

# GREENTEL R200 Series

M2M Industrial Cellular VPN Router

for GPRS/EDGE/UMTS/HSDPA/HSUPA Networks



R2x1xx



R2x4xx



R2x4UU

GREENTEL R200 series is Machine-to-machine (M2M) industrial cellular VPN router with Din-rail mounting, which works on 2G/3G cellular networks, provides reliable and robust wireless connections for Ethernet and serial devices.

GREENTEL R200 series is specified for industrial M2M usage. Has wide range temperature range from -25°C to +70°C, wide range power input from 12V to 48VDC, -48V to 12VDC and low power consumption.

GREENTEL R200 series also supports the OpenVPN, PPTP, L2TP, GPE, IPSec VPN tunnel, providing high-grade network security.



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**Specifications:**

<b>Platform</b>	CPU	200 MIPS ARM9
	FLASH	8 Mbytes
	SDRAM	16 Mbytes
	O/S	Linux 2.6
<b>Cellular</b>	GPRS ( <b>R2xxGC55, R2xxGC37</b> )	GSM/GPRS 900/1800 MHz Dual Band (R2xxGC37) or 850/900/1800/1900 MHz Quad Band (R2xxGC55) optional, GPRS Class 10, DL/UL 85.6/21.4 Kbps or 64.2/42.8 Kbps
	HSUPA ( <b>R2xxHHW</b> )	UMTS 850/900/1900/2100 MHz Quad Band, GSM/GPRS 850/900/1800/1900 MHz Quad Band, DL/UL 7.2/5.76 Mbps
	USB ( <b>R2xxUU</b> )	USB 2.0 host port x1, connects to external 3G USB Modem (without embedded cellular module,)  <b>Remark: Please refer to "3G Modem Support List" to make sure your wireless modem is supported by R2xxUU</b>
	APN	APN or VPDN
	Authentication	CHAP/PAP/MS-CHAP/MS-CHAP2
	Always Online	PPP LCP Echo/Reply and ICMP keep alive for link inspection
	High Sensitivity	Low signal strength required (CSQ>12)
	Dial On Demand	Triggered by Call/SMS/Local data flow
	<b>Ethernet Interface</b>	Number of Ports
Speed		10/100 Mbps
Connectors for External		8-pin RJ45
Magnetic Isolation		1.5 KV built-in protection
<b>Serial Interface</b>	Serial Standards	RS232/RS485 optional (only one type of serial port is supported)
	Number of Ports	1
	Connectors for External	5mm pluggable terminal block
	Serial Line Protection	15 KV ESD protection for all signals
<b>Serial Communication Parameters</b>	Data Bits	5, 6, 7, 8
	Stop Bits	1, 1.5, 2
	Parity	None, Even, Odd, Space, Mark
	Flow Control	None
	Baud rate	1200bit/s to 115200bit/s
<b>Serial Signals</b>	RS-232	TxD, RxD, GND
	RS-485-2w	Data+, Data-, GND
<b>Debug Console Interface</b>	Serial Standards	RS232
	Number of Ports	1
	Connectors for External	RJ45
<b>SIM Interface</b>	Number of SIMs	1
	SIM Control	3V
	SIM Card Protection	Inside SIM card slot, provides SIM card anti-steal
<b>Embedded Advanced Functions</b>	LED Indicators	3-Level cellular network signal strength 4 Running Status LEDs: POWER, STATUS, WARN, ERROR
	Watchdog	With both software and hardware watchdog, insure system against dead-halt
	Real-Time Clock	Provide the system with accurate local time
	Beep	Configurable alarm output
	Reset Button	Restart system or restore to factory by hardware

