

American TCB

December 17, 2007

RE: FCC ID: E5MDS-EL805 & IC: 3738A-12122 for GE MDS LLC

Attention: Richard Fabina

Please find our responses to your comments on this application below:

1. Please provide a copy of the T.A.C. issued by Industry Canada for the above referenced device.

Comments: See uploaded TAC.

2. Please provide copies of the original documentation filed with IC for the above device. These will have to be uploaded again because the IC database only keeps one record active in its database. All previous documents are erased when a reassessment is uploaded to the IC database. I will need copies of the original test report(s) filed with IC for the original and any reassessment T.A.C.

Comments: See the uploaded files.

3. Please provide a letter from GE MDS confirming that all modifications made to the device listed on the bottom of page 2 f 12 of the test report will be incorporated into all production units to meet the receiver spurious emissions limits

Comments: See letter uploaded.

4. Please provide a calculation showing the maximum EIRP of the device during radiated emissions tests and describe what they are. (Is it $30 \text{ dBm} + 11.2 \text{ dBi} - 10 \text{ dB}$ (cable loss?))

Comments: See a revised test report. The cable loss was mis-stated. The cable used during the test was 3m of RG-214. During the radiated emissions tests for the low and middle channels, the radio was operated at the maximum power, 30dBm. With a cable loss of 1 dB and a gain of 11.2, the EIRP during testing was $30+11.2-1 = 40.2 \text{ dBm}$. For the high channel, the output power was reduced to 26dBm, which resulted in 36.2 dBm EIRP. Both of these values exceed the maximum allowed EIRP; therefore, they show represent a worse case test condition.

5. On page 8 of 12 of the test report, it indicates that with the use of the new 11.2 dBi gain antenna that the output power setting had to be turned down to a power setting of 26 in order for the device to comply with the restricted band radiated emission limits in Section 15.205 of the FCC Rules. Please provide an amended user manual that includes these instructions for the professional installer.

Comment: See Section 3.5 of the User's Manual provided. This section deals with proper adjustment of power and cable loss based on the antenna selected.

6. The RF exposure analysis (MPE evaluation) did not use the correct output power or the maximum antenna gain for this device. Please provide an amended RF exposure analysis that calculates the minimum safe distance needed to meet the MPE limits and provide an amended user manual that lists this same minimum distance. The current distance listed in the user manual of 23 cm is not sufficient for the new 11.2 dBi gain antenna with a conducted output power of 795 milliwatts.

Comment: The MPE calculations assumed the worst case power applied to the antenna, given the 36 dBm EIRP limit. The power used for the calculations was 24.8 dBm (36 dBm EIRP limit – 11.2 dBi (antenna)). Based on this, the separation distance of 23 cm is required, as noted in the MPE data and user's manual.

7. This application appears to be a Class II permissive change to add a new whip (dipole) antenna with a gain of 11.2 dBi. The information regarding a parabolic antenna model number MF-9008 (uploaded to the additional information folder) will be eliminated from this filing because it is not supported by test data. Please confirm that this is acceptable or justify its inclusion in the application.

Comments: The parabolic antenna is not included in this application. Please eliminate that information from the filing.

Regards,



Mark Hill
EMC Staff Engineer