



Subject: Modular Approval Request  
FCC ID: LOBSBU200  
1/12/2009

Dear Application Examiner,

Cervis Inc. (aka Structured Mining Systems), would like to have your authorization for modular approval of the radio portion of SmaRT BU-206, FCC ID: LOBSBU200 so as to be used with other SmaRT Base Unit 2.4GHz varieties where the radio electronics will not change, but the input and output electronics may change. The requirements of Public Notice DA00-1407 have been met and shown on the following statements.

1. *The modular transmitter must have its own RF shielding.* The radio portion of this module has been shielded, please see attached photographs. The RF shield for this transceiver is the same for all units covered under this modular approval. As such, the radio portion is limited to the area covered by the shield.
2. *The modular transmitter must have buffered modulation/data inputs.* The SmaRT BU-206 contains buffered data inputs; it is integrated in the radio section of the PCB assembly, part number 07120358. The component with buffered data inputs is ATMEL AT86RF230.
3. *The modular transmitter must have its own power supply regulation.* The SmaRT BU-206 contains a regulator in the DC input port, a TI TPS70751PWP.
4. *The modular transmitter must comply with the antenna requirements of section 15.203 and 15.204(C).* The BU-906 meets the FCC antenna requirements. The spurious emission, unique antenna connector and photo of antennas are shown in the application exhibits.
5. *The modular transmitter must be tested in a stand-alone configuration.* The radio portion of the BU-206 was tested in a stand-alone configuration via a PCMCIA adapter card. Please see exhibit "Test Setup Photos".
6. *The modular transmitter must be labeled with its own FCC ID number.* Please see exhibit "FCC Label" for the FCC ID of this module.
7. *The modular transmitter must comply with any specific rule or operating requirements applicable to the transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements.* The BU-206 is compliant with all applicable FCC rules. Detail instructions for maintaining compliance are given in the Users Manual.
8. *The modular transmitter must comply with any applicable RF exposure requirements.* The EUT is compliant with all applicable RF exposure requirements. RF Exposure is addressed in the exhibit "MPE Data".

This may be a non-traditional application of the modular approval. The transmitter circuitry is not contained on a separate printed circuit board assembly from components not pertinent to the modular transmitter. Rather, the modular transmitter is included with components related to other functions of the overall device on the same printed circuit board assembly. However, please keep in mind the following points:

1. Public Notice DA 00-1407 in the second paragraph refers to "... modular transmitter circuitry ..." No reference is made to a separate printed circuit board assembly.

2. Among the several factors that must be considered when seeking approval for a modular transmitter, the public notice indicates that the only connectors “**if any**” shall be for power and data inputs. The reference “if any” implies that connectors are not required. If connectors are not required, then the implication further implies that a separate printed circuit board is not required.
3. While the reference to stand alone configuration may infer a module which is able to be inserted into another device, the testing of the module outside of the device “... is intended to demonstrate that the module is capable of complying with Part 15 emission limits regardless of the device into which it is eventually installed.” The testing of the BU-206F was tested without an enclosure and with the modular transmitter completely exposed. As there was no additional shielding provided, no additional intentional radiators, and no modification to the module under test, this stipulation should be considered to be fulfilled.

Furthermore, there is no intent to modify the footprint of the modular transmitter or the orientation of the components as depicted in the approval.

Please contact me if you have any further questions. Thank you for your attention.

Sincerely,

A handwritten signature in black ink, appearing to read "Anthony M. Di Tommaso". The signature is fluid and cursive, with "Anthony" and "M." on the first line, and "Di Tommaso" on the second line.

Anthony M. Di Tommaso  
Manager, Engineering  
Cervis, Inc.