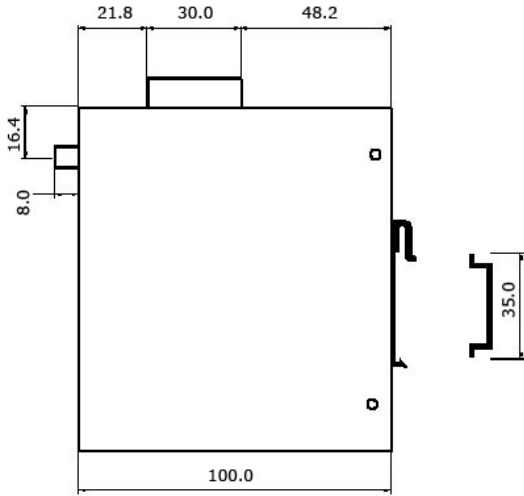
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<b>Software</b>	Configuration	Web, Telnet, Serial-Hyper Terminal
	Firmware Upgrade	Remote upgrade and local web upgrade based on redundant firmware backup
	Network Management	SNMP MIB-II or Device Manager self developed large scale management system
	Network Protocols	ICMP, TCP/IP, UDP, DHCP, PPP, ARP, Telnet, DNS, DNS Relay, SNMP, SSH, VRRP, HTTP, HTTPS, SNTP, <b>DDNS, VRRP, DMZ, Static Routing</b>
	NAT/PAT	Network Address Translation (NAT) and Port Address Translation (PAT), hiding internal IP addresses and expand IP address space.
	Connection Inspection	PPP LCP Echo/Reply and ICMP keep alive for link inspection, keep device always online
	<b>OpenVPN, PPTP, L2TP,</b>	<b>Client/Server</b>
	<b>VPN IPSec tunnel</b>	<b>Client/Server; Encryption: DES, 3DES, AES; Data verification: MD5 and SHA-1 Authentication: pre-shared key, digital certificate (CA)</b>
	Firewall Strategy	Stateful Packet Inspection(SPI), filtering multicast, filtering PING packet, preventing DoS attack, different firewall strategies, MAC address bundling
	Port Mapping	Allow extranet user to access specific intranet port
	Access Control	Flexible access control of TCP, UDP, ICMP packet
	Traffic Control	Download and upload speed control
	Reboot Control	Reboot via SMS command
	Serial Communications (DTU)	Supports data transparent transmission via serial port <b>TCP Real Port, TCP client/server, UDP, Modbus RTU to Modbus TCP</b>
	<b>Physical Characteristics</b>	Housing
Weight		490 g
Dimensions		(L x W x H): 46 x 100 x 110 mm ( <b>R2x1xx</b> ) (L x W x H): 46 x 100 x 130 mm ( <b>R2x4xx</b> )
Installation Method		Din-Rail mounting or wall mounting
<b>Environmental Limits</b>	Operating Temperature	-25°C to 70°C
	Storage Temperature	-40°C to 85°C
	Operating Humidity	5 to 95% RH
<b>Power Supply</b>	Input Voltage	12 to 48VDC, anti-RCE (reverse connection error), over-current protection
	Power Consumption	Communication: 300mA @ 12V(max) Idle: 120mA @ 12V(max)
	Burst protection	4KV
	Surge Protection	2KV
	Connector	5mm pluggable terminal block
<b>Approvals</b>	<b>CE, R&amp;TTE Certification</b>	R211GC55-232, R211HHW-232, R214GC55-232, R214HHW-232, R214UU-232
	<b>FCC Certification</b>	R214UU-232
	Safety	IEC60068-2-27 (Anti-shock)
		IEC60068-2-23 (Drop)
		IEC60068-2-6 (Vibration)
	EMC	EN61000-4-2 (ESD) Level 4
		EN61000-4-3 (RF Electromagnetic Field Immunity) Level 3
		EN61000-4-4 (Electric Fast Transient/burst) Level 4
EN61000-4-5 (Surge) Level 3		
EN61000-4-6 (RF conducted interference) Level 3		
EN61000-4-8 (Power-frequency electromagnetic fields Immunity) Level 3		
EN61000-4-12 (Damped oscillation Immunity) Level 3		
<b>Warranty</b>	Warranty Period	1 year

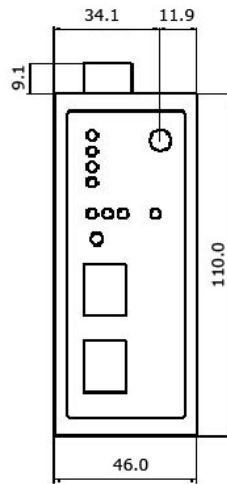
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**Dimensions**

