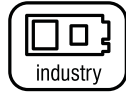




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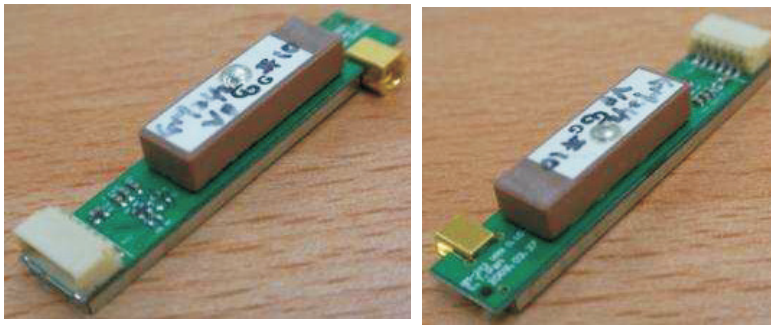


# Specification

## 60424

Navilock industry GPS Engine Module NL-531EUSB

EAN: 4043619604241

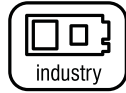


Test/sample photo!

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# Specification

## 60424

Navilock industry GPS Engine Module NL-531EUSB

EAN: 4043619604241

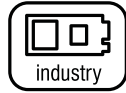
### Overview

NL-531EUSB is equipped with -159dBm engine, MMCX RF connector and measures just 42x8x6.5 (mm). The slim design allows it to be used in dimension demanding devices. The built-in USB interface makes it very easy to integrate with modern USB-rich devices such as notebook PC etc. Our experienced design provides not only fast acquisitions and excellent tracking performance but also quality and delivery assurance.

- USB interface
- Optional UART interface
- Slim: 42 (L) x 8 (W) x 6. 5 (H) (mm)
- Dual-antenna support: built-in patch antenna and
- RF connector for external active antenna
- Module ON/OFF control for power saving
- Backup power pin for fast position fix
- Easy to use 6-pin connector
- High performance: -159dBm tracking sensitivity
- A-GPS support
- Excellent EMI protection



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# Specification

## 60424

Navilock industry GPS Engine Module NL-531EUSB

EAN: 4043619604241

### Technical specifications

Receiver performance data

Receiver Type	u-blox 5, 50-channel, L1 frequency, C/A code
Horizontal Position Accuracy	< 2.5m (Autonomous) < 2.0m (WAAS) (CEP, 50%, 24-hour static, -130dBm, SEP < 3.5m )
Velocity Accuracy	<0.1 m/s (speed) <0.5° (heading) (50% @ 30 m/s)
Time To First Fix	Autonomous (All at -130dBm)
Hot start	1sec
Warm start	32sec
Cold start	32sec
Sensitivity	-142dBm (acquisition) (Autonomous) -159dBm (tracking & navigation)
Max. Update Rate	4Hz
Max. Altitude	< 18.000 m
Max. Velocity	< 1.852 km/hr
Protocol Support	NMEA 0183 v2.3 UART: 38400bps N,8,1; GGA, GLL, GSA, GSV, RMC, VTG, TXT
SBAS Support	WAAS, EGNOS, MSAS, GAGAN
Dynamics	< 4g



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# Specification

## 60424

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### Electrical data

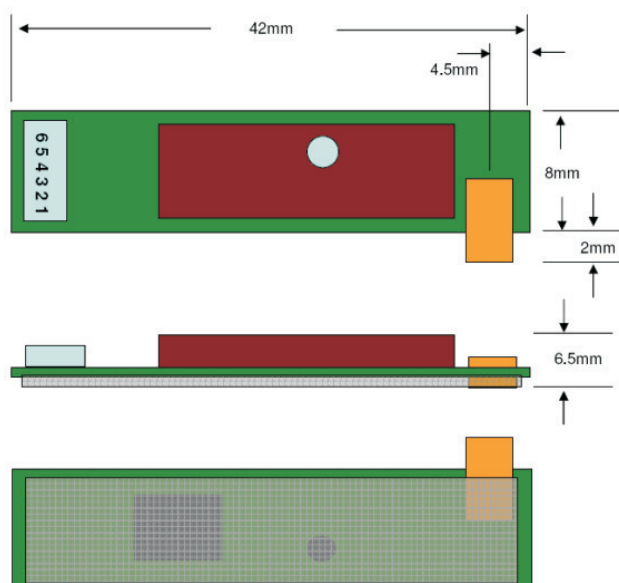
Power Supply	3.5 ~ 6 V
Power Consumption	55 mA / average tracking
Backup batterie	1,4 ~ 3,6 V

### Environmental data

Operating temperature	-40 ~ 85°C
Storage temperature	-40 ~ 85°C

### Mechanical data

Dimension	8 (W) x 42 (L) x 6,5 (H) mm
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# Specification

## 60424

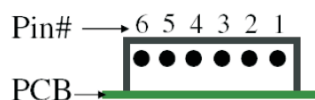
Navilock industry GPS Engine Module NL-531EUSB

EAN: 4043619604241

### 6-pin Interface (USB), pitch 1.0mm

Pin	Name	Function	I/O
1	GND	Ground	Input
2	VCC	3.3 ~ 6 V power supply	Input
3	DP	USB positive	I/O
4	DM	USB negative	I/O
5	V_BAT	Backup power (1.4 ~ 3.6V)	Input
6	PWR_CTRL	Module power control High or disconnected: power ON Low: power OFF	Input

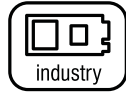
Host interface connector: 6 pin SMT male connector (product number (male): 87213-0600L connector vendor Aces Electronic CO. LTD).



cable optional: Delock A95835



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# Specification

## 60424

Navilock industry GPS Engine Module NL-531EUSB

EAN: 4043619604241

### **Support Navilock**

If you have further questions, please contact our customer support  
[support@navilock.de](mailto:support@navilock.de).

You can find current product information on our homepage: [www.navilock.com](http://www.navilock.com).

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