

RADIATED EMISSIONS

DATA

FOR

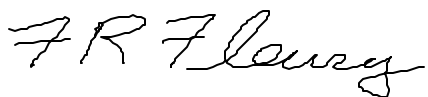
**QUALCOMM, INC.
10300 Campus Point Drive
San Diego, CA 92121**

Prepared by

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

Measurement Requirements (CFR 47 Part 22, Paragraph 22.917(b)(2) and Part 24, Paragraph 24.238(a))

The following measurements were performed by TÜV Product Service. 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.



Floyd R. Fleury
EMC Manager

Emissions Test Conditions: SPURIOUS RADIATED EMISSIONS

Roof (small open area test site)

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

Test Equipment Used:

Model No.	Prop. No.	Description	Manufacturer	Serial No.	Cal Due Date
8586B	721	Spectrum Analyzer	Hewlett Packard	2542A12099	06/02
PreAmp 2 – 20 GHz	752	PreAmp	TUV PS	--	N/A*
3115	251	Antenna, Horn	Electro Mechanics Co	2595	06/02
Cable 1	733	30' cable	Universal Microwave Prod	--	N/A*
Cable 2	655	6" cable	Universal Microwave Prod	--	N/A*
FF 6549-1	778	900 MHz High Pass Filter	Sage	5	N/A*
FF 6548-2	782	2000 MHz High Pass Filter	Sage	007	N/A*
For Substitution					
Cable 3	732	30' cable	Universal Microwave Prod	--	N/A*
Cable 4	657	6" cable	Universal Microwave Prod	--	N/A*
HP83640B	791	Signal Generator	Hewlett Packard	3844A00726	03/03
3115	453	Antenna, Horn	Electro Mechanics Co	3564	10/01
HP437B	742	Power Meter	Hewlett Packard	1002	04/03

Remarks: (*) Verified

Report No. SC203013-03



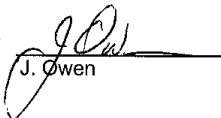
FCC Testing

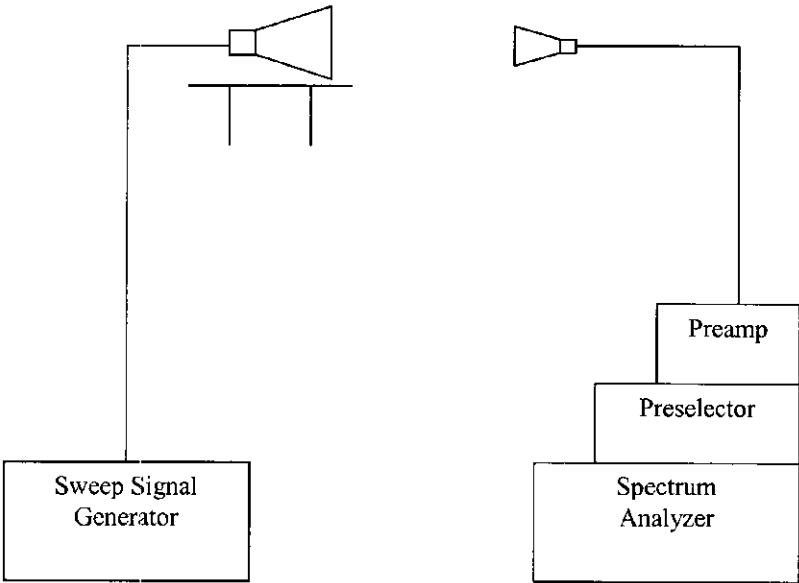
Kyocera Substitution SC203013

Frequency MHz	target level dBm	Horn Gain dBi	cable loss dB	Signal Generator dBm	Total (EIRP) dBm	Spec dBm	Margin Subst. dBm
3298.8	66.4	9.7	7.2	-37	-34.5	-13	-21.5
5553.75	71.2	10.8	9.2	-25.4	-23.8	-13	-10.8
5726.25	69.1	10.8	9.5	-27.5	-26.2	-13	-13.2
7405	56.4	10.2	11.1	-32.8	-33.7	-13	-20.7

Input level verified with Power Meter 742: HP437B, cal. Date due: 04/26/03
Location: TÜV 3-meter roof site

Tested by 
A. Laudani

Reviewed by 
J. Owen



REPORT No: SC203013 TESTER: Alan Laudani SPEC: FCC Part 22 para 22.917(b)(2)

CUSTOMER: Kyocera Wireless

TEST DIST: 3 Meters

E U T: KWC 7135

TEST SITE: Roof

EUT MODE: CDMA Transmit

BICONICAL: N/A

DATE: May 30, 2002 ERP/EIRP Factor 7

LOG: N/A

NOTES: HORN: 251

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

below 1GHz: RBW & VBW 100 kHz for PK; RBW 100kHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss + Pre-amplifier Gain

