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Federal Communications Commission
(via TIMCO Engineering, TCB)

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Requirements For Modular Approval

In compliance with DA 00-1407 the Applicant submits the following information:

1. The modular transmitter must have its own RF shielding.

The device on the application is a self-contained module with its own RF shielding. The R65DART1 is built around the NRF2401A Transceiver chip (U4: nRF2401). The chip and support circuitry are built on a PCB that is covered by an RF shield. Please refer to the DART PARTS LIST supplied as Exhibit.

2. The modular transmitter must have buffered modulation/data inputs

The device has buffered data inputs. The R65DART1 is built around the NRF2401A Transceiver chip that has buffered data inputs. Please refer to the DART SCHEMATIC and DART USER MANUAL supplied as Exhibits.

3. The modular transmitter must have its own power supply regulation.

The R65DART1 has an on board Voltage Regulator (U3: LP2985AIM-5-3.0-ND). Please refer to the DART SCHEMATIC and DART PARTS LIST supplied as Exhibits.

4. The modular transmitter must comply with the antenna requirements of Section 15.203 and 15.204(c). The antenna must either be permanently attached or employ a "unique" antenna coupler.

The device uses a fixed wire antenna that cannot be changed by the user. The module contains antenna-matching components. Any attempt by the user to disturb the antenna configuration will impair the RF matching and reduce the output.

5. The modular transmitter must be tested in a stand-alone configuration.

The test report shows that the device was tested in a stand-alone configuration. The module was driven by an external microprocessor and battery pack to simulate the user interface. The interface lead length exceeded 10cm.

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

The FCC ID is R65DART1. The external labeling will be addressed by a the label shown as Dart-Modular-Label.pdf in the exhibits.

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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.

All necessary interface and control parameters are included in the DART USER MANUAL.

8. The modular transmitter must comply with any applicable RF exposure requirements...
.... transmitters operating under Section 15.247 are required to address RF Exposure compliance in accordance with Section 15.247(b)(4).

The maximum output of the NRF2401A Transceiver used is 0dBm (1mW). The antenna is a fixed length wire with about 12dB loss as tested (including on-board matching circuitry). Reducing the length of, or reconfiguring the antenna, reduces the effective radiated power. All testing was carried out with the antenna in the position of maximum efficiency.

As the antenna is physically fixed to the module and below unity gain the requirements of 15.247(b)(4) are not applicable.

For and on behalf of M. Flom Associates, Inc., Agents for the Applicant



David E. Lee
Quality Manager