RADIO TEST REPORT

Report No: STS1704241F01

Issued for

Santok Limited

Santok House, Unit L, Braintree Industrial Estate, Braintree Road, South Ruislip, Middlesex, United Kingdom

Product Name:	Smart phone
Brand Name:	STK
Model Name:	HERO LITE
Series Model:	N/A
FCC ID:	2AE7RSTKHEROLITE
Test Standard:	FCC Part 22H and 24E

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TEST RESULT CERTIFICATION

Applicant's name	Santok Limited
Address:	Santok House, Unit L, Braintree Industrial Estate, Braintree Road, South Ruislip, Middlesex, United Kingdom
Manufacture's Name:	Santok Limited
Address:	Santok House, Unit L, Braintree Industrial Estate, Braintree Road, South Ruislip, Middlesex, United Kingdom
Product name:	Smart phone
Brand name:	STK
Model and/or type reference:	HERO LITE
Standards	FCC Part 22H and 24E
Test procedure	ANSI/TIA 603-D (2010)
under test (EUT) is in compliance sample identified in the report. This report shall not be reproduce.	is been tested by BZT and the test results show that the equipment ce with the FCC requirements. And it is applicable only to the tested ced except in full, without the written approval of BZT, this document T, personal only, and shall be noted in the revision of the document
Date of Test	•
Date of performance of tests	. 28 Apr. 2017~09 May. 2017
Date of Issue	. 15 May. 2017
Test Result	Pass
Testing Engin	neer :

(Leo li)

Technical Manager:

(Tony liu)

Authorized Signatory:

(Vita Li)

TABLE OF CONTENTS P	age
1 INTRODUCTION	6
1.1 TEST FACTORY	6
1.2 MEASUREMENT UNCERTAINTY	6
2 PRODUCT INFORMATION	7
3 TEST CONFIGURATION OF EQUIPMENT UNDER TEST	8
4 MEASUREMENT INSTRUMENTS	9
5 TEST ITEMS	10
5.1 CONDUCTED OUTPUT POWER	10
5.2 PEAK TO AVERAGE RATIO	11
5.3 TRANSMITTER RADIATED POWER (EIRP/ERP)	12
5.4 OCCUPIED BANDWIDTH	13
5.5 FREQUENCY STABILITY	14
5.6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS	15
5.7 BAND EDGE	16
5.8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT	17
APPENDIX ATESTRESULT	19
A1CONDUCTED OUTPUT POWER	19
A2 PEAK-TO-AVERAGE RADIO	22
A3 TRANSMITTER RADIATED POWER (EIRP/ERP)	23
A4 OCCUPIED BANDWIDTH(99% OCCUPIED BANDWIDTH/26DB BANDWIDTH)	26
A5 FREQUENCY STABILITY	34
A6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS	37
A7 BAND EDGE	43
A8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT	49
APPENDIX BPHOTOS OF TEST SETUP	55

4 of 55 Report No.: STS1704241F01

Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	15 May. 2017	STS1704241F01	ALL	Initial Issue

SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

The radiated emission testing was performed according to the procedures of ANSI/TIA-603-D: 2010,KDB 971168 D01 v02r02 and KDB 648474 D03 v01r04

FCC Rules	Test Description	Test Limit	Test Result	Reference
2.1049	Conducted OutputPower	Reporting Only	PASS	
2.0146 24.232	Peak-to-AverageRatio	< 13 dB	PASS	
2.1046	Effective Radiated Pow-	< 7 Watts max. ERP(Part 22)		
22.913	er/Equivalent Isotropic	< 2 Watts max. EIRP(Part 24)	PASS	
24.232	Radiated Power			
2.1049				
22.917	Occupied Bandwidth	Reporting Only	PASS	
24.238				
2.1055		< 2.5 ppm (Part 22)		
22.355	Frequency Stability	Emission must remain in band	PASS	
24.235		(Part 24)		
2.1051	Spurious Emission at			
22.917	Antenna Terminals	< 43+10log10(P[Watts])	PASS	
24.238	Antenna Terminais			
2.1053	Field Strength of Spurious			
22.917	Radiation	< 43+10log10(P[Watts])	PASS	
24.238	Nauialiui			
2.1051				
22.917	Band Edge	< 43+10log10(P[Watts])	PASS	
24.238				

1 INTRODUCTION

1.1 TEST FACTORY

BZT Testing Technology Co., Ltd.

Add.: Buliding 17, Xinghua Road Xingwei industrial Park Fuyong,

Baoan District, Shenzhen, Guangdong, China

FCC Registration No.: 701733

1.2 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4-2014. All measurement uncertainty values are shown with a coverage factor of k=2 to indicate a 95% level of confidence. The measurement data shown herein meets or exceeds the UCISPR measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance. $^{\circ}$

No.	Item	Uncertainty
1	RF power,conducted	±0.70dB
2	Spurious emissions,conducted	±1.19dB
5	All emissions,radiated(<1G) 30MHz-200MHz	±2.83dB
6	All emissions,radiated(<1G) 200MHz-1000MHz	±2.94dB
7	All emissions,radiated(>1G)	±3.03dB
8	Temperature	±0.5°C
9	Humidity	±2%

Product Designation:	Smart phone	
Hardware version number:	N371B-024	
Software version number:	STK_Hero_Lite_DS_V0.0.1_20170419	
FCC ID:	2AE7RSTKHEROLITE	
	GSM/GPRS:	
	850: 824.2 MHz ~ 848.8 MHz	
	1900: 1850.2 MHz ~ 1909.8MHz	
Tx Frequency:	WCDMA:	
	Band V: 826.4 MHz ~ 846.6 MHz	
	Band II: 1852.4 MHz ~ 1907.6 MHz	
	GSM/GPRS:	
	850: 869.2 MHz ~ 893.8 MHz	
Dy Francisco	1900: 1930.2 MHz ~ 1989.8 MHz	
Rx Frequency:	WCDMA:	
	Band V: 871.4 MHz ~ 891.6 MHz	
	Band II: 1932.4 MHz ~ 1987.6 MHz	
Max RF Output Power:	GSM850:33.21dBm,PCS1900:30.38dBm GPRS850(1-Slot):33.19dBm, GPRS1900(1-Slot):30.36Bm GPRS850(2-Slot):32.79dBm,GPRS1900(2-Slot):29.93dBm GPRS850(3-Slot):31.33dBm,GPRS1900(3-Slot):28.44dBm GPRS850(4-Slot):30.86dBm,GPRS1900(4-Slot):27.98dBm WCDMABand V:22.71dBm,WCDMA Band II:20.46dBm	
Type of Emission:	GSM(850): 319KGXW; GSM(1900): 324KGXW GPRS(850): 321KG7W; GPRS(1900): 320KG7W WCDMA850: 4M84F9W WCDMA1900: 4M91F9W	
SIM Card:	SIM 1 and SIM 2 is a chipset unit and tested as single chipset,SIM 1 is used to tested	
Antenna:	PIFA Antenna	
	GSM 850:-0.8dBi ,PCS 1900: 0.20dBi	
Antenna gain:	WCDMA 850:-0.8dBi, WCDMA1900: 0.20dBi	
Power Supply:	DC 3.8V by battery	
Battery parameter:	Capacity: 2400mAh, Rated Voltage: 3.8V	
GPRS/EDGE Class:	Multi-Class12	
Extreme Vol. Limits:	DC3.5 V to 4.35V (Nominal DC3.8V)	
Extreme Temp. Tolerance:	-30℃ to +50℃	
** Note: The High Veltage 4	251/ and Law Voltage 2.5. V was declared by manufacturer. The	

^{**} Note: The High Voltage 4.35V and Low Voltage 3.5 V was declared by manufacturer, The EUT couldn't be operate normally with higher or lower voltage.

