

RADIATED EMISSIONS

DATA

FOR

**KYOCERA WIRELESS
10300 Campus Point Drive
San Diego, CA 92121**

Prepared by

**TÜV AMERICA
10040 Mesa Rim Road
San Diego, CA 92121-2912**

Measurement Requirements (CFR 47 Part 15, Paragraph 15.109(a))

The following measurements were performed by TÜV America. To the best of my knowledge these tests were conducted in accordance with the procedures outlined in Part 2 of the Commission's Rules and Regulations. The data presented below demonstrates compliance with the appropriate technical standards.

A handwritten signature in black ink that reads 'FR Fleury'.

Floyd R. Fleury
EMC Manager

Emissions Test Conditions: RADIATED EMISSIONS

Roof (small open area test site)

The *Radiated Emissions* measurements were performed using the following equipment:

Test Equipment Used:

Model No.	Prop. No.	Description	Manufacturer	Serial No.	Cal Date
HP8566B	720	Spectrum Analyzer	Hewlett Packard	2115A00842	07/02
Cable 1	731	30' Cable	United Microwave Prod	--	NCR*
Cable 2	756	10' Cable	United Microwave Prod	--	NCR*
Cable 3	6788	3' Cable	United Microwave Prod	--	NCR*
Cable 4	6790	40' Cable	United Microwave Prod	--	NCR*
HP8350B	6707	Sweep Signal Generator	Hewlett Packard	2749A09420	NCR*
AMF-5D-010180-35-10P	719	PreAmp	TUV America	549460	NCR*
3115	453	Antenna, Horn	Electro Mechanics Co	3564	01/03
3115	251	Antenna, Horn	Electro Mechanics Co	2595	12/02
HP8481	726	Power Sensor	Hewlett Packard	1926A27528	12/02
436A	775	Power Meter	Hewlett Packard	1918A05312	09/02
FF6549-2	783	2000 MHz High Pass Filter	Sage	008	NCR*
FF6549-1	778	900 MHz High Pass Filter	Sage	005	NCR*

Remarks: One year calibration cycle for all test equipment and sites. (*) No Calibration Required.

Technical Documentation

Test Data Sheets

and

Test Setups

REPORT No: SC301762 TESTER: Alan Laudant SPEC: FCC Part 15 para 15.109(a)
 CUSTOMER: Kyocera Wireless TEST DIST: 3 Meters
 EUT: **KE414** TEST SITE: Roof
 EUT MODE: Receive LO CDMA BICONICAL: N/A
 DATE: Apr. 10, 2003 LOG: N/A
 NOTES: OTHER: 251

above 1GHz: RBW & VBW 1 MHz for Pk; RBW 1MHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preampifier Gain

