

# **RADIO TEST REPORT**

# Report No: STS1610007F01

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Issued for

Mobile commodity corporation

20955 pathfinder road, Suite 200, Diamond bar, CA 91765 United States

Product Name:	3G Phone
Brand Name:	Cellacom
Model Name:	M431
Series Model:	N/A
FCC ID:	2AF6M3396993M431
Test Standard:	FCC Part 22H and 24E

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Report No.: STS1610007F01

## **TEST RESULT CERTIFICATION**

Applicant's name:	Mobile commodity corporation
Address:	20955 pathfinder road, Suite 200, Diamond bar, CA 91765 United States
Manufacture's Name	Cellacom incorporation
Address:	20955 pathfinder road, ste 200, diamond bar, ca 91765, USA
Product name:	3G Phone
Brand name:	Cellacom
Model and/or type reference :	M431
Standards	FCC Part 22H and 24E
Test procedure	ANSI/TIA 603-D (2010)

This device described above has been tested by STS and 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 ...... 08 Oct. 2016~26 Oct. 2016

Date of Issue ...... 27 Oct. 2016

Test Result ..... Pass

Testing Engineer	Jula
	(Tony Liu)
Technical Manager	Virtarti STS
	(Vita Li)
Authorized Signatory	Boney Juney
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Shenzhen STS Test Services Co., Ltd.



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## **Revision History**

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	27 Oct. 2016	STS1610007F01	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:

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 Shenzhen STS Test Services Co., Ltd. Add. : 1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road, Fuyong Street, Bao'an District, Shenzhen, Guangdong, China CNAS Registration No.: L7649; FCC Registration No.: 842334; IC Registration No.: 12108A-1

#### **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.

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:	3G Phone		
Hardware version number:	C390_V2.01		
Software version number:	V1.0		
FCC ID:	2AF6M3396993M431		
	GSM/GPRS:		
	850: 824.2 MHz ~ 848.8 MHz		
The Free succession	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 Fraguanay:	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:	GSM850:32.33dBm,PCS1900:28.45dBm GPRS850:32.31dBm,GPRS1900:28.42dBm WCDMABand V:20.98dBm,WCDMA Band II:22.15dBm		
Type of Emission:	GSM(850): 322KGXW; GSM(1900): 318KGXW GPRS(850): 320KGXW; GPRS(1900): 314KGXW WCDMA850: 4M68F9W 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		
<b>.</b>	GSM 850: -2.13dBi ,PCS 1900: -0.81dBi		
Antenna gain:	WCDMA 850: -2.13dBi, WCDMA1900:-0.81dBi		
Power Supply:	DC 3.7V by battery		
Battery parameter:	Capacity: 1500mAh, Rated Voltage: 3.7V		
GPRS Class:	Multi-Class12		
Extreme Vol. Limits:	DC3.5 V to 4.2 V (Nominal DC3.7V)		
Extreme Temp. Tolerance:	-20℃ to +45℃		
	.2 V and Low Voltage 3.5 V was declared by manufacturer, The		
EUT couldn't be operate normally 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 v02r02 with maximum output power.

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

Radiated emissions were investigated as following frequency range:

- 1. 30 MHz to 10th harmonic for GSM850 and WCDMA Band V.
- 2. 30 MHz to 10th harmonic for WCDMA Band IV.
- 3. 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	2016.03.06	2017.03.05
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 "N/A" shown in this list was not used to make direct calibrated measurements.

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## 5 TEST ITEMS 5.1 CONDUCTED OUTPUT POWER

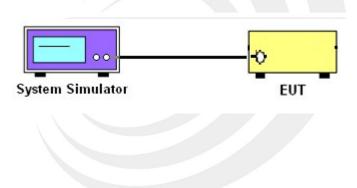
#### Test overview

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

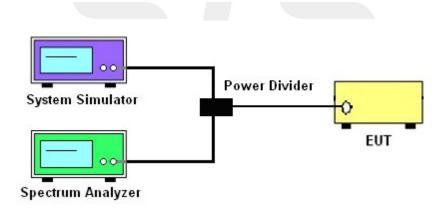
#### TEST OVERVIEW

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.

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## 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.

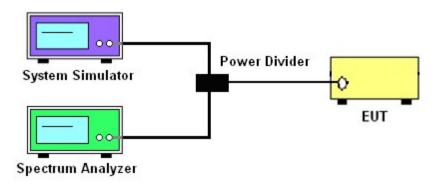
All modes of operation were investigated and the worst case configuration results are reported in this section.

#### 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:

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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  $\pm 0.00025\%$  ( $\pm 2.5$  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

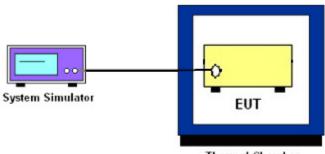
1. The testing follows FCC KDB 971168 D01 Section 9.0.

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





# 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 follows FCC KDB 971168 D01 v02r02 Section 6.0.

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.

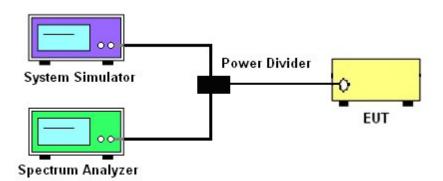
5. The conducted spurious emission for the whole frequency range was taken.

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

#### <u>OVERVIEW</u>

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. Start and stop frequency were set such that the band edge would be placed in the center of the Plot.

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 band edges of low and high channels for the highest RF powers were measured.

5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

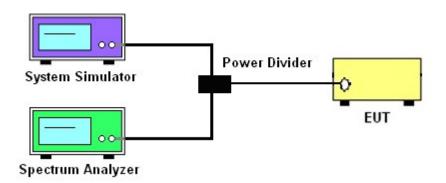
6.The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

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

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

= -13dBm.

#### TEST SETUP







## 5.8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT Test overview

Radiated spurious emissions measurements are performed using the substitution method described 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.

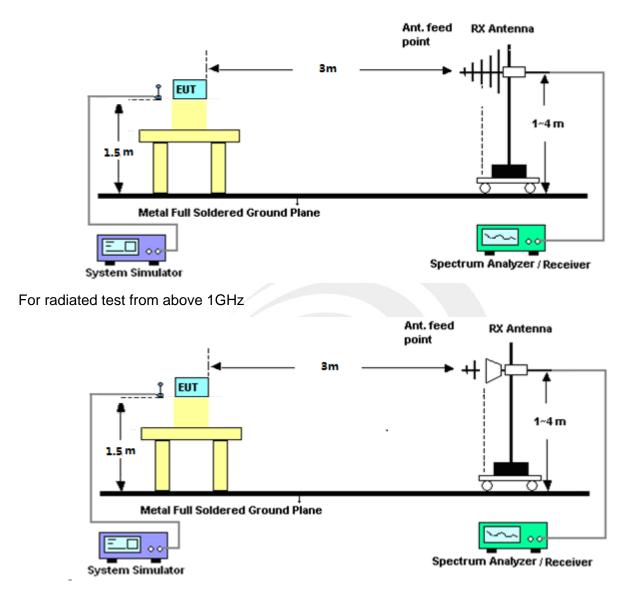
## Test procedure

1. The testing follows FCC KDB 971168 D01 Section 5.8 and ANSI/TIA-603-D-2010 – Section 2.2.12

- 2. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
- 3. VBW  $\ge$  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



