



# Variant FCC RF Test Report

APPLICANT : Doro AB  
EQUIPMENT : GSM/GPRS WCDMA Mobile Telephone  
BRAND NAME : doro  
MODEL NAME : Doro PhoneEasy 626  
MARKETING NAME : Doro PhoneEasy 626  
FCC ID : WS5DORO626  
STANDARD : FCC 47 CFR Part 2, 22(H), 24(E)  
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Sep. 19, 2014 and testing was completed on Oct. 29, 2014. We, SPORTON INTERNATIONAL (SHENZHEN) INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA / EIA-603-C-2004 and has been in 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 (SHENZHEN) INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



## **SPORTON INTERNATIONAL (SHENZHEN) INC.**

**No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P.R.C.**



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## REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG312203-03	Rev. 01	This is a variant report for Doro PhoneEasy 626. The product equality declaration could be referred to Appendix C. Based on the original test report; only conducted power, ERP/EIRP and the worst cases of Radiated Spurious Emission from original test report (Sporton Report Number FG312203-01) were verified for the differences.	Nov. 05, 2014

## SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	§2.1046	RSS-132 (5.4) RSS-133 (6.4)	Conducted Output Power	N/A	PASS	-
3.2	§22.913(a)(2)	RSS-132(5.4) SRSP-503(5.1.3)	Effective Radiated Power	< 7 Watts	PASS	-
	§24.232(c)	RSS-133 (6.4) SRSP-510(5.1.2)	Equivalent Isotropic Radiated Power	< 2 Watts	PASS	-
3.3	§2.1053 §22.917(a) §24.238(a)	RSS-132 (5.5) RSS-133 (6.5)	Field Strength of Spurious Radiation	$< 43 + 10 \log_{10}(P[\text{Watts}])$	PASS	Under limit 27.82 dB at 1697.600 MHz



# 1 General Description

## 1.1 Applicant

**Doro AB**

Magistratsvägen 10 SE-226 43 Lund Sweden

## 1.2 Manufacturer

**CK TELECOM LTD.**

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

## 1.3 Product Feature of Equipment Under Test

Product Feature	
<b>Equipment</b>	GSM/GPRS WCDMA Mobile Telephone
<b>Brand Name</b>	doro
<b>Model Name</b>	Doro PhoneEasy 626
<b>Marketing Name</b>	Doro PhoneEasy 626
<b>FCC ID</b>	WS5DORO626
<b>EUT supports Radios application</b>	GSM/GPRS/WCDMA/HSPA/Bluetooth v2.1 + EDR
<b>HW Version</b>	SHUTTLE-V2.0
<b>SW Version</b>	SHUTTLE-S13A_DORO626_L3EN_300_140909
<b>EUT Stage</b>	Production Unit

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

## 1.4 Product Specification subjective to this standard

Product Specification subjective to this standard	
<b>Tx Frequency</b>	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz
<b>Rx Frequency</b>	GSM850: 869.2 MHz ~ 893.8 MHz GSM1900: 1930.2 MHz ~ 1989.8 MHz WCDMA Band V: 871.4 MHz ~ 891.6 MHz WCDMA Band II: 1932.4 MHz ~ 1987.6 MHz
<b>Maximum Output Power to Antenna</b>	GSM850 : 32.10 dBm GSM1900 : 29.76 dBm WCDMA Band V : 22.70 dBm WCDMA Band II : 22.72 dBm
<b>Antenna Type</b>	Fixed Internal Antenna
<b>Type of Modulation</b>	GSM: GMSK GPRS: GMSK WCDMA: QPSK (Uplink) HSDPA: QPSK (Uplink) HSUPA: QPSK (Uplink)

## 1.5 Modification of EUT

No modifications are made to the EUT during all test items.

## 1.6 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator

FCC Rule	System	Type of Modulation	Maximum ERP/EIRP (W)
Part 22	GSM850 GSM	GMSK	0.74
Part 24	GSM1900 GSM	GMSK	0.67

## 1.7 Testing Location

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.		
Test Site Location	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P.R.C. TEL: +86-755- 3320-2398		
Test Site No.	Sporton Site No.		FCC/IC Registration No.
	TH01-SZ	03CH01-SZ	831040/4086F-1

## 1.8 Applicable 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
- FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02
- IC RSS-132 Issue 3
- IC RSS-133 Issue 6
- IC RSS-Gen Issue 3
- NOTICE 2012-DRS0126

### 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, recorded in a separate test report.
3. Per the section 2.2.3 of Notice of 2012-DRS0126, " Receivers Excluded from Industry Canada Requirements", only radiocommunication receivers operating in stand-alone mode within the band 30-960 MHz and scanner receivers are subject to Industry Canada requirements.

