LIBRA 5800

LIBRA™ 5800 is Wi-LAN's 3rd generation OFDM system and is built on more than a decade of OFDM experience. With OFDM systems deployed in more than thirty countries around the globe, LIBRA 5800 utilizes the same basic technology as the global Wireless MAN (Wireless Metropolitan Area Network) standards, including IEEE 802.16 and ETSI HiperMAN. LIBRA 5800 offers an unmatched combination of field proven Non-Line-Of-Sight (NLOS) capability, superior range and date throughput.

Key Features:

- Operating in the 5.8 GHz ISM band requires no licensing fee.
- Patented W-OFDM technology provides NLOS coverage.
- High spectral efficiency allows robust RF network design and deployment.
- Six-sector design delivers a true broadband solution of up to 196 Mbps and serves more than 10,000 users per cell.
- High quality and excellent support guarantees the end user peace of mind on their investment.
- Continuity program ensures seamless transition to WiMAX-certified products without CPE upgrade.
- Efficient bandwidth allocation makes wireless networks highly scalable.
- Fully integrated design in an extreme weatherproof enclosure allows easy deployment in a matter of hours.
- Rich built-in networking features provide cost-effective solution.
- Proprietary phase randomization over RF link protects data from eavesdropping.
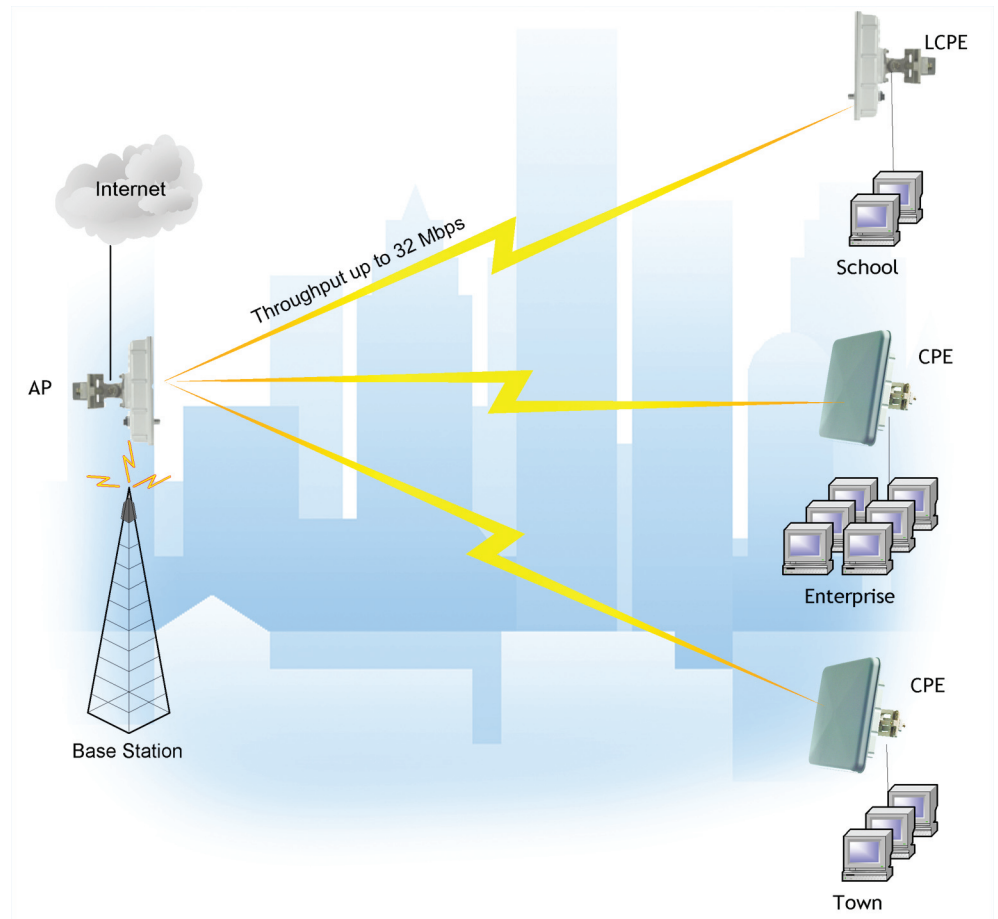
LIBRA 5800 Multi-Point Family

