

ACKSYS
AirBox LTE
Multifunction
Router Wi-Fi 4



ACKSYS AirBox LTE Multifunction Router Wi-Fi 4 Installation Guide

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ACKSYS AirBox LTE Multifunction Router Wi-Fi 4



Specifications

- **Dimensions:** 141.2 x 99 x 35 mm / 8.85 x 4.25 x 2.42 in
- **Weight:** 340g without accessories, 400g with terminal block and antennas
- **IP Rating:** IP30
- **Power Supply:** Multiple power sources including PWR1/PWR2 and PoE
- **Power Consumption:** Average consumption between 2.6W and 9.6W
- **Ethernet Interface:** 2 ports
- **Digital Outputs (Alarm Contact):** 1 Output
- **GNSS Interface:** GPS, Galileo, GLONASS, Beidou
- **Wi-Fi Interface:** 2 interfaces
- **Cellular Interface AirBox/14:** Global LTE FDD/TDD, WCDMA, GSM
- **Cellular Interface AirBox/17:** Global LTE FDD/TDD, WCDMA, GSM

Product Usage Instructions

- **Hardware Configuration**
Connect Antennas: Mount the antennas (2 WiFi, 2 cellular) on the respective connectors.
- **Software Configuration**
Configure the product according to your requirements
- **Final Installation**
Quick deployment for AP and bridge modes.
- **Troubleshooting**
If you encounter any issues, refer to the user manual for solutions.
- **Grounding**
Ensure proper grounding of the device for safe operation.
- **Connectors**
Detailed information on various connectors including power, LAN, SIM, Wi-Fi antennas, cellular antennas, and GNSS antenna.

AirBox LTE

Quick installation guide Multifunction Router Wi-Fi 4/LTE

- Router, Access Point, Repeater, Bridge, Mesh
- Two Gigabit Ethernet ports including a PoE 802.3af port (*)

- Compact metal housing
- Wall or optional DIN Rail mounting
- Double DC power input 9 to 48 VDC
- Two insulated programmable digital inputs
- Two insulated programmable digital outputs

Before starting, please check the product kit part listing below. Contact immediately your dealer if any item is missing or damaged:

- One AirBox/14 or AirBox/17 device
- 1 standard cat. 5e straight Ethernet cable
- 2 WiFi antennas
- 2 cellular antennas
- This quick installation guide printed

No GNSS antenna is provided.

Before continuing, check for the latest documentation and firmware on the www.acksys.fr website. Read the « WaveOS user guide ».

You will need:

- A Windows PC to install the software “ACKSYS WaveManager”,
- A recent internet browser,
- An Android smartphone to install the optional “ACKSYS WaveViewer” app.

PoE feature is only available from version V2.

HARDWARE INSTALLATION

Plug the antennas in

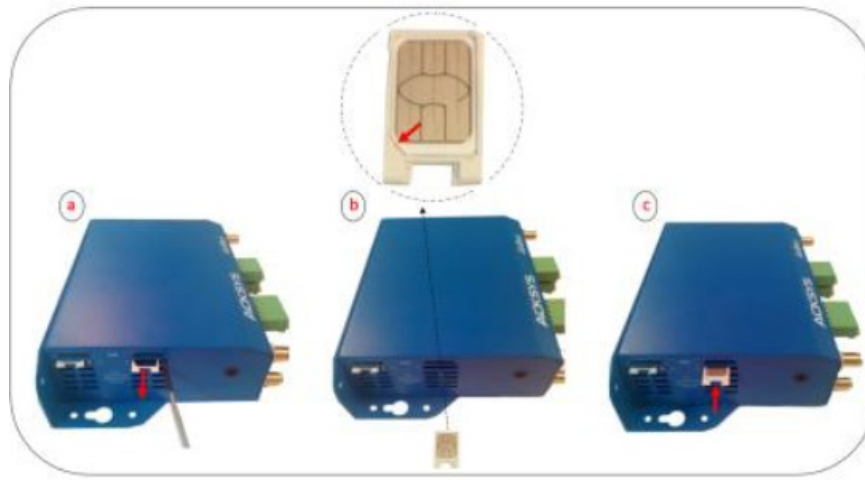
Connect the supplied WiFi/LTE antennas on the connectors. Be aware of the RF antenna connectors' difference between WiFi and LTE (See connectors section).

Don't mix up cellular antennas and WiFi antennas. WiFi antennas have RP-SMA male connectors (with a hole at the center) whereas cellular and GNSS antennas have SMA male connectors (with a pin at the center).

Insert the SIM card (s)

The product is designed to accept SIM cards in Nano-SIM format (the smallest format). Check the compatibility of your SIM card and follow these steps:

- A- Press lightly with a non-metallic pointed object with a diameter of less than 2mm on the pin on the right side of the SIM drawer
- b- Place the Nano-SIM card in the drawer as shown below.
- c- Insert the drawer in its original location in the direction indicated below until the “Click”.



Connect the power supply.

- The product has 3 power sources, 2 DCs PWR1 and PWR2 on the 5-way terminal block and one PoE through LAN 2 port.
- See the Power Supply section for the characteristics of the power supply.
- The device has no ON/OFF switch. It turns-on automatically when power is applied. Check LEDs PWR1 and PWR2:
 - PWR1 LED is ON if power supply 1 (PWR1) or PoE source is ON.
 - PWR2 LED is ON if power supply 2 (PWR2) is ON.

The Diag LED stays red for around 60 seconds until the device is fully ready to use. Then the Diag LED turns green.

Connect the Ethernet cable.

