

April 4, 2006

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RE: FCC ID: GMLRM-88A

Responses to ATCB Questions (ATCB003325) Dated April 4, 2006

1. Please note that the report says that there are only 72 channels for the 8BPSK modulation mode of the BT device (see page 13 of the BT test report). Please note that the channel separation for both the 8BPSK and the GFSK modes is 1MHz and the frequency of operation for both is listed as 2402-2480MHz. Please note that the number of hopping frequencies should be 79 for both. Please confirm this number or please justify the 72 channels stated in the report.

- Correct number should be 79.

2. FYI – no action needed at this time. Please note that test data presented in tabular form should also include the video bandwidths as well as the resolution bandwidths. In the future please provide the video bandwidths for the measurement receiver used in tests where the results are shown in tabular form.

- Correction noted for future applications

3. Please note that the 731 form states the BT power to be 0.676mW. However the test report shows the power to be 1.216mW for GFSK and 1.48mW for 8BPSK modes. Please provide a corrected 731 form showing proper values for power.

- Amended 731 Form provided

4. Please note that typically when Nokia has a cell phone which has both BT modulation capabilities (i.e. GFSK and 8BPSK) the grant for the BT would have two emissions designators, 1M00FXD and 1M00GXD, to show the difference. This application only shows one power level but does not show which modulation type is being used. While part 15 devices generally do not require an emissions designator, when both modulation types are being reported it is a good idea to list the appropriate designators. Please explain if Nokia Dallas is only reporting the highest power level for the BT on the grant or if both are to be reported. Please provide a 731 with the appropriate power levels.

- Amended 731 Form provided

5. Please note that rf spurious emissions in accordance with 2.1053 and parts 22/24 are to be done using the antenna substitution method as found in TIA603. Please note that while section 7.2 of the report states antenna substitution was used, the data presented on pages 22 and 23 do not appear to support the equation and antenna substitution. For example, the formula says $P_{dBm} = P_{meas} + A_{tot}$. However, the plotted data, which is assumed to be P_{meas} , does not appear to include A_{tot} . Please explain and please give an example from the plot as to how the formula fits the results in the table below the plot.

The measurement is made according to TIA-603-B. Substitution values at each frequency are measured beforehand and saved to the test software.

The substitution corrections are obtained as described below:

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$$A_{SUBST} = P_{SUBST_TX} - P_{SUBST_RX} - L_{SUBST_CABLES} + G_{SUBST_TX_ANT}$$

Where A_{SUBST} is the final substitution correction including receive antenna gain. P_{SUBST_TX} is signal generator level, P_{SUBST_RX} is receiver level, L_{SUBST_CABLES} is cable losses including both TX and RX cables and $G_{SUBST_TX_ANT}$ is substitution antenna gain.

Frequency	A_{SUBST}	P_{SUBST_TX}	P_{SUBST_RX}	L_{SUBST_CABLES}	$G_{SUBST_TX_ANT}$
1673.35	40.37	0	-40.1	7.33	7.6
2509.82	41.26	0	-43.8	10.74	8.2

The measurement results are obtained as described below:

$$P [dBm] = P_{MEAS} + A_{tot}$$

Where P_{MEAS} is receiver reading in dBm and A_{tot} is total correction factor.

Freq	Level P[dBm]	P_{MEAS}	A_{tot}
1673.35	-45.1	-85.47	40.37
2509.82	-44.5	-85.76	41.26

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