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

October 24, 2002

RE: Johnson Controls Interiors L.L.C.

FCC ID: CB2UCONN

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

1) The RF exposure calculations provided show an antenna gain of 1 dBi, while section 6.7 of the test report state an antenna gain 0 dBi. Please correct the exhibits to be consistent.
2) The RF exposure calculations should be shown for the highest output power. Please correct this exhibit for the output power of 4.7 dBm (2.95 mW).
3) 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. However, since average measurements where not made and you are relying on this justification, it is recommended that reference to this fact that all types of transmissions in Bluetooth yield a correction factor > 20 dB.
4) Your response stated that for antenna conducted measurements was included in the new revision of the report for a low, middle, and high channel. However, section 6.9 of the Test report states that the hopping was enabled and data was provided for all channels.

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Examining Engineer

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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.