FREQ (MHz)	VERTICAL (dBuV)		HORIZONTAL (dBuV)		CF (dBm)	MAX LEVEL (dBuV/m)		SPEC LIMIT (dBuV/m)		MARGIN (dB)		EUT Rotation	Antenna Height	Notes
	pk	av	pk	av		pk	av	pk	av	pk	av			
1053.3	42.4	36.3	42.8	35.6	-13.61	28.2	22.7	74	54	-44.8	-31.3			noise floor
2106.6	48.1	41.8	47.7	36.8	-6.31	41.8	35.5	74	54	-32.2	-18.5	220	1.2	
3159.9	46.3	35.9	46.3	36.0	-2.22	44.1	33.8	74	54	-29.9	-20.2			noise floor
4213.2	48.0	37.0	47.4	37.9	-0.03	48.0	37.9	74	54	-26.0	-16.1	203	1	
5286.5	44.5	34.4	44.7	35.0	2.62	47.3	37.6	74	54	-26.7	-16.4			noise floor
6319.8	48.0	36.8	47.4	36.8	5.51	53.5	42.3	74	54	-20.5	-11.7			noise floor
1065.09	43.4	35.6	43.5	35.7	-13.52	30.0	22.18	74	54	-44.0	-31.8			noise floor
2130.18	49.4	41.9	48.2	40.1	-6.20	43.2	35.70	74	54	-30.8	-18.3	197	1.4	
3195.27	45.6	35.7	45.7	35.9	-2.10	43.6	33.80	74	54	-30.4	-20.2			noise floor
4260.36	47.8	37.8	48.9	36.8	-0.12	48.8	38.7	74	54	-25.2	-15.3	214	1.1	
5325.45	45.8	34.4	44.5	34.8	3.04	48.84	37.84	74	54	-25.2	-16.2			noise floor
6390.54	46.7	37.0	46.7	37.2	5.47	52.17	42.67	74	54	-21.8	-11.3			noise floor
1076.91	41.8	35.5	46.4	36.1	-13.43	32.97	22.67	74	54	-41.0	-31.3			noise floor
2153.82	49.0	41.2	48.1	38.9	-6.09	42.91	35.11	74	54	-31.1	-18.9	172	1	
3230.73	45.6	35.6	46.1	36.1	-1.97	44.13	34.13	74	54	-29.9	-19.9			noise floor
4307.64	48.8	39.3	49.3	41.3	-0.22	49.08	41.08	74	54	-24.9	-12.9	207	1.1	
5384.55	45.0	34.8	45.5	34.9	3.47	48.97	38.37	74	54	-25.0	-15.6			noise floor
6467.46	47.3	37.1	47.2	37.2	5.42	52.72	42.62	74	54	-21.3	-11.4			noise floor

v.beata

REPORT No: SC301762 TESTER: Alan Laudani **AKK** SPEC: FCC Part 15 para 15.109(e)
 CUSTOMER: Kyocera Wireless TEST DIST: 3 Meters
 EUT: **K&H** TEST SITE: Roof
 EUT MODE: Receive LO FM BICONICAL: N/A
 DATE: Apr. 10, 2003 LOG: N/A
 NOTES: OTHER: 251

above 1GHz: RBW & VBW 1 MHz for Pk; RBW 1MHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preampifier Gain

FREQ (MHz)	VERTICAL (dBuv)		HORIZONTAL (dBuv)		CF (dBm)		MAX LEVEL (dBuV/m)		SPEC LIMIT (dBuV/m)		MARGIN (dB)		EUT Rotation	Antenna Height	Notes
	pk	av	pk	av	pk	av	pk	av	pk	av	pk	av			
1052.54	42.1	35.8	43.2	35.7	-13.61	29.6	22.2	74	54	-44.4	-31.8				noise floor
2105.28	49.2	42.6	47.5	38.3	-6.32	42.9	36.3	74	54	-31.1	-17.7	191	1.5		
3157.92	46.1	36.1	46.3	36.3	-2.23	44.1	34.1	74	54	-29.9	-19.9				noise floor
4210.56	43.3	37.9	48.2	38.8	-0.02	48.2	38.8	74	54	-25.8	-15.2	202	1.2		
5263.2	44.9	35.0	45.6	35.2	2.60	48.2	37.8	74	54	-25.8	-16.2				noise floor
6315.84	46.6	36.8	46.5	37.0	5.51	52.1	42.5	74	54	-21.9	-11.5				noise floor
1065.09	43.4	35.8	46.6	36.0	-13.52	33.1	22.5	74	54	-40.9	-31.5				noise floor
2130.18	49.7	43.3	48.5	41.0	-6.20	43.5	37.1	74	54	-30.5	-16.9	164	1.6		
3195.27	45.9	36.1	46.2	36.6	-2.10	44.1	34.5	74	54	-29.9	-19.5				noise floor
4260.36	48.3	38.8	48.3	39.4	-0.12	48.2	39.3	74	54	-25.8	-14.7	184	1.2		
5325.45	45.6	35.0	45.0	35.1	3.04	48.6	38.1	74	54	-25.4	-15.9				noise floor
6390.54	47.8	37.2	48.6	37.4	5.47	54.1	42.9	74	54	-19.9	-11.1				noise floor
1077.57	42.4	35.6	43.6	36.2	-13.426	30.17	22.8	74	54	-43.8	-31.2				noise floor
2155.14	58.9	55.0	49.2	40.0	-6.08636	52.81	48.9	74	54	-21.2	-5.1	129	1.1		
3232.71	46.2	36.0	45.9	36.2	-1.96224	44.24	34.2	74	54	-28.8	-19.8				noise floor
4310.28	45.7	39.0	48.8	40.1	-0.22056	48.58	39.9	74	54	-25.4	-14.1	240	1.1		
5387.85	45.4	35.0	45.2	35.2	3.49252	48.89	38.7	74	54	-25.1	-15.3				noise floor
6465.42	47.8	37.2	46.6	37.2	5.42075	53.22	42.6	74	54	-20.8	-11.4				noise floor

