

# UCR-ST-B5 Router

The Unitronics UCR-B5 enable Unitronics PLC products to communicate via mobile networks (4G).

Highlights:

1. 1 Ethernet LAN port and 1 WAN (configurable can act as LAN)
2. Wireless LAN access point or client to existing network.
3. Embedded send / receive SMS messages directly from UniStream PLCs.
4. I/O:
  - a. 1 Digital Input
  - b. 1 Digital Output

**Note: UniLogic SMS embedded support from Ver. 1.29 and above.**

## Package Content

#	Description	Quantity	Unitronics P/N
1	UCR-B5 Router	1	
2	Power cable, 2m, 4 pins terminal block	1	UCR-ACC-01
3	LTE antenna (swivel, SMA male)	2	UCR-ACC-07
4	WiFi antenna (swivel, RP-SMA male)	1	UCR-ACC-08
5	Ethernet cable (1.5 m)	1	
6	Quick Start Guide	1	

## SIM Card

### SIM Card Insertion

1. Push the SIM holder button with the SIM needle
2. Pull out the SIM holder
3. Insert your SIM card into the SIM holder
4. Slide the SIM holder back into the router



## Front View

#	Description
1	Power LED
2	Power socket
3	Network type LED
4	SIM holder
5	Mobile signal strength indication LEDs
6	Ethernet ports
7	LAN LED
8	WAN LED



## Back View

#	Description
1	WiFi antenna connector
2	Reset button
3	Mobile antenna connectors



## LED: Status Indication



### Power LED

ACTION	DESCRIPTION
LED turned ON	Router is powered up
LED turned OFF	Router is not powered up

## Ethernet Port LEDs

ACTION	DESCRIPTION
LED turned ON	Operating as a 10/100 Mbps connection
LED turned OFF	No link established
LED blinking	Connection established and there is activity on this port (data being transferred)
LEDs light up and turn OFF in sequence from WAN port to LAN1 port	The router is in the bootloader menu state*

\* The bootloader menu is a special router state from which certain upgrades can be performed

## Signal Strength LEDs

Each lit up LED represents a different value of the router's current signal strength in RSSI:

NO. OF LIT UP LEDs	SIGNAL STRENGTH VALUE
0	$\leq -111$ dBm
1	-110 dBm to -97 dBm
2	-96 dBm to -82 dBm
3	-81 dBm to -67 dBm
4	-66 dBm to -52 dBm
5	$\geq -51$ dBm

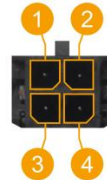
All 5 LEDs are lit up after pressing and holding the reset button to initiate a factory reset.

## Powering Options

### Power Connector

4 pin power connector:

Pin	Description	Direction
1	Power	Red
2	Ground	Black
3	Digital Input	Green
4	Digital Output	White



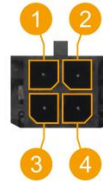
### Passive Power Over Ethernet

The device may also be powered by an Ethernet cable via the LAN port:  
(Do not use in other ports!)



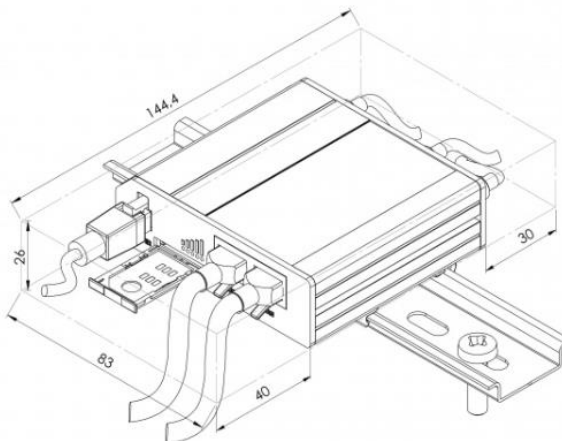
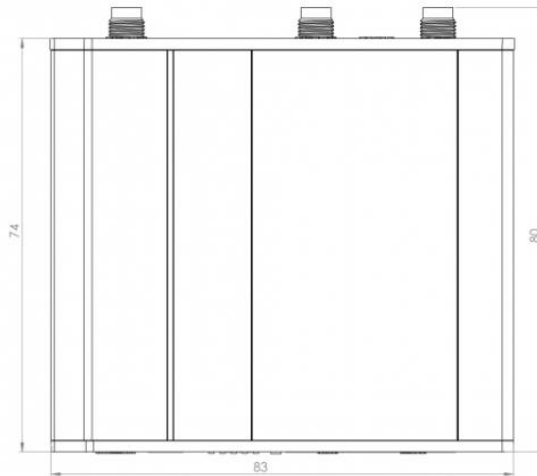
## Input / Output Specification and Pinout

Associated Pins	Description
3	Digital Input 1, 0-40VDC (Low 0-5V, High 8-40V)
4	Digital Output 1, 0-30VDC, 300mA (sink)



## Mounting

Use the Din Rail bracket to mount the device.



## Technical Specifications

Power voltage range	9 – 30 VDC, 4 pin DC connector
Power consumption	< 5W
Power over Ethernet (passive)	Passive PoE over spare pairs. Possibility to power up through LAN port, not compatible with IEEE802.3af and 802.3at standards
Status LEDs	2 x connection type status 5 x connection strength 2 x LAN status 1 x Power
SIM card	1 x external SIM holders
Ethernet	2 x 10/100 Ethernet ports: <ul style="list-style-type: none"> <li>- 1 x WAN (configurable as LAN)</li> <li>- 1 x LAN</li> </ul>
Inputs	1 x Digital Input
Outputs	1 x Digital Open Collector Output
Connectors	1 x 4 pin DC 2 x Ethernet 2 x Mobile SMA 1 x WiFi RP-SMA
Mobile	4G (LTE) – Cat 4 DL up to 150 Mbps, UL up to 50Mbps; DC-HSPA+; UMTS; TD-SCDMA; EDGE; GPRS
Housing	Aluminum housing, plastic panels
Dimensions	83 mm x 74 mm x 25 mm (3.27"x2.91"x0.98")
Weight	125 g (4.40 oz)
Storage and Operational temperature	-40 °C to 75 °C (-40°F to 167°F)

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