3 TEST CONFIGURATION OF EQUIPMENT UNDER TEST

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems 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 10th harmonic for GSM850 and WCDMA Band V.
- 2. 30 MHz to 10th harmonic for GSM1900 and WCDMA Band II.

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 GPRS CLASS 12 LINK	GSM LINK GPRS CLASS 12 LINK
GSM 1900	GSM LINK GPRS CLASS 12 LINK	GSM LINK GPRS CLASS 12 LINK
WCDMA BAND V	RMC 12.2KBPS LINK	RMC 12.2KBPS LINK
WCDMA BAND II	RMC 12.2KBPS LINK	RMC 12.2KBPS LINK

4 MEASUREMENT INSTRUMENTS

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibra- tion	Calibrated Until
Spectrum Analyzer	Agilent	E4407B	MY50140340	2016.10.23	2017.10.22
Signal Analyzer	Agilent	N9020A	MY49100060	2016.10.23	2017.10.22
Test Receiver	R&S	ESCI	101427	2016.10.23	2017.10.22
Communication Tester	Agilent	8960	MY48360751	2016.10.23	2017.10.22
Communication Tester	R&S	CMU200	112012	2016.10.23	2017.10.22
Test Receiver	R&S	ESCI	102086	2016.10.23	2017.10.22
Bilog Antenna	TESEQ	CBL6111D	34678	2014.11.24	2017.11.23
Bilog Antenna (Calibration antenna)	TESEQ	CBL6111D	34678	2014.11.24	2017.11.23
Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-1343	2015.03.05	2018.03.04
Horn Antenna (Calibration antenna)	Schwarzbeck	BBHA 9120D	9120D-1343	2015.03.05	2018.03.04
MXA SIGNAL Analyzer	Agilent	N9020A	MY49100060	2016.10.23	2017.10.22
Double Ridge Horn Antenna	COM-POWER CORPORATION	AH-840	AHA-840	2016.10.23	2017.10.22
Low frequency cable	N/A	R01	N/A	NCR	NCR
High frequency cable	SCHWARZBECK	AK9515H	SN-96286/96287	NCR	NCR
Vector signal generator	Agilent	E8257D-521	MY45141029	2016.10.23	2017.10.22
Power amplifier	DESAY	ZHL-42W	9638	2016.10.23	2017.10.22
Band Reject fil- ter(1920-1980MHz)	COM-MW	ZBSF-1920-1980	0092	2016.10.23	2017.10.22
Band Reject fil- ter(880-915MHz)	COM-MW	ZBSF-C897.5-35	707	2016.10.23	2017.10.22
Band Reject fil- ter(1710-1785MHz)	COM-MW	ZBSF-C1747.5-75	708	2016.10.23	2017.10.22
Band Reject fil- ter(1850-1910MHz)	COM-MW	ZBSF-C1880-60	709	2016.10.23	2017.10.22
Band Reject fil- ter(2500-2570MHz)	COM-MW	ZBSF-C2535-70	710	2016.10.23	2017.10.22
Highpass Filter	WHKX7.0/18G-8SS	Wainwright	18	2016.10.23	2017.10.22

Equipment with a calibration date of "NCR" shown in this list was not used to make direct calibrated measurements.

5 TEST ITEMS

5.1 CONDUCTED OUTPUT POWER

Test overview

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.

Test procedures

- 1. The transmitter output port was connected to the system simulator.
- 2. Set eut at maximum power through the system simulator.
- 3. Select lowest, middle, and highest channels for each band and different modulation.
- 4. Measure and record the power level from the system simulator.

Test setup



5.2 PEAK TO AVERAGE RATIO

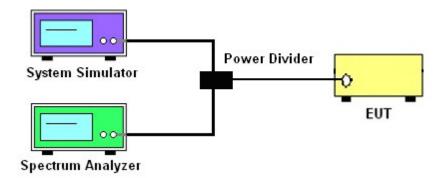
TEST OVERVIEW

According to §24.232(d), power measurements for transmissions by stations authorized under this section may be made either in accordance with a commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of §24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 db.

TEST PROCEDURES

- 1. The testing follows fcckdb 971168 v02r02 section
- 2. The eut was connected to the and peak and av system simulator& spectrum analysis reads
- 3. Select lowest, middle, and highest channels for each band and different modulation.
- 4. Set the test probe and measure average power of the spectrum analysis

TEST SETUP



5.3 TRANSMITTER RADIATED POWER (EIRP/ERP) TEST OVERVIEW

Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI/TIA-603-D-2010 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

TEST PROCEDURE

- 1. The testing follows FCC KDB 971168 D01 Section 5.2.1. (for CDMA/WCDMA), Section 5.2.2 (for GSM/GPRS) and ANSI / TIA-603-D-2010 Section 2.2.17.
- 2. The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.
- 3. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.
- 4. The frequency range up to tenth harmonic of the fundamental frequency was investigated.
- 5. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a nonradiating cable. The absolute levels of the spurious emissions were measured by the substitution.
- 6. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-D. The EUT was replaced by the 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/ERP was calculated with the correction factor, ERP/EIRP = P.SG + GT LC

ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMe as, typically dBW or dBm);

PMeas(PK) = measured transmitter output power or PSD, in dBm or dBW;

GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

5.4 OCCUPIED BANDWIDTH

TEST OVERVIEW

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.

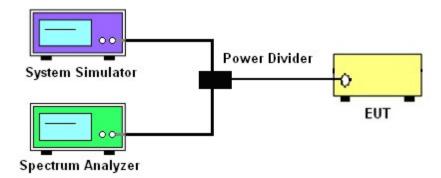
The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

All modes of operation were investigated and the worst case configuration results are reported in this section.

TEST PROCEDURE

- 1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth and the 26dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
- 2. RBW = 1 5% of the expected OBW
- 3. VBW ≥ 3 x RBW
- 4. Detector = Peak
- 5. Trace mode = max hold
- 6. Sweep = auto couple
- 7. The trace was allowed to stabilize
- 8. If necessary, steps 2 7 were repeated after changing the RBW such that it would be within
- 1-5% of the 99% occupied bandwidth observed in Step 7

TEST SETUP



5.5 FREQUENCY STABILITY

Test Overview

Frequency stability testing is performed in accordance with the guidelines of ANSI/TIA-603-D-2010. The frequency stability of the transmitter is measured by:

- a.) Temperature: The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

For Part 22, the frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5 ppm) of the center frequency. For Part 24 the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Procedure

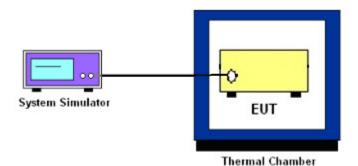
Temperature Variation

- 1. The testing follows fcckdb 971168 D01 section 9.0
- 2. The EUT was set up in the thermal chamber and connected with the system simulator.
- 3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
- 4. With power OFF, the temperature was raised in 10°C steps up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

Voltage Variation

- 1. The testing follows FCC KDB 971168 D01 Section 9.0.
- 2. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simulator.
- 3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
- 4. The variation in frequency was measured for the worst case.

