RADIO TEST REPORT

Report No: STS1706006F01

Issued for

General Procurement, INC.

800 E Dyer Road Santa Ana,Ca 92705 Santa Ana California United States

Product Name:	4.0 inch Smart phone
Brand Name:	HYUNDAI, VULCAN
Model Name:	G24027K
Series Model:	VS4011, T20
FCC ID:	S94G24027K
Test Standard:	FCC Part 22H and 24E

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TEST RESULT CERTIFICATION

Applicant's name:	General Procurement, INC.
Address:	800 E Dyer Road Santa Ana,Ca 92705 Santa Ana California United States
Manufacture's Name	Sintave
Address:	6th F, 3rd building, Sangtai Technology Park, Xili Nanshan Shenzhen
Product name:	4.0 inch Smart phone
Brand name:	HYUNDAI, VULCAN
Model and/or type reference :	G24027K
Standards	FCC Part 22H and 24E
Test procedure	. ANSI/TIA 603-D (2010)

This device described above has been tested by BZT, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test

Date of performance of tests 02 Jun. 2017~07 Jun. 2017

Date of Issue 07 Jun. 2017

Test Result Pass

Testing Engineer :	leo li	
	(Leo li)	esting · conse
Technical Manager :	Jula	
	(Tony liu)	APPROVAL 8
Authorized Signatory :	Mati	BERRY O . NOLLOW
	(Vita Li)	

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Revision History

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00	07 Jun. 2017	STS1706006F01	ALL	Initial Issue



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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:

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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 22.913 24.232	Effective Radiated Pow- er/Equivalent Isotropic Radiated Power	< 7 Watts max. ERP(Part 22) < 2 Watts max. EIRP(Part 24)	PASS	
2.1049 22.917 24.238	Occupied Bandwidth	Reporting Only	PASS	
2.1055 22.355 24.235	Frequency Stability	< 2.5 ppm (Part 22) Emission must remain in band (Part 24)	PASS	
2.1051 22.917 24.238	Spurious Emission at Antenna Terminals	< 43+10log10(P[Watts])	PASS	
2.1053 22.917 24.238	Field Strength of Spurious Radiation	< 43+10log10(P[Watts])	PASS	
2.1051 22.917 24.238	Band Edge	< 43+10log10(P[Watts])	PASS	

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%

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2 PRODUCT INFORMATION

Product Designation:	4.0 inch Smart phone
Hardware version number:	T825W3-V1.1
Software version number:	HYUNDAI_ G24027K_V01 VULCAN_ VS4011_V01
FCC ID:	S94G24027K
	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
Rx Frequency:	1900: 1930.2 MHz ~ 1989.8 MHz
TXT Tequency.	WCDMA:
	Band V: 871.4 MHz ~ 891.6 MHz
	Band II: 1932.4 MHz ~ 1987.6 MHz
Max RF Output Power:	GSM850:33.52dBm,PCS1900:25.73dBm GPRS850:33.53dBm,GPRS1900:25.63Bm WCDMABand V:22.81dBm,WCDMA Band II:19.51dBm
Type of Emission:	GSM(850): 323KGXW; GSM(1900): 324KGXW GPRS(850): 315KG7W; GPRS(1900): 319KG7W WCDMA850: 4M65F9W WCDMA1900: 4M71F9W
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
Antonno noini	GSM 850:-0.3dBi ,PCS 1900: -0.1dBi
Antenna gain:	WCDMA 850:-0.3dBi, WCDMA1900: -0.1dBi
Power Supply:	DC 3.8V by battery
Battery parameter:	Capacity: 1400mAh, Rated Voltage: 3.8V
GPRS Class:	Multi-Class12
Extreme Vol. Limits:	DC3.4V to 4.2 V (Nominal DC3.8V)
Extreme Temp. Tolerance:	-30℃ to +50℃
	2 V and Low Voltage 3.4 V was declared by manufacturer, The nally with higher or lower voltage.

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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.

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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	

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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 An- tenna	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.

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5 TEST ITEMS 5.1 CONDUCTED OUTPUT POWER

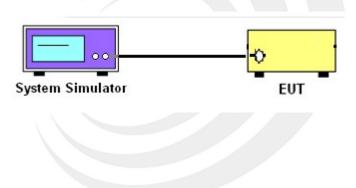
Test overview

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

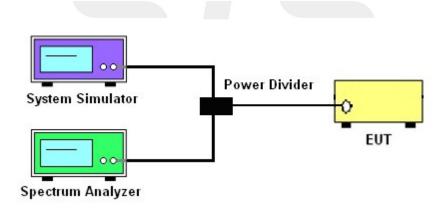
TEST OVERVIEW

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



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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

 The testing follows FCC KDB 971168 D01 Section 5.2.1. (for CDMA/WCDMA), Section 5.2.2 (for GSM/GPRS/EDGE) and ANSI / TIA-603-D-2010 Section 2.2.17.
 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.

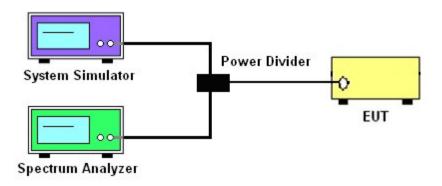
All modes of operation were investigated and the worst case configuration results are reported in this section.

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 \geq 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 $\pm 0.00025\%$ (± 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

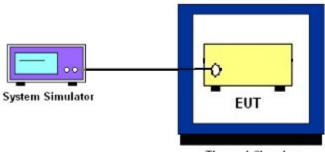
1. The testing follows FCC KDB 971168 D01 Section 9.0.

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



Thermal Chamber

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5.6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS <u>Test Overview</u>

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.

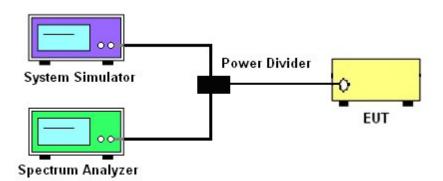
7. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

= P(W) - [43 + 10log(P)] (dB)

= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)

= -13dBm.

Test Setup



5.7 BAND EDGE

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.

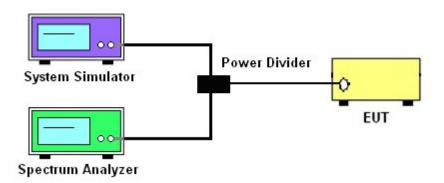
7.The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

= P(W) - [43 + 10log(P)] (dB)

= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)

= -13dBm.

TEST SETUP



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5.8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

Test overview

Radiated spurious emissions measurements are performed using the substitution method described inANSI/TIA-603-D-2010 with the EUT transmitting into an integral antenna. Measurements on signalsoperating 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);

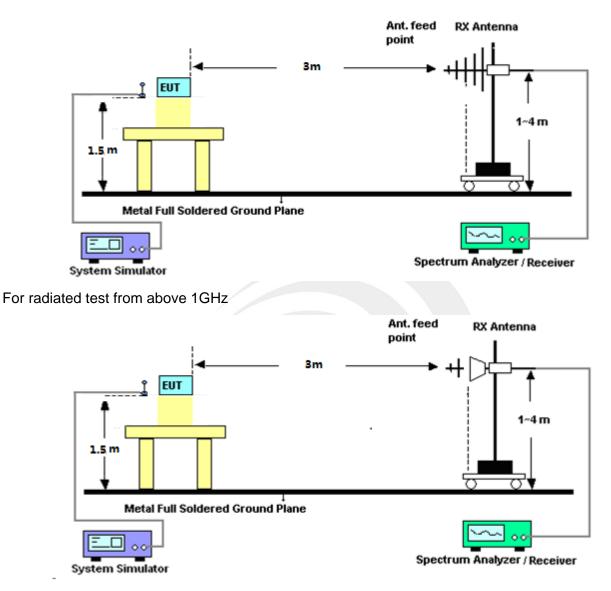
P.SG = measured transmitter output power or PSD, in dBm or dBW;

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



APPENDIX ATESTRESULT A1CONDUCTED OUTPUT POWER

GSM 850:

Mode	Frequency (MHz)	AVG Power
	824.2	33.52
GSM850	836.6	33.19
	848.8	33.08
	824.2	33.53
GPRS	836.6	33.21
(GMSK,1-Slot)	848.8	33.08
0770	824.2	33.06
GPRS	836.6	32.77
(GMSK,2-Slot)	848.8	32.67
0770	824.2	31.58
GPRS	836.6	31.37
(GMSK,3-Slot)	848.8	31.23
CDDC	824.2	31.09
GPRS	836.6	30.91
(GMSK,4-Slot)	848.8	30.81

PCS 1900:

