

# Cellular Routers UMTS/HSPA+ & GPRS/EDGE

UR5i V2 Libratum

B+B SMARTWORX

Powered by

ADVANTECH



## PRODUCT FEATURES

- 2-port Ethernet switch
- 2 independent LAN
- Models with Wi-Fi: AP or client mode
- Dual-SIM fail over
- Antenna Rx Diversity
- Temperature up to +75°C

Balanced UR5iv2 Libratum a UMTS/HSPA+, non-modular wireless router features high speed data rates 14.4 Mbps, two Ethernet 10/100 ports and dual-SIM failover capability for mission critical applications. This router is particularly suited to the demands of the “Transaction Management” industry such as point-of-sale terminals, remote ATMs and vending terminals as well as a huge variety of intelligent remote monitoring and control applications in the Transport, Energy and Security sectors.

## Key Features

This exceptionally fast UMTS/HSPA+ UR5i v2 Libratum wireless router is equipped with two Ethernet 10/100 ports and two SIM cards. Two SIM cards backup communication in mobile operator network or networks and provide failover to each other. WiFi models are available.

Configuration is done via a web interface protected by password. The 3G UMTS/HSPA+ router supports creation of VPN tunnels using IPsec, OpenVPN and L2TP to assure safe communication. Web interface provides detail statistics about the 3G router activities, signal strength, detailed log, etc. Cellular router supports functions: DHCP, NAT, NAT-T, DynDNS, NTP, VRRP, control by SMS and many other functions.

Other diagnostic functions for continuous communication include automatic inspection of PPP connection offering an automatic restart feature - in case of connection losses, or hardware watchdog which monitors the status of the router. With the help of a start up script window you may insert Linux scripts for various actions.

For some applications the key option is to create several different configurations for one UMTS/HSPA+ wireless router, the so-called profiles (maximum of 4), and the option to switch among them (for example via SMS, binary input status, etc.) is essential. Cellular wireless routers may automatically upgrade configuration and firmware from server. This allows mass reconfiguration of many routers in one time.

## SELECTED APPLICATIONS

Transportation and security  
IT and communication  
Self-service terminals  
Energy and power industry  
Meteorology, alarm and warning systems

## ORDERING INFORMATION

**Note: Check with your local distributor for availability and options. Contact Advantech B+B SmartWorx distributors.**

### BB - UR2L610XXX

#### Accessories

|         |                                         |
|---------|-----------------------------------------|
| 0       | No Accessories (DIN holder included)    |
| 1 (set) | Accessories with EU power supply        |
| 2 (set) | Accessories with UK power supply        |
| 3 (set) | Accessories with Australia power supply |
| 4 (set) | Accessories with US power supply        |

#### Enclosure

|   |                   |
|---|-------------------|
| 1 | Plastic enclosure |
| 2 | Metal enclosure   |

#### WiFi

|   |         |
|---|---------|
| 0 | No WiFi |
| 7 | WiFi    |

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## SPECIFICATIONS

### INTERFACES

|             |                                     |
|-------------|-------------------------------------|
| 2× Ethernet | 10/100 Mbps, independent or bridged |
| 2× SIM      | 2 mini SIMs (2FF)                   |

### ANTENNA

|                             |
|-----------------------------|
| 2(3)× SMA connector, 50 Ohm |
|-----------------------------|

### CPU & MEMORY

|              |                                            |
|--------------|--------------------------------------------|
| CPU          | 32b ARM microprocessor, 0.25 DMIPS per MHz |
| Flash memory | 16 MB DDR SDRAM                            |
| RAM          | 64 MB                                      |
| M-RAM        | 128 kB                                     |

### POWER

|             |                                                                              |
|-------------|------------------------------------------------------------------------------|
| Source      | 9 - 36 VDC                                                                   |
| Consumption | 2.3W reception<br>3.5W (GPRS transmission)<br>5.5W (UMTS/HSDPA transmission) |

### MECHANICAL

|                            |                              |
|----------------------------|------------------------------|
| Dimension Plastic Version  | 51 x 87 x 116 mm (DIN 35 mm) |
| Dimension Metallic Version | 42 x 87 x 113 mm (DIN 35 mm) |
| Protection                 | IP30                         |
| Weight Plastic Version     | 150g                         |
| Weight Metallic Version    | 280g                         |

