

## Washington Laboratories, Ltd.

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March 30, 2007

WLL Project: 9508/9514

FCC ID: K3YHNS9250

Mr. Dennis Ward American Telecommunications Certification Body Inc. 6731 Whittier Ave McLean, VA 22101

RE: Comments of March 22, 2007

APPLICATION: K3YHNS9250 Hughes Network Systems, Inc.

Dear Mr. Ward:

Below are the comments that you have provided regarding the application for certification referenced above. Our responses to those comments are in *bold italic*. Many responses refer you to additional exhibit(s) which has been uploaded to the application folder at the ATCB website.

Thank you for your attention. Please feel free to contact us for any additional information that you may require.

Regards,

Steven D. Koster EMC Operations Manager

Brian J. Dettling
Documentation Specialist

From Dennis Ward: In addition to the comments, I also have a concern about the masks. Can you explain more on how the modulation content and the modes of operation were determined?

## R. All of the available modulations were tested per the Immarsat specification. All modes of operation were used.

1) Please note that rated power cannot be listed on part 15 grants. Actual measured power must be listed. Please note that the 731 lists the manufacturers rated power for the device. Please correct this to show the actual measured values found in the Part 15C report (i.e. 0.235W).

R. The 731 form has been corrected. Please see "HNS9250 Application Form 731 - Pt 15 Rev 1"

- 2) Please note that the manual states a minimum 20cm separation for the device. This does not seem appropriate as the output power of the device consists of 2 transmitters, one an 802.11 device and one a part 25 device. The part 25 device has an output power exceeding 8 watts (39.12dBm) while the WLAN has an output of 23.5mW (13.2dBm). Since this device includes a part 15 transmitter the MPE would necessarily have to include any collocation affects due to the part 25 device unless the antenna(s) are separated by more than 20cm. More than 20cm between antenna(s) would involve individual MPE assessment. Please also note that part 25 mobile RF exposure devices require measured MPE when MPE is addressed at the time of certification. As this device does not have individual site licensing but instead operates off the license of the operator, and as this device operates over 1.5GHz and 3Watts, MPE measurements are required. Please provide the MPE report showing measured MPE data.
- R. The Part 15 antenna is integral, and the Part 25 antenna is more than 20 cm away, normally mounted on top of the vehicle it is installed in. A RF Exposure evaluation has been provided; please see "HNS9250 RF Exposure Info".
- 3) Please note that I do not think a part 15 device can be partly professionally installed. The report states that when external antenna(s) are used, professional installation is required. I think that this would apply to all installations for this device in relation to part 15. Please explain/confirm.
- R. The professionally installed portion is the MES or Part 25 antenna. The Part 15 device has an integral antenna, thus there are no installation requirements for the Part 15 device.
- 4) Please note that based on the response to the above, further review may be necessary.
- R. Noted.

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