Mode	Frequency (MHz)	AVG Power
	1850.2	25.73
GSM1900	1880.0	25.45
	1909.8	25.13
	1850.2	25.63
GPRS (GMSK,1-Slot)	1880.0	25.32
(GIVISK, 1-SIOI)	1909.8	24.95
	1850.2	25.21
GPRS (GMSK,2-Slot)	1880.0	24.91
(010101,2-0101)	1909.8	24.50
0770	1850.2	23.78
GPRS (GMSK,3-Slot)	1880.0	23.47
(Givian, 3-3101)	1909.8	23.05
CDDC	1850.2	23.37
GPRS (GMSK,4-Slot)	1880.0	23.02
	1909.8	22.64

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UMTS BAND V

Mode	Frequency(MHz)	AVG Power
	826.4	22.81
WCDMA 850 RMC	836.6	22.66
Rivic	846.6	22.67
	826.4	22.76
HSDPA Subtest 1	836.6	22.54
Sublesi	846.6	22.41
	826.4	22.44
HSDPA Subtest 2	836.6	22.12
Sublesi 2	846.6	21.92
	826.4	21.96
HSDPA Subtest 3	836.6	21.66
Sublesi S	846.6	21.56
	826.4	21.53
HSDPA Subtest 4	836.6	21.19
Sublesi 4	846.6	21.19
	826.4	22.76
HSUPA Subtest 1	836.6	22.48
Sublesi	846.6	21.92
	826.4	21.93
HSUPA Subtest 2	836.6	21.54
Sublesi 2	846.6	20.99
	826.4	21.79
HSUPA Subtest 3	836.6	21.04
Sublesi 3	846.6	20.61
	826.4	21.49
HSUPA Subtest 4	836.6	20.73
Sublesi 4	846.6	20.17
	826.4	20.00
HSUPA Subtest 5	836.6	19.27
Sublest 3	846.6	18.72

Shenzhen STS Test Services Co., Ltd.

UMTS BAND II

Mode	Frequency(MHz)	AVG Power
	1852.4	19.51
WCDMA 1900 RMC	1880	17.74
Kine	1907.6	17.51
	1852.4	19.43
HSDPA Subtest 1	1880	17.66
Oublest 1	1907.6	17.43
	1852.4	19.01
HSDPA Subtest 2	1880	17.21
	1907.6	16.99
	1852.4	18.65
HSDPA Subtest 3	1880	16.79
Sublest 5	1907.6	16.68
	1852.4	18.17
HSDPA Subtest 4	1880	16.47
Sublest 4	1907.6	16.29
	1852.4	19.41
HSUPA Subtest 1	1880	17.59
Sublest	1907.6	17.03
	1852.4	18.50
HSUPA Subtest 2	1880	16.64
Sublest 2	1907.6	16.06
	1852.4	18.33
HSUPA Subtest 3	1880	16.22
Sublest 5	1907.6	15.76
	1852.4	17.87
HSUPA Subtest 4	1880	15.74
0001631 4	1907.6	15.26
	1852.4	16.45
HSUPA Subtest 5	1880	14.32
Sublest 3	1907.6	13.80

Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

A2 PEAK-TO-AVERAGE RADIO

PCS 1900:

Mode	Frequency (MHz)	PEAK Power	AVG Power	PAR
	1850.2	25.85	25.73	0.12
PCS1900	1880	25.56	25.45	0.11
	1909.8	25.24	25.13	0.11
	1850.2	25.75	25.63	0.12
GPRS1900	1880	25.43	25.32	0.11
	1909.8	25.06	24.95	0.11

UMTS BAND II:

Mode	Frequency (MHz)	PEAK Power	AVG Power	PAR
	1852.4	22.06	19.51	2.55
WCDMA 1900 RMC	1880	20.33	17.74	2.59
	1907.6	20.24	17.51	2.73
	1852.4	22.17	19.42	2.75
HSDPA 1900	1880	20.37	17.65	2.72
	1907.6	20.32	17.42	2.90
	1852.4	21.62	19.03	2.59
HSUPA 1900	1880	20.24	17.55	2.69
	1907.6	20.17	17.34	2.83

Report No.: STS1706006F01

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A3 TRANSMITTER RADIATED POWER (EIRP/ERP)

Radiated Power (ERP) for GSM 850 MHZ							
				Re	esult		
Mode	Frequency	S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	Conclusion
	824.2	24.97	0.44	6.5	31.03	Horizontal	Pass
	824.2	26.69	0.44	6.5	32.75	Vertical	Pass
COMPEO	836.6	24.70	0.45	6.5	30.75	Horizontal	Pass
GSM850	836.6	26.52	0.45	6.5	32.57	Vertical	Pass
	848.8	24.62	0.46	6.5	30.66	Horizontal	Pass
	848.8	26.40	0.46	6.5	32.44	Vertical	Pass
	824.2	24.98	0.44	6.5	31.04	Horizontal	Pass
	824.2	26.44	0.44	6.5	32.50	Vertical	Pass
	836.6	24.53	0.45	6.5	30.58	Horizontal	Pass
GPRS850	836.6	26.30	0.45	6.5	32.35	Vertical	Pass
	848.8	24.52	0.46	6.5	30.56	Horizontal	Pass
	848.8	26.23	0.46	6.5	32.27	Vertical	Pass

Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

Radiated Power (EIRP) for PCS 1900 MHZ								
		Result						
Mode	Frequency	S G.Level	Cable	Gain	PMeas	Polarization	Conclusion	
		(dBm)	loss	(dBi)	E.I.R.P.(dBm)	Of Max.EIRP.		
	1850.2	15.89	2.41	10.35	23.83	Horizontal	Pass	
	1850.2	17.74	2.41	10.35	25.68	Vertical	Pass	
PCS1900	1880.0	15.58	2.42	10.35	23.51	Horizontal	Pass	
PC51900	1880.0	17.44	2.42	10.35	25.37	Vertical	Pass	
	1909.8	14.78	2.43	10.35	22.7	Horizontal	Pass	
	1909.8	16.74	2.43	10.35	24.66	Vertical	Pass	
	1850.2	15.92	2.41	10.35	23.86	Horizontal	Pass	
	1850.2	17.64	2.41	10.35	25.58	Vertical	Pass	
	1880.0	15.50	2.42	10.35	23.43	Horizontal	Pass	
GPRS1900	1880.0	17.29	2.42	10.35	25.22	Vertical	Pass	
	1909.8	14.90	2.43	10.35	22.82	Horizontal	Pass	
	1909.8	16.68	2.43	10.35	24.6	Vertical	Pass	

Report No.: STS1706006F01

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	14.40	0.44	6.5	20.46	Horizontal	Pass
	826.4	16.23	0.44	6.5	22.29	Vertical	Pass
Band V	836.6	14.31	0.45	6.5	20.36	Horizontal	Pass
Danu V	836.6	16.10	0.45	6.5	22.15	Vertical	Pass
	846.4	17.16	0.46	6.5	23.20	Horizontal	Pass
	846.4	19.13	0.46	6.5	15.17	Vertical	Pass

Radiated Power (EIRP) for WCDMA Band II							
				Re	esult		
Mode	Frequency	S G.Level	Cable	Gain	PMeas	Polarization	Conclusion
		(dBm) loss	(dBi)	E.I.R.P.(dBm)	Of Max.EIRP		
	1852.4	9.22	2.41	10.35	17.16	Horizontal	Pass
	1852.4	11.07	2.41	10.35	19.01	Vertical	Pass
Band II	1880.0	7.49	2.42	10.35	15.42	Horizontal	Pass
Danu II	1880.0	9.30	2.42	10.35	17.23	Vertical	Pass
	1907.4	7.24	2.43	10.35	15.16	Horizontal	Pass
	1907.4	9.10	2.43	10.35	17.02	Vertical	Pass

Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

Occupied Bandwidth for GSM 850 band						
Mode	Frequency(MHz)	Occupied Bandwidth	Emission Bandwidth			
Mode	r requency(iviniz)	(99%)(kHz)	(-26dBc)(kHz)			
Low Channel	824.2	244.46	318.0			
Middle Channel	836.6	244.83	323.3			
High Channel	848.8	246.89	319.3			
	Occupied Band	width for GPRS 850 band				
Mode		Occupied Bandwidth	Emission Bandwidth			
Mode	Frequency(MHz)	(99%)(kHz)	(-26dBc)(kHz)			
Low Channel	824.2	244.47	309.2			
Middle Channel	836.6	244.86	315.1			
High Channel	848.8	241.01	313.2			

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

Occupied Bandwidth for GSM1900 band						
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	Emission Bandwidth (-26dBc)(kHz)			
Low Channel	1850.2	246.89	323.7			
Middle Channel	1880.0	245.63	310.8			
High Channel	1909.8	243.83	314.0			
	Occupied Bandy	width for GPRS 1900 band				
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	Emission Bandwidth (-26dBc)(kHz)			
Low Channel	1850.2	247.29	314.3			
Middle Channel	1880.0	246.24	319.3			
High Channel	1909.8	241.31	313.1			

Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

Occupied Bandwidth for UMTS band V						
Mode	Frequency(MHz)	Occupied Bandwidth	Emission Bandwidth			
Mode	Frequency(MHZ)	(99%)(MHz)	(-26dBc)(MHz)			
Low Channel	826.4	4.1546	4.646			
Middle Channel	836.6	4.1350	4.644			
High Channel	846.6	4.1401	4.641			

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Occupied Bandwidth for UMTS band II						
Mode	Frequency(MHz)	Occupied Bandwidth	Emission Bandwidth			
		(99%)(MHz)	(-26dBc)(MHz)			
Low Channel	1852.4	4.1558	4.681			
Middle Channel	1880	4.1500	4.652			
High Channel	1907.6	4.1659	4.713			



Shenzhen STS Test Services Co., Ltd.

