

# **TEST REPORT**

## No. B23N00005-RSE-GSM

for

### HONOR Device Co., Ltd.

#### **Smart Phone**

#### Model Name: RBN-NX3

#### With

### Hardware Version: HN1RBNM

### Software Version: 6.1.0.100 (C900E100R1P1)

### FCC ID: 2AYGCRBN-NX3

### Issued Date: 2023-02-17

#### **Designation Number: CN1210**

#### Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

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## **REPORT HISTORY**

Report Number	Revision	Description	Issue Date
B23N00005-RSE-GSM	Rev.0	1st edition	2023-02-17

Note: the latest revision of the test report supersedes all previous version.



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### 1. SUMMARY OF TEST REPORT

#### 1.1. Test Items

Description	Smart Phone
Model Name	RBN-NX3
Applicant's name	HONOR Device Co., Ltd.
Manufacturer's Name	HONOR Device Co., Ltd.

#### 1.2. Test Standards

FCC Part 2/22/24	10-1-21 Edition
ANSI C63.26	2015
KDB971168 D01	v03r01

#### 1.3. Test Result

#### PASS/FAIL

Total test 2 items, pass 2 items. Please refer to "6 Summary of Test Results" for detail.

#### 1.4. <u>Testing Location</u>

Address: EMC Laboratory, Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China 518000

#### 1.5. Project Data

Testing Start Date: 2023-01-10

Testing End Date: 2023-02-10

#### 1.6. Signature

黄子的

Huang Kaiyang (Prepared this test report)

KH. K

Cao Junfei (Approved this test report)

Huang Yuqing (Reviewed this test report)



### 2. Client Information

#### 2.1. Applicant Information

Company Name:HONOR Device Co., Ltd.Address:Shum Yip Sky Park, No. 8089, Hongli West Road, Shenzhen, China

#### 2.2. Manufacturer Information

Company Name:HONOR Device Co., Ltd.Address:Shum Yip Sky Park, No. 8089, Hongli West Road, Shenzhen, China



### 3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT

### <u>(AE)</u>

#### 3.1. About EUT

Description	Smart Phone
Model Name	RBN-NX3
FCC ID	2AYGCRBN-NX3
Frequency Bands	GSM 850/1900MHz
Antenna	Internal
Condition of EUT as received	No obvious damage in appearance

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of Shenzhen Academy of Information and Communications Technology.

3.2. <u>Inter</u>	3.2. Internal Identification of EUT used during the test			
EUT ID*	SN or IMEI	HW Version	SW Version	Receive Date
	961571060012207		6.1.0.100	2022 01 06
UT10aa	861571060013297	HN1RBNM	(C900E100R1P1)	2023-01-06

\*EUT ID: is used to identify the test sample in the lab internally.

