



# Washington Laboratories, Ltd.

7560 LINDBERGH DRIVE  
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January 13, 2009

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

RE: Comments of December 30, 2008  
APPLICATION: FCC ID: LOBSBU200 for Structured Mining Systems, Inc. dba Cervis, Inc.

Dear Mr. Fabrina:

Below are the comments that you have provided regarding the application for certification referenced above. Our responses to those comments are in ***bold italic***.

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

Regards,

Steven D. Koster  
EMC Operations Manager

WLL Project: 10359

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1. I do not believe the transmitter (base unit) shown in this application is eligible for approval as a modular transmitter. FCC Rules in Section 15.212(a) define a modular transmitter as a completely self-contained RF transmitter device that is incorporated into another product, host or device. This application shows this transmitter as being part of a printed circuit (PC) board of a much larger product. As such, it cannot be incorporated into another host like other modular transmitters. All the FCC interpretations that I am familiar with indicate that a modular transmitter is on its own PC board and is merely located inside another product. If you have an interpretation from the FCC allowing authorization of this device as a modular transmitter, please provide a copy of the interpretation along with the KDB number of this interpretation. This interpretation must address a number of issues: (1) the inclusion of a modular transmitter on a larger PC board of the host device, (2) will the modular transmitter be exactly the same size every time, (3) will the modular transmitter be in the same location on the PC board of all host devices and (4) will the components of the modular transmitter on the PC board be in the same position all the time. Either provide such an interpretation from the FCC or drop the request for modular approval of this transmitter. If you wish to discuss this issue with me, please call me in the afternoon at 703-443-2881.

***R. Issues have been addressed in the new Modular Request Attestation letter.***

2. Please provide AC line conducted emissions test results with this transmitter (base unit) being powered by a commercially available, unmodified AC adapter. In accordance with Section 15.207(c) of the FCC Rules, any device that obtains power through another device that is connected to the AC power lines rather than through batteries must be tested for compliance with Section 15.207(a) limits. The user manual shows the base unit is powered by + 9 or + 16 VDC unlike the handheld transmitter which is powered by three AAA batteries.

***R. The Device is meant to be operated from a Vehicle Battery which eliminates the need for AC line conducted test. However the unit was tested with a "power brick" in case the end user does not use the unit as intended, see the updated test report and updated test set-up photos.***

3. Please address the RF safety compliance of this transmitter. Section 15.247(i) of the FCC Rules requires all devices operating as spread spectrum devices to comply with the FCC RF exposure limits during use. It appears the base unit may be eligible for approval as a mobile device for RF safety purposes.

**R. An RF exposure report will be submitted.**

4. Please provide an internal photo of the bottom of the PC board of this device to show that there are no components or shields on the bottom of the board. If the bottom of the PC board contains a shield or shields, be sure to include photos of the bottom of the PC board with the shields on and off the PC board.

***R. An internal photo of the bottom will be supplied. See updated internal photos.***

5. In column 5 in Tables 6, 7 and 8 of the test report, the heading reads "SA Level (QP)." This indicates a quasi-peak detector was used for these measurements although column 1 has headings reading "peak" and "average" in it. Please clarify this discrepancy of which detector was used for these readings.

***R. The readings are in peak and average as noted. The (QP) listed in the column heading is a remnant of the standard template and will be removed in the updated test report.***

6. In Figures 5-7, 5-8 and 5-9 of the test report, please explain the meaning of the statement at the bottom of these Figures which reads "Plot is five 100 second, 300 kHz span sweeps appended to equal 500 second – 1.5 MHz." Also indicate in the FCC Measurement Procedure for DTS devices (Publication number 558074) where this is addressed. I see that the correct values for PSD measurements are shown in line entitled SA Settings right above the statement in quotes and see no reason for the statement in quotes.

***R. The desired signal to be looked at is a span of 1.5MHz at 500 seconds sweep time. As our spectrum analyzer has a maximum sweep speed of 100 seconds the plot was broken down into five 100 seconds of 300kHz. Our software data collection program (VEE) then appended each of these segments to give a 1.5MHz 500 second plot. As the measurement procedure actually calls for a ratio (span/3kHz) each section of the plot still conforms. This bottom line just explains how the 1.5MHz plot was created.***

7. For Your Information – The receiver measurement results attached to this test report were not reviewed because the FCC does not have receiver requirements above 960 MHz.

***R. Please review the receiver measurements as an Industry Canada application has been filed for this device.***