



June 19, 2003

Re: Alien Technology

FCC ID: P65BHNPR001 Permissive Change

We are responding to the questions raised in your correspondence dated June 13, 2003.

1) Please provide an RF exposure exhibit specific for this application and that it still meet the RF exposure conditions originally reported to the FCC.

The rf exposure information has been submitted using the new antenna gain and power settings. The file is named "*MPE Calculations.pdf*"

2) It can not be determined from the information on the FCC site the types/gains of the previously approved antennas. Please provide this information.

The antennas previously approved were:

- A CushCraft S9028P linearly polarized antenna modified with the inclusion of a low pass filter/connector assembly and extra length of coax cable with reverse thread SMA connector. This antenna assembly has a gain of 6 dBi after taking into account all the losses of the added assembly.
- A CushCraft S9028PC circularly polarized antenna modified with the inclusion of a low pass filter/connector assembly and extra length of coax cable with reverse thread SMA connector. The modified antenna assembly has a gain of 5 dbi taking into account the connector/cable/filter losses and the linear antenna gain.

3) The power sensor used appears to be out of calibration.

The calibration due dates for power sensor and power meter listed in the report were incorrect. The report has been updated ("*R51282 Revised.pdf*") to show the correct dates of 4/8/2004 for the meter and 3/20/2004 for the sensor

4) Please provide information for the RBW and VBW settings used for PEAK and AVG measurements.

The RBW was 1MHz and VBW 1MHz for peak measurements. The RBW was 1MHz and VBW was 10Hz for average measurement. Please refer to page 10 of 16 in the main report.

5) The margins shown in the table for run 1c do not appear to correspond to the corrected readings and limits shown.

The data has been corrected has been updated and is included in “*R51282 Revised.pdf*”.

6) Please explain the use of the AVG detector. Frequency hopping systems must be measured using a hopstopped carrier (frequency stopped, plus non pulsing) when possible. Note that Page 4 of 8 states that the device was hopping unless otherwise stated. Frequency hopping systems are measured hop stopped for PEAK and AVG emissions, and if they TX < 100 msec per channel they may be additionally corrected for time of occupancy per channel. If the device was not appropriately hop stopped, then the use of the AVG detector using standard RBW = 1 MHz and VBW = 10 Hz may not be allowed. Additionally, please provide plots of the fundamental as it was set during testing using RBW = 1 MHz and VBW = 10 kHz, 1 kHz, 100 Hz, 10 Hz settings, using a zero Hz span and 20 - 30 msec sweep time.

The transmitted signal for spurious emissions tests was continuously transmitting and not hopping. The correct description appears in the test data section, page 3 of 8 and in the main section (page 7 of 16) of the original report. The report has been updated to remove the incorrect text on page 4 of 8 in the test data section.

As the device was transmitting continuously no plots are being provided.

7) The previously approved unit was only tested to the current FCC AC Power line conducted limits (450 kHz - 30 MHz). However, it is recommended that the conducted emissions meet the future limits (CISPR) that will be required in the next few years.

The conducted emissions test will be repeated using the updated limits at the time of the next permissive change should the client decide to continue with this product after July 2005.

The following files have been uploaded to the ATCB website to support this response:

R51282 Revised.pdf
MPE Calculations.pdf

If you have further questions, please contact me via doc@elliottlabs.com.

Regards



Mark Briggs
Director of Engineering