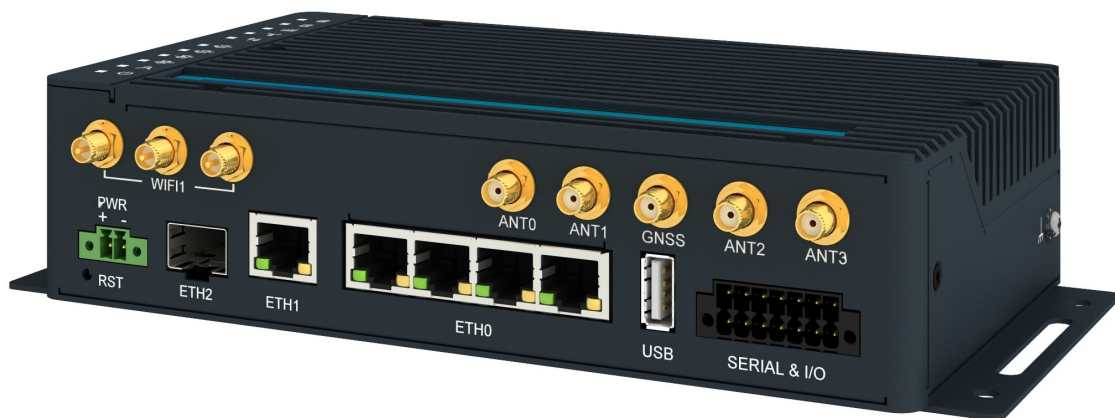# Start Guide

ICR-4401, ICR-4434, ICR-4453

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⚠ Safety Instructions

Please take care to following instructions:

- Use the router in compliance with national and international law and in compliance with any special or additional restrictions regulating the use of the router in various applications and environments.

- To avoid possible injury and/or damage to the device, observe the relevant provisions and standards. Use only the original accessories as recommended. Unauthorized device or accessory modification or using accessories that have not been approved can result in router damage and/or violation of the regulations.

- Unauthorized device or accessory modification or using the accessories that have not been approved can result in warranty termination.

- Do not open the router.

- **Caution!** This equipment is not suitable for use in locations where children are likely to be present. The SIM card could be swallowed by small children.

- When connecting the device to a power supply, do not exceed the defined voltage.

- Do not expose the router to extreme ambient conditions. Protect the router against dust, moisture, and high temperature.

- It is recommended that you do not use the router at petrol filling stations. We recommend observing local restrictions concerning radio-based devices while working with explosive material, such as at petrol filling stations or in chemical plants.

- While using the router close to personal medical devices, such as cardiac pacemakers or hearing aids, proceed with heightened caution.

- Operating the router too close to TV sets, radio receivers, personal computers, or telephones can cause interference.

- It is recommended that you create a copy or backup of the essential settings stored in the memory of the router.

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Product Disposal Instructions

The WEEE (Waste Electrical and Electronic Equipment: 2012/19/EU) directive was introduced to ensure that electrical/electronic products are recycled using the best available recovery techniques to minimize the impact on the environment. This product contains high-quality materials and components which can be recycled. At the end of its life, this product MUST NOT be mixed with other commercial waste for disposal. The device contains a battery. Remove the battery from the device before disposal. The battery in the device needs to be disposed of apart accordingly. Check the terms and conditions of your supplier for disposal information.

Open Source Software License

The software in this device uses various pieces of open-source software governed by the following licenses:

- GPL versions 2 and 3
- LGPL version 2
- BSD-style licences
- MIT-style licences

The list of components together with complete license texts can be found on the device itself. See the *Licenses* link at the bottom of the router's main Web page (*General Status*) or point your browser to this address (replace the DEVICE_IP string with the real router's IP address):

<div align="center">

https://DEVICE_IP/licenses.cgi

</div>

This is a written offer valid for three years since the device purchase, offering any third party for a charge no more than the cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code on a flash drive medium. If you are interested in obtaining the source, please get in touch with us at:

<div align="center">

techSupport@advantech-bb.com

</div>

Modifications and debugging of LGPL-linked executables:

The device manufacturer hereby grants the right to use debugging techniques (e.g., decompilation) and making customer modifications of any executable linked with an LGPL library for its purposes. Note these rights are limited to the customer's usage. No further distribution of such modified executables and no transmission of the information obtained during these actions may be done.

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First Use

Before applying power to the router, connect all the components that you need for your applications. A cross-shaped screwdriver is necessary to insert a SIM card or a microSD card.

⚠️ Do not run the router without antennas connected to the main antenna connectors as the energy from the transmission is effectively reflected by the open end and can damage the equipment.