FREQ (MHz)	VERTICAL (dBuV)		HORIZONTAL (dBuV)		CF (dBm)		MAX LEVEL (dBm(d))		SPEC LIMIT (dBm)		MARGIN (dB)		EUT Rotation	Antenna Height	Notes	dBuV/m	dBuV/m
	pk	av	pk	av	pk	av	pk	av	pk	av	pk	av					
824.7	122.9				0.0	25.5			-13.0	-13.0	-43.3	-54.1	170	1.2	Fundamental (Low Band)	122.9	0.0
1649.4	49.1	39.3	50.3	39.5	-9.3	-56.3	-67.1		-13.0	-13.0	-22	-35.2	170	1.3		41.0	30.2
2474.1	67	53.8	55.7	48.1	-4.6	-35.0	-48.2		-13.0	-13.0	-19.7	-28.7	180	1		62.4	49.2
3298.8	96.9	47.1	66.4	57.4	-1.7	-32.7	-41.7		-13.0	-13.0	-44.2	-31.2	200	1.6		64.7	55.7
4123.5	53	43.3	52.4	41.5	0.2	-44.2	-53.9		-13.0	-13.0	-32.7	-42.9	180	1.2		53.2	43.5
4948.2	51.1	40.9	45.5	34	0.6	-45.7	-55.9		-13.0	-13.0	-30.7	-42.6	180	1.2		51.7	41.5
5772.9	48.6	36.7	46.3	33.6	5.1	-43.7	-55.6		-13.0	-13.0	-36.6				noise floor	53.7	41.8
6597.6	42		41.7		5.8	-49.6			-13.0		-33.7				noise floor	47.8	5.8
7422.3	42.4		42.1		8.2	-46.7			-13.0							50.6	8.2
																#VALUE!	#N/A
836.49	122.9				0.0	25.5			-13.0	-13.0	-25.54	-58	240	1	Fundamental (Mid Band)	122.9	0.0
1672.98	45.6	35.4	46.4	35.4	-8.1	-60.0	-71.0		-13.0	-13.0	-47	-58				37.3	26.3
2509.47	61.7	54.3	54.8	47.1	-4.5	-40.1	-47.5		-13.0	-13.0	-27.1	-34.5	180	1.4		57.2	49.8
3345.96	53.5	43.8	64	55.4	-1.6	-34.9	-43.5		-13.0	-13.0	-21.9	-30.5	200	1.2		62.4	53.8
4182.45	53.2	44.1	53.2	43.5	0.0	-44.1	-53.2		-13.0	-13.0	-31.1	-40.2	200	1.3		53.2	44.1
5018.94	48.1	37.2	45.7	33.9	0.8	-48.4	-59.3		-13.0	-13.0	-35.4	-46.3	180	1		48.9	38.0
5855.43	46.5	35.4	45.1	34.1	5.3	-45.6	-56.7		-13.0	-13.0	-32.6	-43.7	210	1		51.8	40.7
6691.92	42.6		41.6		6.1	-48.6			-13.0		-35.6				noise floor	48.7	6.1
7528.41	42.3		41.7		8.4	-46.6			-13.0		-33.6				noise floor	50.7	8.4
																#VALUE!	#N/A
848.31	122.9				0.0	25.5			-13.0	-13.0	-25.54	-49.3			Fundamental (High Band)	122.9	0.0
1596.62	43.1	44			-8.9	-62.3			-13.0	-13.0	-25.5	-33.9	180	1.3	noise floor	35.1	-8.9
2544.93	63.2	54.8	56.5	48.4	-4.3	-38.5	-46.9		-13.0	-13.0	-23.6	-32.1	180	1.4		58.9	50.5
3393.24	55.9	47.5	62.1	53.6	-1.4	-36.6	-45.1		-13.0	-13.0	-30.7	-40.5	190	1.1		60.7	52.2
4241.55	52.8	43	53.7	43.9	-0.1	-43.7	-53.5		-13.0	-13.0	-35.9	-47.7	210	1		53.6	43.8
5089.86	45.8	34.7	47.1	35.3	1.3	-48.9	-60.7		-13.0	-13.0	-36.8	-45.3				48.4	36.6
5938.17	45.3	35	46.5	34.6	5.5	-45.3	-56.8		-13.0	-13.0	-32.3	-43.8	185	1	noise floor	52.0	40.5
6786.48	41.4		41.7		6.5	-49.2			-13.0		-36.2					48.2	6.5
																#VALUE!	#N/A
																#VALUE!	#N/A

REPORT No: SC203013 TESTER: Alan Laudant **KW** SPEC: FCC Part 22 para 22.917(b)(2)

CUSTOMER: Kyocera Wireless

TEST DIST: 3 Meters

E U T: KWC 7135

TEST SITE: Roof

EUT MODE: FM Transmit

BICONICAL: N/A

DATE: May 29, 2002 ERP/ERP Fact 7

LOG: 244

NOTES: 900 MHz High Pass filter after fundamental.