For radiated test from 30MHz to 1GHz



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## APPENDIX ATESTRESULT A1CONDUCTED OUTPUT POWER

GSM 850:

Mode	Frequency (MHz)	AVG Power
GSM850	824.2	32.33
	836.6	32.09
	848.8	31.89
GPRS850	824.2	32.31
	836.6	32.08
	848.8	31.88

PCS 1900:

Mode	Frequency (MHz)	AVG Power
	1850.2	28.45
GSM1900	1880	28.15
	1909.8	28.03
	1850.2	28.42
GPRS1900	1880	28.14
	1909.8	28.01

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UMTS BAND V

Mode	Frequency(MHz)	AVG Power
	826.4	20.97
WCDMA 850 RMC	836.6	20.98
Kine	846.6	20.77
	826.4	20.96
HSDPA Subtest 1	836.6	20.97
Sublest 1	846.6	20.74
	826.4	20.88
HSDPA Subtest 2	836.6	20.88
Sublest 2	846.6	20.65
	826.4	20.79
HSDPA Subtest 3	836.6	20.86
Sublesi S	846.6	20.63
	826.4	20.74
HSDPA Subtest 4	836.6	20.79
Sublesi 4	846.6	20.57
	826.4	20.94
HSUPA	836.6	20.88
Subtest 1	846.6	20.55
	826.4	20.75
HSUPA	836.6	20.77
Subtest 2	846.6	20.51
	826.4	20.59
HSUPA	836.6	20.68
Subtest 3	846.6	20.47
	826.4	20.64
HSUPA	836.6	20.65
Subtest 4	846.6	20.42
	826.4	20.78
HSUPA	836.6	20.75
Subtest 5	846.6	20.39

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UMTS BAND II

Mode	Frequency(MHz)	AVG Power
	1852.4	22.15
WCDMA 1900 RMC	1880	21.98
RMC	1907.6	22.07
	1852.4	22.13
HSDPA Subtest 1	1880	21.97
Sublest	1907.6	22.06
	1852.4	22.07
HSDPA Subtest 2	1880	21.95
Sublest 2	1907.6	22.04
10000	1852.4	22.00
HSDPA Subtest 3	1880	21.86
Sublest 3	1907.6	22.04
	1852.4	21.91
HSDPA Subtest 4	1880	21.78
Sublest 4	1907.6	22.01
	1852.4	22.03
HSUPA Subtest 1	1880	21.91
Sublest	1907.6	21.90
	1852.4	21.95
HSUPA Subtest 2	1880	21.76
Sublest 2	1907.6	21.91
	1852.4	21.89
HSUPA Subtest 3	1880	21.69
	1907.6	21.87
	1852.4	21.76
HSUPA Subtest 4	1880	21.64
	1907.6	21.90
	1852.4	21.88
HSUPA Subtest 5	1880	21.74
Sublest 3	1907.6	21.74

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# A2 PEAK-TO-AVERAGE RADIO

PCS 1900:

Mode	Frequency (MHz)	PEAK Power	AVG Power	PAR
	1850.2	28.99	28.45	0.54
PCS1900	1880	28.80	28.15	0.65
	1909.8	28.61	28.03	0.58
	1850.2	29.06	28.42	0.64
GPRS1900	1880	28.74	28.14	0.60
	1909.8	28.56	28.01	0.55

#### UMTS BAND II:

Mode	Frequency (MHz)	PEAK Power	AVG Power	PAR
	1852.4	25.42	22.15	3.27
WCDMA 1900 RMC	1880	25.26	21.98	3.28
	1907.6	25.31	22.07	3.24
	1852.4	25.36	22.13	3.23
HSDPA 1900	1880	25.29	21.97	3.32
	1907.6	25.43	22.06	3.37
	1852.4	25.42	22.03	3.39
HSUPA 1900	1880	25.29	21.91	3.38
	1907.6	25.21	21.90	3.31

Shenzhen STS Test Services Co., Ltd.



## Report No.: STS1610007F01

#### 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	23.65	0.44	6.5	29.71	Horizontal	Pass
	824.2	25.59	0.44	6.5	31.65	Vertical	Pass
0014050	836.6	23.42	0.45	6.5	29.47	Horizontal	Pass
GSM850	836.6	25.32	0.45	6.5	31.37	Vertical	Pass
	848.8	23.30	0.46	6.5	29.34	Horizontal	Pass
	848.8	25.08	0.46	6.5	31.12	Vertical	Pass
	824.2	23.63	0.44	6.5	29.69	Horizontal	Pass
	824.2	25.38	0.44	6.5	31.44	Vertical	Pass
	836.6	23.49	0.45	6.5	29.54	Horizontal	Pass
GPRS850	836.6	25.18	0.45	6.5	31.23	Vertical	Pass
	848.8	23.21	0.46	6.5	29.25	Horizontal	Pass
	848.8	25.06	0.46	6.5	31.10	Vertical	Pass

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## Report No.: STS1610007F01

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	18.02	2.41	10.35	25.96	Horizontal	Pass	
	1850.2	19.86	2.41	10.35	27.80	Vertical	Pass	
PCS1900	1880.0	17.70	2.42	10.35	25.63	Horizontal	Pass	
PC31900	1880.0	19.52	2.42	10.35	27.45	Vertical	Pass	
	1909.8	17.69	2.43	10.35	25.61	Horizontal	Pass	
	1909.8	19.38	2.43	10.35	27.30	Vertical	Pass	
	1850.2	18.08	2.41	10.35	26.02	Horizontal	Pass	
	1850.2	19.85	2.41	10.35	27.79	Vertical	Pass	
	1880.0	17.47	2.42	10.35	25.40	Horizontal	Pass	
GPRS1900	1880.0	19.46	2.42	10.35	27.39	Vertical	Pass	
	1909.8	17.68	2.43	10.35	25.60	Horizontal	Pass	
	1909.8	19.22	2.43	10.35	27.14	Vertical	Pass	



## Report No.: STS1610007F01

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	12.38	0.44	6.5	18.44	Horizontal	Pass
	826.4	14.16	0.44	6.5	20.22	Vertical	Pass
Band V	836.6	12.51	0.45	6.5	18.56	Horizontal	Pass
Danu V	836.6	14.21	0.45	6.5	20.26	Vertical	Pass
	846.6	12.42	0.46	6.5	18.46	Horizontal	Pass
	846.6	14.12	0.46	6.5	20.16	Vertical	Pass

Radiated Power (EIRP) for WCDMA Band II							
Mode	Frequency	S G.Level	Cable	Gain	PMeas	Polarization	Conclusion
		(dBm)	loss	(dBi)	E.I.R.P.(dBm)	Of Max.EIRP	
	1852.4	11.80	2.41	10.06	19.45	Horizontal	Pass
	1852.4	13.84	2.41	10.06	21.49	Vertical	Pass
Band II	1880.0	11.93	2.42	10.06	19.57	Horizontal	Pass
Danu II	1880.0	13.73	2.42	10.06	21.37	Vertical	Pass
	1907.6	11.84	2.43	10.06	19.47	Horizontal	Pass
	1907.6	13.70	2.43	10.06	21.33	Vertical	Pass

Shenzhen STS Test Services Co., Ltd.

