



August 19, 2005

RE: Microwave Data Systems
FCC ID: E5MDS9710N-1

1) TX frequencies given in the block diagram appear odd. Please review.

Response: Block diagram has been updated to include latest information. Due to the fact that the block diagram includes the 806 MHz region is because it was intended to include FCC ID: E5MDS9710N. The same device can be set to transmit below 928 MHz. This is accomplished through software although one version of the product is available it has two different software versions to enable the unit to enable operation in the 806 – 940 or 928 – 960 MHz. That is why in the other application, FCC ID: E5MDS9710N, it will have the same documents.

2) Please adjust the label to include the information required by 15.19(a)(1).

Response: FCC ID cannot be adjusted to include this statement. A separate label will be place on the unit with the 15.19(a)(1) statement.

3) Please explain where the information required by 15.105 and 15.21 can be found. Note that 15.105 may not apply. Please justify or include as necessary.

Response: Manual has been revised to include these statements, which were place in page 7 of 58.

4) Is this device intended for normal use connected to a computer via RS-232 or only to monitoring equipment. If intended for connection to computers, please explain compliance to 15B. Currently labeling and manual do not support this use.

Response: These modems will be used in industrial environments, even though it was tested to Class B limits, we used the Class A statement on the manual. The EUT was tested as verification.

5) Please explain compliance to 90.203(e)/(g).

Response: The user will not have access to changing any of the parameters in the unit. This will be professionally installed and an external terminal device is needed to gain access to the parameters inside the DSP chip. Page 15 of 58 of the manual states this. Page 5 of 58 also states that this devices and accessories will be professionally installed.

6) Please identify the exact operating configurations that are applicable for this device for determining RF exposure compliance requirements. Part 90 SMR transmitters operating as mobile devices are required to satisfy routine MPE evaluation requirements of 2.1091 and require MPE testing. If the antenna for this transmitter will only be installed at permanent, outdoor structures and operating as fixed mounted transmitters, please provide the applicable information for supporting the 5 meter separation distance proposed in the manual. If the antenna gain must be limited in order to satisfy this distance, it should be clearly indicated in the installation instructions for users and installers to satisfy RF exposure compliance requirements. When applicable, please revise the manual info and re-submit the manual. The applicable operating requirements will be indicated as grant conditions for this filing.

Response: Understood. The device will be used in fixed locations, where the antenna will be placed in outdoor permanent structures. The manual has been revised to state a safe distance of 2.6 meters.

7) For RF exposure and power ratings, please explain compliance to 90.205(r).

Response: I could not find the Radio Equipment list to determine if this is applicable or not. But the power output rated by the manufacturer is in compliance since 6 watts (37.8dBm) and 20 % of that is 1.2dB. The maximum measured power was 5.8 watts (37.6 dBm) this shows that's within the allowed 1.2dB tolerance.

8) Has compliance to the H mask under 806-809 and 851-854 MHz been shown?

Response: Emission Mask B is the appropriate one as the radio has an audio low pass filter.

9) Please provide information as necessary for compliance to 90.210 note 3, 90.691.

Response: Plots have been uploaded to show compliance to this section.

10) Operational description states 5 watts, 731 states 6 watts, report shows 5.8 watts. Please review/correct as necessary.

Response: Theory of operation was changed to show 6 watts. Due to the fact that the same documents were used because it was intended to include FCC ID: E5MDS9710N, 5 watts was left in the documents since this power is part of that application. The proper power will be limited through software. Although one version of the product is available it has two different software versions to enable the unit to enable operation in the 806 – 940 or 928 – 960 MHz. That is why in the other application, FCC ID: E5MDS9710N, it will have the same documents.



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Regards,

A handwritten signature in black ink that reads "Juan Martinez". The signature is written in a cursive style with a long horizontal flourish at the end.

Juan Martinez
Senior EMC Engineer
JM/dmg