## 2 Test Configuration of Equipment Under Test

### 2.1 Test Mode

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v02r02 with maximum output power.

Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission.

Radiated emissions were investigated as following frequency range:

1. 30 MHz to 9000 MHz for GSM850 and WCDMA Band V.

All modes and data rates and positions were investigated.

Test modes are chosen to be reported as the worst case configuration below:

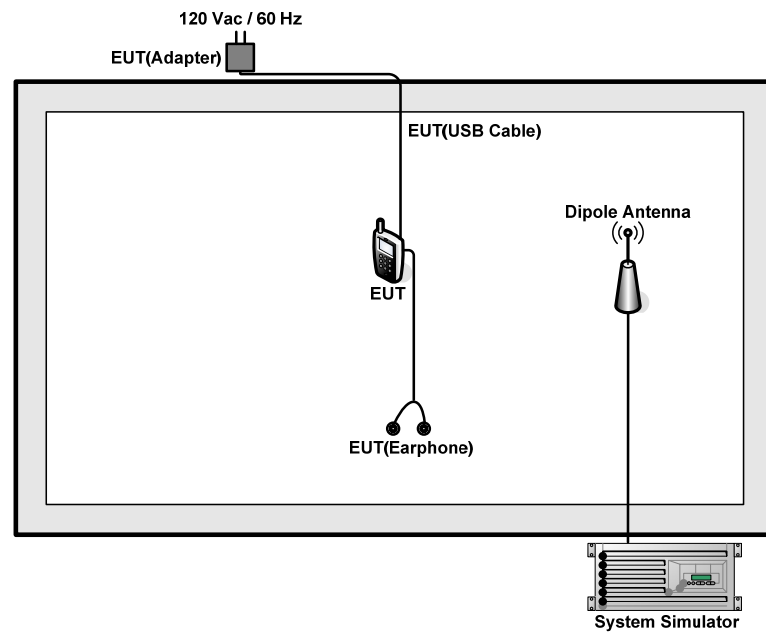
Test Modes		
Band	Radiated TCs	Conducted TCs
GSM 850	■ GSM Link	■ GSM Link
GSM 1900	■ GSM Link	■ GSM Link

**Conducted Power Measurement Results:**

Conducted Power (*Unit: dBm)						
Band	GSM850			GSM1900		
Channel	128	189	251	512	661	810
Frequency	824.2	836.4	848.8	1850.2	1880.0	1909.8
GSM	32.10	32.03	32.07	29.76	29.70	29.57
GPRS class 8	32.08	32.00	32.06	29.75	29.68	29.56
GPRS class 10	31.24	31.17	31.19	28.79	28.76	28.66

Conducted Power (*Unit: dBm)						
Band	WCDMA Band V			WCDMA Band II		
Channel	4132	4182	4233	9262	9400	9538
Frequency	826.4	836.4	846.6	1852.4	1880.0	1907.6
AMR 12.2K	22.68	22.64	22.60	22.70	22.58	22.45
RMC 12.2K	22.70	22.65	22.62	22.72	22.59	22.48
HSDPA Subtest-1	22.65	22.60	22.56	22.65	22.53	22.42
HSDPA Subtest-2	21.70	21.61	21.60	21.71	21.59	21.58
HSDPA Subtest-3	21.22	21.12	21.13	21.25	21.11	21.15
HSDPA Subtest-4	21.21	21.11	21.15	21.21	21.10	21.07
HSUPA Subtest-1	20.65	20.53	20.62	20.46	20.44	20.42
HSUPA Subtest-2	19.77	19.65	19.64	19.81	19.70	19.57
HSUPA Subtest-3	19.75	19.67	19.71	19.67	19.60	19.56
HSUPA Subtest-4	20.23	20.17	20.20	20.35	20.20	20.08
HSUPA Subtest-5	20.64	20.66	20.62	20.42	20.33	20.30

## 2.2 Connection Diagram of Test System



## 2.3 Support Unit used in test configuration

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Agilent	E5515C	N/A	N/A	Unshielded, 1.8 m
2.	DC Power Supply	TOPWORD	3303DR	N/A	N/A	N/A

