



MET Laboratories, Inc. *Safety Certification - EMI - Telecom Environmental Simulation*
3162 BELICK STREET • SANTA CLARA, CA 95054 • PHONE (408) 748-3585 • FAX (510) 489-6372

August 12, 2008

MET Laboratories, Inc.
TCB Reviewer: Chris Harvey
914 West Patapsco Ave,
Baltimore, MD 21230

RE: RT Response 80990 Electronic Systems, FCC ID: ENPESTEEM195ED. IC: 1457-195ED

Dear Chris,

Please see our response below:

1. The antenna specification sheet exhibit for the AA20Es900 antenna indicates a 5dB gain, but does not indicate if this is referenced to a Dipole (dBd) or Isotropic antenna (dBi). Please specify the correct units for antenna gain.

We have fixed up some inconsistencies in the antenna spec sheets.

2. The Block Diagram exhibit shows 2 bi-directional RF paths from the XR9 Module to the Antennas. The operational Description states that one of these RF paths is for receive only. Please confirm that there is only one transmit

The operating system in the unit only allows the one port to be the transmitter. Both parts can be used for receive only

3. Please note that the original Ubiquiti FCC/TCB Grant listed 3 technical parameters for the 907-922MHz band, but this grant will consolidate these into one technical parameter using the highest 0.794W power for the 907-922 MHz band. All bands will be listed for Industry Canada since IC lists the different Emission Designators.

Noted.

4. The antenna specification sheet for the 7dBi AA20Es900 antenna includes a statement that the separation of at least 20cm must be maintained, however the RF Exposure (MPE) calculation for this antenna shows that at least 23cm must be maintained. Please update this exhibit to indicate the minimum separation of 23cm required by the MPE calculation.

Fixed in spec sheet and manual.



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5. The exhibit 195Ed Apx A (Appendix A License Information) implies that an FCC License is required (by using the old term FCC Type Acceptance No: To Be Determined. This device is being approved in the non Licensed 902-928 MHz band according to FCC 15.247 and Industry Canada RSS-210. This separate exhibit seems to be slightly different than the Appendix A page from the Users Manual submitted. Please change this page (these pages) to not reference Licensing, to replace the term FCC Type Acceptance with the term FCC ID; to replace the term Canadian Certification Number with IC No; and to include the actual proposed certification numbers. Also, please note that there is no need to list the FCC Field Offices for non-Licensed devices (you may remove this page for this device if you wish). Please also make the same changes Product Information exhibit.

[Fixed in manual](#)

6. The exhibit for Chapter 8 Antenna Setups (separate exhibit and Chapter 8 in the manual) lists 20cm separation for all antennas; however the MPE exhibit indicates 23cm separation (for the 7dBi antennas). Please update the Chapter 8 information with the appropriate separation per the MPE calculation.

[Fixed in manual](#)

7. Page 9 of the test report indicates configurations using 5dBi Yagi and Omni antennas, but page 25 of the report and the antenna specifications show up to 7dBi gain antennas. Please confirm the antennas tested and correct this discrepancy.

[Corrected configuration in report, please see revised report.](#)

8. The test setup photos do not show the 2dBi whip antenna in the test, nor does it show any antennas connected to the ANT2 (receive only?) port, including for the Receiver emissions testing. Please confirm that these antennas were tested (or justify no testing needed), and confirm the configurations for Receiver Spurious Emissions (needed for both FCC 15 and IC RSS-GEN)

[2dBi antenna not tested since highest gain Omni antenna was 7dBi, please see note in revised test report.](#)

9. Page 26 thru 30 of the test report states that the device complies with Class A limits, which are appropriate for the Commercial Digital Device compliance of 15.107, but not the Transmitter AC Conducted emission requirements of 15.207. Please change the reference in this section of the report to not include the term Class A and use the limits of 15.207 in the data tables. The Class A portion of the test report should be removed and included in a separate report not submitted in this Certification application.

[MET includes the Digital portion in all certification reports. Please refer to the 15.207 section of the report for intentional conducted emissions.](#)



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10. Since this application must stand on its own and not rely on documents submitted in another application please include the referenced test report from FCC ID: SWX-XR9 with a cover letter explaining which sections of that test report apply to this application.

[Please see files provided and cover letter.](#)

11. Please update the test report to include the test procedure description of the 15.247(d) Harmonic Emissions of pages 36 to 60 in the test report.

[Please see revised test report.](#)

12. The Industry Canada Annex A Declaration for RF Exposure indicates a calculated 2.50V/m @ 3 meters, but the RF Exposure MPE calculation exhibit for the FCC application does not calculate this same value. Please review the RF Exposure calculation and update this Annex A RSS-102 declaration.

[Please see revised document, 80990 Electronic Systems – IC Package_Rev1.pdf.](#)

If you need any additional information, please let us know.

Regards,

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