

**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 2, Paragraph 2.1053 & Part 22, Paragraph 22.917)

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.

Floyd R. Fleury EMC Manager

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## **Emissions Test Conditions: SPURIOUS RADIATED EMISSIONS**

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

<b>Test Equipmer</b>	nt Used :	
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Model No.	Prop. No.	Description	Manufacturer	Serial No.	Cal Date
8566B	720/721	Spectrum Analyzer & Display	Hewlett Packard	2115A00842 03/00	
				2112A02185	
AA-190-06.00.0	657	Cable	United Microwave		N/A
			Prod.		
AA-190-30.00.0	665	Cable	United Microwave		N/A
			Prod.		
AMF-3D-010180-35-10P	752	Amplifier	Miteq	614344	05/00
3115	453	Double Ridge Antenna	EMCO	9412-4364	10/99
3146	243	Antenna, Log Periodic Dipole	EMCO	106X	12/99
F4777		High Pass Filter	Qualcomm		N/A

Remarks:			



**Testing Facilities** 

Certificates of Approval



National Institute National Voluntary
of Standards and Technology National Voluntary
Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990 ISO 9002:1987

## Scope of Accreditation

Page: 1 of 1 NVLAP LAB CODE 100268-0

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

TUV PRODUCT SERVICE, INC.

10040 Mesa Rim Road San Diego, CA 92121-1034 Mr. Floyd R. Fleury Phone: 619-546-3999 Fax: 619-546-0364

NVLAP Code Designation / Description

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22

IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance

characteristics of information technology equipment

Federal Communications Commission (FCC) Methods

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

Australian Standards referred to by clauses in AUSTEL Technical Standards

12/T51

AS/NZS 3548: Electromagnetic Interference - Limits and Methods of Measurement of

Information Technology Equipment

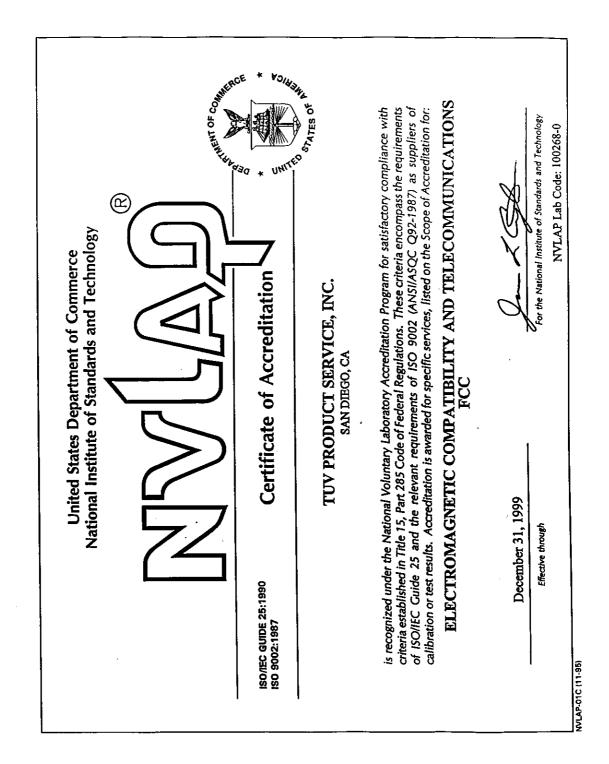
December 31, 1999

Effective through

For the National Institute of Standards and Technology

NVLAP-01S (11-95)





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Rev.No 1.0





UNITED STATES DEPARTMENT OF COMMERCE National Institute of Standards and Technology Geithersburg, Maryland 20899-

NVLAP Lab Code: 100268-0

December 1, 1998

Mr. Floyd R. Fleury TUV Product Service, Inc. 10040 Mesa Rim Road San Diego, CA 92121-1034

Dear Mr. Fleury:

I am pleased to inform you that continuing accreditation for specific test methods in Electromagnetic Compatibility & Telecommunications, FCC is granted to your organization under the National Voluntary Laboratory Accreditation Program (NVLAP). This accreditation is effective until December 31, 1999, provided that your organization continues to comply with accreditation requirements contained in the NVLAP Procedures.