### 3 Test Result

#### 3.1 Conducted Output Power Measurement

##### 3.1.1 Description of the Conducted Output Power Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

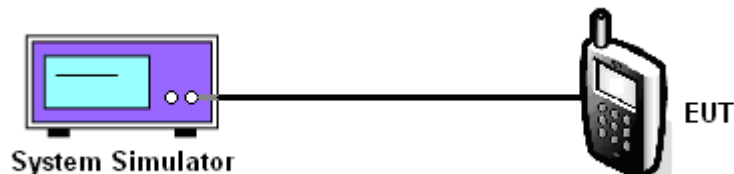
##### 3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

##### 3.1.3 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure the maximum burst average power for GSM and maximum average power for other modulation signal.

##### 3.1.4 Test Setup



### 3.1.5 Test Result of Conducted Output Power

Cellular Band						
Modes	GSM850 (GSM)			WCDMA Band V (RMC 12.2Kbps)		
Channel	128 (Low)	189 (Mid)	251 (High)	4132 (Low)	4182 (Mid)	4233 (High)
Frequency (MHz)	824.2	836.4	848.8	826.4	836.4	846.6
Conducted Power (dBm)	32.10	32.03	32.07	22.70	22.65	22.62
Conducted Power (Watts)	1.62	1.60	1.61	0.19	0.18	0.18

PCS Band						
Modes	GSM1900 (GSM)			WCDMA Band II (RMC 12.2Kbps)		
Channel	512 (Low)	661 (Mid)	810 (High)	9262 (Low)	9400 (Mid)	9538 (High)
Frequency (MHz)	1850.2	1880	1909.8	1852.4	1880	1907.6
Conducted Power (dBm)	29.76	29.70	29.57	22.72	22.59	22.48
Conducted Power (Watts)	0.95	0.93	0.91	0.19	0.18	0.18

**Note:** maximum burst average power for GSM, and maximum average power for WCDMA.

## 3.2 Effective Radiated Power and Effective Isotropic Radiated Power Measurement

### 3.2.1 Description of the ERP/EIRP Measurement

The substitution method, in ANSI / TIA / EIA-603-C-2004, was used for ERP/EIRP measurement, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r02. The ERP of mobile transmitters must not exceed 7 Watts and the EIRP of mobile transmitters are limited to 2 Watts.

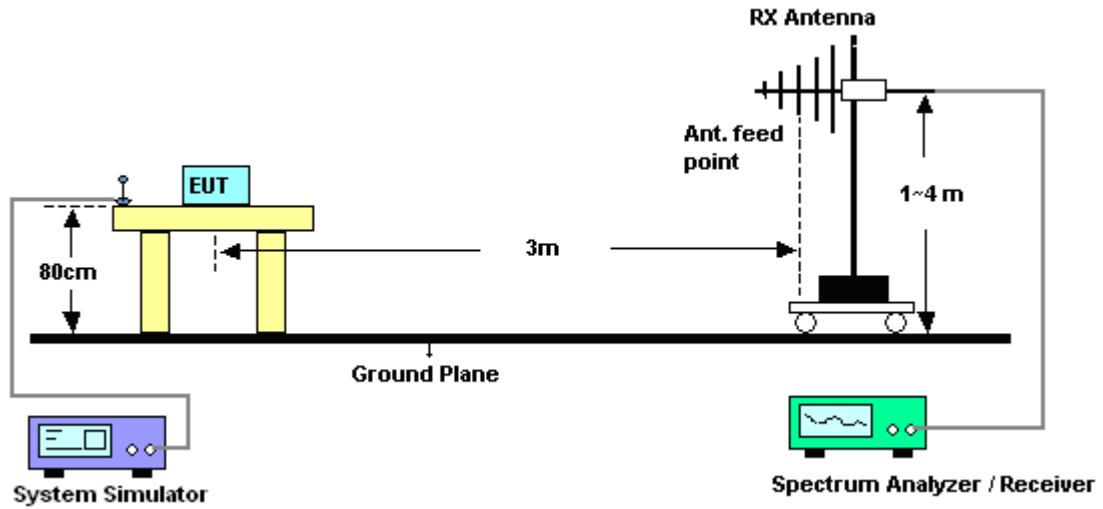
### 3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

### 3.2.3 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 5.2.1. (for CDMA/WCDMA), Section 5.2.2.2 (for GSM/GPRS/EDGE) and ANSI / TIA-603-C-2004 Section 2.2.17.
2. The EUT was placed on a non-conductive rotating platform 0.8 meters high 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 RMS detector per section 5. of KDB 971168 D01.
3. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power. The maximum 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.
4. 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 the 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  $ERP = EIRP - 2.15$ .