GSM 850 CH 128



GSM 850 CH 190





GSM 850 CH 251

Shenzhen STS Test Services Co., Ltd.

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 3688
 6287
 Http://www.stsapp.com
 E-mail: sts@stsapp.com



GPRS 850 CH 128



GPRS 850 CH 190



 SENSE:INT
 ALIGNAUTO

 Center Freq: 648.800000 MHz
 Trig: Freq Run

 Trig: Freq Run
 Avg|Held>10/10

 #Atten: 46 dB
 Avg|Held>10/10
 08:09:45 PMJun Radio Std: None Center Freq 848.800000 MHz Radio Device: BTS #IFGain:Low Ref Offset 8.5 dB Ref 36.00 dBm Center 848.8 MHz #Res BW 10 kHz Span 1 MHz Sweep 12.4 ms #VBW 30 kHz Occupied Bandwidth 241.01 kHz Transmit Freq Error -980 Hz OBW Power 99.00 % x dB Bandwidth 313.2 kHz x dB -26.00 dB STATUS

GPRS 850 CH 251

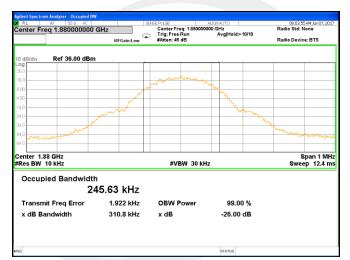
Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

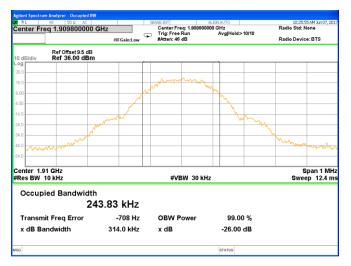
PCS 1900 CH 512



PCS 1900 CH 661



PCS 1900 CH 810



Shenzhen STS Test Services Co., Ltd.

GPRS 1900 CH 512



GPRS 1900 CH 661



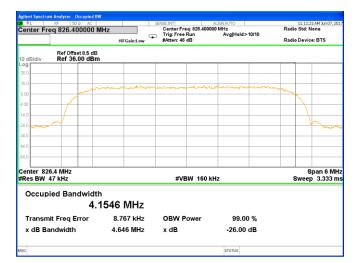
GPRS 1900 CH 810



Shenzhen STS Test Services Co., Ltd.



UMTS BAND V CH 4132



UMTS BAND V CH 4183

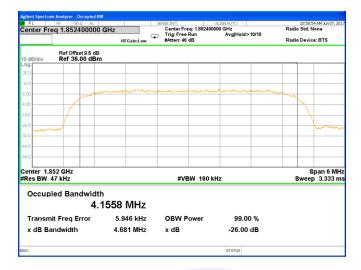
RL	RF 50 Ω		SENSE:INT		ALIGNAUTO		11:14:25 AM Jun 07, 2
enter F	req 836.6000	00 MHz		Freq: 836.60000 ree Run	10 MHz Avg Hold:>10/10	Radio	Std: None
		#IFGain:		: 46 dB	Avginera > torio	Radio	Device: BTS
0 dB/div	Ref Offset 8. Ref 36.00						
og							
6.0							
6.0				manne	AAA		
	/~	And the second second		and a second state		my	
							\
	/						
1.0							
4.0	w						mount
4.0							
4.0							
4.0							
*							
	36.6 MHz						Span 6 M
Res BW	47 kHz		#	#VBW 160 k	Hz	S	weep 3.333 i
0	ala di Diana dan	1.141-					
Occu	pied Bandw						
		4.1350 MH	IZ				
Transı	nit Freq Erro	r -22.741 k	Hz OBW	Power	99.00 %		
x dB B	andwidth	4.644 M	Hz xdB		-26.00 dB		
		4.044 1			20.00 00		

UMTS BAND V CH 4233

L	RF 50 Ω	AC		SENSE: INT	ALIGNAUTO		3:09 AM Jun 07, 20
ter Fi	reg 846.6000	00 MHz		Center Freq: 846.6000	00 MHz	Radio Sto	: None
			#IFGain:Low	Trig: Free Run #Atten: 46 dB	Avg Held>10/10	Radio De	vice: BTS
	_						
B/div	Ref Offset 8. Ref 36.00						
Bialv	Rei 30.00	ubiii					_
		man	mannen		mannonament	na	
<u> </u>			-			~~~~	-
			_				_
	/						
	- /						1
m	~~~~						man
	46.6 MHz 47 kHz			#VBW 160	d la	C	Span 6 MH ep 3.333 n
SDW	47 KHZ			#VDVV 1001		Swe	ep 3.333 i
) CCUI	oied Bandw	ridth					
, coup	Jea Danaw						
		4.1401	MHZ				
raner	nit Freq Erro	r 7	033 kHz	OBW Power	99.00 %		
					/•		
dB B	andwidth	4.	641 MHz	x dB	-26.00 dB		

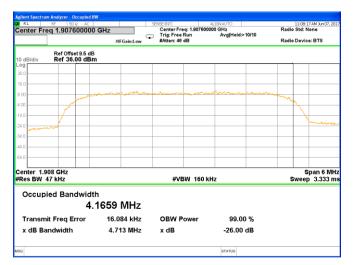
Shenzhen STS Test Services Co., Ltd.

UMTS BAND II CH 9262



UMTS BAND II CH 9400

Spectru	m Analyzer - Occupied E RF 50 Ω AC		SENSE:INT	ALIGNAUTO	11:00:47 AM Jun
	eq 1.88000000) GHz	Center Freq: 1.880000	000 GHz	Radio Std: None
]	#IFGain:Low	Trig: Free Run #Atten: 46 dB	Avg Hold:>10/10	Radio Device: BTS
8/div	Ref Offset 9.5 dE Ref 36.00 dBr				
			and the second	mmmmmm	and ma
	M				m
	38 GHz				Span 6
BW 4	47 kHz		#VBW 160 k	(Hz	Sweep 3.3
ccup	ied Bandwidt	'n			
ooup		1500 MHz			
ansm	nit Freq Error	2.093 kHz	OBW Power	99.00 %	
dB Ba	andwidth	4.652 MHz	x dB	-26.00 dB	
				STATUS	



UMTS BAND II CH 9538

Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

A5 FREQUENCY STABILITY

Normal Voltage = 3.8V. ; Battery End Point (BEP) = 3.4 V.; Maximum Voltage = 4.2 V

GSM 850 Middle Channel/836.6MHz							
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result		
50		25.48	0.030				
40		24.55	0.029				
30	-	36.22	0.043	-			
20		16.07	0.019				
10	Normal Voltage	15.55	0.019				
0		25.41	0.030	2.5ppm	PASS		
-10		18.69	0.022				
-20	/	12.96	0.015				
-30		19.53	0.023				
25	Maximum Voltage	24.09	0.029				
25	BEP	22.39	0.027				

GPRS 850 Middle Channel/836.6MHz								
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result			
50		27.56	0.033					
40		24.07	0.029					
30		28.19	0.034					
20		35.67	0.043					
10	Normal Voltage	35.02	0.042					
0		13.14	0.016	2.5ppm	PASS			
-10		26.05	0.031					
-20		34.78	0.042					
-30		12.38	0.015					
25	Maximum Voltage	20.15	0.024					
25	BEP	32.21	0.039					

Report No.: STS1706006F01

GSM 1900 Middle Channel/1880MHz							
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result		
50		16.36	0.009				
40		26.20	0.014				
30		31.18	0.017				
20		27.71	0.015				
10	Normal Voltage	35.43	0.019	Within Au-			
0	_	24.24	0.013	thorized	PASS		
-10		24.30	0.013	Band			
-20		14.97	0.008				
-30		16.76	0.009				
25	Maximum Voltage	17.36	0.009				
25	BEP	29.22	0.016				

