

This document is generated in response to the queries asked in the e-mail from Compliance Certification Services titled “Kyocera Wireless Corp, FCC ID: OVFKWC-KX9, Assessment NO.: AN05T4762, Notice#1”. The queries asked in the e-mail received by Lin Lu on 10th of May 2005 are listed below followed by the responses for each of the questions.

-----Original Message-----

From: Compliance Certification Services [<mailto:MKuo@ccsemc.com>]
Sent: Tuesday, May 10, 2005 5:16 PM
To: Mike Kuo
Subject: Kyocera Wireless Corp, FCC ID: OVFKWC-KX9, Assessment NO.: AN05T4762, Notice#1

SAR portion

Question #1:KX9A with standard battery at right head touched position, the measured SAR value at mid channel is higher than 0.8 W/kg (3 dB below the limits). Based upon the FCC guideline, the high and low channel must be measured. As indicated in KX9C with same configuration, such position is the worst position for AMPS modulation so additional low and high channel must be measured.

Question #2: KX9C with standard battery at right head touched position, the measured SAR value at mid channel is higher than 0.8 W/kg (3 dB below the limits). Please provide low and high channel measurement.

Question #3:Page 12 of Body worn SAR plots for 1900 CDMA @channel 600 air space, the SAR distribution plots indicate multiple hot spots, please provide secondary hot spot reading.

Question #4: Section 9.2 of test report, the description of body worn tests indicate 25 mm separation distance but actually 22.5 mm separation distance was used. Please make necessary correction.

Administrative portion:

Question #5:In the request for confidentiality letter, SAR test report, SAR test plots, probe calibration data , Part 22.24 test report and radiated test report are requested as short term confidential document. It is FCC policy that all test reports have to be available at the time of certification for public disclosure. Only user manual, test setup photos, external photos and internal photos can be granted as short term confidential document. Please review your request letter and move any sensitive photos from the test reports.

Question #6:Please confirm that by removing the battery, the FCC ID

label can be visible by the user manual without using a tool.

Part 22/24 portion:

Question #7: Please review Radiated emission test report for KX9A and KX9C, there are many peak emission field strength is over the average limits(section 15.35(b)). In addition, the data presentation of actual average reading is misleading, please make necessary correction as well. Please provide average readings for those peak readings are over the average limits and provide revised test report.

Question #8: Based upon the statement on page 11 section 2.1 of radiated emission test report, "SUBSTITUTION WAS NOT REQUIRED WITH THE EMISSION LEVELS MEASURED.". Please provide strong justification or FCC document that TIA/EIA 603 substitution method is not used during Part 22/24 spurious emission tests. This question has been addressed before and the applicant has been informed that TIA/EIA 603 substitution is the test procedures should be used for part 22 / 24 fundamental and spurious emission tests.

Best Regards
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Question #1: KX9A with standard battery at right head touched position, the measured SAR value at mid channel is higher than 0.8 W/kg (3 dB below the limits). Based upon the FCC guideline, the high and low channel must be measured. As indicated in KX9C with same configuration, such position is the worst position for AMPS modulation so additional low and high channel must be measured.

All SAR values were measured at both low and high channels for initial FCC submittal, however these values were missing in the table. The following is the updated table (*Page 15, Section 11.1 in original report*) in the report with requested SAR values (in bold red color):

AMPS HEAD		Channel:	991	383	799
		Frequency (MHz):	824.04	836.49	848.97
		Conducted Power (dBm):	25.55	25.50	25.58
Configuration	Test Position	Flip Position	Antenna Position	SAR, 1g (W/kg)	
KX9A w/ standard battery	Left Cheek/Touch	Open	Fixed	0.58*	0.75 / 0.84*
	Left Ear/Tilt	Open	Fixed		0.24 / 0.24*
	Right Cheek/Touch	Open	Fixed	0.62	0.95 / 0.80*
	Right Ear/Tilt	Open	Fixed		0.19 / 0.18*
KX9C w/ standard battery	Left Cheek/Touch	Open	Fixed	0.52*	0.79 / 0.90*
	Left Ear/Tilt	Open	Fixed		0.16 / 0.25*
	Right Cheek/Touch	Open	Fixed	0.57 / 0.59*	0.93 / 0.98*
	Right Ear/Tilt	Open	Fixed		0.17 / 0.21*

*Note: * means the phone was tested with extended battery.*

Note: If the SAR measured at the mid-channel is at least 3dB lower than the SAR limit, testing at the low and high channels were no longer performed.