### ENVIRONMENTAL

|                       |                          |
|-----------------------|--------------------------|
| Operating Temperature | -40° to +75°C            |
| Storage Temperature   | -40° to +85°C            |
| Humidity              | 0 to 95%, non-condensing |

### WIFI \*optional

|                            |                                                                                                                                                                                                          |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Antenna connector          | R-SMA – 50 Ohms                                                                                                                                                                                          |
| Supported WiFi band        | 2.4 GHz                                                                                                                                                                                                  |
| Standards                  | 802.11b, 802.11g, 802.11n                                                                                                                                                                                |
| 2.4 GHz supported channels | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13                                                                                                                                                                |
| RX Sensitivity             | 11b, 11 Mbps: typ. -85 dBm<br>11g, 54 Mbps: typ. -70 dBm<br>(HT20) 11n, MCS7: typ. -66 dBm<br>(HT40) 11n, MCS7: typ. -62 dBm                                                                             |
| TX Output Power            | 11b, 11 Mbps: min. 18, typ. 19, max. 20 dBm<br>11g, 54 Mbps: min. 14.5, typ. 16, max. 17.5 dBm<br>802.11n (HT20): min. 13.5, typ. 15, max. 16.5 dBm<br>802.11n (HT40): min. 13.5, typ. 15, max. 16.5 dBm |
| Type of device             | Access point, station                                                                                                                                                                                    |

### PARAMETERS - HSPA+ MODULE

|                  |                                                                                                                                                           |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| HSPA+            | Bit rate 14.4 Mbps (DL) / 5.76 Mbps (UL)<br>3GPP rel. 6/7 standard<br>Data compress 3GPP                                                                  |
| UMTS             | Bit rate 384 kbps (DL) / 384 kbps (UL)<br>3GPP rel. 4 standard                                                                                            |
| GPRS/EDGE        | EDGE bit rate 237 kbps (DL) / 237 kbps (UL)<br>GPRS bit rate 85.6 kbps (DL) / 85.6 kbps (UL)<br>Multislot class 12, CS 1 to 4,<br>3GPP rel. 99/4 standard |
| Support channels | GSM/GPRS/EDGE: Quad band, 850/900/1800/1900 MHz<br>UMTS/HSDPA/HSUPA/HSPA+: Five band,<br>800/850/900/1900/2100 MHz                                        |

### STANDARDS/REGULATIONS

|                                                    |                                                                                                                               |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
|                                                    | ISO9001, CE, PCT, RoHS                                                                                                        |
| Telecom/Emission                                   | ETSI EN 301 511 V12.5.1, ETSI EN 300 440 V2.1.1, ETSI EN 301 908-1 V11.1.1, ETSI EN 301 908-2 V11.1.1, ETSI EN 300 328 V2.1.1 |
| EMC                                                | ETSI EN 301 489-1 V2.1.1, ETSI EN 301 489-3 V2.1.1, Draft ETSI EN 301 489-52 V1.1.0, ETSI EN 301 489-17 V3.1.1                |
| Safety:                                            | EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 + AC:2011, EN 62311:2008                                            |
| E-Mark – EMC for devices in transportation         | E-Mark homologation number: 10R – 04 7055                                                                                     |
| RCM – EMC and RF according to Australian standards | AS/NZS CISPR 32: 2015,<br>CISPR 32: 2015,<br>AS/NZS 4268: 2012 Amdt 1-2013                                                    |

### SOFTWARE FEATURES

|                                                             |
|-------------------------------------------------------------|
| Linux based, possibility to program your own application    |
| NTP client, NTP Server – time synchronization               |
| SMS communication – AT commands on RS232, Ethernet and I/O  |
| M-RAM memory inside – router statistic's saving into memory |

### NETWORKING

|                                                                           |
|---------------------------------------------------------------------------|
| DHCP – automatic IP addressing in LAN network                             |
| NAT/PAT – IP address and ports translation between inside/outside network |
| VRRP – virtual backup router function                                     |
| DynDNS client – access to the router with a dynamic IP address            |
| Dial-in – the ability to communicate over dial CSD call                   |
| PPPoE Bridge – PPP frames encapsulation inside ETH frames                 |