GPRS 1900 Middle Channel/1880MHz								
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result			
50		13.91	0.007					
40		18.69	0.010					
30		24.49	0.013					
20		29.25	0.016					
10	Normal Voltage	14.79	0.008	Within Au-				
0		16.98	0.009	thorized	PASS			
-10		31.25	0.017	Band				
-20		34.63	0.018					
-30		33.66	0.018					
25	Maximum Voltage	15.59	0.008					
25	BEP	16.63	0.009					

=#

Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

WCDMA V Middle Channel/836.6MHz								
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result			
50		34.78	0.042	_				
40		32.04	0.038	_				
30	Normal Voltage	32.87	0.039	2.5ppm				
20		33.04	0.039					
10		28.03	0.034					
0		27.23	0.033		PASS			
-10		15.27	0.018					
-20		12.17	0.015					
-30		35.69	0.043					
25	Maximum Voltage	15.27	0.018					
25	BEP	32.84	0.039					

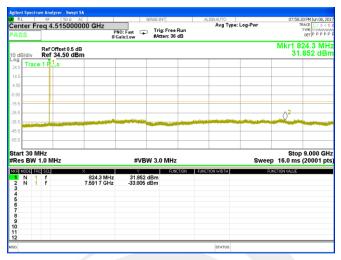
1. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

WCDMA II Middle Channel/1880MHz							
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result		
50		26.55	0.014				
40		31.12	0.017				
30		26.44	0.014				
20		35.31	0.019				
10	Normal Voltage	17.89	0.010	Within Au-			
0		31.35	0.017	thorized	PASS		
-10		20.11	0.011	Band			
-20		11.95	0.006				
-30		18.18	0.010				
25	Maximum Voltage	32.28	0.017				
25	BEP	16.50	0.009				

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



Middle Channel

Agilent Spectrum Ana								
RL RF	50 Q AC		SENSE:11	π	ALIGNAUTO			52 PM Jun 06
Center Freq 4	.515000000 GHz				Avg T	pe: Log-Pwr	т	RACE
ASS		PNO: Fast IFGain:Low		:FreeRun en:36 dB				DET P P P
		IFGain:Low		en. oo ab				
Ref	Offset 8.5 dB						Mkr1 8	
0 dB/div Ref	34.50 dBm						31.	630 d
og Trace 1 F	1.							
24.6			-					-
4.5								
1.50								
50								
5.5								
5.5						A2		
6.5	and the second se	and the second second				Sel anna an	and the second second	
15.5								
6.5								
tart 30 MHz						_	Stop	9.000
Res BW 1.0 N	1Hz	1	#VBW 3.0	MHz		Sw	eep 16.0 ms	(20001
KR MODE TRC SCL	×		Y	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
1 N 1 f 2 N 1 f	836.91	MHz 31	.630 dBm					
2 N 1 f 3	6.093 7 0	GHz -34	.822 dBm					
4								
5								
5 6 7								
7								
8 9 0								
1								
12					1			

Highest Channel

	RF	50 Ω AC	SENSE:INT		ALIGNAUTO		08:10:16 PM Ju	
Center PASS	Freq 4.51	15000000 GHz PI	NO: Fast Trig: F Gain:Low #Atten	ree Run : 36 dB	Avg Type: L	og-Pwr	TRACE TYPE M DET P	2345 PPPP
0 dB/div		et 8.5 dB .50 dBm					Mkr1 849.0 31.530	
.og 74.5 Tra	ace 1 F 1s							
14.5								
14.0								
.50								
5.5								
6.6								
6.5			and the second			and a particular	\wedge^2	
5.5								-
6.5								
tart 30	0 MHz W 1.0 MHz		#VBW 3.0 N	IHz		Sweep	Stop 9.00 0 16.0 ms (200	0 Gł 01 p
tart 30 Res Bi		×	Y		ICTION WIDTH		Stop 9.00 16.0 ms (200 Neironwaus	0 GI 01 p
tart 30 Res Bi Res Millon N 2 N	W 1.0 MHz				ICTION WIDTH		0 16.0 ms (200	0 Gł 01 p
tart 30 Res B 1 N 2 N 3 4	W 1.0 MHz	× 849.0 MHz	31.530 dBm		ICTIONWIDTH		0 16.0 ms (200	0 GI)1 p
tart 30 Res B 1 N 2 N 3 4 5	W 1.0 MHz	× 849.0 MHz	31.530 dBm		ICTION WIDTH		0 16.0 ms (200	0 Gł 01 p
tart 30 Res B 1 N 2 N 3 4 5 6 7	W 1.0 MHz	× 849.0 MHz	31.530 dBm		ICTION WIDTH		0 16.0 ms (200	0 GH 01 p
tart 30 Res B) E 12009 1 N 2 N 3 4 5 6 6 7 8 9	W 1.0 MHz	× 849.0 MHz	31.530 dBm		ICTION WIDTH		0 16.0 ms (200	0 GI 01 p
tart 30 Res B 1 N 2 N 3 4 5 6 7	W 1.0 MHz	× 849.0 MHz	31.530 dBm		CETONANIOTH		0 16.0 ms (200	0 GH

Shenzhen STS Test Services Co., Ltd.

GPRS 850 BAND

Lowest Channel

		zer - Swept SA								
RL	RF	50 Ω AC			ENSE:INT		ALIGNAUTO Avg Type:	Log Dur		H PM Jun 06, 20
PASS	req 4.:	51500000	P	NO: Fast 🖵	Trig: Free F #Atten: 36	Run BB	Avg Type.	rogen		TYPE MWMMMM DET P P P P P
10 dB/div		fset 8.5 dB 1 4.50 dB m								24.3 MH 798 dBr
24.6 Trac	e 1 F 1.	S								
14.5										
4.50 5.50										
15.5										
25.5							²	and there		
45.5	-									
55.5										
Start 30 M Res BW		łz		#VB	W 3.0 MHz			Swee	Stop p 16.0 ms	9.000 GH (20001 pt
MKE MODE T 1 N 1 2 N 1	1	×	824.3 MHz	31.798		TION FUN	ICTION WIDTH	F	UNCTION VALUE	
3	f		5.663 2 GHz	-35.438	dBm					
4 5 6 7										
7 8 9										
10										
11 12										
sg							STATUS			

Middle Channel

RL RF 5	Swept SΛ 0 Ω AC	SENSE: IN	П	ALIGNAUTO		08:08	:38 PM Jun 06, 2
enter Freq 4.515	PN	D: Fast Trig	: Free Run en: 36 dB	Ауд Туре	: Log-Pwr		TYPE MUMAN DET P P P P
Ref Offset dB/div Ref 34.5	8.5 dB 0 dBm						36.9 M .599 dE
g Trace 1 P 1s							
50							
i0							
5							
5						<u>2</u>	
5 data di secondo	and the second	and the second second		and the second second	and the second secon	West states	-
5							
5							
art 30 MHz tes BW 1.0 MHz		#VBW 3.0	MHz		Swe	Stoj ep 16.0 ms	9.000 G (20001)
N 1 F	836.9 MHz 7.322 6 GHz	31.599 dBm -34.760 dBm	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
N 1 f		04.100 0.011					

Highest Channel

Agilent Spectrum Analyzer - Swept SA			
RL RF 50 Ω AC Center Freq 4.515000000 GHz	SENSE:INT	ALIGNAUTO Avg Type	08:10:16 PM Jun 06, 2017 Log-Pwr TRACE 1 2 3 4 5 6 Type Trace
PASS	NO: Fast Trig: Free Gain:Low #Atten: 36	dB	DET P P P P P
Ref Offset 8.5 dB 10 dB/div Ref 34.50 dBm			Mkr1 849.0 MHz 31.530 dBm
Log 24.5 Trace 1 FL1s			
14.5			
4.50			
-5.50			
-15.5			
-25.5			2
-45.5			اعصمي الأستكر والمعالي
-55.5			
Start 30 MHz			Stop 9.000 GHz
#Res BW 1.0 MHz	#VBW 3.0 MHz		Sweep 16.0 ms (20001 pts)
NKE MODE THE SOL X	Y FUN 31,530 dBm	CTION FUNCTION WIDTH	FUNCTION VALUE
1 N 1 f 849.0 MHz 2 N 1 f 8.112 0 GHz	-36.554 dBm		
2 N 1 f 8.1120 GHz 3 4 5 6 7 8 9 10			
6			
8			
9			
11 12			
MSG		STATUS	

Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

GSM1900 BAND(30M-20G)

