



American Telecommunications Certification Body Inc.
6731 Whittier Ave, McLean, VA 22101

December 11, 2003

RE: Airspan Networks

FCC ID: PIDAIRSPAN-IDR

After a review of the submitted information, I have a few comments on the above referenced Application.

- 1) Page 10 of 12 mentions a 65 dBi gain antenna. It is believed that this should read 6.5 dBi. Please review and correct if necessary.
- 2) Please provide higher resolution internal photographs.
- 3) The external photograph do not appear to show the connector for this unit. Please provide a photograph showing this. Please be sure to include a photograph showing the connection location of the antenna.
- 4) Information given in the antenna specifications mention that the connection is a TNC connector (page 4), while the information shown on pages 11 & 12 mention N connector. It is uncertain which connector is used and whether professional installation should be requested to meet the requirements of 15.203. Note that this application does not currently include information regarding professional installation. This information is not necessary as long as TNC connectors are being used. Additionally, it is not certain if the cables contain connections only on the EUT end, or also at the antenna end. Note that to not require professional installation, all connectors must be considered non-standard.
- 5) The Block Diagram and schematics appear to show 2 external antenna connections, however from the internal photographs provided, only one connection could be located and the other was unpopulated. Please explain. From the design, it is also uncertain if both antennas can TX simultaneously. Please explain.
- 6) It does not appear that the complete manual was provided. Please provide as we would like to review sections 10 and appendix D.
- 7) Previous manuals provided with other applications for this applicant mention IDR's with internal antennas. However it does not appear that this application covers this. Please explain.

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- 8) Since the device may normally connect to a computer, may be desktop mounted and the device also appears to contain connectors such as Ethernet or Serial connections, the device is also considered a class B PC peripheral subject to a DoC or Certification for this part of the device. However the device does not appear include proper labeling (15.19) or manual information (2.1077) regarding a DoC. Additionally, please confirm that the appropriately fully configured system according to ANSI C63.4 has been tested. Please explain and provide the appropriate information.

COMPLIANCE INFORMATION (47CFR 2.1077)

If a product is tested and authorized under a Declaration of Conformity, a compliance information statement shall be supplied with the product at the time of marketing or importation, containing the following information on a single page:

- (1) Identification of the product, i.e. name and model number.
- (2) A statement similar to that contained in Section 15.19(a)(3) that the product complies with Part 15 of the regulations.
- (3) The identification, by name, address and telephone number, of the responsible party. The responsible party is defined as either the manufacturer, or if the equipment is imported, the importer. The responsible party for a Declaration of Conformity must be located within the United States.

NOTE: Alternatively, ATCB can also review the application as a composite application and issue 2 certificates (one for the TX, one for the PC peripheral portion), however additional information may be required and there are additional review costs associated with this.

- 9) Please provide a cover letter attesting and explaining of how the device meets the definition of a Digital Modulation for the DTS portion of the device. What type of modulation is used? Does it meet the definition of ANSI 63.17?
- 10) Note that there is a variety of ways to approve a hybrid system (see attachment). Recently approved devices for Airspan included both a FHSS and hybrid mode. Please explain if this device employs different operational modes or if it is always in hybrid mode. Note that there is a concern regarding FHSS mode only as the bandwidth is greater than that normally allowed for 900 MHz FHSS systems. The remainder of this application and comments was reviewed assuming the device is always in hybrid mode and can not normally operate in mutually exclusive modes.
- 11) The operational description states that the 20 dB bandwidth requirement is 1 MHz and the minimum number of hopping frequencies are 25 or 13. Note that if this device is always in hybrid mode, there are no normal requirements for these issues. Please adjust the operational description as this information is confusing. Note however that there are requirements for the power output.
- 12) It is not clear from plot A8 provided that the whole Ton time is shown. Please provide an updated plot.
- 13) It is desired for power measurements that the RBW be > than the 20 dB bandwidth. The 20 dB bandwidth in some cases is 2 MHz. Please provide new power measurements using a RBW = VBW = 3 MHz. Please update the report and RF exposure exhibit as necessary.
- 14) Note that there is not a requirement to comply with the 500 kHz minimum bandwidth if the device is always in hybrid mode, however there is a minimum channel separation requirement based on the 20 dB bandwidth. The channel separation should be \geq 20 dB bandwidth. Please adjust section 4.4 to remove the 500 kHz limit and also show the 20 dB bandwidth.

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- 15) For AC conducted emissions, there appear to be high peak measurements around 12 MHz that exceed the average limit, however data does not appear to be provided in the tables around this frequency range. It is not apparent that the emissions at 12 MHz will meet the Average limit requirements.



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The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information may result in application termination. Correspondence should be considered part of the permanent submission and may be viewed from the Internet after a Grant of Equipment Authorization is issued.

Please do not respond to this correspondence using the email reply button. In order for your response to be processed expeditiously, you must submit your documents through the AmericanTCB.com website. Also, please note that partial responses increase processing time and should not be submitted.

Any questions about the content of this correspondence should be directed to the sender.