FCC ID: O88-COMPASS1
IC ID: 10399A-COMPASS1
CT Project: p1240009

From: Chris Harvey

Date: July 23, 2012

I have performed the initial Technical Review of the above referenced TCB/IC application for
Medical Simulation COMPASS1
The following items need to be addressed before the review can be continued:

1. It is confusing when whole exhibits contain information about capabilities that are not implemented in a particular device. As an example the Block Diagram Intel shows full 2.4GHz and 5GHz + BT capability, but there are other exhibits that indicate only 802.11g Channel 11, 2462MHz is used.
One way of eliminating the confusion is if each exhibit clearly indicates which portions of the contained information pertains to the device in the application and which information does not pertain.
For example, you could update the Block Diagram exhibit with a note that clearly states that only 802.11g 2462MHz is operational in this device.
You can add a page at the front of the Theory of Operation exhibit that clearly indicates what portion of the Intel system is implemented and what is not implemented (and the fact that the user cannot activate the portions that are not implemented.)

CT – The theory of operation was updated to indicate the features utilized and the manner in which non-operational features are shielded from the end user.
Theory of Operation-Technical Desciption_Rev exhibit has been uploaded for your review

2. The Internal Photos need to show both top and bottom of the WiFi Card, with and without the RF shields installed. Please also update the Internal Photos to clearly show the overall construction of this device. Also please show the antennas and antenna connections for this device.

CT – Two additional photos are provided to show the antennas mounted in the chassis.
Internal Photos_Rev exhibit has been uploaded for your review

3. The Operational Description exhibit needs to clearly describe how this device is restricted to using only 802.11g modulation on Channel 11, without the ability for the user to modify the parameters. It is described as using 2 antennas, which has been assumed to be connected to Chain A and Chain B of the Intel module. If both antennas are connected, and this device only operates in 802.11g mode, are both antennas transmitting either together or alternatively?
Is this operating in MIMO mode or in a receive diversity mode?
It is noted that the RF report does not mention multiple antennas or multiple RF chains/ports.

CT – See the answer to question 1.

4. Please provide the Antenna Specification(s) for the antenna(s) used in this device.

CT – The datasheet has been provided.
Antenna Datasheet exhibit has been uploaded for your review

5. The measured RF power in this application seems to be about double the RF power documented in the Intel module approval under FCC ID: PD962230ANH.
Please confirm that this is correct.

CT – The original FCC filing the testing was performed as MIMO device and the power tested was approximately 16 dBm. The testing in the current configuration is for a single output device with the peak power measuring 19 dBm. This is to be expected as the power is no longer being split between RF outputs.

As this is an original filing utilizing the RF module as a component of the final product this difference in power is on no relevance.

6. The IC Test Report Cover Sheet has 1738.1 kHz BW, but should be 17381 kHz.

CT – This has been corrected.
IC App – Appendix B_Rev exhibit has been uploaded for your review

Response by: John Erhard

Submitted by: Karen Springer

Date: 8/14/2012