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
**CPU & MEMORY**

CPU 32b ARM microprocessor, 0.25 DMIPS per MHz

Flash memory 16 MB DDR SDRAM

RAM 64 MB

M-RAM 128 kB

**UR5i V2 Libratum**

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European Office:  Westlink Commercial Park, Oranmore Co. Galway Ireland   +353 91 792444  Fax +353 91 792445

**PARAMETERS - HSPA+ MODULE**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSPA+</td>
<td>Bit rate 14.4 Mbps (DL) / 5.76 Mbps (UL) 3GPP rel. 6/7 standard</td>
</tr>
<tr>
<td></td>
<td>Data compress 3GPP</td>
</tr>
<tr>
<td>UMTS</td>
<td>Bit rate 384 kbps (DL) / 384 kbps (UL) 3GPP rel. 4 standard</td>
</tr>
<tr>
<td>GPRS/EDGE</td>
<td>EDGE bit rate 237 kbps (DL) / 237 kbps (UL) GPRS bit rate 85.6 kbps (DL) / 85.6 kbps (UL) Multi-slot class 12, CC 1 to 4, 3GPP rel. 99/4 standard</td>
</tr>
</tbody>
</table>

Support channels

GSM/GPRS/EDGE: Quad band, 850/900/1800/1900 MHz

UMTS/HSDPA/HSUPA/HSPA+: Five band, 800/850/900/1900/2100 MHz

**STANDARDS/REGULATIONS**

<table>
<thead>
<tr>
<th>Standard/Regulation</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO9001, CE, PCT, RoHS</td>
<td></td>
</tr>
<tr>
<td>Telecom/Emission</td>
<td>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</td>
</tr>
<tr>
<td>EMC</td>
<td>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</td>
</tr>
<tr>
<td>E-Mark – EMC for devices in transportation</td>
<td>E-Mark homologation number: 10R – 04 7055</td>
</tr>
<tr>
<td>RCM – EMC and RF, according to Australian standards</td>
<td>AS/NZS CISPR 32: 2015, CISPR 32: 2015, AS/NZS 4268: 2012 Amdt 1-2013</td>
</tr>
</tbody>
</table>

**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

Telnet – the ability to communicate over dial CSD call

PPP-oE 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.

Remote router group configuration change, switching among configuration profiles

SSH – encrypted configuration and access to the file system

**SPECIFICATIONS**

**INTERFACES**

2× Ethernet 10/100 Mbits, 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 3.5W (GPRS transmission) 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**

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. -65 dBm

11g, 54 Mbps: typ. -70 dBm

(HT20) 11n, MSc7: typ. -66 dBm

(HT40) 11n, MSc7: typ. -62 dBm

TX Output Power

11b, 11 Mbps: min. 18, typ. 19, max. 20 dBm

11g, 54 Mbps: min. 14.5, typ. 16, max. 17.5 dBm

802.11n (HT20): min. 13.5, typ. 15, max. 16.5 dBm

802.11n (HT40): min. 13.5, typ. 15, max. 16.5 dBm

Type of device Access point, station
**Cellular Routers**
UMTS/HSPA+ & GPRS/EDGE

**UR5i V2 Libratum**

**ACCESSORIES**

<table>
<thead>
<tr>
<th>ORDER CODE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BB-SD040</td>
<td>Metal DIN holder for Metal versions of routers v2</td>
</tr>
<tr>
<td>BB-C102-G</td>
<td>Plastic DIN holder</td>
</tr>
<tr>
<td>BB-TG-09.0113</td>
<td>Antenna GSM/UMTS stick 2dB - Penta-band, SMA-M connector</td>
</tr>
<tr>
<td>BB-AO-AUMTS-M3S</td>
<td>Antenna GSM/UMTS magnetic 3dB - Quad-band, 3m cable, SMA-M connector</td>
</tr>
<tr>
<td>BB-AO-AGSM-MG9S</td>
<td>Antenna GSM/UMTS magnetic 9dB - Quad-band, 3.5m cable, SMA-M connector</td>
</tr>
<tr>
<td>BB-AW-A24G-M5SRP</td>
<td>Antenna WiFi stick 5dB, SMA-RP connector</td>
</tr>
<tr>
<td>BB-CON-WR2</td>
<td>2-pin Terminal block for Power Supply</td>
</tr>
<tr>
<td>BB-RPS-v2-WR2-EU</td>
<td>Power supply with WR connector (2 pins) - 12V/1A - EU plug</td>
</tr>
<tr>
<td>BB-RPS-v2-WR2-US</td>
<td>Power supply with WR connector (2 pins) - 12V/1A - US plug</td>
</tr>
<tr>
<td>BB-RPS-v2-WR2-UK</td>
<td>Power supply with WR connector (2 pins) - 12V/1A - UK plug</td>
</tr>
<tr>
<td>BB-RPS-v2-WR2-AUS</td>
<td>Power supply with WR connector (2 pins) - 12V/1A - AUS plug</td>
</tr>
</tbody>
</table>

Quick Start Guide

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**R-SEE.NET™**

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.

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**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.

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**ACCESSORIES INCLUDED IN PACKAGE**

- Metal DIN holder for Metal versions of routers v2
- Plastic DIN holder
- Antenna GSM/UMTS stick 2dB - Penta-band, SMA-M connector
- Antenna GSM/UMTS magnetic 3dB - Quad-band, 3m cable, SMA-M connector
- Antenna GSM/UMTS magnetic 9dB - Quad-band, 3.5m cable, SMA-M connector
- Antenna WiFi stick 5dB, SMA-RP connector
- 2-pin Terminal block for Power Supply
- Power supply with WR connector (2 pins) - 12V/1A - EU plug
- Power supply with WR connector (2 pins) - 12V/1A - US plug
- Power supply with WR connector (2 pins) - 12V/1A - UK plug
- Power supply with WR connector (2 pins) - 12V/1A - AUS plug

**ACCESSORIES INCLUDED IN SET PACKAGE**

- Metal DIN holder for Metal versions of routers v2
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- Antenna GSM/UMTS stick 2dB - Penta-band, SMA-M connector
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- Power supply with WR connector (2 pins) - 12V/1A - AUS plug

**ACCESSORIES SOLD SEPARATELY**

- Antenna GSM/UMTS stick 2dB - Penta-band, SMA-M connector
- Antenna GSM/UMTS magnetic 3dB - Quad-band, 3m cable, SMA-M connector
- Antenna GSM/UMTS magnetic 9dB - Quad-band, 3.5m cable, SMA-M connector
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**Contact Information**

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Support: support@advantech-bb.com
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European Office: Westlink Commercial Park, Oranmore Co. Galway Ireland +353 91 792444 Fax +353 91 792445

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**Logos**

Advantech B&B SmartWorx

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**Diagram**

[Diagram of UR5i V2 Libratum with labels:
- Metal DIN holder for Metal versions of routers v2
- Plastic DIN holder
- Antenna GSM/UMTS stick 2dB - Penta-band, SMA-M connector
- Antenna GSM/UMTS magnetic 3dB - Quad-band, 3m cable, SMA-M connector
- Antenna GSM/UMTS magnetic 9dB - Quad-band, 3.5m cable, SMA-M connector
- Antenna WiFi stick 5dB, SMA-RP connector
- 2-pin Terminal block for Power Supply
- Power supply with WR connector (2 pins) - 12V/1A]

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**Quick Start Guide**

[Quick Start Guide details]

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