

LibraPlus 5845



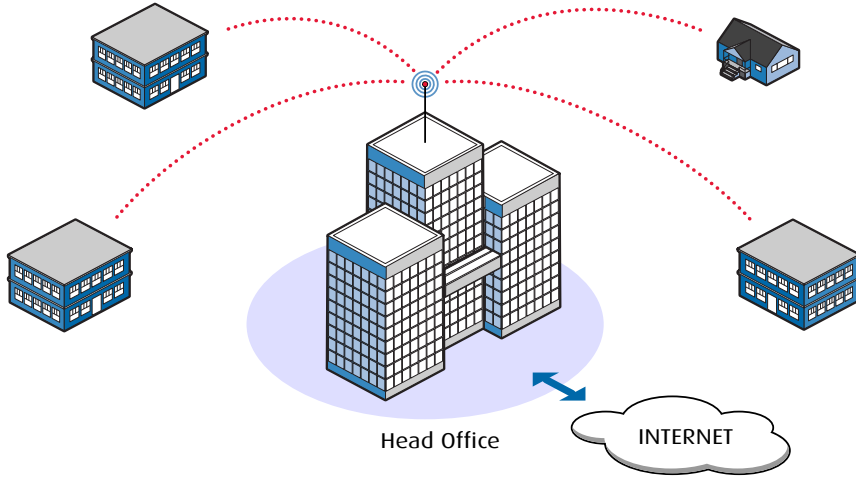
An advanced outdoor wireless Point-to-Point and Point-to-Multipoint platform, LibraPlus 5845 is built on more than a decade of OFDM experience. Packaged in a rugged, all weather enclosure, the fully featured LibraPlus comes complete with integrated bridging and routing software and extensive network and polling management support. With its high spectral efficiency, large capacity, NLOS capability, friendly GUI interface and rich feature-set, the LibraPlus 5845 family is ideal for rural deployments and metropolitan area networks.

5.x GHz High-Performance Outdoor Wireless

LibraPlus 5845 Multipoint Family

The LibraPlus 5845 Multipoint Product (MP) family has three product components: Access Point (AP), Customer Premises Equipment (CPE) and, Long-range Customer Premises Equipment (LCPE). For easy installation at the end-user location, the CPE comes with an integrated antenna. The AP and LCPE models are housed in a rugged die-cast enclosure with an N-type connector.

From a single AP, the MP family provides a broadband coverage area of up to 20 km (12 miles). With its NLOS capability, high spectral efficiency, large capacity, and rich feature-set, the MP family is ideal for large metropolitan area network deployments.



INTEGRATED ANTENNA (CPE, RD)

For easy installation at the end-user location, EION offers this time and money saving solution with an integrated antenna. No need for RF cables, RF connectors, antennas or extra work.

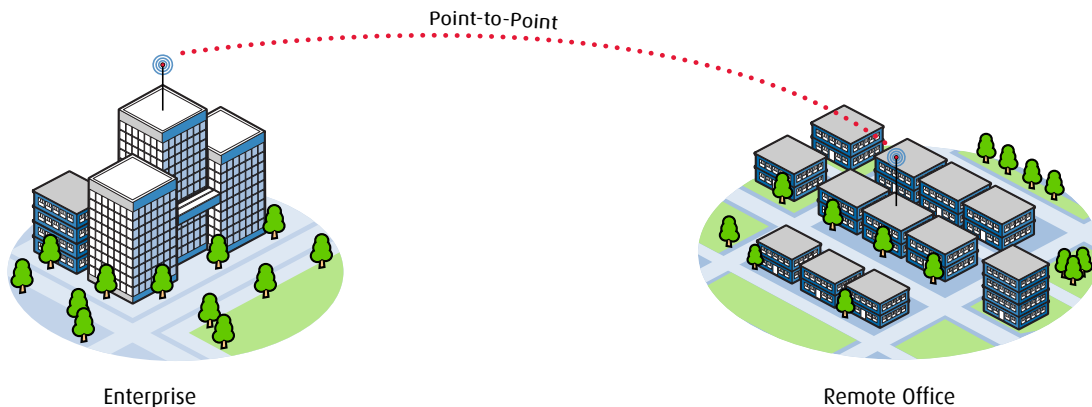
LibraPlus 5845 Point-to-Point Family

The LibraPlus 5845 Point-to-Point (PP) family includes two product types, Rapid Deployment (RD) and Extended Range (ER). The RD model is packaged with an integrated antenna to save on time and cost during installation. The ER model is equipped with an N-type antenna connector for connection to an external antenna.

