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To: Mr. Martin Perrine
Martin.Perrine@fcc.gov
FCC Equipment Authorization Branch

From: David Waitt

Subject: FCC ID: O8FMADECA Request For Additional Information.
Correspondence Reference Number: 24415
731 Confirmation Number: TC665152
Date of Original Email: 11/08/2005

Date: 15 Dec 2005

This letter addresses your compliance concerns regarding the FCC Class II Permissive change application to add HAC compatibility to the CDMA Treo 650

If there are any questions or if additional information is required, please contact me at david.waitt@palm.com

Remaining questions will be addressed by Aprel Labs, who performed the HAC testing.

On behalf of Palm Inc,

David Waitt
Sr. Regulatory Engineer
David.waitt@palm.com

1) Please update the user manual information to include a discussion of the rating system and how a user will understand the rating values provided. We notice that there is a clear explanation in the intro of the test report. The user should be provided something comparable.

PALM)

Palm will make the following text (or similar , subject to final review and edits) available either on its web site under the heading of HAC compliance (The URL will be included in the Quick Start Guide which is it contained in the package) or a printed insert within the product package.

Hearing Aid Compatibility

HAC (Hearing Aid Compatibility) is an industry term introduced in the late 1970's to describe a magnetic output of a wireline telephone for the purpose of coupling the telephone with a hearing aid. In the mid 1990's it was found that the required magnetic field may not be usable if excessive RF interference (radiated electrical noise from the telephone) is masking this audio signal. Therefore, new standards for wireless device HAC, such as IEEE C63.19 were developed. This standard, which also specifies the audio magnetic field for T-coil coupling, specifies the allowable RF interference level as a function of hearing aid and RF susceptibility.

The purpose of the categorization (M1 to M4) is to establish categories for hearing aids and for telephones that can indicate to health care practitioners and hearing aid users which hearing aids are compatible with which telephone. Tests are performed to assess the electromagnetic characteristics of hearing aids and telephones. The hearing aids and telephones are categorized depending on the results of these tests.

Telephones are tested to determine the level of radiated electrical noise while hearing aids are tested to determine how susceptible they are to radiated noise from a phone. For example a phone that emits a high level of radiated electrical noise may work well with a hearing aid that is not susceptible to the radiated noise. Of course a hearing that is very sensitive to the radiated electrical noise would not work well with a phone that emits a high level of radiated noise.

For phones, category M4 has lower emission levels than the M1 which means less interference to the hearing aid. For the hearing aid, category M4 is less susceptible than M1 which means it can endure higher interference signal level. When this category number of telephone is summed up with the category number of the hearing aid, it provides a total system performance classification. A "M" category sum greater than or equal to 6 provides an excellent performance.

HAC: Treo 650 CDMA Results

The TREO 650 Mobile Phone was evaluated for RF emissions and in both CDMA (900MHz) and PCS (1900MHz) bands.

In the **CDMA band**, the overall M category for the audio coupling is **M3**.

In the **PCS band**, the overall M category for the audio coupling mode is **M3**.

As such, the overall M category for the TREO 650 is **M3**.

2) Testing appears to be for IS95. Please confirm that this device does not have other CDMA2000 capability.

PALM) The device is a CDMA 2000 product. Testing was conducted with a CDMA 2000 phone call being established with a CDMA-2000 base station simulator test set. The test was conducted with the power control bits set to "All Ups".

"All UP" mode turns off power control and causes the phone to transmit at its maximum power regardless of Radio Configuration or Service option – the baseband operating mode has virtually no effect on the RF power of the device.

This has been verified with test results in the lab where the transmit power of different RCs (1,2,3 and 4) and different service options were measured and compared and found to all be with measurement error of each other (approx .1 dB)