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, Paragraphs 15.109(a) and 15.209(a); Part 22, Paragraph 22.917(b)(2); and Part 24, Paragraph 24.238(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.

Testing Start Date: 03 June 2004

Testing End Date: 09 June 2004

simultaneously

- TÜV AMERICA, INC. -

Reviewing Engineer:

Jim Owen
(EMC Manager)

Test Engineer:

Alan Laudani
(EMC Engineer)

TÜV AMERICA, INC. 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone 858 678 1400 FAX 858 546 0364

Emissions Test Conditions: SPURIOUS RADIATED EMISSIONS

Roof (small open area test site)
SR-3, Shielded Room, 12' x 20' x 8', Metal Chamber (Prescans)

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

Test Equipment Used:

Model No.	Prop. No.	Description	Manufacturer	Serial No.	Date Cal'ed
HP8566B	744	Spectrum Analyzer	Hewlett Packard	2618A02913	01/04
AMF-5D-010180-35-10P	719	PreAmp	TUV America	549460	NCR*
3115	453	Antenna, Horn	Electro Mechanics Co	3564	02/04
FF6549-1	778	900 MHz High Pass Filter	Sage	005	NCR*
FF6549-2	783	900 MHz High Pass Filter	ABES	008	NCR*
12A-18	6377	Horn Antenna	MI Technologies	21554MB	NCR*
1 Meter Prescan 30 MHz - 1000 MHz Equipment List					
CBL6111	461	Bilog Antenna	Chase Electronics Li	1291	NCR*
E4440A	6814	Spectrum Analyzer	Hewlett Packard	MY42510441	08/03

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

No emissions detected between 30 MHz to 1000 MHz. See Appendix for prescans.

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Technical Documentation

Test Data Sheets

and

Test Setups

TÜV AMERICA, INC. 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone 858 678 1400 FAX 858 546 0364

Kyocera Substitution SC402509

Model K7LE K484LC
6/8/04
Mode Transmit PCS FCC 24.238(a)

Frequency MHz	target level dBuV/m	Horn Gain dBi	cable loss dB	Signal Generator dBm	Total (EIRP) dBm	Spec dBm	Margin Subst. dBm

No emissions needed substitution

Substitution Procedure:
1. Select emissions that pass with less than 20 dB margin, note the Target level -- reading on spectrum analyzer.
2. Duplicate this targeted reading with Signal Generator, allowing for antenna horn gain and cable insertion loss.
3. Compare calculated power output to specification.

Tested by A. Laudani

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REPORT No: SC402509 TESTER: A. Laudani SPEC: FCC Part 15 para 15.109(a)

CUSTOMER: Kyocera Wireless Corporation TEST DIST: 3 Meters

E.U.T: K7LE1Trimode Gray Aktiv K484L sn 7B-X---0WB6VS TEST SITE: Roof

EUT MODE: Receive CDMA rx Synth BICONICAL: N/A

DATE: June 7, 2004 LOG: N/A

NOTES: Temp. 21°C, RH = 71 % OTHER: 453
above 1GHz: RBW & VBW 1 MHz for Pk; RBW 1MHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preamplifier Gain 900 MHz filter

v.beta1a

FREQ (MHz)	VERTICAL (dBuv) pk	VERTICAL (dBuv) av	HORIZONTAL (dBuv) pk	HORIZONTAL (dBuv) av	CF (dB/m)	MAX LEVEL (dBuV/m) pk	MAX LEVEL (dBuV/m) av	SPEC LIMIT (dBuV/m) pk	SPEC LIMIT (dBuV/m) av	MARGIN (dB) pk	MARGIN (dB) av	EUT Rotation	Antenna Height	Notes
1739.4	46.1	34.6	45.5	34.8	-9.1	**37.0**	**25.7**	74	54	-37.0	-28.3		1	noise floor
3478.8	45.4	33.7	45.9	33.8	-0.9	**45.0**	**32.9**	74	54	-29.0	-21.1		1	noise floor
5218.2	44.1	33.5	45.6	33.7	1.9	**47.5**	**35.6**	74	54	-26.5	-18.4		1	noise floor
6957.6	47.0	35.7	47.2	35.7	7.2	**54.4**	**42.9**	74	54	-19.6	-11.1		1	noise floor
8697.0	47.2	36.3	47.8	36.3	9.3	**57.1**	**45.6**	74	54	-16.9	-8.4		1	noise floor
10436.4	46.8	35.6	46.5	35.6	11.8	**58.6**	**47.4**	74	54	-15.4	-6.6		1	noise floor
12175.8	45.4	34.5	45.5	34.5	13.0	**58.5**	**47.5**	74	54	-15.5	-6.5		1	noise floor
13915.2	39.3	28.7	40.3	28.7	13.9	**54.2**	**42.6**	74	54	-19.8	-11.4		1	res bw = 100 kHz noise floor
15654.6	38.9	28.8	39.5	28.7	15.5	**55.0**	**44.3**	74	54	-19.0	-9.7		1	res bw = 100 kHz noise floor
17394.0	32.2	22.7	32.0	22.6	21.8	**54.0**	**44.5**	74	54	-20.0	-9.5		1	res bw = 30 kHz noise floor
1762.98	50.9	42.8	54.9	37.2	-8.9	**46.0**	**33.9**	74	54	-28.0	-20.1		1	noise floor
3525.96	45.0	33.8	45.0	33.8	-0.8	**44.2**	**33.0**	74	54	-29.8	-21.0		1	noise floor
5288.94	45.6	33.1	43.5	33.1	2.3	**47.9**	**35.4**	74	54	-26.1	-18.6		1	noise floor
7051.92	46.6	35.6	46.6	35.6	7.4	**54.0**	**43.0**	74	54	-20.0	-11.0		1	noise floor
8814.90	47.4	36.0	47.1	36.0	9.6	**57.0**	**45.6**	74	54	-17.0	-8.4		1	noise floor
10577.88	47.4	35.7	47.5	35.5	12.2	**59.7**	**47.9**	74	54	-14.3	-6.1		1	noise floor
12340.86	44.9	34.5	45.9	34.5	13.3	**59.2**	**47.8**	74	54	-14.8	-6.2		1	noise floor
14103.84	39.2	28.7	38.9	28.9	13.7	**52.9**	**42.6**	74	54	-21.1	-11.4		1	res bw = 100 kHz noise floor
15866.82	39.6	28.8	39.3	28.8	15.5	**55.1**	**44.3**	74	54	-18.9	-9.7		1	res bw = 100 kHz noise floor
17629.80	34.3	23.0	32.8	22.9	23.0	**57.3**	**46.0**	74	54	-16.7	-8.0		1	res bw = 30 kHz noise floor
1786.62	45.1	34.7	48.6	35.8	-8.8	**39.8**	**27.0**	74	54	-34.2	-27.0		1	noise floor
3573.24	45.1	33.6	50.0	34.7	-0.7	**49.3**	**34.0**	74	54	-24.7	-20.0		1	noise floor
5359.86	43.7	32.5	43.8	32.6	2.8	**46.6**	**35.4**	74	54	-27.4	-18.6		1	noise floor
7146.48	46.5	35.6	47.7	35.7	7.5	**55.2**	**43.2**	74	54	-18.8	-10.8		1	noise floor
8933.1	47.1	36.2	47.7	36.3	9.8	**57.5**	**46.1**	74	54	-16.5	-7.9		1	noise floor
10719.72	46.1	35.2	47.1	35.2	12.5	**59.6**	**47.7**	74	54	-14.4	-6.3		1	noise floor
12506.34	39.6	28.4	39.2	28.5	13.6	**53.2**	**42.1**	74	54	-20.8	-11.9		1	res bw = 100 kHz noise floor
14292.96	38.8	28.7	39.2	28.8	14.0	**53.2**	**42.8**	74	54	-20.8	-11.2		1	res bw = 100 kHz noise floor
16079.58	38.9	28.9	38.8	28.9	15.4	**54.3**	**44.3**	74	54	-19.7	-9.7		1	res bw = 100 kHz noise floor
17866.20	32.4	22.6	33.5	22.7	23.3	**56.8**	**46.0**	74	54	-17.2	-8.0		1	res bw = 30 kHz noise floor

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REPORT No: SC402509 TESTER: A. Laudani SPEC: FCC Part 22 para 22.917(b)(2)

