



American Telecommunications Certification Body Inc.

6731 Whittier Ave, McLean, VA 22101

January 27, 2005

RE: Airspan Networks (Israel) Ltd.

FCC ID: PIDAIRSPAN-58

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

- 1) Please provide a higher resolution label exhibit. The 2 part FCC statement can not adequately be read.
- 2) This device appears to incorporate a standard N antenna connection. To meet the requirements of 15.203 using a standard connector, this device must be limited to Professional Installation only. This requires a cover letter requesting and justifying how the applicant ensures professional installation to be provided. The letter should address the following 3 items:

- a) Marketing

example: The device cannot be sold retail, to the general public or by mail order. It must be sold to dealers or have strict marketing control.

- b) Requires professional installation;

examples:

- installation must be controlled.
- installed by licensed professionals (EUT sold to dealer who hire installers)
- installation requires special training (special programming, access to keypad, field strength measurements made) What is unique, sophisticated, complex, or specialized about your equipment which REQUIRES it to be installed by a professional installer?

- c) Application

example:

- The intended use is generally not for the general public. It is generally for industry/commercial use.

- 3) Because certain models have different output powers, please have the manufacturer attest that the maximum output power from the factory for each model.
- 4) Hybrid systems must still be defined as a true hopping system, which requires a minimum channel separation. Minimum channel separation is defined as > 25 kHz or the 20 dB bandwidth of the hopping channel (15.247(a)(1)), whichever is greater. 20 dB bandwidths range from 1.2 to 1.7 MHz depending on data rate according to the test report. However the 1, 2, and 3 Mbps data rates have a channel separation of 1 MHz according to the operational description which is < the 20 dB bandwidth and are not allowed.
- 5) The hopping table provided appears to be only for the higher data rate. Please include an additional hopping table for data rate 1, 2, and 3 Mbps.
- 6) It appears that minimum cable loss is required for external antennas. The users manual should clearly and easily define how much loss is necessary for each configuration (antenna, etc.). Please consider adding a simple table to show this for the installer that is applicable to this device. Additionally since power varies depending on data rates, how does the installer know which channel and data rate to measure? It would be better to cite necessary cable loss for certain configuration (i.e. unit + external antenna requires X loss).

- 7) Please explain why the 24 meters of cable specified in the report do not appear to be present in the test configuration photographs.
- 8) There are various ways to approve a hybrid system (FHSS only, DTS only, both FHSS and DTS if it operates independently in each mode, and Hybrid). Although the system appears to operate on 1, 2, 3, 1.33, and 4 Mbps data rates, information given in the operational description states that Hybrid mode only is for 3 and 4 Mbps data rates only. This suggests that the device must comply with FHSS only rules for 1, 2, and 1.33 modes if these are not operating in hybrid mode. Additionally it is uncertain how the 3 and 4 Mbps are being approved. Please refer to the following important notes regarding the approval:
 - a) under FHSS only rules – device does not meet 20 dB 1 MHz maximum bandwidth for 1, 2, and 1.33 Modes given by 15.247 (1)(ii). Also, please note the minimum number of 75 hopping channels does not appear to be utilized.
 - b) under Hybrid rules – Higher Data rates meet these requirements
 - c) Under DTS only rules - uncertain if this applies
 - d) Under mutually exclusive rules of FHSS and DSS – not applicable.

Note: It appears we are approving this to b) for the higher data rates. but it is uncertain for the lower data rates. It appears this system will only be allowed to operate in a hybrid mode of operation under all data rates.

- 9) If the lower data rates are being approved as FHSS, then limits should be added to the 20 dB bandwidth table of 1 MHz.
- 10) Output power varies across the band and also appears to be dependent on the data rate. Please explain how the SPR with internal antennas will be set at the factory to +20 dBm to ensure compliance at all data rates and frequencies.
- 11) Output power for the 1.33 Mbps appears to be misreported and less than the 4 Mbps. Please verify. If the power is 20.0 dBm for 1.33 Mbps then output power for the 4 Mbps appears greater than the 1.33Mbps and would require a Low, Middle, and High channel power measurement for 4 Mbps data rate.



Timothy R. Johnson
Examining Engineer

[mailto: tjohnson@AmericanTCB.com](mailto:tjohnson@AmericanTCB.com)

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.