

Application for FCC Certification  
On behalf of

Quintet Digital Corporation

Product Name: UHF RFID Handy Terminal

Model No.: C35

Serial No.: E2010011302

FCC ID: YAAC35010

(MPE Calculation)

Prepared For : Quintet Digital Corporation  
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Report No. : ACI-F10058  
Date of Test : Mar. 10, 2010  
Date of Report : May 17, 2010

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## TEST REPORT FOR FCC CERTIFICATE

Applicant : Quintet Digital Corporation  
Manufacturer : Shanghai SVA DD & TT Electronic Enterprise Co., Ltd.  
EUT Description : UHF RFID Handy Terminal  
(A) Model No. : C35  
(B) Serial No. : E2010011302  
(C) Power Supply : DC 7.4V (Li-ion Battery)  
(D) Test Voltage : AC 120V/60Hz via I.T.E. Power Supply

## 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: C35, S/N: E2010011302), which was tested on Mar. 10, 2010 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 : Mar. 10, 2010 Date of Report : May 17, 2010

Producer : Alan He  
ALAN HE / Assistant

Review : D. Y. Yang  
DIO YANG / Deputy Assistant Manager

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

Signatory : Sammy Chen  
Authorized Signature EMC SAMMY CHEN/ Assistant Manager

# 1 GENERAL INFORMATION

## 1.1 Description of Equipment Under Test

Description : UHF RFID Handy Terminal

Type of EUT :  Production  Pre-product  Pro-type

Model Number : C35

Serial Number : E2010011302

Applicant : Quintet Digital Corporation  
9F-A, 728, Yan'An West Rd., Changning District,  
Shanghai 200050, China

Manufacturer : Shanghai SVA DD & TT Electronic Enterprise Co., Ltd.  
No.589 Yuandian Road, Xinzhuang Industry Park,  
Minhang District, Shanghai 201108 China

Power Supply : DC 7.4V (Li-ion Battery)

Li-ion Battery : Manufacturer : Dongguan Large Electronics Co., Ltd.  
M/N : 103450-2S1P  
Rating : 7.4V 1800mAh

I.T.E. Power Supply: Manufacturer : LEADER ELECTRONICS INC.  
(Adapter) M/N : NU20-5120200-I2  
I/P : AC 100-240V 50/60Hz 1.0A  
O/P : DC 12V 2A  
Output cable : Unshielded, Undetachable, 1.2m,  
with one core on cable

Freq. Band : 902 MHz - 928 MHz  
Total 50 Channels in 500 kHz Separation

Tested Freq. : 902.75 MHz (Channel 01)  
915.25 MHz (Channel 26)  
927.25 MHz (Channel 50)

Modulation : Frequency Hopping Spread Spectrum / ASK

Antenna Gain : 2.5dBi

## 1.2 Description of Test Facility

Site Description : Sept. 17, 1998 file on  
(Semi-Anechoic Chamber) 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 :  $U = 0.30 \text{ dB}$

## 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 <sup>2</sup> )	Averaging Time  E <sup>2</sup> ,  H <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f2)*	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/cm<sup>2</sup> 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/ cm<sup>2</sup>)

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

(the measured power value see Report: F10029 Section 6.6)

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 Radio Frequency Radiation Exposure Evaluation

Frequency (MHz)	Output Power to Antenna (mW)	Antenna Gain		Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
902.75	37.15	2.5	1.78	0.01316	1.0
915.25	41.21	2.5	1.78	0.01459	1.0
927.25	45.60	2.5	1.78	0.01615	1.0

Separation distance R= 20cm.