#### 3.3. Internal Identification of AE used during the test

AE ID*	Description	
AE1	Battery	
AE2	Charger	
AE3	USB Cable	
AE4	Headset	
AE1-1		
Model	HB496590EFW	
Manufacturer	Honor Device Co., Ltd.(SCUD)	
Capacity	4900mAh	
Nominal Volta	age 3.87 V	
AE1-2		
Model	HB496590EFW-F	
Manufacturer	Honor Device Co., Ltd.(SCUD)	
Capacity	4900mAh	
Nominal Volta	age 3.87 V	
AE1-3		
Model	HB496590EFW	
Manufacturer	Honor Device Co., Ltd.( NVT)	
Capacity	4900mAh	
Nominal Volta	age 3.87 V	
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AE1-4		
Model	HB496590EFW-F	
Manufacturer	Honor Device Co., Ltd.( NVT)	
Capacity	4900mAh	
Nominal Voltage	3.87 V	
AE2-1		
Model	HN-100225E00	
Manufacturer	Honor Device Co., Ltd.	
	(Factory: Salcomp)	
AE2-2		
Model	HN-100225U00	
Manufacturer	Honor Device Co., Ltd.	
. =	(Factory: Salcomp)	
AE2-3		
Model	HN-100225B00	
Manufacturer	Honor Device Co., Ltd.	
	(Factory: Salcomp)	
AE2-4		
Model Manufacturer	HN-100225E00 Honor Device Co., Ltd.	
Manulacturer		
AE2-5	(Factory: Huntkey)	
Model	HN-100225U00	
Manufacturer	Honor Device Co., Ltd.	
Manalaotaron	(Factory: Huntkey)	
AE2-6	(	
Model	HW-100225E00	
Manufacturer	Honor Device Co., Ltd.	
	(Factory: Huntkey)	
AE2-7		
Model	HW-100225U00	
Manufacturer	Honor Device Co., Ltd.	
	(Factory: Huntkey)	
AE2-8		
Model	HW-100225B00	
Manufacturer	Honor Device Co., Ltd.	
	(Factory: Huntkey)	
AE2-9		
Model	HN-100225B00	
Manufacturer	Honor Device Co., Ltd.	
	(Factory: Huntkey)	
AE3-1		
Model	CUDU01B-HC451 -EH	
Manufacturer	Fuding Precision Components (Shenzhen) Co., Ltd.	
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AE3-2		
Model	AU2-CRO013 HF	
Manufacturer	Freeport Ji an Electronics Co.,Ltd.	
AE3-3		
Model	L125UC007-CS-H	
Manufacturer	Luxshare Precision Industry Co.,Ltd.	
AE3-4		
Model	2120-00001-0	
Manufacturer	Guangdong Mingji Hi-Tech Electronics Co.,Ltd.	
AE3-5		
Model	RY0002	
Manufacturer	Guangxi Broad Telecommunication Co.,Ltd.	
AE4-1		
Model	1293-3283-3.5mm-339	
Manufacturer	BOLUO COUNTY QUANCHENG ELECTRONIC CO., LTD.	
AE4-2		
Model	EPAB542-2WH05-DH	
Manufacturer	FOXCONN INTERCONNECT TECHNOLOGY LIMITED	
AE4-3		
Model	MEND1532B528C00	
Manufacturer	Jiangxi Lianchuang Hongsheng Electronic Co., LTD.	
*AE ID: is used to ident	tify the test sample in the lab internally.	
AE: ancillary equipmen	t.	

AE2: The circuit boards of AE2-2 and AE2-3 are the same, the circuit boards of AE2-5 and AE2-9 are the same, the circuit boards of AE2-7 and AE2-8 are the same.



#### 3.4. General Description

The Equipment Under Test (EUT) is a model of Smart Phone with internal antenna.

It consists of normal options: Battery, Charger, USB Cable and Headset.

Manual and specifications of the EUT were provided to fulfill the test.

Samples (EUT+AE) undergoing test were selected by the Client. Relevant information is provided by the client.



### 4. <u>REFERENCE DOCUMENTS</u>

#### 4.1. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part 22	PUBLIC MOBILE SERVICES	(10-1-2021 Edition)
FCC Part 2	FREQUENCY ALLOCATIONS AND RADIO TREATY	(10-1-2021
	MATTERS; GENERAL RULES AND REGULATIONS	Edition)
FCC Part 24	PERSONAL COMMUNICATIONS SERVICES	(10-1-2021 Edition)
	American National Standard of Procedures for	
ANSI C63.26	Compliance Testing of Licensed Transmitters Used in	2015
	Licensed Radio Service	
KDB971168 D01	Power Meas License Digital Systems	v03r01



### 5. LABORATORY ENVIRONMENT

Anechoic chamber (FACT3-2.0) did not exceed following limits along the EMC testing:

9.10m×6.10m×5.60m (L×W×H)

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4Ω
Normalised site attenuation (NSA)	$< \pm 4$ dB, 3 m distance, from 30 to 1000 MHz
Voltage Standing Wave Ratio (VSWR)	$\leq$ 6 dB, from 1 to 18 GHz, 3 m distance
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz



### 6. SUMMARY OF TEST RESULTS

Abbreviations used in this clause:		
Verdict Column	Р	Pass
	F	Fail
	NA	Not applicable
	NM	Not measured
Leastion Column		The test is performed in test location A, B, C or D which
Location Column	A/B/C/D	are described in section 1.1 of this report

#### **GSM850**

Items	List	Clause in FCC rules	Section in this report	Verdict
1	Output Power	22.913	A.1	Р
2	Field Strength of Spurious Radiation	22.917	A.2	Р

#### PCS1900

Items	List	Clause in FCC rules	Section in this report	Verdict
1	Output Power	24.232	A.1	Р
2	Field Strength of Spurious Radiation	24.238	A.2	Р



### 7. STATEMENT

Since the information of samples in this report is provided by the client, the laboratory is not responsible for the authenticity of sample information.

