

Chris/Donna,

We have conducted our review and the following issues need to be resolved:

1. The vertical limit is stated to be 65.6 dBuV/m in your test report.

We calculate the limit to be 65.1 dBuV/m. $(3/10) * (3750 + (12500-3750))$

$* ((315-260)/(470-260))) = 1812.5 \mu\text{V/m}$

then take $20\log(1812.5) = 65.16$.

Given this calculation the measured data (65.2dBuV/m) fails to comply with the limit. You should be aware that the limit is an AVERAGE limit. You have supplied QP data and per 15.231 (b) (2) we must compare this directly with the average limit. If you were to supply peak data and derive the worst case 100mS averaging factor you may find that the unit can demonstrate compliance. Note that there is a peak limit of 20dB above the average limit.

RESPONSE: I accept your calculation and apologise for the miscalculation of the limit. Notwithstanding, I believe that it is incorrect to state that the unit fails by 0.04 dB μ V/m, especially in view of the large uncertainty included (4 dB), and the rounding of decimal places.

Our software calculates field strength by adding the EMI Rx reading to the Antenna factor and the cable loss, (all in dB). Interpolation errors are also significant. Antenna factor and cable loss are calculated to 2 decimal places. The EMI receiver voltage is also read as 2 decimal places. The final result is rounded up to give one decimal place (the calculated limit of 65.15 should also be rounded up to 65.2!!!).

In this case, we have checked the data files and found the following values at 315 MHz:

EMI Rx Voltage (QP) 48.20

Cable Loss 2.94

Antenna Factor 14.02

65.16

TCB COMMENT: Unit is right at the limit by this calculation which is technically in compliance. Furthermore, the applicant declined to take averaging factor into account and relied on quasi-peak data. Given the 1mS pulsed nature of the emission we feel confident that the emission is at least 6dB lower than reported by QP.

2. Please discuss how the unit meets the requirements of 15.231 (a) (1) - (4). We are prepared to qualify this as a "safety" application. Note that polling transmissions must be of less than 1 second duration and occur no more than once per hour. Your test report notation in section "2.3 Normal Operation" is in violation of this. In addition, we request that you justify that the activation is an "emergency" "involving the safety of life" and requiring a transmission every five minutes (see 15.231 (a) (4)). Your manual is of too low a resolution for us to read and we are thus unable to form an opinion upon these issues without further guidance. Please also supply a readable manual.

RESPONSE: See the attached attestation letter in which the applicant agrees to limit transmissions for system integrity to once per hour.

TCB Comment: We agree that this application of baby monitoring for cessation of breathing qualifies for exemptions, where required, for emergency situations involving safety of life.

3. Please confirm that new batteries were used for the tests.

RESPONSE: We confirm that a fully charged, high capacity battery was used for the test.

4. For information only. Please be aware that there are reduced limits in several frequency band outlined in 15.205. This unit complies, but future submissions might not.

5. Please describe the transmission in terms of the length of the pulses. How many milliseconds long are they?

RESPONSE: Test report shows transmission configuration on page 5. Base clock is 1mS long.

6. Please supply the agency agreement between you and the applicant.

OK

7. Please complete the attached certification agreement.

OK

8. Please supply a block diagram for the transmitter.

OK

9. The 15.19(a)(3) compliance statement needs to be in the users manual if it is not on the product. Please supply a revised and readable users manual.

OK

10. Please supply details of the label material.

RESPONSE: Glossy white vinyl.

11. The caution statement as described in 15.21 does not appear to be in the manual.

New manual submitted

Best regards

Barry C. Quinlan
Certification Manager
Curtis-Straus LLC