### VPN TUNNELING

|                                                 |
|-------------------------------------------------|
| IPsec, OpenVPN, L2TP – secure encrypted tunnels |
|-------------------------------------------------|

### CONFIGURATION AND DIAGNOSTIC

|                                                                                  |
|----------------------------------------------------------------------------------|
| HTTP server – configuration via web server                                       |
| Telnet – configuration and access to the file system                             |
| SNMP – router diagnostics, communication with I/O and M-Bus                      |
| GPRS state signalization by LED                                                  |
| On-line info on GSM signal status (level, cell, neighbors)                       |
| SMS info – power on, GPRS connection or disconnection                            |
| SMS control – on/off GPRS connection, switch SIM, I/O etc.                       |
| Transferred data counting, one more APN as backup                                |
| Remote router group configuration change, switching among configuration profiles |
| SSH – encrypted configuration and access to the file system                      |

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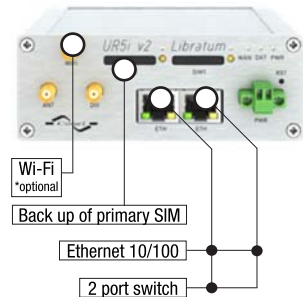


## ACCESSORIES

| ORDER CODE        | DESCRIPTION                                                            | INCLUDED IN PACKAGE | INCLUDED IN SET PACKAGE | SOLD SEPARATELY |
|-------------------|------------------------------------------------------------------------|---------------------|-------------------------|-----------------|
| BB-SBD40          | Metal DIN holder for Metal versions of routers v2                      | ✓                   | ✓                       | ✓               |
| BB-CPD2-G         | Plastic DIN holder                                                     |                     | ✓                       | ✓               |
| BB-TG.09.0113     | Antenna GSM/UMTS stick 2dB - Penta-band, SMA-M connector               |                     | ✓                       | ✓               |
| BB-AO-AUMTS-M3S   | Antenna GSM/UMTS magnetic 3dB - Quad-band, 3m cable, SMA-M connector   |                     | ✓                       | ✓               |
| BB-AO-AGSM-MG9S   | Antenna GSM/UMTS magnetic 9dB - Quad-band, 3,5m cable, SMA-M connector |                     |                         | ✓               |
| BB-AW-A24G-M5SRP  | Antenna WiFi stick 5dB, SMA-RP connector                               |                     | ✓                       | ✓               |
| BB-KD-ETH         | Ethernet cross cable 1.5m                                              |                     | ✓                       | ✓               |
| BB-CON-WR2        | 2-pin Terminal block for Power Supply                                  | ✓                   |                         | ✓               |
| BB-RPS-v2-WR2-EU  | Power supply with WR connector (2 pins) - 12V/1A - EU plug             |                     | ✓                       | ✓               |
| BB-RPS-v2-WR2-US  | Power supply with WR connector (2 pins) - 12V/1A - US plug             |                     | ✓                       | ✓               |
| BB-RPS-v2-WR2-UK  | Power supply with WR connector (2 pins) - 12V/1A - UK plug             |                     | ✓                       | ✓               |
| BB-RPS-v2-WR2-AUS | Power supply with WR connector (2 pins) - 12V/1A - AUS plug            |                     | ✓                       | ✓               |
| Quick Start Guide |                                                                        | ✓                   | ✓                       |                 |

### UR5i v2 LIBRATUM

2x SIM card holder  
2x LAN port, Wi-Fi optional



## R-SEENET™

Router Management Software consisting of two parts:

**R-SeeNet Server** application can be programmed to automatically send SNMP queries (Simple Network Management Protocol) to each router defined in the network. The application retrieves status information from the routers and records it in the SQL database.

**R-SeeNet PHP** is a web-based application that accesses the SQL database and provides the network administrator detailed information on individual routers and network health.

## SMARTWORX HUB™

**SmartWorx HUB** takes management of your devices to new levels of flexibility and efficiency. Giving you a complete view of your installed device population, SmartWorx Hub delivers invaluable configuration, diagnostic and management facilities directly to your desktop, wherever you are.

Manage a single device or your entire device population at the same time. Whether you need to modify configuration parameters, download or upgrade installed firmware and applications or view detailed information regarding network statistics, you can do it all from any location.