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Report No.: STS1610007F01

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

Occupied Bandwidth for GSM 850 band					
Mode	Frequency(MHz)	Occupied Bandwidth	Emission Bandwidth		
Mode	Frequency(IVIHZ)	(99%)( kHz)	(-26dBc)( kHz)		
Low Channel	824.2	244.67	317.7		
Middle Channel	836.6	250.08	321.8		
High Channel	848.8	248.84	318.9		
	Occupied Band	width for GPRS 850 band			
Modo	Fraguanay (MHz)	Occupied Bandwidth	Emission Bandwidth		
Mode	Frequency(MHz)	(99%)( kHz)	(-26dBc)( kHz)		
Low Channel	824.2	246.65	319.8		
Middle Channel	836.6	245.24	319.5		
High Channel	848.8	244.28	312.5		



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Report No.: STS1610007F01

Occupied Bandwidth for GSM1900 band						
Mode	Frequency(MHz)	Occupied Bandwidth	Emission Bandwidth			
Mode	Frequency(MHZ)	(99%)( kHz)	(-26dBc)( kHz)			
Low Channel	1850.2	244.94	317.4			
Middle Channel	1880.0	244.12	317.7			
High Channel	1909.8	243.27	313.3			
	Occupied Bandy	vidth for GPRS 1900 band				
Mode	Fraguaney (MHz)	Occupied Bandwidth	Emission Bandwidth			
Mode	Frequency(MHz)	(99%)( kHz)	(-26dBc)( kHz)			
Low Channel	1850.2	248.27	314.3			
Middle Channel	1880.0	242.35	314.1			
High Channel	1909.8	242.48	309.7			

Occupied Bandwidth for UMTS band V						
Mada	Fraguanay (MHz)	Occupied Bandwidth	Emission Bandwidth			
Mode	Frequency(MHz)	(99%)( MHz)	(-26dBc)( MHz)			
Low Channel	826.4	4.1566	4.675			
Middle Channel	836.6	4.1419	4.660			
High Channel	846.6	4.1347	4.656			

Occupied Bandwidth for UMTS band II						
Mode	Fraguanay (MHz)	Occupied Bandwidth				
Mode	Frequency(MHz)	(99%)( MHz)	(-26dBc)( MHz)			
Low Channel	1852.4	4.1507	4.711			
Middle Channel	1880	4.1501	4.673			
High Channel	1907.6	4.1572	4.670			



#### Report No.: STS1610007F01

#### GSM 850 CH 128



GSM 850 CH 190





#### GSM 850 CH 251

## Shenzhen STS Test Services Co., Ltd.

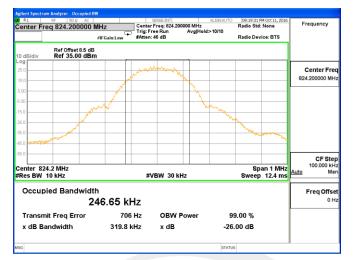
 1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road, Fuyong Street, Bao'an District, Shenzhen, Guangdong, China

 Tel: + 86-755
 3688
 6287
 Http://www.stsapp.com
 E-mail: sts@stsapp.com



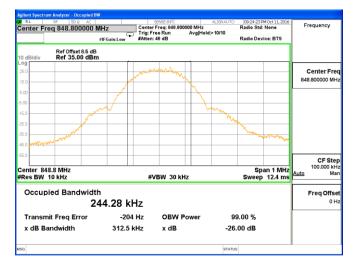
#### Report No.: STS1610007F01

#### GPRS 850 CH 128



#### GPRS 850 CH 190





#### GPRS 850 CH 251

#### Shenzhen STS Test Services Co., Ltd.



#### Report No.: STS1610007F01

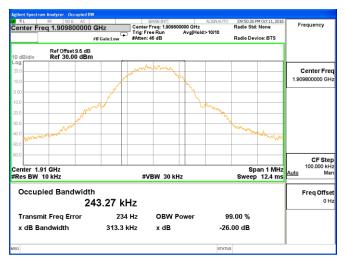
#### PCS 1900 CH 512



PCS 1900 CH 661



PCS 1900 CH 810



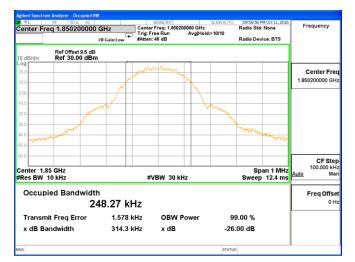
Shenzhen STS Test Services Co., Ltd.

 1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road, Fuyong Street, Bao'an District, Shenzhen, Guangdong, China

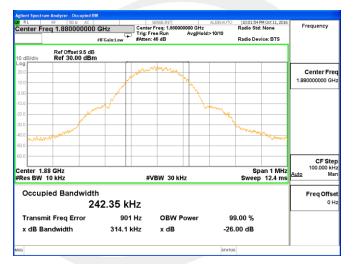
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 6287
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 E-mail: sts@stsapp.com



#### GPRS 1900 CH 512



#### GPRS 1900 CH 661



#### GPRS 1900 CH 810



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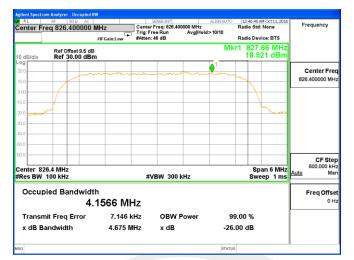
 1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road, Fuyong Street, Bao'an District, Shenzhen, Guangdong, China

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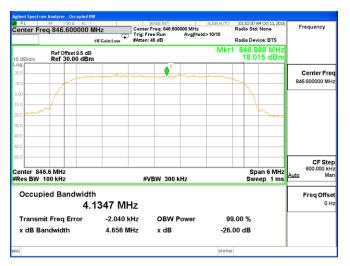
#### Report No.: STS1610007F01

#### UMTS BAND V CH 4132



#### UMTS BAND V CH 4183

Frequency	AM Oct 11, 2016 I: None	01:00:11 A		ALIGNAUTO	000 MHz	ENSE:INT Freq: 836.60	Center	AC DOO MHz	50 Ω 5.6000	RF 7ea 836	RL enter Fi
	vice: BTS	idio Dev	Ra	>10/10	Avg Hold:		ow Trig: Fr #Atten:	#IFGain:Lo			
	.76 MHz 44 dBm			Mk					Offset 9 30.00		) dB/div
Center Fre							<b>♦</b> <sup>1</sup>				) g 0.0
836.600000 Mi		1	h		~~~~		and the second		m		0.0
		$\square$								_/	
		$  \rangle$									1.0
	h									_ کمر	1.0
	1 mm									2	10
											10
											1.0
CF Ste 600.000 ki											
Auto M	oan 6 MHz eep 1 ms				Hz	BW 300 I	#\			36.6 MH 100 kH	
Freq Offs									andv	pied B	Occup
01							MHZ	4.1419			
		0.0/	9.00	9	ower	OBW F	668 kHz	vr -16.6	a Erro	mit Fred	Transn
		0 %	9.00								manon



