

September 20, 1999

Mr. Frank Coperich
FCC Application Processing Branch

Re: Questions from the FCC

FCC ID: JOYKC-SSSD-66K
Correspondence Reference Number: 9384
731 Confirmation Number: EA94173

Dear Mr. Coperich,

Pursuant to your E-Mail of Correspondence Reference Number "9384" sent us August 25, 1999, I would like to forward to you our responses. The relevant portions of your E-Mail follow with our responses inserted in the appropriate place.

> To: Nobuyuki Hayashida, Kyocera Corporation
> From: Frank Coperich
> fcoperic@fcc.gov
> FCC Application Processing Branch
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> Re: FCC ID JOYKC-SSSD-66K

> Applicant: Kyocera Corporation
> Correspondence Reference Number: 9384
> 731 Confirmation Number: EA94173
> Date of Original E-Mail: 08/25/1999

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> 1. There are 2 mobile antennas for mounting on vehicles or boats. Information indicates these antennas could be categorically excluded from routine MPE evaluation with respect to 2.1091 provided a 20 cm separation distance can be maintained from persons. The applicant is proposing to give user warnings not to operate device when distance cannot be maintained for these external antennas. It is not clear what type of warnings (signs, statements, labels, instructions etc.) will be used and how effective would these warnings be for maintaining the required distance. An easier and generally preferred way is to provide installation requirements, instructions and procedures for installers to install antennas in manners that will ensure the required separation distance can be maintained so that warnings will not be necessary. The types and extend of installation

information that need to be provided to professional installers and typical users may vary. Please clarify with respect to either one of above (warnings or installation requirement). Grant comments will include - operation of the 2 external antennas must satisfy MPE requirements for mounting on vehicles or boats.

Thank you for your good comment. We provide the installation requirements to ensure the required separation distance.

> 2. Please clarify the type of phantom used for the SAR measurements indicated in the table before figures 3-6, at top of page 6.

The phantom used for the SAR measurements indicated in the table was the APREL Universal Head.

> 3. The main concern has been addressed, the antenna has only one hinge. The response conflicts with existing information and the original question. The response addressed picture in Appendix A, but original question was about picture in Appendix B. The picture described in the response of having a collar (one in Appendix A/B) due to photographic effects is the one shown with a lower hinge, there is no collar shown on that picture. The collar, around the base of the antenna, appears to be an integral part of the device outer case that appeared in several other photos. The picture in Appendix B appeared without this collar, possibly with an early prototype case, with an exposed lower hinge that would otherwise be hidden inside that collar. Main concern has been addressed, response is not essential.

I am sorry I made a careless mistake in my previous answer. "Appendix A" should be "Appendix B".

> 4. The peak and average power indicated in the response are in disagreement with maximum output shown on original grant and that indicated for vehicle/boat mount antenna responses. This device has 7.0 W peak output and 644 mW average output, not 3.0 W peak and 300 mW average output, a clarification is needed.

The first part of point 4 relates to the calibration of our SAR measurement system response to varying duty cycles (re figure 11 in the response to the reference number "8410"). These measurements were performed with a dipole antenna fed from an amplifier connected to a signal generator operating at 1.6GHz which was externally pulse modulated by a pulse

generator at various duty factors. The average power for all the measurements was kept to 300mW by varying the signal generator output appropriately (this was monitored with a directional coupler and an RF power meter). This means that at a 9.2% duty factor we used an input power to our dipole antenna of 3.3W, while at a 100% df we used 300mW.

This is independent of the middle part of point 4 which concerns the transmission characteristics of the phone which transmits at a maximum output power of 7W with an average power of 644mW.