Question #2: KX9C with standard battery at right head touched position, the measured SAR value at mid channel is higher than 0.8 W/kg (3 dB below the limits). Please provide low and high channel measurement.

All SAR values were measured at both low and high channels for initial FCC submittal, however these values were missing in the table. The following is the updated table (*Page 16, Section 11.1 in original report*) in the report with requested SAR values (in bold red color):

CDMA 1900 HEAD		Channel:		25	600	1175
		Frequency (MHz):		1851.25	1880	1908.75
		Conducted Power (dBm):		23.30	23.36	23.25
Configuration	Test Position	Flip Position	Antenna Position	SAR, 1g (W/kg)		
KX9A w/ standard battery	Left Cheek/Touch	Open	Fixed	1.34	1.51 / 0.94*	1.27
	Left Ear/Tilt	Open	Fixed		0.59 / 0.46*	
	Right Cheek/Touch	Open	Fixed	1.40	1.49 / 1.17 *	1.16
	Right Ear/Tilt	Open	Fixed		0.47 / 0.38*	
KX9C w/ standard battery	Left Cheek/Touch	Open	Fixed	1.23	1.45 / 1.08*	1.36
	Left Ear/Tilt	Open	Fixed		0.54 / 0.44*	
	Right Cheek/Touch	Open	Fixed	1.31	1.43 / 1.30*	1.27
	Right Ear/Tilt	Open	Fixed		0.42 / 0.40*	

*Note: * means the phone was tested with extended battery.*

Note: If the SAR measured at the mid-channel is at least 3dB lower than the SAR limit, testing at the low and high channels were no longer performed.

Question #3:Page 12 of Body worn SAR plots for 1900 CDMA @channel 600 air space, the SAR distribution plots indicate multiple hot spots, please provide secondary hot spot reading.

As per the request, we have measured the secondary hot spot for Page 12 of Body worn SAR plots for 1900 CDMA @ Channel 600 with 22.5 mm air space. The measurement table is listed below, followed by the SAR plot with the primary and secondary hot spots and the relevant validation.

Note the dipole and probe used in the measurement were the same as what were used for the original submittal, therefore all of the manufacture info has been included in the original files.

CDMA 1900 BODY		Channel:			600	
		Frequency (MHz):			1880	
		Conducted Power (dBm):			23.36	
Configuration	Accessories	Test Position	Flip Position	Phone Position	SAR, 1g (W/kg)	
					Primary Peak	Secondary Peak
KX9C w/ standard battery	Air Gap – 22.5mm	Flat	Closed	Face Down	0.305	0.234

Test Laboratory: Kyocera Wireless

KX9C #X41Q CDMA-1900 ch600 Flat Phone Closed with 22.5mm Air Space

Communication System: CDMA-1900, Frequency: 1880 MHz, Duty Cycle: 1:1

Medium: M1800, Medium parameters used: $f = 1880$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 53.4$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(4.6, 4.6, 4.6), Calibrated: 9/29/2004

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/24/2004

Measurement SW: DASY4, V4.4 Build 3

Postprocessing SW: SEMCAD, V1.8 Build 130

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

PCS ch600/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.6 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 0.466 W/kg

SAR(1 g) = 0.305 mW/g; SAR(10 g) = 0.198 mW/g

Maximum value of SAR (measured) = 0.329 mW/g

PCS ch600/Zoom Scan (7x7x7)/Cube 1:

