



# Variant FCC RF Test Report

APPLICANT : Doro AB  
EQUIPMENT : GSM Tri-band Digital Mobile Telephone  
BRAND NAME : Doro  
MODEL NAME : Doro PhoneEasy 338gsm  
FCC ID : WS5DORO338G  
STANDARD : FCC 47 CFR Part 2, 22(H), 24(E)  
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)  
Tx/Rx FREQUENCY RANGE : GSM850 : 824.2 ~ 848.8 MHz /  
869.2 ~ 893.8 MHz  
GSM1900 : 1850.2 ~ 1909.8 MHz /  
1930.2 ~ 1989.8 MHz  
MAX. ERP/EIRP POWER : GSM850 (GSM) : 0.68 W  
GSM1900 (GSM) : 0.93 W

This is a variant report which is only valid together with the original test report.

The product was received on Dec. 09, 2009 and completely tested on Dec. 15, 2009. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI / TIA / EIA-603-C-2004 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by:

Roy Wu / Manager



**SPORTON INTERNATIONAL (KUNSHAN) INC.**  
No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.



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### SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
-	§2.1046	N/A	Conducted Output Power	N/A	PASS	Note 1
3.1	§22.913(a)(2)	RSS-132(4.4) SRSP-503(5.1.3)	Effective Radiated Power	< 7 Watts	PASS	-
3.1	§24.232(c)	RSS-133 (6.4) SRSP-510(5.1.2)	Equivalent Isotropic Radiated Power	< 2 Watts	PASS	-
-	§2.1049 §22.917(a) §24.238(a)	N/A	Occupied Bandwidth	N/A	PASS	Note 1
-	§2.1051 §22.917(a) §24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1)	Band Edge Measurement	< 43+10log <sub>10</sub> (P[Watts])	PASS	Note 1
-	§2.1051 §22.917(a) §24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1)	Conducted Emission	< 43+10log <sub>10</sub> (P[Watts])	PASS	Note 1
-	§2.1053 §22.917(a) §24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1)	Field Strength of Spurious Radiation	< 43+10log <sub>10</sub> (P[Watts])	PASS	Note 1
-	§2.1055 §22.355 §24.235	RSS-132(4.3) RSS-133(6.3)	Frequency Stability for Temperature & Voltage	< 2.5 ppm	PASS	Note 1

Note 1: Because of the change did not affect the test, therefore all the test results please refer to the original report- FG931114 as Appendix C.

# 1 General Description

## 1.1 Applicant

Doro AB

Magistratsvägen 10 SE-226 44 Lund Sweden

## 1.2 Manufacturer

CK TELECOM LTD.

Technology Road, High-Tech Development Zone, Heyuan, Guangdong, P.R.China

## 1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	GSM Tri-band Digital Mobile Telephone
Brand Name	Doro
Model Name	Doro PhoneEasy 338gsm
FCC ID	WS5DORO338G
Tx Frequency	GSM850 : 824 MHz ~ 849 MHz GSM1900 : 1850 MHz ~ 1910 MHz
Rx Frequency	GSM850 : 869 MHz ~ 894 MHz GSM1900 : 1930 MHz ~ 1990 MHz
Maximum ERP/EIRP	GSM850 (GSM) : 0.68 W (28.35 dBm) GSM1900 (GSM) : 0.93 W (29.67 dBm)
Antenna Type	Fixed Internal Antenna
HW Version	CARE-V2.0
SW Version	CARE-S12_DORO338_L14SP_100_091126_MCP32+16
Type of Modulation	GMSK
EUT Stage	Identical Prototype

**Remark:** This test report recorded only product characteristics and test results of PCS Licensed Transmitter Held to Ear (PCE).

**List of Accessory:**

Specification of Accessory		
<b>AC Adapter</b>	<b>Brand Name</b>	Doro
	<b>Model Name</b>	HKC0045365-2A
	<b>Power Rating</b>	I/P:100-240Vac, 50-60Hz, 0.2A; O/P: 5.3Vdc, 650mA
	<b>AC Power Cord Type</b>	1.55 meter non-shielded cable without ferrite core
<b>Battery</b>	<b>Brand Name</b>	Doro
	<b>Cell Manufacturer</b>	Ningbo Veken Battery Co., Ltd.
	<b>Model Name</b>	01.10.CAREP0103
	<b>Power Rating</b>	3.7Vdc, 850mAh
	<b>Type</b>	Li-ion
<b>LCD Panel</b>	<b>Brand Name</b>	LINDA
	<b>Model Name</b>	KGM870A0

**Remark:**

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. For accessories equipped with this EUT, please refer to the appendix of the external photo.