#### UMTS BAND V CH 4233

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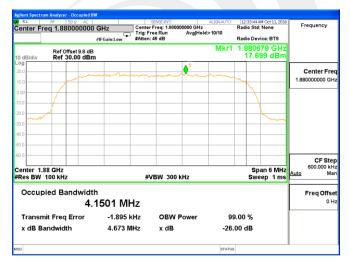


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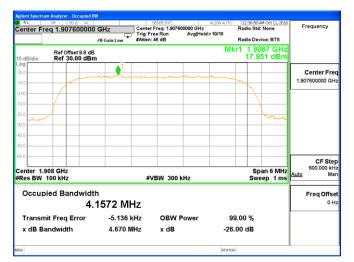
#### UMTS BAND II CH 9262

	m Analyzer - Occupied						
RL Contor Er	RF 50 Ω AC eq 1.85240000		SENSE: INT Center Freq: 1.85240	ALIGNAUTO	12:29:37 AM O: Radio Std: No		Frequency
	eq 1.85240000		Trig: Free Run #Atten: 46 dB	Avg Hold>10/10	Radio Device:	BTS	
10 dB/div	Ref Offset 9.8 d Ref 30.00 dB			Mkr1	1.851506 18.781		
.og 20.0							Center Fre
0.0				mannen	m		1.852400000 G
.00							
1.0						_	
1.0	vw l				<u>∖</u> ~	m	
						<b> </b> -	
							CF Ste 600.000 ki
enter 1.8 Res BW			#VBW 300 k	Hz	Span Sweep	6 MHz 1 ms	uto M
Occup	ied Bandwid	lth					Freq Offs
	4	.1507 MH	z				01
Transm	nit Freq Error	-3.673 kł	Iz OBW P	ower 9	9.00 %		
x dB Ba	andwidth	4.711 MH	lz xdB	-26	00 dB		
a				STATU			

#### UMTS BAND II CH 9400



#### UMTS BAND II CH 9538



#### Shenzhen STS Test Services Co., Ltd.

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Report No.: STS1610007F01

## A5 FREQUENCY STABILITY

Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.5 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		20.86	0.249				
40		27.82	0.333				
30		18.99	0.227				
20		15.03	0.180				
10	Normal Voltage	19.50	0.233				
0		18.85	0.225	2.5ppm	PASS		
-10		18.68	0.223				
-20	/	35.23	0.421				
-30		13.09	0.156				
25	Maximum Voltage	24.75	0.296	1			
25	BEP	27.78	0.332				

	GPRS 850 Middle Channel/836.6MHz							
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result			
50		23.43	0.280					
40		24.20	0.289					
30		22.76	0.272					
20		27.32	0.327					
10	Normal Voltage	28.89	0.345					
0		12.31	0.147	2.5ppm	PASS			
-10		30.68	0.367					
-20		22.35	0.267					
-30		29.84	0.357					
25	Maximum Voltage	34.31	0.024					
25	BEP	24.70	0.014	]				



## Report No.: STS1610007F01

GSM 1900 Middle Channel/1880MHz							
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result		
50		27.61	0.015				
40		14.56	0.008				
30		23.09	0.012				
20		32.37	0.017	Within Au-			
10	Normal Voltage	22.22	0.012				
0		34.91	0.019	thorized	PASS		
-10		32.82	0.017	Band			
-20	-	35.59	0.019				
-30		18.95	0.010				
25	Maximum Voltage	29.43	0.016				
25	BEP	22.84	0.012				

GPRS 1900 Middle Channel/1880MHz						
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result	
50		26.91	0.014			
40		33.11	0.018			
30		30.04	0.016			
20		33.25	0.018			
10	Normal Voltage	15.28	0.008	Within Au-		
0		31.83	0.017	thorized	PASS	
-10		11.54	0.006	Band		
-20		21.36	0.011			
-30		26.69	0.014			
25	Maximum Voltage	31.83	0.017			
25	BEP	26.83	0.014			

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Report No.: STS1610007F01

WCDMA V Middle Channel/836.6MHz							
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result		
50		28.38	0.339				
40		16.68	0.199				
30		26.85	0.321				
20		26.09	0.312				
10	Normal Voltage	19.39	0.232				
0		29.69	0.355	2.5ppm	PASS		
-10		31.80	0.380				
-20		13.34	0.159				
-30		35.54	0.425				
25	Maximum Voltage	21.30	0.255				
25	BEP	17.91	0.214				

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		13.35	0.007				
40		24.24	0.013				
30		13.97	0.007				
20		15.24	0.008				
10	Normal Voltage	15.58	0.008	Within Au-			
0		17.90	0.010	thorized	PASS		
-10		31.79	0.017	Band			
-20		12.29	0.007				
-30		15.51	0.008				
25	Maximum Voltage	31.51	0.017				
25	BEP	13.68	0.007				

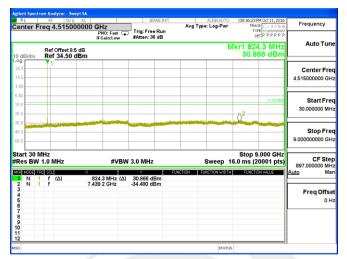
1. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



# A6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

GSM 850 BAND

### Lowest Channel



### Middle Channel

RL	RF	50 Ω	AC		SENSE:1		ALIGNAUTO	08:45:29 PM	Oct 11, 2016	E
enter	Freq 4	1.51500	0000 GHz PNO: Fa	ist 🗣	Trig: Free Ru #Atten: 36 dB	Avg	Type: Log-Pwr	TYPE	1 2 3 4 5 6 P P P P P P P	Frequency
) dB/div		Offset 8.5 34.50 c	dB	0.00	Jinten ee up		N	1kr1 836. 30.672		Auto Tu
4.6 4.6	1									Center Fr 4.515000000 G
.50 5.5 5.6							2		-13.00 dBm	Start F 30.000000 M
5.5										Stop F 9.000000000
	N 1.0 N		#	VBW	3.0 MHz			Stop 9.0 6.0 ms (200	001 pts)	CF S 897.000000 f
E MODE	TRC SCL	(Δ)	× 836.9 MH 6.578 1 GH		30.672 dBm -37.186 dBm	FUNCTION	FUNCTION WIDTH	FUNCTION	VALUE	Auto I
3 4 5 6 7 8										Freq Off C
B 9 0										

### **Highest Channel**

-	M Oct 11, 2016	08:48:10 P	ALIGNAUTO		SENSE:INT			DΩ AC	F 50	F	RL
Frequency	E 1 2 3 4 5 6	TRAC	e: Log-Pwr	Avg	ree Run 1:36 dB	Trig: F #Atten	GHz PNO: Fast C	000000	4.5150	Freq	enter
Auto Tu	0.0 MHz 31 dBm		М						f Offset 8 of 34.50		dB/di
Center Fr									1	Y	g 
4.515000000 G				-							1.6
	-13.00 dBm				_						50
Start Fr 30.000000 M	-13.00 001			-	-			-		_	.5
		$Q^2$	and the first of								5
Stop Fr											.5
9.000000000 G											.6
CF St 897.000000 M	.000 GHz 0001 pts)		Sweep 16		Hz	V 3.0 Mł	#VBV		MHz	) MHz W 1.0	
Auto N	IN VALUE	FUNCTIO	INCTION WIDTH	NCTION			49.0 MHz (Δ)		ι (Δ)	TRC SO	N
Freq Offs 0					7 dBm	-34.057	21 3 GHz	7.4		1 f	N
											8
											2
			STATUS								

Shenzhen STS Test Services Co., Ltd.