HORN: 251

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

below 1GHz: RBW & VBW 100 kHz for PK; RBW 100kHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preamp/Preselector Loss

FREQ (MHz)	VERTICAL (dBuV)		HORIZONTAL (dBuV)		MAX LEVEL (dBm(d))	SPEC LIMIT (dBm)		MARGIN (dB)		EUT Rotation	Antenna Height	Notes	dBuV/m	dBuV/m
	pk	av	pk	av		pk	av	pk	av					
824.04	102.3				27.0	-13.0	-13.0	-30.6	-32	220	1.3	Fundamental (Low Band)	124.4	22.1
1648.08	60.3	58.9	58.5	58.2	-43.6	-45.0	-45.0	-43.6	-45.0	0	1.4		53.8	52.4
2472.12	54.7	54.6	52.8	51.8	-41.4	-41.4	-41.4	-41.4	-41.4	0	1.4		56.0	55.9
3296.16	52.3	48.1	58.9	58.4	-33.8	-34.3	-34.3	-33.8	-34.3	210	1.3		63.5	63.0
4120.2	49.8	39.6	49.1	42.3	-41.3	-48.8	-48.8	-41.3	-48.8	205	1.3		56.0	48.5
4944.24	49.6	40.2	47.6	36.6	-40.9	-50.3	-50.3	-40.9	-50.3	190	1.4		56.4	47.0
5768.28	46.5		46.7		-38.7	-13.0	-13.0	-25.7	-25.7			noise floor	58.6	11.9
6592.32	46.3		46.7		-37.1	-13.0	-13.0	-24.1	-24.1			noise floor	60.2	13.5
7416.36	46.1		46.1		-35.4	-13.0	-13.0	-22.4	-22.4			noise floor	61.9	15.8
8240.4	46.2		45.9		-33.5	-13.0	-13.0	-20.5	-20.5			noise floor	63.8	17.6
836.49	102.3				27.0	-13.0	-13.0	-30.6	-32	20	1.6	Fundamental (Mid Band)	124.4	22.1
1672.98	56.9	56	59.3	57.2	-44.1	-46.2	-46.2	-44.1	-46.2	195	1		53.2	51.1
2506.47	57.9	56	51.9	47.4	-38.0	-39.9	-39.9	-38.0	-39.9	190	1.7		59.3	57.4
3345.96	56.8	55	57.9	56.3	-34.7	-36.3	-36.3	-34.7	-36.3	200	1.2		62.6	61.0
4182.45	47.9		48.1		-43.3	-13.0	-13.0	-30.3	-30.3			noise floor	54.1	6.0
5018.94	46.6		47		-43.1	-13.0	-13.0	-30.1	-30.1			noise floor	54.3	7.3
5855.43	46.6		46.9		-38.5	-13.0	-13.0	-25.5	-25.5			noise floor	58.8	11.9
6691.92	46.5		46.4		-37.1	-13.0	-13.0	-24.1	-24.1			noise floor	60.3	13.8
7528.41	46.6		46.1		-34.6	-13.0	-13.0	-21.6	-21.6			noise floor	62.8	16.2
8364.9	46.4		46.5		-33.1	-13.0	-13.0	-20.1	-20.1			noise floor	64.3	17.8
848.97	102				27.0	-13.0	-13.0	-30.6	-32	350	1.2	Fundamental (High Band)	124.4	22.4
1697.94	58.6	56.7	60.6	59.3	-42.4	-43.7	-43.7	-42.4	-43.7	210	1.3		55.0	53.7
2546.91	56.4	53.5	54.7	50.3	-39.3	-42.2	-42.2	-39.3	-42.2	180	1.3		56.0	55.1
3395.88	50.1	44.1	57.6	55.8	-34.9	-36.7	-36.7	-34.9	-36.7	190	1.2		62.5	60.7
4244.85	49.2	40.8	50.6	43.4	-41.0	-48.2	-48.2	-41.0	-48.2	190	1.2		56.3	49.1
5093.82	46		47.2		-42.1	-13.0	-13.0	-29.1	-29.1			noise floor	55.2	8.0
5942.79	47.4		46.1		-38.0	-13.0	-13.0	-25	-25			noise floor	59.3	11.9
6791.76	46.1		45.8		-37.2	-13.0	-13.0	-24.2	-24.2			noise floor	60.2	14.1
7640.73	46.8		46.7		-34.1	-13.0	-13.0	-21.1	-21.1			noise floor	63.3	16.5
8489.7	46.3		46.2		-33.2	-13.0	-13.0	-20.2	-20.2			noise floor	64.2	17.9

