           | 2G                | 2G           | 2G           | 2G              |
| Bluetooth                 | +               | +                 | +            | +                 | +            | -                 | -            | -            | -               |
| Motion sensor             | +               | +                 | +            | +                 | +            | +                 | +            | +            | +               |
| Light sensor              | +               | -                 | -            | -                 | +            | -                 | -            | -            | -               |

\* SIM chips can also be installed

■ Vega TR-1 exercises quality control over the provision of services for the transportation of perishable goods and medicines by refrigerated trucks.

Constant monitoring of temperature conditions inside the refrigerator takes place in relation to the current time and coordinates of the vehicle. The temperature profile is stored in non-volatile memory throughout the trip.

It is possible to print a short report on the temperature conditions observed during the trip on the built-in thermal printer.

Supports the connection of external sensors via radio, which eliminates the need to lay wires inside the refrigerator.

## Functional

- Printout of temperature for a specified period of time
- Remote software update via GSM/3G network
- Setting up Vega TR-1 via GPRS, USB, Bluetooth
- Supported protocols: Wialon-IPS, Wialon Combine, EGTS, NDTP, VEGA
- Driver identification via I-Button key
- Control of actuators by command and by events
- SMS alerts
- LoRa radio channel (868 MHz) for 10 autonomous radio sensors (temperature, humidity, door opening)
- Built-in CAN processor

■ Registration in the internal memory and online transmission to monitoring services of data on the refrigeration unit (RU):

- Operating modes;
- Temperature/humidity of the cargo;
- The total number of operating hours of the RU engine;
- RU fuel level;
- Battery voltage;
- Engine revolutions;
- Opening RU doors;
- Coordinates of the vehicle (latitude, longitude, height);
- Speed, acceleration and direction of movement of the vehicle;
- Status of analog and digital inputs/outputs.

## Characteristics



Ingress Protection Rating (IP 65)



Integrated GSM antenna and GLONASS/GPS antennas



2 slots for 2 SIM cards



High contrast OLED display



1 год 1 year memory capacity with 10 sensors and 1 minute logging interval



Modular thermal printer with special thermal tape

## Device dimensions

93 x 78 x 37 mm

## Receipt tape size

width 57mm, diameter 40 mm



# Vega MT Configurator



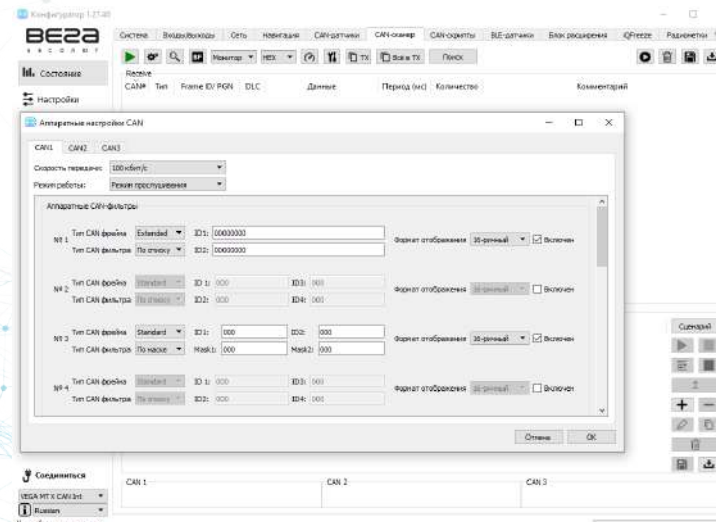
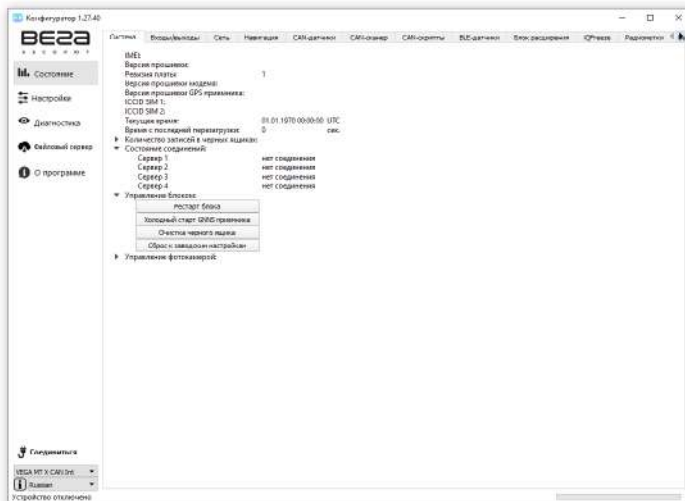
■ Vega MT Configurator is an application for connecting to GNSS Trackers of the Vega MT series and making individual settings. In addition, the application allows you to work with the vehicle's CAN bus, load previously saved settings from a file, save settings to a file, and send commands to GNSS Trackers.

Vega MT Configurator provides access to file storage on the Vega server and gives the ability to download the latest firmware, applications, drivers for working with GNSS Trackers, documentation, Wialon templates and sensor configurations for working with CAN buses of various vehicle models.



