



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

September 27, 2002

RE: Teletronics International Inc.

FCC ID: MFMSAMP24W

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

- 1) If the receive port did not have a proper antenna attached to it (the additional receive port for diversity), then compliance with 15.111(a) should be shown. Please comment.
- 2) Due to concerns with how linear the transmitter itself behaves, the transmitter should be set to the highest output level and the input reduced to the amplifier by attenuators or additional cable length, and not by reducing the power from the transmitter. The additional information that was uploaded does not explain how the maximum gain of the amplifier was achieved. Please explain how the amplifier was put into a maximum gain condition, given only 150' of cable appeared to be present.
- 3) The output power listed in the maximum gain condition was 24.9, while the maximum output power in the original data (with minimum gain) was 29.4 dBm. Assuming the amplifier is expected to behave relatively flat across its minimum to maximum gains, the input to the amplifier should be reduced via additional attenuation (using additional cable or attenuators) until the output power at the output is seen to start to drop. This is typically the point at which the following 2 conditions occur:
  - a) the maximum gain from the amplifier and
  - b) the maximum RF input to the amplifier exists for the condition where the amplifier gain is maximized.

Please provide feedback on this issue. Please note that information given in section 2.4.1 of the users manual supports that the output should be flat. Please provide test data that supports the proper maximized configuration while the amplifier is in a maximum gain condition.

- 4) While your conclusions based upon the additional testing seem reasonable regarding the AGC amplifier in a maximum gain condition, we need to be sure that for the radiated test the unit is maximized as given in #3) above. Additionally, please provide data for at least one antenna from each type (dish, Omni, patch) antennas, using the one from each group that had the worse case margins based upon the previously tested minimum gain conditions. For future submittals, please be sure to test all submitted configurations for both minimum and maximum AGC gain conditions.
- 5) Please update the attestation letter (referring to the reduction of channels and method of marketing) to include the specific access point, PCMCIA Card, and Teletronics components combined together as a system (i.e. add the model number or similar information).
- 6) Please provide Spectral Power Density results for the condition when the amplifier is at maximum gain.
- 7) The users manual mentions Cisco Aironet 350 Series products include the AIR-LMC-352 PC Card, AIR-WGB-352R Work Group Bridge unit, AIR-AP352E2R-A-K9 Access Point unit, and the AIRBR352R-A-K9 Bridge units. This application only covers the specific system (access point w/ PCMCIA Card and amplifier+DC injector as specified in the application. Please address this issue.

Timothy R. Johnson  
Examining Engineer

Direct Phone: 404-414-8071  
[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.