

# GRC3200R

**Modbus RTU/TCP/UDP controlled**  
GPRS/EDGE/3G/LTE Smart modem/PLC

*M2M-IoT applications*  
*Remote monitoring*  
*PLC functions*  
*SMS control*

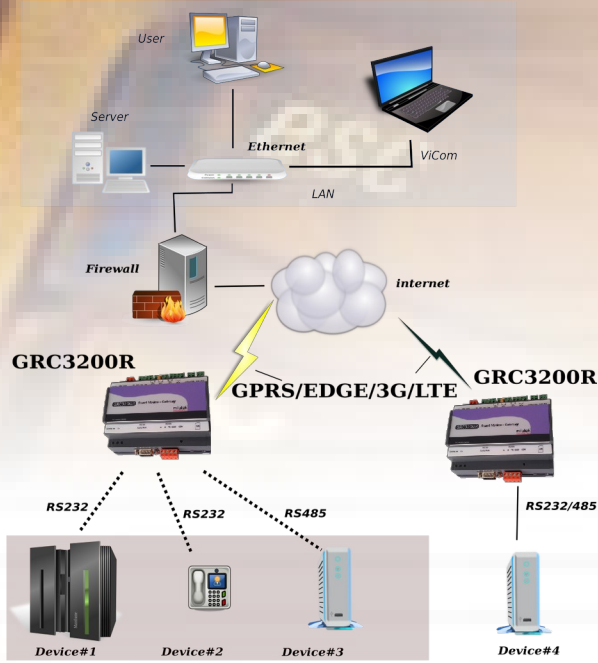


## Specifications

- ◆ Transparent TCP/UDP Client/Server modes for gateway operation
- ◆ Two simultaneous TCP/UDP Connection
- ◆ GPRS/EDGE/3G/LTE packet mode
- ◆ PLC(Programmable Logic Control) feature.
- ◆ RTC(Real time clock) usage.
- ◆ RS232 or RS485 adjustable serial port
- ◆ RS485 half duplex automatic telegram mode.
- ◆ 6.5-32V DC power supply operation
- ◆ Four digital optical isolated input
- ◆ Four digital output, capable of driving 400mA load
- ◆ IO Extender mode(mirroring inputs to paired GRC3200x to each other).
- ◆ Modbus RTU/TCP/UDP protocol for I/O monitoring and controlling.
- ◆ Counters for 1-0 transition of inputs.
- ◆ SMS monitoring and controlling of digital and analog inputs.
- ◆ Sending SMS for analog inputs where alarm values can be set.
- ◆ Status of inputs(digital and analog) can be send to 10 different phone numbers.
- ◆ SMS message content can be set for all inputs.
- ◆ Digital outputs can be set by SMS.
- ◆ GSM signal level read remotely and locally.
- ◆ PIN code enabled SIM card can be used(PIN code setup via setup interface).
- ◆ 5.08mm screw terminal connectors.
- ◆ PLC(Programmable Logic Control) and GSM data communication features implemented in one device.
- ◆ Serial device can be remotely monitored and controlled via GSM networks.
- ◆ No need for additional protocol, based on transparent data operation.
- ◆ **Because of two separate connection capability, different locations can monitor and control the device.**
- ◆ Virtual serial port eases to use old software for serial devices.
- ◆ Behaves like remote serial port for non-serial port PCs.
- ◆ Additional I/O may be used to control several inputs/outputs in the field.
- ◆ Status of the inputs ports can be viewed via SMS.
- ◆ The inputs can be monitored by receiving SMS from GRC3200 even there is established connection.
- ◆ Input transitions of 0 to 1 is counted and can be monitored via Modbus RTU/TCP/UDP.
- ◆ GSM signal strength is measured and monitored via Modbus RTU/TCP/UDP in order to find proper antenna location.

## Advantages

## Application Scheme



## Pin diagram

Name	Direction	Description
VCC	Supply	Power supply positive
GND	GND	Negative supply
CUR-	Input (current)	4-20mA current loop input
CUR+	Input (current)	4-20mA current loop input
DI1	Digital input 1	Optical isolated Digital input 1
DI2	Digital input 2	Optical isolated Digital input 2
DI3	Digital input 3	Optical isolated Digital input 3
DI4	Digital input4	Optical isolated Digital input 4
DO1A	Digital Output 1A	Digital output 1 contact 1
DO1B	Digital Output 1B	Digital output 1 contact 2
DO2A	Digital Output 2A	Digital output 2 contact 1
DO2B	Digital Output 2B	Digital output 2 contact 2
DO3A	Digital Output 3A	Digital output 4 contact 1
DO3B	Digital Output 3B	Digital output 4 contact 2
GND	GND	Negative supply
DO4A	Digital Output 4A	Digital output 4 contact 1
DO4B	Digital Output 4B	Digital output 4 contact 2
AIN	Analog ADC input	0-10V analog voltage input
A	RS485 A	RS485 Half Duplex pin
B	RS485 B	RS485 Half Duplex pin
TR	Termination resistor	RS485 termination resistor
GND	GND	Negative supply

## Electrical specs and operating conditions

Value	Min	Max.	Description
Supply	6.5	32	V(DC)
Temperature	-40	85	°C
Current	350	2000	mA
Frequency	GRC3200R-x0: GPRS: 900/1800 MHz GRC3200R-x1: GPRS: 850/900/1800/1900 MHz HSPDA+: Band I,II,IV,V, VI,VIII GRC3200R-x2: LTE Bands: 3-7-20(1800-2600-800MHz) GPRS:900/1800MHz		
Baud	300	115200	bps
GSM Power	33dBm(900Mhz) 30dBm (1800Mhz),+24dBm (HSPDA+)		
GSM sensitivity	-106 dB (GPRS/EDGE), -108,2 dB (WCDMA)		
GSM data rate-downlink	85.4kbps (GPRS),296 kbps (EDGE), 21.1Mbps (HSPDA+) 10.3 Mbps(LTE Cat-1)		
RS485 mode	Half duplex		Internal termination resistor
Analog input max. voltage	0	32	V
Digital output max. current	0	400	mA

## Order code

GRC3200R-PX	X= <b>00</b> :GPRS , <b>01</b> :GPRS/EDGE/3G , <b>02</b> : LTE Cat-1 P= <b>0</b> : with PLC , <b>1</b> : without PLC Sample:GRC3200R-01 (GPRS/EDGE/3G Gateway, no PLC feature )
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