### 3.2.4 Test Setup



### 3.2.5 Test Result of ERP

GSM850 (GSM) Radiated Power ERP				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-6.99	30.23	21.09	0.13
836.4	-6.90	31.09	22.04	0.16
848.8	-8.06	30.51	20.30	0.11
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-5.81	35.14	27.18	0.52
836.4	-5.14	36.01	28.72	0.74
848.8	-5.00	35.11	27.96	0.63

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

### 3.2.6 Test Result of EIRP

GSM1900 (GSM) Radiated Power EIRP				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-17.75	46.02	28.27	0.67
1880.0	-17.93	44.73	26.80	0.48
1909.8	-18.85	45.20	26.35	0.43
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-26.46	45.58	19.12	0.08
1880.0	-25.31	45.75	20.44	0.11
1909.8	-27.46	47.21	19.75	0.09

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

### 3.3 Field Strength of Spurious Radiation Measurement

#### 3.3.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least  $43 + 10 \log (P)$  dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

#### 3.3.2 Measuring Instruments

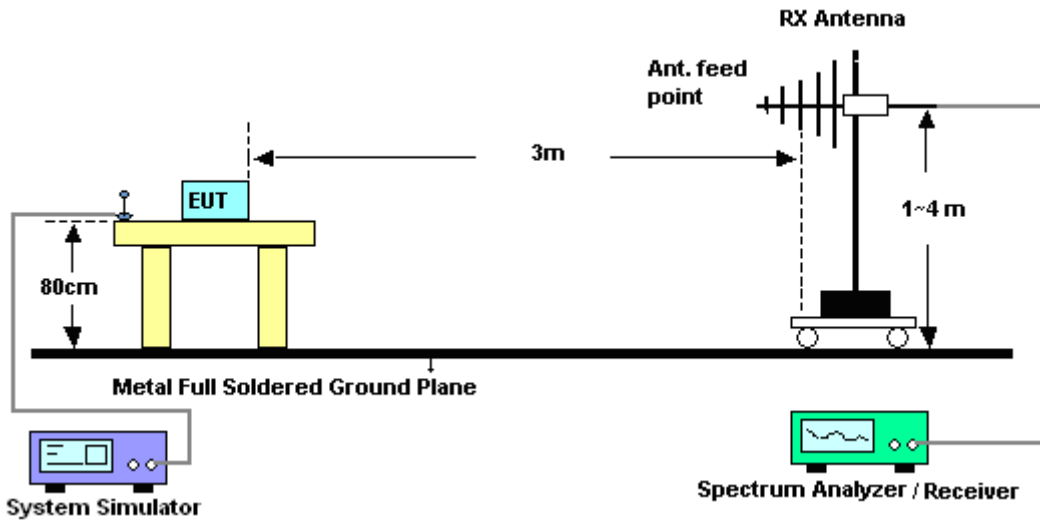
The measuring equipment is listed in the section 4 of this test report.

