AirDefense Model 510 Sensor

The AirDefense Model 510 Remote Sensor passively observes and collects all wireless LAN traffic, analyzes the 802.11 frames, extracts meaningful data points to determine key attributes and transmits these to the server appliance. This sensor has two radios (one 802.11a and one 802.11 b/g) and scans both frequency bands (2.4 GHz and 5 GHz) simultaneously.

**Frequency Band**
- 802.11a : 5.15 – 5.85 GHz
- 802.11b/g: 2.4 GHz – 2.484 GHz

**Standards**
- IEEE802.11a, IEEE802.11g, IEEE802.11b, IEEE802.1x, IEEE802.3af

**Power Requirements**
- 802.3af compliant Power-Over-Ethernet (PoE) - 42 VDC to 57 VDC (46 VDC nominal)
- Power consumption: 10.6 Watts max.

**Interface**
- 2 * 10/100Mbps RJ-45 Switch Ports

**Compliance**
- ETS 300.328/301.893
- FCC Part 15
- IC Part 15
- EN 60101-1-2 (1993)
- Plenum rated (UL-2043)
- RoHS

**Installation**
- Bracket included for ceiling mount, wall mount or tabletop installation
- Kensington security lock (lock not included)

**Modulation Technology**
- 802.11a/g : OFDM (64-QAM, 16-QAM, QPSK, BPSK)
- 802.11b : DSSS (DBPK, DQPSK, CCK)

**Receive Sensitivity & Transmit Output Power**
- See Appendix for detailed statistics

**Antenna**
- Integrated diversity antenna for 802.11a and 802.11b/g
- Omni-directional
- 2 dBi gain (internal antenna)
- Threaded SMA connector for optional external antenna

**Dimensions**
- Diameter: 6.6” (16.76 cm)
- Height: 1.85” (4.69 cm)

**Weight**
- 12.5 oz (350 g)
- 14 oz (400 g) with mounting bracket

**Temperature Range**
- 0°C to 50°C (32°F to 122°F) – Operating
- -20°C to 70°C (-4°F to 158°F) – Storage

**Humidity** (non-condensing)
- 10%~95% Typical

All specifications listed above subject to change without notice.
For more information regarding AirDefense products, contact AirDefense at 770.663.8115 or www.airdefense.net
Appendix

Receive Sensitivity (typical)

802.11a:
- -87dBm @ 6Mbps, -86dBm @ 9Mbps,
- -85dBm @ 12Mbps, -83dBm @ 18Mbps,
- -80dBm @ 24Mbps, -76dBm @ 36Mbps,
- -71dBm @ 48Mbps, -71dBm @ 54Mbps

802.11b/g:
- -92dBm @ 1Mbps, -89dBm @ 2Mbps,
- -88dBm @ 5.5Mbps, -83dBm @ 11Mbps.
- -87dBm @ 6Mbps, -86dBm @ 9Mbps,
- -85dBm @ 12Mbps, -83dBm @ 18Mbps,
- -80dBm @ 24Mbps, -76dBm @ 36Mbps,
- -71dBm @ 48Mbps, -71dBm @ 54Mbps.

Transmit Output Power

Note: the transmit output power is important for termination only; the sensor is a passive wireless monitoring device, and is shipped with termination disabled as the default setting.

802.11a:
20dBm maximum

802.11g:
20dBm maximum

802.11b:
20dBm maximum

Azimuth: Total Gain
Elevation: Total Gain