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Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046

February 17, 2000

RE: Response to FCC Requests
Correspondence Reference Numbers: 12038
FCC IDs: HZB-S58-25
Form 731 Confirmation Numbers: EA95966

Dear Mr. Dichoso

1. Please see attachment 1 for the latest version of section 3-10 of the *Installation and Maintenance Manual*. This warning was recommended by Greg Czumak on a similar product (HZB-S58-12) which just received FCC approval. The 5-meter distance is based on calculations in attachment 2.

   We are aware from a previous FCC request (#11532 regarding the HZB-S58-12) that the Commission is also looking at applying rule 1.1307 to our spread spectrum radios. Even though we still disagree with this approach of the Commission (please refer to my response to request 11532 on HZB-S58-12 in attachment 3), we are willing to lower the certified output power of HZB-S58-25 to 24.6dBm (290mW) to comply with the 1640W EIRP limit set in rule 1.1307. Please refer to attachment 3 for the supporting calculation.

2. Please see in attachment 4 for the confidentiality request letter. Please note that we only requested items listed in this letter to be held confidential. The other items were unintentionally marked as confidential while uploading the application.

3. Please find in attachment 5 the photo showing the component side of the RF board; the omission of this photo was unintentional.

4, 5 Please find in attachment 6 a reply to your questions regarding processing gain. Greg Czumak raised a similar question recently when HZB-S58-12 was under review, which uses an identical spreading scheme. Grant for that product was awarded on Feb. 14, 2000.

6 For the flat panel antennas, we recommend only up to 2 foot in size. We did not mention this specifically because 2 foot is the biggest flat panel antenna available in the market. We will make modifications to the manual to be more specific about the antenna sizes to recommend only 1', 2' flat panel and 2', 4', 6' and 8' parabolic antennas for 5.8G spread spectrum radios. Please refer to Attachment 7 for a list of the antennas we recommend in the manual and the supporting technical specifications of the flat panel antennas from some typical manufacturers. As you can see, the maximum gain for the 2' panel antenna is 28dBi, which is below the gain of the antenna used in testing. Therefore, at 5m distance and far field the radio will not introduce any RF exposure exceeding the level as calculated in attachment 2. As far as out-of-band emissions are concerned, the use of a 28dBi-panel antenna does not in anyway deteriorate the test results of the radio. Therefore, in addition to the 2'-8' parabolic antennas, the 1' and 2' flat panel antennas should be allowed to be used with the HZB-S58-25 radios.

I hope this response has addressed all your concerns and the grant for the HZB-S58-25 will be awarded soon.

Yours truly,

Caroline Yu
International Product Manager
Western Multiplex Corporation