REPORT No: SC203013 TESTER: Alan Laudant SPEC: FCC Part 24 para 24.238(a)
 CUSTOMER: Kyocera Wireless TEST DIST: 3 Meters
 E U T: KWC 7135 TEST SITE: Roof
 EUT MODE: PCS/CDMA Transmit BICONICAL: N/A
 DATE: May 30, 2002 ERP/EIRP Facts 5.5 LOG: N/A
 NOTES: HORN: 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 (dB/m)	MAX LEVEL (dBm(d))		SPEC LIMIT (dBm)		MARGIN (dB)		EUT Rotation	Antenna Height	Notes	dBuV/m	dBuV/m
	pk	av	pk	av		pk	av	pk	av	pk	av					
1851.25	128.6				-7.8	25.5		-13.0		-30.3		160	1.3	Fundamental (Low Band)	120.8	-7.8
3702.5	50.1	41.4	52.4	43.3	-0.4	-43.3	-52.4	-13.0	-13.0	-6.61	-15.6	220	1.1		52.0	42.9
5553.75	71.2	62.2	68.3	58.6	4.5	-19.6	-28.6	-13.0	-13.0	-17.7	-28.1	220	1.2		75.7	66.7
7405	56.4	46	50.1	39.1	8.2	-30.7	-41.1	-13.0	-13.0	-27	-37.1	185	1.3		64.6	54.2
9256.25	44.7	33.6	44.9	34.8	10.4	-40.0	-50.1	-13.0	-13.0	-24.3	-34.4	200	1.2		55.3	45.2
11107.5	44.6	33	44.8	34.7	13.1	-37.3	-47.4	-13.0	-13.0	-24.9				noise floor	57.9	47.8
12958.75	44.5		44.6		12.7	-37.9		-13.0		-21				noise floor	57.3	12.7
14810	44.3		45.1		16.1	-34.0		-13.0							61.2	16.1
															#VALUE!	#VALUE!
															#VALUE!	#VALUE!
1880	128.4				-7.6	25.5		-13.0		25.5				Fundamental (Mid Band)	120.8	-7.6
3760	49.6	40.7	51.9	41.9	-0.3	-43.6	-53.6	-13.0	-13.0	-30.6	-40.6	205	1.4		51.6	41.6
5640	61.5	52	66.6	55.8	4.7	-24.0	-34.8	-13.0	-13.0	-11	-21.8	205	1		71.3	60.5
7520	51.2	42.1	47.1	37.4	8.4	-35.6	-44.7	-13.0	-13.0	-22.6	-31.7	210	1		59.6	50.5
9400	45.4	34.9	45.1	34.9	10.0	-39.9	-50.4	-13.0	-13.0	-26.9	-37.4	190	1		55.4	44.9
11280	44	32.5	44.9	34.4	13.2	-37.2	-47.7	-13.0	-13.0	-24.2	-34.7	195	1.1		58.1	47.6
13160	45.8		45.3		13.2	-36.3		-13.0		-23.3				noise floor	59.0	13.2
15040	44.7		44		17.0	-33.5		-13.0		-20.5				noise floor	61.7	17.0
															#VALUE!	#VALUE!
															#VALUE!	#VALUE!
1906.75	128.2				-7.4	25.5		-13.0		25.5				Fundamental (High Band)	120.8	-7.4
3817.5	51.4	41.9	59.8	49.7	-0.1	-35.6	-45.7	-13.0	-13.0	-22.6	-32.7	25	1.2	noise floor	59.7	49.6
5726.25	69.1	59	62.9	52.4	4.9	-21.2	-31.3	-13.0	-13.0	-8.23	-18.3	225	1.1		74.0	63.9
7635	52.2	41.5	46.5	36.3	8.5	-34.5	-45.2	-13.0	-13.0	-21.5	-32.2	220	1		60.7	50.0
9643.75	44.8	34.2	44.5	33.8	9.8	-40.7	-51.3	-13.0	-13.0	-27.7	-38.3	210	1.4		54.6	44.0
11452.5	43.2		43.6		13.3	-38.4		-13.0		-25.4				noise floor	56.9	13.3
13361.25	44.7		44.8		14.0	-36.5		-13.0		-23.5					58.8	14.0
15270					17.3										17.3	17.3
															#VALUE!	#VALUE!
															#VALUE!	#VALUE!

Photograph of Test Setup



Photograph of Test Setup