CUSTOMER: Kyocera Wireless Corporation TEST DIST: 3 Meters

E U T: K7LE1 Trimode Gray Aktiv K484L sn 7B-X----0WB6VS TEST SITE: Roof

EUT MODE: Transmit CDMA tx harmonics BICONICAL: N/A

DATE: June 7, 2004 ERP Factor 7 LOG: N/A

NOTES: Temp. 21°C, RH = 71 % HORN: 453
Part 22 - RBW 30 kHz

CF = Antenna Factor + Cable Loss - Preamplifier Gain 900 MHz Filter

v.beta1a

FREQ (MHz)	VERTICAL (dBuv) pk	HORIZONTAL (dBuv) pk	CF (dB/m)	MAX LEVEL (dBm) pk	SPEC LIMIT (dBm) pk	MARGIN (dB) pk	EUT Rotation	Antenna Height	Notes
824.7									Fundamental (Low Band)
1649.4	50.4	50.3	-9.6	**-56.6**	-13.0	-43.6	232	1.1	
2474.1	43.1	41.7	-5.8	**-60.0**	-13.0	-47.0		1	noise floor
3298.8	44.9	46.0	-1.5	**-52.9**	-13.0	-39.9		1	noise floor
4123.5	46.0	45.5	-0.5	**-51.9**	-13.0	-38.9		1	noise floor
4948.2	45.7	44.9	0.3	**-51.4**	-13.0	-38.4		1	noise floor
5772.9	42.8	44.4	4.8	**-48.1**	-13.0	-35.1		1	noise floor
6597.6	47.4	47.5	6.3	**-43.5**	-13.0	-30.5		1	noise floor
7422.3	46.6	46.6	7.8	**-43.0**	-13.0	-30.0		1	noise floor
8247.00	47.6	47.0	8.6	**-41.2**	-13.0	-28.2		1	noise floor
836.49									Fundamental (Mid Band)
1672.98	47.5	53.2	-9.5	**-53.7**	-13.0	-40.7	40	1.4	
2509.47	46.0	46.1	-5.6	**-56.9**	-13.0	-43.9		1	noise floor
3345.96	44.8	45.1	-1.4	**-53.6**	-13.0	-40.6		1	noise floor
4182.45	45.4	45.9	-0.7	**-52.2**	-13.0	-39.2		1	noise floor
5018.94	44.1	45.8	0.6	**-50.9**	-13.0	-37.9		1	noise floor
5855.43	47.8	47.9	5.2	**-44.3**	-13.0	-31.3		1	noise floor
6691.92	46.5	47.6	6.6	**-43.2**	-13.0	-30.2		1	noise floor
7528.41	47.2	46.7	7.9	**-42.2**	-13.0	-29.2		1	noise floor
8364.90	47.5	48.0	8.7	**-40.7**	-13.0	-27.7		1	noise floor
848.31									Fundamental (High Band)
1696.62	48.6	48.4	-9.3	**-58.1**	-13.0	-45.1	40	1.1	
2544.93	48.6	47.4	-5.4	**-54.2**	-13.0	-41.2		1	noise floor
3393.24	45.4	51.0	-1.2	**-47.5**	-13.0	-34.5		1	noise floor
4241.55	46.0	45.9	-0.9	**-52.3**	-13.0	-39.3		1	noise floor
5089.86	44.6	44.2	1.1	**-51.7**	-13.0	-38.7		1	noise floor
5938.17	47.4	49.2	5.5	**-42.6**	-13.0	-29.6		1	noise floor
6786.48	46.8	46.6	6.8	**-43.8**	-13.0	-30.8		1	noise floor
7634.79	46.3	46.6	8.0	**-42.7**	-13.0	-29.7		1	noise floor
8483.10	46.7	47.0	8.8	**-41.6**	-13.0	-28.6		1	noise floor

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REPORT No: SC402509 TESTER: Alan Laudani SPEC: FCC Part 15 para 15.109(a)

CUSTOMER: Kyocera Wireless Corporation TEST DIST: 3 Meters

E U T: K7LE Trimode Gray Aktiv "K484L" sn 7B-X---0WB6VS TEST SITE: Roof

EUT MODE: Receive FM rx Synth BICONICAL: N/A

DATE: June 7, 2004 LOG: N/A

NOTES: Temp. 21°C, RH = 70 % OTHER: 453
above 1GHz: RBW & VBW 1 MHz for Pk; RBW 1MHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preamplifier Gain 900 MHz Filter

v beta1a

FREQ (MHz)	VERTICAL (dBuv) pk	VERTICAL (dBuv) av	HORIZONTAL (dBuv) pk	HORIZONTAL (dBuv) av	CF (dB/m)	MAX LEVEL (dBuV/m) pk	MAX LEVEL (dBuV/m) av	SPEC LIMIT (dBuV/m) pk	SPEC LIMIT (dBuV/m) av	MARGIN (dB) pk	MARGIN (dB) av	EUT Rotation	Antenna Height	Notes
1738.104	46.2	34.7	46.8	35.0	-9.1	**37.7**	**25.9**	74	54	-36.3	-28.1		1	noise floor
3476.208	45.7	33.9	45.7	34.1	-0.9	**44.8**	**33.2**	74	54	-29.2	-20.8		1	noise floor
5214.312	44.3	33.1	44.4	33.7	1.9	**46.3**	**35.6**	74	54	-27.7	-18.4		1	noise floor
6952.416	46.5	35.6	47.2	35.6	7.2	**54.4**	**42.8**	74	54	-19.6	-11.2		1	noise floor
8690.520	47.1	36.2	46.9	36.2	9.3	**56.4**	**45.5**	74	54	-17.6	-8.5		1	noise floor
10428.624	46.6	35.6	46.9	35.6	11.8	**58.7**	**47.4**	74	54	-15.3	-6.6		1	noise floor
12166.728	45.8	34.4	45.0	34.4	13.0	**58.8**	**47.4**	74	54	-15.2	-6.6		1	noise floor
13904.832	39.1	28.7	38.7	28.8	13.9	**53.0**	**42.7**	74	54	-21.0	-11.3		1	res bw = 100 kHz noise floor
15642.936	38.0	28.6	39.1	28.6	15.5	**54.6**	**44.1**	74	54	-19.4	-9.9		1	res bw = 100 kHz noise floor
17381.040	32.1	22.5	32.8	22.6	21.7	**54.5**	**44.3**	74	54	-19.5	-9.7		1	res bw = 30 kHz noise floor
1763.004	62.0	40.0	56.3	38.7	-8.9	**53.1**	**31.1**	74	54	-20.9	-22.9		1	noise floor
3526.008	44.7	34.0	45.7	34.0	-0.8	**44.9**	**33.2**	74	54	-29.1	-20.8		1	noise floor
5289.012	45.1	33.9	44.8	33.9	2.3	**47.4**	**36.2**	74	54	-26.6	-17.8		1	noise floor
7052.016	46.7	35.6	47.1	35.6	7.4	**54.5**	**43.0**	74	54	-19.5	-11.0		1	noise floor
8815.020	48.0	36.1	47.6	36.2	9.6	**57.6**	**45.8**	74	54	-16.4	-8.2		1	noise floor
10578.024	48.2	35.5	47.3	35.6	12.2	**60.4**	**47.8**	74	54	-13.6	-6.2		1	noise floor
12341.028	46.0	34.6	45.5	34.7	13.3	**59.3**	**48.0**	74	54	-14.7	-6.0		1	noise floor
14104.032	38.8	28.8	38.9	28.9	13.7	**52.6**	**42.6**	74	54	-21.4	-11.4		1	res bw = 100 kHz noise floor
15867.036	39.2	28.9	40.2	28.9	15.5	**55.7**	**44.4**	74	54	-18.3	-9.6		1	res bw = 100 kHz noise floor
17630.040	32.5	23.1	31.3	23.1	23.0	**55.5**	**46.1**	74	54	-18.5	-7.9		1	res bw = 30 kHz noise floor
1787.964	45.9	35.0	48.0	35.5	-8.8	**39.2**	**26.7**	74	54	-34.8	-27.3		1	noise floor
3575.928	44.6	33.3	45.8	33.6	-0.7	**45.1**	**32.9**	74	54	-28.9	-21.1		1	noise floor
5363.892	43.0	31.7	42.9	31.8	2.8	**45.8**	**34.6**	74	54	-28.2	-19.4		1	noise floor
7151.856	47.1	35.5	46.4	35.6	7.5	**54.6**	**43.1**	74	54	-19.4	-10.9		1	noise floor
8939.820	47.4	36.4	48.2	36.4	9.9	**58.1**	**46.3**	74	54	-15.9	-7.7		1	noise floor
10727.784	46.3	35.3	46.3	35.4	12.5	**58.8**	**47.9**	74	54	-15.2	-6.1		1	noise floor
12515.748	39.5	28.5	39.2	28.6	13.6	**53.1**	**42.2**	74	54	-20.9	-11.8		1	res bw = 100 kHz noise floor
14303.712	38.7	28.9	39.5	29.0	14.0	**53.5**	**43.0**	74	54	-20.5	-11.0		1	res bw = 100 kHz noise floor
16091.676	39.0	29.1	38.7	29.0	15.4	**54.4**	**44.5**	74	54	-19.6	-9.5		1	res bw = 100 kHz noise floor
17879.640	33.7	23.6	34.3	23.7	23.3	**57.6**	**47.0**	74	54	-16.4	-7.0		1	res bw = 30 kHz noise floor