This report takes measured values as criterion of test conclusion. The test conclusion meets the limit requirements.



### 8. TEST EQUIPMENTS UTILIZED

NO.	Description	TYPE	Manufacture	Series number	Calibration Due date
1	Test Receiver	ESR7	R&S	101676	2023.11.23
2	BiLog Antenna	3142E	ETS-Lindgren	0224831	2024.05.27
3	Horn Antenna	3117	ETS-Lindgren	00066577	2025.04.17
4	Horn Antenna	QSH-SL- 18-26-S-20	Q-par	17013	2026-01-30
5	Antenna	BBHA 9120D	Schwarzbeck	1593	2025-10-24
6	Antenna	VUBA 9117	Schwarzbeck	207	2023-07-15
7	Antenna	QWH-SL- 18-40-K-SG	Q-par	15979	2026-01-30
8	preamplifier	83017A	Agilent	MY39501110	/
9	Signal Generator	SMB100A	R&S	179725	2023-11-23
10	Anechoic Chamber	FACT3-2.0	ETS-Lindgren	1285	2023.05.29
11	Spectrum Analyzer	FSV40	R&S	101192	2024-01-11
12	Universal Radio Communication Tester	CMU200	R&S	114545	2024-01-11

#### Test software

ltem	Name	Vesion
Radiated	EMC32	V10.50.40



### **ANNEX A: MEASUREMENT RESULTS**

#### A.1 OUTPUT POWER

#### Reference

FCC: CFR Part 22.913, 24.232.

#### A.1.1 Summary

During the process of testing, the EUT was controlled via Rhode & Schwarz Digital Radio Communication tester (CMU-200) to ensure max power transmission and proper modulation. This result contains max output power and EIRP measurements for the EUT. In all cases, output power is within the specified limits.

#### A.1.2 Radiated

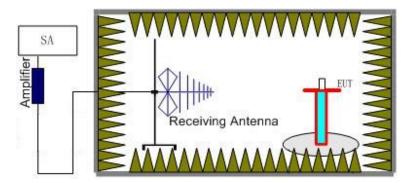
#### A.1.2.1 Description

This is the test for the maximum radiated power from the EUT.

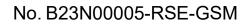
Rule Part 24.232(c) specifies, "Mobile/portable stations are limited to 2 watts e.i.r.p. Peak power" and 24.232(c) specifies that "Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage." Rule Part 22.913(a) specifies" The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts."

#### A.1.2.2 Method of Measurement

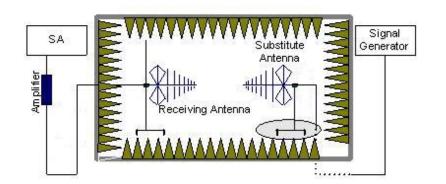
 EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.5m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all transmit frequencies in three channels (High, Middle, Low) were measured with peak detector.



- 2. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).
- 3. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.







In the chamber, a substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power ( $P_{Mea}$ ) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded ( $P_r$ ). The power of signal source ( $P_{Mea}$ ) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

4. A amplifier should be connected to the Signal Source output port. And the cable should be connected between the Amplifier and the Substitution Antenna. The cable loss (P<sub>cl</sub>) ,the Substitution Antenna Gain(dBi) (G<sub>a</sub>) and the Amplifier Gain (P<sub>Ag</sub>) should be recorded after test. The measurement results are obtained as described below:

Power(EIRP)=P<sub>Mea</sub>- P<sub>Ag</sub> - P<sub>cl</sub> + G<sub>a</sub>

- 5. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.
- 6. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP -2.15dB.



#### GSM 850-ERP 22.913(a)

#### Limits

	Power Step	Burst Peak ERP (dBm)
GSM	5	≤38.45dBm (7W)
GPRS	3	≤38.45dBm (7W)
EGPRS	6	≤38.45dBm (7W)

## Measurement result

#### GSM-UP

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
824.20	-1.53	-33.60	-0.79	2.15	29.13	38.45	н
836.60	-1.92	-33.50	-0.74	2.15	28.69	38.45	Н
848.80	-1.65	-33.50	-0.73	2.15	28.97	38.45	Н

#### **GSM-DOWN**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
824.20	-2.98	-33.60	-0.79	2.15	27.68	38.45	V
836.60	-3.31	-33.50	-0.74	2.15	27.30	38.45	V
848.80	-3.47	-33.50	-0.73	2.15	27.15	38.45	V

