

Dec. 21, 1999

Federal Communications Commission

Attention: Mr. Joe Dichoso

Ref.: FCC ID: KQL-PKLR2400, 731 CONFIRMATION #: EA95245,  
CORRESPONDENCE#: 10926

Dear Mr. Dichoso,

This concerns your latest correspondence # 10926 (please allow us to know if this is not the latest correspondence and provide us with one).

\*\*\* The SAR tests have been conducted by 3D-EMC Laboratory Inc. (Florida) and the report file is attached in the "Test Report" exhibit . The SAR test report includes tests for the radio with 4 different antennas for portable operation, please ignore the test results for the radio with Centurion CAF28777 Antenna since Aerocomm would like to delete it from the certification.

- (1) Aerocomm would like to delete the Centurion CAF28777 antenna from the list since the Standard TNC connector do not meet FCC 15.203 for Portable operation. The Arecomm NZH2400 antenna gain is corrected to 1 dBi.

|   | Mfr       | Model             | Freq    | Gain  | Type        | Connector  | Dimensions  | Installation          | Measured EIRP (mW) | RF Safety Distance (cm) | Application Uses |
|---|-----------|-------------------|---------|-------|-------------|------------|-------------|-----------------------|--------------------|-------------------------|------------------|
| 1 | Centurion | WXE2400           | 2.4-2.5 | 2dBi  | Omni        | MMCX       | <2.25"      | Integrated            | 13.2               | 1.0                     | Portable         |
| 2 | Maxrad    | MFB24008          | 2.4-2.5 | 8dBi  | Omni        | N-F        | 17"         | Professional 20cm min | 81.2               | 2.1                     | Mobile & Base    |
| 3 | Maxrad    | BMMG24000MMCX6'   | 2.4-2.5 | unity | Omni-mobile | MMCX       | 1.75"       | Professional 20cm min | 20.9               | 1.3                     | Mobile           |
| 4 | Maxrad    | BMMG24000RPSMA12' | 2.4-2.5 | 5dBi  | Omni-mobile | R-SMA-M    | 9"          | Professional 20cm min | 7.7                | 0.8                     | Mobile           |
| 5 | AeroComm  | NZH2400           | 2.4-2.5 | 5dBi  | Omni        | Integrated | 1"x0.3"     | Integrated            | 22.4               | 1.3                     | Portable         |
| 6 | Maxrad    | MP24013FC         | 2.4-2.5 | 13dBi | Panel       | TNC-F      | 8.7x7.9x1.1 | Professional 20cm min | 138                | 3.3                     | Base             |
| 7 | Maxrad    | MUF24005          | 2.4-2.5 | 5dBi  | Omni-Mobile | R-SMA-M    | 8.75"       | Professional 20cm min | 22.4               | 1.3                     | Mobile & Base    |
| 8 | Centurion | WXR2400SMRP       | 2.4-2.5 | 2dBi  | Omni        | R-SMA-M    | <2.25"      | User                  | 0.3                | 0.1                     | Portable         |

Regarding 15.203 Compliance and SAR Exemption, the only antenna accessible by the end-user is Antenna #8, Centurion WXR2400SMRP, which has a unique connector. All other antennas are integrated or require professional installation.

Antenna #1 – Molded rubber antenna. Only mounting provisions require that it be integrated into the case. Can not be changed by the Portable applications.

Antenna #2 – High gain omni requires professional installation. Ensure minimum end-user separation of 20cm. Mobile and base station applications.

Antenna #3 – Low gain magnetic mount with 6 foot cable requires professional installation. Ensure minimum end-user separation of 20cm. Mobile applications.

Antenna #4 - High gain magnetic mount with 12 foot cable requires professional. Ensure minimum end-user separation of 20cm. Mobile Applications.

Antenna #5 – Low gain

No access by user.

Antenna #6 – High gain panel antenna requires professional installation. Ensure minimum end-user separation of 20cm. Base station applications.

Antenna #7 – Low gain omni requires professional installation. Ensure minimum end-user separation of 20cm. Mobile and base station applications.

Antenna #8 – Low gain omni can be connected by the end-user with a reverse polarity SMA male connector. Portable applications.

(2) [FCC] We do not grant modular approval to devices that will require professional installation. Therefore, the devices cannot be sold as a PC Board but must be sold as a final product (board within the case). Also, in order to obtain professional installation you must address the following...

a) [FCC] How will the device be marketed? It cannot be sold to the General Public.?

[DANIEL @ Aerocomm] We do not sell to end-users. We will advertise in vertical publications and to engineers. Our product does not even ship with a power supply. The customer must lay out a board to interface with our connector to supply power.

b) [FCC] Why does the device require professional installation?

[DANIEL @ Aerocomm] Some antennas require professional installation as they require remote mounting, drilling, etc. The radio can not be installed by itself by an end-user because there is no case, no cable and no power supplies. They would have no means to communicate with it.

[FCC] What makes the installation difficult so that even the average technically inclined person could not install it?

[DANIEL @ Aerocomm] Software needs to be written by the OEM to communicate with the PKLR2400. The average technically inclined person would have to write the software, layout and manufacture an interface card and ensure that the timing was accurate.

c) [FCC] Intended use of the device justifies/requires professional installation.

[DANIEL @ Aerocomm] The intended use of the product is for OEMs to integrate into their products. The OEM in-turn sells their products to end-users, but the radio is integrated and the end-user does not have access to the Radio.

I have added this to the warning section of the manual. I hope this addresses all of the issues. Call me with any questions.

Sincerely,

Tri M. Luu, P.Eng.  
V.P. Engineering  
c/c: Mr. Dan Miller, Aerocomm Inc.