

November 25, 2005

NOKIA, INC.
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RE: FCC ID: QMNRM-41

Responses to FCC Questions:
(Correspondence Reference Number: 24469, 731 Confirmation Number: TC222213)
Dated November 10, 2005

1) We could not locate instructions for the user regarding antenna positioning (extending). Please locate.

The information is located the User Guide under Section 2, page 16 Antenna information and on page 19, under Section - Make a Call.

2) Please give full details of the phone control and setup during testing.

Please see Section 8, pg 15.

3) Please give full details of the dipole antenna used and justification of the target values.

Please see the attached dipole calibration certificates.

4) Please demonstrate that "channel" power provides the same result as peak power. Power measurement should be consistent for all signals in the PMF procedure.

Peak envelope channel power plots are shown on pages 21-24 for CW and CDMA. Typically 0 span plots are used with TDMA type signals (example: GSM), not CDMA type signals.

5) Compare PMF for 80% AM with that expected.

PAR of an AM signal with 80% modulation at 99.9% probability is about 4.8 dB (as stated in ANSI C63.19). Example shown on page 24: 835 MHz, CW = 44.4 dB V/m (166.8 V/m), 80% AM = 39.9 dB V/m (98.5 V/m), a difference of 4.5 dB = AM PMF of 1.69.

6) Please explain the lower PMF for PCS CDMA H field.

The value of PMF was calculated based on the measurements we did.

7) Please readdress C63.19 exclusion block procedures. It appears that the procedure used does not meet the "shared" blocks requirement. This procedure applies to all scans.

All the results in the result tables in Section 10.1 were calculated by using the shared block requirements.

8) Please provide contours for within the exclusion blocks.

Please see Appendix B: Measurement Scans.

November 25, 2005

9) Please clarify if this device has cdma2000 operation. For TCB (If so please detail how TCB implemented FCC policy on new technology.) Filings should be clear about transmitter setup & operation capabilities to ensure devices are configured properly according to communication protocol and operating requirements to obtain valid HAC results. All modes must be tested.

Cellular System operation is indicated in the original Theory of Operation Exhibit. HAC testing of QMNRM-41 was carried out in RC2/SO9 mode (as indicated under Section 5.1, under Mode of Operation, in the HAC test report).

SAR testing of QMNRM-41 was carried out in RC2/SO9 mode.

The power detection integral to QMNRM-41 is a peak detector with an averaging capacitor. Power control based on such power detection is somewhat sensitive to PAR (peak-to-average-ratio). The device has SW compensation, which keeps the variations of the time-average maximum output power, due to PAR differences in different modes, to less than 0.2 dB.

The sample used for SAR testing had its power level set 0.2 dB higher than the mass production tuning target.

Based on the above information, the SAR report of QMNRM-41 gives an appropriate picture of the SAR performance of the device.

HAC RF emissions testing of QMNRM-41 was carried out in RC2/SO9 mode.

The power detection integral to QMNRM-41 is a peak detector with an averaging capacitor. Power control based on such power detection is somewhat sensitive to PAR (peak-to-average-ratio). The device has SW compensation, which keeps the variations of the time-average maximum output power, due to PAR differences in different modes, to less than 0.2 dB.

The sample used for HAC RF emissions testing had its power level set 0.2 dB higher than the mass production tuning target.

Based on the above information, the HAC RF emissions report of QMNRM-41 gives an appropriate picture of the HAC RF emissions performance of the device.

Elizabeth Parish
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