#### **GPRS-UP**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
824.20	-4.35	-33.60	-0.79	2.15	26.30	38.45	Н
836.60	-4.51	-33.50	-0.74	2.15	26.10	38.45	Н
848.80	-4.38	-33.50	-0.73	2.15	26.24	38.45	Н

#### **GPRS-DOWN**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
824.20	-5.12	-33.60	-0.79	2.15	25.54	38.45	V
836.60	-5.30	-33.50	-0.74	2.15	25.31	38.45	V
848.80	-5.49	-33.50	-0.73	2.15	25.13	38.45	V



#### EGPRS-8PSK-UP

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
824.20	-8.56	-33.60	-0.79	2.15	22.10	38.45	Н
836.60	-8.64	-33.50	-0.74	2.15	21.97	38.45	Н
848.80	-8.57	-33.50	-0.73	2.15	22.05	38.45	Н

#### EGPRS-8PSK-DOWN

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
824.20	-8.31	-33.60	-0.79	2.15	22.35	38.45	V
836.60	-8.41	-33.50	-0.74	2.15	22.20	38.45	V
848.80	-8.54	-33.50	-0.73	2.15	22.08	38.45	V

Frequency: 824.20MHz

Peak ERP(dBm)=PMea(-1.53dBm)-( Pcl+PAg)(-33.60dB)+Ga(-0.79dB)-2.15dB=29.13dBm ANALYZER SETTINGS: RBW = VBW = 3MHz

Note: The maximum value of expanded measurement uncertainty for this test item is U = 2.72dB(30MHz-3GHz)/3.60dB(3GHz-18GHz)/3.58dB(18GHz-40GHz), k = 2

Note: Both of Vertical and Horizontal polarizations are evaluated, but only the worst case is recorded in this report.



#### PCS1900-EIRP 24.232(c)

#### Limits

	Power Step	Burst Peak EIRP (dBm)
GSM	0	≤33dBm (2W)
GPRS	3	≤33dBm (2W)
EGPRS	5	≤33dBm (2W)

## Measurement result

#### GSM-UP

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.20	-11.12	-29.30	8.10	26.28	33.00	V
1880.00	-11.30	-29.40	8.10	26.20	33.00	V
1909.80	-10.58	-29.30	8.10	26.82	33.00	V

#### **GSM-DOWN**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.20	-9.39	-29.30	8.10	28.01	33.00	V
1880.00	-9.57	-29.40	8.10	27.93	33.00	V
1909.80	-9.63	-29.30	8.10	27.77	33.00	V

#### **GPRS-UP**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.20	-13.12	-29.40	8.10	24.38	33.00	V
1880.00	-13.07	-29.30	8.10	24.33	33.00	V
1909.80	-12.90	-29.30	8.10	24.50	33.00	V

#### **GPRS-DOWN**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
			Gain(ubi)			
1850.20	-13.09	-29.40	8.10	24.41	33.00	V
1880.00	-13.11	-29.30	8.10	24.29	33.00	V
1909.80	-13.17	-29.30	8.10	24.23	33.00	V



#### EGPRS-8PSK-UP

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.20	-17.20	-29.40	8.10	20.30	33.00	V
1880.00	-17.24	-29.30	8.10	20.16	33.00	V
1909.80	-16.91	-29.30	8.10	20.49	33.00	V

#### EGPRS-8PSK-DOWN

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.20	-17.01	-29.40	8.10	20.49	33.00	V
1880.00	-17.10	-29.30	8.10	20.30	33.00	V
1909.80	-17.14	-29.30	8.10	20.26	33.00	V

Frequency: 1850.20MHz

Peak EIRP(dBm)= PMea(-9.39dBm) –(Pcl+PAg)(-29.30dB)+Ga (8.10dB) =28.10dBm

#### ANALYZER SETTINGS: RBW = VBW = 3MHz

Note: The maximum value of expanded measurement uncertainty for this test item is U = 2.72dB(30MHz-3GHz)/3.60dB(3GHz-18GHz)/3.58dB(18GHz-40GHz), k = 2

Note: Both of Vertical and Horizontal polarizations are evaluated, but only the worst case is recorded in this report.