#### 3.3.3 Test Procedures

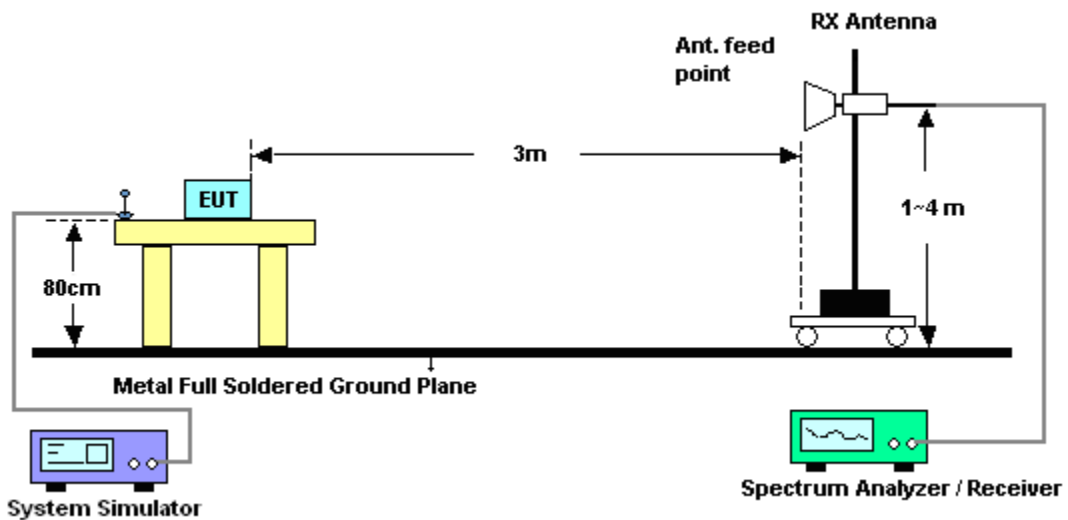
1. The testing follows FCC KDB 971168 v02r02 Section 5.8 and ANSI / TIA-603-C-2004 Section 2.2.12.
2. The EUT was placed on a rotatable wooden table 0.8 meters above the ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11.  $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
12.  $ERP \text{ (dBm)} = EIRP - 2.15$
13. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
14. The limit line is derived from  $43 + 10\log(P)$  dB below the transmitter power P(Watts)  
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$   
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$   
 $= -13\text{dBm}.$

### 3.3.4 Test Setup

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



### 3.3.5 Test Result of Field Strength of Spurious Radiated

For Sample 1

Band :	GSM850 for CH128					Temperature :	23~25°C		
Test Mode :	GSM Link (GMSK)					Relative Humidity :	48~52%		
Test Engineer :	Leo Liao					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
( MHz )	( dBm )	( dBm )	Limit ( dB )	Reading ( dBm )	Power ( dBm )	loss ( dB )	Gain ( dBi )	( H/V )	
1648.4	-44.95	-13	-31.95	-61.42	-47.77	0.73	5.70	H	Pass
2472.6	-49.45	-13	-36.45	-70.86	-51.81	0.91	5.42	H	Pass
3296.8	-60.96	-13	-47.96	-71.83	-65.60	1.07	7.86	H	Pass

Band :	GSM850 for CH128					Temperature :	23~25°C		
Test Mode :	GSM Link (GMSK)					Relative Humidity :	48~52%		
Test Engineer :	Leo Liao					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
( MHz )	( dBm )	( dBm )	Limit ( dB )	Reading (dBm)	Power ( dBm )	loss ( dB )	Gain (dBi)	(H/V)	
1648.4	-44.99	-13	-31.99	-59.04	-47.81	0.73	5.70	V	Pass
2472.6	-49.50	-13	-36.50	-69.88	-51.86	0.91	5.42	V	Pass
3296.8	-60.09	-13	-47.09	-72.27	-64.73	1.07	7.86	V	Pass



Band :	GSM850 for CH189					Temperature :	23~25°C		
Test Mode :	GSM Link (GMSK)					Relative Humidity :	48~52%		
Test Engineer :	Leo Liao					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
( MHz )	( dBm )	( dBm )	Limit ( dB )	Reading (dBm)	Power ( dBm )	loss ( dB )	Gain (dBi)	(H/V)	
1672	-44.51	-13	-31.51	-60.49	-47.48	0.88	6.00	H	Pass
2510	-48.71	-13	-35.71	-70.33	-51.32	1.08	5.84	H	Pass
3346	-61.58	-13	-48.58	-72.18	-65.95	1.14	7.66	H	Pass

Band :	GSM850 for CH189					Temperature :	23~25°C		
Test Mode :	GSM Link (GMSK)					Relative Humidity :	48~52%		
Test Engineer :	Leo Liao					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
( MHz )	( dBm )	( dBm )	Limit ( dB )	Reading ( dBm )	Power ( dBm )	loss ( dB )	Gain ( dBi )	(H/V)	
1672	-43.07	-13	-30.07	-56.42	-46.04	0.88	6.00	V	Pass
2510	-49.66	-13	-36.66	-69.69	-52.27	1.08	5.84	V	Pass
3346	-60.39	-13	-47.39	-72.22	-64.76	1.14	7.66	V	Pass



