KAON BROADBAND

AMT advanced media technologies

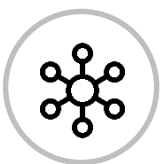**DOCSIS 3.1 Cable Modem**

VM3000V

*Dimensions(W x D x H) : 72 x 138 x 175 mm

Product Overview

KAON's VM3000V is a DOCSIS 3.1 Cable Modem powered by Open-Source software and supporting both DOCSIS 3.1 and DOCSIS 3.0. VM3000V supports an ultra-high speed downstream bandwidth of up to 5 Gbps by using 2 Orthogonal Frequency Division Multiplexing (OFDM) channels combined with 32 Single Carrier QAMs and up to 1.5 Gbps upstream with 2 Orthogonal Frequency-Division Multiple Access (OFDMA) Upstream channels. VM3000V allows operators to provide quality services and experiences for subscribers and also prepare future service upgrades. With the flexibility of the VM3000V you can deploy multi-gigabit services over the existing Hybrid Fiber Coax network, and grow your bandwidth as your needs evolve.

2 OFDM x 2 OFDMA

Compatible with DOCSIS 3.0 & 3.1

2.5GbE LAN

Remote Management /Monitoring

IPv4/IPv6 dual stack support

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Technical Specifications

RF Downstream

- Frequency range: 108 or 258 to 1218MHz
- Channel bonding maximum: SC-QAM 32, OFDM 2
- Demodulation: 64/256/1024(SC-QAM),BPSK/QPSK/ 16/64/128/256/512/1024/2048/4096(OFDM)
- Maximum downstream speeds: 5.3Gbps (1.3Gbps for SC-QAM 32 and 4Gbps for OFDM 2)
- Bandwidth : 6MHz or 8MHz (SC-QAM), 24 to 192MHz(OFDM)
- Input Signal Level : -15dBmV to +15dBmV (SC-QAM), -9dBmV/24MHz to 21dBmV/24MHz(OFDM)

RF Upstream

- Frequency range: 5 to 85MHz or 5 to 204MHz
- Channel bonding maximum: SC-QAM 8, OFDMA 2
- Modulation : QPSK/16QAM/32QAM/64QAM/128QAM/256QAM (SC-QAM)
  BPSK/QPSK/16/64/128/256/512/1024/2048/4096 (OFDM)
- Maximum upstream speeds: 2.24Gbps (0.24Gbps for SC-QAM 8 and 2Gbps for OFDMA 2)
- Bandwidth: 200/400/800/1600/3200/6400KHz (SC-QAM), up to 96MHz (OFDMA)
- Maximum Output Level: 61dBmV(QPSK), 58dBmV (8/16QAM) and 57dBmV(32/64QAM) for SC-QAM, 65dBmV for OFDMA

Security/Safety

- Early Authentication and Encryption
- BPI+ Security
- Secure Software Download

Network

- IPv4 & IPv6 dual stack Protocol
- IP/TCP/UDP/ARP/DHCP/HTTP/ICMP/TFTP/ToD/SNMP/IGMP v1/v2/v3
- QoS
  - DS Service Flow Scheduling Priority queuing/ Classification
  - US Service Flow Scheduling
  - BE/NRTPS/RTPS/UGS/UGSAD
- Active Queue Management (AQM)

DOCSIS Specification

- DOCSIS/ Euro DOCSIS 3.0 (32x8)
- DOCSIS/ Euro DOCSIS 3.1 (2x2)
- 2 OFDM, 32 single-carrier QAM D/S channel w/ 1.2GHz FBC (Full Band Capture) front-end
- 2 OFDMA and 8 single-carrier QAM U/S channel w/ integrated PowerDAC
- Dual 192MHz OFDM D/S (4096 QAM support)
- Two 96MHz OFDMA block U/S (4096 QAM support)
- 32 single-carrier QAM D/S (1024 QAM support)
- 8 single-carrier QAM U/S (256 QAM support)

Management/ Diagnostics/ Configuration

- Remote Diagnostics /Monitoring
- Event log, Syslog
- Telnet/SSH/CLI
- SNMP remote network management
- Provide MIBs for DOCSIS 3.0/3.1
- Provisioning and setting by cm configuration file
- VSIF support
- HTTP Web server
- DS/US Spectrum Analyzer
- Proactive Network Maintenance (PNM)

Compliance/Certificates

- CE, RoHS Compliant
- UL, FCC

Interface

- Front Panel
  - LEDs
- Back Panel
  - F-type 75Ω connector
  - 1 X 2.5G LAN (RJ-45)
  - 2 X 1G LAN (RJ-45) (optional)
  - DC 12V/1.5A
  - Reset (pin hole)

Mechanical & Environmental Specification

- Operating Temperature : 0°C (32°F) ~ 40°C (104°F)
- Storage Temperature : -40°C (-40°F) ~ 70°C (158°F)
- Humidity : 10 ~ 90% (Non-condensing)
- Dimensions (W x D x H mm) : 72 x 138 x 175 mm

* Note. The specification subject to change.