Lowest Channel

	Analyzer - Sw							
RL	RF 50 Ω		SENSE:INT		ALIGNAUTO Avg Type:	Log Dur	10:21	1:00 AM Jun 07, 2
ASS	<u>q 10.0150</u>	D00000 GHz	NO: Fast 😱 Trig: F Sain:Low #Atten	ree Run : 36 dB	Avg type.	Logital		DET P P P P
dB/div	Ref Offset 9. Ref 34.72							850 3 G I.721 dE
Trace 1	1 No.1 s							
1.7 72								
28								
5.3							2 ²	
13 13	a la constant	No. of Concession, Name						
5.3								
art 30 MH Res BW 1.			#VBW 3.0 N	IHz		Swe	Stop ep 50.7 m	20.000 G s (40001 p
R MODE TRO	scu	×		FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
2 N 1	f	1.850 3 GHz 16.525 2 GHz	24.721 dBm -28.069 dBm					
N 1	f							
2 N 1 3 4 5 7 8	f							
N 1 2 N 1 3 4 5 5 7 8 9 0 1 2	f							

Middle Channel

RL		2 AC 000000 GHz	SENSE	:INT	ALIGNAUT	○ Type: Log-P		22:14 AM Jun 07, 2 TRACE 1 2 3 4 TYPE MWWWW
ASS		P		rig: Free Run Atten: 36 dB				DET P P P P
) dB/div	Ref Offset 9 Ref 34.44	.5 dB dBm						.880 2 GI 4.441 dB
Trac	e 1 👷 1s							
4.4								
44								
56								
								_
.6							\wedge^2	
.6	a land the second	No. of Street and	and a stand of the stand	البابة المحيص	- And the second se	-		
i.6								_
5.6								_
art 30 M Res BW	/IHz 1.0 MHz		#VBW 3	.0 MHz			Sto Sweep 50.7 m	p 20.000 G ns (40001 p
E MODE TE 1 N 1 2 N 1	AC SCL	X 1.880 2 GHz	24,441 dBm	FUNCTION	FUNCTION WID	TH	FUNCTION VALU	6
2 N 1	1	16.545 2 GHz	-29.145 dBm					
5								
7								
B 9								
1								
1								

Highest Channel

	um Analyzer - Swep								
Contor F	RF 50 Ω req 10.01500		58	NSE:INT	AL	IGNAUTO Avg Type:	l og-Pwr		2 AM Jun 07, 2017
PASS	10.01500	P	'NO: Fast 😱 Gain:Low	Trig: Free I #Atten: 36	Run dB	Ang type:	209-1 W		DET P P P P P
10 dB/div	Ref Offset 9.5 Ref 33.73 dl							Mkr1 1.9 23.	10 2 GHz 725 dBm
Log	e 1 F 13	5111							
23.7									
13.7									
3.73									
-6.27									
-16.3								2	
-26.3			1					Q [−]	
-36.3	and the second	and the second se		فالما فترتب وال					
-46.3									
-56.3									
Start 30 M								Eton (0.000 GHz
#Res BW			#VBW	/ 3.0 MHz			Swee	p 50.7 ms	(40001 pts)
MKR MODE TR		×	Y	FUN	TION FUNCT	ION WIDTH	FI	UNCTION VALUE	
1 N 1 2 N 1	1	1.910 2 GHz 16.525 2 GHz	23.725 d -28.153 d						
3		IU.ULU L UTIL	20.100 0	em.					
2 N 1 3 4 5 6 7 8 9 10									
6									
8									
10									
11 12									
MSG						STATUS			

Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

GPRS1900 BAND(30M-20G)

Lowest Channel

	m Analyzer - Sw							
RL	RF 50 S		SENSE:INT		ALIGNAUTO	Lan Dum	10:33	3:09 AM Jun 07, 2
enter Fre	əq 10.015		NO: Fast 😱 Trig: Fr Gain:Low #Atten:	ree Run 36 dB	Avg Type:	Log-Pwr		DET P P P P
0 dB/div	Ref Offset 9. Ref 34.68	5 dB dBm						850 3 GH 4.679 dB
24.7 Trace	1 N.1.s							
4.7								
32								
5.3							²	
5.3								
5.3								
art 30 Mi Res BW 1			#VBW 3.0 M	Hz		Swe	Stop ep 50.7 m	20.000 G s (40001 p
KR MODE TRO	SCL	×		FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
2 N 1 3	ŧ	1.850 3 GHz 16.165 8 GHz	24.679 dBm -29.193 dBm					
2 N 1 3 4 5 5 7	ł							
2 N 1 3 4 5 6 7 8 9	ł							
2 N 1 3 4 5 6 7	ŕ							

Middle Channel

RL RF 50 Ω		SENSE		ALIGNAUTO AVg 1	ype: Log-Pwr	10:3	6:03 AM Jun 07, 2 TRACE 2 2 3 4
ASS	PI		rig: Free Run Atten: 36 dB	-			DET P P P P
Ref Offset 9. dB/div Ref 34.47	5 dB dBm						880 2 GI 4.474 dB
Trace 1 121s							
4.5							_
47							
63							
1.5						^2	-
i.5						2	C. Starterstein
i.5	No. of Concession, Name						
5.5							
5.5							
art 30 MHz Res BW 1.0 MHz		#VBW 3	0 MHz		Sw	Stop eep 50.7 m	20.000 G s (40001 p
R MODE TRC SCL	× 1.880 2 GHz	24.474 dBm	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
N 1 f 2 N 1 f 3	16.585 1 GHz	-26.799 dBm					
4 5 7							
/ 8							
3 9 0							
1							
2				STATU			

Highest Channel

Agilent Spectrum Analyzer - Swept SA	
Center Freq 10.015000000 GHz	ALIGNAUTO 10:37:24 AM Jun 07, 2017 Avg Type: Log-Pwr TRACE 12.3.4.5.6
PASS PASS PN0: Fast Free #Atten: 36	Run TYPE MWWWWWW
Ref Offset 9.5 dB	Mkr1 1.910 2 GHz
10 dB/div Ref 33.83 dBm	23.827 dBm
23.8 Trace 1 For 13	
13.8	
3.83	
-6.17	
-16.2	
-26.2	\bigcirc^2
-36.2 Jack and a little with the second state of the second state of the second state of the second state of the	
-46.2	
-56.2	
Start 30 MHz	Stop 20.000 GHz
#Res BW 1.0 MHz #VBW 3.0 MHz	
	NCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 1.910 2 GHz 23.827 dBm 2 N 1 f 16.525 2 GHz -28.244 dBm	
3	
2 N 1 f 16.525 2 GHz -28.244 dBm 4 5 5 6 6 7 8 9 9	
6 7	
9	
10	
11 12	
MSG	STATUS

Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

WCDMA Band V (RMC 12.2Kbps)

Lowest Channel

gilent Spectrum Anal				
Center Freq 4.	50 Ω AC	SENSE:INT	ALIGNAUTO Avg Type:	11:18:51 AM Jun 07, 2 Log-Pwr TRACE 12.3.4 TYPE Miniana
ASS		PNO: Fast 😱 Trig: Fre FGain:Low #Atten: 3	36 dB	DET P P P P
	offset 8.5 dB 32.02 dBm			Mkr1 825.2 M 22.023 dE
Trace 1				
2.0				
.02				
.98				
8.0				
8.0	A STATE OF A		$\langle \rangle^2$	and the second s
8.0 8.0				
8.0				
tart 30 MHz Res BW 1.0 M	Hz	#VBW 3.0 MH	łz	Stop 9.000 G Sweep 16.0 ms (20001 p
KR MODE TRC SCL	× 825.2 MHz		UNCTION FUNCTION WIDTH	FUNCTION VALUE
1 N 1 f 2 N 1 f	5.968 1 GHz	-36.217 dBm		
3				
5 6 7				
7 8 9				
0				
2				
ia			STATUS	

Middle Channel

RL RF	zer - Swept SA		SENSE:I	VT	ALIGNAUTO		11:1	7:42 AM Jun 07, 2
	515000000 GH	IZ PNO: IFGain	Fast 😱 Tri	g:FreeRun ten:36 dB		e: Log-Pwr		TRACE 1 2 3 4 TYPE MUMMUM DET P P P P
dB/div Ref :	ffset 8.5 dB 32.18 dBm							835.5 MI 2.181 dB
Trace 1 1	.s							
2.2						_		_
18								
82						_		
.8								-
.8							2	
18 and a state of the	and the state of the state	No. of Concession, Name	No. of Concession, Name					
.8								
.8								
art 30 MHz Res BW 1.0 MI	łz		#VBW 3.0	MHz		Swe	Sto ep 16.0 m	p 9.000 G s (20001 p
75 MODE 1760 SOU 1 N 1 f 2 N 1 f 3	× 835. 7.367	5 MHz 5 GHz	22.181 dBm -32.657 dBm	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
1								
5								
3								
)								
2								

Highest Channel

RL	RF	SD Q AC		SENSE:INT	ALIGNA	UTO		11:21:1	9 AM Jun 07, 20
enter F ASS		15000000 GHz	PNO: Fast		A	vg Type: Log	-Pwr	T	TYPE MUMMUM DET P P P P
) dB/div		set 8.5 dB 2.01 dBm						Mkr1 8 22.	47.6 MH 011 dB
Dg Trac	e 1 🚺								
2.0									
.01	_								
99	_								
3.0									
3.0								0	2
3.0	مبالبيه	and the local description of				1		W	the strength
3.0									
8.0									
art 30 M Res BW	MHz 1.0 MH	z	#VE	BW 3.0 MHz			Sweep	Stop 16.0 ms	9.000 G (20001 p
R MODE T	RC SCL	×	Y	FUNCT	TON FUNCTION V	лотн	FUN	ICTION VALUE	
N 1	Ŧ	847.6 M 8.004 3 G		idBm idBm					

Shenzhen STS Test Services Co., Ltd.

