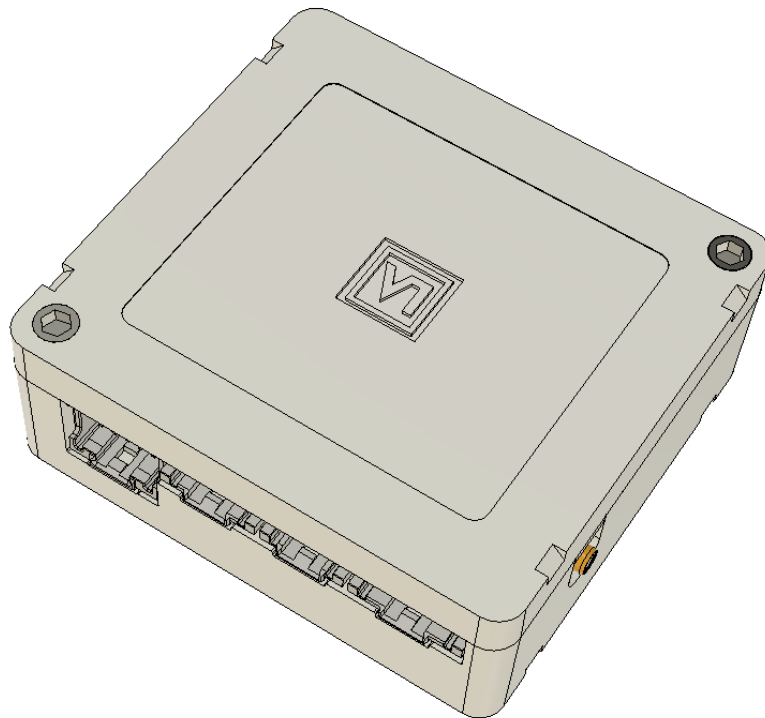


AIRNET

Control unit for UL aircraft tracking



Product description:

This device can track the aircraft's UL position and can be viewed remotely on a PC application with a digital map including speed, direction, altitude, and pilot's name. The pilot logs in using the assigned RFID chip. If the aircraft is within GSM signal range, the unit sends data in real-time. If there is a network outage or the aircraft is out of range of the BTS, the data is stored in the tracking unit's internal memory and when the signal is restored, it sends the data to storage on the ground. The theoretical range is limited by the GSM network principle (up to 35 km as the crow flies from the BTS). Considering the maximum height at which UL airplanes fly, this distance is more than sufficient. The tracking system consists of an RFID reader, a control unit, and an external GPS antenna. The data transfer takes place by intelligent means. It can be triggered based on a change in direction or a fundamental change in one of the parameters. So when the plane is flying straight, less data is sent than when the plane is turning. This results in great savings in data transmission.

Installing the device is not complicated. First, we fix the control unit in its place (we fix it with the help of tightening straps), we place the GPS antenna (it should be turned up to the sky and must not be hidden under the metal cover. The plastic cover is okay.) and place the RFID 125K reader (according to the relevant instructions). We connect everything electrically, connect the supply voltage and verify the functionality of the entire device (in the application). The device only works when the aircraft is turned on, but an additional battery can be installed if desired. In that case, the device can work for some time even after the power is turned off. A paid user account must be established to access the data. Please contact technical support for more information.

THIS PRODUCT IS NOT APPROVED FOR INSTALLATION ON CERTIFIED AIRCRAFT. THIS PRODUCT DOES NOT HAVE TSO CERTIFICATION.

Characteristic parameters:

<i>Parameter</i>	<i>min</i>	<i>Typ.</i>	<i>max</i>	<i>Unit</i>	<i>note</i>
Supply voltage	10	12	30	VDC	
Sleep current		5	10	mA	GSM and GPS are off
Power consumption by transmitting		3	4	W	
Internal protection fuse		1		A	Refundable fuse
Data transfer		GPRS			
GSM range		35		km	
GPS		YES			
Internal power battery		OPTIONAL			It is not a condition for the product to work
Backup battery		3,0		V	Lithium CR2032, saving settings

Mechanical parameters:

<i>Parameter</i>	<i>Value</i>	<i>Unit</i>	<i>note</i>
Width	67,2	mm	See Fig. 3 product dimension
Depth	25	mm	
High	72,1	mm	
Mounting holes	For 4 mm drawstring		
Weight	65	g	Without power battery

Operating conditions:

Parameter	Value	Unit	note
Working temperature	-20 ÷ 55	°C	
Humidity	20 ÷ 80 %	RH	
Atmospheric pressure	900 ÷ 1100	hPa	
IP	IP20	-	
Mounting type	By tying up	-	Tightening tapes
Working position	any	-	
Placement	Anywhere except metal objects (see note)	-	Do not place the product in metal covers that would prevent the passage of the RF signal. The product contains a GSM antenna. Place the product preferably away from metal objects (See Fig. 1).

