



NAVIGATION CONTROLLER

DOT L3 / L3R

Technical certificate



General information:

Dot L3 (further on - "tracker") is the most compact navigation controller in our production line, which uses 2G GSM channel to monitor both movable and immovable objects. The device can transfer data up to 2 servers simultaneously.

To widen the tracker's ability to control a vehicle or installed on-board hardware, **Dot L3 can connect to a variety of sensors**, including **discreet, analog, frequency-pulse, digital (RS485) and Bluetooth sensors**.

Backup battery allows the device to work uninterrupted if the external power supply is disconnected. Moreover, tracker notifies user if such a situation happens.

Built-in motion sensor is used to optimize power consumption and as a measure to control driving style.

Additional features such as **universal BLE integration and white/black list of GSM operators** allows this device to be truly easy to use and versatile.

Technical data

General technical specifications are given in Table №1.

Table №1 - Technical data

Characteristics	Notes	Values
Dimensions, mm.	Excluding antennas and wiring	61 x 42 x 15
Weight, gr.	Excluding antennas, wiring and battery	36
Supply voltage, V	With no regard to impulse emissions	8 - 40
Working temperature, °C	Excluding battery	-40 ... +85
Non-inverting DI, QTY	Log. level «1» for discreet mode: PIN2: up to 7 V PIN3: no less then 5,5V. Ranges from 0,6 to 30 V.	2
Inverting DI, QTY	Log. level «1» for discreet mode - up to 0,9 V.	1 (L3R) 3 (L3)
Inverting DO, QTY	Switching current up to 540 mA at 12 V	1
Motion sensor (accelerometer)	Built-in	есть
SIM slots	nanoSIM	1
SIM chip slots	Optional	1
Backup battery, mA	Protection against overcharging, full discharge, temperature control	100-250
Work time with battery, h	Value for 110 mAh battery	1
Full battery charge, h	Value for 110 mAh battery	1,5
Ingress Protection Code		IP54
Non-volatile memory, Mb	Up to 65000 events	32
USB	TYPE C for setup and diagnostics	+
RS485	For FLS, cameras, etc.	+ (L3R) - (L3)
Bluetooth 4.0 (LE)	For wireless sensors: FLS, temperature senors, etc.	+
GSM module		
WTT type	2G	
Frequencies	GSM/GPRS/EDGE: 850 / 900 / 1800 / 1900 MHz	
Antenna	Built-in	
Navigation module		
Positioning	GPS GLONASS BeiDou Galileo QZSS	
Antenna	Built-in	
Cold start, sec	28	
Hot start, sec	1	
Sensitivity, dBm	-167	
Positioning types		
Satellite	Via GPS GLONASS BeiDou Galileo QZSS	
LBS	Via GSM base stations	

* - Max. availabled QTY. Some of DI/DO are combined and are multi-purpose.

WARRANTY OBLIGATIONS

The service life of the equipment, excluding the backup battery, is 10 years.

The manufacturer does not guarantee the software and hardware compatibility of the device with software and hardware not included in the delivery package, except in cases where this is clearly stated in the User Manual.

The warranty does not apply to device upgrades.

Warranty does not apply in the following cases:

- if there is a violation of operating rules;
- if there are traces of mechanical damage (both external and internal);
- if the malfunctions are caused by ingress of external forces, insects or liquids;
- if there are traces of chemical, electrochemical, electrostatic and/or thermal damage;
- if the damage was done by power supply, communication or cable networks, which are not compliant with state standards;
- if the damage was done while installing parts and/or components, that are not approved by the manufacturer;
- if the repairs/maintenance during the warranty time was done by personal not authorized by the manufacturer;
- if the manufacturer's seals are damaged;
- if the deficiency of hardware's operation is caused by external influences on the hardware and the electrical circuit to which the hardware is connected;
- if the malfunction is caused by third-party actions or other unforeseen circumstances not related to the manufacturer's liability

Delivery package

The device is supplied in the configuration shown in Table №2.

Table №2 - Supply package

№	Name	QTY	Notes
1	Navigation controller	1	monitoring device
2	Set of connection wires	1	
3	Technical certificate	*	upon request

Warranty Ticket						
Name and type	Navigation controller «DOT L3_»					
Serial Number						
Date of purchase	«__» _____ 20__ <table><tr><td>date</td><td>month</td><td>year</td></tr></table>			date	month	year
date	month	year				
Seller						
Seller's sign and seal						