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

Lowest Channel

gene Spectan Automative - Sweet SA Int Int Sold Sold and the state of the s

 Start 30 MHz
 Stop 20.000 GH;

 #Res BW 1.0 MHz
 #VBW 3.0 MHz
 Sweep 50.7 ms (40001 pts

 N 1
 f
 1.853 8 GHz
 19.073 dBm

 N 1
 f
 1.855 8 GHz
 27.930 dBm

 N
 f
 16.165 8 GHz
 27.930 dBm

 0
 1
 1
 16.165 8 GHz
 27.930 dBm

Middle Channel

RL RL	Analyzer - Swe	AC AC	SENSE:II	π	ALIGNAUTO		11:01	:22 AM Jun 07, i
		00000 GHz	D: East . Trig	: Free Run en: 36 dB	Ауд Туре	: Log-Pwr		TYPE MWWW DET P P P F
dB/div	Ref Offset 9.5 Ref 27.31 d	dB IBm					Mkr1 1.8 17	381 2 G 1310 dE
7.3 Trace 1	1 K 1s							
31	_							
69						_		_
7							-	
7							\Diamond^2	
7					and the second designed to the second designe	den a series		-
7								
7								
.7								
art 30 MH tes BW 1.			#VBW 3.0	MHz		Swe	Stop ep 50.7 ms	20.000 G (40001
R MODE TRC N 1 N 1	SCU f	× 1.881 2 GHz 16.465 3 GHz	7 17.310 dBm -26.757 dBm	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
8								
2								

Highest Channel

Agilent Spectrum Analyzer - Swept SA			
Center Freq 10.015000000 GHz	SENSE:INT	ALIGNAUTO Avg Type: I	11:08:53AM Jun 07, 2017 Log-Pwr TRACE 1 2 3 4 5 6
PASS IF	NO: Fast Trig: Free I Gain:Low #Atten: 36	Run iB	DET P P P P P
Ref Offset 9.5 dB			Mkr1 1.908 7 GHz 17.360 dBm
10 dB/div Ref 27.36 dBm			17.360 dBm
17.4 Trace 1 P.1.3			
7.36			
-2.64			
-12.6			
-22.6			
-32.6	and the second second		
-42.6			
-62.6			
-02.0			
Start 30 MHz #Res BW 1.0 MHz	#VBW 3.0 MHz		Stop 20.000 GHz Sweep 50.7 ms (40001 pts)
MKR MODE TRC SCL X	Y FUNC	TION FUNCTION WIDTH	FUNCTION VALUE
1 N 1 f 1.908 7 GHz 2 N 1 f 16.485 3 GHz	17.360 dBm -27.202 dBm		
3	ET LOE GOTT		
2 N 1 f 16.485 3 GHz 3 5 5 5 6 7 7 8 9 10			
6			
9			
10			
12			
MSG		STATUS	

Shenzhen STS Test Services Co., Ltd.

A7 BAND EDGE

GSM 850

Lowest Band Edge



Highest Band Edge



Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

GPRS 850

Lowest Band Edge



Highest Band Edge

Agilent Spectrum Analyzer - Swept SA	SENSE:INT	ALIGNAUTO	08:10:45 PM Jun 06, 201
Center Freq 849.000000 MHz PASS	PNO: Wide Trig: Free F IFGain:Low #Atten: 36 of	Avg Type: Log-Pwi lun	TRACE 12345 TYPE A WAYNAM DET A A A A A
Ref Offset 8.8 dB			Mkr2 849.026 7 MH -26.86 dBr
Trace 1 Pass			
13.5 3.54	my		
6.46			
16.5		A ²	
26.5	\	Why -	
66.5		- Nr	
56.5		Marin	m.
66.5			mum
Center 849.0000 MHz #Res BW 10 kHz	#VBW 30 kHz		Span 1.000 Mi Sweep 12.4 ms (601 pt
rsq		STATUS	

Shenzhen STS Test Services Co., Ltd.

GSM 1900

Lowest Band Edge



Highest Band Edge

Agilent Spectrum Analyzer - Swept SA				
RL RF 50 Ω AC Center Freq 1.91000000 PASS			ALIGNAUTO Avg Type: Log-Pw	10:26:22 AM Jun 07, 20: TRACE 1 2 3 4 5 TYPE A WANNA DET A A A A A
Ref Offset 9.5 dB				Mkr2 1.910 016 7 GH -30.74 dBr
5.55	mm	щ. М.		
-14.5		- Why		
-24.5				
44.5				
64.5			Mun	mmmmm
74.5				
Center 1.9100000 GHz #Res BW 10 kHz		#VBW 30 kHz		Span 1.000 M Sweep 12.4 ms (601 pt
MSG			STATUS	

=

Shenzhen STS Test Services Co., Ltd.

GPRS 1900

Lowest Band Edge



Highest Band Edge

Agilent Spectrum Analyzer - Swept SA RL RF SD Ω AC	SENSE:INT	ALIGNAUTO	10:37:51 AM Jun 07, 20
Center Freq 1.910000000 GHz PASS	PNO: Wide Trig: Free I IFGain:Low #Atten: 36	Avg Type: Log-Pwi Run dB	TRACE 12345 TYPE A WANNA DET A A A A A
Ref Offset 9.5 dB			Mkr2 1.910 025 0 GH -33.04 dBr
Trace 1 Pass			
4.36 M	m		
14.4	h h		
24.4			
34.4 MAR			
44.4			
54.4		- man	
34.4			Vennennen
4.4			
Center 1.9100000 GHz Res BW 10 kHz	#VBW 30 kHz		Span 1.000 M Sweep 12.4 ms (601 p
sg		STATUS	

Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

47 of 55

WCDMA Band VRMC 12.2Kbps

Lowest Band Edge

Agilent Sp	ectrum Analyzer - Swept								
	RF 50 Ω r Freq 824.0000	00 MHz	PNO: Wide G	Trig: Free #Atten: 36	Run	IGNAUTO Avg Type: I	Log-Pwr	TF	1 AM Jun 07, 201 ACE 1 2 3 4 5 TYPE A WWWWW DET A A A A A
10 dB/di	Ref Offset 8.5 d						I	Vkr2 823. -28	917 MH 3.48 dBi
4.03	race 1 Pass								
-5.97					- /				
-16.0					/				
-26.0				X	/				
-36.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		and a second					
-46.0									
-56.0									
-76.0									
Center	824.000 MHz							Span	5.000 MH
	SW 47 kHz		#VE	W 160 kHz		STATUS	Sw	eep 2.80 m	is (601 pt

Highest Band Edge

RL RF 50 Ω AC Center Freq 849.000000 Μ PASS	AHz PNO: Wide IFGain:Low	SENSE:INT Trig: Free #Atten: 36	Run dB	ALIGNAUTO Avg Type:	Log-Pwr		TRACE 1 2 3 4 5 TYPE A WARMAN DET A A A A A
Ref Offset 8.5 dB 0 dB/div Ref 14.61 dBm						Mkr2 849	9.092 MH 30.43 dBi
Trace 1 Pass							
5 39		m					
15.4							
25.4			2				
15.4						m	
5.4							
5.4							
15.4							
5.4							
Center 849.000 MHz Res BW 47 kHz		#VBW 160 kHz			s	Spa weep 2.80	n 5.000 M ms (601 p
sg				STATUS			,,

Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

WCDMA Band IIRMC 12.2Kbps

Lowest Band Edge

Agilent Spectrum Analyzer - Swept SA	SENSE:INT	ALIGNAUTO	10:59:54 AM Jun 07, 201
Center Freq 1.850000000 GH		Avg Type: Log-Pwr tun	
Ref Offset 9.5 dB 10 dB/div Ref 10.94 dBm			Mkr2 1.850 000 GH -33.13 dBr
Log Trace 1 Pass			
0.940			
-9.06			
-19.1			
-19.1		1	
-29.1		2	
-39.1	man		
-49.1			
-59.1			
-69.1			
-79.1			
Center 1.850000 GHz #Res BW 47 kHz	#VBW 160 kHz		Span 5.000 MH Sweep 2.80 ms (601 pts
MSG		STATUS	

Highest Band Edge

RL RF 50 Ω AC Center Freq 1.910000000	CH-	SENSE: INT	A	Avg Type: Lo	a-Pwr		ACE 1 2 3 4 5
ASS	PNO: Wide IFGain:Low		Run dB			1	DET A A A A A
Ref Offset 9.5 dB					Mki	2 1.910 27-	000 GH 14 dB
Trace 1 Pass							
66		~~~					
0.7							
17							
			¢ ²				
.7			·····		m		~~~~
0.7							-
0.7							
0.7							
0.7							
0.7							
enter 1.910000 GHz Res BW 47 kHz		#VBW 160 kHz			Swee	Span p 2.80 m	5.000 M
				STATUS	Ones		

Shenzhen STS Test Services Co., Ltd.

