Balanced LR77v2 Librum a LTE non-modular wireless router features high speed data rates 100 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 LTE LR77v2 Librum wireless router is equipped with two Ethernet 10/100 ports and two SIM cards for backup communication in mobile operator networks and provide failover to each other. WiFi models are available.

Configuration is done via a web interface protected by password. The 4G LTE router supports creation of VPN tunnels using IPsec, OpenVPN and L2TP to assure safe communication. Web interface provides detail statistics about router activity, 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 LTE wireless router, the so-called profiles (maximum of 4), and the option to switch among them (for example via SMS) 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

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**PRODUCT FEATURES**
- 2-port Ethernet switch
- 2 independent LAN
- Models with Wi-Fi option: AP or client mode
- Dual-SIM fail over
- Antenna Rx Diversity
- Operating temperature up to +75°C
- Metal or plastic casing

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**ORDERING INFORMATION**
*Note: For more configuration information, contact Advantech B+B SmartWorx or your local distributor. A specification configurator is available online.*

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>ETH 10/100</th>
<th>SIM</th>
<th>WIFI</th>
<th>PLASTIC CASE</th>
<th>METAL CASE</th>
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<tbody>
<tr>
<td>BB-LR77 v2 Librum</td>
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<tr>
<td>BB-LR77 v2 Librum WiFi</td>
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<td>BB-LR77 v2 Librum SL</td>
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<td>BB-LR77 v2 Librum WiFi SL</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Europe, Middle East, Africa, Asia, South America, Latin America.
Check with your local distributor for availability and options.

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**ACCESSORIES**
- BB-SBD40 Metal DIN holder for Metal versions of routers v2
- BB-CPD2-B Plastic DIN holder
- BB-GA.110.101111 Magnet mount antenna LTE 698MHz to 960MHz, 1575.42MHz, 1710MHz to 2700MHz, gain 3 - 5 dB, SMA connector, without magnetic mount base
- BB-AO-ALTE-FSMARK Antenna LTE 698MHz to 960MHz, 1575.42MHz, 1710MHz to 2700MHz, gain 3 - 5 dB, SMA connector, without magnetic mount base
- BB-TG.30.8113 Antenna LTE 698MHz to 960MHz, 1575.42MHz, 1710MHz to 2700MHz, gain 3 - 5 dB, SMA connector, without magnetic mount base
- BB-AO-ABASE-C16 Magnetic mount base for BB-AO-ALTE-5SR, 3m cable, SMA connector
- BB-AW-A24G-M5SRT 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-X Power supply with WR connector (2 pins) - 12V/1A
- BB-KN-WR2-3 Power supply cable 2-wire, 3m

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All product specifications are subject to change without notice.

DS_LR77v2_Libratum_21032017
Cellular Routers

LR77 V2 Libratum

SPECIFICATIONS

INTERFACES
Ethernet 2x 10/100 Mbits, independent or bridged
SIM 2 mini SIMs (2FF)

ANTENNA
2x SMA connector, 50 Ohm
32B ARM MICROPROCESSOR
Memory 512 Mb DDR SDRAM
128 Mb FLASH
1 Mb MRAM

POWER
Source 9 - 36 VDC
Consumption
2.3W reception
3.5W (GPRS transmission)
5.5W (LTE transmission)

MECHANICAL
Dimensions Plastic box - 51 x 87 x 116 mm (DIN 35 mm)
Metal box - 42 x 87 x 113 mm (DIN 35 mm)
Protection IP30
Weight LR77 v2 Libratum – 150 g
LR77 v2 Libratum 5L – 280 g

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
Antenna connector R-SMA – 50 Ohms
Supported WiFi band 2.4 GHz

SOFTWARE FEATURES
Linux based, possibility to program your own application
NTP client, NTP Server – time synchronization
SSH – encrypted configuration and access to the file system
HTTP server – configuration via web server
Telnet – configuration and access to the file system
SNMP – router diagnostics, communication with I/O and M-Bus
IPSec, OpenVPN, L2TP – secure encrypted tunnels

PARAMETERS - LTE MODULE

LTE
Bit rate 100 Mbps (download) / 50 Mbps (upload)
3GPP rel. 8 standard
Supported bandwidths: 5 MHz, 10 MHz, 20 MHz, 100 MHz
Supported frequencies: 800 / 900 / 1800 / 2100 / 2600 MHz

HSPA+
Bit rate 42 Mbps (DL) / 56 Mbps (UL)
3GPP rel. 7 standard
Supported frequencies: 900 / 1800 / 2100 MHz
3GPP data compression
2.5G (HSDPA) Class 14 to 14, 64QAM
3GPP (HSDPA) Class 14

UMTS
PS bit rate 384 kbps (DL) / 384 kbps (UL)
CS bit rate 64 kbps (DL) / 64 kbps (UL)
W-CDMA FDD standard
802.11b, 54 Mbps: min. 11.5, typ. 13, max. 15.5 dBm
802.11g, 54 Mbps: typ. -70 dBm
802.11n (HT40): min. 13.5, typ. 15, max. 16.5 dBm

GPRS/EDGE
EDGE multislot class 12, CS 1 to 4, MCS 1 to 9
Supported frequencies: 900 / 1800 / 2100 MHz
GPRS multislots class 10, CS 1 to 4
Supported frequencies: 900 / 1800 / 2100 MHz
GPRSmultislot class 10, CS 1 to 4
Classes EDGE 900: Class E2 (27 dBm)
EDGE 1800/1900: Class E2 (26 dBm)
EDGE 1800/1900: Class E2 (26 dBm)

STANDARDS/REGULATIONS
ISO9001, CE, PCT, RoHS
ETSI EN 300 001, EN 301 489-1 v1.9.2, EN 301 489-2 v1.9.2.1
ETSI EN 301 908-1 v5.2.1, ETSI EN 301 908-13 v5.2.1
ETSI EN 62311:2008
A2:2013, EN 62311:2008
E8 - EMC for Devices
for Transportation
E8 homologation number: 10R – 04 7950

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E8 homologation number: 10R – 04 7950

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.

SMARTWORKX 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.