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Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
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December 27, 1999

- References:**
- (1) FCC Requests: 11060/11061
FCC IDs: HZB-U58-45/HZB-U5358-45
Form 731 Confirmation: EA94823/EA94825
 - (2) Conversation between Mr. Ken Ruppel and Ms. Caroline Yu of Western Multiplex and Mr. Kwok Chan of FCC on 22 December, 1999.

Dear Sirs,

Following the referenced (2) conversation, it is understood that the remaining concerns of the Commission are centered about the issue of RF exposure (MPE). This letter is submitted to assist in your understanding of the device and provide the supporting information that was requested during the conversation.

The device is professionally installed and can be used with a variety of directional antennas. The antennas that Western Multiplex recommends are 1- or 2-foot flat panel antennas or parabolic antennas ranging from 2- to 8-foot diameter. In addition, a variety of transmission line can be used, including foam coax of 1/2" or 5/8" diameters or EW-52 waveguide. Depending on the antenna chosen and the length and type of transmission line, the output power of the radio will be set by the installer to not exceed the EIRP limits set forth in the Commission's rules. The determination of the proper setting is accomplished using information provided in the installation manual.

For your reference, included in this submission is a table that provides a summary of the antenna and transmission line characteristics that may apply to this device. In addition, the supporting manufacturers technical specifications of the antennas have also been included. Output power setting information (to meet EIRP limits) is provided in the installation manual as shown on the summary page.

As is illustrated in the matrix enclosed, the gain of a given "class" of antenna is nearly uniform, independent of manufacturer. For this reason, Western Multiplex does not list specific manufacturers for antennas.

Regarding MPE, in our last submission, we provided the calculations for the worst-case safe distance based on +53 dBm EIRP (using all antenna types). The worst-case calculation yielded a safe distance of over 5 feet. Since a 5-foot distance is very reasonable given any size of antenna (given the nature of tower-mounted or roof-mounted antennas), we felt that the 5-foot distance could be listed for all antennas. We recognize that we could list different distances for different antennas, but chose to simplify our documentation by listing just the 5-foot distance.

As requested, we have edited our manual to clarify the intent of the distance requirement. The new text has been provided in this submission.

Ken Ruppel

Director
Product Management and Business Development