

## Technical Specifications

|                      |  |
|----------------------|--|
| <b>Product name:</b> | Smart Gateway  |
| <b>Model:</b>        | R653G 3G Router  |
| <b>Producer:</b>     | Dueton Systems s. r. o.  |
| <b>Interfaces:</b>   | 4x 10/100Mbps LAN ports<br>1x 10/100Mbps WAN port<br>2x USB2.0 port<br>RESET button<br>1x SIM slot, compatible with mini-SIM (2FF) |
| <b>Dimensions:</b>   | 170 x 88,5 x 25 mm (L x W x H)   |
| <b>Antenna :</b>     | 2,4 GHz 5 dBi RP-SMA M/F 3T3R MIMO omnidirectional   |

### Wireless parameters

|                            |   |
|----------------------------|---|
| <b>Standards:</b>          | IEEE 802.11b, 802.11g, 802.11n, IEEE 802.3, IEEE 802.3u |
| <b>Frequency:</b>          | 2,412 ~ 2,462 GHz                                       |
| <b>Data Rates:</b>         | 2,4 GHz: Up to 150 Mbps with 802.11n clients            |
| <b>Radio output power:</b> | 25 dBm max. (EIRP)                                      |
| <b>Sensitivity:</b>        | -70 dBm up to -76 dBm                                   |
| <b>Wireless Security:</b>  | 64/128/152-bit WEP, WPA / WPA2, WPA-PSK/WPA2-PSK        |

### Hardware Description

|                              |   |
|------------------------------|---|
| <b>CPU:</b>                  | ATHEROS AR9331 400MHz   |
| <b>Memory:</b>               | 64 MB DDR2 512MT/s RAM, 16 MB NORFlash  |
| <b>Operating system:</b>     | Dueton OS based on OpenWRT  |
| <b>Expansion Interfaces:</b> | 1xUSB2.0 internal port<br>1xUART console (debug ports)<br>21xGPIO export pins |

\* - compatibility of miniPCIe module shall be safety approved by the manufacturer

### Power supply:

|                |                              |   |
|----------------|------------------------------|---|
| <b>Input:</b>  | 100-240 V AC 50/60 Hz, 0.6 A |  |
| <b>Output:</b> | 12 V DC / 1500 mA, 18 W max. |   |

### Operating conditions

|                               |                               |
|-------------------------------|-------------------------------|
| <b>Operating temperature:</b> | 0 °C up to + 85 °C            |
| <b>Storage temperature:</b>   | - 40 °C up to +125 °C         |
| <b>Operating humidity:</b>    | 10 % do 90 % (Non-condensing) |

## Smart Gateway      M2M SME Router

### R653G 3G Router - User Guide

This manual must be carefully read by all individuals who have or will have the responsibility of using, maintaining, or servicing this product. The product will perform as designed only if it is used, maintained, and serviced in accordance with the manufacturer's instructions.

#### Getting Started

- 1) Connect the antenna to the antenna connector on the rear panel of Router.
- 2) Connect the Ethernet cable to one of the Ethernet connections marked LAN 1 - 4 on the rear panel of Router. Connect the second plug on the cable to the network connection port on your computer.
- 3) Connect the Ethernet network cable your ISPs (from the cable or DSL modem) to the WAN port the Router.
- 4) Connect the supplied cord of power adapter to the DC port on the rear panel of Router.
- Attention:** Always make sure that you are using the AC adapter 110/240V - 12V DC, 1500 mA.
- Notice:** During the launch of the device LED №3 blinks, it is part of the normal Router startup, after the LED solid green Router is fully booted and ready for use.
- 5) Wait about 2 minutes, then an IP address will be assigned. In the Address bar, enter <http://192.168.0.1> as the router's default IP address. Use the Web interface to configure the Router's settings. More detailed information to configure WEB interface is available in the Dueton OS Manual. Detailed information about configuring is available on the Website <http://dueton.com/> in the Support page or on link <http://dueton.com/downloads/>.
- 6) The default username and password is: username: **admin** password: **admin**

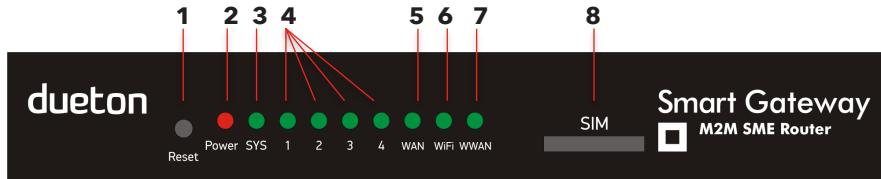
#### Certifications

**FCC Part15:** This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This Equipment has been tested and found to comply with the limit for pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. - Consult the dealer or an experienced radio/TV technician for help

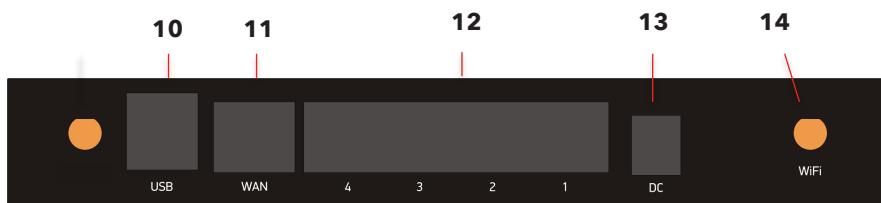
The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter, except in accordance with FCC multi-transmitter product procedures.

## Device description



### Front panel tutorial

- 1) Reset button
- 2) Power LED indicator
- 3) SYS activity LED indicator
- 4) WAN link/activity LED indicator
- 5) LAN link/activity LED indicators
- 6) WiFi link/activity LED indicator
- 7) WWAN link/activity LED indicator
- 8) SIM card slot



### Rear panel tutorial

- 10) USB порты
- 11) WAN port
- 12) LAN ports
- 13) Power 12V DC
- 14) WiFi antenna

### Address sales office

Dueton Systems Ltd.  
 Varsavska 290/13, Prague, 120 00, Czech Republic  
 Phone/Fax: +420 222 544 632  
 E-mail: [support@dueton.com](mailto:support@dueton.com)

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## Troubleshooting

### The Router Does not Start, the LEDs Do not Light up

After the Router is connected to power supply, the LED (Nº2) lights continuously. If this LED does not light and the Router does not work, check the electrical connections between the Router and the power outlet.

**Notice:** Testing of the electrical supply must comply with local and national electrical codes.

### Reset to Factory Settings

In case you forgot the password, or changed the settings in a way it made the device unaccessible, you can restore the settings to factory defaults.

To reset the Router, with the device powered on, press and hold for 10 seconds the reset button (Nº1) on the front panel of the unit. In less than a minute the LED (Nº3) will start blinking indicating that the Router is rebooting. After the booting process it is ready for use.

**Notice:** Resetting the Router to factory defaults will erase all the configuration, so you will have to perform the initial setup process again.

### Soft Reset

If the Router stopped working correctly, you can perform soft reset by pressing the reset button (Nº1) for 1 second.

## Installation Warning Statements

The device is for **indoor use only**. The device must be placed near the power outlet.

**Attention:** Observe the safety regulations while working with electricity.

### Recycling

This equipment may not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment..



By ensuring this product is disposed of correctly, you will prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product.