



ATCB
Mr. Tim Johnson
RE:L2V-STX2-1

Response to Comments

- 1) Please explain the use of the DoC information in the manual. It appears this device would not be subjected to DoC authorizations. Please adjust if necessary.

Axonnn has provided this statement in the past. Since it actually provides more detail than the required statement, they will keep this statement for use in the manual.

- 2) The 3rd paragraph of the Product description reports some odd frequencies. Please review.

Corrected.

- 3) Part 2.1091 requires routine evaluation (measurements) for RF exposure unless the device meets the exemption requirements specified in this subpart. Therefore, this information (measurements or how you meet the exemption) should also be presented in your RF exposure information. Currently you cite 349 mW EIRP (=213 mW ERP).

Corrected.

- 4) Given 5a and 5b, compliance is very close. Additionally, recent interpretations have cited that the bandwidth must be ≥ 4 kHz. To fully ensure compliance, this test should either require to be done at 10 kHz, or an alternative method showing compliance at 4 kHz should be provided. It may be best to discuss this in detail. Please give me a call.

US tech has repeated the test with a 10kHz RBW. Corrected and uploaded.

- 5) Please explain the meaning of "the following plots show that all emissions were at least 25.01 dB below the fundamental." in section 2.9. This appears above the limits, but doesn't match the plots.

This statement has been removed.

- 6) Section 2.9 shows a limit of 35.9 and 36.1 dBc. However this is not shown correctly on the plots provided. This limit would equate to a -13 dBm level. Please correct.

The resolution bandwidth used actually shows a fundamental lower than the actual mean power. The limit line was imposed based upon this amplitude, thereby showing that the conducted spurious emissions meet a more stringent limit than is required.

- 7) The note on plot 6i appears erroneous. Please review.

Corrected.

- 8) Section 2.10 doesn't contain enough information to support how the test was done. Additionally, the information in the plot can not be cross referenced to the table. Please add additional information to the table in effort to show compliance. Call to discuss if necessary.

Testing was conducted using the substitution method of TIA-603. This datum has been added to the report. Cable loss and antenna gain have been accounted for under "Corrected Substitution level relative to Dipole" based upon the signal generator output.



- 9) Your calculation program for % of temp. stability appears off. $10 \text{ ppm} = .001\%$. Please adjust.

Corrected.

- 10) Please explain compliance to the requirements of 25.213. Given this is a module, it is uncertain how the device can ensure compliance with this. The instruction manual should provide specific OEM instructions regarding this.

This type of transmitter can only be operated on a Globalstar Network. Globalstar requires that all products licensed to operate on the Globalstar network must switch to channel C within a 100 mile radius of a Radio Astronomy Site (RAS). In addition, all VAR products licensed must have a GPS locator internal to the product with a list of restricted latitude/longitude values stored in a look-up table. VAR products must contain the logic to look up current location, compare it to the table and switch to channel C upon entering the RAS zone. Globalstar license precludes the operation of channel A and B in an RAS zone.

This information is listed in Globalstar operational requirements, a copy of which can be provided under confidentiality to the FCC upon demand, and with the permission of Globalstar.

A letter stating that integrators must comply with subsection 25.213 has been uploaded, confirming addition to the installation instructions.

- 11) Please explain where compliance to 25.216(i) may be found.

This information has been added to the report and uploaded.

- 12) Figure 8b. If the limit is -44 dBm, why is the limit line at -42 dBm?

The test was repeated with corrected limit lines.

- 13) Compliance with the -80 dBw 700 Hz requirements of 25.216(c) do not appear to be provided.

The test was conducted and added to the report. The part 2 plot was taken over the original span of 1.559 to 1.605 GHz. Upon review of the data, a spur was noted. US Tech zoomed in on the plot and the spur was proven to be an overload condition of the Spectrum Analyzer. The plot provided is the correct value, and represents the maximum value in the frequency range required.

- 14) For section 2.12, has cable loss for measurements setup been factored in? Additionally, VBW should generally be $> \text{RBW}$.

Corrected and added to the report.

- 14) Compliance with the -80 dBw 700 Hz requirements of 25.216(g) do not appear to be provided.

Corrected and added to the report.



Please contact me with any additional questions.

Sincerely,

Louis A. Feudi

A handwritten signature in black ink, appearing to read "L. Feudi", with a stylized flourish at the end.

Operations and Engineering Manager