

LIBRA 5800

5.8 GHz Broadband Wireless System

The Libra 5800 is a 3rd generation OFDM system built on more than a decade of OFDM development and deployment experience. With OFDM systems installed in more than 30 countries around the world, Libra 5800 offers an unmatched combination of field-proven Non Line of Sight (NLOS) capability and superior range and data throughput.

Multi-Point (MP) Family

The Libra 5800 MP family includes three product components: Access Point (AP), Customer Premise Equipment (CPE) and Long-range Customer Premise Equipment (LCPE). From a single AP, the MP family provides broadband wireless coverage of up to 22 miles (35 Km) and supports a maximum of 2,000 CPEs. With NLOS capability, high spectral efficiency, large capacity and a rich feature set, the MP family is ideal for large metropolitan network deployments.

Point-to-Point (PTP) Family

The Libra PTP family includes two product types: Rapid Deployment (RD) and Extended Range (ER) systems. Delivering 32 Mbps throughput at distances up to 41 miles (66 Km), the PTP family offers a competitive alternative for backhaul applications.

True Wireless MAN Product

The Libra 5800 products are built with patented Wideband Orthogonal Frequency Division Multiplexing (W-OFDM) technology. Designed for outdoor NLOS multipath environments, Libra 5800 shares the same fundamental technology adapted by both IEEE 802.16 and ETSI HiperMAN standards, which makes the Libra 5800 a true Wireless MAN solution.

Scalable, Flexible, Robust Networks

High spectral efficiency makes Libra 5800 network design simple and easy. With ten non-overlapping channels, a Libra 5800 network can start with a single access point and easily expand to add more sectors and cells without creating interference.

Solid Multi-Layer Security

Libra 5800 features a multi-layer security implementation that prevents eavesdropping and hacking. Proprietary random phase vector protects data transmitted over the air. User configurable VLAN tagging and IP address filtering adds further security on the upper two layers.



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 192 Mbps serving more than 10,000 users per cell.
- 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.
- Advanced built-in networking features provide cost-effective solution.
- Proprietary phase randomization over RF link protects data from eavesdropping.

Easy to Install, Use and Manage

The Libra 5800 is designed to be easy to use, install and manage. The inherent NLOS capability, fully integrated weatherproof design, off-the-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.

Sagaxis Inc.

155 Champagne Drive, Suite 7, Toronto, Ontario, Canada M3J 2C6

Tel: + 1 (416) 693-7108

Fax: + 1 (416) 385-1610

info@sagaxis.com

www.sagaxis.com

Technical Specifications	Libra 5800 PTP (RD and ER)	Libra 5800 MP (AP and LCPE/CPE)
Radio Specifications		
Output Power (Antenna Port)	+17 dBm to -3 dBm	+17 dBm to -3 dBm
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 41 miles (66 Km)	Up to 22 miles (35 Km)
Cell Configuration	Up to 6	Up to 6
Throughput (Raw / Effective)	32 / 24 Mbps	32 / 24 Mbps
	-84 dBm (BPSK)	-84 dBm (BPSK)
Receive Sensitivity (at 10 ⁻⁶ BER)	-81 dBm (QPSK)	-81 dBm (QPSK)
	-75 dBm (16 QAM)	-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-Female (ER only)	N-Female (AP/LCPE only)
Duplexing Format	TDD	TDD
Certification	FCC, IC & SRRC	FCC, IC & SRRC
Network Support		
Network Interface	10/100 BaseT	10/100 BaseT
VLAN (802.1q)	Yes	Yes
CIR / MBR	Yes	Yes
Bridge Functionality	Yes	Yes
Network Filtering	MAC & IP	MAC & IP
QoS	802.1q	802.1q
Wireless Networking		
Network Topology	Point-to-Point	Point-to-Multipoint
RF Protocol	Polling with Dynamic Time Allocation	Polling with Dynamic Time Allocation
Number of CPE per AP	-	2,000
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 Characteristics		
Power Consumption	30 W (max)	30 W (max)
Input Voltage	22 - 28 V	22 - 28 V
Dimensions	RD: 12" x 3.5" x 12" (30 x 9 x 30 cm) ER: 9" x 2.5" x 9" (23 x 6.5 x 23 cm)	CPE: 12" x 3.5" x 12" (30 x 9 x 30 cm) AP/LCPE: 9" x 2.5" x 9" (23 x 6.5 x 23 cm)
Weight	RD: 5.5 lb (2.5 Kg) ER: 4.4 lb (2.0 Kg)	AP/LCPE: 4.4 lb (2.0 Kg) CPE: 5.5 lb (2.5 Kg)
Operating Temperature	-40° C to 50° C	-40° C to 50° C
Enclosure	Fully weatherproof	Fully weatherproof

Specifications subject to change without notice.

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