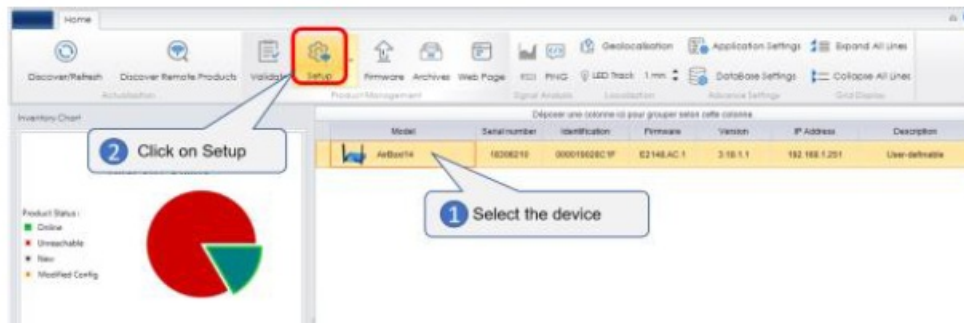
- If you want to use the product in PoE mode, connect the PoE source to LAN2. Do not connect simultaneously PWR1/PWR2 power supplies.
- Plug the provided Ethernet cable to the LAN1 or LAN2 connector.
- Check that the corresponding Link/Act LED turns ON at that point.

SOFTWARE CONFIGURATION

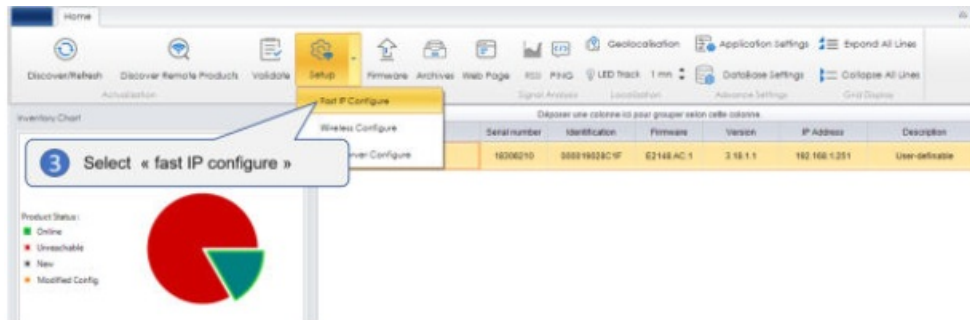
Modifying the default IP address 192.168.1.253

From any PC on the network, run the Windows application WaveManager (found on the ACKSYS website: www.acksys.com)

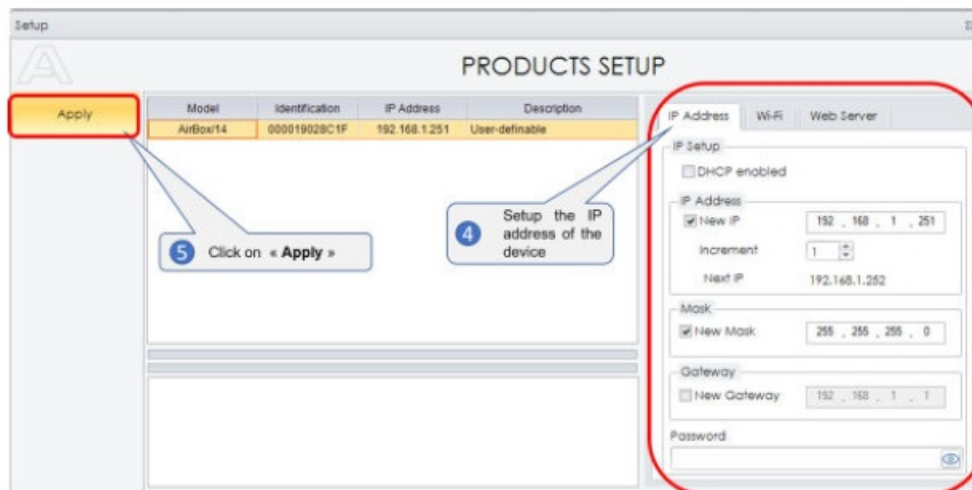
- Go directly to step 5 if the default IP address is compatible with your network. If not, select your device and click on the “Setup» button.



- Select and click on “Fast IP Configure”

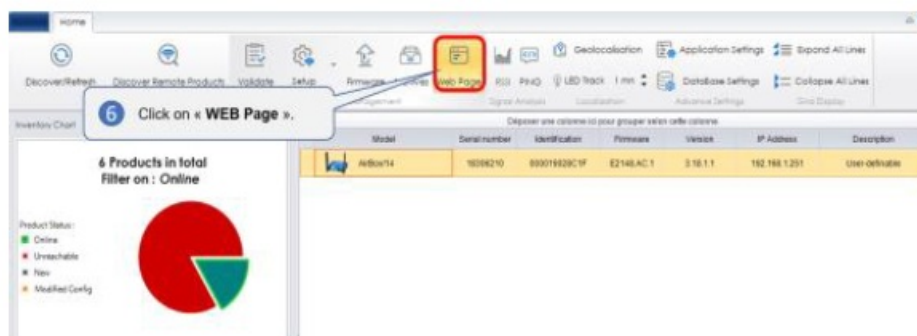


- You can configure the IP address to make it compatible with your network or activate the DHCP client.