### GPRS 850 BAND

#### Lowest Channel

RL	RF 50 Ω	AC	SENS	EINT	ALIGNAUTO	08:50:11PM Oct 11.	2016
nter F	req 4.515000		Trig: Free F	Avg	Type: Log-Pwr	TRACE 1 2 3	
dB/div	Ref Offset 8.5 d Ref 34.50 dB		#Atten: 36 o		N	TYPE MWM DET P P P I Mkr1 824.3 M 30.890 dE	Hz Auto Tur
9 1.6 1.6 50							Center Fre 4.515000000 GF
50 1.5 1.5						-13.0	30.000000 Mi
15 15 15							Stop Fre 9.000000000 G
art 30 I tes BW	( 1.0 MHz	#VB	W 3.0 MHz	2002250	Sweep 1	Stop 9.000 G 6.0 ms (20001	ots) CF Ste 897.000000 M
				FUNCTION		FUNCTION VALUE	Auto M
N	EC SCL 1 f (Δ) 1 f	× 824.3 MHz (2 5.618 3 GHz	<ul> <li>30,890 dBi</li> <li>-31.194 dBr</li> </ul>	m			Freq Offs 01

### Middle Channel

08:52:34PM Oct 11, 2016 TRACE 1 2 3 4 5 6 Frequency		Avg Type	SENSE:INT		011	10 Ω AC		RF	-	RL
TYPE MUMMMM DET P P P P P P	TYPE	Avg Type	Trig: Free Run #Atten: 36 dB	#. 🖵	PNO: Fast IFGain:Lov	500000	4.515	eq 4	er Fr	ent
Kr1 836.9 MHz Auto Tu 30.721 dBm					IF Gam. Cov	t 8.5 dB 10 dBm			liv	) dB/
Center Fr 4.515000000 G								1		4.6 - 50 -
-13.00 dBm Start F 30.000000 M		2								.60 5.6 5.5 -
Stop F 9.000000000				*****						5.5 5.5 5.5
Stop 9.000 GHz 0 ms (20001 pts) 897.000000 Auto	ep 16.0 ms (20					×		IHZ 1.0 I	DE TR	Res
Freq Off 0			30.721 dBm -34.432 dBm		836.9 MHz 977 1 GHz	6	(Δ)	f		1 1 2 1 3 4 5 6
										7 8 9 0 1
	STA									0

### Highest Channel

RL	RF	50 Q AC			SENS	E:INT		ALIGNAUTO	06:53:38 Pf	M Oct 11, 2016	-
nter F	req 4.51	50000	DO GHz PNO: Fas IFGain:Lo		Trig: Free F #Atten: 36 d		Avg Typ	: Log-Pwr	TRACI TYP DE	123456 MWWWWWWWW PPPPPP	Frequency
dB/div	Ref Offs Ref 34.	et 8.5 dB 50 dBn	ı					М		.0 MHz 60 dBm	Auto Tu
.6	1										Center Fr
.6											4.515000000 G
				_						-13.00 dBm	Start Fr
5											30.000000 M
5				-					-		
5											Stop Fr 9.000000000 G
art 30 M										000 GHz	CF St
es BW	1.0 MHz		#\	/BW	3.0 MHz	5		Sweep 16	i.0 ms (20 50000		897.000000 M Auto M
N 1	f (Δ)		849.0 MHz 5.878 4 GHz		30.460 dBr	n	NGTION TO	NCTION WIDTH	Poneno	1.1700.010	<u>Auto</u> #
N 1			0.01040112		00.000 0.01						Freq Offs
											0
_				_				STATUS			

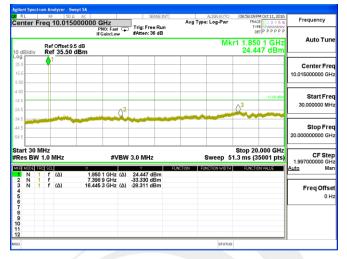
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# Report No.: STS1610007F01

### GSM1900 BAND(30M-20G)

#### Lowest Channel



### Middle Channel

RL	RF	50 9 AC			SENSE: INT		ALIGNAUTO	06:59:05P	M Oct 11, 2016	
enter F	req 10.	01500000	D GHz PNO: Fast IFGain:Lov	ļ	Trig: Free Run #Atten: 36 dB	Avg Typ	e: Log-Pwr	TRAC TVP DE		Frequency
) dB/div		set 9.5 dB 5.50 dBm					Mk		) 4 GHz 53 dBm	Auto Tu
<b>og</b> 15.6	1									Center Fr
.50			_	_						10.015000000 G
50									-13.00 dBm	Start Fr
4.5			<sup>2</sup>	_				3		30.000000 N
1.5				~						Stop Fi
1.5			_	_						20.00000000 G
art 30 I Res BW	MHz 1.0 MHz	z	#V	вw	3.0 MHz		Sweep 5		.000 GHz 5001 pts)	CF St
R MODE T	RC SCL f (Δ)		80 4 GHz	(Δ)	24,953 dBm	UNCTION FI	JNCTION WIDTH	FUNCTIO	IN VALUE	Auto M
1	f (Δ)		80 5 GHz 145 3 GHz	(Δ)	-34.056 dBm -28.168 dBm					Freq Off
5 6 7										0
8 9 0										
1										
a							STATUS			

### **Highest Channel**

RL	RF	50	Ω AC				S	ENSE: INT		ALIGNAUTO	09:00:00	PM Oct 11, 2016	-
enter F	req	10.015	500000	PNO	HZ D: Fast nin:Lov	ج,	Trig: Fre #Atten: 3		Avg T	/pe: Log-Pwr	т	ACE 1 2 3 4 5 6 YPE MWWWWWW DET P P P P P P	Frequency
) dB/div		Offset 9 [ 35.50								М		10 0 GHz 049 dBm	Auto Tur
5.6 5.6 5.9													Center Fre 10.015000000 GH
50 4.5 4.5									0 <sup>2</sup>		3	-13.00 dBm	Start Fre 30.000000 MH
4.5 4.5 1.5						_							Stop Fre 20.000000000 GF
tart 30 Res BW	1.01				#V	вw	3.0 MHz	·			51.3 ms (	0.000 GHz 35001 pts)	CF Ste 1.997000000 GH
KRIMODEL 1 N 2 N 3 N	1 f 1 f 1 f	(Δ) (Δ)	11	.910 0 .932 1 .465 3	GHz		25.049 c -34.182 c	iBm IBm	UNCTION	FUNCTION WID1	H FUNC	TON VALUE	<u>Auto</u> Ma
3 N 4 5 6 7 8 9 0 1 2			10	,400 3	GHZ	(Δ)	-27.328 0	BM					Freq Offs 0 F

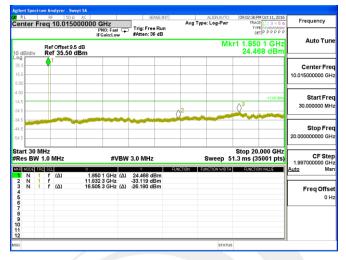
Shenzhen STS Test Services Co., Ltd.