REPORT No: SC402509 TESTER: A. Laudani SPEC: FCC Part 22 para 22.917(b)(2)

CUSTOMER: Kyocera Wireless Corporation TEST DIST: 3 Meters

E U T: K7LE1Trimode Gray Aktiv K484L sn 7B-X—0WB6VS TEST SITE: Roof

EUT MODE: Transmit FM tx harmonics BICONICAL: N/A

DATE: June 7, 2004 ERP Factor 7 LOG: N/A

NOTES: Temp. 21°C, RH = 70 % HORN: 453

Part 22 - RBW 30 kHz

CF = Antenna Factor + Cable Loss - Preamplifier Gain 900 MHz Filter

v.beta1a

FREQ (MHz)	VERTICAL (dBuv) pk	HORIZONTAL (dBuv) pk	CF (dB/m)	MAX LEVEL (dBm) pk	SPEC LIMIT (dBm) pk	MARGIN (dB) pk	EUT Rotation	Antenna Height	Notes
824.04									Fundamental (Low Band)
1648.08	48.3	50.6	-9.7	**-56.4**	-13.0	-43.4	230	1.1	
2472.12	40.3	42.2	-5.8	**-61.0**	-13.0	-48.0		1	noise floor
3296.16	44.8	44.9	-1.5	**-54.0**	-13.0	-41.0		1	noise floor
4120.20	46.0	46.0	-0.5	**-51.9**	-13.0	-38.9		1	noise floor
4944.24	45.6	45.5	0.2	**-51.5**	-13.0	-38.5		1	noise floor
5768.28	43.5	46.3	4.8	**-46.2**	-13.0	-33.2		1	noise floor
6592.32	46.9	47.2	6.3	**-43.8**	-13.0	-30.8		1	noise floor
7416.36	47.0	46.3	7.8	**-42.6**	-13.0	-29.6		1	noise floor
8240.40	47.2	46.9	8.6	**-41.6**	-13.0	-28.6		1	noise floor
836.49									Fundamental (Mid Band)
1672.98	48.7	49.5	-9.5	**-57.4**	-13.0	-44.4	205	1.1	
2509.47	47.3	46.6	-5.6	**-55.7**	-13.0	-42.7		1	noise floor
3345.96	45.7	45.1	-1.4	**-53.0**	-13.0	-40.0		1	noise floor
4182.45	46.2	45.7	-0.7	**-51.9**	-13.0	-38.9		1	noise floor
5018.94	46.0	45.5	0.6	**-50.7**	-13.0	-37.7		1	noise floor
5855.43	48.8	48.4	5.2	**-43.4**	-13.0	-30.4		1	noise floor
6691.92	46.7	47.4	6.6	**-43.4**	-13.0	-30.4		1	noise floor
7528.41	47.6	46.7	7.9	**-41.8**	-13.0	-28.8		1	noise floor
8364.90	47.8	48.3	8.7	**-40.4**	-13.0	-27.4		1	noise floor
848.97									Fundamental (High Band)
1697.94	48.3	48.2	-9.3	**-58.4**	-13.0	-45.4	50	1.2	
2546.91	47.4	46.8	-5.4	**-55.4**	-13.0	-42.4		1	noise floor
3395.88	46.5	51.4	-1.2	**-47.1**	-13.0	-34.1		1	noise floor
4244.85	46.8	46.2	-0.9	**-51.5**	-13.0	-38.5		1	noise floor
5093.82	44.3	44.7	1.1	**-51.6**	-13.0	-38.6		1	noise floor
5942.79	47.7	47.8	5.6	**-44.0**	-13.0	-31.0		1	noise floor
6791.76	46.8	47.2	6.8	**-43.4**	-13.0	-30.4		1	noise floor
7640.73	46.6	47.1	8.0	**-42.2**	-13.0	-29.2		1	noise floor
8489.70	48.2	47.0	8.8	**-40.4**	-13.0	-27.4		1	noise floor

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REPORT No: SC402509 TESTER: Alan Laudani SPEC: FCC Part 15 para 15.109(a)

CUSTOMER: Kyocera Wireless Corporation TEST DIST: 3 Meters

E U T: K7LE Trimode Gray Aktiv "K484L" sn 7B-X----0WB6VS TEST SITE: Roof

EUT MODE: Receive PCS rx Synth BICONICAL: N/A

DATE: June 7, 2004 LOG: N/A

NOTES: Temp. 17°C, RH = 83 % OTHER: 453
above 1GHz: RBW & VBW 1 MHz for Pk; RBW 1MHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preamplifier Gain 2000 MHz Filter

v.beta1a

FREQ (MHz)	VERTICAL (dBuv) pk	VERTICAL (dBuv) av	HORIZONTAL (dBuv) pk	HORIZONTAL (dBuv) av	CF (dB/m)	MAX LEVEL (dBuV/m) pk	MAX LEVEL (dBuV/m) av	SPEC LIMIT (dBuV/m) pk	SPEC LIMIT (dBuV/m) av	MARGIN (dB) pk	MARGIN (dB) av	EUT Rotation	Antenna Height	Notes
1716.667	44.9	33.8	44.8	33.8	-9.2	**35.7**	**24.6**	74	54	-38.3	-29.4		1	noise floor
3433.333	45.6	33.8	44.7	33.8	-1.0	**44.6**	**32.8**	74	54	-29.4	-21.2		1	noise floor
5150.000	44.4	33.7	44.5	33.7	1.5	**46.0**	**35.2**	74	54	-28.0	-18.8		1	noise floor
6866.666	47.4	36.5	47.4	36.5	7.0	**54.4**	**43.5**	74	54	-19.6	-10.5		1	noise floor
8583.333	47.7	36.6	47.6	36.6	9.0	**56.7**	**45.6**	74	54	-17.3	-8.4		1	noise floor
10300.000	47.3	35.6	46.1	35.6	11.4	**58.7**	**47.0**	74	54	-15.3	-7.0		1	noise floor
12016.666	45.5	34.9	45.0	34.8	12.7	**58.2**	**47.6**	74	54	-15.8	-6.4		1	noise floor
13733.333	38.3	29.1	39.0	29.1	14.6	**53.6**	**43.7**	74	54	-20.4	-10.3		1	res bw = 100 kHz noise floor
15449.999	39.6	29.0	38.5	29.0	15.6	**55.2**	**44.6**	74	54	-18.8	-9.4		1	res bw = 100 kHz noise floor
17166.666	33.6	23.2	32.5	23	20.9	**54.5**	**44.1**	74	54	-19.5	-9.9		1	res bw = 30 kHz noise floor
1742.222	44.7	33.6	44.6	33.6	-9.0	**35.7**	**24.6**	74	54	-38.3	-29.4		1	noise floor
3484.444	44.9	33.7	44.4	33.8	-0.9	**44.0**	**32.9**	74	54	-30.0	-21.1		1	noise floor
5226.667	44.3	33.3	44.4	33.2	2.0	**46.4**	**35.3**	74	54	-27.6	-18.7		1	noise floor
6968.889	46.7	35.6	47.0	35.7	7.2	**54.2**	**42.9**	74	54	-19.8	-11.1		1	noise floor
8711.111	48.6	36.1	47.1	36.1	9.3	**57.9**	**45.4**	74	54	-16.1	-8.6		1	noise floor
10453.333	46.3	35.7	46.5	35.7	11.9	**58.4**	**47.6**	74	54	-15.6	-6.4		1	noise floor
12195.555	44.5	34.4	44.9	34.3	13.1	**58.0**	**47.5**	74	54	-16.0	-6.5		1	noise floor
13937.778	39.4	28.8	39.0	28.7	13.8	**53.2**	**42.6**	74	54	-20.8	-11.4		1	res bw = 100 kHz noise floor
15680.000	40.5	28.7	38.4	28.7	15.5	**56.0**	**44.2**	74	54	-18.0	-9.8		1	res bw = 100 kHz noise floor
17422.222	33.7	22.8	33.8	23.0	21.9	**55.7**	**44.9**	74	54	-18.3	-9.1		1	res bw = 30 kHz noise floor
1767.777	43.8	33.3	44.6	33.4	-8.9	**35.7**	**24.5**	74	54	-38.3	-29.5		1	noise floor
3535.554	44.4	33.4	44.5	33.5	-0.8	**43.7**	**32.7**	74	54	-30.3	-21.3		1	noise floor
5303.331	43.9	33.1	38.8	33.0	2.4	**46.3**	**35.5**	74	54	-27.7	-18.5		1	noise floor
7071.108	47.5	35.7	46.5	35.7	7.4	**54.9**	**43.1**	74	54	-19.1	-10.9		1	noise floor
8838.885	46.3	36.3	47.6	36.3	9.6	**57.2**	**45.9**	74	54	-16.8	-8.1		1	noise floor
10606.662	46.2	35.3	46.7	35.3	12.2	**58.9**	**47.5**	74	54	-15.1	-6.5		1	noise floor
12374.439	45.2	34.4	45.8	34.5	13.4	**59.2**	**47.9**	74	54	-14.8	-6.1		1	noise floor
14142.216	38.4	28.7	40.0	28.8	13.7	**53.7**	**42.5**	74	54	-20.3	-11.5		1	res bw = 100 kHz noise floor
15909.993	39.0	28.9	39.8	28.8	15.4	**55.2**	**44.3**	74	54	-18.8	-9.7		1	res bw = 100 kHz noise floor
17677.77	33.0	23.3	34.5	23.6	23.3	**57.8**	**46.9**	74	54	-16.2	-7.1		1	res bw = 30 kHz noise floor