## FEATURES

- Connection to GNSS Trackers via USB and TCP
- Individual configuration of GNSS Trackers
- Access to file storage
- Loading settings from file and saving settings to file
- Device management
- Working with CAN-bus
- Diagnostic function of the GNSS Tracker with the generation of a report
- Application completely free







# Vega M Configurator



■ Vega M Configurator is an application for connecting to GNSS Beacons of the Vega M series and making individual settings. In addition, the application allows you to update firmware on the device.

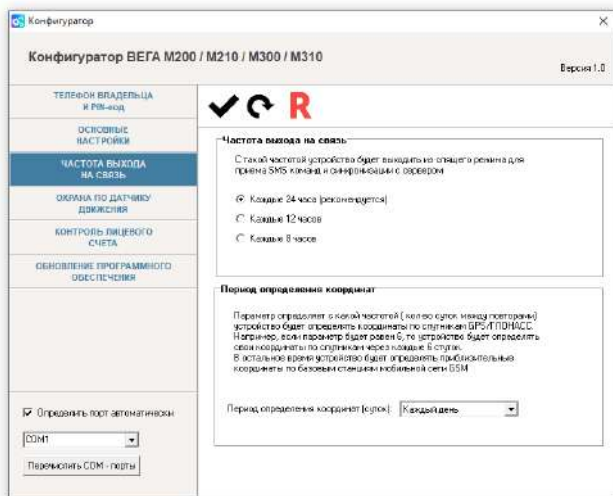
The Vega M100 Configurator is designed to work with Vega M50, Vega M100, Vega M110 and Vega M410 devices.

Vega M200 Configurator, in turn, is designed for Vega M200, Vega M210, Vega M300 and Vega M310 devices.



## FEATURES

- Connection to GNSS Beacons via USB (COM-port)
- Individual configuration of GNSS Beacons
- Firmware updating on the device
- Application completely free



## Vega MT Upload

■ Vega MT Upload is an application for uploading firmware to Vega MT GNSS Trackers. The application allows you to connect to an unlimited number of devices and automatically download the firmware to them. The program also allows you to create lists of devices with PIN-codes to access them and save these lists to a file. Such a list will subsequently save time for accessing a large number of devices and downloading firmware to them.

### Features

- Window application
- Unlimited number of devices to connect
- Simultaneous download of firmware for 1000 devices
- Application completely free
- The application is provided by technical support upon request



## Engineering server

■ An engineering server is required to connect via the Configurator to Vega MT GNSS Trackers. The server is used to control the device, view its settings and configure.

### Features

- Console application
- Compatible with GNSS Trackers of the Vega MT series
- Application completely free



## Available for MX:

### Personal account VEGA-MX

■ A browser application for accessing the user's personal account allows you to add search devices, configure them and view their status and coordinates on an interactive map.

## In development for MX:

### Vega MX Control

■ The mobile application is designed to configure, diagnose and update the device firmware via Bluetooth, as well as to access the user's personal account.

## RK-2.4

■ The Vega RK-2.4 pack consists of two RF tags, a wireless locking relay, and a reader that can communicate with tags and relays over the air. The reader can be used both with tags without relays and with relays without tags, depending on the specific task. Scope of delivery also varies freely.

As much as possible you can enter data on three tags and five locking relays into one reader.

The pack is intended for use in conjunction with a GNSS Tracker that controls the locking relay, using the reader as an intermediary.

### Features

- Scope of delivery varies on request
- Support for up to five locking relays
- Support for up to three RF tags
- Compatible with all GNSS Trackers having an open collector type output and a digital input



### Characteristics

#### Locking relay

- Device dimensions  
55 x 20 x 10 mm
- Ingress Protection Rating  
IP 50
- Supply voltage 9-12 V
- Operating frequencies  
range 2400-2525 MHz
- Maximum switching  
current 10 A
- Maximum switching  
voltage 16 V

#### RF tag

- Device dimensions  
41 x 30 x 5 mm
- Ingress Protection Rating  
IP 50
- Power supply Battery  
CR2032 3 V 220 mAh
- Operating frequencies  
range 2400-2525 MHz
- Maximum battery life  
1,5 years

#### Reader

- Device dimensions  
45 x 21 x 12 mm
- Ingress Protection Rating  
IP 50
- Supply voltage 12 V
- Operating frequencies  
range 2400-2525 MHz
- Relay control input
- Tag presence output



## K-232

■ UART<-->RS-232 converter is designed to connect external devices with RS-232 interface to devices with UART interface such as Carrier DataCold temperature recorder, JPEG camera and others.

An additional feature of the converter is the presence of a 5 V output for powering connected devices.

### Features

- Delivery varies on request
- Available with soldered wires
- Output for powering external devices 5 V



## RP-2

■ The Vega RP-2 port replicator is intended for connection to devices of the Vega MT series for increasing the number of inputs and outputs of the GNSS Tracker.

The replicator is connected via RS-232, RS-485 or UART and has 4 digital open collector outputs and 6 multifunctional inputs.

