Start Guide

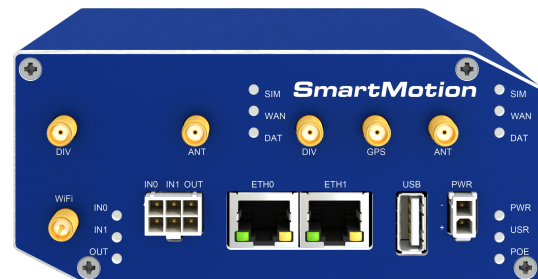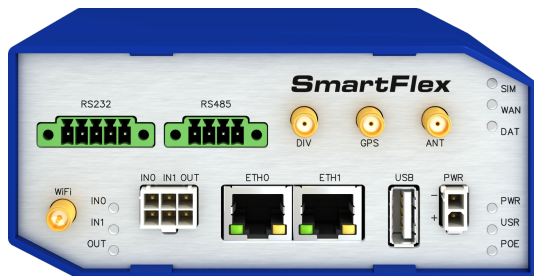## SmartStart, SmartFlex, SmartMotion

![ADVANTECH]

⚠ **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!** Small children can swallow the SIM card.

- 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.

- Only routers with appropriate certification and labelling should be used in locations where flammable and explosive materials are present, including gas stations, chemical plants, or locations in which explosives are used. We remind users of the duty to observe the restrictions concerning the utilization of radio devices at such places.

- 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.

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):

<p align="center">https://DEVICE_IP/licenses.cgi</p>

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:

<p align="center">techSupport@advantech-bb.com</p>

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.

SmartStart Router
SL302, SL304, SL305, SL306

First Use

Before applying power to the router, connect all the components you need for your applications.

> ⚠ Do not run the router without an antenna connected to the main antenna connector. The energy from the transmission is effectively reflected by the open end and can damage the equipment.

1. Antenna

Use SMA connectors to connect the antennas to the router; see the figure below. The main antenna is connected to the *ANT* connector. Next, connect the second diversity antenna to the *DIV* connector to improve the quality and reliability of a wireless link.


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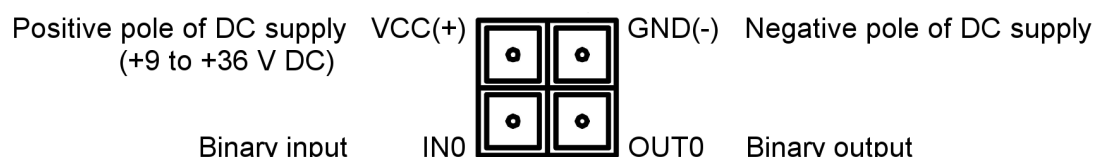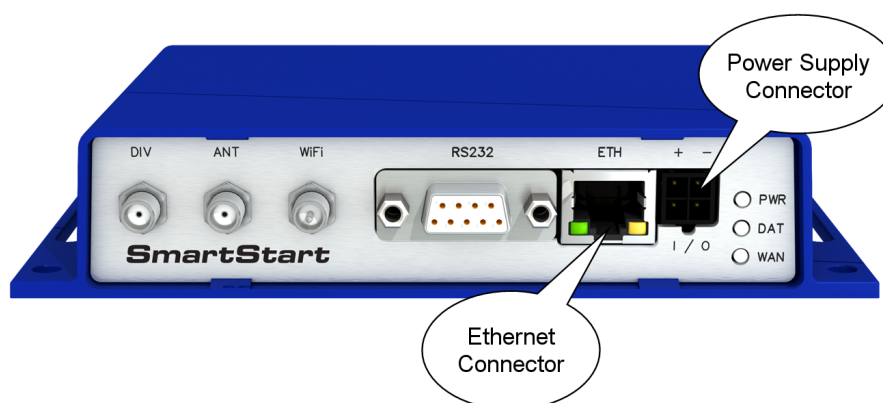
⚠ Disconnect the router from the power supply before handling the SIM card!

