

MMT9001 Starter Kit

900 MHz Nomadic Wireless Terminal
with CCU8000 Base Station

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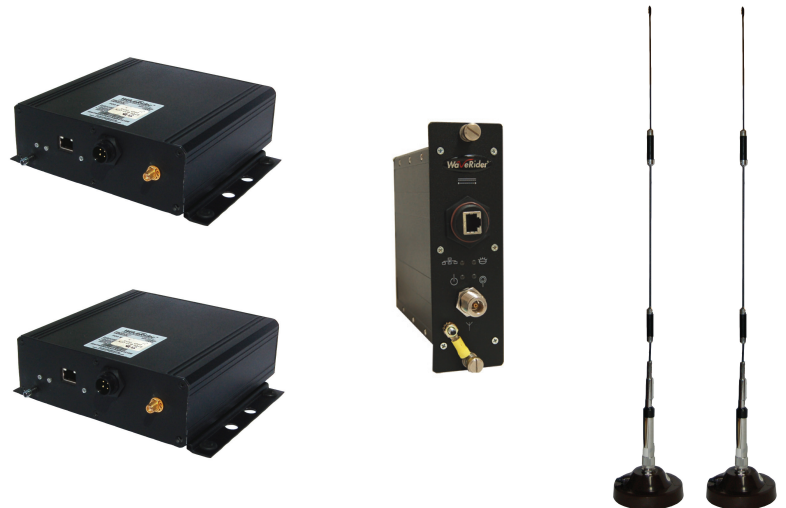
The WaveRider MMT9001 starter kit by Vecima Networks enables operators to evaluate the capabilities and performance of the MMT9000 nomadic wireless terminal. The MMT9000 addresses the need for high speed mobile communications and is ideal for public security, utility, military and first responder applications.

The nomadic wireless system operates in the 900 MHz ISM band and enables mobile, field deployable wireless access networking without any significant investment in infrastructure and equipment. The MMT9000 is simple to set up and configure. It includes a compact form factor for easy vehicular installation. The system is a cost-effective solution that can be deployed rapidly and is suitable for temporary or permanent installations where high speed voice, video or data services are required.

MMT9001 Starter Kit Includes:

- Two MMT9000 nomadic wireless terminals
- One CCU8000 base station
- Two 7 dBi mobile antennas with magnetic mounts
- Priority email support for 3 months

Order SKU WR600-8410



MMT9000 Highlights:

- Over-the-air data rates up to 2.75 Mbps and access speeds up to 2 Mbps
- Supports voice, video and data communications
- Enables end-user mobility; suitable for in-vehicle installations
- Extended temperature range of -40° C to 50° C
- Superior 900 MHz non-line-of-sight performance
- Reliable, secure, easy to deploy
- Compatible with WaveRider LMS8000 900MHz systems
- 27.3 dBm EIRP max transmit power
- -89 dBm (BER<10⁻⁶) receiver sensitivity

WaveRider® by **vecima**
Last Mile Solution® networks

CCU8000 Technical Specifications

For MMT9000 specifications, please see the MMT9000 brochure

Radio Specifications

Radio Type & Wireless Topology
Operating Frequency Band
Radio Access
Radio Modulation

Base station for STAR topology
902 to 928 MHz
Dynamic Polling MAC & ARQ
Orthogonal Frequency Division Multiplexing (OFDM) with 8 different levels of quadrature amplitude modulation (QAM) and forward error correction (FEC) plus Direct Sequence Spread Spectrum (DSSS) with Complementary Code Keying (CCK) modulation

MMT9000, EUM3005/3006 use CCK modulation below

Type	Modulation	FEC Rate	Signalling Rate [Mbps]	RF Rx Threshold (at antenna port) [dBm]
OFDM	BPSK	1/2	1.5	-88
OFDM	BPSK	3/4	2.25	-87
OFDM	QPSK	1/2	3	-86
OFDM	QPSK	3/4	4.5	-84
OFDM	16QAM	1/2	6	-81
OFDM	16QAM	3/4	9	-77
OFDM	64QAM	3/5	12	-73
OFDM	64QAM	3/4	13.5	-72
DSSS	CCK		2.75	-87

Transmit Output Power
Minimum/Maximum Center Channel Frequency
Channel Bandwidth
Center Frequency Spacing Increment
Orthogonal Channels
Orthogonal Channel Separation
Channel Selection
LED Indication
Data Type
Management Protocols

Up to +36 to 25 dBm EIRP (software selectable) depending on modulation scheme
905.2/924.8 MHz
5.5 MHz
0.2 MHz
4
6.6 MHz
Supports subscriber unit modes: Nomadic, Auto, RADIUS, Static
Power On, Radio Activity, Ethernet Link, Ethernet Activity
IP with QoS for VoIP; Forwarding mode: routed, switched, thru-only PPPoE
RADIUS, DHCP, SNMP, NTP, ftp, Telnet, IP Port filtering

Radio Performance

Signaling Rate
User Data Rate
Number of Users
Maximum Link Path Distance

1.5, 2.25, 2.75, 3, 4, 5, 6, 9, 12 and 13.5 Mbps
Up to 8 Mbps
Up to 300, dependant on assigned GoS and data traffic
Up to 25 miles (40 km) LOS First Fresnel Zone Clearance

Data and Power Interface

Ethernet Connector
Power over Ethernet
Max. Ethernet Cable Length

10/100BaseT RJ-45 HDX Ethernet Jack (TIA - T568A)
+48 VDC, 802.3af Mode B compatible PoE, pairs 1 & 4
330 feet (100 m)

Power over Ethernet Injector

Input
Output
Power Consumption (typical)

Auto-sensing 100-240 VAC, 47-63 Hz
48 VDC, 350 mA max
10 W

RF Connector

N-type female

Dimensions

L x W x H
Weight
Materials

7.0" x 5.75" x 2.13" (15.8 cm x 12.9 cm x 4.8 cm)
4.2 lb (1.9 kg)
Extruded Aluminum

Environmental Specifications

Operating Temperature / Storage Temperature
Operating Humidity
Enclosure Rating
Mounting

(-40° C to 50° C) / (-40° C to 70° C)
0% to 95% RH (non-condensing @ 50° C)
NEMA/UL/CSA Type 12, IP66
Wall, CCU shelf or enclosure

Approvals

Radio

FCC Part 15, Subpart C, 15.247
Industry Canada RSS-102 and RSS-210
UL, CSA

Safety

Ordering Information (MMT9001 Starter Kit)

SKU: WR600-8410

Includes: (1) CCU8000 base station wireless modem; (2) MMT9000 nomadic base terminals; (2) Mobile antennas with magnetic mounts; Priority support for 3 months. Limit of 1 starter kit per customer. These kits are intended for single CCU installations. The CCU8000 can be installed indoors and can also be mounted outdoors in a NEMA-rated weatherproof enclosure. A base station antenna must be ordered separately.



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