



August 18, 2009

Timothy R. Johnson
ATCB

RE:ATCB 007791
Innovative Broadband, Inc.
FCC ID: XFH-05000006
ATCB: 007791
Response to Comments letter dated August 4, 2009

After a review of the submitted information, I have a few comments on the above referenced Application. Depending on your responses, kindly understand there may be additional comments.

1) A theory of operation was not provided as cited in the response. The original exhibit provided was simply a confidentiality letter.

Theory of operation is now uploaded.

2) Please confirm the size of the device to justify putting the 2 part FCC statement into the users manual. FCC typically only allows if the device is smaller than 8x10 cm.

The device is only 5.5 by 10.5 cm.

3) The updated 731 form cites only 916 as the TX channel. Please note that this should cite the nominal center of the low and center of the high tunable channels.

Form 731 has been corrected.

4) Under 15.249, the limits for 902-928 MHz are PK/QP only (detector allowed depends on rep rate of device being measured). Average results ONLY apply for > 1 GHz. It appears fundamental results are over the limits. Note that the requirements do allow use of a QP detector as long as a 20 Hz Rep rate is present. Given the pulses repetition shown during 100 msec, this requirement appears to be met. Note PK to QP ratio with > 20 Hz rep rate is only expected to be a few dB. Note that adding Duty factor provides an AVG reading. The concern here is that the data for the fundamental should be shown as only PK. Average data is not applicable for the fundamental. Therefore data shown in table 4/6 exceeds the limit for the fundamental. Peak limit is 94 dBuV/m. Table 5/7 results for the fundamental are not applicable.

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In order to achieve a passing margin and since the EUT uses digital transmitting, the report has been changed to satisfy 15.247 requirements. Section 2.12 through 2.14 has been added to the report.

5) Section 2.12.1 (bandedge) still appears to use average data for the fundamental. Peak data appears to be 104.52/104.62 dBuV/m for low channel and 105.36/102.74 dBuV/m for high channel. Note that the limit is a QP/PK limit only. Using Peak fundamental for high channel of $105.36 - 45.9 = 59.46$ which is in excess of 46 dBuV/m. Additionally, 50 dB does not appear to be met. Also numbers used to calculate passing margin does not appear to be used. Low channel shows similar concerns. Please review bandedge data. Note – what is the emissions bandwidth? Can 50 dB be shown with smaller RBW? To be valid, RBW would need to be $> 1\%$ of emissions bandwidth.

This section was changed to meet 15.247 requirements.

Best regards,

Sandi McEnery
Manager
(Agent for Innovative Broadband)