Band :	GSM850 for CH251					Temperature :	23~25°C		
Test Mode :	GSM Link (GMSK)					Relative Humidity :	48~52%		
Test Engineer :	Leo Liao					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
( MHz )	( dBm )	( dBm )	Limit ( dB )	Reading ( dBm )	Power ( dBm )	loss ( dB )	Gain ( dBi )	( H/V )	
1697.6	-41.41	-13	-28.41	-58.25	-44.40	0.75	5.89	H	Pass
2546.4	-45.22	-13	-32.22	-68.56	-47.93	1.12	5.98	H	Pass
3395.2	-61.73	-13	-48.73	-72.93	-66.13	1.25	7.80	H	Pass

Band :	GSM850 for CH251					Temperature :	23~25°C		
Test Mode :	GSM Link (GMSK)					Relative Humidity :	48~52%		
Test Engineer :	Leo Liao					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
( MHz )	( dBm )	( dBm )	Limit ( dB )	Reading (dBm)	Power ( dBm )	loss ( dB )	Gain (dBi)	(H/V)	
1697.6	-40.82	-13	-27.82	-54.78	-43.81	0.75	5.89	V	Pass
2546.4	-49.54	-13	-36.54	-70.00	-52.25	1.12	5.98	V	Pass
3395.2	-60.15	-13	-47.15	-72.58	-64.55	1.25	7.80	V	Pass



Band :	GSM1900 for CH512					Temperature :	23~25°C		
Test Mode :	GSM Link (GMSK)					Relative Humidity :	48~52%		
Test Engineer :	Leo Liao					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
( MHz )	( dBm )	( dBm )	Limit ( dB )	Reading ( dBm )	Power ( dBm )	loss ( dB )	Gain ( dBi )	( H/V )	
3700.4	-54.25	-13	-41.25	-65.80	-61.00	1.2	7.95	H	Pass
5550.6	-50.87	-13	-37.87	-68.26	-58.97	1.5	9.60	H	Pass
7400.8	-54.29	-13	-41.29	-75.87	-64.48	1.7	11.89	H	Pass

Band :	GSM1900 for CH512					Temperature :	23~25°C		
Test Mode :	GSM Link (GMSK)					Relative Humidity :	48~52%		
Test Engineer :	Leo Liao					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
( MHz )	( dBm )	( dBm )	Limit ( dB )	Reading (dBm)	Power ( dBm )	loss ( dB )	Gain (dBi)	(H/V)	
3700.4	-52.34	-13	-39.34	-66.77	-59.09	1.2	7.95	V	Pass
5550.6	-54.48	-13	-41.48	-70.96	-62.58	1.5	9.6	V	Pass
7400.8	-53.98	-13	-40.98	-75.87	-64.17	1.7	11.89	V	Pass



Band :	GSM1900 for CH661					Temperature :	23~25°C		
Test Mode :	GSM Link (GMSK)					Relative Humidity :	48~52%		
Test Engineer :	Leo Liao					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
( MHz )	( dBm )	( dBm )	Limit ( dB )	Reading ( dBm )	Power ( dBm )	loss ( dB )	Gain ( dBi )	( H/V )	
3760	-56.56	-13	-43.56	-68.71	-63.30	1.28	8.02	H	Pass
5640	-48.81	-13	-35.81	-66.80	-57.23	1.58	10.00	H	Pass
7520	-53.82	-13	-40.82	-75.76	-64.14	1.78	12.10	H	Pass

Band :	GSM1900 for CH661					Temperature :	23~25°C		
Test Mode :	GSM Link (GMSK)					Relative Humidity :	48~52%		
Test Engineer :	Leo Liao					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
( MHz )	( dBm )	( dBm )	Limit ( dB )	Reading ( dBm )	Power ( dBm )	loss ( dB )	Gain ( dBi )	(H/V)	
3760	-55.77	-13	-42.77	-70.8	-62.51	1.28	8.02	V	Pass
5640	-48.75	-13	-35.75	-65.83	-57.17	1.58	10	V	Pass
7520	-53.55	-13	-40.55	-75.8	-63.87	1.78	12.1	V	Pass



Band :	GSM1900 for CH810	Temperature :	23~25°C						
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%						
Test Engineer :	Leo Liao	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading ( dBm )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain ( dBi )	Polarization ( H/V )	Result
3819.6	-57.15	-13	-44.15	-68.72	-63.92	1.23	8.00	H	Pass
5729.4	-47.63	-13	-34.63	-65.43	-55.76	1.52	9.65	H	Pass
7639.2	-53.42	-13	-40.42	-75.66	-63.60	1.82	12.00	H	Pass
9549	-50.49	-13	-37.49	-72.91	-62.19	1.82	13.52	H	Pass