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REPORT No: SC402509 TESTER: Chuck Rickard SPEC: FCC Part 15 para 15.209(a)

CUSTOMER: Kyocera Wireless Corporation TEST DIST: 3 Meters

E U T: K7LE Trimode Gray Aktiv "K484L" sn 7B-X----0W/B6VS TEST SITE: Roof

EUT MODE: Transmit PCS tx Synth BICONICAL: N/A

DATE: June 4, 2004 LOG: N/A

NOTES: Temp: 16°C RH 70% OTHER: 453
above 1GHz: RBW & VBW 1 MHz for Pk; RBW 1MHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preamplifier Gain

v.beta1a

FREQ (MHz)	VERTICAL (dBuv) pk	VERTICAL (dBuv) av	HORIZONTAL (dBuv) pk	HORIZONTAL (dBuv) av	CF (dB/m)	MAX LEVEL (dBuV/m) pk	MAX LEVEL (dBuV/m) av	SPEC LIMIT (dBuV/m) pk	SPEC LIMIT (dBuV/m) av	MARGIN (dB) pk	MARGIN (dB) av	EUT Rotation	Antenna Height	Notes
1481	65.5	51.1	67.3	55.1	-10.8	**56.5**	**44.3**	74	54	-17.5	-9.7		1	noise floor
2962	44.7	34.9	43.6	34.0	-2.8	**41.9**	**32.1**	74	54	-32.1	-21.9		1	noise floor
4443	41.3	31.5	42.1	32.8	-1.6	**40.5**	**31.2**	74	54	-33.5	-22.8		1	noise floor
5924	42	31.2	44.4	34.6	5.5	**49.9**	**40.1**	74	54	-24.1	-13.9		1	noise floor
7405	44.5	34.8	41.4	31.9	7.8	**52.3**	**42.6**	74	54	-21.7	-11.4	194	1	
8886	43.2	34.3	43.7	33.9	9.7	**53.4**	**44.0**	74	54	-20.6	-10.0		1	noise floor
10367	41.5	31.5	42.9	31.9	11.6	**54.5**	**43.5**	74	54	-19.5	-10.5		1	noise floor
11848	41.7	31.7	41.7	32.3	12.8	**54.5**	**45.1**	74	54	-19.5	-8.9		1	noise floor
13329	35	24.2	31.2	21.7	14.5	**49.5**	**38.7**	74	54	-24.5	-15.3		1	res bw = 100 kHz noise floor
14810	33.0	23.3	31.1	21.8	15.2	**48.2**	**38.5**	74	54	-25.8	-15.5		1	res bw = 100 kHz noise floor
1504	49.1	37.3	51.4	42.1	-10.6	**40.8**	**31.5**	74	54	-33.2	-22.5		1	noise floor
3008	42.8	33	41.9	33	-2.6	**40.2**	**30.4**	74	54	-33.8	-23.6		1	noise floor
4512	43.2	33.7	42.7	33.0	-1.7	**41.5**	**32.0**	74	54	-32.5	-22.0		1	noise floor
6016	43.4	33.8	43.4	33.6	5.8	**49.2**	**39.6**	74	54	-24.8	-14.4		1	noise floor
7520	45.5	36.6	44.5	36.2	7.9	**53.4**	**44.5**	74	54	-20.6	-9.5	121	1	
9024	43.3	33.6	42.9	33.6	10.0	**53.3**	**43.6**	74	54	-20.7	-10.4		1	noise floor
10528	42.5	32.6	42.5	32.7	12.1	**54.6**	**44.8**	74	54	-19.4	-9.2		1	noise floor
12032	41.4	32.2	40.7	31.5	12.8	**54.2**	**45.0**	74	54	-19.8	-9.0		1	noise floor
13536	32.5	23.0	32.3	22.9	15.4	**47.9**	**38.4**	74	54	-26.1	-15.6		1	res bw = 100 kHz noise floor
15040	33.1	23.8	33.2	23.8	15.8	**49.0**	**39.6**	74	54	-25.0	-14.4		1	res bw = 100 kHz noise floor
1527	56.9	43.9	55.5	41.6	-10.4	**46.5**	**33.5**	74	54	-27.5	-20.5		1	noise floor
3054	44.4	34.5	43.5	34.1	-2.4	**42.0**	**32.1**	74	54	-32.0	-21.9		1	noise floor
4581	43	34.4	43.1	33.7	-1.4	**41.7**	**33.0**	74	54	-32.3	-21.0		1	noise floor
6108	44.4	34.8	44.6	34.8	5.9	**50.5**	**40.7**	74	54	-23.5	-13.3		1	noise floor
7635	51.6	42.3	48.4	40	8.0	**59.6**	**50.3**	74	54	-14.4	-3.7	162	1.6	
9162	43.5	33.9	43.4	33.8	9.7	**53.2**	**43.6**	74	54	-20.8	-10.4		1	noise floor
10689	41.6	32	41.8	32.4	12.4	**54.2**	**44.8**	74	54	-19.8	-9.2		1	noise floor
12216	40.6	31	40.6	31.5	13.1	**53.7**	**44.6**	74	54	-20.3	-9.4		1	noise floor
13743	34.3	24.0	33.7	24.1	14.6	**48.9**	**38.7**	74	54	-25.1	-15.3		1	res bw = 100 kHz noise floor
15270	33.6	23.5	33.2	23.5	15.7	**49.3**	**39.2**	74	54	-24.7	-14.8		1	res bw = 100 kHz noise floor

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REPORT No: SC402509 TESTER: Chuck Rickard SPEC: FCC Part 24 para 24.238(a)

