## NOKIA

Response to ATCB Questions Dated November 28, 2005 QMNRM-125 December 9, 2005

- 1) Thank you. This will be addressed for future reports.
- 2) Thank you. This will be addressed for future reports.
- 3) See addendum 1.
- 4) Incorrect RBW and VBW were used. This has been corrected see addendum 2.
- 5) Please refer to section 5.1 for the settings used. Please clarify where the drift exceeded 5%.
- 6) The target values were derived from the SPEAG dipole calibration certificates.
- 7) Requiring both transmitters to be operating simultaneously will give the worst case results for this product. Bluetooth is very low power, and the final results were not measureably affected by operation of this transmitter.
- 8) Please refer to section 8.
- 9) We believe we have addressed these concerns in this report.
- 10)Please refer to appendix D in the SAR report.

## Addendum 1

3. 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:

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

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 <sub>SUBST</sub>	P <sub>SUBST_TX</sub>	P <sub>SUBST_RX</sub>	L <sub>SUBST_CABLES</sub> . (cable + attenuator)	G <sub>SUBST_TX_ANT</sub>
824.04	35.50	0	-47.18	13.8	2.12
824.70	35.53	0	-47.21	13.8	2.12
836.52	36.00	0	-47.78	13.9	2.12
848.31	35.72	0	-47.60	14.0	2.12
848.97	35.72	0	-47.60	14.0	2.12

Frequency	A <sub>SUBST</sub>	P <sub>SUBST TX</sub>	P <sub>SUBST RX</sub>	L <sub>SUBST_CABLES</sub> (cable + attenuator)	G <sub>SUBST TX ANT</sub>
1851.25	46.51	0	-56.71	15.7	5.5
1880.00	46.70	0	-56.90	15.7	5.5
1908.75	46.12	0	-56.42	15.8	5.5

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The measurement results are obtained as described below:

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

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

Pol	Mode	Freq	EDRP P [dBm]	PMEAS	Asubst
V	AMPS	824.04	26.22	-9.28	35.50
V	AMPS	836.52	26.31	-9.69	36.00
V	AMPS	848.97	26.30	-9.40	35.70
Н	AMPS	824.04	22.83	-12.67	35.50
Н	AMPS	836.52	23.53	-12.47	36.00
Н	AMPS	848.97	23.22	-12.48	35.70
V	CDMA800	824.70	25.63	-9.90	35.53
V	CDMA800	836.52	25.95	-10.05	36.00
V	CDMA800	848.31	25.33	-10.39	35.72
Н	CDMA800	824.70	20.90	-14.63	35.53
Н	CDMA800	836.52	21.83	-14.17	36.00
Н	CDMA800	848.31	22.26	-13.46	35.72

Pol	Mode	Freq	EIRP P [dBm]	Puras	Asubat
V	CDMA1900	1851.25	24.48	-22.03	46.51
V	CDMA1900	1880.00	24.46	-22.24	46.70
V	CDMA1900	1908.75	23.63	-22.49	46.12
Н	CDMA1900	1851.25	24.58	-21.93	46.51
Н	CDMA1900	1880.00	24.41	-22.29	46.70
Н	CDMA1900	1908.75	24.04	-22.08	46.12



RETEST OF AMPS MODULATION ON WR 833

TCC Dallas Michael Sundstrom

30-Nov-05

Ver. 1.0

Addendum 2

Hardware: Phone #1, model, 6165i, ESN 8382; BL-6C

Test Operator	Hai To / Michael Sundstrom
Date of Measurement	30-Nov-05
Temperature	21°C
Humidity	46%RH
Test Result	Pass

ATCB question for System 2 for WR 833:

Question 4 about the plot on page 15, of QMNRM-125\_Exhibit\_6\_Test\_Reports\_(FCC\_2,22,24\_conducted).pdf:

Retest with corrected VBW & RBW of Amps modulation SAT & Voice:



1 (1)