



Fixed Wireless

Vecima's WaveRider LMS8000 900 MHz Non-Line-of-Sight Wireless Broadband System outperforms industry expectations.

Vecima's WaveRider LMS8000 is the world's most advanced non-line-of-sight (NLOS) broadband wireless system designed specifically for the 900 MHz spectrum. The LMS8000 delivers the high speeds, reliability and advanced management features you need to serve both business and residential subscribers. WaveRider allows telephone companies and wireless Internet service providers to fully exploit the non-line-of-sight 900 MHz unlicensed band. The LMS8000 series broadband radios impressively provide up to 32 Mbps user throughput on a CAP site.

Non-Line-of-Sight Capabilities The LMS8000 is the ideal solution for areas with heavy tree coverage or other line-of-sight (LOS) barriers. The LOS of up to 25 miles allows for a larger footprint with less base stations, plus increases ROI. The NLOS connections average five miles using Vecima's WaveRider indoor antenna.

Over-the-Air Data Rates up to 13.5 Mbps The new LMS8000 radio's make the most efficient use of available spectrum which translates into more throughput/bandwidth for customers. This is a direct cost saving. 13.5 Mbps is the over-the-air rate and 8 Mbps is the "effective" throughput if the CPE can receive at 64 QAM.

Access Speeds up to 8 Mbps Allows Wireless Internet Service Providers (WISPs) to offer much higher data rates for customers, depending on CPE/Base station performance environment. Since many Cable and DSL operators are offering up to 5 Mbps services, this higher throughput makes WISPs competitive with these offerings. The new higher throughputs also allow WISPs to charge more for higher data rates which in turn creates a higher ROI.

End User Equipment That's Easy to Install The LMS8000 includes a wireless modem (EUM8000) and indoor antenna that can easily be installed by subscribers, eliminating the need for expensive truck rolls. Operators that choose to offer installation services can install several units per day, significantly reducing operating costs.

Benefits


- Average range of five miles NLOS with indoor antenna
- LOS range up to 25 miles with outdoor antenna
- Over-the-air data rates of 13.5 Mbps and access speeds of up to 8 Mbps at 64 QAM
- Up to 300 users per base station radio
- Dynamic Polling MAC enables greater subscriber capacity
- Scalable solution with the highest subscriber capacity in the industry
- Built-in spectrum analyzer
- Rapid ROI
- Mobile-survey utility
- Supports RADIUS AAA
- SNMP management
- PPPoE support

Backhaul Solution The WaveRider 5.8 GHz NCL5800 series of bridges/routers with OFDM technology is an ideal solution for short and long distance point-to-point and point-to-multipoint applications. With over-the-air data rates of 108 Mbps and up to 400 mW of RF power, the NCL5800 series delivers more capacity, further than ever.

Starter Kits Take advantage of the starter kit to inexpensively test and evaluate this robust technology. The starter kit includes a CCU8010 Base Station PoE 45° Integrated 10dBi Antenna, a EUM8000 Subscriber Station Integrated Outdoor Modem and a MDB1000 Hand-Held Alignment and Installation Tool, plus priority email support.



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or visit us online at www.newstreets.net.



High Capacity The LMS8000 is fully scalable, supporting up to 300 business or residential subscribers on a single radio, and over 1,000 users on a fully sectorized CAP site. WaveRider's patented Dynamic Polling MAC algorithm takes advantage of typical usage patterns found in Internet transactions, such as Web browsing and email to provide the most efficient channel use in the industry. Thus, operators can guarantee access speeds for their customers.

Built-in Deployment Tools Easily plan your network to reach more customers and provide higher levels of service. The spectrum analyzer and mobile survey utility are field-proven tools that ensure a professionally planned network.

Adaptive Modulation The LMS8000 automatically selects the optimal modulation scheme to use for each link for each subscriber. Units adapt quickly and independently to changes in the channel conditions, changing modulation schemes to improve reliability or to take advantage of increased capacity. This is performed automatically without operator input which reduces human labor and increases ROI.

Advanced Management Features The LMS system supports RADIUS Authorization and RADIUS Accounting for EUM registration, configuration and accounting. It also offers SNMP management and PPPoE support, enabling operators to easily manage large numbers of subscribers on a single system in real time. Statistics can be processed in the SNMP manager to provide alarms, trend data, graphical outputs and derived performance data.

PPPoE Support CCU can operate in three different communication modes, routed, switched Ethernet and through only mode. In switched Ethernet mode the CCU acts as an Ethernet switch between the Ethernet port and the EUMs. This mode supports PPPoE (Point-to-Point Protocol over Ethernet) as well as any number of IP subnets on either or both sides of the CCU. This mode provides simplicity of operation and is the factory default mode of operation. In through only mode the CCU acts similar to switch Ethernet mode, except that this mode constrains all traffic to flow only from a radio link to the Ethernet port or vice versa, not from one radio link to another. This mode also supports PPPoE.

CCU8000/CCU8010 Are Backward Compatible with EUM3005/3006 and MMT9000 Subscriber Stations

WaveRider has built the new generation LMS 8000 to allow the old generation of EUM3005 indoor modems and EUM3006 outdoor modems to work with the new base station. Thus, operators can upgrade to the new base stations and CPE while protecting their investment in old CPE.



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