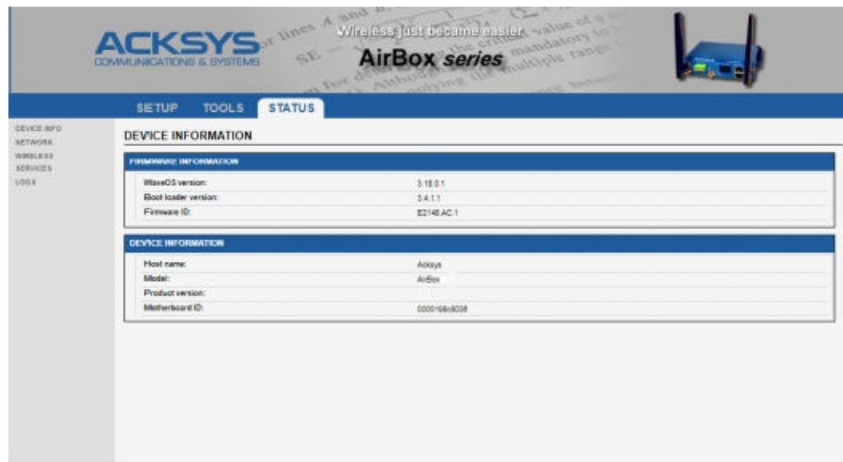


Configure the product

- Select your product by clicking on
- Click on the Web Page

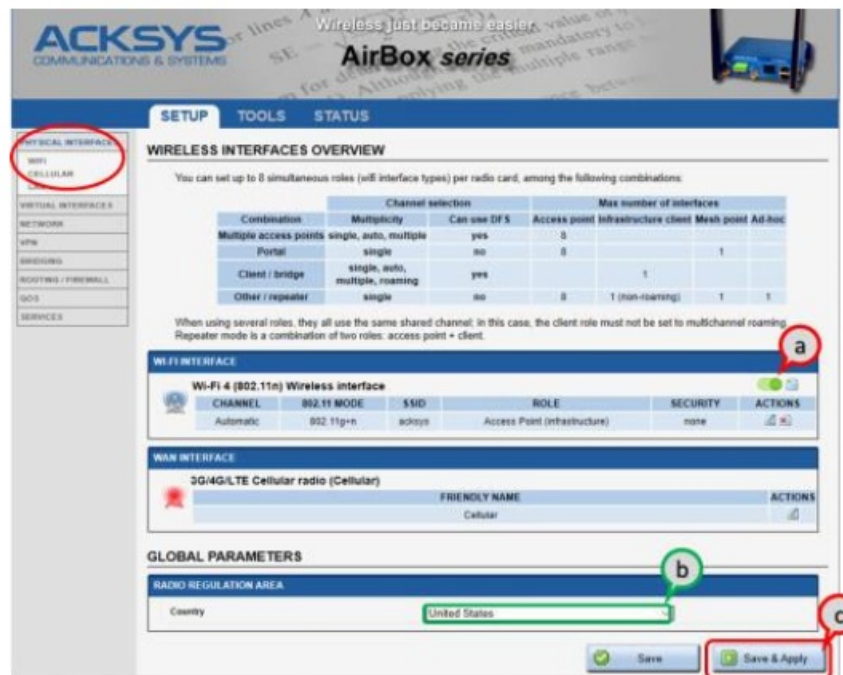


- The default page (STATUS tab) displays the device status



Now select the “SETUP” tab.

- You will be asked for a username and password. You must choose the root user. No password is required by default.
- You get now access to the setup pages.



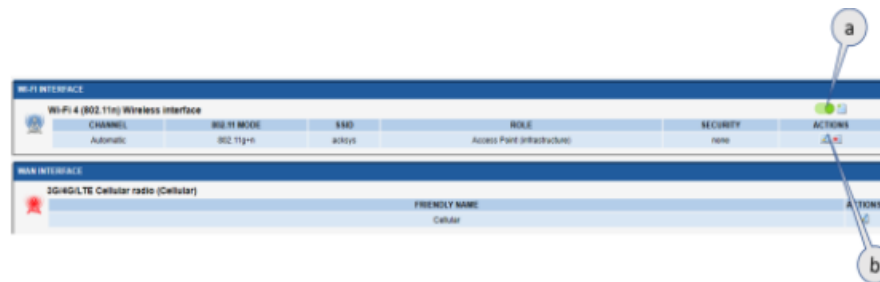
In the “wireless interfaces overview” section, you must:

- a. Enable the Wi-Fi radio interface to set up its Wi-Fi parameters (alternatively you can navigate to change network and services configuration).
- b. Select your country to enforce applicable regulation rules
- c. Click on “Save” to validate.

The default factory settings are:

- Access point mode
- SSID “access”
- No security

- Automatic radio channel and 11an mode
- a. click on “Edit”, to set Wireless essential parameters



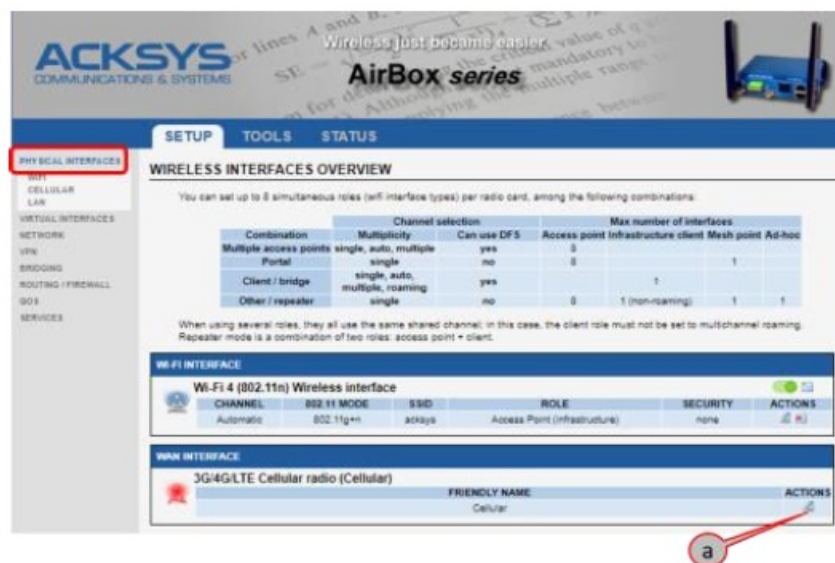
Customize the WiFi interface according to

- The operating mode: Access point, client (bridge) ...
- Wi-Fi parameters: 802.11 mode, radio channel, SSID
- Wi-Fi security parameters (WEP, WPA, WPA-PSK, WPA2, WPA2-PSK, SSID broadcast or not)
- You will find a complete description of all modes in the WaveOS user guide.