Your Certificate of Accreditation is enclosed along with a statement of your Scope of Accreditation. You may reproduce these documents in their entirety and announce your organization's accreditation status using the NVLAP logo in business publications, the trade press, and other business-oriented literature. Accreditation does not relieve your organization from observing and complying with any applicable existing laws and/or regulations.

We are pleased to have you participate in NVLAP and look forward to your continued association with this program. If you have any questions concerning your NVLAP accreditation, please direct them to Jon Crickenberger, Sr. Program Manager, Laboratory Accreditation Program, National Institute of Standards and Technology, 100 Bureau Dr. Stop 2140, Gaithersburg, MD 20899-2140; (301) 975-4016.

Sincerely,

James L. Cigler, Chief
Laboratory Accreditation Program

Enclosure(s)

NIST







## Photograph of Test Setup



S9335 TESTED BY: ITW

REPORT No:



Low channel Mid channel Notes Antenn Height 7. SPEC: FCC Part 2, Para. 2, 1053 and FCC Part 22, Para. 22.917 TEST DIST: 3 Metars EUT 277 Rotatio 125 -15.2 -20.5 -12 -26.7 -14.9 -13 243 SPEC LIMIT (dBuV/m) pk av BICONICAL: N/A 124.7 67.8 29.9 84.4 69.8 34.6 84.4 72.2 37.1 84.4 56.6 40.7 84.4 TEST SITE: 84.4 OTHER Ö HORIZOMTAL CORRECTION MAX LEVEL (dBuv) FACTOR (dBuv)m) pk av (dBm) pk av Duty Cycle= 100%
RBW and VBW = 30 kHz below 1 GHz.
RBW and VBW = 1 MHz above 1 GHz.
No emissions detectable except as noted below. 69.2 63.9 72.4 57.7 69.5 71.4 54.4 27.1 32.6 37.2 40.6 27.0 29.8 34.5 37.1 Cellular Phone, Model PDQ-800 906 34.1 38.2 33.3 30.8 12.8 32.3 32.3 12.3 Transmit, CDMA CUSTOMER: Qualcomm, Inc. VERTICAL (dBuv) 92.6 12~Jul-99 2 31.3 35.2 16.3 39.7 34.3 13.7 EUT MODE: 1648.08 2472.12 3296.16 FREQ (MHz) 4120.2 NOTES: EUT

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Rev.No 1.0

FCC Part 2, Para, 2.1053 and FCC Part 22, Para, 22.917

3 Meters

TEST DIST:

SPEC

S9335 TESTED BY: mw

REPORT No:

CUSTOMER: Qualcomm, Inc.



High channe Mid channe Notes Antenn Height EUT 292 269 28 Rotatio 127 -14.4 -14.2 -13.9 -29.1 -27.6 BICONICAL: N/A 243 453 TEST SITE: OTHER: L HORIZONTAL CORRECTION MAX LEVEL SP (dBuv) . FOG: Duty Cycle≈ 100%
RBW and VBW ≈ 100 kHz below 1 GHz.
RBW and VBW ≈ 1 MHz above 1 GHz.
No emissions detectable except as noted below. 66.7 66.3 71.6 59.7 49.7 70.5 70.5 70.5 55.3 55.3 56.8 27.0 29.8 37.1 40.7 42.8 27.1 22.8 32.6 37.2 40.6 42.8 Cellular Phone, Model PDQ800 35.4 35.7 33.4 12.2 12.2 Transmit, FM Mode 93 34.4 19.1 9 9 VERTICAL 12~Jul-99 32.7 32.7 33.8 16.2 10.6 14.6 33.7 17.1 33.1 33.1 128 3395.88 4244.85 5093.82 EUT MODE: 1672.98 2509.47 3345.96 4182.45 5018.94 5855.43 848.97 1697.94 2546.91 5942.79 NOTES: DATE

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