Report No.: STS1706006F01

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

		GSM	850: (30-9	000)MHz					
	The W	orst Test R	esults Cha	annel 128/	824.2 MHz				
	S G.Lev			PMea	Limit	Margin	Delerity		
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dB)	Polarity		
1648.39	-40.34	9.40	4.75	-35.69	-13.00	-22.69	Н		
2472.59	-40.47	10.60	8.39	-38.26	-13.00	-25.26	Н		
3296.87	-31.16	12.00	11.79	-30.95	-13.00	-17.95	Н		
1648.03	-44.12	9.40	4.75	-39.47	-13.00	-26.47	V		
2472.33	-43.97	10.60	8.39	-41.76	-13.00	-28.76	V		
3296.70	-43.83	12.00	11.79	-43.62	-13.00	-30.62	V		
The Worst Test Results Channel 190/836.6 MHz									
	S G.Lev			PMea	Limit	Margin			
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dB)			
1673.21	-40.16	9.50	4.76	-35.42	-13.00	-22.42	Н		
2509.51	-39.82	10.70	8.40	-37.52	-13.00	-24.52	Н		
3346.10	-32.26	12.20	11.80	-31.86	-13.00	-18.86	Н		
1673.22	-43.67	9.40	4.75	-39.02	-13.00	-26.02	V		
2509.92	-45.35	10.60	8.39	-43.14	-13.00	-30.14	V		
3345.98	-43.13	12.20	11.82	-42.75	-13.00	-29.75	V		
	The W	orst Test R	esults Cha	annel 251/	848.8 MHz				
	S G.Lev			PMea	Limit	Margin	Delerity		
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dB)	Polarity		
1697.30	-41.04	9.60	4.77	-36.21	-13.00	-23.21	Н		
2546.19	-39.62	10.80	8.50	-37.32	-13.00	-24.32	Н		
3394.99	-31.11	12.50	11.90	-30.51	-13.00	-17.51	Н		
1697.48	-43.87	9.60	4.77	-39.04	-13.00	-26.04	V		
2546.22	-44.93	10.80	8.50	-42.63	-13.00	-29.63	V		
3394.91	-42.93	12.50	11.90	-42.33	-13.00	-29.33	V		

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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

GPRS 850: (30-9000)MHz								
The Worst Test Results Channel 128/824.2 MHz								
Frequency(MHz)	S G.Lev		PMea	Limit	Margin	Delevity		
	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dB)	Polarity	
1648.44	-41.01	9.40	4.75	-36.36	-13.00	-23.36	Н	
2472.25	-39.85	10.60	8.39	-37.64	-13.00	-24.64	Н	
3296.60	-31.26	12.00	11.79	-31.05	-13.00	-18.05	Н	
1648.12	-43.63	9.40	4.75	-38.98	-13.00	-25.98	V	
2472.30	-44.98	10.60	8.39	-42.77	-13.00	-29.77	V	
3296.91	-43.31	12.00	11.79	-43.10	-13.00	-30.10	V	
The Worst Test Results Channel 190/836.6 MHz								
Frequency(MHz)	S G.Lev	Ant(dDi)		PMea	Limit	Margin	Delerity	
Frequency(MHZ)	(dBm) Ant(dBi)	Loss	(dBm)	(dBm)	(dB)	Polarity		
1673.13	-40.16	9.50	4.76	-35.42	-13.00	-22.42	Н	
2509.48	-39.51	10.70	8.40	-37.21	-13.00	-24.21	Н	
3346.23	-31.60	12.20	11.80	-31.20	-13.00	-18.20	Н	
1673.18	-43.40	9.40	4.75	-38.75	-13.00	-25.75	V	
2509.82	-44.91	10.60	8.39	-42.70	-13.00	-29.70	V	
3346.43	-43.40	12.20	11.82	-43.02	-13.00	-30.02	V	
	The W	orst Test R	esults Ch	annel 251/	848.8 MHz			
Frequency(MHz)	S G.Lev	Apt(dBi)	Loss	PMea	Limit	Margin	Polarity	
Frequency(MHZ)	(dBm)	(dBm) Ant(dBi)		(dBm)	(dBm)	(dB)	Folanty	
1697.40	-40.64	9.60	4.77	-35.81	-13.00	-22.81	Н	
2546.26	-39.59	10.80	8.50	-37.29	-13.00	-24.29	Н	
3395.09	-31.70	12.50	11.90	-31.10	-13.00	-18.10	Н	
1697.47	-44.37	9.60	4.77	-39.54	-13.00	-26.54	V	
2546.12	-44.01	10.80	8.50	-41.71	-13.00	-28.71	V	
3395.29	-43.67	12.50	11.90	-43.07	-13.00	-30.07	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.

PCS 1900: (30-20000)MHz

DCS 1900: (30-20000)MHz									
The Worst Test Results for Channel 512/1850.2MHz									
Frequency(MHz)	S G.Lev		Loss	PMea	Limit	Margin	Delevite		
	(dBm)	Ant(dBi)		(dBm)	(dBm)	(dB)	Polarity		
3700.38	-33.77	12.60	12.93	-34.10	-13.00	-21.10	Н		
5550.35	-34.00	13.10	17.11	-38.01	-13.00	-25.01	Н		
7400.74	-33.61	11.50	22.20	-44.31	-13.00	-31.31	Н		
3700.51	-35.84	12.60	12.93	-36.17	-13.00	-23.17	V		
5550.31	-34.44	13.10	17.11	-38.45	-13.00	-25.45	V		
7400.94	-32.04	11.50	22.20	-42.74	-13.00	-29.74	V		
	The Worst Test Results for Channel 661/1880.0MHz								
	S G.Lev	G.Lev (dBm)	Loss	PMea	Limit	Margin	Delevity		
Frequency(MHz)	(dBm)			(dBm)	(dBm)	(dB)	Polarity		
3759.95	-33.78	12.60	12.93	-34.11	-13.00	-21.11	Н		
5640.03	-34.57	13.10	17.11	-38.58	-13.00	-25.58	Н		
7519.92	-33.19	11.50	22.20	-43.89	-13.00	-30.89	Н		
3760.07	-35.15	12.60	12.93	-35.48	-13.00	-22.48	V		
5639.99	-34.99	13.10	17.11	-39.00	-13.00	-26.00	V		
7520.30	-31.90	11.50	22.20	-42.60	-13.00	-29.60	V		
	The Wor	st Test Res	sults for C	hannel 810	0/1909.8MH	z			
Frequency(MHz)	S G.Lev	Apt(dBi)	Loss	PMea	Limit	Margin	Polarity		
Frequency(MHZ)	(dBm)	(dBm)		(dBm)	(dBm)	(dB)	Folanty		
3819.26	-34.35	12.60	12.93	-34.68	-13.00	-21.68	Н		
5729.05	-34.09	13.10	17.11	-38.10	-13.00	-25.10	Н		
7639.01	-32.56	11.50	22.20	-43.26	-13.00	-30.26	Н		
3819.74	-35.74	12.60	12.93	-36.07	-13.00	-23.07	V		
5729.22	-34.54	13.10	17.11	-38.55	-13.00	-25.55	V		
7639.07	-32.33	11.50	22.20	-43.03	-13.00	-30.03	V		

