

07 September 2007

American TCB  
6731 Whittier Avenue  
McLean VA 22101

RE: Digi International  
Response to July 19, 2007 Comments

FCC ID: MCQ-50M1380

In response to your comments on the above submittal from July 19, 2007.

1. ATCB Comments: FYI...Due to various concerns recently seen about proper authority being given to others for FCC and/or IC matters, the agency letter should be signed by someone traceable to have the proper authority. For instance, the FCC site shows Trinh Huynh as the correct contact of authority for FCC matters. Therefore the agency letters should be signed by this contact or alternatively a letter showing who he has "deputized" to sign on his behalf may be provided as well. Please correct this in future applications.

**RESPONSE: Noted.**

2. ATCB Comments: FYI...Sales literature provided for IC denotes issue 5 for RSS-210. Current version is issue 7. This information should be updated as appropriate.

**RESPONSE: Advertising Literature revised.**

3. ATCB Comments: Radiated emissions testing photos show the antennas were terminated for the measurements. This technique is NOT allowed for Part 15 testing, which is one reason the FCC has mandatory requirements for testing the highest gain of each antenna type. Please review test photographs and provide new test data (i.e. spurious, band edge, etc.) as necessary to correct this issue.

**RESPONSE: Photo replaced with actual configuration used during radiated testing. Highest gain antennas (5 dBi) installed.**

4. ATCB Comments: The operational descriptions makes mention of 3 types of antennas. Please explain and if necessary provided information regarding which antennas are being approved with this application (i.e. manufacturer, model, gain, type, etc.).

**RESPONSE: Operational description revised. Please note that the PCB antenna has been dropped from the application.**

5. ATCB Comments: Radiated measurements are labeled for 5 dBi. This doesn't agree with 3) above and additionally doesn't appear necessarily cover the PC mount antennas mentioned. Many PC mount antennas are F type or other types of antennas. Currently only dipole antennas appear to possibly be tested.

**RESPONSE: Revised report attached.**

6. ATCB Comments: FCC ID given in the operational description & manual page 44 of 48 (labeled 36) contains incorrect FCC ID information. Please review.

**RESPONSE: Revised Manual attached.**

7. ATCB Comments: Users manual appears to be missing no-colocation information (see next comment as well)

**RESPONSE: Revised Manual attached.**

8. ATCB Comments: Although some information is already present, the manufacturer is responsible for ensure the integrator has all necessary information. Therefore the users manual could provide additional information such as how the OEM must use the module in order to maintain RF exposure compliance and clearly explain that it's approval is limited only to devices that can maintain the 20 cm distance between the antenna and body. Areas marked in yellow are considered to be missing or could use further clarification. In order to make sure that the integrators are given enough information, information such as the following should be provided:

This device is intended only for OEM integrators under the following conditions: 1) The antenna must be installed such that 20 cm is maintained between the antenna and users for all installations, and 2) The transmitter module may not be co-located with any other transmitter or antenna, and 3) The Module is approved using the FCC 'unlicensed modular transmitter approval' method. Therefore the module must only be used with the originally approved antennas. As long as the 3 conditions above are met, further transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional ompliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

**IMPORTANT NOTE:** In the event that any of these conditions can not be met (for example portable configurations, co-location with another transmitter, or use of a different antenna), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization. Suggested End Product Labeling This transmitter module is authorized only for use in devices where the antenna may be installed such that 20 cm may be maintained between the antenna and users (for example access points, routers, wireless ASDL modems, and similar equipment). The final end product must be labeled in a visible area with the following: "Contains TX FCC ID: {INSERT FCC ID HERE}". RF Exposure Statements That Must be Included in the Final Devices Users Manual The users manual for end users must include the following information in a prominent location "IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter." Additional Information That Must be Provided to OEM Integrators The end user should NOT be provided any instructions on how to remove or install the modular TX device.

**RESPONSE: Revised Manual attached.**

9. ATCB Comments: RF exposure cites 2411 MHz. Should this be 2412 MHz?

**RESPONSE: Revised and attached.**

10. ATCB Comments: RF exposure information is misleading. It cites that SAR is not necessary. Note that for > 24.6 mW SAR would be necessary if the device is used < 20 cm (considered portable). SAR is not applicable for 20 cm and greater (mobile operation). The RF exposure should be corrected to explain/show it meets MPE calculations at 20 cm for a mobile device. Note that modules can NOT be approved for portable use as a module since SAR is a factor of the entire device (host + module).

**RESPONSE: Revised and attached.**

11. ATCB Comments: Because internal photographs appear to show the EUT, but the test photos show “as tested”, kindly provide close up photograph of the device as tested showing how it is considered “out in the open” and that it does contain the EUT.

**RESPONSE: External photo exhibit is attached.**

12. ATCB Comments: 731 form cites DSS for equipment type, but DTS devices are listed as DTS.

**RESPONSE: Revised app attached**

13. ATCB Comments: IC form occupied bandwidth should show 99% results. Please update.

**RESPONSE: Occupied bandwidth data added to test report and IC application.**

14. ATCB Comments: It is uncertain which spectral density is applied under DTS guidance (see attached). It appears that Spectral density option 2 should be applied, but the bin width requirement does not appear to have been met. Please review.

**RESPONSE: Joel Schneider will respond separately.**

15. ATCB Comments: It does not appear that bandedge emissions for radiated/average have been provided. Please review.

**RESPONSE: New limit line added to plots showing avg radiated limit in dBuV/m.**

16. ATCB Comments: Please provide or explain where RX emissions can be found are required by IC standards.

**RESPONSE: Receive emissions are part of the original transmit emissions data as the EUT transmits & receives simultaneously. Revised the note in data sheet to include "(Tx and Rx SIMULTANEOUS - TRANSCEIVER)"**

Please let us know if anything further is required.

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