SIM Card Readers

SIM1   SIM2
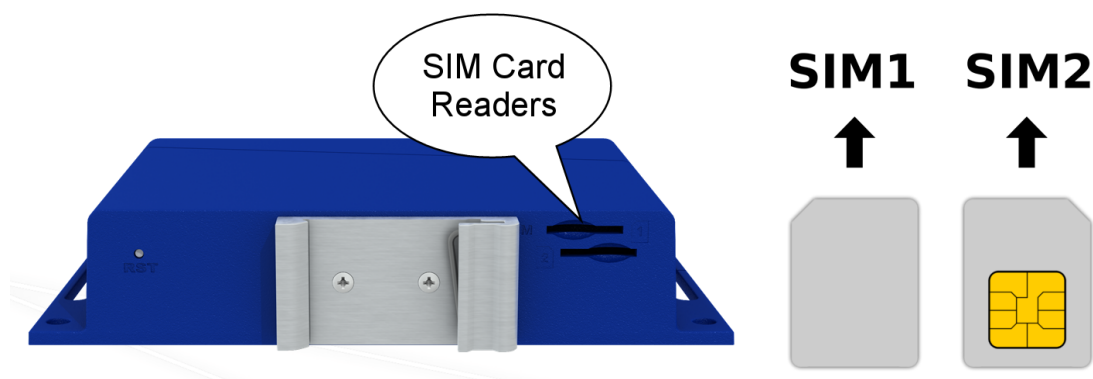
3. Power

The router requires an external DC power supply. The DC voltage required is between +9 and +36 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.

DIV   ANT   WiFi   RS232   ETH   + −

SmartStart

PWR
DAT
I / O
WAN

Power Supply Connector

Ethernet Connector

Positive pole of DC supply (+9 to +36 V DC)   VCC(+)   GND(-)   Negative pole of DC supply

Binary input   IN0   OUT0   Binary output

4. Ethernet

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

Connector	Purpose	Default Setting
ETH	LAN port (default) Connect your PC to this port to get the router web interface.	DHCP Server IP Address: 192.168.1.1 NetMask: 255.255.255.0

Configuration

1. Configuring the Device Using the Web Browser

You can use a web browser running on your PC to access the router web interface. Here you can perform router monitoring, configuration, and administration. First, connect the PC to the default LAN interface 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.

There is just the extbf*root* user account created on the router by default. See the **product label** on the router for its **default password**[1]. 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.

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 identifiers, configuration, and cellular network statistics to the *WebAccess/DMP* server. If you have purchased a part number ending with "-SWH", the DMP client is activated by default.

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[1]If the label does not contain a unique password, use "root" string as the password.

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`.

3. Restoring and Backing up the Router Configuration

The default factory settings will replace the current configuration if you reset the router. 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.

> After logging on to the device for the first time, we strongly recommend changing the default password due to security reasons. Simultaneously, you will gain access to all functions of the router.

> For security reasons, we highly recommend updating the router's firmware to the latest version regularly. Downgrading the firmware to an older version than the production version or uploading firmware intended for a different device may cause the device's malfunction.