The port replicator is configured remotely through the Configurator application when connected to the GNSS Tracker that is supposed to be expanded.

### Features

- Compatible with all Vega MT devices
- 4 digital open drain outputs
- 6 multifunctional inputs
- Configurable via the Configurator



## SA-1

■ Antijammer is designed to detect the fact of premeditated interference in the GPS and GSM bands and send a signal to the outputs based on this event.

The antijammer has an open drain output, as well as an output with the ability to supply switching power to an external device, which allows it to be used in various ways.

### Features

- Two modes of operation
- Open drain output
- Switching power output



## SD-1

■ Vega SD-1 speaker is designed to connect to devices with the aim of reproducing sound. The speaker is connected to the amplifier with two wires. Also, the speaker has mounting holes on both sides of the housing.

### Features

- Compatible with all GNSS Trackers having a sound output
- Sensitivity 83 dB
- Maximum power 3.5 W



## SM-1

■ The microphone has a shielded cable, the central core of which is marked MIC\_P, and the braid is MIC\_N.

Additional settings after connecting the microphone does not require.

### Features

- Compatible with all GNSS Trackers having a microphone input
- Sensitivity 44 dB



## ST-1

■ The temperature sensor is a thermistor in a heat-resistant housing with convenient mounting and with a cable length of 1 m.

The error of the measured temperature is not more than  $\pm 1\%$ .

### Features

- Compatible with all GNSS Trackers having a temperature input



## Characteristics



## Device dimensions

70 x 70 x 20 mm

## Size/weight in package

156 x 120 x 36 mm, 211 g

■ Vega MT-21 is a classic lightweight model without a built-in battery and without a CAN processor.

Supported protocols: Wialon IPS, Wialon Combine, VEGA, EGTS, NDTP.



## Interfaces








# MT-23

■ Vega MT-23 is a classic model with a built-in battery, without a CAN processor.









Supported protocols: Wialon IPS, Wialon Combine, VEGA, EGTS, NDTP.



## Characteristics

-  Ingress Protection Rating (IP 53)
-  1 SIM card
-  Built-in Battery and Supply voltage 9-36 V
-  Integrated GSM antenna and GLONASS/GPS antennas
-  GSM/GPRS/GNSS modem

## Interfaces

-  RS-485 for connecting digital fuel level sensors
-  BT3.0
-  2 multi-function inputs
-  1-Wire
-  2 digital outputs of the «open collector» type
-  Micro-USB
-  Ignition control input
-  UART 3,3 B



## Device dimensions

70 x 70 x 20 mm

Size/weight  
in package

156 x 120 x 36 mm, 216 g



## Characteristics



Ingress Protection Rating  
(IP 53)



Built-in Battery



GSM/GPRS/GNSS modem



■ Vega MT-24 is a classic model of a monitoring unit with a built-in CAN processor.  
 Supported protocols: Wialon IPS, Wialon Combine, VEGA, EGTS, NDTP.



## Device dimensions

70 x 70 x 20 mm

## Size/weight in package

156 x 120 x 36 mm, 220 g

## Interfaces



RS-485 for connecting  
digital fuel level sensors



Built-in CAN-processor with  
supporting of two  
CAN-buses



2 digital outputs of the  
«open collector» type



2 multi-function inputs



Ignition control input



BT3.0



1-Wire



Micro-USB

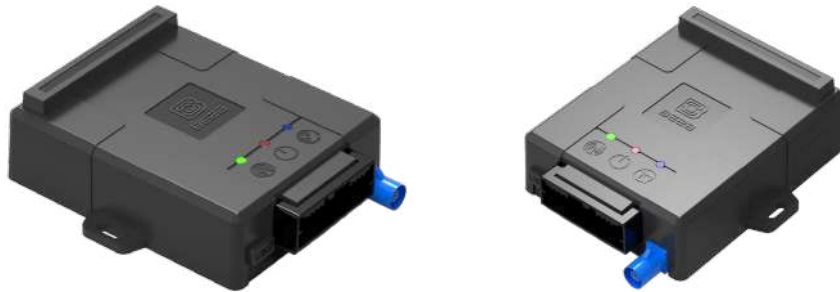


UART

# MT-25

■ Vega MT-25 is a monitoring unit with support for two-way voice communication «driver/dispatcher». The external location of the antenna allows you to achieve reliable reception of signals from satellites.

Supported protocols: Wialon IPS, Wialon Combine, VEGA, EGTS, NDTP.



## Characteristics



Ingress Protection Rating (IP 53)



Built-in Battery



GSM/GPRS/GNSS modem

## Interfaces



RS-485 for connecting digital fuel level sensors



Ignition control input



RS-232 for connecting external devices



BT3.0



Built-in CAN-processor with supporting of two CAN-buses \*



1-Wire



4 digital outputs of the «open collector» type



Mini-USB



4 multi-function inputs



Voice connection

\*availability of CAN depends on the delivery option



## Device dimensions

70 x 70 x 20 mm

Size/weight  
in package

152 x 123 x 38 mm, 325 g

## Order options

with CAN processor /  
without CAN processor

# Our partners



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