Subject: Modular Approval Request
FCC ID: LOBSRF307
04/30/2009

Dear Application Examiner,

Cervis Inc. (aka Structured Mining Systems), would like to have your authorization for split modular approval of the radio transmitter module 07420307-A-0, FCC ID: LOBSRF307 so as to be used with various Cervis Inc. product varieties where the application-specific input and output electronics may change. The radio module is intended for use in "split module" applications, where the RF functions reside in a standardized module that is mechanically distinct from the host application's functional controller circuits. The radio module is being submitted for compliance testing using a SmaRT BU-200H as a typical host application containing the radio module under test. The requirements of Public Notice DA00-1407 have been met and shown on the following statements.

15.212(a)(1)(ii)

The modular transmitter must have buffered modulation/data inputs. The radio module contains buffered data inputs. The component with buffered data inputs is the RF IC, Atmel AT86RF230.

15.212(a)(1)(iii)

The modular transmitter must have its own power supply regulation. The RF IC has internal DC regulators that provide regulated power to the internal analog and digital circuits that control radio functions. The RF module contains a pre-regulator in the DC input port, a MicroChip MCP1700-2.5. The host applications contain DC regulators supplying power to the RF module.

15.212(a)(1)(iv)

The modular transmitter must comply with the antenna requirements of section 15.203 and 15.204(C). The host applications in combination with the RF module meet the FCC antenna requirements by either of two means: A fixed internal antenna or a supplied external antenna with a unique connector. All supplied antennas are low gain omni-directional types. The spurious emission, unique antenna connector and photo of antennas are shown in the application exhibits.

The modular transmitter must be tested in a stand-alone configuration. The RF module was tested using the BU-200H as a typical host applications. Please see exhibit "Test Setup Photos".

15.212(a)(1)(vi)(A)

The modular transmitter must be labeled with its own FCC ID number. Please see exhibit "FCC Module Label" for the FCC ID of this module. Please see exhibit "FCC Application Label" for the FCC ID of host applications containing this module.

15.212(a)(1)(vii)

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 07420307-A-0 is compliant with all applicable FCC rules. Detail instructions for maintaining compliance are given in the Users Manual.

15.212(a)(1)(viii)

The modular transmitter must comply with any applicable RF exposure requirements. The EUT is compliant with all applicable RF exposure requirements. The maximum RF output can be no more than 4mW.

15.212(a)(2)(i)

The modular transmitter must have its own RF shielding and the interface between the split sections must be digital with a minimum signaling amplitude of 150 mVpp. The radio portion of this module has been shielded, please see attached photographs. As such, the radio portion is limited to the area covered by the shield. Except for the antenna connection, all RF components are shielded. The signaling interface is CMOS-compatible digital with a minimum signaling amplitude of 1 Vpp.

15.212(a)(2)(ii)

Data may be exchanged between the control elements and the radio front end. Data and control information is exchanged using digital connections.

15.212(a)(2)(iii)

The split module sections must be tested in a typical host device. The radio module has been tested by installation in a Cervis Inc. BU-200H control base unit, which is a typical example of a host application that provide the power source and control elements.

15.212(a)(2)(iv)

Only approved transmitter control elements and radio front ends may be operated together. The RF IC in the radio module has a digitally readable identification code for the IC manufacturer and device type. The software program in the transmitter control element will only activate transmissions if a compatible module is detected. Additionally, product design and manufacturing control is used to ensure that only approved radio modules are installed and matched with appropriate control software.

15.247(a)(2)

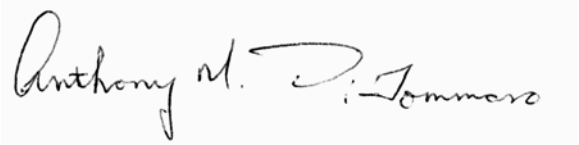
Operation in the band 2400-2483.5 MHz with a minimum 6dB bandwidth of 500 kHz. The radio module operates from 2405 MHz to 2480 MHz, inclusive. The transmit bandwidth is 2.8 MHz at 20 dB.

15.247(b)(3)

The conducted output power for digital modulation must be <= 1W. The conducted output is no more than 4mW.

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

Sincerely,



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