# Report No.: STS1610007F01

### GPRS1900 BAND(30M-20G)

#### Lowest Channel



### Middle Channel

RL RF	50 Q AC		58	ISE:INT	ALIGNAUTO	09:04:31P	M Oct 11, 2016	-
enter Freq '	10.01500000	PNO: Fast C		Run	g Type: Log-Pwr	TRAC	E 1 2 3 4 5 6	Frequency
dB/div Ref	Offset 9.5 dB 35.50 dBm				Mk	r1 1.880 24.90	) 4 GHz 61 dBm	Auto Tu
9 1 5.5 5.6								Center Fr 10.015000000 G
.5 .5		2				<b>∂</b> <sup>3</sup>	-13.00 dBn	Start Fi 30.000000 M
.5 .5								Stop Fr 20.000000000 0
art 30 MHz Res BW 1.0 M		#VB	W 3.0 MHz		Sweep 5	1.3 ms (3		CF St 1.997000000 0
RIMODE TRESCU N 1 f 2 N 1 f 3 N 1 f	6.0	380 4 GHz (2	<ul> <li>24.961 de -32.795 de</li> </ul>		FUNCTION WIDTH	FUNCTIO	IN VALUE	Auto M
3 N 1 f	(Δ) 16.4	185 3 GHz (2	<ol> <li>-28.109 dE</li> </ol>	3m				Freq Off 0
3 9 0								

### **Highest Channel**

RL		RF	50 Q	AC					ENSE: INT				IGNAUTO	09:05:	47 PM Oc	t 11, 2016	-
enter	Fre	q 1(	0.0150	0000	PN	Hz 0: Fast ain:Lov	, <del>-</del>	Trig: Fr #Atten:			Avg T	ype: L	og-Pwr		TYPE M	2 3 4 5 6 P P P P P	Frequency
) dB/div			ffset 9. 35.50										M	(r1 1.9 25		GHz dBm	Auto Tur
5.6		1		-			_			-		-			-	_	Center Fre
5.6																	10.015000000 GH
50							_			_						13.00 <b>(Em</b>	Start Fre
4.5										~				3			30.000000 MH
4.5		-	-	سبا			~	الدين		1	ينافيعام	-					Stop Fr
1.5		-															20.00000000 G
tart 30 Res B			Hz			#V	вw	3.0 MH	z			Sw	/eep 5	Stop i1.3 ms	20.00 (3500	0 GHz )1 pts)	CF Ste
R MODE	TRC 1	501. f (	Δ)		1.910 0		(Δ)	Y 25.062	dBm	FUNCT	TION	FUNCT	ION WIDTH	FUN	ICTION VA	LUE	<u>Auto</u> Ma
2 N 3 N 4	1	f	Δ)		1.792 3 5.285 6		(Δ)	-33.687 -29.890								_	Freq Offs
5 6 7 8 9																_	
9 D 1 2																	
_	_	_								_							

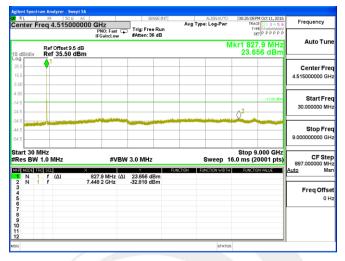
Shenzhen STS Test Services Co., Ltd.



# Report No.: STS1610007F01

### WCDMA Band V (RMC 12.2Kbps)

### Lowest Channel



### Middle Channel

	08:27:15 PM Oct 11, 2016	ALIGNAUTO		SENSE: INT			DΩ AC	50	RF		RL
PPPP	TRACE 1 2 3 4 5 6 TYPE DET P P P P P	: Log-Pwr	Avg Ty	Frig: Free Run Atten: 36 dB	, <del>-</del>	GHz PNO: Fast IFGain:Low	000000	4.515	req 4	er F	en
	kr1 836.0 MHz 23.594 dBm	М					9.5 dB 0 dBm	Offset f 35.50		/div	0 dE
Center   4.515000000									<b></b>		og 15.6 15.6
300.000000 Start F	-13.00 dBm										.50 4.5 4.5
Stop F 9.000000000											15 15 15
1 pts) CF 8 897.000000	Stop 9.000 GHz 5.0 ms (20001 pts)			.0 MHz	вw	#V			1.0	30 N BW	Res
	FUNCTION VALUE	NCTION WIDTH	NCTION	23.594 dBm 2.895 dBm	(Δ)	836.0 MHz 111 7 GHz		(Δ)		ode t N 1 N 1	1
FreqO											4 5 6 7
											8 9 0 1
		STATUS						-	-	_	9

### **Highest Channel**

L RF 50 Ω	AC	SENSE: INT	ALIGNAUTO	08:28:09 PM Oct 11, 2016	
ter Freq 4.515000	PNO: Fast IFGain:Low	Trig: Free Run #Atten: 36 dB	Avg Type: Log-Pwr	TYPE MUMMMMM DET P P P P P	Frequency
Ref Offset 9.5 d IB/div Ref 35.50 dB	в m		М	kr1 847.6 MHz 23.545 dBm	Auto Tu
5 <b>•</b> <sup>1</sup>					Center Fr
5					4.515000000 G
					Start Fr
				-13.00 dBn	30.000000 M
			Q2		
					Stop Fr 9.000000000 G
					3.000000000
rt 30 MHz es BW 1.0 MHz	#VBW	3.0 MHz	Sweep 16	Stop 9.000 GHz 6.0 ms (20001 pts)	CF St 897.000000 M
MODE TRE SOL N 1 f (Δ)	× 847.6 MHz (Δ)	23.545 dBm	INCTION FUNCTION WIDTH	FUNCTION VALUE	Auto N
N 1 f	6.030 9 GHz	-32.351 dBm			Freq Offs
					0

Shenzhen STS Test Services Co., Ltd.