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

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

GPRS 1900: (30-20000)MHz

GPRS1900: (30-20000)MHz								
The Worst Test Results for Channel 512/1850.2MHz								
Frequency(MHz)	S G.Lev		i) Loss	PMea	Limit	Margin		
	(dBm)	Ant(dBi)		(dBm)	(dBm)	(dB)	Polarity	
3700.15	-33.57	12.60	12.93	-33.90	-13.00	-20.90	Н	
5550.21	-34.83	13.10	17.11	-38.84	-13.00	-25.84	Н	
7400.57	-32.88	11.50	22.20	-43.58	-13.00	-30.58	Н	
3700.51	-34.66	12.60	12.93	-34.99	-13.00	-21.99	V	
5550.52	-34.97	13.10	17.11	-38.98	-13.00	-25.98	V	
7400.74	-33.10	11.50	22.20	-43.80	-13.00	-30.80	V	
The Worst Test Results for Channel 661/1880.0MHz								
	S G.Lev	S G.Lev (dBm) Ant(dBi)	Loss	PMea	Limit	Margin	Delevity	
Frequency(MHz)	(dBm)			(dBm)	(dBm)	(dB)	Polarity	
3759.96	-34.45	12.60	12.93	-34.78	-13.00	-21.78	Н	
5640.15	-35.06	13.10	17.11	-39.07	-13.00	-26.07	Н	
7519.87	-33.29	11.50	22.20	-43.99	-13.00	-30.99	Н	
3760.22	-34.70	12.60	12.93	-35.03	-13.00	-22.03	V	
5640.27	-34.70	13.10	17.11	-38.71	-13.00	-25.71	V	
7519.98	-31.91	11.50	22.20	-42.61	-13.00	-29.61	V	
	The Wor	st Test Res	sults for C	hannel 810)/1909.8MH	z		
	S G.Lev (dBm) Ant(dB		Loss	PMea	Limit	Margin	Delerity	
Frequency(MHz)		Апцаві)		(dBm)	(dBm)	(dB)	Polarity	
3819.60	-34.25	12.60	12.93	-34.58	-13.00	-21.58	Н	
5729.31	-35.14	13.10	17.11	-39.15	-13.00	-26.15	Н	
7639.32	-32.27	11.50	22.20	-42.97	-13.00	-29.97	Н	
3819.61	-34.73	12.60	12.93	-35.06	-13.00	-22.06	V	
5729.19	-34.11	13.10	17.11	-38.12	-13.00	-25.12	V	
7639.32	-32.80	11.50	22.20	-43.50	-13.00	-30.50	V	

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

(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

WCDMA Band V: (30-9000)MHz									
The wost testresults channel 4132/826.4MHz									
Frequency(MHz)	S G.Lev	S G.Lev (dBm) Ant(dBi)	Loss	PMea	Limit	Margin			
	(dBm)			(dBm)	(dBm)	(dB)	Polarity		
1652.25	-40.70	9.40	4.75	-36.05	-13.00	-23.05	Н		
2479.60	-40.27	10.60	8.39	-38.06	-13.00	-25.06	Н		
3305.92	-31.60	12.00	11.79	-31.39	-13.00	-18.39	Н		
1652.17	-43.14	9.40	4.75	-38.49	-13.00	-25.49	V		
2479.48	-44.60	10.60	8.39	-42.39	-13.00	-29.39	V		
3305.60	-42.93	12.00	11.79	-42.72	-13.00	-29.72	V		
	The Worst Test Results Channel 4183/836.6MHz								
	S G.Lev	ev Ant(dDi)		PMea	Limit	Margin	Delority		
Frequency(MHz)	(dBm) Ant(dBi)	Loss	(dBm)	(dBm)	(dB)	Polarity			
1672.82	-40.47	9.50	4.76	-35.73	-13.00	-22.73	Н		
2509.54	-39.75	10.70	8.40	-37.45	-13.00	-24.45	Н		
3346.00	-31.55	12.20	11.80	-31.15	-13.00	-18.15	Н		
1673.21	-43.78	9.40	4.75	-39.13	-13.00	-26.13	V		
2509.67	-44.26	10.60	8.39	-42.05	-13.00	-29.05	V		
3346.16	-43.40	12.20	11.82	-43.02	-13.00	-30.02	V		
	The Wo	orst Test R	esults Cha	annel 4233	/846.6MHz				
	S G.Lev (dBm) Ant(dBi)	Apt(dBi)		PMea	Limit	Margin	Polarity		
Frequency(MHz)		Loss	(dBm)	(dBm)	(dB)	Polarity			
1693.33	-40.18	9.60	4.77	-35.35	-13.00	-22.35	Н		
2539.55	-39.24	10.80	8.50	-36.94	-13.00	-23.94	Н		
3386.26	-30.87	12.50	11.90	-30.27	-13.00	-17.27	Н		
1693.65	-43.73	9.60	4.77	-38.90	-13.00	-25.90	V		
2539.46	-44.84	10.80	8.50	-42.54	-13.00	-29.54	V		
3386.00	-43.45	12.50	11.90	-42.85	-13.00	-29.85	V		

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

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

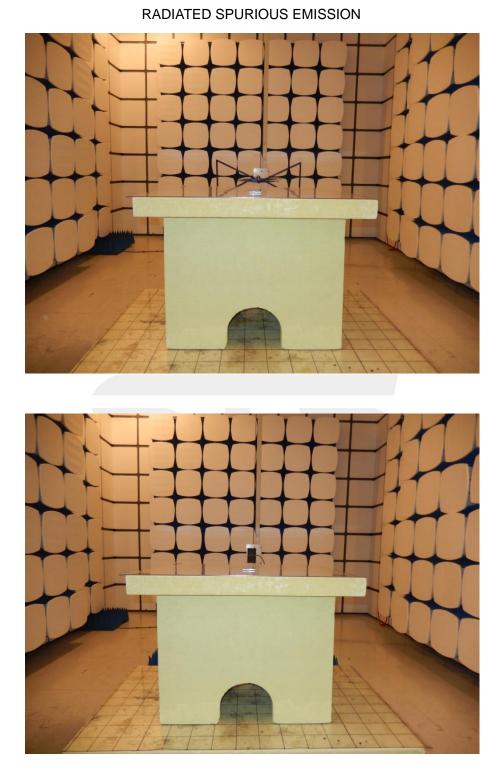
UMTS band II(30-20000)MHz

WCDMA Band II: (30-20000)MHz								
The Worst Test Results for Channel 9262/1852.4MHz								
Frequency(MHz)	S G.Lev (dBm)		Loss	PMea	Limit	Margin	Deleritur	
		Ant(dBi)		(dBm)	(dBm)	(dB)	Polarity	
3704.10	-34.10	12.60	12.93	-34.43	-13.00	-21.43	Н	
5557.61	-34.33	13.10	17.11	-38.34	-13.00	-25.34	Н	
7409.94	-32.63	11.50	22.20	-43.33	-13.00	-30.33	Н	
3704.01	-35.35	12.60	12.93	-35.68	-13.00	-22.68	V	
5557.41	-34.91	13.10	17.11	-38.92	-13.00	-25.92	V	
7409.63	-32.58	11.50	22.20	-43.28	-13.00	-30.28	V	
The Worst Test Results for Channel 9400/1880MHz								
	S G.Lev (dBm) Ant(dBi)		PMea	Limit	Margin	Delevity		
Frequency(MHz)		Апцаві)	Loss	(dBm)	(dBm)	(dB)	Polarity	
3759.84	-34.00	12.60	12.93	-34.33	-13.00	-21.33	Н	
5640.28	-34.26	13.10	17.11	-38.27	-13.00	-25.27	Н	
7520.15	-33.08	11.50	22.20	-43.78	-13.00	-30.78	Н	
3760.14	-34.56	12.60	12.93	-34.89	-13.00	-21.89	V	
5640.16	-34.92	13.10	17.11	-38.93	-13.00	-25.93	V	
7520.02	-32.29	11.50	22.20	-42.99	-13.00	-29.99	V	
	The Wors	st Test Res	ults for Ch	nannel 953	8/1907.6MH	Iz		
Frequency(MHz)	S G.Lev		nt(dBi) Loss	PMea	Limit	Margin	Delority	
Frequency(MHZ)	(dBm)	Anii(ubi)		(dBm)	(dBm)	(dB)	Polarity	
3815.57	-33.61	12.60	12.93	-33.94	-13.00	-20.94	Н	
5722.33	-35.01	13.10	17.11	-39.02	-13.00	-26.02	Н	
7629.91	-33.37	11.50	22.20	-44.07	-13.00	-31.07	Н	
3815.36	-34.98	12.60	12.93	-35.31	-13.00	-22.31	V	
5722.46	-33.78	13.10	17.11	-37.79	-13.00	-24.79	V	
7630.06	-32.62	11.50	22.20	-43.32	-13.00	-30.32	V	

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

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

APPENDIX BPHOTOS OF TEST SETUP



Shenzhen STS Test Services Co., Ltd.