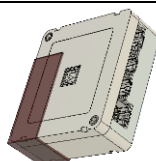


Fig. 1: Marking the zone that should not be covered by metal objects (highlighted part)

Legend for wiring the connectors:

Connector	Connected device	Note
A	RFID 125K	RFID card reader
B	Left out for later use	Do not connect
C	Left out for later use	Do not connect
D	Power supply	Cable for powering the product
RF	GPS antenna	Make sure the connector clicks properly
Deployment		

Fig. 2: Connectors on the product

Product dimension:

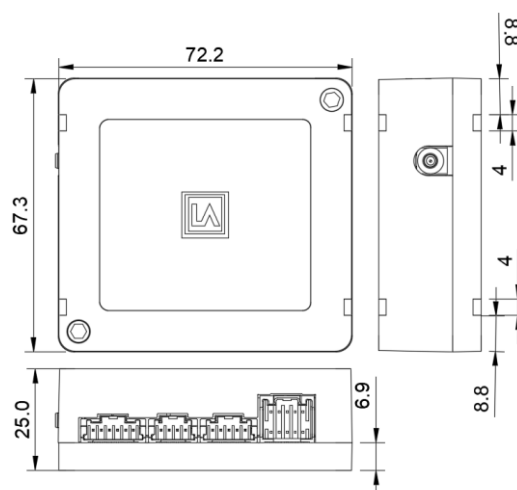


Fig. 3: Product dimension

Block diagram of product integration:

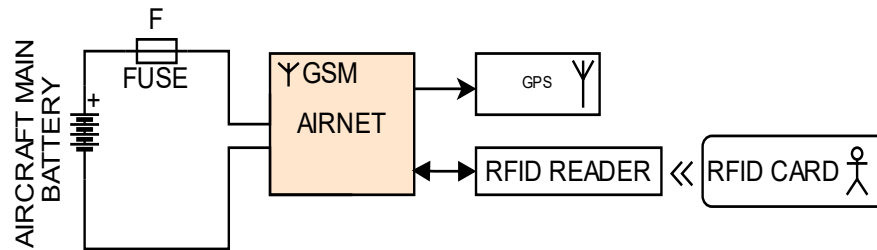


Fig. 4: Block diagram of AIRNET product use

Product view:

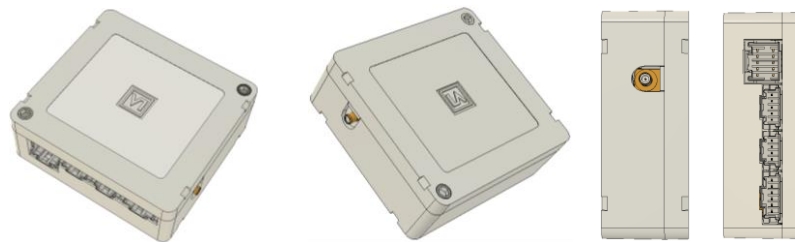


Fig. 5: Product view

Important notes and warnings

Thank you for purchasing **AIRNET**. For a comfortable and safe use of this product, please pay attention to THE ENTIRE MANUAL, especially the notes and warnings below.

- Although the **AIRNET** unit has been thoroughly tested to ensure maximum safety in all conceivable situations, THE RIGHT FUNCTIONALITY DEPENDS ON THE RIGHT INSTALLATION AND SETTINGS.
- Therefore, it is **NECESSARY to READ CAREFULLY and UNDERSTAND THIS MANUAL COMPLETELY**.
- Keep this manual printed in an airplane for cases of emergency or change of ownership.
- **THIS PRODUCT IS NOT APPROVED FOR INSTALLATION IN CERTIFIED AIRPLANES.**
- The pilot **MUST UNDERSTAND** the control of this product before the first flight. **DO NOT** use the product unless you are sure how it works!
- Do not allow unauthorized persons to handle the installed product.
- After installing the product, before the first flight, turn on ALL possible sources of electromagnetic interference on board the aircraft and ensure that the instrument is functioning properly.
- Use of the device in conflict with this manual, with bad wiring, outside the allowed operating conditions, etc., may cause the device to malfunction or damage and endanger flight safety.
- If the product repeatedly indicates an error, do not use it and turn off the power!
- AVOID contact with liquids and chemicals
- Before installation, check the mechanical integrity of the device and its accessories
- **DO NOT** disassemble the device!
- After installation, carefully check the functionality of the device and its installation
- The responsibility for the installation is entire with the installer.
- Responsibility for performing control actions based on information indicated by the product is full of the operator (pilot). The operator must be able to evaluate an incorrect indication even if the product does not indicate an error.
- Ensure regular maintenance of the aircraft's main battery
- If you do not agree to the notes and warnings above, do not use this product.

Company LAMBERT AERODEVICES s.r.o reserves the right to change or improve the product or manual without prior or subsequent notice.

Document history:

<i>Date</i>	<i>Version</i>	<i>Change</i>	<i>Author</i>
23.08.2022	0	Document create	NEPOR



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