EXTERNAL ANTENNA (AP, LCPE, ER)

This radio is housed in a rugged die-cast enclosure with an N-type female connector and supports a broad selection of external antennas; including omni and sectorial for APs and parabolic for long-range CPEs.

Delivering a throughput of 45 Mbps, the LibraPlus 5845 PP family offers a competitive alternative for backhaul applications.

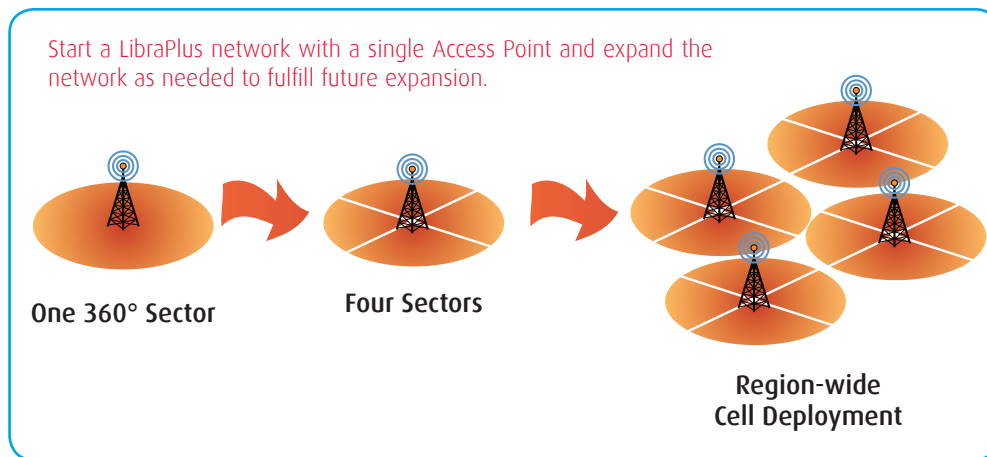


Performance Optimized

Advanced OFDM technology and a special polling medium access technique enable the LibraPlus 5845 to avoid contention and collisions which maximizes the utilization of the air interface and increases overall throughput. LibraPlus 5845 APs are capable of sharing resources among the CPEs and allocate them in accordance with individual Service Level Agreements (SLA) to maintain Quality of Service (QoS) for voice and video services.

Solid Multi-Layer Security

LibraPlus 5845 features multi-layer security features to prevent eavesdropping and hacking from undesired users. LibraPlus 5845 provides protection of over-the-air transmissions with 128 bit AES encryption at full line speed. For increased security, the LibraPlus 5845 also supports 152-bit WEP and WPA. The rugged all-weather enclosure allows co-location on rooftops and masts limiting physical access. The administration of the radio is SSH-secured for all remote management methods, including the CLI and GUI.

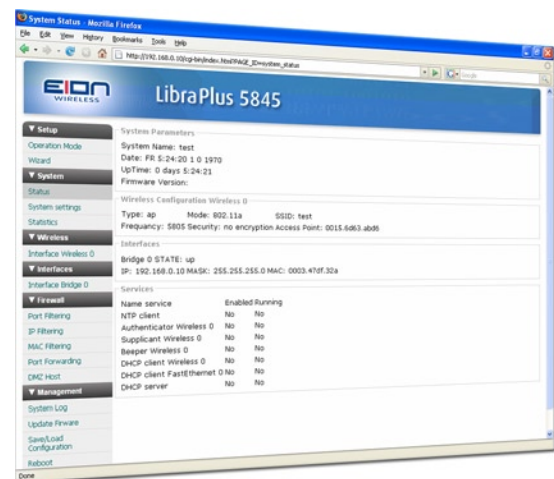


Comprehensive Network Management

LibraPlus takes a carrier-grade approach to network management with a rich Graphical User Interface that displays a network level view of device and link status including comprehensive operator maintenance reports and RF diagnostics. No special software is required, because it runs in a standard web-browser window. SNMP provides a standard management tool for advanced requirements, and a CLI is available for experienced users. Using these management features, a network administrator can easily manage a large LibraPlus network from one central location.