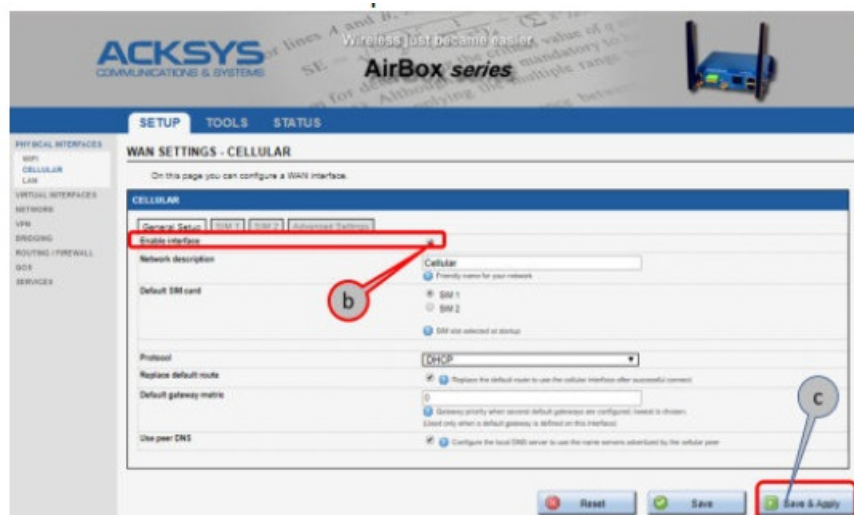
Warning:

Save your settings by clicking “Save & Apply”. Otherwise, your settings will be lost if the product has to restart

- The cellular interface is disabled by default.



- a. Click on “Edit” to set up the interface



- b. Click on "Enable Interface".
- c. Click on "Save" or "Save & Apply".

- **Set up the SIM Interface.**



- d. Select the slot of the SIM card used at startup
- e. Enter the PIN code provided by your operator for each SIM card and the access point (APN) provided by your operator for cellular connections.
- f. Click on "Save & Apply".

FINAL INSTALLATION

Install the device

- Place the device in an appropriate place.

Install the antennas

- Ensure that their position allows proper communication with the peer Wi-Fi devices.
- Specifically, insure that there are no obstacles between the device and its peers ("line of sight" concept).

QUICKLY EVALUATE AP & BRIDGE MODES

Quickly evaluate the ACKSYS device in the AP role

You need a second computer (PC2) with a working Wireless connection.



Set up the PC2 Wireless network interface according to the default parameters of the ACKSYS AP device (802.11gn, SSID "access", no security, static IP 192.168.1.253/24). Typically assigned to PC2 WiFi interface static IP: 192.168.1.2/24.

Quickly evaluate the ACKSYS device in the client role.

- You need two ACKSYS devices, and a second computer (PC2) with a wired LAN connection.



- Set up the IP addresses according to the picture above and set the device connected to PC2 to the Client (infrastructure) role.
- From each PC, start a command prompt and run the ping command to verify the link.
- From PC1: type ping 192.168.1.2, verify the answer returned by PC2 « Answer from 192.168.1.2... »
- From PC 2: type ping 192.168.1.1, verify the answer returned by PC1 « Answer from 192.168.1.1... »

Notice: The State LED is flashing until the bridge connects to the AP.

TROUBLESHOOTING

None of the LED indicators turns ON

- Check the power supply (voltage, cabling).

The relevant LAN1 or LAN2 led indicator stays OFF

- Check that the remote device is turned ON.
- Check the Ethernet plugs on both sides.
- Try to connect to another device.
- Use the provided RJ45 cable to connect the device.

The Wi-Fi link does not come up (STATE led OFF or blinking)

- Make sure that the Wireless parameters of the Client (case-sensitive SSID, 802.11 modes, radio channel, and security) match those of the AP.
- Check the DFS status of the channel (see page STATUS to get it)
- Check the radio conditions: distance between devices, placement of antennas, interferences, and obstacles to radio wave propagation.
- Try with all securities and encryption settings temporarily disabled.
- Try using the product with factory settings as shown in the “Quickly evaluate...” section.
- Try another radio channel.

“WaveManager” doesn’t find your device.

- WaveManager only scans the local network. To reach a device through a gateway, use the “file→remote products database” function.
- Check that your firewall does not block WaveManager.

GNSS LED stays blinking for a long time

- Check that you have an active antenna, and check plugging.
- Place the antenna in the sky (some glass windows are opaque to GNSS radio signals).
- Position acquisition may take a long time in the worst cases. The shortest delay is around 16 s, typically 35 s, and the first position determination after power-up or reconfiguration can take up to 12.5 minutes in rare cases.

How to restore factory settings

- If the built-in web-based interface is reachable, you can use your browser to restore factory settings. Else, power up the unit, wait for the red “Diag” LED to turn green, then hold down the reset button (for at least 2 seconds)

RESET

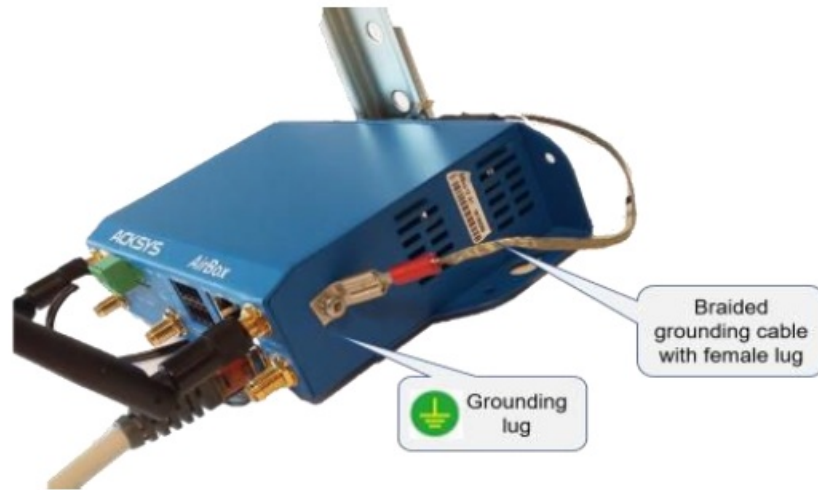
- A RESET button is accessible from the front panel.
- Use exclusively a 2mm diameter non-metallic object to press the button.



EARTH GROUNDING

There are 2 ways to connect the product to the earth:

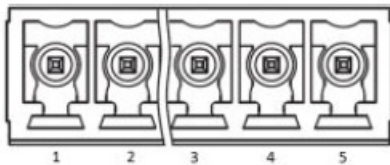
- Use the power terminal block on the front panel
- Or better, use the grounding lug (0.81×6.35 mm) on the right side. For efficient grounding, we recommend using a braided metal wire (not supplied).