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# Report No.: STS1610007F01

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

### Lowest Channel

RL		RF	50 Q AC			SENSE: IN	r		ALIGNAUTO	07:55:21 F	M Oct 11, 2016	
enter	Fre	q 1	0.0150000	DO GHZ PNO: Fas IFGain:Lo	. <b>.</b> .	Trig: Free Run #Atten: 36 dB	,	Vg Type	: Log-Pwr	TRAC		Frequency
0 dB/div			offset 9.8 dB 35.80 dBm						М	(r1 1.85) 19.9	3 5 GHz 98 dBm	Auto Tu
og 25.8	_	<mark>1</mark>										Center Fr
15.8		ľ		_	_							10.015000000 G
i.80		+			-							
.20											-13.00 dBm	Start Fr
4.2							2				3	30.000000 N
4.2			Marrie Land		-				-			
4.2		-			_							Stop Fr
i4.2		+			-							20.00000000 G
tart 30 Res Bi			Hz	#\	/BW	3.0 MHz			Sweep :		.000 GHz 5001 pts)	CF St
KR MODE	TRC		× (Δ) 1	.853 5 GHz	(0)	19.998 dBm	FUNCTIO	N FU	NCTION WIDTH	FUNCTI	ON VALUE	<u>Auto</u> N
2 N 3 N	1	f	11	932 1 GHz		-33.534 dBm -28.197 dBm						
4	1		Δ) Is	.0215 GHz	(Δ)	-28.197 dBm						Freq Off
5 6 7												
8 9												
0												
2												

#### Middle Channel

Center F	RF req	50 1	vept SA 2 AC 0000000 GHz PN0: Fas IEGain:Lo		SENSE: INT	Avg Ty	ALIGNAUTO pe: Log-Pwr	TRA	M Oct 11, 2016 DE 1 2 3 4 5 6 PE MWWWWWWW ET P P P P P P P	Frequency
Ref Offset 9.8 dB Mkr1 1.879 2 GHz 10 dB/dly Ref 35.80 dBm 20.327 dBm										
-og 25.8 15.8 5.80	•									Center Fre 10.015000000 GH
4.20 14.2 24.2				∕\ <sup>2</sup>				3	-13.00 dBm	Start Fre 30.000000 MH
34.2 44.2 54.2										Stop Fre 20.00000000 Gi
1 N			× 1.879 2 GHz	(Δ)	20.327 dBm	FUNCTION	Sweep 5	i1.3 ms (3	0.000 GHz 15001 pts) 001/2006	CF Ste 1.997000000 Gi <u>Auto</u> M
2 N 3 N 5 6 7 8 9 10 11	1 f	(Δ)	7.458 8 GHz 16.006 0 GHz		-34.155 dBm -28.779 dBm					Freq Offs 0 F

### **Highest Channel**

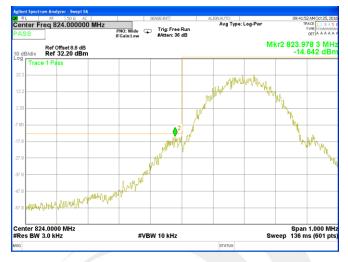
RL	R	50 1	R AC			SENSE	:INT		ALIGNAUT		7 PM Oct 11, 2016	-
enter	Freq	10.015	000000	GHz PNO: Fast FGain:Lov		Trig: Free R #Atten: 36 dl	un 3	Avg T	ype: Log-Pw	1	ACE 1 2 3 4 5 6 YPE MWWWWWWW DET P P P P P P	Frequency
0 dB/div		f Offset 9 ff 35.80							N		06 6 GHz 618 dBm	Auto Tur
og 25.8 15.8 5.80	•	1										Center Fre 10.015000000 GH
1.20 14.2 24.2								2		Q <sup>3</sup>	-13.00 dBm	Start Fre 30.000000 MH
34.2 14.2 54.2												Stop Fre 20.000000000 Gi
tart 30 Res BV		MHz		#V	/BW	3.0 MHz			Sweep	Stop 2 51.3 ms (	0.000 GHz 35001 pts)	CF Ste
KR MODE 1 N 2 N	TRC SC	(Δ)		6 6 GHz 2 3 GHz	(Δ)	20.618 dBm -33.502 dBm		ICTION	FUNCTION WID	TH FUNC	TION VALUE	<u>Auto</u> M
3 N 4 5	İİ	(Δ)		4 4 GHz	(Δ)							Freq Offs 0 F
7 8 9 10												
2												

Shenzhen STS Test Services Co., Ltd.



#### GSM 850

#### Lowest Band Edge



Note:Offset=Cable loss(8.5)+10log(3.2/3)=8.5+0.3=8.8 dB

Highest Band Edge



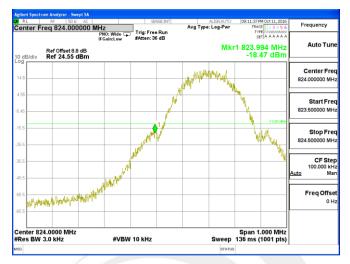
Note:Offset=Cable loss(8.5)+10log(3.2/3)=8.5+0.3=8.8 dB

Shenzhen STS Test Services Co., Ltd.



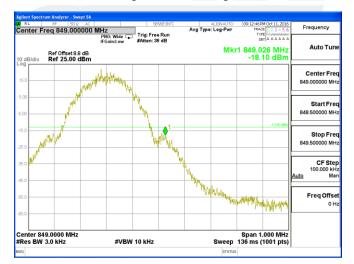
### **GPRS 850**

#### Lowest Band Edge



Note:Offset=Cable loss(8.5)+10log(3.2/3)=8.5+0.3=8.8 dB

Highest Band Edge



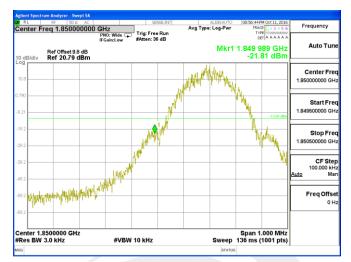
Note:Offset=Cable loss(8.5)+10log(3.2/3)=8.5+0.3=8.8 dB

Shenzhen STS Test Services Co., Ltd.



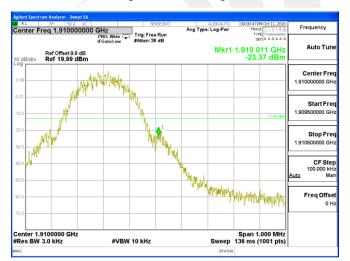
### GSM 1900

#### Lowest Band Edge



Note:Offset=Cable loss(9.5)+10log(3.2/3)=9.5+0.3=9.8 dB

#### **Highest Band Edge**

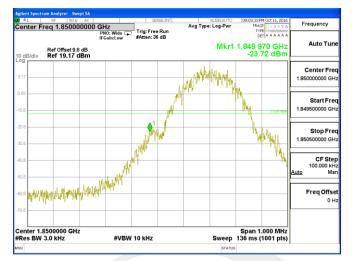


Note:Offset=Cable loss(9.5)+10log(3.2/3)=9.5+0.3=9.8 dB



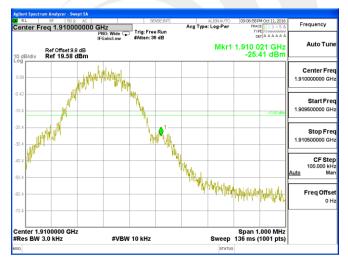
#### **GPRS 1900**

#### Lowest Band Edge



Note:Offset=Cable loss(9.5)+10log(3.2/3)=9.5+0.3=9.8 dB

### Highest Band Edge



Note:Offset=Cable loss(9.5)+10log(3.2/3)=9.5+0.3=9.8 dB

Shenzhen STS Test Services Co., Ltd.