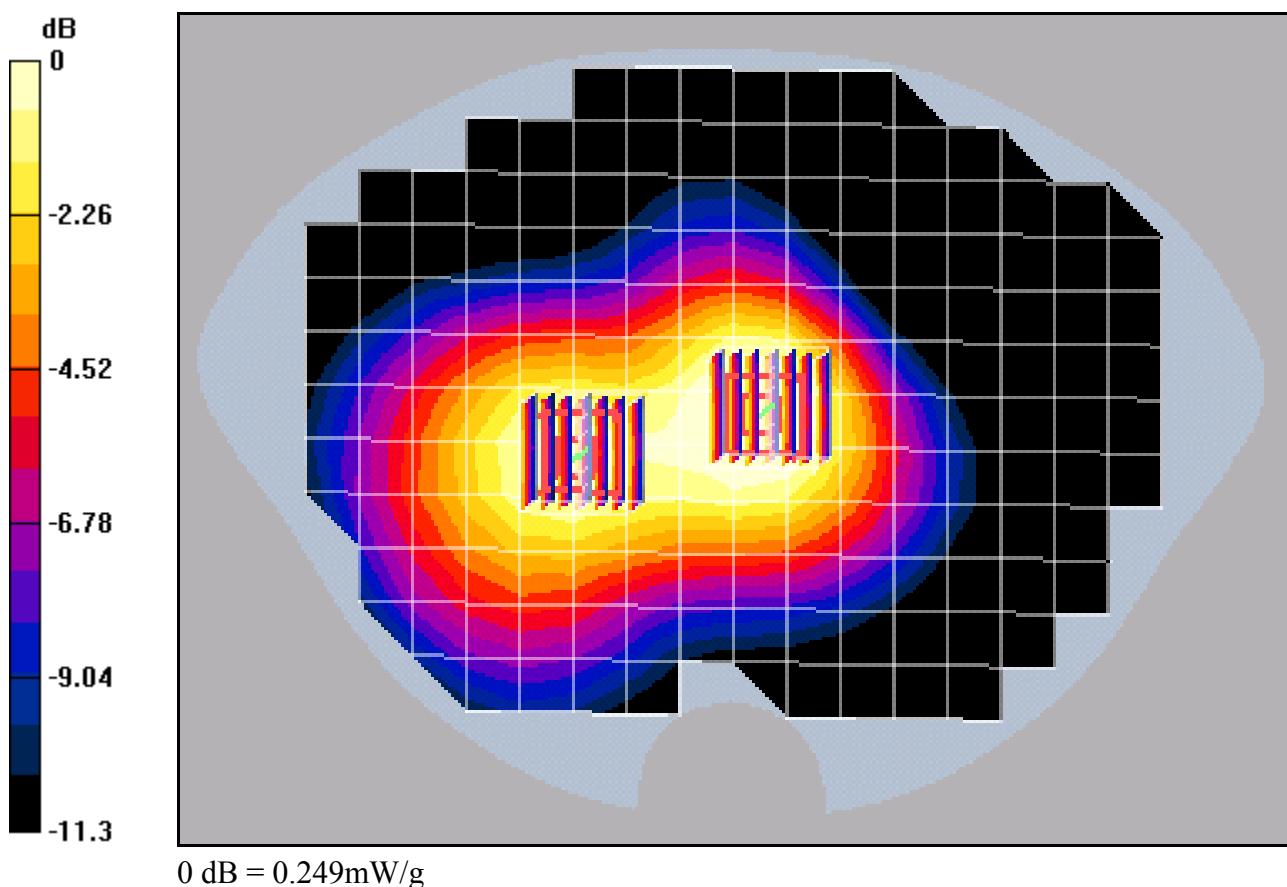
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.6 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 0.348 W/kg

