

## Detailed Product Information

The Airespace radio is an IEEE 802.11 A/ B/G 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. The manufacturer of the module has received FCC modular approval. The Airespace access point uses the module with a higher gain antenna than was certified for use with the module, therefore Airespace is applying for their own grant.

The AP utilizes integral antennas on the 802.11 B/G band. The access point effectively includes only a single 2.4GHz patch antenna, however, there are actually two 2.4 GHz antennas. The module switches rapidly between the two antennas and when a signal is detected, the access point uses the antenna offering the best transmission characteristics. At any one time, there is only one antenna connected to the internal PCI module.

Certification of external “patch” antennas is also being requested as part of this certification application. The gain of the external antennas is less than that of the internal antennas, so the unit was tested only with the internal antennas.

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 to the integral antennas within the access point.

