

VC-2M3G

V-COM2000: Veesta Communication 2000 Product Series Cellular Gateway / Ethernet / Serial Router Device



• Cellular Interface

Standards
Band Options (by order)

HSPA Data Rate
EDGE Multi-slot Class
EDGE Data Rate
EDGE Terminal Device Class
GPRS Multi-slot Class
GPRS Data Rate
GPRS Terminal Device Class
GPRS Coding Schemes
Tx Power

GSM/GPRS/EDGE/UMTS/HSPA

- Four-band UMTS/HSPA 850/900/1900/2100 MHz
- Dual-band GPRS/UMTS/HSPA 900/2100 MHz

14.4 Mbps DL, 5.76 Mbps UL (Category 6, 7)
Class 12
237 kbps DL, 237 kbps UL
Class B
Class 12
85.6 kbps DL, 85.6 kbps UL
Class B
CS1 to CS4
UMTS/HSPA: 0.25 W
EDGE900: 0.5 W
EDGE1800: 0.4 W
GSM1800: 0.7 W
GSM900: 1.6 W

• Wireless Interface

Standards
Spread Spectrum and Modulation (typical)

Operating Channels (central frequency)

IEEE 802.11n for Wireless LAN

- DSSS with DBPSK, DQPSK, CCK
- OFDM with BPSK, QPSK, 16QAM, 64QAM
- 802.11b: CCK @ 11/5.5 Mbps, DQPSK @ 2 Mbps, DBPSK @ 1 Mbps
- 802.11a/g: 64QAM @ 54/48 Mbps, 16QAM @ 36/24 Mbps, QPSK @ 18/12 Mbps, BPSK @ 9/6 Mb

2.412 to 2.462 GHz (11 channels)



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Security	<ul style="list-style-type: none">• SSID broadcast enable/disable• 64-bit and 128-bit WEP encryption, WPA /WPA2-Personal and Enterprise (IEEE 802.1X/RADIUS, TKIP and AES)
Transmission Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: 6.5 to 300 Mbps (multiple rates supported)
Tx Power	2.4 GHz 802.11b: Typical 16.14~16.52 dBm 802.11g: Typical 14.10~14.38 dBm
RX Sensitivity	2.4 GHz 802.11b: Typical -69.83 ~ -42.07 dBm 802.11g: Typical -70.76 ~ -42.03 dBm

• WAN Interface

Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseTX IEEE 802.3ab for 1000BaseT
Number of Ports	1
Speed	10/100/1000 Mbps auto negotiation speed, F/H duplex mode and auto MDI/MDI-X connection (RJ45-type)

• LAN Interface

Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseTX IEEE 802.3ab for 1000BaseT
Number of Ports	2
Speed	10/100/1000 Mbps auto negotiation speed, F/H duplex mode and auto MDI/MDI-X connection (RJ45-type)

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Cellular Gateway / Ethernet / Serial Router Device



• Interface

Cellular Antenna Connectors	1 SMA (female) for 3G or 4G (by option Order)
Wireless Antenna Connectors	2 RP-SMA (female)
GNSS (Option by Order)	1 SMA (female), GPS (1575.42 MHz), GLONASS (1602 MHz)
Serial Port	1, RS-232 Terminal Block (RS485 by Order option)
LED Indicators	PWR1, STATUS, ERR, CELLULAR SIGNAL, WIFI SIGNAL, WLAN
Ground Screw	M5
Reset Button	Warm Reset/Factory Default Reset

• Software

Network Protocols	ICMP, DDNS, TCP/IP, UDP, DHCP, Telnet, DNS, SNMP, HTTP, HTTPS, SMTP, SNTP, ARP
Routing/Firewall	Static Routes, NAT, port forwarding, IP/MAC/Port filtering
VPN	• Max. Tunnel Number: 5 (Responder/Initiator) • IPSec (DES, 3DES, AES, MD5, SHA-1, DH2, DH5), PSK/X.509/RSA
Cellular Connectivity	Network Provider Check/Cellular Connection Check/Packet-level Connection Check
Socket Relay	Provide Socket Relay Service, TCP/IP Gender Change
VLAN Switch	Providing VLAN Tagging on LAN ports, Configuration VLAN IDs.
Real-time Graphs	Load and Traffic Graphs, Wireless Graphs, Connections Graphs
LED Configurations	Provide Configurations of LEDs of device to any trigger based events on nets and services
Backup / Update	Backup Setting and Configurations on file, system updates
Startup Configuration	Provide utility to Initialize of device, enable/disable or start/restart/stop of system services,
Diagnostics	Network diagnostic tools, ping/traceroute/nslookup, Bandwidth Tester

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• Communication Applications

Modbus Gateway

This application provide the gateway between Modbus RTU protocol over RS232 or RS485 on the device and any Modbus TCP protocol connected to the router

Serial to Ethernet Converter

This application provide the Serial to Ethernet Converter feature to any device over the router

SCADA Data Concentrator

This application provide the SCADA Data Concentrator function to concentrate all of data by any protocols in SCADA like IEC60870-5-101, IEC60870-5-104, DNP3.0, Modbus RTU, Modbus TCP
The application also can be used to any protocol conversion over the router and device

• Redundancy Option

SIM Card

Redundancy between SIM cards, faile-over by retry times between SIM slots, possible to enable/disable

WAN Connections

Redundancy between WAN connections, WAN Ethernet Port, Cellular Network, any user-defined WAN

Device Redundancy

Providing as virtual router redundancy protocol

• SIM Interface

Number of SIMs

2 SIM port for redundancy operation

SIM Control

3 V

• Management Software

Configuration and Management Options

Web Console

• Physical Characteristics

Housing

Colored Iron, providing IP30 protection

Weight

350 g

Dimensions

104 X 102 X 44 mm

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- **Environmental Limits**

Operating Temperature	Standard Models: 0 to 55°C (0 to 131°F) Wide Temp. Models: -30 to 70°C (-22 to 158°F) (By Order)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

- **Power Requirements**

Power Inputs	1 terminal block
Input Voltage	9 to 52 VDC
Input Current	0.7 A @ 12 VDC; 0.2 A @ 48 VDC
Reverse Polarity Protection	Present

- **Standards and Certifications**

Safety	EN 60950-1, UL 60950-1
EMC	EN 61000-6-2/6-4, IEC 61000-4-2/4/5/6/8 for ESD, EFT, Surge
EMI	CISPR 22, FCC Part 15B Class A
Radio	EN 55032/55024/61000-3-2/61000-3-3/ EN 301 908-1908-2/908-13/300 328, EN 62311/60950

- **MTBF (mean time between failures)**

Time	182,851 hrs
Standard	Telcordia SR332