CONNECTORS

9-48VDC connector (Power supply)

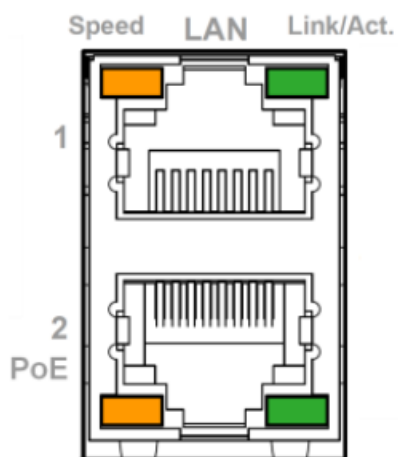
5-way terminal block connector



Signal name		Pin
Power 1	VIN1-	1
	VIN1+	2
Power 2	VIN2-	3
	VIN2+	4
EARTH		5

LAN connectors (Ethernet)

RJ45 connectors



LAN1 and LAN2 are two Ethernet ports.

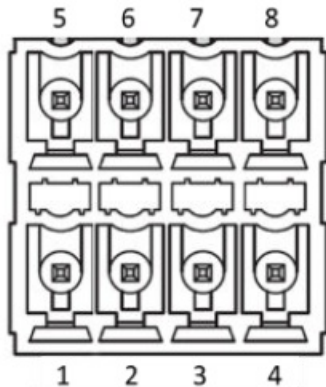
LAN2 has a PoE Powered Device (From version V2) built-in interface, 802.3 af compliant.

These ports support the Auto-negotiation function. They can automatically select the transmission speed (10 Base-T, 100 Base-T x or 1000 Base-T).

It enables the device to coexist in the network by mitigating the risks of network disruption arising from incompatible technologies.

Digital I/O connector (Digital inputs/outputs)

8-way terminal block connector



Signal name

Pin

OUT1

Vout1

1

GND

5

OUT2

Vout2

2

GND

6

IN1

Vin1

3

GND

7

IN2

Vin2

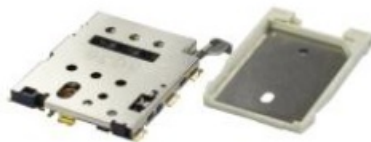
4

GND

8

SIM Connector

Nano-SIM Connector





2 Nano-SIM sockets are available.

The connectors are accessible from the top face (in Rail Din mode).

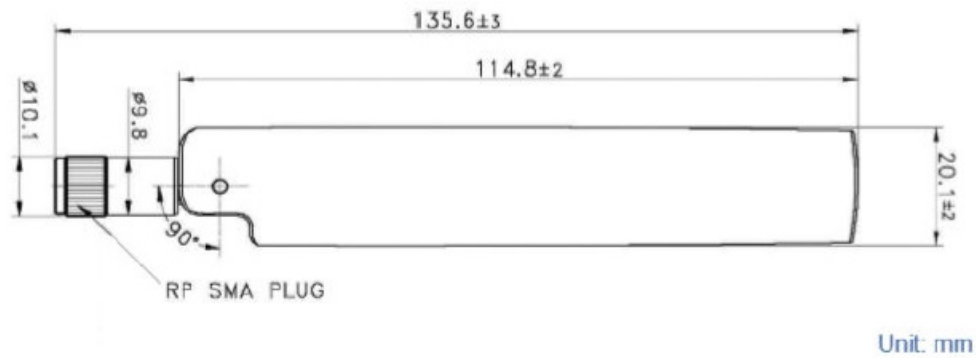
SIM sockets can be identified thanks to a label SIM1/SIM2

SIM cards are held in a drawer that will require a small flat screw driver or a sharp object to pull out.

'WiFi Ant' antenna connectors (50 ohms)		
RP SMA female connector	WiFi interface (2T/2R) <ul style="list-style-type: none"> WiFi1 Ant1: RF connector for the 1st antenna 	
	<ul style="list-style-type: none"> WiFi1 Ant 2: RF connector for the 2nd antenna. 	
	To get the highest benefit of the MIMO technology and its high radio bit rate, you must connect all antennas (2 in 2T/2R);	
 Center pin	<p>Nevertheless, in degraded mode, it is possible to connect a single antenna for a 2T/2R interface (use exclusively Ant1 connector)</p>	

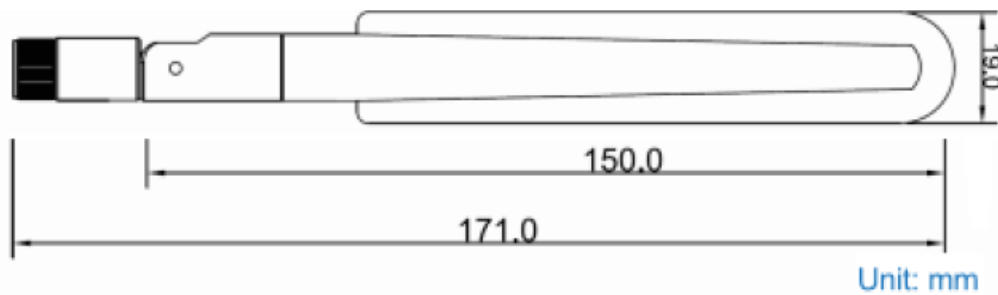
Cellular Main/ Aux antenna connectors (50 ohms)	
SMA female connector  Center hole	<p>Two connectors:</p> <ul style="list-style-type: none"> Cellular Main Ant. Cellular Aux Ant. <p>Using Cellular Aux Ant. is optional. When connected, it is used for Rx diversity to improve the quality of the received signal.</p> <p>If unused, keep it open.</p>

WIFI ANTENNA



Type of antennas	Dipole, dual-band, omnidirectional, swivel
Dual-band	2.4 / 5.8GHz
Connector	RP-SMA male
Gain	3 dBi

