

AIREBEAM™ Z60 SERIES

OVERVIEW

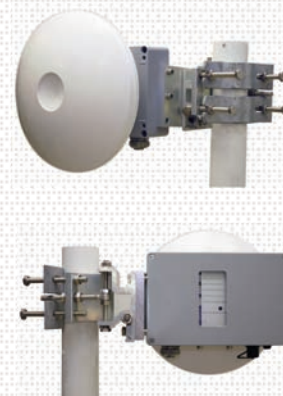
The AireBeam Z60 product line represents the latest innovation in millimeter wave (MMW), point-to-point outdoor wireless Ethernet connectivity. The Z60 operates in the 59.63 GHz frequency spectrum, recently authorized for unlicensed outdoor point-to-point operation in Australia and several European countries. The Z60 is designed to comply with all relevant sections of the harmonized ETSI 302-217 standard, ratified in late 2009. The AireBeam Z60 provides an over-the-air data throughput of 1.6 Gbps, corresponding to a maximum full duplex Ethernet line data rate of 635 Mbps. The system guarantees highest availability for shorter and medium distance applications and, under typical European climate and rain conditions, availability figures of 99.9% can be achieved over distances close to 1 kilometer.

The Airebeam Z60 series is targeted at Enterprise LAN customers and Service Providers seeking a cost-effective, easy-to-install, high-performance alternative to leased lines when connecting buildings, campuses or other remote locations. Other target applications include, but are not limited to, "Last Mile" metropolitan area network (MAN) access, mobile wireless backhaul, and security/video surveillance.

Operating close to full-duplex GbE speed and at optical fiber-like system latency, the Airebeam Z60-MX system is ideal for bandwidth-intensive, realtime, and mission critical applications such as Voice-over-IP, medical imaging, CAD/graphic design and video.

FEATURES AND BENEFITS

- High Speed Connection** – 1.6 Gbps over-the-air, 1270 Mbps real Ethernet data throughput (635 Mbps FD)
- Ultra Low Latency** – Fiber-like system latency, no packet delay due to excessive packet buffering.
- Network Interfaces** – Flexible and user configurable SFP based optical fiber interface, support for standard multimode or singlemode GbE SFPs, and alternative 10/100/1000 RJ45 copper interface.
- High Availability** – Predictable availability with up to 99.999% network uptime.
- Upgradable Software** – Ethernet based upgrade of System Firmware and Web Browser Management GUI
- AirePex™ Support** – Integrated switch technology for redundancy/autofailover operation to a secondary network path and/or add/drop network traffic.
- Low Voltage Design** – Power over Ethernet (PoE) and/or alternative low power direct 48Vdc connection eliminates the need for expensive high voltage power cabling and/or electrician.
- Low Power Consumption** – With a total power consumption of less than 20W, the Z60 uses less energy than a standard fluorescent light bulb.
- Secure Operation** – Highest level of physical transmission security due to atmospheric oxygen absorption and narrow transmission beam pattern.
- Mounting Flexibility** – Flexible installation with Pedestal Style mounting with LightPointe Pan and Tilt or Side Mount style with LightPointe pole mounting assembly.
- All Outdoor Design** – MMW Radio module, antenna, and network interface board are fully integrated - no need for separate indoor unit and cumbersome coax RF cable connections.
- Installation/Alignment** – RSSI receive signal bargraph LED, network status indicators and various system status LEDs.
- Network Management** – Ethernet based RJ45 management connection, Web browser management GUI, fully integrated SNMP v1/2c (optional v3) management support, Alarm Reporting via SNMP traps, RMON counters, TELNET and separate RS232 terminal connection.



PRODUCT SPECIFICATION

AIREBEAM™ Z60

Description	Outdoor MMW Radio transceiver with integrated high gain antenna incl. mounting/alignment assembly and power supply
Frequency Band of Operation	59... 63 GHz
Transmit/Receive Frequencies	60.025/61.975 GHz
Transmission Power	10 mW (Australia: 7.5 mW)
Modulation	ASK
Dimensions w/o Antenna (W x L x H)	280 x 180 x 100 mm
Antenna Size	30 cm
Antenna Gain	43 dBi
Antenna Polarization	Horizontal/Vertical
Antenna HPBW	1.2°
Unit Weight	6 kg
Operating Voltage	Power over Ethernet (PoE) or 48 Vdc
Operating Temperature	-40°C to 70°C
Humidity Range	Up to 95% (Non-Condensing)
Environmental/IP Rating	IP66
Power Consumption	max. 20W
Mounting Options	Pole mount alignment assembly or pan-tilt alignment assembly
Mounting Pole Diameters	60...110 mm (Pole mount alignment assembly); 70 mm (Pan/Tilt alignment assembly)

NETWORKING

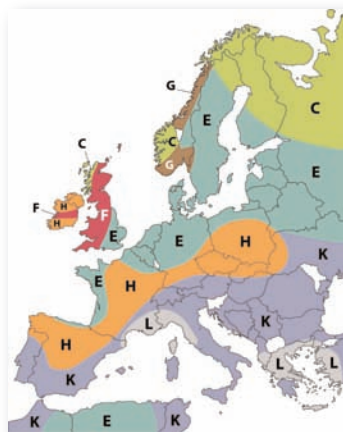
Protocol	802.3z (Gigabit Ethernet)
OSI Layer	Physical layer 2 (Layer 1 optional)
Physical Network Interface	Standard fiber SFP (1000Base-SX/LX) and 10/100/1000 RJ-45 copper
Over-the-Air Data Rate	1600 Mbps
Ethernet Data Rate	1270 Mbps (635 Mbps full duplex)
Management	Integrated Ethernet based Web Browser GUI, SNMP v1/2c (optional v3), RMON, Alarm Reporting via SNMP traps, TELNET and separate RS232 terminal connection

REGULATORY COMPLIANCE

ETSI/CEPT: EN302-217-3 V1.3.1; EN302-217-4-2 V1.5.1; EN301-489, EN60950-1; EN61000-3, EN61000-4; ECC/REC(09)01; Germany: Amtsblatt 217/2008; Austria: FSB RR072; Switzerland: RIR0302-46; Australia: LID Class License 2000, schedule 1, item 51
European Commission OSN #5935

OTHERS

Operational Range: Dependent on rain zone of operation and availability requirement



AireBeam Z60

AireBeam™ Z60-MX					
Availability	Rain Zone				
	E	F	H	K	M
99.999%	550	525	510	480	440
99.997%	650	600	600	550	490
99.99%	770	730	700	650	570
99.97%	870	830	800	760	660
99.90%	950	920	900	870	770
99.70%	1030	980	990	990	880
99%	1080	1050	1040	1050	990
All transmission distances in meters					