⚠️ ICR-4401 routers are not equipped with a cellular module, which means that the SIM card slots together with the cellular and GNSS antenna connectors are not available on the router.

1. Antenna

Use SMA connectors to connect the antennas to the router; see the figure below. It is highly recommended to connect all the antennas.


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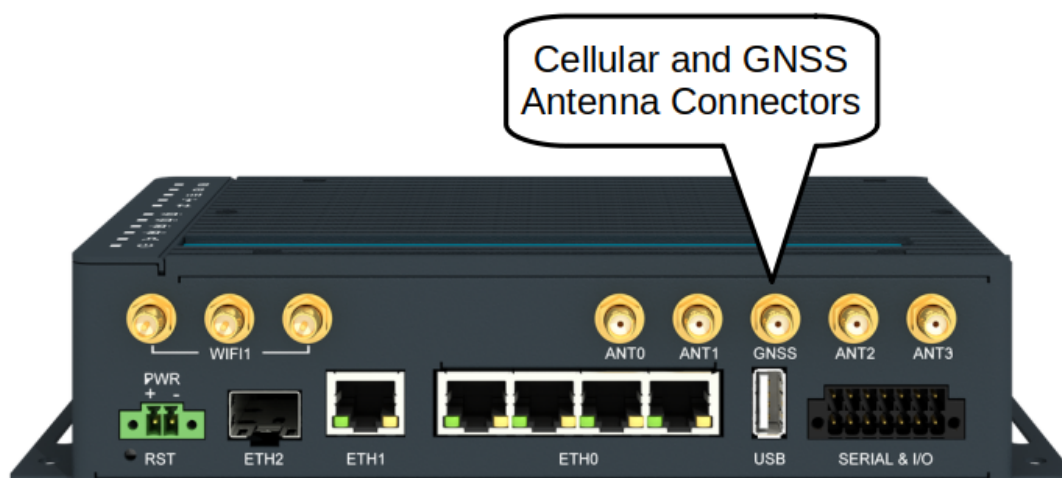
2. SIM Card

The SIM card reader for two mini-SIM cards (2FF with size of 25.0 x 15.0 x 0.76 mm) is located on the router's rear panel under a metal cover. If you intend to use this device to communicate over a cellular network, please place an activated data-provisioned SIM card into the SIM card reader. Unscrew the cover and push your SIM card into the *SIM1* or *SIM2* slot until it clicks into place. You can install two SIM cards simultaneously to utilize the SIM card switching feature.

⚠ Disconnect the router from the power supply before handling the SIM card.

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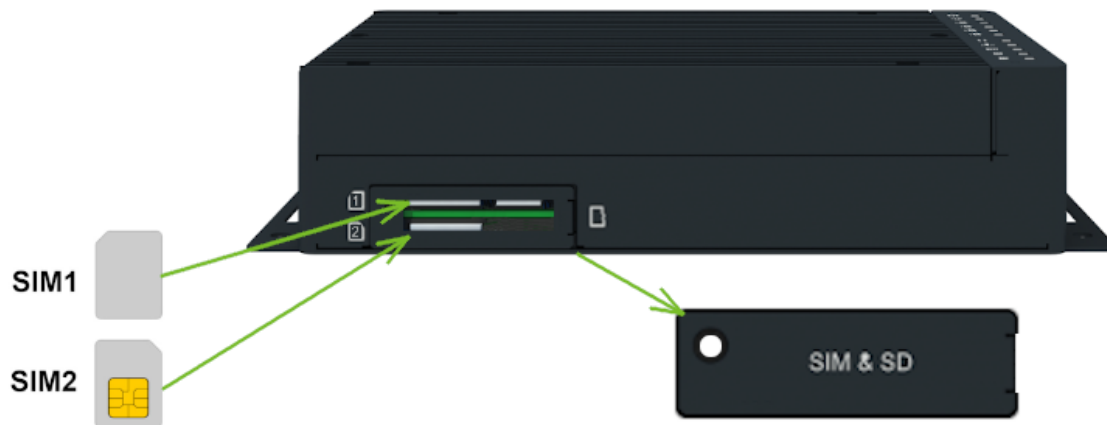
3. Power

The router requires an external DC power supply. The DC voltage required is between +9 and +48 V DC. The router has built-in protection against reverse polarity without signaling. Connect the power supply cable to the PWR connector on the router's front panel; see the figure below.

> ⚠️ The power voltage for the PoE router version must be 48 V DC to work as the PoE PSE device.

