



# Washington Laboratories, Ltd.

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September 9, 2004

Mr. William Graff - American Telecommunications Certification Body Inc.

Mr. Mike Nicolay - FCC Equipment Authorization Branch

CORRESPONDENCE 13555, dated 8/19/04  
APPLICATION: PYFAR400US Matrics, Inc.  
731 Confirmation Number: TC817139

Gentlemen:

Below are the comments that have been provided regarding the application for certification referenced above. Our responses to those comments are in ***bold italic***. Many responses refer you to additional exhibit(s) which has been uploaded to the application folder at the ATCB website.

Thank you for your attention. Please feel free to contact us for any additional information that you may require.

Regards,

*Gregory M. Snyder*  
Chief EMC Engineer, Wireless/Telco Services Manager

*Brian J. Dettling*  
Documentation Specialist

WLL Project: 8096

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1.The User's Manual states that they use a commercially available rf connector. Are they aren't using a unique connector?

***R. The manual incorrectly identifies the connector as a mini-UHF connector. The connector used (DIN 1.0/2.3) is unique and is a special order item for Matrics. These connectors are not commercially available nor are they sold at any retail stores. Photographs of the connector have been uploaded for further clarification. Please see exhibit "Antenna Connector Detail.pdf". The manual has also been updated to remove the reference of "Mini-UHF".***

2. RFX exhibit contains phrases: "Maximum Permissible Exposure Test Report," "RF Exposure Test Report," etc. -however this exhibit contains only MPE calculations but no test results. In this and future filings, please replace word "Test" with "Evaluation" or similar.

***R. The RF Exposure exhibit has been revised to remove the reference as a "Test Report" and replaced with "Evaluation". Please see exhibit "AR400US RF Exposure Info rev1.pdf".***

3. Part 15 intentional radiators are approved with specific antennas - please submit descriptions and/or internal and external photos or drawings of specific antenna(s) authorized for this device.

***R. The specification and datasheet of the antenna which is part of the FCC testing has been provided. Please see exhibit "Area antenna spec DSI.pdf".***

4. Please submit block diagram and/or operational info, including power division conditions if any, related to user manual statement: "Up to four (4) individually addressable antennas (read points), reducing cost per read point", or specify exact location in filing if info is already there.

***R. No power division of the RF takes place. Each antenna is independently selected and only one is selected at any time as can be seen in the "Antenna interface control block diagram" on page 30 of the Operational Description.***

5. User manual states "Mini-UHF Antenna Connectors" - please explain how device complies with 15.203 and 15.204.

***R. Reference Item 1 above. The connectors are unique and not commercially available.***

6. User manual has 23cm antenna spacing on one page, and 25cm spacing on another - please clarify and/or revise

***R. The User Manual has been corrected to show a 23cm spacing. Please see exhibit "AR400US Users Manual revised.pdf".***

7. User manual states - "This device must be installed in a location that is not accessible to the general public." Please describe typical installation locations.

***R. These units are installed in large warehouse applications for inventory tracking. Installation includes large volume storage areas and large doorways for moving inventory through. Typical installations to date include asset tracking within a warehouse for International Paper and a baggage tracking system for McCarran Airport.***

8. Test setup photos seem to show only one panel antenna. Please explain how these results apply for the 4-antenna configuration, and/or re-test if needed.

***R. All Tx and Rx ports do not work simultaneously. Only one antenna can be selected at any time.***