### A.2 FIELD STRENGTH OF SPURIOUS RADIATION

#### Reference

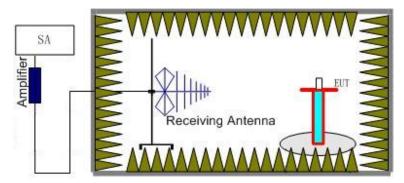
FCC: CFR 22.917, 24.238.

#### A.2.1 Measurement Method

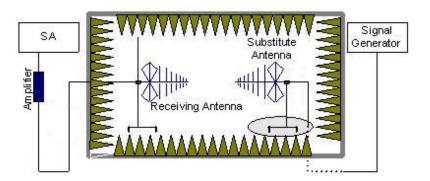
The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment, which is the transmitted carrier that can be as high as 1910MHz. The resolution bandwidth is set 1MHz as outlined in Part 24.238 and Part 22.917. The spectrum is scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of PCS1900 and GSM850.

#### The procedure of radiated spurious emissions is as follows:

1. EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.5m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic were measured with peak detector.



- 2. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).
- 3. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.



In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere



with the radiation pattern of the antenna. A power ( $P_{Mea}$ ) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded ( $P_r$ ). The power of signal source ( $P_{Mea}$ ) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

4. The Path loss (P<sub>pl</sub>) between the Signal Source with the Substitution Antenna and the Substitution Antenna Gain(dBi) (G<sub>a</sub>) should be recorded after test.
A amplifier should be connected in for the test.
The Path loss (P<sub>pl</sub>) is the summation of the cable loss and the gain of the amplifier.
The measurement results are obtained as described below:

Power(EIRP)=P<sub>Mea</sub> - P<sub>pl</sub> + G<sub>a</sub>

- 5. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.
- 6. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP -2.15dB.



#### A.2.2 Measurement Limit

Part 24.238 and Part 22.917 specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

The specification that emissions shall be attenuated below the transmitter power (P) by at least 43 + 10 log (P) dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

#### A.2.3 Measurement Results

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of the PCS1900 band (1850.2 MHz, 1880 MHz and 1909.8 MHz) and GSM850 band (824.2MHz, 836.6MHz, 848.8MHz). It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of the PCS1900, GSM850 into any of the other blocks. The equipment must still, however, meet emissions requirements with the carrier at all frequencies over which it is capable of operating and it is the manufacturer's responsibility to verify this.



#### A.2.4 Measurement Results Table

Frequency	Channel	Frequency Range	Result
	Low	30MHz-10GHz	Pass
GSM 850MHz	Middle	30MHz-10GHz	Pass
	High	30MHz-10GHz	Pass
	Low	30MHz-20GHz	Pass
GSM 1900MHz	Middle	30MHz-20GHz	Pass
	High	30MHz-20GHz	Pass

#### A.2.5 Sweep Table

Working Frequency	Subrange (GHz)	RBW	VBW	Sweep time (s)
	0.03~1	100KHz	300KHz	10
	1-2	1 MHz	3 MHz	2
850MHz	2~5	1 MHz	3 MHz	3
	5~8	1 MHz	3 MHz	3
	8~10	1 MHz	3 MHz	3
	0.03~1	100KHz	300KHz	10
	1-2	1 MHz	3 MHz	2
	2~5	1 MHz	3 MHz	3
10001/11-	5~8	1 MHz	3 MHz	3
1900MHz	8~11	1 MHz	3 MHz	3
	11~14	1 MHz	3 MHz	3
	14~18	1 MHz	3 MHz	3
	18~20	1 MHz	3 MHz	2



#### GSM Mode Channel 128/824.2MHz-UP

	(MHz) P <sub>Mea</sub> (dBm)	Path	Antenna	Peak	Limit	Polarization
Frequency(MHz)		loss	Gain(dBi)	ERP(dBm)	(dBm)	Polarization
8473.50	-48.57	1.80	11.30	-41.22	-13.00	Н
9151.00	-48.66	2.10	11.60	-41.31	-13.00	Н
9221.50	-47.48	2.10	11.60	-40.13	-13.00	Н
9303.50	-46.38	2.00	11.60	-38.93	-13.00	Н
9381.00	-48.60	2.00	11.60	-41.15	-13.00	V
9475.00	-48.06	2.10	11.60	-40.71	-13.00	V