TEST SETUP



5.6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS Test Overview

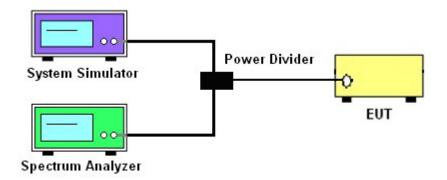
The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

Test procedure

- 1. The testing FCC KDB 971168 D01 v02r02 Section 6.0. and ANSI/TIA-603-D-2010-Section 2.2.13.2(d)
- 2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
- 3. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 4. The middle channel for the highest RF power within the transmitting frequency was measured.
- 5. The conducted spurious emission for the whole frequency range was taken.
- 6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
- 7. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)
- = P(W) [43 + 10log(P)] (dB)
- = [30 + 10log(P)] (dBm) [43 + 10log(P)] (dB)
- = -13dBm.

Test Setup



OVERVIEW

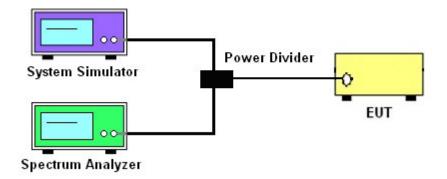
All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

The minimum permissible attenuation level of any spurious emission is 43 + log10(P[Watts]), where P is the transmitter power in Watts.

TEST PROCEDURE

- 1.The testing FCC KDB 971168 D01 v02r02 Section 6.0. and ANSI/TIA-603-D-2010-Section 2.2.13.2(d)
- 2. Start and stop frequency were set such that the band edge would be placed in the center of the Plot.
- 3. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
- 4. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 5. The band edges of low and high channels for the highest RF powers were measured.
- 6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
- 7. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
- = P(W) [43 + 10log(P)] (dB)
- = [30 + 10log(P)] (dBm) [43 + 10log(P)] (dB)
- = -13dBm.

TEST SETUP



5.8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT Test overview

Radiated spurious emissions measurements are performed using the substitution method described in ANSI/TIA-603-D-2010 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using horizontally and vertically polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized horn antennas. All measurements are performed as peak measurements while the EUT isoperating at maximum power and at the appropriate frequencies.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

Test procedure

- 1. The testing FCC KDB 971168 D01 Section 5.8 and ANSI/TIA-603-D-2010-Section 2.2.12.2(b)
- 2. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
- 3. VBW \geq 3 x RBW
- 4. Span = 1.5 times the OBW
- 5.No. of sweep points > 2 x span/RBW
- 6. Detector = Peak
- 7. Trace mode = max hold
- 8. The trace was allowed to stabilize
- 9. Effective Isotropic Spurious Radiation was measured by substitution method according to TIA/EIA-603-D. The EUT was replaced by the 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/ERP was calculated with the correction factor,

ERP/EIRP = P.SG + GT - LC

ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, t ypically dBW or dBm);

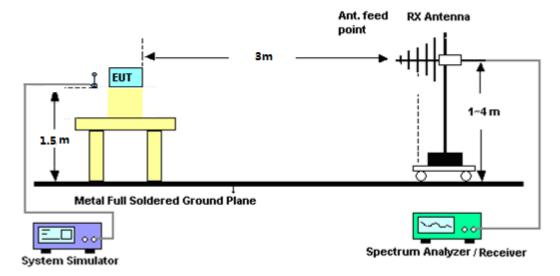
P.SG = measured transmitter output power or PSD, in dBm or dBW;

GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

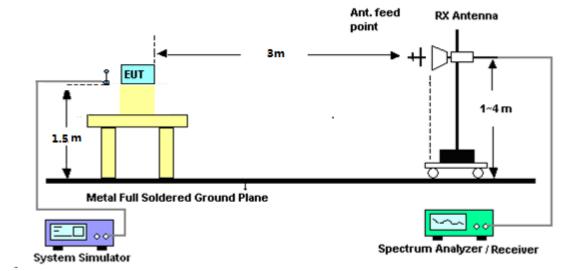
LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

TEST SETUP

For radiated test from 30MHz to 1GHz



For radiated test from above 1GHz



APPENDIX ATESTRESULT A1CONDUCTED OUTPUT POWER GSM 850:

Mode	Frequency (MHz)	AVG Power
	824.2	33.21
GSM850	836.6	33.16
	848.8	33.07
	824.2	33.19
GPRS850	836.6	33.15
	848.8	33.05

PCS 1900:

Mode	Frequency (MHz)	AVG Power
	1850.2	29.91
GSM1900	1880.0	30.24
	1909.8	30.38
	1850.2	29.89
GPRS1900	1880.0	30.21
	1909.8	30.36

UMTS BAND V

Mode	Frequency(MHz)	AVG Power
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	826.4	22.71
WCDMA 850 RMC	836.6	22.69
KWC	846.6	22.53
LIODDA	826.4	22.69
HSDPA Subtest 1	836.6	22.67
Sublest	846.6	22.51
110004	826.4	22.25
HSDPA Subtest 2	836.6	22.22
Sublest 2	846.6	22.08
110004	826.4	21.95
HSDPA Subtest 3	836.6	21.75
Sublest 3	846.6	21.61
	826.4	21.53
HSDPA	836.6	21.28
Subtest 4	846.6	21.16
	826.4	22.60
HSUPA	836.6	22.58
Subtest 1	846.6	22.06
	826.4	21.69
HSUPA	836.6	21.67
Subtest 2	846.6	21.12
1101154	826.4	21.59
HSUPA Subtest 3	836.6	21.22
Sublest 3	846.6	20.63
	826.4	21.21
HSUPA	836.6	20.84
Subtest 4	846.6	20.23
	826.4	19.79
HSUPA	836.6	19.36
Subtest 5	846.6	18.73

UMTS BAND II

Mode	Frequency(MHz)	AVG Power
\\\\OD\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1852.4	20.13
WCDMA 1900 RMC	1880	20.46
KWC	1907.6	19.85
110000	1852.4	20.12
HSDPA Subtest 1	1880	20.45
Subtest 1	1907.6	19.82
110000	1852.4	19.66
HSDPA Subtest 2	1880	19.96
Sublest 2	1907.6	19.35
1100004	1852.4	19.36
HSDPA Subtest 3	1880	19.52
Sublest 3	1907.6	19.04
	1852.4	18.87
HSDPA Subtest 4	1880	19.12
Sublest 4	1907.6	18.72
	1852.4	20.08
HSUPA	1880	20.38
Subtest 1	1907.6	19.39
	1852.4	19.19
HSUPA	1880	19.42
Subtest 2	1907.6	18.40
	1852.4	19.07
HSUPA	1880	18.99
Subtest 3	1907.6	17.95
	1852.4	18.74
HSUPA	1880	18.65
Subtest 4	1907.6	17.53
	1852.4	17.33
HSUPA	1880	17.18
Subtest 5	1907.6	16.10