Simple Installation and Maintenance

The LibraPlus 5845 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). To aid installation, a real-time signal strength (RSSI) indicator is accessible via the CLI and GUI interfaces and as an audible beeper. To find free channels during installation, an integrated spectrum analyzer is provided. Remote management ability virtually eliminates the need for expensive onsite support calls.



More Subscribers. More Reach. More Performance.



RADIO SPECIFICATIONS

LibraPlus 5845 AP, CPE & LCPE; ER & RD

Topology	RD, ER: Point-to-Point AP, CPE, LCPE: Point-to-Multipoint
Coverage/Range	AP: up to 20 km (12 miles) with 36 dBi antenna on CPE side CPE: up to 5 km (3 miles) ER: up to 50 km (30 miles) with 36 dBi antenna RD: up to 10 km (6 miles)
Frequency	5.150 to 5.320 GHz, 5.470 to 5.725 GHz, 5.745 to 5.825 GHz in different models*
Channel Size	Normal: 20 MHz Turbo: 40 MHz
Channel Spacing	10 MHz
Modulation	OFDM: BPSK, QPSK, 16 QAM, 64 QAM
Antenna Gain	23 dBi (CPE & RD only)
RF Connector	N-type female (AP, LCPE & ER only)
Output Power	Adjustable from 0 dBm to +26 dBm or +28 dBm in different models
Effective Throughput	Normal: up to 30 Mbps (20 MHz Channel) Turbo: up to 45 Mbps (40 MHz Channel)
Duplexing	TDD; Half-Duplex

NETWORK SUPPORT

Medium Access Protocol	Adaptive Polling (Point-to-Multipoint), DenFlow (Point-to-Point)
Network Connection	10/100 Base T Auto-Negotiate
Routing	Static
Intra-Sector Bridging	Supported (Point-to-Multipoint only)
Transparent Bridging	Yes, 802.1q tag transparency
VLAN (802.1q) compliance	Yes
QoS	Yes, Priority for voice and video over data MAC and IP layer†
RADIUS Support	802.1x

WIRELESS NETWORKING

Output Power Management	Yes, Manual or Automatic Transmit Power Control (ATPC), 802.11h
Dynamic Speed Selection	Yes, Manual or Dynamic Modulation
Dynamic Frequency	Yes, Manual or Dynamic Frequency Selection (DFS)**

SECURITY

Management Security	SSH
Firewall, NAT	Yes
Data Scrambling	WPA, WPA-EAP (TKIP AES), WEP (64, 128, 154), MPPE

MANAGEMENT

Remote Management	CLI, GUI†, SNMP
Access Server	PPPoE, PPTP, VPN
Management Access	Wireless & Wire
Software Upgrade	Over the Air, local

PHYSICAL, ELECTRICAL & ENVIRONMENTAL

	AP & LCPE; ER	CPE; RD
Form-Factor	Outdoor, rugged	Outdoor, antenna integrated
Enclosure	Die-cast with metal cover	Die-cast with plastic antenna housing
Dimensions	230 (w) x 65 (d) x 230 (h) mm	300 (w) x 90 (d) x 300 (h) mm
Weight	2.0 kg	2.3 kg
Mounting Bracket	Yes, 2-Axis pole/wall	
Power Consumption	Max 12 W	
Input Voltage	18-40 VDC	
Operating Temperature	-50 °C to +60 °C	
Relative Humidity	0 to 100%, condensing	
Certifications	Enclosure: NEMA 4x; Designed to IP67 CE, ICS-003, FCC Part 15 B	Environmental: RoHS and WEEE
Lightning Protection	Integrated, Telcordia GR-1089 compliant (Meets IEC 61000-4-2/ 4-4)	

* Frequency availability is subject to country specific regulatory approval, † Available in future release, ** Pending certification



LibraPlus 5845
Shown with integrated 23 dBi flat panel antenna, mounting bracket and power inserter.

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Wireless Fast 50

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EION Wireless, a division of EION Inc., is a global provider of Broadband Wireless Access products that enable effective, economic and secure wireless high-speed communications solutions. EION is a Principal Member of the WiMAX Forum and was named one of the fastest fifty growing wireless companies in North America by Deloitte and Touche. With over ten thousand broadband wireless installations worldwide, the company's licensed and unlicensed frequency products are used by wireless ISPs, private network operators, and remote rural networks and in voice and data backhaul applications to solve last mile challenges. EION Wireless works with more than 165 worldwide channel partners to support its diverse global customer base.