CUSTOMER: Kyocera Wireless Corporation TEST DIST: 3 Meters

E U T: K7LE Trimode Gray Aktiv "K484L" sn 7B-X---0WB6VS TEST SITE: Roof

EUT MODE: Transmit PCS tx harmonics BICONICAL: N/A

DATE: June 3, 2004 EIRP Factor 5.5 LOG: N/A

NOTES: Temp. 17°C, RH = 70 % HORN: 453

Part 24 - RBW 1 MHz

CF = Antenna Factor + Cable Loss - Preamplifier Gain 2000 MHz Filter

v.beta1a

FREQ (MHz)	VERTICAL (dBuv) pk		HORIZONTAL (dBuv) pk		CF (dB/m)	MAX LEVEL (dBm) pk		SPEC LIMIT (dBm) pk		MARGIN (dB) pk		EUT Rotation	Antenna Height	Notes
1851.25														Fundamental (Low Band)
3702.50	46.9		53.2		-0.5	**-42.6**		-13.0		-29.6		177	1.2	
5553.75	43.1		41.6		3.9	**-48.2**		-13.0		-35.2		128	115	
7405.00	43.6		43.1		7.8	**-43.9**		-13.0		-30.9		140	1.8	
9256.25	44.2		45.7		9.5	**-40.1**		-13.0		-27.1		178	1.3	
11107.50	39.9		40.2		13.1	**-42.0**		-13.0		-29.0			1	noise floor
12958.75	43.7		44.0		12.5	**-38.8**		-13.0		-25.8			1	noise floor
14810.00	43.4		43.0		15.2	**-36.6**		-13.0		-23.6			1	noise floor
16661.25	42.5		43.1		18.2	**-34.0**		-13.0		-21.0			1	noise floor
18512.50	39.1		39.6		21.1	**-34.6**		-13.0		-21.6			1	noise floor
1880														Fundamental (Mid Band)
3760	50.8		50.2		-0.4	**-44.9**		-13.0		-31.9		145	1.4	
5640	39.9		38.2		4.3	**-51.1**		-13.0		-38.1		115	1.8	
7520	45		47.0		7.9	**-40.3**		-13.0		-27.3		221	1	
9400	43.1		42.9		9.2	**-43.0**		-13.0		-30			1	noise floor
11280	41.2		41		13.0	**-41.0**		-13.0		-28.0			1	noise floor
13160	44.4		44.5		13.4	**-37.3**		-13.0		-24.3			1	noise floor
15040	43.5		43.0		15.8	**-36.0**		-13.0		-23			1	noise floor
16920	41.7		41.2		19.7	**-33.8**		-13.0		-20.8			1	noise floor
18800	32		31.2		23.7	**-39.6**		-13.0		-26.6			1	res bw 100 kHz -- noise floor
1908.75														Fundamental (High Band)
3817.50	52.4		48.7		-0.4	**-43.2**		-13.0		-30.2		147	1.4	
5726.25	46.0		45.8		4.7	**-44.6**		-13.0		-31.6		140	1	
7635.00	51.7		47.7		8.0	**-35.5**		-13.0		-22.5		170	1.6	
9543.75	42.9		42.8		9.1	**-43.2**		-13.0		-30.2			1	noise floor
11452.50	40.5		41.1		13.0	**-41.2**		-13.0		-28.2			1	noise floor
13361.25	43.9		44.4		14.7	**-36.2**		-13.0		-23.2			1	noise floor
15270.00	43.6		43.4		15.7	**-36.0**		-13.0		-23			1	noise floor
17178.75	31.0		31.4		20.9	**-42.9**		-13.0		-29.9			1	res bw 100 kHz -- noise floor
19087.50	31.2		31.2		26.1	**-37.9**		-13.0		-24.9			1	res bw 100 kHz -- noise floor

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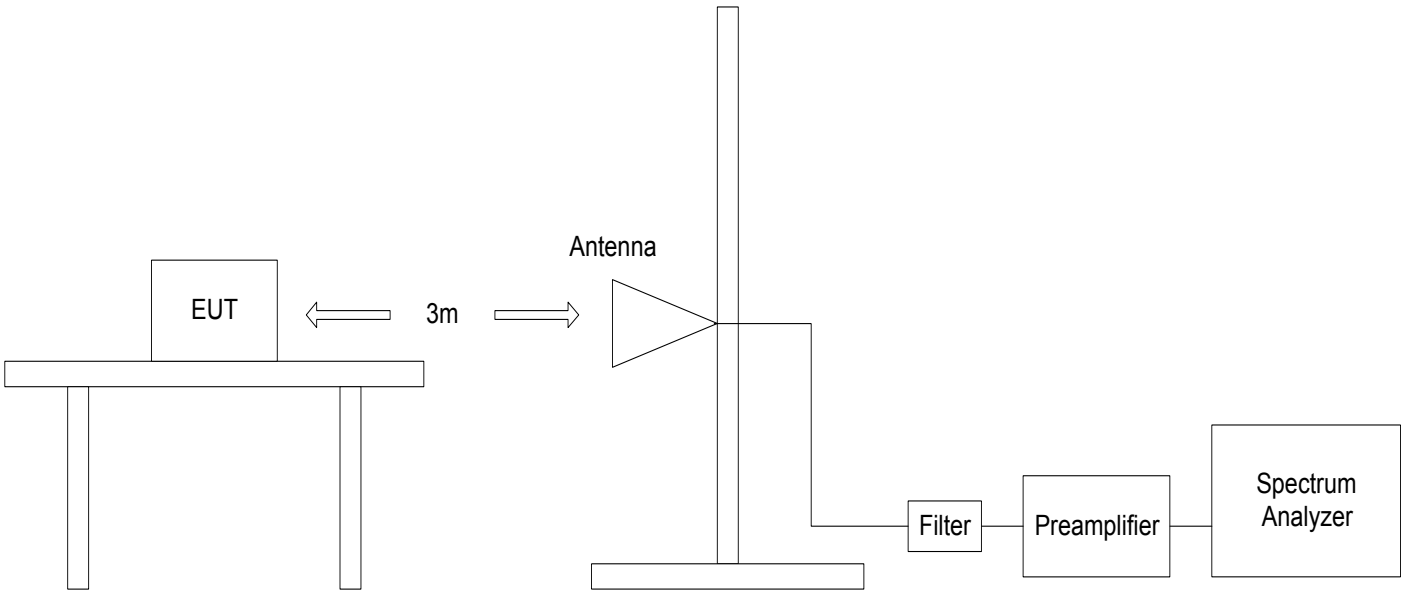
Test Setup for Spurious Radiated Emissions



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Photograph of Test Setup

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Photograph of Test Setup

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Appendix

Supplemental Information

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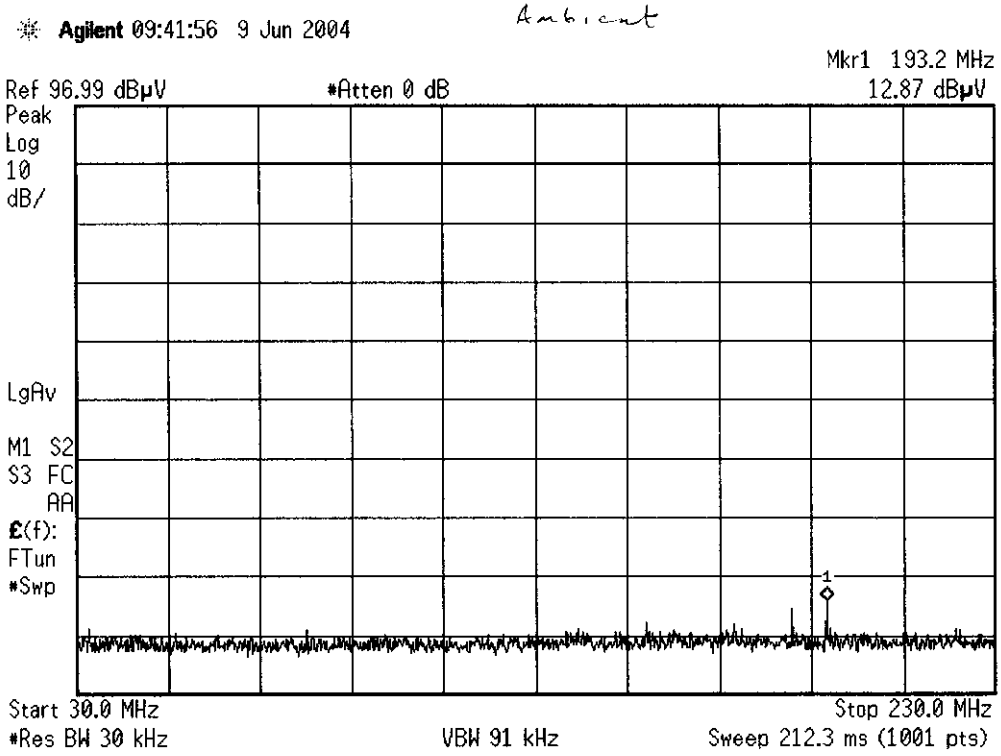
Ambient



SR3 - AAS
1 meter Prescan

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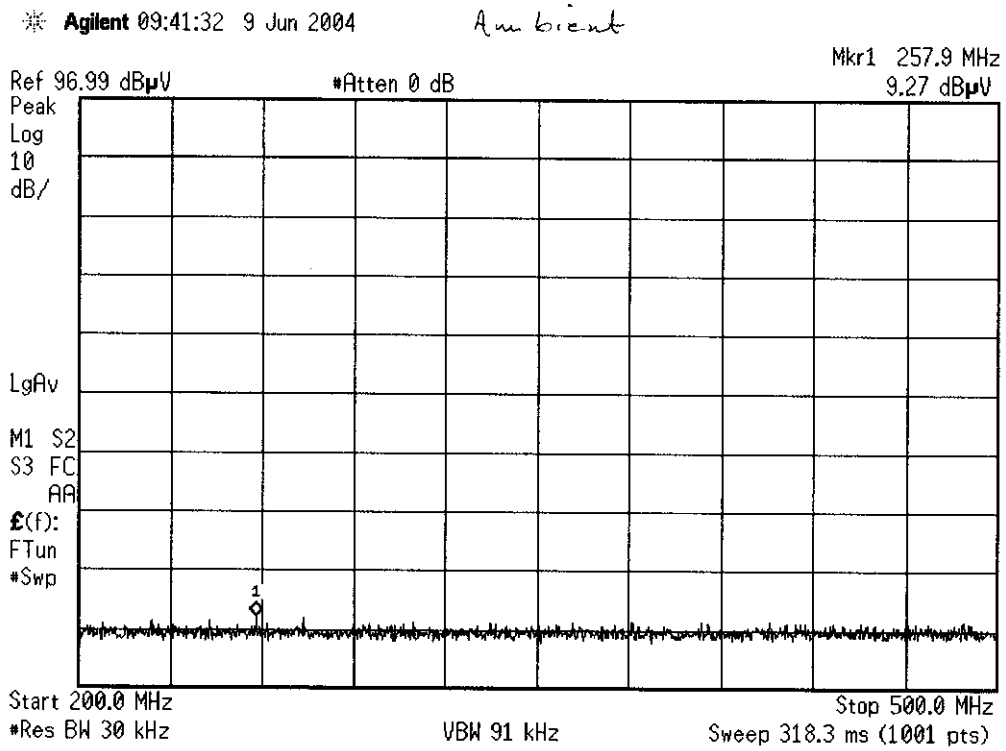