### 1.4 Testing Site

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958
Test Site No.	<b>Sporton Site No.</b> 03CH01-KS

### 1.5 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC 47 CFR Part 2, 22(H), 24(E)
- ANSI / TIA / EIA-603-C-2004
- IC RSS-132 Issue 2
- IC RSS-133 Issue 5

**Remark:**

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B (DoC), recorded in a separate test report.

### 1.6 Ancillary Equipment List

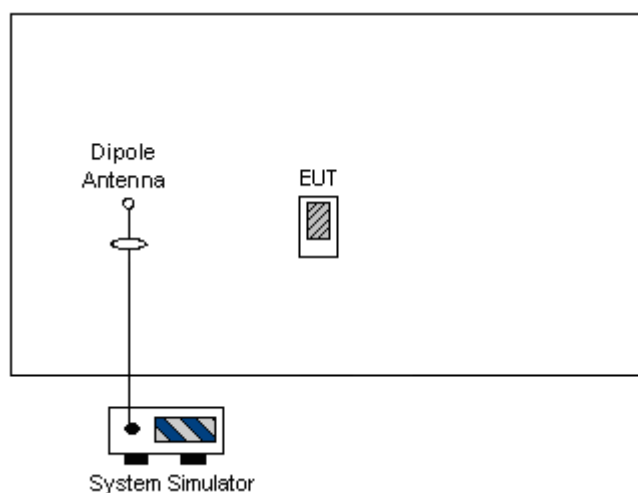
Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU200	N/A	N/A	Unshielded, 1.8 m

## 2 Test Configuration of Equipment Under Test

### 2.1 Test Mode

**Note:** Because of the change did not affect the tests, therefore the test results of Radiated and Conducted could be referred to the original report- FG931114 as Appendix C. And the EUT only verified ERP/EIRP test.

### 2.2 Connection Diagram of Test System





### 3 Test Result

#### 3.1 Effective Radiated Power and Effective Isotropic Radiated Power Measurement

##### 3.1.1 Description of the ERP/EIRP Measurement

ERP/EIRP is measured by substitution method according to ANSI / TIA / EIA-603-C-2004. The ERP of mobile transmitters must not exceed 7 Watts and the EIRP of mobile transmitters are limited to 2 Watts.

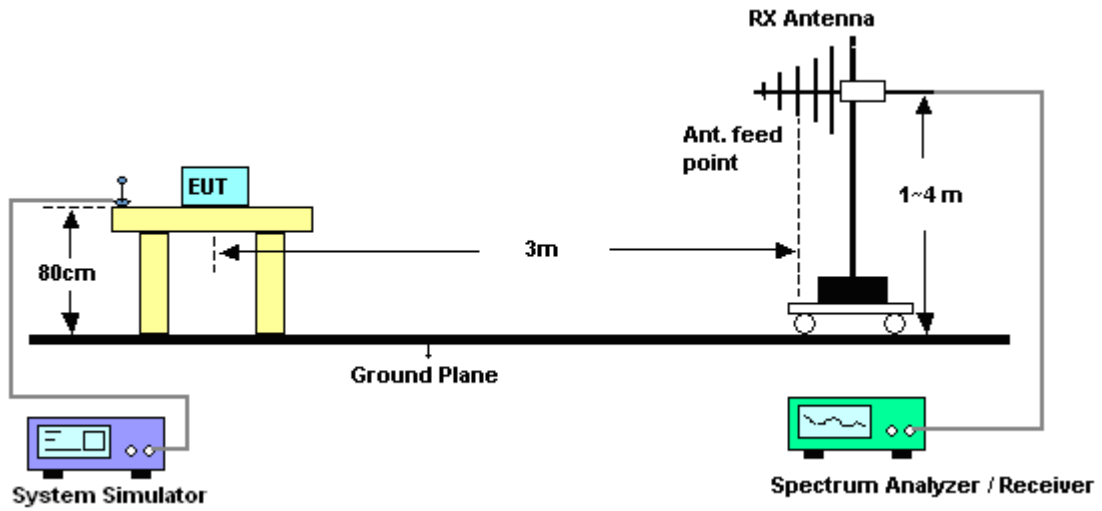
##### 3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

##### 3.1.3 Test Procedures

1. The EUT was placed on an non-conductive rotating platform with 0.8 meter height in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RBW= 3MHz,VBW= 3MHz, and peak detector settings.
2. During the measurement, the EUT was enforced in maximum power and linked with a base station. The highest emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
3. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-C. The EUT was replaced by dipole antenna (substitution antenna) at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading. Then the EUT's EIRP was calculated with the correction factor,  $EIRP = LVL + \text{Correction factor}$  and  $ERP = EIRP - 2.15$ .