Support

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

UK CA We, Advantech Czech s.r.o., declare that the radio equipment type **SL305** comply with Directive Radio Equipment Regulations 2017 (**S.I. 2017 No. 1206**).
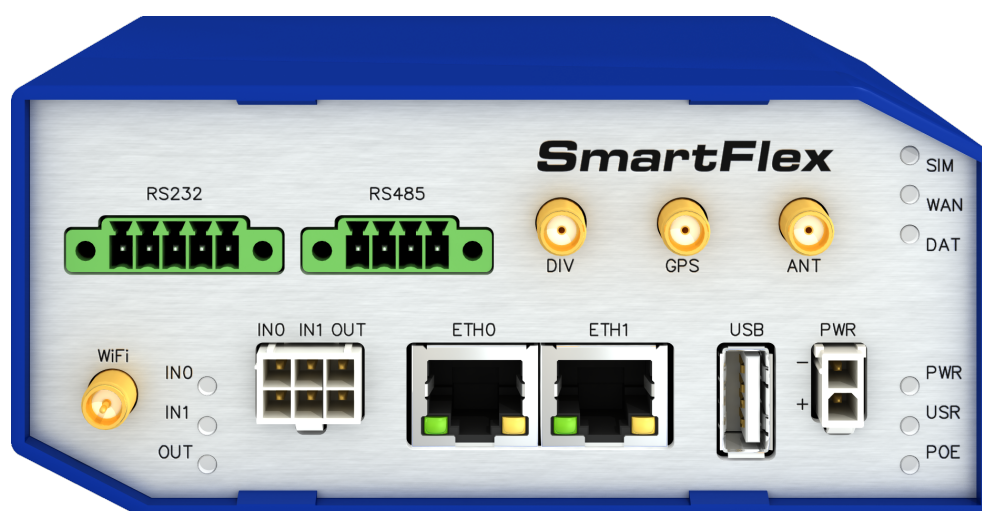
C€ We, Advantech Czech s.r.o., declare that the radio equipment type **SL304** and **SL305** comply with Directive **2014/53/EU**.

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

SmartFlex Router

SR300, SR303, SR304, SR305, SR306, SR307, SR308, SR309, SR310

⚠️ Hazardous Locations Installation Instructions

ℹ️ These instructions apply for **SR300**, **SR303** and **SR305** versions with appropriate labeling only!

These devices are open-type devices that are to be installed in an enclosure suitable for the environment and can only be accessed with the use of a tool or key.

This equipment is suitable for use in Class I, Division 2, Groups A, B, C, AND D OR non-hazardous locations only.

WARNING – EXPLOSION HAZARD – DO NOT DISCONNECT EQUIPMENT UNLESS PO-WER HAS BEEN REMOVED OR THE AREA IS KNOWN TO BE NON-HAZARDOUS.

WARNING – EXPLOSION HAZARD – SUBSTITUTION OF ANY COMPONENTS MAY IM-PAIR SUITABILITY FOR CLASS I, DIVISION 2.

WARNING – EXPLOSION HAZARD – BATTERIES MUST ONLY BE CHANGED IN AN AREA FREE OF IGNITIBLE CONCENTRATION.

All antennas, antenna cables and wiring have not been evaluated as external wiring.

Cet équipement est convenable en Classe 1, Division 2, Groupes A, B, C, et D endroits dangereux OU endroits non dangereux seulement.

AVERTISSEMENT – RISQUE D'EXPLOSION – NE DÉCONNECTEZ PAS L'ÉQUIPEMENT, SAUF SI L'ALIMENTATION A ÉTÉ COUPÉE OU SI L'ENVIRONMEMENT EST CLASSÉ NON DANGEREUX.

AVERTISSEMENT – RISQUE D'EXPLOSION – SUBSTITUTION DE TOUTE COMPOSANTE RISQUERAIT LA QUALITÉ POUR CLASSE 1, DIVISION 2.

AVERTISSEMENT – RISQUE D'EXPLOSION – LES BATTERIES DOIVENT ÊTRE REM-PLACÉES DANS UN ENDROIT EXEMPT DE CONCENTRATIONS INFLAMMABLES.