A2 PEAK-TO-AVERAGE RADIO

Mada	Frequency	PEAK Power	AVG Power	PAR
Mode	(MHz)	(dBm)	(dBm)	(dB)
	824.2	33.41	33.21	0.20
GSM850	836.6	33.32	33.16	0.16
	848.8	33.25	33.07	0.18
	824.2	33.37	33.19	0.18
GPRS850	836.6	33.28	33.15	0.13
	848.8	33.20	33.05	0.15
	1850.2	30.02	29.91	0.11
PCS1900	1880	30.35	30.24	0.11
	1909.8	30.48	30.38	0.10
	1850.2	30.00	29.89	0.11
GPRS1900	1880	30.33	30.21	0.12
	1909.8	30.47	30.36	0.11

Mode	Frequency	PEAK Power	AVG Power	PAR
Mode	(MHz)	(dBm)	(dBm)	(dB)
	826.4	25.36	22.71	2.65
WCDMA 850 RMC	836.6	25.35	22.69	2.66
	846.6	25.40	22.53	2.87
	826.4	25.27	22.69	2.58
HSDPA 850	836.6	25.29	22.67	2.62
	846.6	25.20	22.51	2.69
	826.4	25.18	22.60	2.58
HSUPA 850	836.6	25.21	22.58	2.63
	846.6	25.16	22.60	2.56
	1852.4	22.94	20.13	2.81
WCDMA 1900 RMC	1880	23.35	20.46	2.89
	1907.6	22.64	19.85	2.79
	1852.4	23.06	20.12	2.94
HSDPA 1900	1880	23.12	20.45	2.67
	1907.6	22.35	19.82	2.53
	1852.4	22.61	20.08	2.53
HSUPA 1900	1880	23.06	20.38	2.68
	1907.6	22.22	19.39	2.83

A3 TRANSMITTER RADIATED POWER (EIRP/ERP)

	Radiated Power (ERP) for GSM 850 MHZ								
				Re	esult				
Mode	Frequency	S G.Level	Cable	Gain	PMeas	Polarization	Conclusion		
		(dBm)	loss	(dBi)	E.R.P(dBm)	Of Max. ERP			
	824.2	24.67	0.44	6.5	30.73	Horizontal	Pass		
	824.2	26.59	0.44	6.5	32.65	Vertical	Pass		
GSM850	836.6	24.69	0.45	6.5	30.74	Horizontal	Pass		
GSIVIOSU	836.6	26.54	0.45	6.5	32.59	Vertical	Pass		
	848.8	24.53	0.46	6.5	30.57	Horizontal	Pass		
	848.8	26.48	0.46	6.5	32.52	Vertical	Pass		
	824.2	24.63	0.44	6.5	30.69	Horizontal	Pass		
	824.2	26.29	0.44	6.5	32.35	Vertical	Pass		
CDDS050	836.6	24.83	0.45	6.5	30.88	Horizontal	Pass		
GPRS850	836.6	26.33	0.45	6.5	32.38	Vertical	Pass		
	848.8	24.61	0.46	6.5	30.65	Horizontal	Pass		
	848.8	26.44	0.46	6.5	32.48	Vertical	Pass		

	Radiated Power (EIRP) for PCS 1900 MHZ								
				Re	esult				
Mode	Frequency	S G.Level	Cable	Gain	PMeas	Polarization	Conclusion		
		(dBm)	loss	(dBi)	E.I.R.P.(dBm)	Of Max.EIRP.			
	1850.2	19.56	2.41	10.35	27.50	Horizontal	Pass		
	1850.2	21.44	2.41	10.35	29.38	Vertical	Pass		
PCS1900	1880	20.03	2.42	10.35	27.96	Horizontal	Pass		
PCS 1900	1880	21.75	2.42	10.35	29.68	Vertical	Pass		
	1909.8	19.93	2.43	10.35	27.85	Horizontal	Pass		
	1909.8	21.8	2.43	10.35	29.72	Vertical	Pass		
	1850.2	19.47	2.41	10.35	27.41	Horizontal	Pass		
	1850.2	21.42	2.41	10.35	29.36	Vertical	Pass		
GPRS1900	1880	19.76	2.42	10.35	27.69	Horizontal	Pass		
GPR31900	1880	21.46	2.42	10.35	29.39	Vertical	Pass		
	1909.8	20.01	2.43	10.35	27.93	Horizontal	Pass		
	1909.8	21.74	2.43	10.35	29.66	Vertical	Pass		

	Radiated Power (ERP) for WCDMA Band V								
				Re	esult				
Mode	Frequency	S G.Level	Cable	Gain	PMeas E.R.P	Polarization	Conclusion		
		(dBm)	loss	(dBi)	(dBm)	Of Max.ERP			
	826.4	14.67	0.44	6.5	20.73	Horizontal	Pass		
	826.4	16.43	0.44	6.5	22.49	Vertical	Pass		
Band V	836.6	14.42	0.45	6.5	20.47	Horizontal	Pass		
Danu v	836.6	16.13	0.45	6.5	22.18	Vertical	Pass		
	846.4	14.00	0.46	6.5	20.04	Horizontal	Pass		
	846.4	15.97	0.46	6.5	22.01	Vertical	Pass		

	Radiated Power (EIRP) for WCDMA Band II								
				Re	sult				
Mode	Frequency	S G.Level	Cable	Gain	PMeas	Polarization	Conclusion		
		(dBm)	loss	(dBi)	E.I.R.P.(dBm)	Of Max.EIRP			
	1852.4	9.78	2.41	10.35	17.72	Horizontal	Pass		
	1852.4	11.71	2.41	10.35	19.65	Vertical	Pass		
Band II	1880.0	10.14	2.42	10.35	18.07	Horizontal	Pass		
Danu II	1880.0	12.03	2.42	10.35	19.96	Vertical	Pass		
	1907.4	9.55	2.43	10.35	17.47	Horizontal	Pass		
	1907.4	11.4	2.43	10.35	19.32	Vertical	Pass		

A4 OCCUPIED BANDWIDTH(99% OCCUPIED BANDWIDTH/26DB BANDWIDTH)

	Occupied Bandwidth for GSM 850 band							
Mode	Eroguanav(MHz)	Occupied Bandwidth	Emission Bandwidth					
Ivioue	Frequency(MHz)	(99%)(kHz)	(-26dBc)(kHz)					
Low Channel	824.2	244.98	317.0					
Middle Channel	836.6	248.22	319.4					
High Channel	848.8	245.78	315.3					
	Occupied Band	width for GPRS 850 band						
Mode	Fragues av (MHz)	Occupied Bandwidth	Emission Bandwidth					
Mode	Frequency(MHz)	(99%)(kHz)	(-26dBc)(kHz)					
Low Channel	824.2	244.10	315.4					
Middle Channel	836.6	243.23	317.5					
High Channel	848.8	246.37	320.5					