The LIBRA 5800 Multipoint Product (MP) family has three product components: Access Point (AP), CPE (Customer Premises Equipment) and LCPE (Long-range Customer Premises Equipment). From a single AP, the MP family provides broadband coverage of up to 35 km (22 miles) to a maximum of 2,000 CPEs or LCPEs. With its NLOS capability, high spectral efficiency, large capacity, and rich feature-set, the MP family is ideal for large metropolitan area network deployments.

LIBRA 5800 Point-to-Point Family

The LIBRA 5800 Pont-to-Point (PP) family includes two product types, Rapid Deployment (RD) and Extended Range (ER). Delivering a throughput of 32 Mbps at a distance of up to 66 km (41 miles), the PP family offers a competitive alternative for backhaul applications.

True Wireless MAN Product

The LIBRA 5800 products are built with Wi-LAN's patented Wideband Orthogonal Frequency Division Multiplexing (W-OFDM) technology. Designed for outdoor NLOS/multipath environment and wider area coverage, LIBRA 5800 shares the same fundamental technology adapted by both IEEE 802.16 and ETSI HiperMAN standards, which makes the LIBRA 5800 the only true Wireless MAN product in the market today.
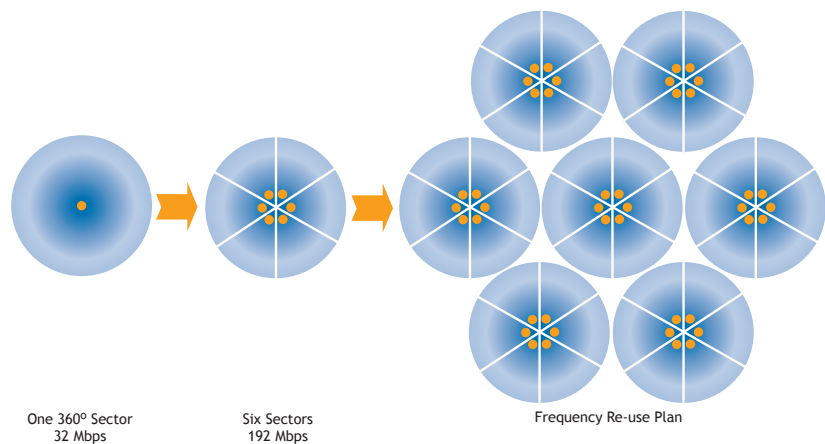
Meeting Your Network Needs

Built for the Networks of Today and Tomorrow

A LIBRA 5800 network can be transferred into a WiMAX network without changing any CPEs, thanks to Wi-LAN's Continuity Program™. Wi-LAN understands that building a broadband wireless access network is a huge investment. As a vendor, Wi-LAN is committed to protect customers' investment. Together with Wi-LAN's outstanding technical support and two-year warranty, the Continuity™ Program will guarantee the LIBRA 5800 network of today will evolve into tomorrow.

Scalable, Flexible, Robust Network Design

The high spectral efficiency makes LIBRA 5800 network design simple and easy. It is the only product supporting ten non-overlapping channels in the market today. A network can be started with as little as one access point, as the product offers high capacity. Ten non-overlapping channels allow more sectors and cells to be added without creating major interference as the network grows. The "pay as you grow" approach suits the needs of many WISP business models today.

Network Growth

One 360º Sector
32 Mbps

Six Sectors
192 Mbps

Frequency Re-use Plan

Solid Multi-Layer Security

LIBRA 5800 features multi-layer security to prevent eavesdropping and hacking from undesired users. Proprietary random phase vector protects the transmitted data over the air. User configurable VLAN tagging and IP address filtering adds more security on the upper two layers. Due to its multi-layer security, LIBRA 5800 is in use around the world in a variety of corporate, industrial, education and government network applications.