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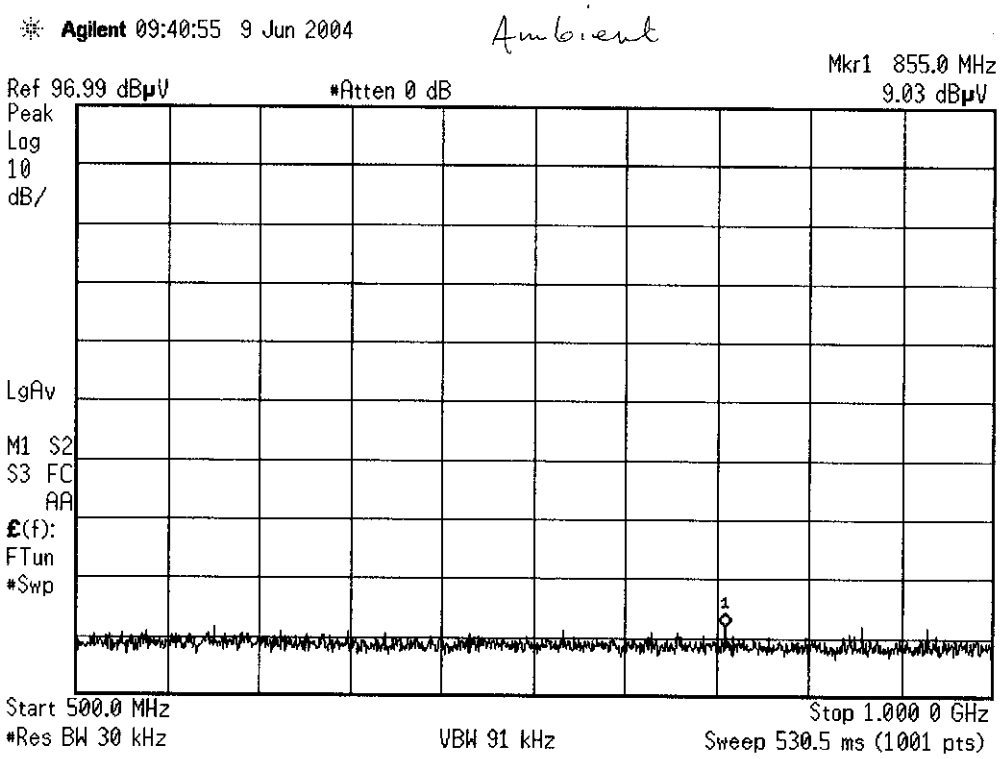

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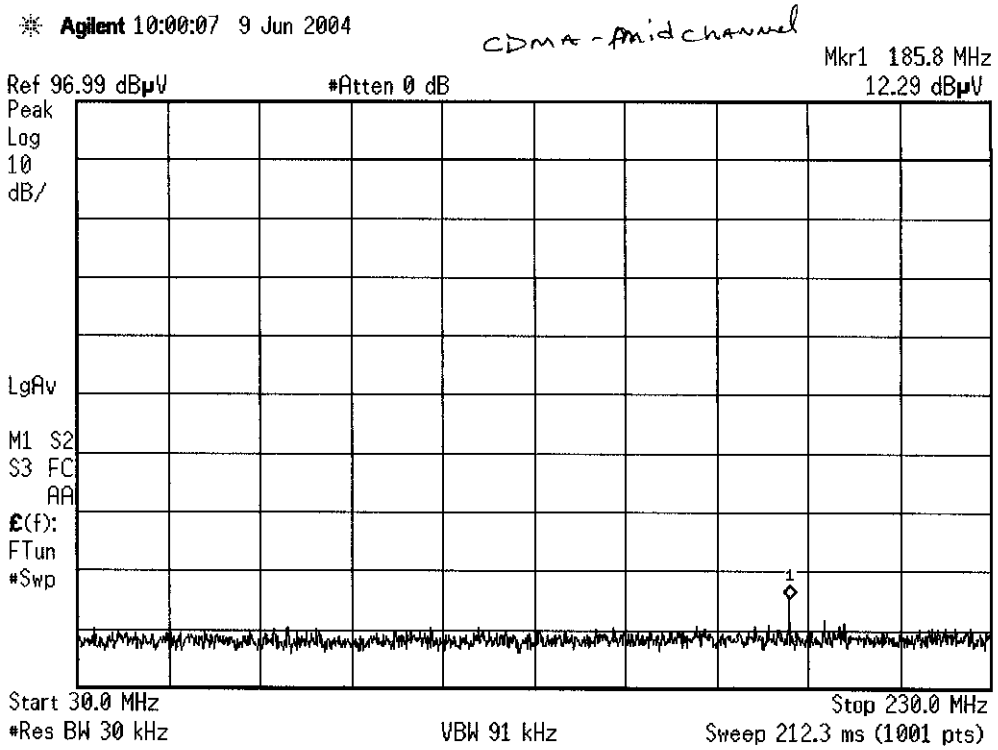

K484L
Trimode Aptiv
Receive
1 - meter Prescan
SR3 - AAB

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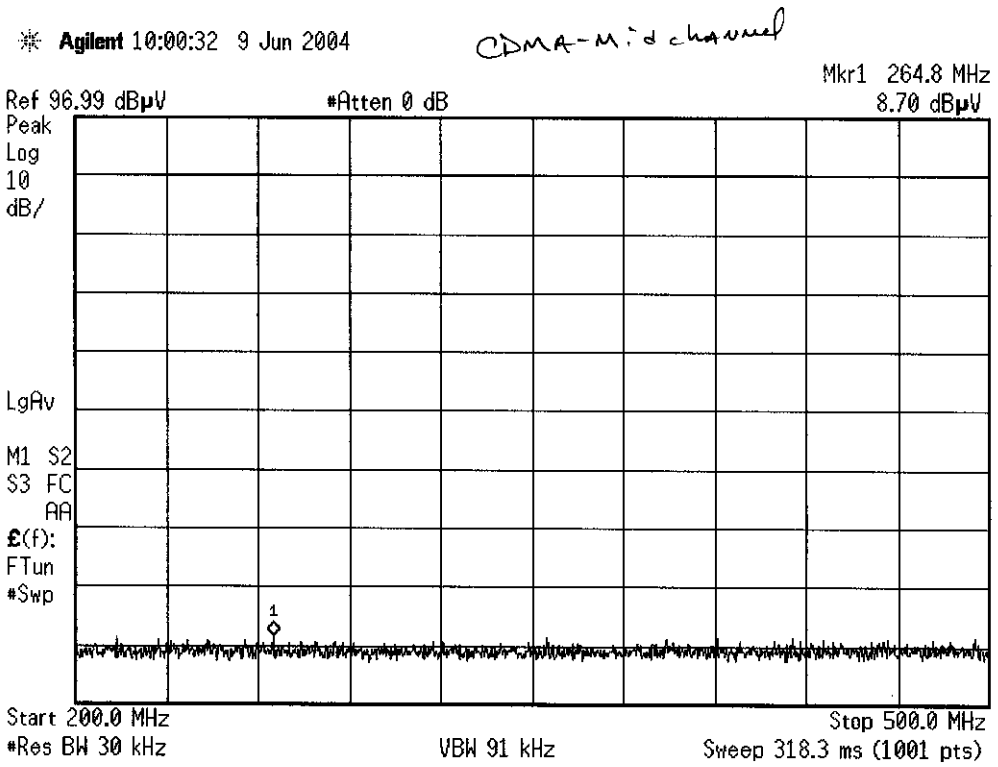
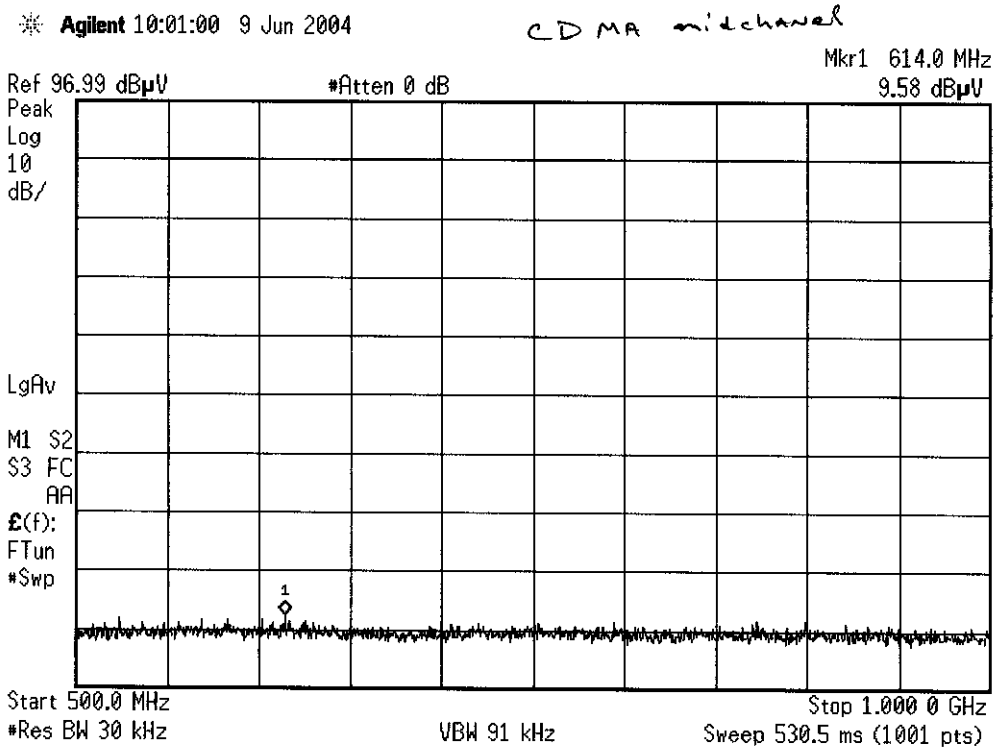


