

American TCB
6731 Whittier Avenue, Suite C110
McLean, VA. 22101

July 12, 2010

To whom it may concern:

The enclosed documents constitute a formal submittal and application for a Class II Permissive change to a composite device, with full modular approval, pursuant to the following rules:

Subpart B of Part 15 of FCC Rules (CFR 47) – JBP
Subpart C of Part 15 of FCC Rules (CFR 47) – 15.247 (DTS)
Subpart E of Part 15 of FCC Rules (CFR 47) – NII
Part 27 of FCC Rules (CFR 47) – TNB

The proposed change is the replacement of a front end module (FEM) on the second transmit/receive chain. This is strictly a pin for pin electrically identical component replacement from an alternate supplier. However due to this change in part we are lowering power in our eeprom settings for 802.11b mode, chain B only. Additional information is included in the letter *FCC Class II PC Letter_Anadigics.pdf* and we have also provide a schematic with the part in question highlighted.

The change does not affect the digital device (JBP) as it is not in the digital circuitry.

When operating as a WiMax device the module only transmits on chain A and receives on both chains A and B. As the change is only to the second transmit chain, chain B, it does not affect the WiMax transmitter characteristics. Receiver related spurious emissions are not subject to FCC technical requirements as the WiMax device operates above 960MHz. This proposed change does not, therefore, represent a change to the WiMax (TNB) device.

Chain B is used for the WiFi 802.11abgn operation for both transmit and receive. Tests were performed for both the DTS and all three NII bands covered by the original device approval. The data indicated that there was no degradation in the performance of Chain B for the NII bands with respect to the band edge radiated emissions and spurious emissions away from the allocated band edge. All emissions were below their respective limits and no more than 3dB higher than the previously reported values (i.e. within measurement uncertainty of the original values). The proposed change is therefore are considered a Class I changes for the NII portion of the device.

The measurements on the DTS device did show a degradation in performance in the 2400-2483.5MHz band. There was an increase in the spurious emissions levels at the second harmonic of the 2.4GHz channels in 802.11b mode, requiring a reduction in the output power on chain B to remain compliant with the rules. The output power rating does not change as the power levels on Chain A, which were the highest power levels, remain unchanged. The operation under equipment code DTS requires a Class II Permissive Change. The reduction in power is achieved via power settings stored on each module (EEPROM power settings) that are configured at the factory on each unit individually.

The following exhibits remain unaffected by the proposed change and are, therefore, **not** submitted with this application:

- FCC ID Label & Label Location
- Detailed Photographs
- Operator's Manual
- Block Diagram
- Theory of Operation
- Advertising Literature
- RF Exposure Information

Elliott Laboratories, as duly authorized agent prepared this submittal. A copy of the letter of our appointment as agent is included with the application.

If there are any questions or if further information is needed, please contact Elliott Laboratories for assistance.

Sincerely,

A handwritten signature in blue ink that reads "Mark Briggs".

Mark Briggs
Staff Engineer