	Occupied Bandwidth for GSM1900 band							
Mode	Frequency(MHz)	Occupied Bandwidth	Emission Bandwidth					
Mode	Frequency(IVIFIZ)	(99%)(kHz)	(-26dBc)(kHz)					
Low Channel	1850.2	244.46	323.5					
Middle Channel	1880.0	246.94	317.7					
High Channel	1909.8	244.61	313.1					
	Occupied Bandy	width for GPRS 1900 band						
Mode	Fraguanay(MHz)	Occupied Bandwidth	Emission Bandwidth					
iviode	Frequency(MHz)	(99%)(kHz)	(-26dBc)(kHz)					
Low Channel	1850.2	243.94	315.6					
Middle Channel	1880.0	244.86	315.1					
High Channel	1909.8	243.84	319.5					

	Occupied Bandwidth for UMTS band V							
Mode	Frequency(MHz)	Occupied Bandwidth	Emission Bandwidth					
Mode	Frequency(MHZ)	(99%)(MHz)	(-26dBc)(MHz)					
Low Channel	826.4	4.2138	4.843					
Middle Channel	836.6	4.1999	4.842					
High Channel	846.6	4.2075	4.830					
	Occupied Ban	dwidth for UMTS band II						
Mode	Fraguanay(MHz)	Occupied Bandwidth	Emission Bandwidth					
Mode	Frequency(MHz)	(99%)(MHz)	(-26dBc)(MHz)					
Low Channel	1852.4	4.2167	4.844					
Middle Channel	1880	4.2254	4.907					
High Channel	1907.6	4.2012	4.848					

GSM 850 CH 128



GSM 850 CH 190



GSM 850 CH 251



GPRS 850 CH 128



GPRS 850 CH 190



GPRS 850 CH 251



PCS 1900 CH 512



PCS 1900 CH 661



PCS 1900 CH 810



GPRS 1900 CH 512



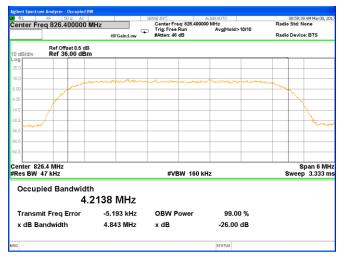
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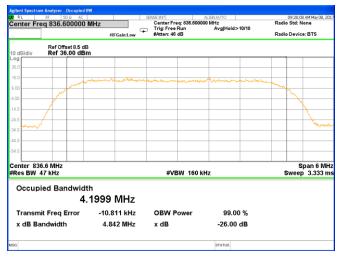
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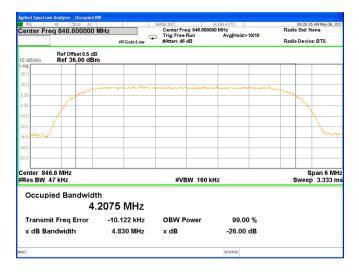
UMTS BAND V CH 4132



UMTS BAND V CH 4183



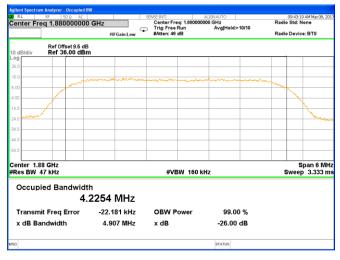
UMTS BAND V CH 4233



UMTS BAND II CH 9262



UMTS BAND II CH 9400



UMTS BAND II CH 9538



A5 FREQUENCY STABILITY

Normal Voltage = 3.8V.; Battery End Point (BEP) = 3.5 V.; Maximum Voltage =4.35 V

	GSM 850 Middle Channel/836.6MHz								
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result				
50		13.16	0.016						
40		27.03	0.032						
30		26.19	0.031						
20		16.84	0.020						
10	Normal Voltage	17.92	0.021						
0		26.77	0.032	2.5ppm	PASS				
-10	_	17.87	0.021						
-20		35.66	0.043						
-30		16.35	0.020						
25	Maximum Voltage	12.85	0.015						
25	BEP	13.79	0.016						

	GPRS 850 Middle Channel/836.6MHz								
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result				
50		15.05	0.018						
40		35.68	0.043						
30		22.38	0.027						
20		18.82	0.022						
10	Normal Voltage	34.98	0.042						
0		24.53	0.029	2.5ppm	PASS				
-10		36.01	0.043						
-20		14.77	0.018						
-30		15.84	0.019						
25	Maximum Voltage	19.71	0.024						
25	BEP	29.95	0.036						

GSM 1900 Middle Channel/1880MHz						
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result	
50		31.89	0.017			
40		33.90	0.018			
30		33.86	0.018			
20		32.41	0.017			
10	Normal Voltage	28.14	0.015	Within		
0		18.06	0.010	Authorized	PASS	
-10		12.88	0.007	Band		
-20		17.25	0.009			
-30		18.38	0.010			
25	Maximum Voltage	21.86	0.012			
25	BEP	25.92	0.014			

GPRS 1900 Middle Channel/1880MHz						
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result	
50		21.52	0.011	Within Authorized Band		
40		22.23	0.012			
30	Normal Voltage	13.93	0.007			
20		19.57	0.010			
10		33.57	0.018			
0		35.29	0.019		PASS	
-10		18.56	0.010			
-20		17.20	0.009			
-30		26.31	0.014			
25	Maximum Voltage	31.42	0.017			
25	BEP	30.29	0.016			

Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
40	15.98	0.019			
30	27.14	0.032			
20	27.43	0.033			
10	Normal Voltage	31.60	0.038		
0	Maximum Voltage BEP	24.71	0.030		
-10		32.91	0.039		
-20		25.47	0.030		
-30		25.85	0.031		
25		27.00	0.032		
25		29.80	0.036		

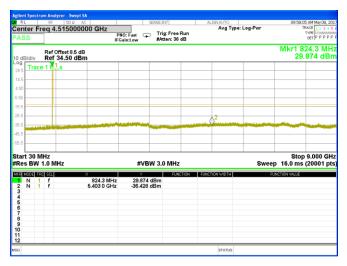
1. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

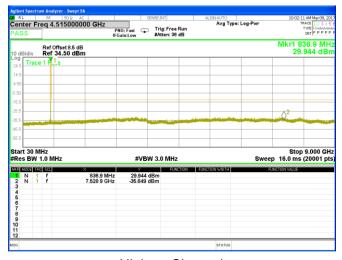
WCDMA II Middle Channel/1880MHz						
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result	
50		11.51	0.006			
40		16.66	0.009			
30		35.39	0.019			
20		12.08	0.006			
10	Normal Voltage	29.86	0.016	Within Au-		
0		18.74	0.010	thorized Band	PASS	
-10		34.43	0.018			
-20		21.29	0.011			
-30		18.40	0.010			
25	Maximum Voltage	16.43	0.009			
25	BEP	13.04	0.007			

