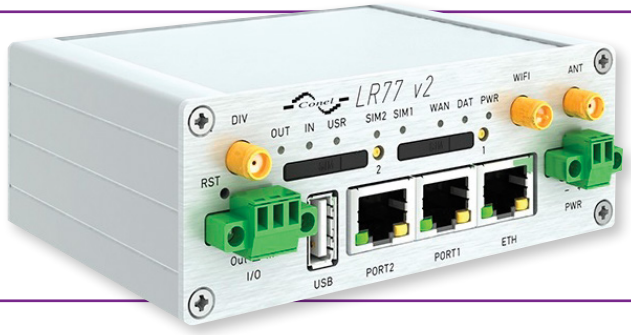
Cellular Router - 4G LTE

LR77 v2 Series



PRODUCT FEATURES

- Designed for M2M applications
- WiFi, M-BUS and Modbus TCP / Modbus RTU
- Modular design to fit application requirements
- Single or dual SIM cards for redundant backhaul
- LTE Up to 50 Mbps upload to 100 Mbps download
- LINUX platform & advanced networking functions
- 'C' based dev environment to build user applications

4G LTE router LR77 v2 provides wireless connection of equipment and devices via Ethernet 10/100 or serial interfaces to the Internet or intranet. 4G router LR77 v2 is ideal for transferring large data loads. With LTE its ultra fast data transfer speed reaches up to 100 Mbit/s download and up to 50 Mbit/s upload. The LR77 v2 series is an ideal wireless solution for traffic and security camera systems, individual computers, LAN networks, automatic teller machines (ATM) and other self-service terminals, etc.

This extra fast 4G LR77 v2 wireless router is equipped with one Ethernet 10/100, one USB Host port, one binary Input/output (I/O) port and one SIM card. To save and backup communication data, a version with 2 x SIM cards is available. A wide range of user-defined interface options further expands optional Port1 and Port2. Port1 is available as an Ethernet port 10/100, serial interface ports RS232/RS485/RS422/M-Bus or (I/O - CNT). Port2 may be equipped with serial interfaces RS232/RS485/RS422/M-Bus or (I/O - CNT). Another option is inserting a XC-SW board to provide 3 x switched Ethernet 10/100 ports. This router is available either in a plastic or metal casing.

Configuration is done via web interface protected by password. The 4G LTE router supports creation of VPN tunnels using IPsec, OpenVPN and L2TP to ensure safe communications. Web interface provides detailed statistics about router activities, signal strength, detailed log, etc. Supports functions: DHCP, NAT, NAT-T, DynDNS, NTP, VRRP, HTTPS, SSH, OSPF, RIP, BGP control by SMS and many other functions.

Other diagnostic functions to ensure continuous communication include automatic inspection of PPP connection with an automatic restart feature in case of connection losses and a 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 it is possible to create several different configurations or profiles for router (maximum of 4), and the option to switch between them (for example via SMS, binary input status, etc.). Cellular LTE wireless router LR77 v2 supports automatic upgrade of configuration and firmware from the server. This allows mass reconfiguration of multiple routers in one time. It is also possible to develop user defined modules that modify LTE router behavior.

ORDERING INFORMATION

MODEL NUMBER	ETH 10/100	USB	SIM	RS232	RS485/ RS422	M-BUS	I/O	I/O (CNT)	WIFI
LR77 v2B Set	1	1	1				1		
LR77 v2B ETH Set	2	1	1				1		
LR77 v2B RS232 Set	1	1	1	1			1		
LR77 v2B RS485/422 Set	1	1	1		1		1		
LR77 v2B M-Bus Set	1	1	1			1	1		
LR77 v2B CNT Set	1	1	1				1	1	
LR77 v2F Set	2	1	2				1		
LR77 v2F RS232 Set	1	1	2	1			1		
LR77 v2F RS485/422 Set	1	1	2		1		1		
LR77 v2F M-Bus Set	1	1	2			1	1		
LR77 v2F CNT Set	1	1	2				1	1	
LR77 v2F SWITCH Set	3	1	2				1		
LR77 v2F WIFI Set	1	1	2				1		1
LR77 v2F SWITCH Set	3	1	2				1		
SL	Router metal enclosure (sample LR77 v2B SL)								

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

ACCESSORIES

MDR-40-24	24VDC, 20W, 1 A power supply
C5UMB3FBG	Category 5E UTP 3 ft/ 1m - Beige
C5UMB10FBL	Category 5E 10 ft/3 m - Blue

APPLICATIONS

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

R-SEENET SMARTCLUSTER

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SPECIFICATIONS

INTERFACES	
Standard	
Ethernet Independent or Bridged	10/100 Mbits
SIM	SIM Card
I/O	Binary input/output
USB	USB 2.0 Host, Type A
2 Optional Ports	
Port 1	Ethernet (10/100Mbps) RS232 RS422/485 M-Bus I/O Input/Output Ethernet Switch (with port 2)
Port 2	RS232 RS422/485 M-Bus WM-Bus SDH WiFi Ethernet Switch (with port 1)
Optional	2nd SIM Card holder
ANTENNA CONNECTORS	
SMA – 50 Ohm	
FREQUENCY BANDS	
	GSM/GPRS/EDGE: 900/1800/1900 MHz
	UMTS/HSDPA/HSUPA/HSPA+: 900/2100 MHz
	LTE: 800/900/1800/2100/2600 MHz
LTE	
	Maximum download 100 Mbps
	Maximum upload 50 Mbps
POWER	
Source	10 – 30 VDC
CONSUMPTION	
Reception	2.3 W
GPRS	to 3.5 W (GPRS transmission)
LTE	to 5.5 W (LTE transmission)
ENVIRONMENTAL	
Temperature Range	-30° to +60°C
Storage Temperature	-40° to +85°C
DIMENSION	
	42×76×113 mm (DIN rail 35 mm)
	Metallic (SL) version - 42x80x113 mm
WEIGHT	
	LR77 v2 – 150 g
	LR77 v2 SL – 280 g

LTE PARAMETERS
Bit rate 100 Mbps (DL) / 50 Mbps (UL)
3GPP rel. 8 standard
Supported bandwidth: 5 Mhz, 10 Mhz, 20 Mhz
HSPA+ PARAMETERS
Bit rate 21,1 Mbps (DL) / 5,76 Mbps (UL)
3GPP rel. 7 standard
UE CAT. 1 to 6, 8, 10, 12, 14
3GPP data compress
UMTS PARAMETERS
PS bit rate 384 kbps (DL) / 384 kbps (UL)
CS bit rate 64 kbps (DL) / 64 kbps (UL)
W-CDMA FDD standard
GPRS/EDGE PARAMETERS
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 GPRS/EDGE 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)
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
APPROVALS/CERTIFICATIONS
CE	EN 301 511, v9.0.2, EN 301 908-1 & -2: v3.2.1, ETSI EN 301 489-1 V1.8.1, EN 60950-1:06 ed.2 + A11:09 + A1:10