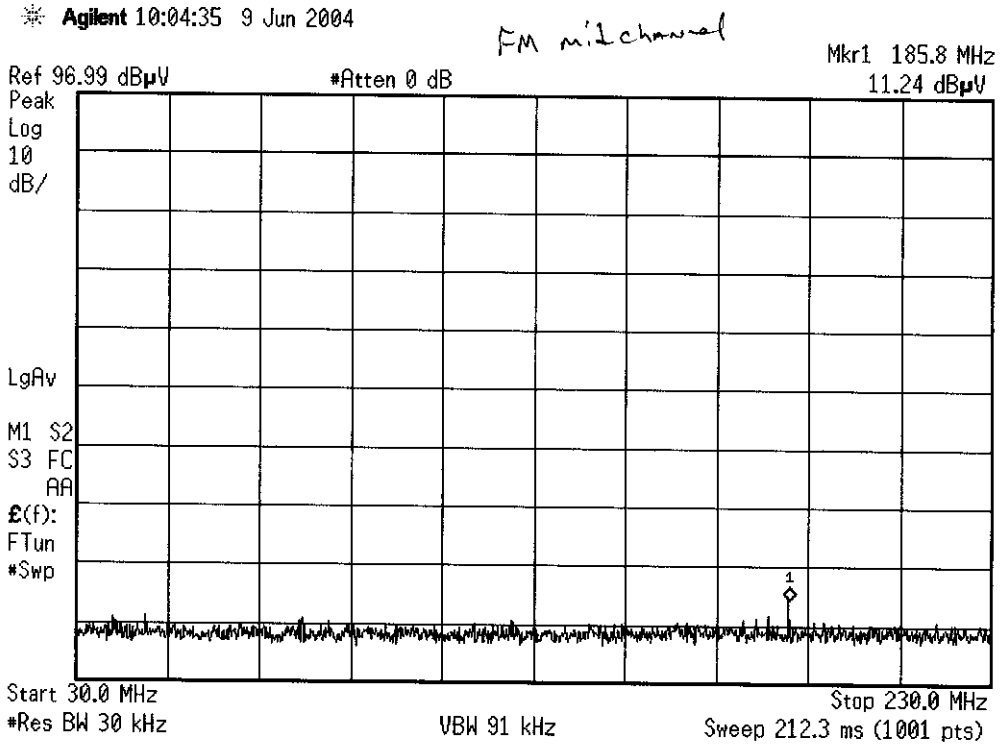
K484L
Trimode Aktiv.
Receive
1 - meter PreSCAN
SR3 - AAL

TÜV AMERICA, INC. 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone 858 678 1400 FAX 858 546 0364



K484L
Tri mode Aktiv
Receive
1 meter PreSCAN
SP3 - AAF

TÜV AMERICA, INC. 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone 858 678 1400 FAX 858 546 0364



K484L
Trimode Aktiv
Receive
1 - meter Prescan
SRS - ~~HF~~

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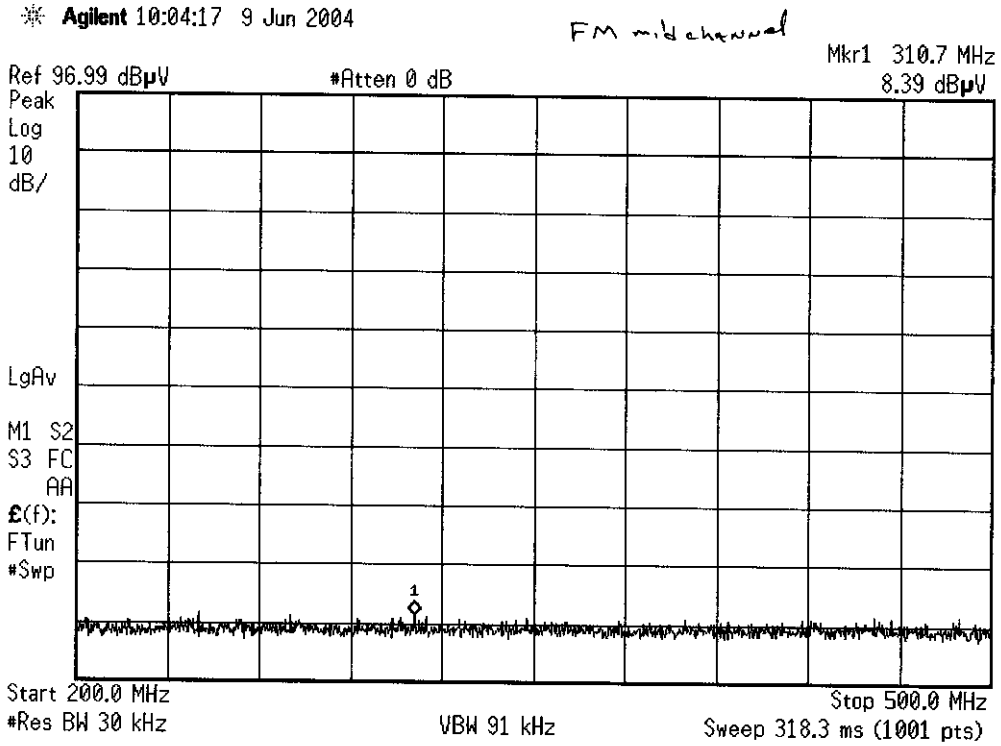
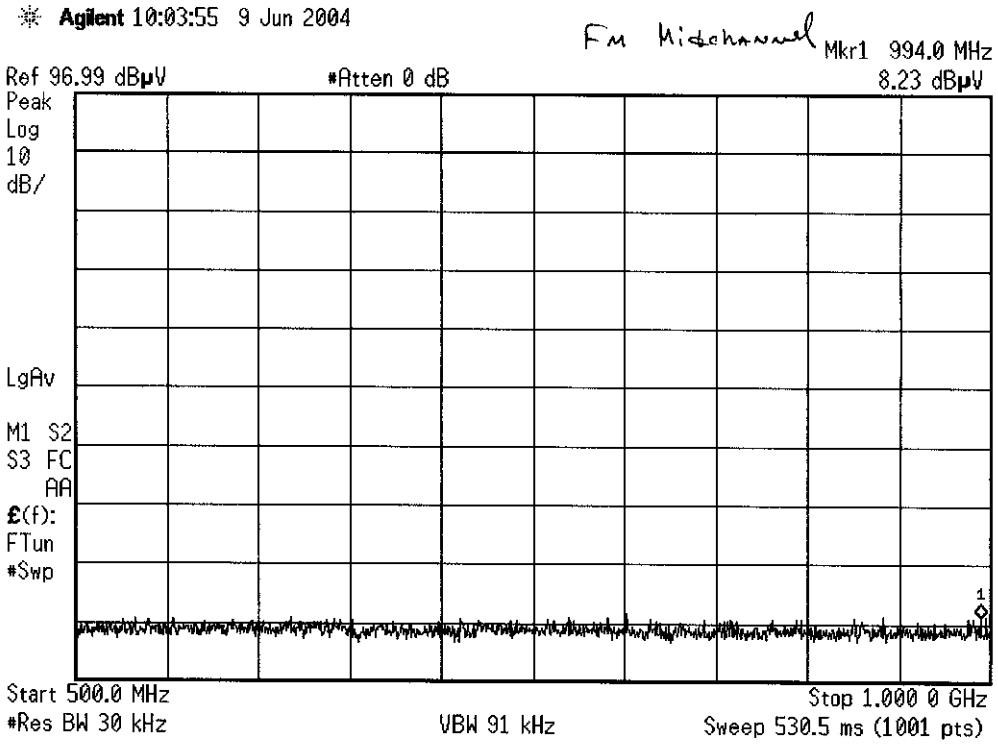


