Ventus wireless

V-Series
4G LTE Gateway Routers

Ventus V-Series routers deliver unmatched availability for M2M and enterprise wireless applications. The unique capabilities of the V-Series reflect our experience in providing wireless networks that require maximum reliability, security, and performance. This scalable series of routers offers a model for every wireless application, with customizable interface expansion slots to meet business requirements. The V-Series are ideal for primary and backup Internet connectivity, Wi-Fi hotspots, kiosks, mobile applications, ATMs, retail/POS, security equipment, utilities, remote monitoring, and more.

Network Transport Capabilities
4G LTE with backwards compatibility to 3G, 1xRTT
Supports all cellular technologies, including LTE, CDMA, GSM, HSDPA, EDGE, EVDO, and WiMax
Compatible with all major carrier networks: Verizon, Sprint, AT&T, T-Mobile, and regional partners
Fixed-line transport (V4X00): 56K/Dial, Cable, DSL, Fiber, Frame Relay, MPLS, T1/T3
Fixed-line transport (V2000): 56K/Dial, Cable, DSL, Fiber

Network Security Features
IPsec AES 128-256, SHA2 256-512
LZS and MPPC compression
Accounting, Authentication, Authorization: logged and backed up
IPsec VPN and GRE Tunneling
VLAN and VRF to secure and segment LAN traffic
SPI and Customizable firewall
NAT (Network Address Translation)
SSHv2, default secure connections only
Service, Traffic, and Protocol Filtering

Physical Security Features
aGPS detects and tracks device movement in case of theft
Internal Tilt Sensor detects device movement/tampering
Access Panel Alarm (V4X00 only) indicates if router face plate has been removed

Genesis™ Network Monitoring System
Customer web-based GUI platform for real-time network monitoring
Device status: up/down, device health, event log, asset tracking
Network performance reporting and management:

- OTA (Over the Air) Updates
- Plan Changes
- Troubleshooting
- Remote Router Reconfiguration
- Real-time Maintenance Alerts
- Trouble Tickets
- Alerting Preferences
- Signal-to-Noise Ratio
- Throughput
- Signal Strength
- Latency
- Availability

Interface Expansion Slot Options
The V4X00 routers are capable of multiple configurations suited to application requirements, please inquire for options beyond those listed below.

- DSL
- DS0/DS1/DS3
- Gigabit Ethernet Interface
- IP PoE
- Wi-Fi
- Serial Interface (RS232/RS485)
- IP Video
- BNC Video

What's in the Box
V-Series router configured to application specifications
Cellular antenna with integrated cable
V4500: AC power cord, rack mounting hardware
All others: Power supply and AC power cord

Ventus Cellular Antennas
Dual TNC antenna ports per wireless module/carrier channel
Full line of application-optimized antenna solutions
- Multiband arrays: directional & omnidirectional
- Spatial and polar diversity to optimize system bandwidth and resiliency

Installation
V4500: Rack-mount equipment included
V4200: Optional rack-mount hardware
V1000/V2000: Integrated magnetic base
All routers have a rack height of one rack unit (1 RU)
24x7 remote installation support

Environmental Specifications
Operating Temp: -4° to 158° F (-20° to 70° C)
Storage Temp: $\leq$ -6° and $\geq$ 160° F ($\leq$ -21° and $\geq$ 71° C)
Operating Humidity: 5 to 85% RH, noncondensing
Chassis Materials (V4X00): Powder-coated galvanealed steel and passivated aluminum alloy
Chassis Materials (V1000/V2000): Industrial grade ABS plastic and powder-coated steel

Display
Wireless signal strength indicators
Link/Activity and Speed indicators for WAN and Fast Ethernet interfaces*
Status and Activity indicators for primary and secondary cellular, CO, external interface slots, and internal MiniPCI slot*
Power indicator
*Configuration dependent

Certifications and Compliance
FCC, CE, and Carrier certified
PCI DSS, RoHS, ISO 9001:2008 compliant

V-Series Data Sheet

Applications Supported	V4500	V4200	V4100	V2000	V1000
4G LTE Wireless*	Yes	Yes	Yes	Yes	Yes
Dual Wireless Modules	Yes	Yes	Yes	–	–
Dual Carrier	Yes	Yes	Yes	–	–
Network Failover	Yes	Yes	Yes	Yes	Yes
Fixed-line Broadband	Yes	Yes	Yes	Yes, via Ethernet	–
Wi-Fi Hotspot	Yes	Yes	Yes	–	–
Assisted GPS*	Yes	Yes	Yes	Yes	Yes
Satellite GPS	Yes	Yes	Yes	Yes	–
Voice over IP (VoIP)	Yes	Yes	Yes	–	–
VPN	Yes, Accelerated	Yes, Accelerated	Yes, Accelerated	Yes	Yes
Onboard Video Storage	Yes	Yes	–	–	–
Protocol Conversion	Yes	Yes	Yes	Yes	Yes
Remote Monitoring	Yes	Yes	Yes	Yes	Yes

Device Memory	V4500	V4200	V4100	V2000	V1000
DDR2 SDRAM	512MB	512MB	512MB	512MB	256MB
Onboard Flash	2GB	2GB	2GB	2GB	2GB
Removable Flash	SD Card (32GB Max)	SD Card (32GB Max)	SD Card (32GB Max)	–	–
Removable SATA	SATA Drive (1TB Max)	SATA Drive (1TB Max)	–	–	–

External Interfaces	V4500	V4200	V4100	V2000	V1000
10/100 Ethernet	8	8	4	2	1
USB Ports (1.1 / 2.0)	1	1	1	1	1
RJ11 CO Modem	1	1	1	1	1
RJ45 Console	1	1	1	1	1
Interface Slots	4	2	1	–	–
SD Card Slot	1	1	1	–	–
SATA Drive Slot	1	1	–	–	–
Cellular Antenna	4	4	4	2	2
GPS Antenna	1	1	1	1	–

Internal Interfaces	V4500	V4200	V4100	V2000	V1000
SIM Card Slot	2	2	2	1	1
Mini PCIe Wireless	2	2	2	1	1
Mini PCI	1	1	1	–	–

Power Requirements	V4500	V4200	V4100	V2000	V1000
Primary Power Source	100~240V AC, 50/60 Hz @ 2.5A max	12V DC @ 90W max, external	12V DC @ 90W max, external	12V DC @ 24W max, external	12V DC @ 24W max, external
Battery Backup Power	(2X) 3.7V, 2600mAh	(2X) 3.7V, 2600mAh	(2X) 3.7V, 2600mAh	(2X) 3.7V, 750mAh	(2X) 3.7V, 750mAh

Physical Specifications	V4500	V4200	V4100	V2000	V1000
Dimensions (H x W x D)	1.73 x 17.5 x 10.28 in (44 x 445 x 261 mm)	1.73 x 11.02 x 10.25 in (44 x 280 x 260 mm)	1.73 x 9.50 x 10.24 in (44 x 241 x 260.4 mm)	1.5 x 6.1 x 3.82 in (38 x 155 x 97 mm)	1.5 x 6.1 x 3.82 in (38 x 155 x 97 mm)
Weight (Standard Config)	5.55 lb (2.518 kg)	5.02 lb (2.278 kg)	3.03 lb (1.374 kg)	13.28 oz (0.3764 kg)	12.52 oz (0.3548 kg)

*Feature dependent upon carrier network availability