airespace

To: Mr. Tim Johnson, American TCB
From: David Waitt, (Representing) Airespace
Subject: Inquiries regarding Certification application for FCC ID QTZVAP1200
Date: 10 Feb 2003

Tim,
Below are the replies to your inquiries regarding this application. The answers are numbered corresponding to your inquiries in your latter dated 10 Feb 2003. If something is unclear, or if you have additional concerns, please contact me.

Best Regards,

David Waitt
Consultant representing Airespace

1: There are two reverse TNC connectors on the productions versions Airespace VAP1200 radio. The housing of the unit that was tested for FCC compliance was a prototype unit. The design of the housing was not complete at the time of compliance testing, nor was connector selection complete. The prototype housing incorporated SMA connectors, while the production version will incorporate R-TNC connectors. This is the reason for the photos of two different units. The prototype housing was tested while the production version was photographed.

However, the external connectors will not be used in this particular radio at this time. The firmware within the radio will prevent the selection of an external antenna.

It is anticipated in the future that use of external antennas will be authorized with a permissive change to this grant. External antennas were not tested for this application because external antenna selection has not been finalized. To reduce the cost of modifying the tooling of the product once the external antenna selection is finalized, and the permissive change granted, the external connectors were incorporated into the unit early in the product development cycle.

2: Detailed pictures of the 2.4 and 5 GHz antennas are included in the document VAP1200_int_photos.pdf that has been uploaded.

3: Additional detailed photos of the main PCB in the radio as well as the RF module are included in the document VAP1200_int_photos.pdf that has been uploaded.

4: Additional detailed photos of the antennas within the radio are included in the document VAP1200_int_photos.pdf that has been uploaded. The 2.4 GHz and the 5GHz antennas have been identified in the photos.

5: Operational description

6: The only antennas that will be used with this product are the internal antennas that were tested for compliance. Use of external antennas currently will be disabled. External antennas may be authorized in the future with a permissive change

7: The Airespace VAP1200 (and its associated Ethernet switch) is intended only for industrial / corporate environments. Marketing of the products will not be targeted at individuals for residential use. The VAP1200 will not be available for purchase at consumer oriented retail outlets.

8: This product (FCC ID QTZVAP1200) is an 802.11-A/B radio. The same housing and PCB will be used in future Airespace products that will be certified as either an 802.11-A OR an 802.11-B radio (not a combo radio). Thus, a future single band radio will still have two RF module slots, only one of which will be used. The reason for this is to allow the use of one housing and one PCB to be factory configured for three different products (802.11 A/B, 802.11 A, 802.11 B).

The user access panel will be used in the future to allow users to upgrade a single band radio to a dual band radio. Airespace realizes there are some FCC compliance issues associated with this "upgrade-ability" that will be addressed in the certification of the future single band radio certification applications. For the current certification, since both RF module slots will be occupied, no upgrade is possible.

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9: **17 dBm setting = 15.29 dBm**

10: In this case, on page four, the references the fact that the VAP has integral antennas for each band. The antennas are integral to the VAP. The antennas are NOT part of the RF modules contained in the VAP.

11: The firmware within the VAP will ONLY allow FCC compliant configurations. The firmware will prevent the output power from being set to an inappropriate level on a specific channel.

12: The reference to the "Atheros Reference Card" in the data within the appendix is troubleshooting data. During the compliance testing, for comparison purposes, a "Reference card" was borrowed from Atheros Corp to compare the test results of that reference card to the test results of the production module that was being tested in the Airespace VAP radio.

13: Whoops! Noted.