SAR(1 g) = 0.234 mW/g; SAR(10 g) = 0.157 mW/g

Maximum value of SAR (measured) = 0.249 mW/g



Test Laboratory: Kyocera Wireless

1900 MHZ. Validation at 20dbm. Probe 1712, DAE 493, Dipole 5d003

Communication System: CW-1900, Frequency: 1900 MHz, Duty Cycle: 1:1

Medium: HSL1900, Medium parameters used (interpolated): $f = 1900$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 41.8$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5.21, 5.21, 5.21), Calibrated: 9/29/2004

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/24/2004

Measurement SW: DASY4, V4.4 Build 3

Postprocessing SW: SEMCAD, V1.8 Build 130

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1900Mhz Validation/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

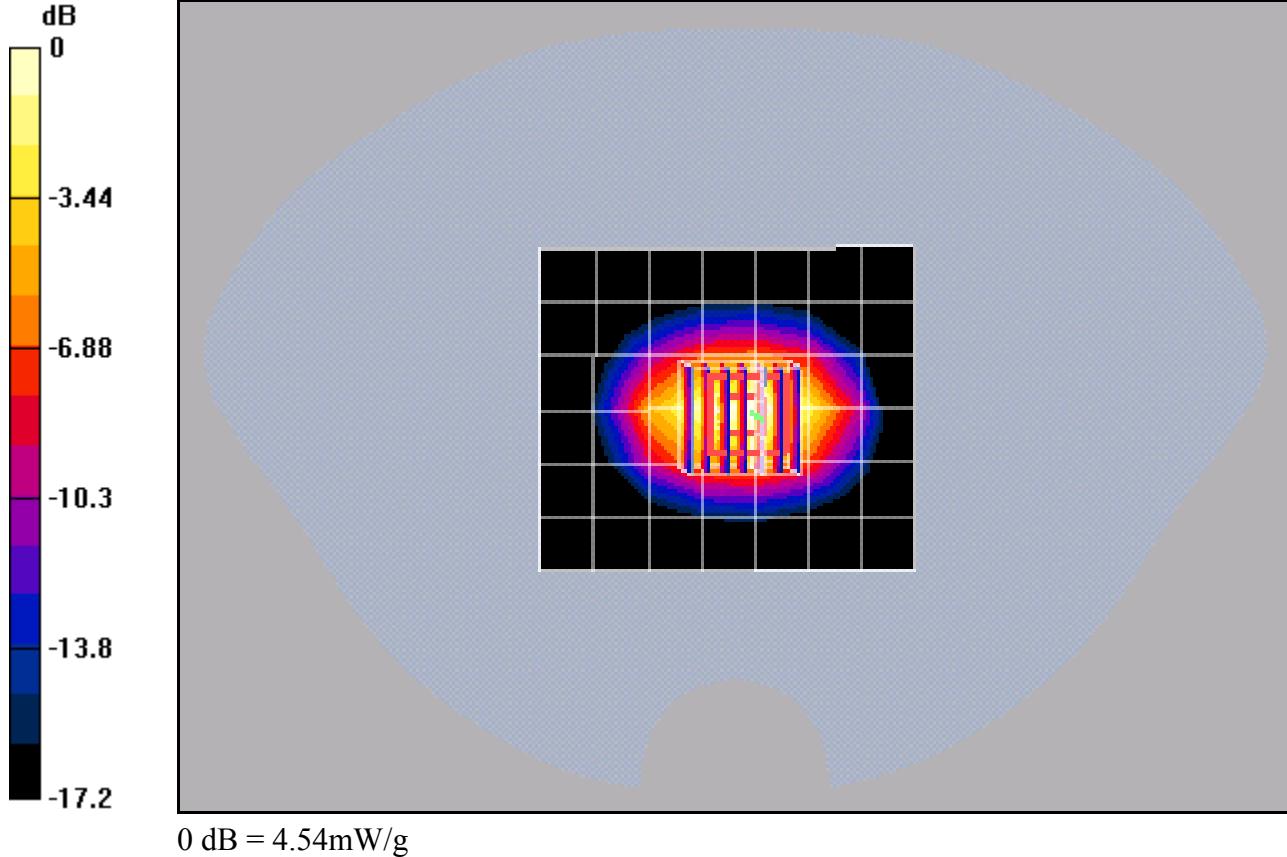
Reference Value = 60.1 V/m; Power Drift = 0.0 dB

Peak SAR (extrapolated) = 7.14 W/kg

SAR(1 g) = 4.05 mW/g; SAR(10 g) = 2.15 mW/g

Info: Interpolated medium parameters used for SAR evaluation!