### 3.1.4 Test Setup



### 3.1.5 Test Result of ERP

GSM850 (GSM) Radiated Power ERP				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	1.90	28.11	27.86	0.61
836.4	2.65	27.85	28.35	0.68
848.8	1.66	27.90	27.41	0.55
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-10.81	32.22	19.26	0.08
836.4	-9.83	31.78	19.80	0.10
848.8	-11.48	32.24	18.61	0.07

\* ERP = LVL (dBm) + Correction Factor (dB) – 2.15

### 3.1.6 Test Result of EIRP

GSM1900 (GSM) Radiated Power EIRP				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-11.09	39.03	27.94	0.62
1880.0	-11.97	40.19	28.22	0.66
1909.8	-9.52	39.07	29.55	0.90
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-12.54	42.21	29.67	0.93
1880.0	-13.43	43.90	30.47	1.11
1909.8	-13.83	43.38	29.55	0.90

\* EIRP = LVL (dBm) + Correction Factor (dB)

## 4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
EMI Test Receiver	R&S	ESCI	100724	9kHz – 2.75GHz	Mar. 04, 2009	Mar. 03, 2010	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Dec. 08, 2009	Dec. 07, 2010	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Dec. 17, 2008	Dec. 16, 2009	Radiation (03CH01-KS)
Double Ridge Horn Antenna	EMCO	3117	75959	1GHz~18GHz	Dec. 17, 2008	Dec. 16, 2009	Radiation (03CH01-KS)
Amplifier	Wireless	FPA6592G	600006	30MHz~2GHz	Dec. 17, 2008	Dec. 16, 2009	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Dec. 17, 2008	Dec. 16, 2009	Radiation (03CH01-KS)
Signal Generator	R&S	SMR40	100455	10MHz~40GHz	Dec. 08, 2009	Dec. 07, 2010	Radiation (03CH01-KS)
System Simulator	R&S	CMU200	837587/066	Full-Band/BT	Jan. 08, 2009	Jan. 07, 2011	Radiation (03CH01-KS)

## 5 Certification of TAF Accreditation



Certificate No. : L1190-090417

財團法人全國認證基金會  
Taiwan Accreditation Foundation

### Certificate of Accreditation

This is to certify that

**Sporton International Inc.**  
**EMC & Wireless Communications Laboratory**  
No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien,  
Taiwan, R.O.C.

**is accredited in respect of laboratory**

<b>Accreditation Criteria</b>	: ISO/IEC 17025:2005
<b>Accreditation Number</b>	: 1190
<b>Originally Accredited</b>	: December 15, 2003
<b>Effective Period</b>	: January 10, 2007 to January 09, 2010
<b>Accredited Scope</b>	: Testing Field, see described in the Appendix
<b>Specific Accreditation Program</b>	: Accreditation Program for Designated Testing Laboratory for Commodities Inspection Accreditation Program for Telecommunication Equipment Testing Laboratory Accreditation Program for BSMI Mutual Recognition Arrangement with Foreign Authorities



Jay-San Chen  
President, Taiwan Accreditation Foundation  
Date : April 17, 2009

P1, total 20 pages

The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix



## **Appendix B. Product Equality Declaration**

The declaration is shown as follows.

# CK TELECOM LTD.

Technology Road.High-Tech Development Zone. Heyuan, Guangdong,P.R.China.

Date: December 16, 2009

## Product Equality Declaration

We, CK TELECOM LTD., declare on our sole responsibility for the product of Doro PhoneEasy 338gsm(model) as below:

The difference between Doro PhoneEasy 338gsm and Doro PhoneEasy 345gsm are as below

- ◆ Model Name
- ◆Product Appearance
- ◆LCD Panel (from full color screen to monochromatic screen)
- ◆Removing Flashlight
- ◆Removing Bluetooth Chipset

So that performed related EMC tests, for instance the Radiated Emission (RE). And the worse case for SAR test.

Except Listings above, the others are the same as previous version.

Should you have any questions or comments regarding this matter, please have my best attention.

Sincerely yours,



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Contact Person: Xin Li

Company: CK TELECOM LTD.

Tel: +86-755-26739633

Fax: +86-755-26739500

E-Mail: xin.li@ck-telecom.com



## **Appendix C. Original Report**

Please refer to Sporton report number FG931114 as below.