#### GSM Mode Channel 190/836.6MHz-UP

Frequency(MHz)	MHz) P <sub>Mea</sub> (dBm)	Path	Antenna	Peak	Limit	Polarization
Trequency(Miriz)	r <sub>Mea</sub> (ubiii)	loss	Gain(dBi)	ERP(dBm)	(dBm)	FUIAIIZALIUIT
8424.50	-48.16	1.80	11.30	-40.81	-13.00	Н
9153.00	-47.92	2.10	11.60	-40.57	-13.00	Н
9223.00	-47.48	2.10	11.60	-40.13	-13.00	Н
9302.00	-47.31	2.00	11.60	-39.86	-13.00	Н
9370.00	-48.41	2.00	11.60	-40.96	-13.00	V
9477.50	-48.08	2.10	11.60	-40.73	-13.00	V

#### GSM Mode Channel 251/848.8MHz-UP

	z) P <sub>Mea</sub> (dBm)	Path	Antenna	Peak	Limit	Polarization
Frequency(MHz)		loss	Gain(dBi)	ERP(dBm)	(dBm)	Polarization
8752.00	-49.34	1.90	12.00	-41.39	-13.00	Н
9176.00	-48.30	2.10	11.60	-40.95	-13.00	V
9223.00	-47.83	2.10	11.60	-40.48	-13.00	Н
9302.00	-47.33	2.00	11.60	-39.88	-13.00	Н
9426.50	-48.16	2.10	11.60	-40.81	-13.00	Н
9475.00	-47.21	2.10	11.60	-39.86	-13.00	V



#### GSM Mode Channel 128/824.2MHz-DOWN

	quency(MHz) P <sub>Mea</sub> (dBm)	Path	Antenna	Peak	Limit	Polarization
		loss	Gain(dBi)	ERP(dBm)	(dBm)	Polarization
8734.50	-48.78	2.00	12.00	-40.93	-13.00	V
9157.50	-48.25	2.10	11.60	-40.90	-13.00	Н
9225.50	-46.97	2.10	11.60	-39.62	-13.00	Н
9296.50	-47.57	2.00	11.60	-40.12	-13.00	Н
9422.50	-48.07	2.10	11.60	-40.72	-13.00	Н
9473.50	-48.08	2.10	11.60	-40.73	-13.00	V

#### GSM Mode Channel 190/836.6MHz-DOWN

Frequency(MHz)	P <sub>Mea</sub> (dBm)	Path	Antenna	Peak	Limit	Polarization
110400109(11112)	r Mea(GBIII)	loss	Gain(dBi)	ERP(dBm)	(dBm)	1 olanzation
9429.00	-48.29	2.10	11.60	-40.94	-13.00	Н
9091.50	-48.41	2.20	11.60	-41.16	-13.00	Н
9300.50	-47.48	2.00	11.60	-40.03	-13.00	Н
9221.00	-47.61	2.10	11.60	-40.26	-13.00	Н
9791.00	-47.27	2.30	11.20	-40.52	-13.00	Н
9099.50	-48.41	2.20	11.60	-41.16	-13.00	Н

#### GSM Mode Channel 251/848.8MHz-DOWN

	D (dDm)	Path	Antenna	Peak	Limit	Polarization
Frequency(MHz)	P <sub>Mea</sub> (dBm)	loss	Gain(dBi)	ERP(dBm)	(dBm)	Polarization
8437.50	-48.52	1.80	11.30	-41.17	-13.00	Н
9156.50	-48.37	2.10	11.60	-41.02	-13.00	Н
9221.50	-47.51	2.10	11.60	-40.16	-13.00	Н
9293.50	-47.65	2.00	11.60	-40.20	-13.00	Н
9418.50	-48.34	2.10	11.60	-40.99	-13.00	Н
9470.50	-47.86	2.10	11.60	-40.51	-13.00	V

Note: The maximum value of expanded measurement uncertainty for this test item is U = 2.72dB(30MHz-3GHz)/3.60dB(3GHz-18GHz)/3.58dB(18GHz-40GHz), k = 2



#### Path Antenna Peak Limit Frequency(MHz) P<sub>Mea</sub>(dBm) Polarization loss Gain(dBi) EIRP(dBm) (dBm) -42.41 Н 2.90 16.50 -28.81 -13.00 16936.25 -40.26 Н 17165.63 2.90 14.50 -28.66 -13.00 17293.13 -39.53 3.20 14.50 -28.23 -13.00 Н 17472.50 -39.31 2.90 14.50 -27.71 -13.00 Н 3.30 Н 17570.63 -35.93 12.80 -26.43 -13.00 17770.00 -37.54 3.60 12.80 -28.34 -13.00 Н

