



American Telecommunications Certification Body Inc.

6731 Whittier Ave, McLean, VA 22101

February 7, 2006

RE: Honeywell International Inc.

FCC ID: CFS7720PLUS

After a review of the submitted information for FCC, I have a few comments on the above referenced Application.

- 1) In the past few years and with the evolution of TCB's, the FCC has been requiring the substitution method following EIA/TIA 603 for all measurements that within 20 dB of the limit and not simply accepting calculations for radiated EIRP/ERP measurements as they once would. Note that some of the points provided show only a 12-14 dB margin. Please see attached provided separately for detail. Please be aware of this for future licensed applications. To avoid complete retesting in this case, we would request that at least the 3 highest points be reviewed and the substitution method completed on these.
- 2) Please provide details of the limits and how they were obtained as given in the radiated data information as referenced in the data provided.
- 3) Due to the nature of the change and to meet FCC Permissive Change requirements, please provide the data regarding power measurement results. Additionally, please note that not only is the FCC concerned with degradation of power, but also that the power level is within +/- 0.5 dB of the original maximum reported power to show that there is not any intentional change of power. Generally changes of the type noted are not allowed under a PC except in cases of obsolete parts, and even then results must be shown that shows no intentional change of power. Please provide information as necessary.
- 4) RF exposure requirements have changed significantly since 2000 and affect how this application is handled. TCB's must now consider RF exposure. For instance, if a device was previously approved before RF exposure was handled during the review, then the RF exposure should be considered during any future Permissive changes. To evaluate this, first information should be provided to show if the device is defined as portable (user to antenna distance of < 20 cm), mobile (user to antenna distance of > 20 cm), or fixed (fixed installation, typically > 1 m user to antenna distance) based upon use and installation. Mobile and Fixed would generally be accompanied by RF exposure calculations showing compliance to the power density limits based upon maximum expected EIRP calculations at 20 cm for mobile, or other distances as suitable for fixed installation. Portable installations generally require SAR evaluation. Where possible, antenna information or maximum gains should be provided or defined. Additionally the users manual must appropriate warn the installer/user of these requirements and be updated if not previously provided and provided for the Permissive Changes. Statements in the manual for a fixed device would include the following or similar:

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least ____ (cm or m) from all persons. Owners and Licensees of co-located installations must be in compliance with 1.1307(b)(3) of the FCC regulations.

- 5) It appears the frequency tolerance requirement notes have changed since 2000. It is noted that there may exist a 1.5 or 5 ppm depending on whether the device is a master or remote station while the rules in 2000 only 5 ppm were required. Review of original manual suggests this is only a remote station and only subject to 5 ppm, however please provide confirmation on if this device is considered as multiple address remote station vs. multiple address master station. Note that current note codes under 101.107 are:

For private operational fixed point-to-point microwave systems, with a channel greater than or equal to 50 KHz bandwidth, $\pm 0.0005\%$; for multiple address master stations, regardless of bandwidth, $\pm 0.00015\%$; for multiple address remote stations with 12.5 KHz bandwidths, $\pm 0.00015\%$; for multiple address remote stations with channels greater than 12.5 KHz bandwidth, $\pm 0.0005\%$.

- 6) FYI....Note: Please reference attached EIRP/ERP interpretation, Info regarding +/- 0.5 dB PC requirement, and info regarding RF exposure deadlines.
- 7) FYI....Note: It is assumed the device is for use in fixed operations based upon previous description, but we are not familiar enough with the device to be certain. Assuming fixed installation, Proposed Grant Notes would be the following or similar:

The antenna(s) used for this transmitter must be fixed-mounted on outdoor permanent structures with a separation distance of at least ___ meters from all persons during normal operation. The peak conducted output power at each antenna terminal must not exceed 5 W and the peak radiated output power must not exceed ___ W EIRP. Users and installers must be provided with appropriate antenna installation instructions and transmitter operating conditions, including antenna co-location requirements of §1.1307(b)(3), for satisfying RF exposure compliance.



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The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information may result in application termination. Correspondence should be considered part of the permanent submission and may be viewed from the Internet after a Grant of Equipment Authorization is issued.

Please do not respond to this correspondence using the email reply button. In order for your response to be processed expeditiously, you must submit your documents through the AmericanTCB.com website. Also, please note that partial responses increase processing time and should not be submitted.

Any questions about the content of this correspondence should be directed to the sender.