First Use

Before applying power to the router, connect all the components you need for your appli-cations. You cannot operate the router without a connected antenna, inserted SIM card, nor a connected power supply.
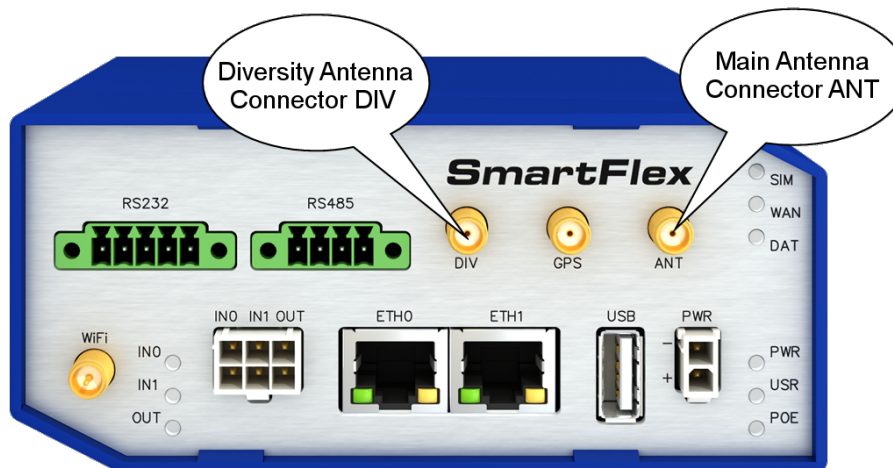
⚠️ Do not run the router without an antenna connected to the main antenna connector. The energy from the transmission is effectively reflected by the open end and can damage the equipment.

⚠️ SmartFlex SR300 routers are not equipped with a cellular module, which means that SIM card readers and antenna connectors are not available on the router.

1. Antenna

Use SMA connectors to connect the antennas to the router; see the figure below. The main antenna is connected to the *ANT* connector. Next, connect the second diversity antenna to the *DIV* connector to improve the quality and reliability of a wireless link.
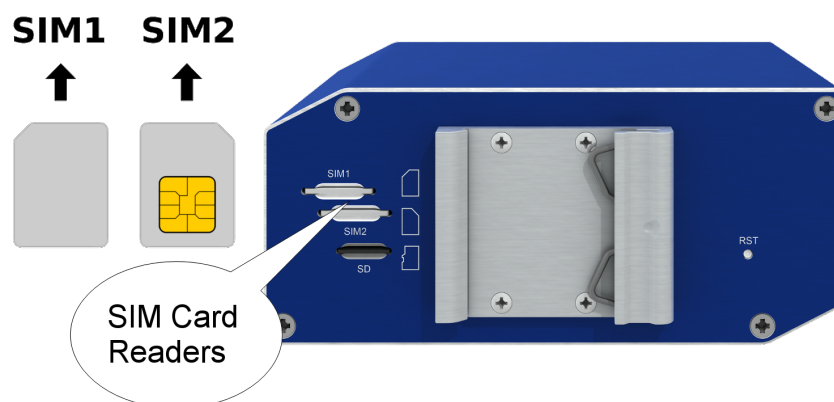

2. SIM card

The SIM card readers, for 3 V and 1.8 V SIM cards, are located on the rear panel of the router. 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. Push your SIM card into the *SIM1* or *SIM2* slot until it clicks into place.
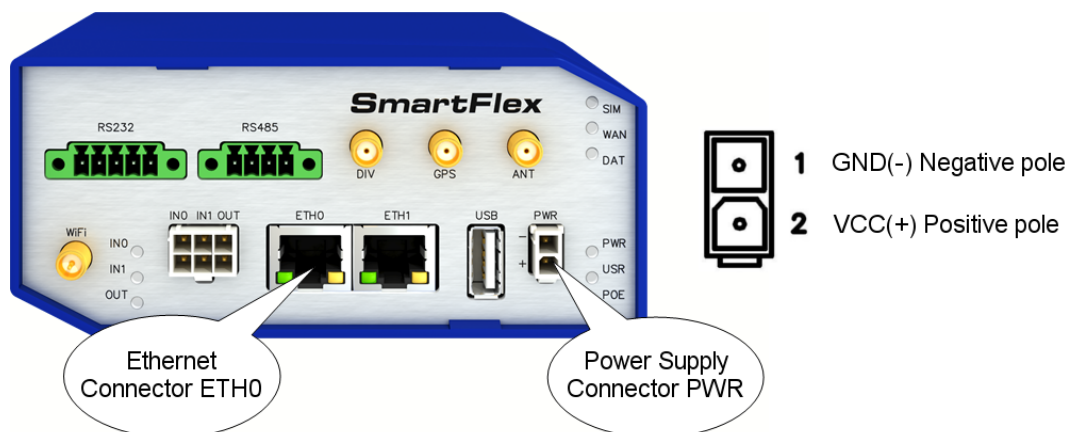
> ⚠ Before handling the SIM card disconnect the router from the power supply!

