



July 07, 2006

RE: Microwave Data Systems
FCC ID: **E5MDS-Series4**

1 RF Exposure Exhibit: Exhibit shows hand written calculations intended to demonstrate the minimum safe distance for RF exposure. However calculations are not performed for the worst case EIRP presented in the table. It appears the minimum safe distance should be 90.34 cm, Please confirm and edit the exhibit.

Response: That handwritten calculation should be removed from the exhibit and ignored. The correct exposure information is the MPE.pdf file. Sorry for the confusion.

2 Please provide a brief outline of how this minimum safe distance will be maintained once installed.

Response: This is a point to point 4.9GHz microwave link data radio, with high data rates of up to 50mbps using a 15MHz bandwidth. This architecture requires a elevated line of sight RF path to maintain a typical signal strength of greater than -80dBm. Thus the safety distance of 1.1 meters will be easy to maintain using a high gain dish antenna mounted on an elevated structure. MDS will use it's trained staff of professional installers and field service personnel to assist in installations and path planning to maintain the optimum RF performance. Thus easily maintaining the 1.1 meter safety distance.

User Manual:

3 FCC NOTICE USA:

This notice indicates:

- The device is a Part 15 device. It is a Part 90 device
- Refers to 4.947GHz as being the UNII band in the exposure calculation. 4947MHz is not in the UNII bands.
- Includes the FCC part 15 notice. This is not a part 15 device.

Response: Manual updated and uploaded for review.

4 SECTION 2.2 INTRODUCTION:

- Refers to operating frequencies as being 5.725GHz to 5.85GHz. Please correct
- Indicates the UNII band is 4.9GHz, this is incorrect.

Response: Manual updated and uploaded for review.

5 SYSTEM FEATURES:

- Indicates a Low power setting of 12 dBm. This is below the low power setting level in the test report.

Response: Manual updated and uploaded for review.

6 PDF page 18 of the manual refers to 320 mw of RF power. This is higher than any power specified in the test report

Response: Manual updated and uploaded for review.

7 PDF Page 38 Operating frequency is specified as being 5.3 or 5.8 GHz

Response: Manual updated and uploaded for review.

8 PDF Page 45 The statement on 3.6.5, is incorrect. EIRP is NOT unlimited. Per Part 90.1215 A high power device with a BW of up to 15 MHz has a maximum allowed EIRP of 57.8 dBm. Please remove or reword the manual statement. See rule part below

Response: Manual updated and uploaded for review.

9 Please correct or remove paragraph 3.6.6.1

Response: Manual updated and uploaded for review.

10 Table 3.2 refers to antenna gains that are inconsistent with the gains presented in the test report. Additionally this table refers to 30 and 20 MHz bandwidth modes while the 731 form provided indicates bandwidths of 13.7 and 12.5 MHz. Nor do the 20 MHz and 30 MHz mode appear in the test report. Please explain.

Response: Manual updated and uploaded for review.

11 There are multiple instances of the 4.9 GHz band being referred to as UNII and additionally multiple instances where 5.8GHz is referred to. (Fig 3.3 for example) Please review.

Response: Manual updated and uploaded for review.

12 Please review power levels in the summary specifications.

Response: Manual updated and uploaded for review.

13 The manual indicates that this device has “Adaptive Power Control” Please outline how this control limits the maximum power for a given antenna. Eg: How does the APC know what antenna is installed and how does it determine the maximum allowable power setting?

Response: Please reference the manual, section 3.6.6.1, where it states the customer enters the maximum power he can transmit. This will be a hard limit the Automatic Power Control cannot over ride, set during setup time of the radio.



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FYI: RF Safety precautions indicate a minimum safe distance of 119 cm, While this is acceptable, it is inconsistent with the exposure calculations

Response: Understood this has been corrected on all appropriate documents.

Regards,

A handwritten signature in black ink that reads "Juan Martinez".

Juan Martinez
Senior EMC Engineer
JM/dmg