#### GSM Mode Channel 512/1850.2MHz-UP

#### GSM Mode Channel 661/1880.0MHz-UP

Frequency(MHz)	P <sub>Mea</sub> (dBm)	Path loss	Antenna Gain(dBi)	Peak EIRP(dBm)	Limit (dBm)	Polarization
16992.50	-41.51	2.90	16.50	-27.91	-13.00	Н
17165.00	-40.96	2.90	14.50	-29.36	-13.00	Н
17290.63	-40.91	3.20	14.50	-29.61	-13.00	Н
17508.75	-37.30	2.90	12.80	-27.40	-13.00	Н
17593.13	-35.82	3.30	12.80	-26.32	-13.00	Н
17840.00	-36.39	3.60	12.80	-27.19	-13.00	Н

#### GSM Mode Channel 810/1909.8MHz-UP

Fraguanov (MHz)	D (dDm)	Path	Antenna	Peak	Limit	Polarization
Frequency(MHz)	P <sub>Mea</sub> (dBm)	loss	Gain(dBi)	EIRP(dBm)	(dBm)	Polarization
16935.00	-41.88	2.90	16.50	-28.28	-13.00	Н
17121.88	-40.64	2.90	14.50	-29.04	-13.00	Н
17274.38	-39.71	3.20	14.50	-28.41	-13.00	Н
17506.25	-36.91	2.90	12.80	-27.01	-13.00	Н
17576.88	-36.66	3.30	12.80	-27.16	-13.00	Н
17829.38	-37.27	3.60	12.80	-28.07	-13.00	Н



#### GSM Mode Channel 512/1850.2MHz-DOWN

Frequency(MHz)	D (dDm)	Path	Antenna	Peak	Limit	Polarization
	P <sub>Mea</sub> (dBm)	loss	Gain(dBi)	EIRP(dBm)	(dBm)	Polarization
16956.88	-41.57	2.90	16.50	-27.97	-13.00	Н
17096.88	-40.74	2.90	14.50	-29.14	-13.00	Н
17296.88	-39.71	3.20	14.50	-28.41	-13.00	Н
17433.75	-39.10	2.90	14.50	-27.50	-13.00	Н
17566.88	-36.71	3.30	12.80	-27.21	-13.00	Н
17818.75	-37.48	3.60	12.80	-28.28	-13.00	Н

#### GSM Mode Channel 661/1880.0MHz-DOWN

Frequency(MHz)	D. (dPm)	Path	Antenna	Peak	Limit	Polarization
	P <sub>Mea</sub> (dBm)	loss	Gain(dBi)	EIRP(dBm)	(dBm)	Folanzation
16986.25	-41.29	2.90	16.50	-27.69	-13.00	Н
17130.00	-40.76	2.90	14.50	-29.16	-13.00	Н
17229.38	-39.83	3.20	14.50	-28.53	-13.00	Н
17480.63	-38.90	2.90	14.50	-27.30	-13.00	Н
17596.88	-35.79	3.30	12.80	-26.29	-13.00	Н
17772.50	-37.26	3.60	12.80	-28.06	-13.00	Н

#### GSM Mode Channel 810/1909.8MHz-DOWN

	D (dDm)	Path	Antenna	Peak	Limit	Polarization
Frequency(MHz)	P <sub>Mea</sub> (dBm)	loss	Gain(dBi)	EIRP(dBm)	(dBm)	Polarization
16949.38	-42.19	2.90	16.50	-28.59	-13.00	Н
17093.13	-41.91	2.90	14.50	-30.31	-13.00	Н
17294.38	-40.53	3.20	14.50	-29.23	-13.00	Н
17523.13	-37.36	2.90	12.80	-27.46	-13.00	Н
17565.63	-37.45	3.30	12.80	-27.95	-13.00	Н
17828.75	-36.53	3.60	12.80	-27.33	-13.00	Н

Note: The maximum value of expanded measurement uncertainty for this test item is U = 2.72dB(30MHz-3GHz)/3.60dB(3GHz-18GHz)/3.58dB(18GHz-40GHz), k = 2

\*\*\*END OF REPORT\*\*\*