3. Power

The router requires an external DC power supply. The DC voltage required is between +10 to +60 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.

4. Ethernet

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

Connector	Purpose	Default Setting
ETH0	LAN port (default) Connect your PC to this port to get the router web interface.	DHCP Server IP Address: 192.168.1.1 NetMask: 255.255.255.0

Configuration

1. Configuring the Device Using the Web Browser

You can use a web browser running on your PC to access the router web interface. Here you can perform router monitoring, configuration, and administration. First, connect the PC to the default LAN interface 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.

There is just the extbf*root* user account created on the router by default. See the **product label** on the router for its **default password**[2]. 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.

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[2]If the label does not contain a unique password, use "root" string as the password.

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 identifiers, configuration, and cellular network statistics to the *WebAccess/DMP* server. If you have purchased a part number ending with "-SWH", the DMP client is activated by default.

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`.

3. Restoring and Backing up the Router Configuration

The default factory settings will replace the current configuration if you reset the router. 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.

> After logging on to the device for the first time, we strongly recommend changing the default password due to security reasons. Simultaneously, you will gain access to all functions of the router.

> For security reasons, we highly recommend updating the router's firmware to the latest version regularly. Downgrading the firmware to an older version than the production version or uploading firmware intended for a different device may cause the device's malfunction.

Support

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

UK CA
We, Advantech Czech s.r.o., declare that the radio equipment type **SR300** (WiFi version), **SR303**, **SR304**, and **SR310** comply with Directive Radio Equipment Regulations 2017 (**S.I. 2017 No. 1206**). Furthermore, **SR300** (non-WiFi version) complies with the Electromagnetic Compatibility Regulations 2016 (**S.I. 2016 No. 1091** and **S.I. 2016 No. 1101**).

C €
We, Advantech Czech s.r.o., declare that the radio equipment type **SR300** (WiFi version), **SR303**, **SR304**, **SR305**, **SR306**, **SR307**, and **SR310** comply with Directive **2014/53/EU**. Furthermore, **SR300** (non-WiFi version) complies with the essential requirements and other relevant provisions of 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

# SmartMotion Router

ST352, ST355
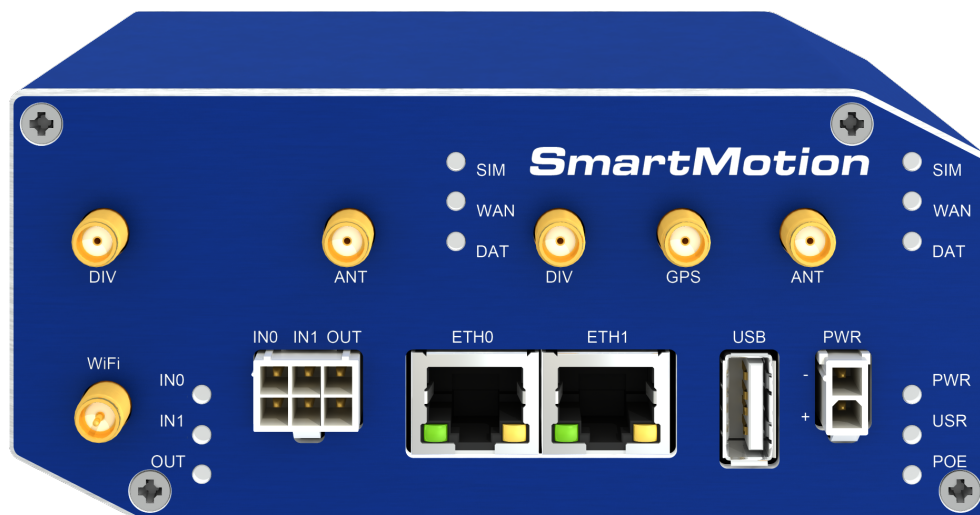
First Use

Before applying power to the router, connect all the components you need for your applications. You cannot operate the router without a connected antenna, inserted SIM card, nor a connected power supply.