^{1.} The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

A6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS GSM 850 BAND

Lowest Channel



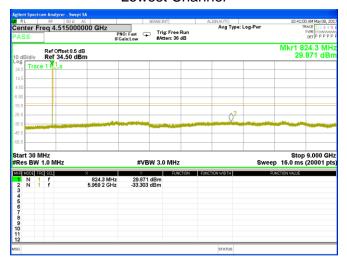


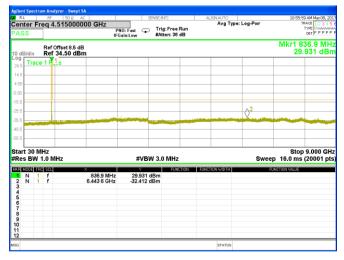
Highest Channel



GPRS 850 BAND

Lowest Channel



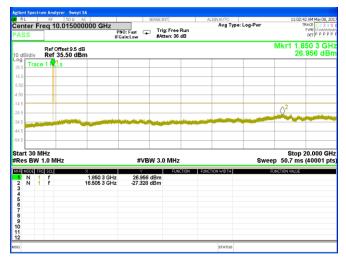


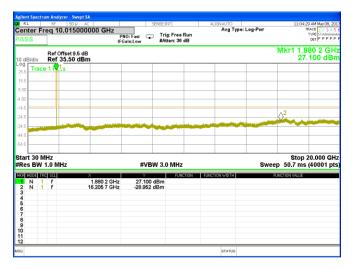
Highest Channel



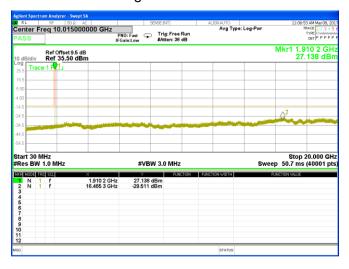
GSM1900 BAND(30M-20G)

Lowest Channel



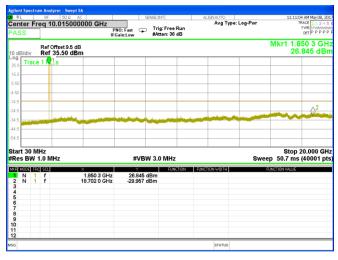


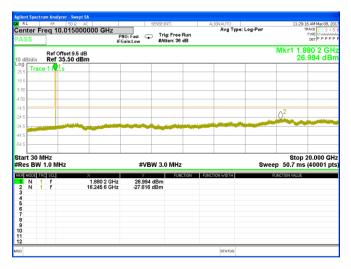
Highest Channel



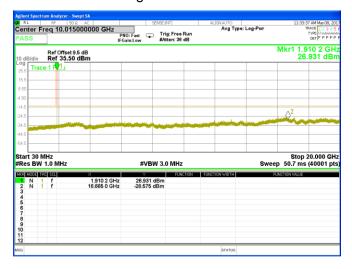
GPRS1900 BAND(30M-20G)

Lowest Channel



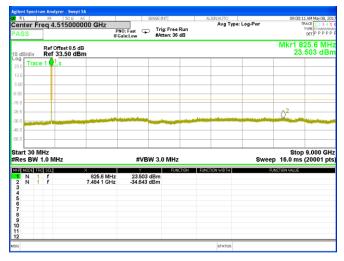


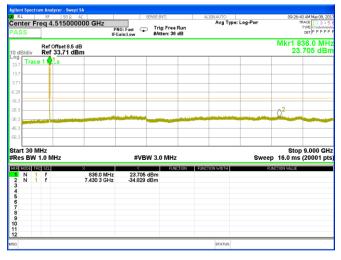
Highest Channel



WCDMA Band V (RMC 12.2Kbps)

Lowest Channel



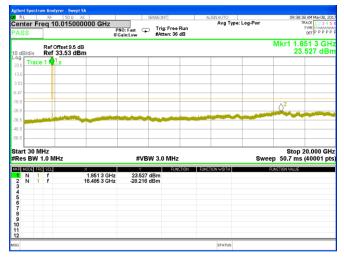


Highest Channel

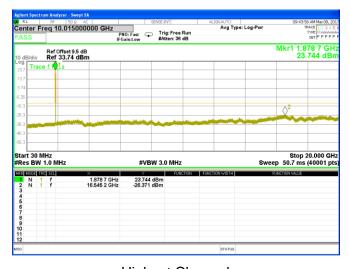


WCDMA Band II (RMC 12.2Kbps)(30M-20G)

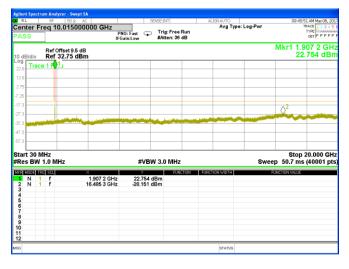
Lowest Channel



Middle Channel



Highest Channel



A7 BAND EDGE

GSM 850

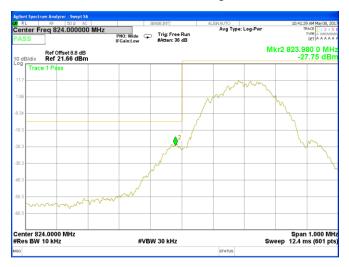
Lowest Band Edge





GPRS 850

Lowest Band Edge





GSM 1900

Lowest Band Edge





GPRS 1900

Lowest Band Edge





WCDMA Band VRMC 12.2Kbps

Lowest Band Edge





WCDMA Band IIRMC 12.2Kbps

Lowest Band Edge





A8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT GSM 850: (30-9000)MHz

IVI 650. (50-9000)IVII	-	GSM	850: (30-9	000)MHz			
	The W	orst Test R	•	-	824.2 MHz		
_	S G.Lev		Loss PMea (dBm)	PMea	Limit	Margin	
Frequency(MHz)	(dBm)	Ant(dBi)		(dBm)	(dBm)	(dB)	Polarity
1648.30	-41.37	9.40	4.75	-36.72	-13.00	-23.72	Н
2472.31	-40.60	10.60	8.39	-38.39	-13.00	-25.39	Н
3296.46	-31.61	12.00	11.79	-31.40	-13.00	-18.40	Н
1648.28	-43.36	9.40	4.75	-38.71	-13.00	-25.71	V
2472.24	-44.59	10.60	8.39	-42.38	-13.00	-29.38	V
3296.82	-43.50	12.00	11.79	-43.29	-13.00	-30.29	V
	The W	orst Test R	esults Ch	annel 190/	836.6 MHz		
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity
r requericy(ivii iz)	(dBm)	Ant(abi)	L055	(dBm)	(dBm)	(dB)	
1673.20	-40.86	9.50	4.76	-36.12	-13.00	-23.12	Н
2509.92	-39.77	10.70	8.40	-37.47	-13.00	-24.47	Н
3346.13	-31.15	12.20	11.80	-30.75	-13.00	-17.75	Н
1672.84	-43.31	9.40	4.75	-38.66	-13.00	-25.66	V
2509.63	-44.64	10.60	8.39	-42.43	-13.00	-29.43	V
3346.42	-43.75	12.20	11.82	-43.37	-13.00	-30.37	V
	The W	orst Test R	esults Ch	annel 251/	848.8 MHz		
Frequency(MHz)	S G.Lev	Ant(dBi)	1	PMea	Limit	Margin	Polarity
r requericy(ivii iz)	(dBm)	Ant(ubi)	Loss	(dBm)	(dBm)	(dB)	Folality
1697.66	-41.43	9.60	4.77	-36.60	-13.00	-23.60	Н
2546.55	-40.06	10.80	8.50	-37.76	-13.00	-24.76	Н
3395.10	-31.28	12.50	11.90	-30.68	-13.00	-17.68	Н
1697.66	-43.91	9.60	4.77	-39.08	-13.00	-26.08	V
2546.14	-44.31	10.80	8.50	-42.01	-13.00	-29.01	V
3395.19	-43.86	12.50	11.90	-43.26	-13.00	-30.26	V

Note: (1)Below 30MHz no Spurious found is the worst condition.