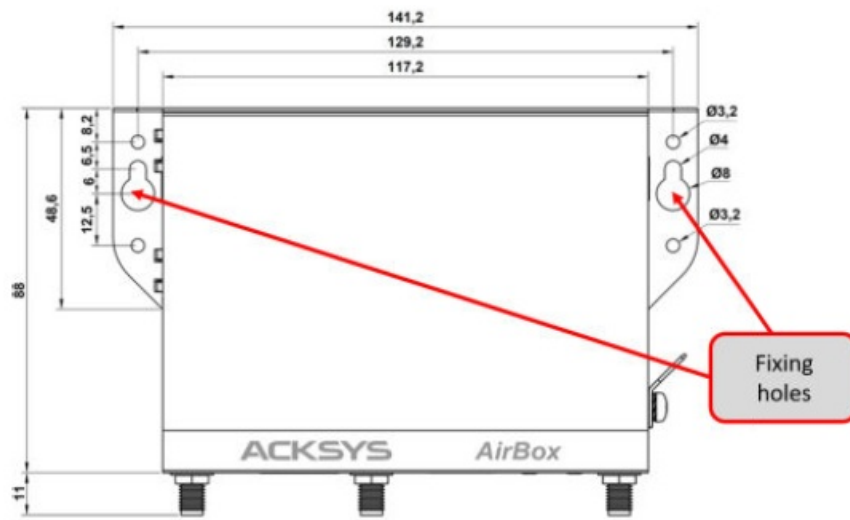
CELLULAR ANTENNA



Type of antennas	Omnidirectional, swivel
Frequency range	700-960MHz, 1700-2170MHz, 2300-2700MHz
Connector	SMA male
Gain	2 dBi

PANEL MOUNTING OF THE DEVICE

For fixing, use the 2 opposite holes of Ø4 present on the case.



Moreover, it is possible to mount the product on a DIN RAIL using the optional WL-FIX-RD2 kit.



LEDs definition

Twelve status LEDs indicate:

LED	Color	Description
PWR1	Green	On: a power supply is connected to pins VIN1 of the power connector or by a PoE source connected to LAN2
PWR2	Green	On: a power supply is connected to pins VIN2 of the power connector
Diag	Red/ Green	<p>This indicates the unit's operational state.</p> <p>Off: The power supply is off</p> <p>Red: Initialization during the 60s after power is applied then goes Green</p> <p>Red for more 120s: hardware failure or firmware not valid</p> <p>Green: Ready to use</p>
Link/Act LAN 1/2	Green	<p>On: Link on LAN established</p> <p>Flashing: Tx/Rx activity</p> <p>Off: Link on LAN broken</p>
SPEED LAN1/2	Yellow	<p>On: connected in 1000 BASE T</p> <p>Off: connected in 100 BASE Tx or 10 BASE T</p>
S (State) WiFi/Cell	Green	<p>Off: the radio is disabled Blinking: the product is unassociated solid "On" : the product is associated</p>
A (Activity) WiFi/Cell	Blue	Flashing: Radio Tx/Rx activity
GNSS State	Green	<p>Off: GNSS is disabled Blinking: Unknown position solid "On": Known position.</p>

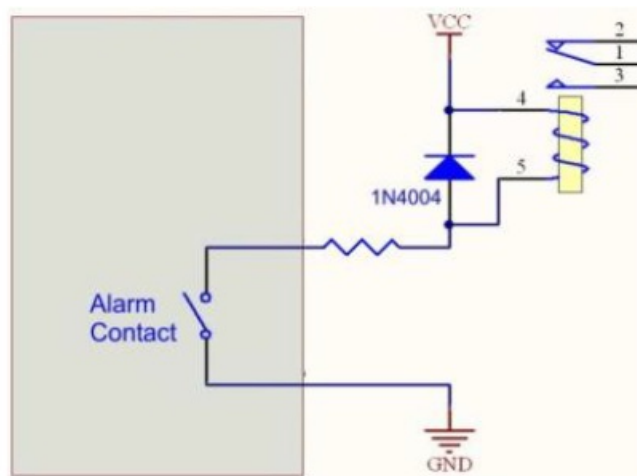
DIGITAL INPUTs

- The product has 2 digital inputs. These inputs are used to signal an event in the product (See WaveOS user manual). The signal must be applied on the pins IN1 or IN2 of the digital I/O connector.
- The voltage applied must not exceed 24 VDC. The product interprets any voltage between 0V and 2V as a logic level "0", and any voltage between 3V and 24V as a logic level "1". Between 2V and 3V, the state is

undetermined.

DIGITAL OUTPUTs (ALARM CONTACTOR)

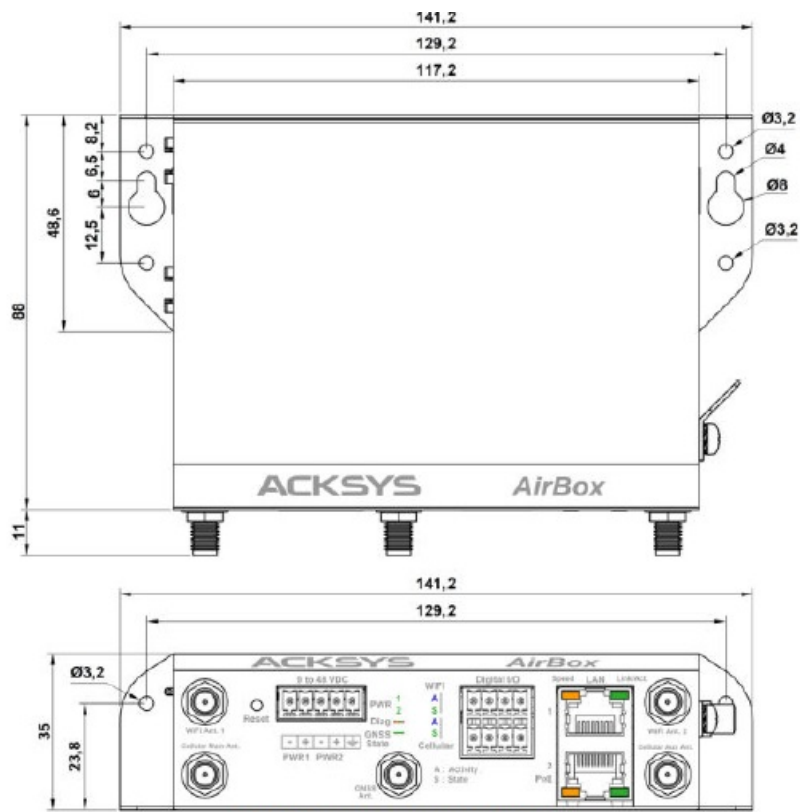
- The product has two digital outputs to signal an alarm defined by the configuration of the product (See WaveOS user manual). The alarm uses the pins OUT1 or OUT2 of the digital I/O connector.
- The contact is closed during normal product operation and opens when the alarm condition occurs. It opens as well when the product is powered off or not in an operational state.
- The alarm contact can switch 60V maximum voltage with a current up to 80mA, and protected against transient surges. This is a first-stage alarm contactor which must not be used to drive power directly. To carry out this function, please consider the use of a power relay, as shown in the picture below:



TECHNICAL CHARACTERISTICS

General characteristics	
Dimensions (w/o antennas)	L x l x h = 141.2 x 99 x 35 mm L x l x h = 8.85 x 4.25 x 2.42 in
Weight	340 g w/o accessories, 400 g with antennas and terminal blocks
Enclosure	IP 30
Operating temperatures range	-20°C to +60°C (-4°F à 140°F)
Storage temperatures range	-40°C to +85°C (-40°F à 185°F)
Relative humidity	5% to 95% non-condensing
Reset button (accessible from the front panel with a sharp object < 2 mm)	<p>Short push (< 1 sec), anytime:</p> <p>→ Reset</p> <p>Long push (> 2 sec.):</p> <p>While operating:</p> <p>→ Restore factory settings while in emergency upgrade mode:</p> <p>→ Restore factory settings at startup:</p> <p>→ enter emergency upgrade</p>

Mechanical characteristics



All dimensions are given in mm

Power supply	
Number of power supply inputs	3: PWR1, PWR2 and from V2 version: PoE 802.3af
PWR1/PWR2 power supply	9 to 48VDC, protected against wire inversion 5-ways terminal block connector
PoE power supply	The PoE power must be 802.3 af / at type 1 class 3 compliant and connected to LAN2
Power consumption	Average consumption between 2.6 and 9.6W. Recommended power supply: 12W

Ethernet interface	
Number of ports	2 (LAN1, LAN2), LAN2 is a PoE port (From V2 version).
Type of ports	Auto MDI/MDI-X 10 BASE T/100 BASE Tx/1000 BASE T with automatic 802.3u negotiation
Connectors	RJ45
Cables	Straight cable T568B, Ethernet CAT5e UTP, with 2 RJ45 connectors

Digital inputs	
Number of DI	2 (IN1, IN2)
Type	Opto-isolated
Tension max	24VDC, protected against over-voltage
Isolation	1500V
Connector	8-ways terminal block

Digital outputs (Alarm contact)	
Number of DO	2 (OUT1, OUT2)
Type	Solid state relay 1 form A (normally open)
Max voltage	60VDC, not polarized, protected against transient over-voltage
Max load current	80mA
ON-Resistance	25 ohms typ., 35 ohms max
Isolation	1500V
Connector	8-ways terminal block

GNSS interface	
Satellites	GPS, Galileo, GLONASS, Beidou
Antenna socket	1 SMA female
Antenna type	Active antenna only (not supplied)

Wi-Fi interface	
Number of interfaces	1 (WiFi)
WiFi	802.11n 2T/2R (modes a & g, 300 Mbps max.)
Radio mode	Supports for IEEE 802.11a/h, 802.11b, 802.11g, 802.11n
Modulation rates	802.11n 2T/2R: up to 300 Mbps 802.11a/h: 6 to 54 Mbps 802.11b: 1 to 11 Mbps 802.11g: 1 to 54 Mbps

Frequency range for 802.11a/n	5 GHz; 5.150 to 5.850 GHz
Frequency range for 802.11b/g/n	2.4 GHz; 2.412 to 2.484 GHz
Antenna sockets	2 RP-SMA female

CELLULAR Interface AirBox/14	
Number of interfaces	1
Countries	EMEA/Korea/Thailand/India
Radio channels	LTE FDD: B1/B3/B5/B7/B8/B20 LTE TDD: B38/B40/B41 WCDMA: B1/B5/B8 GSM : B3/B8
Radio mode	LTE, 3G, GSM/GPRS/EDGE
Modulation rates	LTE Cat. 4, 150 Mbps (download) & 50 Mbps (upload)
SIM	2 Nano-SIM
Antenna plugs	2 SMA female, Main and Aux (Rx Diversity)

CELLULAR Interface AirBox/17	
Number of interfaces	1
Countries	Global
Radio channels	LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13 B18/B19/B20/B25/B26/B28 LTE TDD: B38/B39/B40/B41 WCDMA: B1/B2/B4/B5/B6/B8/B19 GSM : B2/B3/B5/B8
Radio mode	LTE, 3G, GSM/GPRS/EDGE
Modulation rates	LTE Cat. 4, 150 Mbps (download) & 50 Mbps (upload)
SIM	2 Nano-SIM
Antenna plugs	2 SMA female, Main and Aux (Rx Diversity)

Software	
Device configuration	Automatic discovery of the product Built-in web interface with login/password protection
Firmware upgrade	Via web browser or “WaveManager”
SNMP	SNMP V2C, V3
Operating mode	AP (Access Point), Router, Repeater, Bridge/Client, Mesh, WDS
AP mode only	
Network topology	Infrastructure
Security	WEP, WPA PSK or 802.1x authenticator, SSID visibility status
Client/Bridge mode only	
Network topology	Infrastructure, ad-hoc, or mesh mode
Security	WEP, WPA PSK, or 802.1x supplicant. AES/TKIP/WEP by hardware encryption
Mesh mode only	
Network topology	802.11s
Security	SAE/AMPE

Wi-Fi / dual-band 11n 2T/2R

Output Tx power (radio card output)	Modes	1 RF chain
	802.11b/g	19 dBm @ 6M 15 dBm @ 54M
	802.11a	18 dBm @ 6M 15 dBm @ 54M
	802.11gn HT20	20.5 dBm @ 7.2 Mbps (MCS 0) 18 dBm @ 72.2 Mbps (MCS 7)
	802.11gn HT40	20.5 dBm @ 15 Mbps (MCS 0) 18 dBm @ 150 Mbps (MCS 7)
	802.11an HT20	18 dBm @ 7.2 Mbps (MCS 0) 15 dBm @ 72.2 Mbps (MCS 7)
	802.11an HT40	18 dBm @ 15 Mbps (MCS 0) 15 dBm @ 150 Mbps (MCS 7)

Values are given by the radio card manufacturer with ± 2 dB tolerance.

