Federal Communications Commission
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, Maryland 21046

September 25, 2009

Re: Request for Full Modular Approval for Mobile Application / FCC Part15C, Section 15.247 for Digital Transceiver Model AW24MUFL / FCC ID: UP2AW24MUFL

To whom it may concern:

Modular Approval is being requested for this device. The following statements detail these requirements and the manner in which the device meets them. The module has its own complete RF transceiver with onboard antenna and reference oscillator. The module meets all of the technical specifications applicable to the frequency band of operation.

1. RF Shielding
The module shielding is accomplished through a grounding paddle that exist on the RF chips themselves and the characteristics and layout of the PCB. A bonding diagram document for Cypress CyFi chip is available in the documentation package, which shows the grounding paddle and a PCB diagram for reference. Due to the simplicity of the radio circuitry (literally the Cypress CyFi chip), the majority of the module is digital and is not subjected to radio considerations.

2. Buffered Modulation / Data Inputs
Data to the modulation circuit is buffered on the CyFi integrated circuit. Refer to the information on the file “Data Sheet AW24MUFL” that details the theory of operation.

3. Power Supply Regulation
Power supply regulation is provided within the CyFi integrated circuit that regulates the control voltage to the RF and data circuitry. The maximum allowable voltage that can be used in the chip is 2.4VDC – 3.6VDC. The variable input voltage is therefore a voltage regulator.

4. Antenna Requirements
The module has a unique antenna connector (“U.FL”) onto the PCB. This can be seen on the detailed PCB film layer provided within this documentation.

5. The modular transmitter must be tested in a stand-alone configuration
Test data contained in this application is for the device tested as a stand alone device. Radiated spurious emissions data demonstrating compliance with the requirements of Part 15 of the FCC rules for intentional radiators has been provided. Please refer to the test report for details.

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6. The modular transmitter must be labeled with its own FCC ID number
The module is so small that not all the label information can be placed on it. Instead only FCC, IC ID are placed . Refer to the label location and drawings contained within this application. The UMAW24MUFL User Manuals contain specific references for exterior end product label requirements, including the use of the wording “Contains Transmitter Module FCC ID UP2AW24MUFL”.

7. Operating requirements
The module has no serviceable parts. The Digital Electronic Device manufacturer has control to the module via the serial data for data transmission modes and data rates as well as predefined output power settings. This can be seen in the “Data Sheet DSAW24MUFL” provided.

8. RF Exposure requirements
The module meets the requirements for a portable device as per FCC RF exposure requirements and requires a separation distances of 20cm between the radiating structure and human as reflected in the module’s UMAW24MUFL User Manual.

Sincerely,

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