REPORT No: SC301762 TESTER: Alan Laudani SPEC: FCC Part 15 para 15.109(a)

CUSTOMER: Kyocera Wireless

TEST DIST: 3 Meters

EUT: K2414

TEST SITE: Roof

EUT MODE: Receive LO PCS

BICONICAL: N/A

DATE: Apr. 10, 2003

LOG: N/A

NOTES:

OTHER: 251

above 1GHz: RBW & VBW 1 MHz for Pk; RBW 1MHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preamp/ifier Gain

FREQ (MHz)	VERTICAL (dB μ v)		HORIZONTAL (dB μ v)		CF (dB/m)	MAX LEVEL (dB μ V/m)		SPEC LIMIT (dB μ V/m)		MARGIN (dB)		EUT Rotation	Antenna Height	Notes
	pk	av	pk	av		pk	av	pk	av	pk	av			
2114.85	46.9	35.8	45.7	35.7	-6.27	40.6	29.5	74	54	-33.4	-24.5			noise floor
4229.7	48.5	38.9	47.7	37.2	-0.06	48.4	38.8	74	54	-25.6	-15.2	151	1.1	
6344.55	46.7	36.8	46.7	36.8	5.49	52.2	42.3	74	54	-21.8	-11.7			noise floor
8459.4	47.2	36.9	46.9	36.9	9.91	57.1	46.8	74	54	-16.9	-7.2			noise floor
10574.25	42.9	34.5	44.6	34.5	12.33	56.9	46.8	74	54	-17.1	-7.2			noise floor
2143.6	49.1	42.0	47.9	38.5	-6.14	43.0	35.9	74	54	-31.0	-18.1	146	1.2	
4287.2	49.3	40.1	48.6	38.4	-0.17	49.1	39.9	74	54	-24.9	-14.1	185	1.1	
6430.8	46.5	36.5	47.5	36.6	5.44	52.9	42.0	74	54	-21.1	-12.0			noise floor
8574.4	46.3	36.7	46.4	36.6	10.16	56.6	46.9	74	54	-17.4	-7.1			noise floor
10718	44.5	34.0	43.8	34.0	12.59	57.1	46.6	74	54	-16.9	-7.4			noise floor
2172.35	50.5	44.0	48.5	40.1	-6.01	44.5	38.0	74	54	-29.5	-16.0	172	1.2	
4344.7	47.8	39.2	48.6	39.3	-0.29	48.3	39.0	74	54	-25.7	-15.0	149	1.2	
6517.05	46.6	36.1	45.8	36.1	5.46	52.1	41.6	74	54	-21.9	-12.4			noise floor
8689.4	46.9	36.8	46.5	36.8	10.42	57.3	47.2	74	54	-16.7	-6.8			noise floor
10861.75	43.6	33.9	43.7	33.9	12.85	56.6	46.8	74	54	-17.4	-7.2			noise floor

Photograph of Test Setup



Photograph of Test Setup