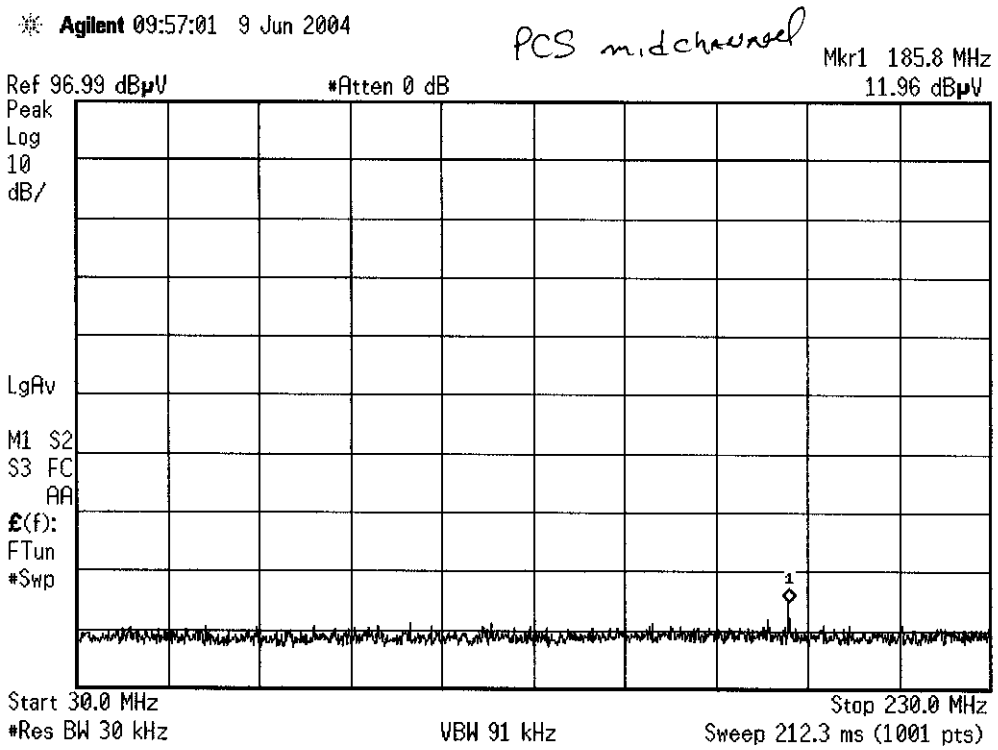
K484L
Trimode Aktiv
Receive
1 - meter Prescan
SR3 - AAF

TÜV AMERICA, INC. 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone 858 678 1400 FAX 858 546 0364



K484 L
Trimode Aktiv
Receive
1-meter Prescan
SR3 - AAF

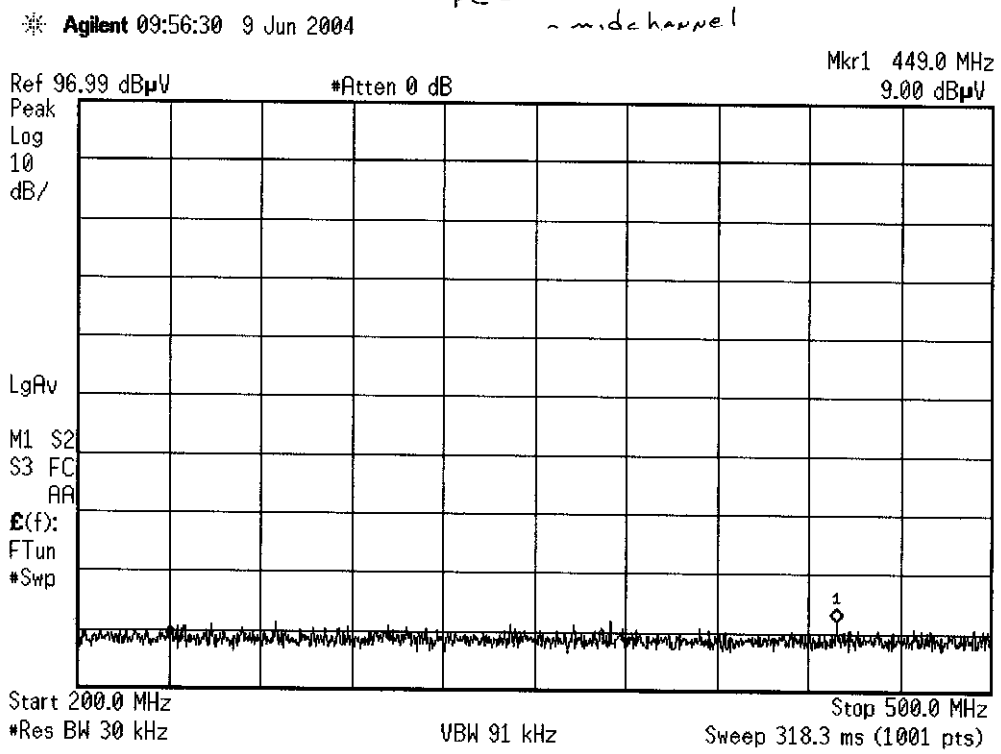
TÜV AMERICA, INC. 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone 858 678 1400 FAX 858 546 0364



K484L
Trimode Aktiv
Receive
1-meter Prescan
SR3 - AAF

TÜV AMERICA, INC. 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone 858 678 1400 FAX 858 546 0364

PCS



k4f4L
Tri mode Active
Receive
1- meter Prescan
SP3 - Hf

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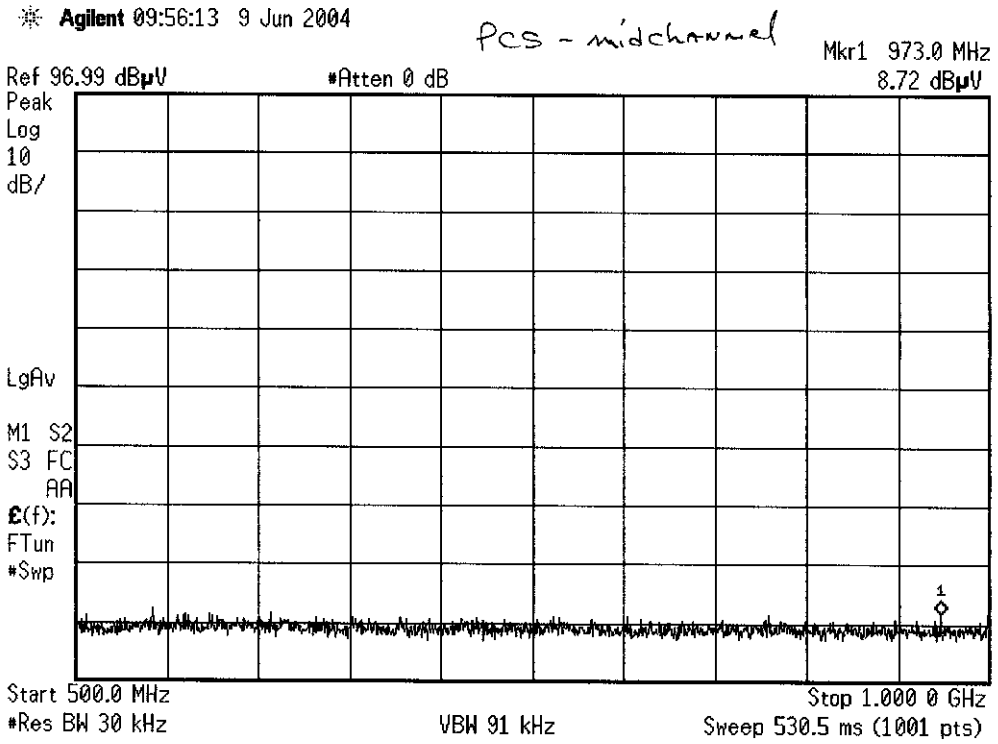

K484L
Trimode Aktiv
Receive
1-meter Prescan
SR3 - ARS

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