They must be subtracted by 2dB because of RF losses between the radio card connector and antenna connector. The values are given for 1 chain. Aggregate power for 2 chains is calculated by adding 3 dB.

Rx sensitivity (radio card input)	802.11b	NA
	802.11b/g	-94 dBm @6M -80 dBm @54M
	802.11a	-96 dBm @6M -84 dBm @54M
	802.11gn HT20	-92 dBm @ 7.2Mbps (MCS 0) -76 dBm @ 72.2 Mbps (MCS 7)
	802.11gn HT40	-90 dBm @ 15 Mbps (MCS 0) -73 dBm @ 150 Mbps (MCS 7)
	802.11an HT20	-96 dBm @ 7.2Mbps (MCS 0) -75 dBm @ 72.2 Mbps (MCS 7)
	802.11an HT40	-91 dBm @ 15 Mbps (MCS 0) -72 dBm @ 150 Mbps (MCS 7)

Values are given by the radio card manufacturer with a $\pm 2\text{dB}$ tolerance. Add 2 dB to get the value on the antenna connector.

Cellular Interface		
Radio card Tx power	GSM850	33dBm $\pm 2\text{dB}$
	EGSM900	33dBm $\pm 2\text{dB}$
	DCS1800	30dBm $\pm 2\text{dB}$
	PCS1900	30dBm $\pm 2\text{dB}$
	GSM850 8-PSK	27dBm $\pm 3\text{dB}$
	EGSM900 8-PSK	27dBm $\pm 3\text{dB}$
	DCS1800 8-PSK	26dBm $\pm 3\text{dB}$
	PCS1900 8-PSK	26dBm $\pm 3\text{dB}$
	WCDMA bands	24dBm $\pm 1/-3\text{dB}$
	LTE-FDD bands	23dBm $\pm 2\text{dB}$
AirBox/14 and AirBox/17	LTE-TDD bands	23dBm $\pm 2\text{dB}$
Radio card Rx sensitivity	LTE B1	-101.5dBm
	LTE B3	-101.5dBm
	LTE B5	-101dBm
	LTE B7	-99.5dBm
	LTE B8	-101dBm
	LTE B20	-102.5dBm
	LTE B38	-100dBm
	LTE B40	-100dBm
	LTE B41	-99dBm
	WCDMA B1	-110dBm
	WCDMA B5	-110.5dBm
	WCDMA B8	-110.5dBm
	GSM900	-109dBm
	DCS1800	-109dBm
AirBox /14	LTE B1	-99.5dBm
	LTE B2	-99.9dBm
	LTE B3	-99.8dBm
	LTE B4	-99.7dBm
	LTE B5	-99.9dBm

Radio card Rx sensitivity AirBox /17	LTE B7	-99.1dBm
	LTE B8	-99.8dBm
	LTE B12	-99.9dBm
	LTE B13	-100.1dBm
	LTE B18	-100dBm
	LTE B19	-99.8dBm

	LTE B20	-99.7dBm
	LTE B25	-100.2dBm
	LTE B26	-100dBm
	LTE B28	-99.8dBm
	LTE B38	-99.2dBm
	LTE B39	-99.8dBm
	LTE B40	-99.7dBm
	LTE B41	-99.3dBm
	WCDMA B1	-109.2dBm
	WCDMA B2	-110dBm
	WCDMA B4	-109.7dBm
	WCDMA B5	-110dBm
	WCDMA B6	-110.5dBm
	WCDMA B8	-110.5dBm
	WCDMA B19	-110.5dBm
	WCDMA B4	-110.5dBm
	WCDMA B5	-109.2dBm
	WCDMA B6	-110dBm
	GSM850	-108.2dBm
	GSM900	-108dBm
	DCS1800	-107.5dBm
	PCS1900	-107.5dBm

Regulatory compliance

The device conforms to the following council directive and is appropriately CE marked:

N°	Titre
2014/53/EU	Radio Equipment Directive (RED) (See the EU DECLARATION OF CONFORMITY on our website)

WiFi/WiFi1 interface conforms to:

FCC part 15	FCC single modular approval (FCC ID = Z9W-RMB)
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Certification	CE/ GCF/ KC/ SKT/ NBTC/ Vodafone/ FAC
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OPTIONAL ACCESSORIES

REFERENCE	CONTENT
PWS12-UNI-PH3	AC (110V/220V) to 12 VDC power adapter with cable terminated by 3-pin terminal block
WL-FIX-RD2	DIN rail fixing kit
All items can be ordered separately.	

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Frequently Asked Questions

Q: Are GNSS antennas included with the product?

A: No, GNSS antennas are not provided with the product. You will need to source them separately.

Q: What is the power consumption range of the device?

A: The device has an average power consumption ranging from 2.6W to 9.6W.


Q: How many Ethernet ports does the device have?

A: The device offers 2 Ethernet LAN ports.

Q: What cellular frequencies are supported by the AirBox/14 interface?

A: The AirBox/14 interface supports various LTE FDD/TDD bands, WCDMA, and GSM frequencies.

Documents / Resources

	<p>ACKSYS AirBox LTE Multifunction Router Wi-Fi 4 [pdf] Installation Guide</p> <p>AirBox LTE Multifunction Router Wi-Fi 4, AirBox LTE, Multifunction Router Wi-Fi 4, Router Wi-Fi 4</p>
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References

- [Solutions de communication WiFi et cellulaires ACKSYS](#)
- [Solutions de communication WiFi et cellulaires ACKSYS](#)
- [User Manual](#)

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