(2)Above 3.5GHz amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has.

GPRS 850: (30-9000)MHz

KS 850: (30-9000)IV	···· • <u>·</u>	GPRS	850: (30-9	0000)MHz				
	The W	orst Test R	•	•	824.2 MHz			
- (111)	S G.Lev	4 ((17))	Loss	PMea	Limit	Margin		
Frequency(MHz)	(dBm)	m) Ant(dBi)		(dBm)	(dBm)	(dB)	Polarity	
1648.48	-41.54	9.40	4.75	-36.89	-13.00	-23.89	Н	
2472.39	-39.90	10.60	8.39	-37.69	-13.00	-24.69	Н	
3296.48	-32.09	12.00	11.79	-31.88	-13.00	-18.88	Н	
1648.19	-44.31	9.40	4.75	-39.66	-13.00	-26.66	V	
2472.56	-45.10	10.60	8.39	-42.89	-13.00	-29.89	V	
3296.53	-43.75	12.00	11.79	-43.54	-13.00	-30.54	V	
The Worst Test Results Channel 190/836.6 MHz								
5 (441.)	S G.Lev	۸ مه(dD;)	Loss	PMea	Limit	Margin	Polarity	
Frequency(MHz)	(dBm)	Ant(dBi)		(dBm)	(dBm)	(dB)		
1672.82	-40.42	9.50	4.76	-35.68	-13.00	-22.68	Н	
2509.66	-39.17	10.70	8.40	-36.87	-13.00	-23.87	Н	
3346.20	-31.57	12.20	11.80	-31.17	-13.00	-18.17	Н	
1672.92	-43.97	9.40	4.75	-39.32	-13.00	-26.32	V	
2509.45	-44.78	10.60	8.39	-42.57	-13.00	-29.57	V	
3346.01	-43.74	12.20	11.82	-43.36	-13.00	-30.36	V	
	The W	orst Test R	esults Ch	annel 251/	848.8 MHz			
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity	
r requericy(ivii iz)	(dBm)	Ant(abi)	L055	(dBm)	(dBm)	(dB)	Polarity	
1697.66	-41.37	9.60	4.77	-36.54	-13.00	-23.54	Н	
2546.52	-40.32	10.80	8.50	-38.02	-13.00	-25.02	Н	
3395.06	-30.97	12.50	11.90	-30.37	-13.00	-17.37	Н	
1697.66	-43.58	9.60	4.77	-38.75	-13.00	-25.75	V	
2546.12	-45.02	10.80	8.50	-42.72	-13.00	-29.72	V	
3394.86	-43.77	12.50	11.90	-43.17	-13.00	-30.17	V	

(2)Above 3.5GHz amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has.

PCS 1900: (30-20000)MHz

DCS 1900: (30-20000)MHz									
The Worst Test Results for Channel 512/1850.2MHz									
	S G.Lev	۸ ۱/ ما ا	Loss	PMea	Limit	Margin	Polarity		
Frequency(MHz)	(dBm)	Ant(dBi)		(dBm)	(dBm)	(dB)			
3700.06	-34.64	12.60	12.93	-34.97	-13.00	-21.97	Н		
5550.32	-34.77	13.10	17.11	-38.78	-13.00	-25.78	Н		
7400.62	-32.71	11.50	22.20	-43.41	-13.00	-30.41	Н		
3700.51	-35.60	12.60	12.93	-35.93	-13.00	-22.93	V		
5550.28	-34.60	13.10	17.11	-38.61	-13.00	-25.61	V		
7400.98	-32.06	11.50	22.20	-42.76	-13.00	-29.76	V		
The Worst Test Results for Channel 661/1880.0MHz									
5	S G.Lev	1.000	PMea	Limit	Margin	Dolority			
Frequency(MHz)	(dBm)	(dBm) Ant(dBi)	Loss (dE	(dBm)	(dBm)	(dB)	Polarity		
3760.11	-34.79	12.60	12.93	-35.12	-13.00	-22.12	Н		
5639.95	-34.12	13.10	17.11	-38.13	-13.00	-25.13	Н		
7519.88	-33.53	11.50	22.20	-44.23	-13.00	-31.23	Н		
3760.09	-35.57	12.60	12.93	-35.90	-13.00	-22.90	V		
5640.14	-34.87	13.10	17.11	-38.88	-13.00	-25.88	V		
7520.13	-32.92	11.50	22.20	-43.62	-13.00	-30.62	V		
	The Wor	st Test Res	sults for C	hannel 810)/1909.8MH	z			
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Dolority		
Frequency(MH2)	(dBm)	Anti(ubi)	L055	(dBm)	(dBm)	(dB)	Polarity		
3819.45	-34.89	12.60	12.93	-35.22	-13.00	-22.22	Н		
5729.44	-34.13	13.10	17.11	-38.14	-13.00	-25.14	Н		
7638.84	-32.17	11.50	22.20	-42.87	-13.00	-29.87	Н		
3819.56	-35.79	12.60	12.93	-36.12	-13.00	-23.12	V		
5729.17	-35.04	13.10	17.11	-39.05	-13.00	-26.05	V		
7639.17	-32.61	11.50	22.20	-43.31	-13.00	-30.31	V		

(2)Above 8GHz amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has.

GPRS 1900: (30-20000)MHz

RS 1900. (30-2000)		GPRS1	900: (30-2	0000)MHz				
	The Wor		•		2/1850.2MH	Z		
5 (MIL)	S G.Lev	A ((ID))	Loss	PMea	Limit	Margin	D 1 ''	
Frequency(MHz)	(dBm)	Ant(dBi)		(dBm)	(dBm)	(dB)	Polarity	
3700.08	-33.52	12.60	12.93	-33.85	-13.00	-20.85	Н	
5550.67	-34.23	13.10	17.11	-38.24	-13.00	-25.24	Н	
7400.81	-33.38	11.50	22.20	-44.08	-13.00	-31.08	Н	
3700.51	-35.47	12.60	12.93	-35.80	-13.00	-22.80	V	
5550.38	-34.07	13.10	17.11	-38.08	-13.00	-25.08	V	
7400.74	-32.16	11.50	22.20	-42.86	-13.00	-29.86	V	
The Worst Test Results for Channel 661/1880.0MHz								
- (A411.)	S G.Lev	Ant(dBi)) Loss —	PMea	Limit	Margin	Polarity	
Frequency(MHz)	(dBm)			(dBm)	(dBm)	(dB)		
3760.09	-33.91	12.60	12.93	-34.24	-13.00	-21.24	Н	
5639.83	-34.75	13.10	17.11	-38.76	-13.00	-25.76	Н	
7520.09	-32.85	11.50	22.20	-43.55	-13.00	-30.55	Н	
3759.88	-35.24	12.60	12.93	-35.57	-13.00	-22.57	V	
5640.26	-33.81	13.10	17.11	-37.82	-13.00	-24.82	V	
7520.23	-32.51	11.50	22.20	-43.21	-13.00	-30.21	V	
	The Wor	st Test Res	sults for C	hannel 810)/1909.8MH	z		
Frequency(MHz)	S G.Lev	Ant(dBi)	Loca	PMea	Limit	Margin	Polarity	
Frequency(MH2)	(dBm)	Anti(ubi)	Loss	(dBm)	(dBm)	(dB)	Polarity	
3819.29	-34.45	12.60	12.93	-34.78	-13.00	-21.78	Н	
5729.30	-34.96	13.10	17.11	-38.97	-13.00	-25.97	Н	
7638.97	-32.60	11.50	22.20	-43.30	-13.00	-30.30	Н	
3819.56	-35.25	12.60	12.93	-35.58	-13.00	-22.58	V	
5729.42	-35.19	13.10	17.11	-39.20	-13.00	-26.20	V	
7639.31	-32.97	11.50	22.20	-43.67	-13.00	-30.67	V	

