



September 8, 2003

RE: PolyMap, FCC ID: PY3-ANT24BX

Our responses to your comments on the above referenced application, are embedded with the issues that you raised.

1) Photos are not normally held confidential. Justification must be provided to hold photographs as confidential. Justification could include: (1) special tools required to open the case, (2) the circuitry may be potted or covered in epoxy, (3) the company professionally installs the product and it is not directly viewable by the public during use or after use, and (4) the product may involve new technology. Trade secret is not sufficient justification. New technology, if it is documented, can be justification for holding photos as confidential, but for example, a basic FM transmitter is not new technology. Please provide an updated letter of confidentiality that justifies why the antenna photographs should be held as confidential, or as an alternative, you may use a black marker to "black out" the top of any readable components and provide new internal photographs. Please let us know how you wish to proceed with this issue.

The confidentiality request has been updated to remove photographs from its scope.

2) This application appears to support the request of a modular approval. However, modular approvals are required to provide a modular request letter that addresses the items given in the public notice regarding these approvals (see attachment). Please provide.

The relevant page from the report has been uploaded as a letter.

3) Please provide photographs for the external photograph exhibit (i.e. with shield installed).

An external photograph has been uploaded.

4) Use of the FCC logo is restricted to certain types of devices (RX < 960 MHz, TV interface devices, Class B PC peripheral, certain P18 devices, etc). As a module, this device does not appear to meet any of these requirements. Additionally, if it is integrated into any other equipment, the manufacturer of that equipment is expected to retest their equipment for any digital device emissions, which cover the requirements listed above. Please explain or remove the FCC logo from the labeling.

The remote was also tested as a Class B PC peripheral. The manufacturer wants the option to be able to sell the remote as a stand-alone peripheral to a PC (direct connection to a PC's serial port). The manufacturer may provide a small plastic enclosure for the device when sold as a stand-alone device.

The FCC logo and declaration of conformity on the user's manual are considered appropriate for this product when sold as a stand-alone device.

The manufacturer is aware that the use of the device other than as stand-alone equipment (i.e. when integrated into other equipment) will require a full test of the digital device emissions on the complete host system. OEMs will also be made aware of this fact.

5) Please provide information regarding the RBW and VBW settings used for radiated emissions measurements.

Peak measurements were made with RBW = VBW = 1MHz. Average measurements were made with RBW=1MHz, VBW=10Hz.

The test data now includes reference to these settings.

6) This application is asking for a modular approval. Additionally, the device may be powered by battery or an AC adapter. It also appears that AC conducted emissions were performed given the report, however AC powerline conducted emissions results were not provided. Please provide this information in order to show compliance with 15.207.

The device was tested for conducted emissions and the worst-case test data is included in the summary on page 5 of 18 in the report. The actual test data was omitted from the report. The report has been modified to include the missing data.

The configuration photographs included the conducted emissions test configuration (which was also used for the FCC Class B digital Device compliance testing and includes the appropriate configuration for a PC peripheral, refer to the responses for comments 4 and 10).

7) The summary of output power results provided on the bottom of pages 5 & 6 do not appear to match the results above them. Additionally, it appears that the substitution method was applied for power measurements. Note that the FCC has specified in their guidance document that measurements and far field calculations are preferred. However if the TX antenna gain is not know or possibly in question, the use of the substitution method is adequately justified. Please comment.

The antenna gain for the device was not stated at the time of testing. Using the Friis' formula to calculate the output power gave a level of ~ 4dBm, which appeared to be too large for a BlueTooth device so we performed a substitution measurement, which gave the output powers listed.

The summaries have been corrected to show the appropriate output power based on the substitution measurements. Please advise if you would rather see a calculation for output power, which would not account for the ground plane as it is based on free-space propagation and, therefore, give a higher output power.

8) Page 7 shows one result with a limit of 75.0. I believe this should be 74.0. Note that the results provided is calculated for 75.0 and may require correcting as well.

Limits (and corresponding margins) have been updated in the test data.

9) Page 11 of the test report appears to show that 78 channels were measured, while other portions of the report state 79 channels. Please explain.

There are 79 channels; the comment on page 11 has been corrected after re-verifying the number of channels shown on the graph.

10) The main users guide shows a DoC compliance statement. The use of the DoC process is restricted to certain types of devices (RX < 960 MHz, TV interface devices, Class B PC peripheral, certain P18 devices, etc). It is uncertain how either part of the system (module or access point) may require this authorization. Please explain or remove the DoC information from the manual.

The remote was also tested as a Class B PC peripheral. The manufacturer wants the option to be able to sell the remote as a stand-alone peripheral to a PC (direct connection to a PC's serial port). The manufacturer may provide a small plastic enclosure for the device when sold as a stand-alone device.

The FCC logo and declaration of conformity on the user's manual are considered appropriate for this product when sold as a stand-alone device.

The following files have been uploaded to the ATCB website to support the above responses:

- Modular approval.pdf
- Confidentiality Request (Photos removed).pdf
- External Photograph.pdf
- Response.doc
- R52081-ATCB (Revised).pdf

If you have any additional questions please do not hesitate to contact me via doc@elliottlabs.com.

Regards,



Mark Briggs
Director of Engineering