Band :	GSM1900 for CH810	Temperature :	23~25°C						
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%						
Test Engineer :	Leo Liao	Polarization :	Vertical						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading ( dBm )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain ( dBi )	Polarization ( H/V )	Result
3819.6	-56.30	-13	-43.30	-70.75	-63.07	1.23	8	V	Pass
5729.4	-42.77	-13	-29.77	-61.05	-50.90	1.52	9.65	V	Pass
7639.2	-52.40	-13	-39.40	-74.95	-62.58	1.82	12	V	Pass
9549	-46.45	-13	-33.45	-70.37	-58.15	1.82	13.52	V	Pass



## 4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP30	101400	9kHz~30GHz	Mar. 03, 2014	Oct. 29, 2014	Mar. 02, 2015	Conducted (TH01-SZ)
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	May 08, 2014	Oct. 29, 2014	May 07, 2015	Conducted (TH01-SZ)
ESCIO TEST Receiver	R&S	ESCI	100724	9kHz~3GHz	Feb. 21, 2014	Oct. 17, 2014~ Oct. 18, 2014	Feb. 20, 2015	Radiation (03CH01-SZ)
Spectrum Analyzer	Agilent Technologies	N9038A	MY52260185	20Hz~26.5GHz	May 26, 2014	Oct. 17, 2014~ Oct. 18, 2014	May 25, 2015	Radiation (03CH01-SZ)
Bilog Antenna	TESEQ	CBL 6112D	23188	30MHz~2GHz	Oct. 26, 2013	Oct. 17, 2014~ Oct. 18, 2014	Oct. 25, 2014	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	00119436	1GHz~18GHz	Oct. 26, 2013	Oct. 17, 2014~ Oct. 18, 2014	Oct. 25, 2014	Radiation (03CH01-SZ)
Broad-Band Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1131	1GHz~18GHz	Jul. 30, 2014	Oct. 17, 2014~ Oct. 18, 2014	Jul. 29, 2015	Radiation (03CH01-SZ)
Double Ridged Horn Antenna	COM-POWER	AH-840	101073	18GHz~40GHz	Jun. 09, 2014	Oct. 17, 2014~ Oct. 18, 2014	Jun. 08, 2015	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3000MHz	Feb. 21, 2014	Oct. 17, 2014~ Oct. 18, 2014	Feb. 20, 2015	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	May 08, 2014	Oct. 17, 2014~ Oct. 18, 2014	May 07, 2015	Radiation (03CH01-SZ)
AC Source(AVR)	Chroma	61601	61601000198 5	100Vac~250Vac	Mar. 25, 2014	Oct. 17, 2014~ Oct. 18, 2014	Mar. 24, 2015	Radiation (03CH01-SZ)
Turn Table	EM Electronics	EM 1000	N/A	0~360 degree	NCR	Oct. 17, 2014~ Oct. 18, 2014	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM Electronics	EM 1000	N/A	1 m~4 m	NCR	Oct. 17, 2014~ Oct. 18, 2014	NCR	Radiation (03CH01-SZ)



## 5 Uncertainty of Evaluation

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2U_c(y)$ )	3.9
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## **Appendix A. Photographs of EUT**

Please refer to Sporton report number EP312203-03 which is issued separately.



## **Appendix C. Product Equality Declaration**

# CK TELECOM LTD.

Technology Road, High-Tech Development Zone, Heyuan, Guangdong, P.R. China.  
Tel: +86-755-26739633; Fax: +86-755-26739500

Date: November 5, 2014

## Product Equality Declaration

We, **CK TELECOM LTD.**, declare on our sole responsibility for the product of **Doro PhoneEasy 626** below:

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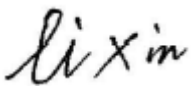
The differences between previous and current model of **Doro PhoneEasy 626** are as below:

1. Add a new USB cable "HYD-CK-0851"
2. Changed Camera module, Mic, Speaker, USB connector, Speaker audio PA IC
3. SW Changed from SHUTTLE-S13A\_DORO626\_L3EN\_111\_140224 to SHUTTLE-S13A\_DORO626\_L3EN\_300\_140909

Except listings above, the others are all 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

**Applicant:** CK TELECOM LTD.

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