> **!** Do not run the router without an antenna connected to the main antenna connector. The energy from the transmission is effectively reflected by the open end and can damage the equipment.

1. Antenna

Use SMA connectors to connect the antennas to the router; see the figure below. First, connect the main antenna to the *ANT* connector. Next, connect the second diversity antenna to the *DIV* connector to improve the quality and reliability of a wireless link. Three antenna connectors on the right side (*ANT*, *DIV* and *GPS*) are intended for connecting the antennas to the first module. There are also two antenna connectors for the second module on the left side (*ANT* and *DIV*).
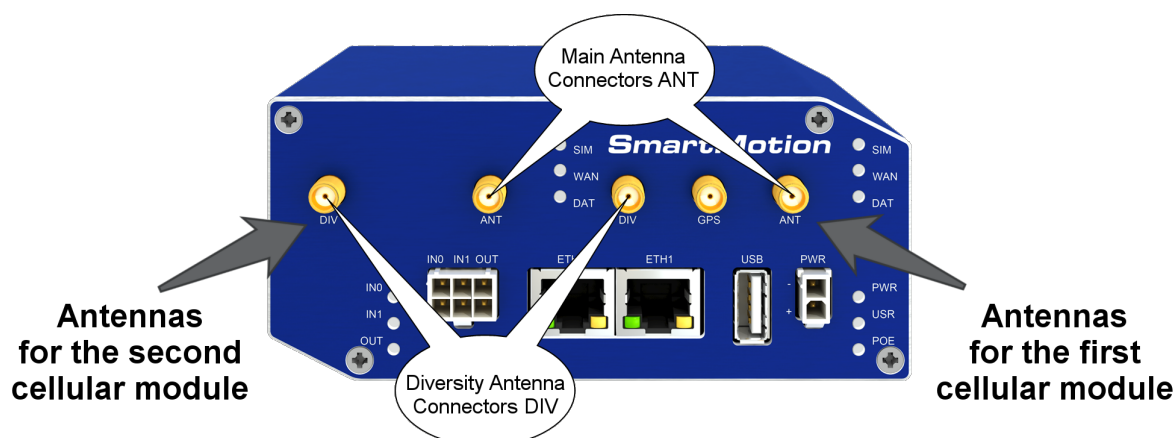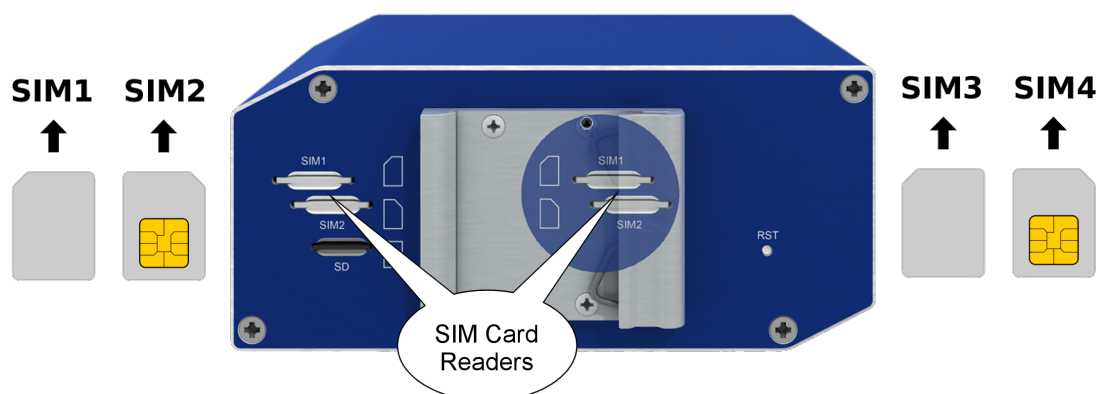