Maximum value of SAR (measured) = 4.54 mW/g



Question #4: Section 9.2 of test report, the description of body worn tests indicate 25 mm separation distance but actually 22.5 mm separation distance was used. Please make necessary correction.

All of the measurements having air space were originally performed with 22.5 mm of separation. There was a typo in sections 9.1.4 and 11.2, and in figure 10.6 indicating 25 mm, which should be corrected with 22.5 mm. A revised SAR report with all the corrections is sent as a separate document along with this response.

Question #5: In the request for confidentiality letter, SAR test report, SAR test plots, probe calibration data, Part 22.24 test report and radiated test report are requested as short term confidential document. It is FCC policy that all test reports have to be available at the time of certification for public disclosure. Only user manual, test setup photos, external photos and internal photos can be granted as short-term confidential document. Please review your request letter and move any sensitive photos from the test reports.

The request for confidentiality letter has been corrected. Only the user manual, internal and external photos were listed for short-term confidentiality. Please find the new request for confidentiality letter sent as a separate attachment along with this document.

Question #6: Please confirm that by removing the battery, the FCC ID label can be visible by the user manual without using a tool.

The following pictures clearly depict that the user can see the FCC ID Label without the aid of any tool upon removing the battery.





Question #7: Please review Radiated emission test report for KX9A and KX9C, there are many peak emission field strength is over the average limits(section 15.35(b)). In addition, the data presentation of actual average reading is misleading, please make necessary correction as well. Please provide average readings for those peak readings are over the average limits and provide revised test report.

In the radiated emissions tests conducted by Nemko USA, Inc (San Diego, USA.) for KX9A and KX9C: the peak readings reported on pages 15-18 in the original documents were noise floor measurements and no signal was observed (both peak and average) at those frequencies. The average readings that looked misleading were also corrected. The radiated emissions report has been updated by Nemko USA with these changes and is sent as a separate attachment along with this response for your review.

Question #8: Based upon the statement on page 11 section 2.1 of radiated emission test report, "SUBSTITUTION WAS NOT REQUIRED WITH THE EMISSION LEVELS MEASURED". Please provide strong justification or FCC document that TIA/EIA 603 substitution method is not used during Part 22/24 spurious emission tests. This question has been addressed before and the applicant has been informed that TIA/EIA 603 substitution is the test procedures should be used for part 22 / 24 fundamental and spurious emission tests.

⇒ This is excerpt taken from the FCC website under the OET Knowledge Base at the following link:

http://gullfoss2.fcc.gov/prod/oet/cf/kdb/forms/FTSSearchResultPage.cfm?id=20446&switch_=P

Wherein, it clearly mentions in response to the question:

"Q2) To date we have performed and submitted harmonic emission compliance using a converted -13 dBm to a field strength limit at 3 meters (82.2 dBuV/m for EIRP or 84.2 dBuV/m for ERP). Again, is this still the acceptable method or is the substitution now the only preferred test method?

A2) For consistency, the FCC is requesting everybody to use the substitution method. However, when the initial measured field strength levels of the spurious emissions are more than 20 dB below the above-cited levels, then continuation with the substitution method is not necessary."

⇒ Also as per FCC Part 2.1051, the FCC does not require reporting of Spurious Emissions when they are more than 20 dB below the permissible limits.

As the emission levels measured were 20 dB or more below the FCC limits, substitution method was not used in this report.