Power Supply Connector PWR

Ethernet Connectors ETH0
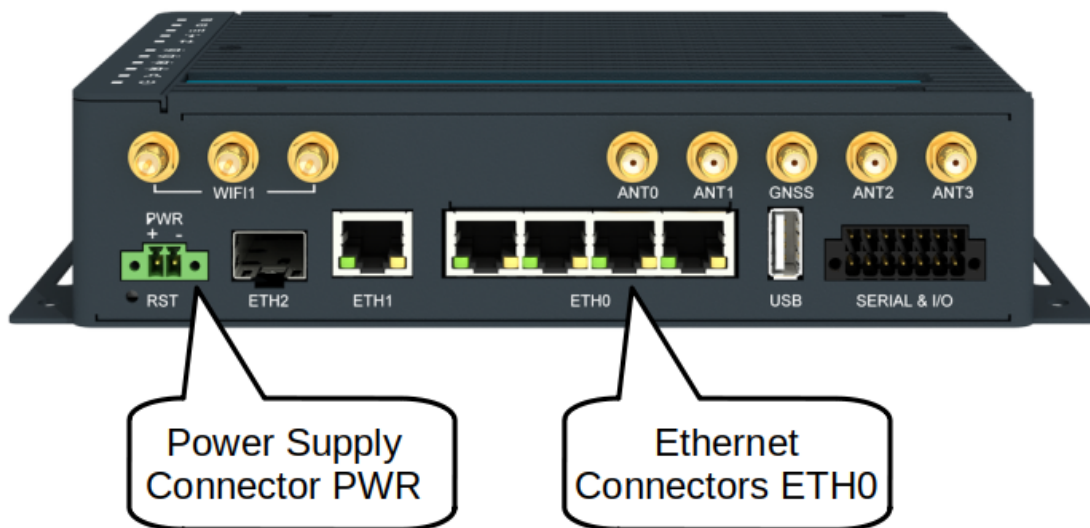
4. Ethernet

For an initial configuration, made in a web browser, connect a PC by an Ethernet cable to the default LAN interface, use one of the *ETH0* ports, see the figure above. By default, this interface has the following configuration:

Connectors	Purpose	Default Setting
ETH0	LAN ports (default)	DHCP Server enabled
	Connect your PC to one of these ports to get the router web interface.	IP Address: 192.168.1.1 NetMask: 255.255.255.0

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Configuration

1. Configuring the Device Using the Web Browser

You can use a web browser running on your PC to get access to the router web interface. Here you can perform router monitoring, configuration, and administration. First, connect the PC to the default LAN interface as described in the *Ethernet* chapter. To get the router interface, enter the `https://192.168.1.1` address in a web browser. Please note that usage of the HTTPS protocol for secure communication over the network is required.

By default, there is just the ***root* user** account created on the router. See the **product label** on the router for its **default password**. Log in to the web interface by the *root* user and his password. See the configuration manual of the router for a detailed description and examples of the router configuration.

> ⚠ After logging on to the device for the first time, we strongly recommend changing the default password due to security reasons.

> ⚠ For security reasons, it is highly recommended to update the firmware of the router to the latest version regularly. Downgrading the firmware to an older version than the production version or uploading a firmware intended for a different device may cause the malfunction of the device.

2. Configuration Settings via WebAccess/DMP

Your router has been pre-installed with the *WebAccess/DMP* client. For its activation, enable it in the router's web interface (*Customization -> User Modules -> WebAccess/DMP Client*). For more information see the configuration manual of your router.

> ⚠ The activated client periodically uploads router identificators, its configuration, and cellular network statistics to the *WebAccess/DMP* server.

With the *WebAccess/DMP* client activated, you may configure the router from *WebAccess/DMP* portal. Navigate your browser to `https://www.wadmp.com`.

If this is your first time, please self-sign-up with the site. If not, please log in with your username and password. Once logged in, further assistance can be found at `https://docs.wadmp.com`.

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3. Restoring and Backing up the Router Configuration

If you reset the router, the current configuration replaces by the default factory settings. Therefore, we recommend you back up the router configuration before resetting the device. Refer to the configuration manual for more information.

You can restore the default router configuration once the router boots up and the *PWR* LED starts blinking. To do so, press the *RST* button on the router's front panel for more than 4 seconds. After you press this button, all settings reset to the default values, and the router will reboot.

Support

All product-related manuals, documents, and software can be found and downloaded on the website at icr.advantech.cz/download address.

$\mathsf{C}\,\mathsf{E}$ Hereby we, Advantech Czech s.r.o., declare that the radio equipment type **ICR-4401** (WiFi version), **ICR-4434**, and **ICR-4453** comply with Directive **2014/53/EU**. **ICR-4401** (non-WiFi version) complies with Directives **2014/30/EU** and **2014/35/EU**.

The full text of the EU Declaration of Conformity is available at the following internet address: icr.advantech.cz/eudoc

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