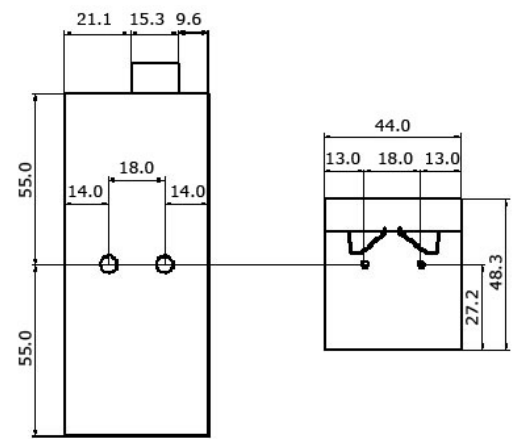
**R2x1xx**



Side View

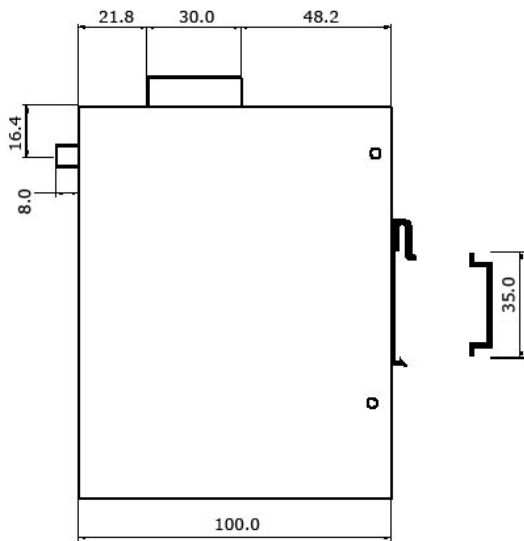


Front View

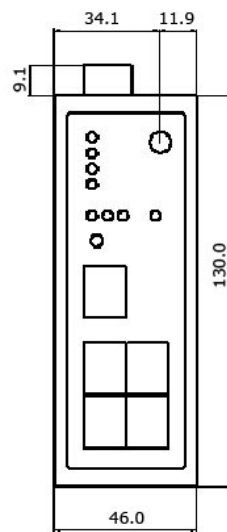


Rear View

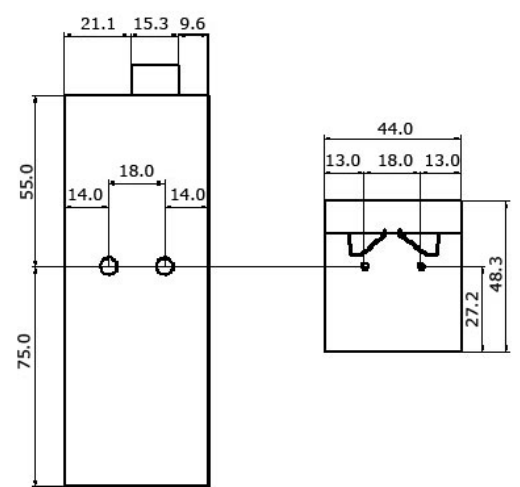
**R2x4xx**



Side View



Front View

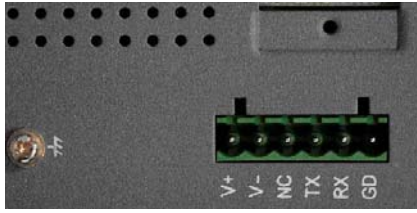


Rear View

## GREENTEL R200 Series

### Pin Assignment:

5.00mm pluggable terminal block



<b>V+</b>	12~48V DC power supply positive polarity
<b>V-</b>	12~48V DC power supply negative polarity
<b>NC</b>	None connect
<b>TXD/485-</b>	232 TX, 485-
<b>RXD/485+</b>	232 RX, 485+
<b>GND</b>	Digital ground

### Applications:

Machine-to-machine (M2M)  
 Telemetry  
 SCADA  
 Monitoring and Surveillance  
 DSL/Cable Infrastructure Backup  
 AVL  
 Credit card verifications, POS and ATM

### Product Kit:

M2M Industrial Cellular VPN Router  
 AC/DC Adapter  
 Magnetic mount antenna  
 35mm DIN-rail mounting kit  
 Ethernet Cable RJ45  
 CD

### Ordering Information:

Features	1 Ethernet/RS232 with VPN	1 Ethernet/RS485 with VPN	4 Ethernet/RS232 with VPN	4Ethernet/RS485 with VPN
<b>GPRS (Asia)</b>	R211GC37-232	R211GC37-485	R214GC37-232	R214GC37-485
<b>GPRS (worldwide)</b>	R211GC55-232	R211GC55-485	R214GC55-232	R214GC55-485
<b>HSUPA</b>	R211HHW-232	R211HHW-485	R214HHW-232	R214HHW-485
<b>USB 2.0</b>	R211UU-232	R211UU-485	R214HUU-232	R214HUU-485
Features	1 Ethernet/RS232 without VPN	1 Ethernet/RS485 without VPN	4 Ethernet/RS232 without VPN	4Ethernet/RS485 without VPN
<b>GPRS (Asia)</b>	R201GC37-232	R201GC37-485	R204GC37-232	R204GC37-485
<b>GPRS (worldwide)</b>	R201GC55-232	R201GC55-485	R204GC55-232	R204GC55-485
<b>HSUPA</b>	R201HHW-232	R201HHW-485	R204HHW-232	R204HHW-485
<b>USB 2.0</b>	R201UU-232	R201UU-485	R204HUU-232	R204HUU-485