2. SIM card

The SIM card readers, for 3 V and 1.8 V SIM cards, are located on the rear panel of the router. 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. Push your SIM card into the *SIM1*, *SIM2*, *SIM3* or *SIM4* slot until it clicks into place.
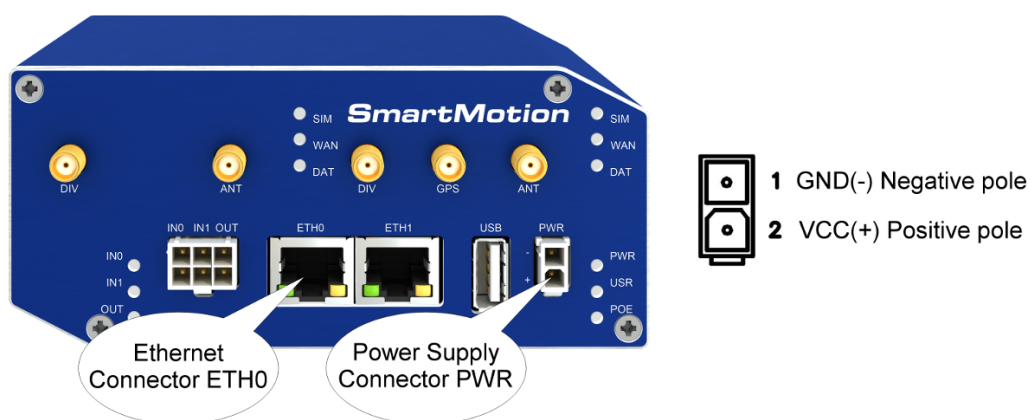
> Before handling the SIM card disconnect the router from the power supply!

SIM1 SIM2   SIM3 SIM4

SIM Card Readers

3. Power

The router requires an external DC power supply. The DC voltage required is between +10 to +60 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.

Ethernet Connector ETH0   Power Supply Connector PWR

1 GND(-) Negative pole
2 VCC(+) Positive pole

4. Ethernet

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

Connector	Purpose	Default Setting
ETH0	LAN port (default) Connect your PC to this port to get the router web interface.	DHCP Server IP Address: 192.168.1.1 NetMask: 255.255.255.0

SmartMotion

Configuration

1. Configuring the Device Using the Web Browser

You can use a web browser running on your PC to access the router web interface. Here you can perform router monitoring, configuration, and administration. First, connect the PC to the default LAN interface 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.

There is just the extbf*root* user account created on the router by default. See the **product label** on the router for its **default password**[3]. 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.

2. Restoring and Backing up the Router Configuration

The default factory settings will replace the current configuration if you reset the router. 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.

> ⚠ After logging on to the device for the first time, we strongly recommend changing the default password due to security reasons. Simultaneously, you will gain access to all functions of the router.

> ⚠ For security reasons, we highly recommend updating the router's firmware to the latest version regularly. Downgrading the firmware to an older version than the production version or uploading firmware intended for a different device may cause the device's malfunction.

Support

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

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[3]If the label does not contain a unique password, use "root" string as the password.

QSG-0002-EN, March 3, 2022   18   *Released in the Czech Republic*

UK CA We, Advantech Czech s.r.o., declare that the radio equipment type **ST352** comply with Directive Radio Equipment Regulations 2017 (**S.I. 2017 No. 1206**).

C E We, Advantech Czech s.r.o., declare that the radio equipment type **ST352** and **ST355** comply with Directive **2014/53/EU**.

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