RADIATED EMISSIONS

DATA

FOR

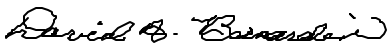
KYOCERA WIRELESS CORPORATION
10300 Campus Point Drive
San Diego, CA 92121

Prepared by

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

Measurement Requirements (CFR 47 Part 24, Paragraph 24.238)

The measurements which follow 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.



Dave Bernardin
EMC Engineer

TÜV PRODUCT SERVICE 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone 858 546 3999 FAX 858 546 0364

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
hp8586B	721	Spectrum Analyzer Display	Hewlett-Packard	2112A02185	06/02
3115	251	Double Ridge Antenna	EMCO	2495	10/01
AA-190-30.00.0	733	30 foot HFreq. Cable (1 - 18 GHz)	United Microwave	--	N/A*
AA-190-06.00.0	657	High Freq. Cable	United Microwave	--	N/A*
AMF-3D-010180-35-10P	752	Amplifier 20 dB	Miteq	614344	N/A*

Remarks: (*) Verified

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FCC Testing

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REPORT No: SC105894 TESTER: Dave Bernardin FCC Part 24

CUSTOMER: Kyocera TEST DIST: 3 Meters

E U T: Phone AGP (V1) S/N 0194 TEST SITE: Roof

EUT MODE: Transmit BICONICAL: N/A

DATE: August 7, 2001 LOG: N/A

NOTES: OTHER: 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 - Preamplifier Gain + Preselector Loss

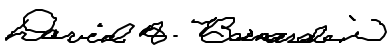
v.beta1a

FREQ (MHz)	VERTICAL (dBuv) pk	av	HORIZONTAL (dBuv) pk	av	CF (dB/m)	MAX LEVEL (dBm(d)) pk	av	SPEC LIMIT (dBm) pk	av	MARGIN (dB) pk	av	EUT Rotation	Antenna Height	Notes	dBuV/m
1851.25	84		86.8		33.4	**24.9**								Fundamental	**120.2**
3702.5	37.4		38.3		-0.4	**-57.4**		-13.0		-44.4		0	1.2	Noise level	**37.9**
5553.75	36.3		36.6		4.5	**-54.2**		-13.0		-41.2		0	1.2	Noise level	**41.1**
7405	40.6		41.4		8.2	**-45.7**		-13.0		-32.7		0	1.2	Noise level	**49.6**
9256.25	41.4		41.7		10.4	**-43.2**		-13.0		-30.2		0	1.2	Noise level	**52.1**
11107.5	41.5		42.4		13.1	**-39.7**		-13.0		-26.7		0	1.2	Noise level	**55.5**
12958.75	45.6		46.8		12.7	**-35.7**		-13.0		-22.7		0	1.2	Noise level	**59.5**
1880	84		87.2		33.6	**25.5**								Fundamental	**120.8**
3760	36.3		37.3		-0.3	**-58.2**		-13.0		-45.2		0	1.2	Noise level	**37.0**
5640	36.8		36.3		4.7	**-53.8**		-13.0		-40.8		0	1.2	Noise level	**41.5**
7520	42.5		44.1		8.4	**-42.7**		-13.0		-29.7		0	1.2	Noise level	**52.5**
9400	41.1		42.5		10.0	**-42.8**		-13.0		-29.8		0	1.2	Noise level	**52.5**
11280	42		43		13.2	**-39.1**		-13.0		-26.1		0	1.2	Noise level	**56.2**
13160	45.8		45.3		13.2	**-36.3**		-13.0		-23.3		0	1.2	Noise level	**59.0**
1908.75	80.4		86.7		33.8	**25.2**								Fundamental	**120.5**
3817.5	36.1		38.2		-0.1	**-57.2**		-13.0		-44.2		0	1.2	Noise level	**38.1**
5726.25	37.2		36.6		4.9	**-53.1**		-13.0		-40.1		0	1.2	Noise level	**42.1**
7635	42		42		8.5	**-44.7**		-13.0		-31.7		0	1.2	Noise level	**50.5**
9543.75	42.7		43.3		9.8	**-42.2**		-13.0		-29.2		0	1.2	Noise level	**53.1**
11452.5	41.8		42.9		13.3	**-39.1**		-13.0		-26.1		0	1.2	Noise level	**56.2**
13361.25	45.9		45.5		14.0	**-35.4**		-13.0		-22.4		0	1.2	Noise level	**59.9**

TUV Product Service
10040 Mesa Rim Road
San Diego, CA 92121

Subject: Signal Substitution Method

All measured signals were at least 20dB from the limit and therefore the Signal Substitution Method was not performed.



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EMC Engineer

Testing Facilities

Certificates of Approval

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United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Certificate of Accreditation

DEPARTMENT OF COMMERCE ★ UNITED STATES OF AMERICA ★

TUV PRODUCT SERVICE, INC.

SAN DIEGO, CA

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for:

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

December 31, 2001
Effective through

David F. Alderman
For the National Institute of Standards and Technology

NVLAP Lab Code: 100268-0

NVLAP-01C (11-95)

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National Institute of Standards and Technology — NVLAP® — National Voluntary Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Scope of Accreditation

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TUV PRODUCT SERVICE, INC.
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Mr. R. Barry Wallen
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URL: http://www.tuvps.com

NVLAP Code	*Designation / Description*
Emissions Test Methods:	
12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment
12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

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NVLAP Code	*Designation / Description*
12/T51	AS/NZS 3548: Electromagnetic Interference - Limits and Methods of Measurement of Information Technology Equipment
MIL-STD-462 : Conducted Emissions:	
12/A01	MIL-STD-462 Method CE01
12/A04	MIL-STD-462 Method CE02
12/A06	MIL-STD-462 Method CE03
12/A08	MIL-STD-462 Method CE04
12/A10	MIL-STD-462 Method CE06
12/A12	MIL-STD-462 Method CE07
MIL-STD-462 : Conducted Susceptibility:	
12/B01	MIL-STD-462 Method CS01
12/B02	MIL-STD-462 Method CS02
12/B04	MIL-STD-462 Method CS03/CS04/CS05/CS08
12/B05	MIL-STD-462 Method CS06

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NVLAP Code	*Designation / Description*
12/B06	MIL-STD-462 Method CS07
12/B07	MIL-STD-462 Method CS09
MIL-STD-462 : Radiated Emissions:	
12/D01	MIL-STD-462 Method RE01
12/D02	MIL-STD-462 Method RE02
12/D03	MIL-STD-462 Method RE03
MIL-STD-462 : Radiated Susceptibility:	
12/E01	MIL-STD-462 Method RS01
12/E02	MIL-STD-462 Method RS02
12/E03	MIL-STD-462 Method RS03 (Consult laboratory for field strengths available)
12/E04	MIL-STD-462 Method RS03 employing RADHAZ procedures for high level testing (Consult laboratory for field strengths available)

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Photograph of Test Setup

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