(2)Above 8GHz amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has.

UMTS band V(30-9000)MHz

S band v(30-9000)	1411 12	WODAA	Donal V. 70	0.0000\\$41	1=				
			•	80-9000)MF					
The wost testresults channel 4132/826.4MHz									
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss -	PMea	Limit	Margin	Polarity		
r requerity (Wir 12)	(dBm)	7 tint(abi)		(dBm)	(dBm)	(dB)	1 Glarity		
1652.40	-40.23	9.40	4.75	-35.58	-13.00	-22.58	Н		
2479.50	-40.42	10.60	8.39	-38.21	-13.00	-25.21	Н		
3305.86	-31.54	12.00	11.79	-31.33	-13.00	-18.33	Н		
1652.25	-43.61	9.40	4.75	-38.96	-13.00	-25.96	V		
2479.35	-44.18	10.60	8.39	-41.97	-13.00	-28.97	V		
3305.50	-42.91	12.00	11.79	-42.70	-13.00	-29.70	V		
The Worst Test Results Channel 4183/836.6MHz									
- (111)	S G.Lev	ev A = t(=ID;)		PMea	Limit	Margin	D. L. B		
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dB)	Polarity		
1672.79	-40.16	9.50	4.76	-35.42	-13.00	-22.42	Н		
2509.55	-39.61	10.70	8.40	-37.31	-13.00	-24.31	Н		
3346.42	-31.92	12.20	11.80	-31.52	-13.00	-18.52	Н		
1672.79	-43.85	9.40	4.75	-39.20	-13.00	-26.20	V		
2509.56	-45.10	10.60	8.39	-42.89	-13.00	-29.89	V		
3346.24	-42.98	12.20	11.82	-42.60	-13.00	-29.60	V		
	The Wo	orst Test R	esults Cha	annel 4233	/846.6MHz				
	S G.Lev	Λ :=4(«ID:)		PMea	Limit	Margin	Dalarita		
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dB)	Polarity		
1693.66	-40.37	9.60	4.77	-35.54	-13.00	-22.54	Н		
2539.47	-40.00	10.80	8.50	-37.70	-13.00	-24.70	Н		
3386.21	-31.02	12.50	11.90	-30.42	-13.00	-17.42	Н		
1693.58	-43.95	9.60	4.77	-39.12	-13.00	-26.12	V		
2539.42	-44.46	10.80	8.50	-42.16	-13.00	-29.16	V		
3386.24	-42.72	12.50	11.90	-42.12	-13.00	-29.12	V		

(2)Above 3GHz amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has.

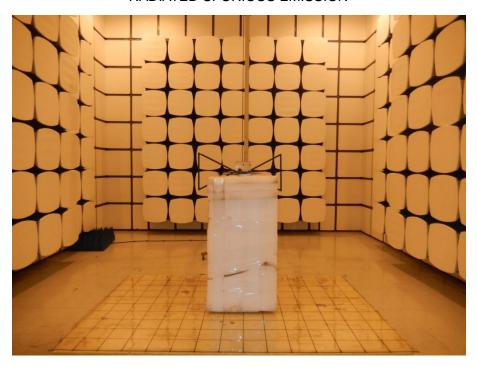
UMTS band II(30-20000)MHz

		WCDMA E	Band II: (3	0-20000)M	Hz			
	The Wors	st Test Res	ults for Ch	nannel 926	2/1852.4MF	lz		
F (MILL)	S G.Lev	A 4(-ID:)	Loss	PMea	Limit	Margin	Polarity	
Frequency(MHz)	(dBm)	Ant(dBi)		(dBm)	(dBm)	(dB)		
3704.29	-34.05	12.60	12.93	-34.38	-13.00	-21.38	Н	
5557.21	-34.98	13.10	17.11	-38.99	-13.00	-25.99	Н	
7409.93	-32.46	11.50	22.20	-43.16	-13.00	-30.16	Н	
3704.38	-35.68	12.60	12.93	-36.01	-13.00	-23.01	V	
5557.66	-34.58	13.10	17.11	-38.59	-13.00	-25.59	V	
7409.73	-32.61	11.50	22.20	-43.31	-13.00	-30.31	V	
The Worst Test Results for Channel 9400/1880MHz								
	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity	
Frequency(MHz)	(dBm)	Anti(ubi)	L088	(dBm)	(dBm)	(dB)		
3760.19	-34.73	12.60	12.93	-35.06	-13.00	-22.06	Н	
5639.86	-34.19	13.10	17.11	-38.20	-13.00	-25.20	Н	
7519.84	-33.64	11.50	22.20	-44.34	-13.00	-31.34	Н	
3760.15	-35.78	12.60	12.93	-36.11	-13.00	-23.11	V	
5640.29	-35.07	13.10	17.11	-39.08	-13.00	-26.08	V	
7520.28	-32.78	11.50	22.20	-43.48	-13.00	-30.48	V	
	The Wors	st Test Res	ults for Ch	nannel 953	8/1907.6M ⊢	lz		
Frequency(MHz)	S G.Lev	Ant(dBi)	Loop	PMea	Limit	Margin	Polarity	
r requericy(ivii iz)	(dBm)	Anti(abi)	Loss	(dBm)	(dBm)	(dB)	1 Olarity	
3815.37	-34.07	12.60	12.93	-34.40	-13.00	-21.40	Н	
5722.18	-34.44	13.10	17.11	-38.45	-13.00	-25.45	Н	
7630.21	-32.46	11.50	22.20	-43.16	-13.00	-30.16	Н	
3815.71	-35.23	12.60	12.93	-35.56	-13.00	-22.56	V	
5722.44	-34.24	13.10	17.11	-38.25	-13.00	-25.25	V	
7630.14	-32.21	11.50	22.20	-42.91	-13.00	-29.91	V	

(2)Above 6GHz amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has.

APPENDIX BPHOTOS OF TEST SETUP

RADIATED SPURIOUS EMISSION





*****END OF THE REPORT***