Easy to Install, Use and Manage

The LIBRA 5800 is designed to be easy to use, install and manage. The cost of deploying a wireless network is more than the cost of equipment. The cost of installation and maintenance can have a significant impact on Return On Investment (ROI). The inherited NLOS capability, fully integrated weatherproof design, off-shelf installation tool support and quick start menu drastically reduce the installation effort. Once the network is up and running, the SNMP, TELNET and over-the-air upgrade make management easy and simple, resulting in low maintenance costs.

beyond the vision

LIBRA 5800

Specifications

Radio Specifications	LIBRA 5800 PP RD and ER	LIBRA 5800 MP AP & LCPE/CPE
Output Power (Antenna Port)	+17 dBm to -3 dBm, All Channels	+17 dBm to -3 dBm, All Channels
Frequency Range	5.725 to 5.850 GHz	5.725 to 5.850 GHz
Technology	W-OFDM	W-OFDM
Coverage	NLOS	NLOS
Range	Up to 66 km (41 miles)	Up to 35 km (22 miles)
Cell Configuration	Up to 6	Up to 6
Throughput (Raw/Effective)	32/24 Mbps	32/24 Mbps
Receive Sensitivity (at 10E-6 BER)	-84 dBm (BPSK) -81 dBm (QPSK) -75 dBm (16 QAM)	-84 dBm (BPSK) -81 dBm (QPSK) -75 dBm (16 QAM)
Channel Size/Separation	10 MHz / 12.5 MHz	10 MHz / 12.5 MHz
Integrated Antenna	23 dBi (RD only)	23 dBi (CPE only)
RF Connector	N type (Female, ER only)	N type (Female, AP/LCPE only)
Duplexing Format	TDD	TDD
Certification	FCC/IC/SRRC	FCC/IC/SRRC
Network Support		
Network Connection	10/100 Base T	10/100 Base T
VLAN (802.1q) Compliance	Yes	Yes
CIR/MBR	Yes	Yes
Bridge functionality	Yes	Yes
Network Filtering	MAC & IP	MAC & IP
QoS	802.1q	802.1q
Wireless Networking		
Network Topologies	Pointo-to-Point	Point-to-Multipoint
RF Protocol	Dynamic Polling with Dynamic Time Allocation (DTA)	Dynamic Polling with Dynamic Time Allocation (DTA)
No. of CPEs per AP	-	2000
Security		
Data Scrambling	Proprietary Phase Randomization	Proprietary Phase Randomization
Data Security Password	Manufacture Set	Manufacture Set
Configuration Security	Password Protected	Password Protected
Management		
Remote Management	SNMP, TELNET	SNMP, TELNET
Remote Management Access	Wireless & Wire	Wireless & Wire
Local Management Port	RS 232 Serial Port	RS 232 Serial Port
Software Upgrade	Over the air/Local	Over the air/Local
Physical, Electrical and Environmental		
Power Consumption	Max 30 W	Max 30 W
Input Voltage	22-28 V	22-28 V
Dimensions	RD: 30 x 9 x 30 cm (12" x 3.5" x 12") ER: 23 x 6.5 x 23 cm (9" x 2.5" x 9")	CPE: 30 x 9 x 30 cm (12 x 3.5 x 12") AP/LCPE: 23 x 6.5 x 23 cm (9 x 2.5 x 9")
Weight	ER: 2.0 kg (4.4 lb) RD: 2.5 kg (5.5 lb)	AP/LCPE: 2.0 kg (4.4 lb) CPE: 2.5 kg (5.5 lb)
Operating Temperature	-40°C to 50°C	-45°C to 50°C
Relative Humidity	0-95%	0-95%
Enclosure	Fully weather proof	Fully weather proof

Wi-LAN Inc.
2891 Sunridge Way NE
Calgary, AB
Canada T1Y 7K7
Tel: 1-403-273-9133
Email: info@wi-lan.com
Web: www.wi-lan.com

get in touch with the universe