



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

April 19, 2012

Re: Request for Full Modular Approval for Mobile Application / FCC Part15C, Section 15.247  
for Digital Transceiver Model AW24TH / FCC ID: UP2AW24TH

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 built in antenna and reference oscillator. The module meets all of the technical specifications applicable to the frequency band of operation.

1. RF Shielding

The module contains metal shield over the transmitter section to ensure that it does not have to rely upon shielding provided by the device into which it is installed and to prevent coupling into which the device will be installed.

2. Buffered Modulation / Data Inputs

Data to the modulation circuit is buffered on the module via the WirelessUSB integrated circuit. Refer to the information regarding the on-board Serdes (SPI) provided with the file "Data Sheet DSAW24TH" that details the theory of operation.

3. Power Supply Regulation

Power supply regulation is provided within the 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 2.7VDC – 3.7VDC. The variable input voltage is therefore a voltage regulator.

4. Antenna Requirements

There are four module variants , which uses a mini coaxial connector U.FL, RPSMA, and RPSMA RA for adaptation of an external antenna. The fourth variant has a Chip Antenna Integrated on the PCB

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.



6. The modular transmitter must be labeled with its own FCC ID number

All four module variants itself appropriately labeled with its own FCC ID. When the module is installed inside another device or in a casing, the exterior label will make reference to the enclosed module and its FCC ID. Refer to the label location and drawings contained within this application. The UMAW24TH User Manuals contain specific references for exterior end product label requirements, including the use of the wording "Contains Transmitter Module FCC ID UP2AW24TH".

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 "UP2AW24TH-Module\_DS\_Rev\_2\_4" 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 UMAW24TH User Manual.

Sincerely,

A handwritten signature in black ink, appearing to read "Kashif Ahmed", is written over a horizontal line.

Kashif Ahmed  
RF Design Engineer  
Artaflex Inc.