

Anytime, Anything, Anywhere, but always securely connected.



**LR77 v2 LIBRATUM**  
2x SIM card holder  
2x LAN port, Wi-Fi optional



- 2x 10/100 Ethernet ports with two possible modes: 2-port Ethernet switch, 2x independent LAN
- Optional\* Wi-Fi: AP or client mode
- Dual-SIM fail over
- Antenna Rx Diversity
- Temperature up to +75°C
- Metal or plastic casing

## SPECIFICATIONS

### INTERFACES

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

### ANTENNA

2(3)x 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 3.5W (GPRS transmission) 5.5W (LTE transmission)

### MECHANICAL

Dimensions Plastic box	51 x 87 x 116 mm (DIN 35 mm)
Dimensions Metallic box	42 x 87 x 113 mm (DIN 35 mm)
Protection	IP30
Weight Plastic box	150g
Weight Metallic box	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
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 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

### PARAMETERS - LTE MODULE

LTE	Bit rate 100 Mbps (download) / 50 Mbps (upload) 3GPP rel. 8 standard Supported bandwidths: 5 MHz, 10 MHz, 20 MHz Supported frequencies: 800 / 900 / 1800 / 2100 / 2600 MHz
HSPA+	Bit rate 42 Mbps (DL) / 5,76 Mbps (UL) 3GPP rel. 7 standard UE CAT. 1 to 6, 8, 10, 12, 14 3GPP data compression Supported frequencies: 900 / 1800 / 2100 MHz
UMTS	PS bit rate 384 kbps (DL) / 384 kbps (UL) CS bit rate 64 kbps (DL) / 64 kbps (UL) W-CDMA FDD standard Supported frequencies: 900 / 1800 / 2100 MHz
GPRS/EDGE	Bit rate 237 kbps (DL) / 59,2 kbps (UL) GPRS multislot class 10, CS 1 to 4 EDGE multislot class 12, CS 1 to 4, MCS 1 to 9 Supported frequencies: 900 / 1800 MHz
GPRS/EDGE - Supported Power Classes	EGSM 900: Class 4 (33 dBm) GSM 1800/1900: Class 1 (30 dBm) EDGE 900: Class E2 (27 dBm) EDGE 1800/1900: Class E2 (26 dBm)

### 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