

ViaNET Access Point/Mobile Terminal Unit



Main applications:

- Metro rail networks
- Backhaul for wireless CCTV
- Urban Transit Systems
- Train-to-Track connections
- Passenger information systems
- Multimedia information services

Key features:

- Advanced OFDM radios
- Best in class-AES encryption
- Supports 2.4-2.5 and 5.470-5.850 GHz
- High throughput speeds for data transmission to/from vehicles
- Seamless handovers between access points with zero-delays
- Very low end-to-end latency, supports real time CCTV and VOIP applications
- Ruggedized IP 67 class hardware design
- Optional 802.11 a/b/g Wi-Fi access point mode for complementary services

ViaNET - Wireless Broadband for Vehicular Applications

Un-interruptible data transmission for vehicular applications

Use of broadband and Internet applications increases in vehicles and transports. High throughput data transmission technologies are designed and built to meet the specific requirements in these environments. Advanced wireless network technologies enable totally new system designs and solutions for this purpose. ViaNET network solution provides an unbreakable data communication from mobile vehicles to larger network systems. Customers deploy ViaNET for train-to-track connectivity to transfer data from metros and tram cars to the enterprise network.

ViaNET enables wireless broadband applications for vehicular systems and networks. High throughput data connectivity is built with a network solution including mobile terminals installed to vehicles, access point's deployed wayside or trackside locations and CrossNET data transmission server gateway.

The unique features of this solution

include a zero-delay hand-over time which makes it useful in networks running applications that demand fast response times and robust infrastructure.

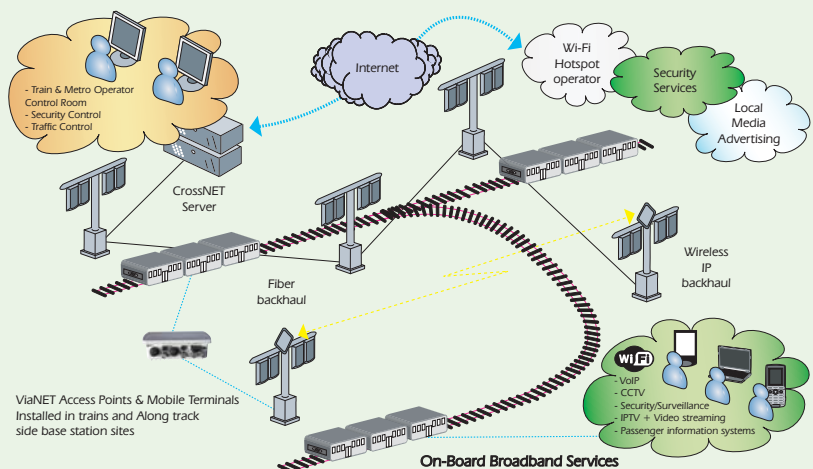
Ruggedized product design for demanding environments

ViaNET products were designed to meet most critical industrial and environmental requirements. These devices meet IP67 protection class requirements.

Typical deployments include underground tunnel, on-the-ground and vehicle installations.

Flexible dual-band, dual-radio transceiver design

ViaNET hardware products include an access point and a mobile terminal model. Access points are deployed along the routes of the vehicles such as trains and trams. Mobile terminals are installed into vehicles as on-board transceivers. The ViaNET system design is based on intelligent 'make-before-break' handover protocols and advanced OFDM radio transceivers. Each radio unit includes two transceivers, which can both support 2.4GHz and 5GHz frequencies.



Technical Specification

Radio Technology

Application area:	Wireless broadband applications for vehicular systems and networks, train-to-track connectivity, urban transit systems
Radio and modulation type:	OFDM radio, supports BPSK, QPSK, QAM (16-64) modulations
Number of radio units:	2
Frequency bands:	Mobile Terminal: 2.400-2.4835Ghz and 5.470-5.725GHz Access Point: 2.400-2.4835 GHz, and 5.470-5.725/5.725-5.850GHz
Transmit power:	Max 17dBm at antenna port (adjustable)
Data transfer rates:	1, 2, 5.5, 11 and 6, 9, 12, 18, 24, 36, 48, 54 Mbps
Antenna:	No integrated antenna, Used with external antennas Access point: Heavy Duty Industrial, Access Antenna, 30°, 14dBi Mobile Terminal: Heavy duty industrial Client Antenna, 90°, 10dBi

Management

Wireless, Ethernet
Web based (HTTP, HTTPS)
Encrypted (SSH2) command-line interface
Multiple administrative classes
Centralised web based (HTTPS) management via Mobile Terminal Server
UserID/Password authentication
SNMP v2c, MIB II, traps
Remote software and settings update

Security

WPA-PSK (AES-CCMP) or WEP)

Networking and QoS

Transparent bridging
Handover control/configuration
802.11a/b/g access point services
Traffic prioritization

Environmental Specifications

10...90% relative humidity (non-condensing) -40°C to +70°C, IP67
IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-27, IEC 60068-2-52, IEC 60068-2-64

Standards Compliance

IEEE 802.3, EN 300 328, EN 301 893, EN 301 489: 1 & 17, EN60950
Power consumption max 33W, 12-30VDC, outdoor proof power supply included
110-240VAC in, 24VDC out

Mechanical & Electrical Specifications

Interfaces:	2 * Ethernet Interfaces(10/100 Base Tx), 4 * N-Connectors, Outdoor rated connector for external power supply
Physical dimensions:	250mm x 265mm x 81mm (W & H & D), weight 3 kg



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