

VC-2M4G

V-COM2000: Veesta Communication 2000 Product Series

Cellular 4G Gateway / Ethernet / Serial Router Device



• Cellular Interface

Standards

Band Options (by order)

LTE (FDD Option)

LTE (TDD Option)

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

Sensitivity:

GSM/GPRS/EDGE/UMTS/HSPA/WCDMA/LTE Category 4

• Senary-band LTE-FDD B1/B3/B5/B7/B8/B20 2100/1800/850/2600/900/800 MHz

• Triplex-band LTE-TDE B38/B40/B41 2600/2500/3500 MHz

• Four-band UMTS/HSPA 850/900/2100 MHz

• Dual-band GPRS/UMTS/HSPA B3/B8 900/1800 MHz

Max 150Mbps (DL)/Max 50Mbps (UL)

Max 130Mbps (DL)/Max 35Mbps (UL)

42 Mbps DL, 5.76 Mbps UL (Category 6, 7)

Class 12

237 kbps DL, 237 kbps UL

Class B

Class E2

85.6 kbps DL, 85.6 kbps UL

Class B

CS1 to CS4

Class 3 (23dBm±2dB) for LTE (FDD Option)

Class 3 (23dBm±2dB) for LTE (TDD Option)

UMTS/HSPA: +24 +1/-1dBm

EDGE900: +27 +3/-3 dBm

EDGE1800: +26 +3/-4 dBm

GSM1800: +30 +2/-2 dBm

GSM900: +33 +2/-2 dBm

LTE B1,B3: -101.5dBm, B2,B4,B5,B8,B12: -101dBm (10M), B13: -100dBm (10M), B20,B28: -102.5dB (10M)

WCDMA B1,B2,B4: -110dBm, B5,B8: -110.5dBm

GSM, DCS: -109dBm



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• Wireless Interface

Standards	IEEE 802.11n for Wireless LAN
Spread Spectrum and Modulation (typical)	<ul style="list-style-type: none">• 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
Operating Channels (central frequency)	2.412 to 2.462 GHz (11 channels)
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

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• 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)

• 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

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• Software

Network Protocols
Routing/Firewall
VPN

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

Cellular Connectivity
Socket Relay
VLAN Switch
Real-time Graphs
LED Configurations
Backup / Update
Startup Configuration
Diagnostics

• 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

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- **Redundancy Option**

SIM Card	Redundancy between SIM cards, fail-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

- **Utilities Option**

Ping Check	Ping check service to provide and maintain the communication live via specified interface and scenario
Socket Relay	Provide enhanced socket relay option as socket gender changer that usefull for any none-APN service
Socket Multiplexer	Providing enhanced socket multiplexing service
Time Synchronization	Providing the Time Synchronkization service based on NTP as NTP Client and TP Server
Firewall	Providng enhanced firewall system with usefull table options
Automatic Updater	Providing service for remote automatic firmware/database updates within full configurations and localization update server and mirror sites

- **SIM Interface**

Number of SIMs	2 SIM port for redundancy operation
SIM Control	3 V

- **Management Software**

Configuration and Management Options	Web Console
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• Physical Characteristics

Housing	Colored Iron, providing IP30 protection
Weight	350 g
Dimensions	104 X 102 X 44 mm

• 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