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

March 30, 2004

RE: Johnson Controls Interiors L.L.C.

FCC ID: CB2UCON2

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

1) The test report states that the DUT antenna was rotated about all possible ways and the maximum emissions recorded. Please note that spurious emissions are not always radiated strictly by the antenna. Many times they may radiate off the device/chassis. Was the device itself also rotates sufficiently to ensure worse case emissions were determined. Note that ANSI C63.4 mentions rotating at 22.5 degree rotations when a turntable is not present.
2) FYI……Please note that it is acceptable for Bluetooth to be > 20 dB for peak to average emissions (sections 6.5). However, because of the nature of the transmissions, it is considered a pulsed emissions that should be calculated not measured. Additionally, even if average measurements were applicable, the VBW must be >= 1/Ton time, or > 335 Hz in this case. Please adjust this section of the report as necessary.

   Please note that the Duty Cycle presented in the report was based on your measurements. However Bluetooth has different packet lengths that may be used in modes with longer packets. The theory of operation for Bluetooth states that their may be 1, 3, or 5 slots used per transmit depending on the mode of operation. For a DH1 packet the TX is on 0.625 us per 49 mS per channel, while for a DH5 packet the TX is on 0.625 * 5 per 247 ms per channel. These duty cycles equal the following: 20 log (.625/49) = 37.9 dB or 20 log (3.125/100) = -30 dB. All are greater than the 20 dB difference between the peak and average limits.

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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.