

Application for FCC Certification
On behalf of

Hughes Network Systems

Product Name: Land Mobile Terminal

Model No.: 9350-10

Serial No.: E2009041702

FCC ID: K3YHNS9350

(MPE Calculation)

Prepared For : Hughes Network Systems
11717 Exploration Lane, Germantown, MD 20876, USA

Prepared By : Audix Technology (Shanghai) Co., Ltd.
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Report No. : ACI-F09078
Date of Test : May 18, 2009
Date of Report : Aug 17, 2009

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TEST REPORT FOR FCC CERTIFICATE

Applicant : Hughes Network Systems
Manufacturer : Hughes Network Systems
EUT Description : Land Mobile Terminal
(A) Model No. : 9350-10
(B) Serial No. : E2009041702
(C) Power Supply : DC 24V

Test Procedure Used:

FCC OET Bulletin 65 August 1997

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC OET Bulletin 65.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report also shows that the EUT (M/N: 9350-10, S/N: E2009041702), which was tested on May 18, 2009 is technically compliance with the FCC limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : May 18, 2009 Date of Report : Aug 17, 2009

Producer : Zeno Gu
ZENO GU / Assistant

Review : Dio Yang
DIO YANG / Deputy Assistant Manager



For and on behalf of
Audix Technology (Shanghai) Co., Ltd.

Signatory : Byron Kwo
Authorized Signature EMC BYRON KWO / Manager

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test

Description : Land Mobile Terminal

Type of EUT ☒ Production ☐ Pre-product ☐ Pro-type

Model Number : 9350-10

Serial Number : E2009041702

Applicant : Hughes Network Systems
11717 Exploration Lane, Germantown,
MD 20876, USA

Manufacturer : Hughes Network Systems
11717 Exploration Lane, Germantown,
MD 20876, USA

Power Supply : DC 24V

Freq. Band : 1626.595 MHz ~ 1660.2 MHz
Modulation : QPSK; QAM
Antenna Gain : 13.2dBi

Freq. Band : 2412 MHz ~ 2462 MHz
Modulation : DSSS
Antenna Gain : 3dBi

1.2 Description of Test Facility

Site Description (Semi-Anechoic Chamber) : Sept. 17, 1998 file on
Apr 29, 2009 Renewed
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046, USA

Name of Firm : Audix Technology (Shanghai) Co., Ltd.

Site Location : 3 F 34 Bldg 680 Guiping Rd.,
Caohejing Hi-Tech Park,
Shanghai 200233, China

FCC registration Number : 91789

Accredited by NVLAP, Lab Code : 200371-0

1.3 Measurement Uncertainty

Output Power Expanded Uncertainty : $U = 0.30$ dB

2 SUMMARY OF STANDARDS AND RESULTS

2.1 Applicable Standard

FCC OET Bulletin 65:1997

2.2 Specification Limits

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/150	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

*Plane-wave equivalent power density

NOTE: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

The limit value 1.0mW/cm² is available for this EUT.

2.3 MPE Calculation Method

$$S = PG/(4 \pi R^2)$$

$$R=[PG/(4 \pi S)]^{0.5}$$

where: S = power density (in appropriate units, e.g. mW/ cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

2.4 Calculated Result

2.4.1.1 Radio Frequency Radiation Exposure Evaluation for the WLAN card

Frequency (MHz)	Output Power to Antenna (mW)	Antenna Gain		Power Density (mW/cm ²)	Limit (mW/cm ²)
		(dBi)	(Numeric)		
2412	14.62	3.0	2.0	0.0058	1.0
2442	9.55	3.0	2.0	0.0038	1.0
2462	7.82	3.0	2.0	0.0031	1.0

Separation distance R= 20cm.

2.4.1.2 Radio Frequency Radiation Exposure Evaluation for the Land Mobile Terminal

Frequency	Peak Output Power		Antenna Gain		Limit	Distance
(MHz)	(dBm)	(mW)	(dBi)	(Numeric)	(mW/cm ²)	(cm)
1626.595	34.96	3133.29	13.2	20.89	1.0	72.17
1643.5	34.91	3097.42	13.2	20.89	1.0	71.75
1660.2	35.14	3265.88	13.2	20.89	1.0	73.68

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 73.68cm from all persons.

2.4.1.3 Radio Frequency Radiation Exposure Evaluation for 2 meters distance

Frequency	Peak Output Power		Antenna Gain		Power Density	Limit
(MHz)	(dBm)	(mW)	(dBi)	(Numeric)	(mW/cm ²)	(mW/cm ²)
1626.595	34.96	3133.29	13.2	20.89	0.130	1.0
1643.5	34.91	3097.42	13.2	20.89	0.129	1.0
1660.2	35.14	3265.88	13.2	20.89	0.136	1.0