

Detailed Product Information

The Airespace access point radio is an IEEE 802.11 A/B Access point (AP) intended to be professionally installed and configured in corporate and industrial environments.

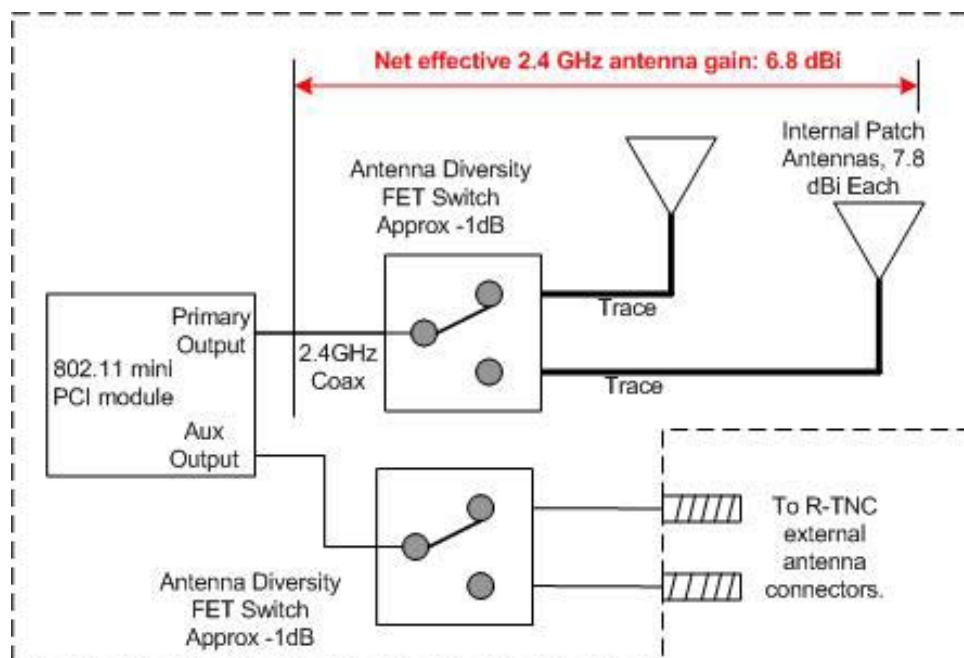
The device utilizes a mini PCI module manufactured by an outside vendor. At the time of this certification the module had received FCC modular approval, however with an antenna of significantly lower gain. For this reason, Airespace is pursuing its own certification.

This product is similar in many respects to previous Airespace products (FCC ID:QTZWNAP1200AB) the only significant difference is that this unit incorporates mini PCI IEEE802.11 modules from a different supplier than the previous product(s)

The AP utilizes integral antennas on the 802.11 A and B band. The AP effectively includes only a single 2.4GHz patch antenna. However, physically there are two 2.4 GHz antennas. The AP switches rapidly between them and when a signal is detected, the AP uses the antenna offering the best connection. At any one time, there is only one antenna connected to the internal PCI module.

There are two “back to back” internal 5 GHz antennas that are used together to provide a somewhat omni-directional pattern

The effective gain of the 2.4 GHz internal antenna path (the antenna switch and the antenna itself) is 6.8dBi. The diagrams below outline the RF path from the output of the mini PCI module within the AP to the integral antennas within the AP. (Note that only the Part 15.247, 2.4 GHz portion of the AP is covered by this particular report)



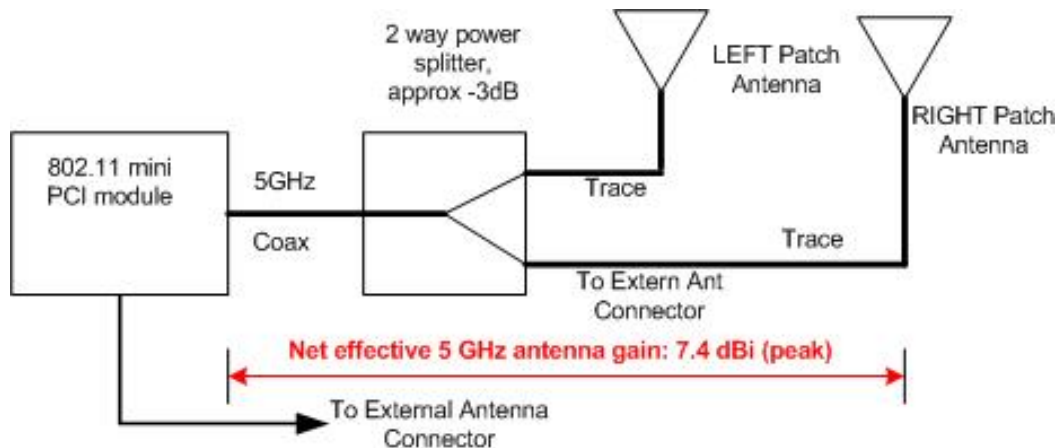
Detailed Product Information / Operational Description

The Airespace radio is an IEEE 802.11 A/B access point (AP) intended to be professionally installed and configured in corporate and industrial environments.

The access point utilizes integral antennas on the 802.11 A & B bands (See FCC Part 15.247 report for 802.11 B details). The access point includes two integral 5 GHz patch antennas pointing 180° from each other to create a somewhat omni directional 5GHz pattern. The effective gain of the 5 GHz antenna path (the power divider and the antenna itself) is 7.4dBi. The diagrams below outline the RF path from the output of the mini PCI module within the access point to the integral antennas within the access point . (Note that only the Subpart E, 15.401 UNII 5 GHz portion of the AP is covered by this particular report)

There is a provision for attaching external 5 GHz antennas to the access point (which, when implemented will disable the integral antenna since only one output of the module is selected at any one time) however at this time, external 5GHz antennas are not included in this certification application, the ability to utilize an external antenna on this band, and even switch the antenna selection switch to the other position is disabled in the configuration software. The hardware was put in place to support the future use of external 5 GHz antennas once such use is authorized by the commission either by permissive change of new grant.

The access point is powered either by an external 48V power supply or via power over Ethernet.



RF Path block diagram