#### WCDMA Band VRMC 12.2Kbps





Note:Offset=Cable loss(10.448)+10log(41/51)=10.448-0.948=9.5 dB

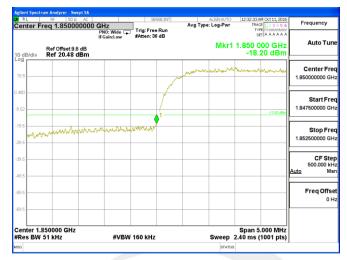


Note:Offset=Cable loss(10.448)+10log(41/51)=10.448-0.948=9.5 dB



#### WCDMA Band IIRMC 12.2Kbps

#### Lowest Band Edge



Note:Offset=Cable loss(10.748)+10log(41/51)=10.748-0.948=9.8 dB



Note:Offset=Cable loss(10.748)+10log(41/51)=10.748-0.948=9.8 dB

Shenzhen STS Test Services Co., Ltd.



## A8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

#### GSM 850: (30-9000)MHz

GSM 850: (30-9000)MHz											
The Worst Test Results Channel 128/824.2 MHz											
	S G.Lev			PMea	Limit	Margin	Delerity				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
1648.43	-40.46	9.40	4.75	-35.81	-13.00	-22.81	Н				
2472.27	-40.21	10.60	8.39	-38.00	-13.00	-25.00	Н				
3296.85	-31.06	12.00	11.79	-30.85	-13.00	-17.85	Н				
1648.28	-44.32	9.40	4.75	-39.67	-13.00	-26.67	V				
2472.23	-45.28	10.60	8.39	-43.07	-13.00	-30.07	V				
3296.68	-43.91	12.00	11.79	-43.70	-13.00	-30.70	V				
The Worst Test Results Channel 190/836.6 MHz											
	S G.Lev	Apt(dDi)		PMea	Limit	Margin	Polarity				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Folanty				
1672.91	-41.59	9.50	4.76	-36.85	-13.00	-23.85	Н				
2509.48	-39.48	10.70	8.40	-37.18	-13.00	-24.18	Н				
3346.10	-30.95	12.20	11.80	-30.55	-13.00	-17.55	Н				
1673.23	-43.57	9.40	4.75	-38.92	-13.00	-25.92	V				
2509.56	-45.37	10.60	8.39	-43.16	-13.00	-30.16	V				
3346.10	-43.81	12.20	11.82	-43.43	-13.00	-30.43	V				
	The W	orst Test R	esults Ch	annel 251/8	848.8 MHz						
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Polority				
Frequency(MHZ)	(dBm)	Ani(ubi)	L055	(dBm)	(dBm)	(dBm)	Polarity				
1697.43	-40.57	9.60	4.77	-35.74	-13.00	-22.74	Н				
2546.44	-40.58	10.80	8.50	-38.28	-13.00	-25.28	Н				
3394.95	-31.27	12.50	11.90	-30.67	-13.00	-17.67	Н				
1697.48	-43.83	9.60	4.77	-39.00	-13.00	-26.00	V				
2546.06	-44.67	10.80	8.50	-42.37	-13.00	-29.37	V				
3395.21	-43.06	12.50	11.90	-42.46	-13.00	-29.46	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

GPRS 850: (30-9000)MHz											
The Worst Test Results Channel 128/824.2 MHz											
	S G.Lev	Ant(dDi)	Loss	PMea	Limit	Margin	Delerity				
Frequency(MHz)	(dBm)	Ant(dBi)	LUSS	(dBm)	(dBm)	(dBm)	Polarity				
1648.28	-41.50	9.40	4.75	-36.85	-13.00	-23.85	Н				
2472.55	-40.51	10.60	8.39	-38.30	-13.00	-25.30	Н				
3296.75	-31.98	12.00	11.79	-31.77	-13.00	-18.77	Н				
1648.14	-43.20	9.40	4.75	-38.55	-13.00	-25.55	V				
2472.25	-44.19	10.60	8.39	-41.98	-13.00	-28.98	V				
3296.55	-43.28	12.00	11.79	-43.07	-13.00	-30.07	V				
The Worst Test Results Channel 190/836.6 MHz											
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Delority				
Frequency(MHZ)	(dBm)	Аш(ав)	L055	(dBm)	(dBm)	(dBm)	Polarity				
1673.03	-41.25	9.50	4.76	-36.51	-13.00	-23.51	Н				
2509.89	-39.49	10.70	8.40	-37.19	-13.00	-24.19	Н				
3346.04	-31.57	12.20	11.80	-31.17	-13.00	-18.17	Н				
1673.04	-43.95	9.40	4.75	-39.30	-13.00	-26.30	V				
2509.72	-45.07	10.60	8.39	-42.86	-13.00	-29.86	V				
3346.05	-42.72	12.20	11.82	-42.34	-13.00	-29.34	V				
	The W	orst Test R	esults Ch	annel 251/8	848.8 MHz						
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity				
Trequency(imitz)	(dBm)	Аш(аы)	L055	(dBm)	(dBm)	(dBm)	Polarity				
1697.22	-41.45	9.60	4.77	-36.62	-13.00	-23.62	н				
2546.52	-39.55	10.80	8.50	-37.25	-13.00	-24.25	Н				
3395.11	-31.71	12.50	11.90	-31.11	-13.00	-18.11	Н				
1697.28	-43.22	9.60	4.77	-38.39	-13.00	-25.39	V				
2546.13	-44.77	10.80	8.50	-42.47	-13.00	-29.47	V				
3394.84	-42.96	12.50	11.90	-42.36	-13.00	-29.36	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.



#### Report No.: STS1610007F01

#### PCS 1900: (30-20000)MHz

DCS 1900: (30-20000)MHz											
The Worst Test Results for Channel 512/1850.2MHz											
	S G.Lev			PMea	Limit	Margin	Delerity				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
3700.05	-33.84	12.60	12.93	-34.17	-13.00	-21.17	Н				
5550.50	-34.01	13.10	17.11	-38.02	-13.00	-25.02	Н				
7400.50	-33.32	11.50	22.20	-44.02	-13.00	-31.02	Н				
3700.51	-35.87	12.60	12.93	-36.20	-13.00	-23.20	V				
5550.34	-34.56	13.10	17.11	-38.57	-13.00	-25.57	V				
7400.94	-32.85	11.50	22.20	-43.55	-13.00	-30.55	V				
The Worst Test Results for Channel 661/1880.0MHz											
	S G.Lev	G.Lev		PMea	Limit	Margin	Delerity				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
3760.07	-34.30	12.60	12.93	-34.63	-13.00	-21.63	Н				
5640.18	-34.42	13.10	17.11	-38.43	-13.00	-25.43	Н				
7519.90	-33.60	11.50	22.20	-44.30	-13.00	-31.30	Н				
3760.15	-35.35	12.60	12.93	-35.68	-13.00	-22.68	V				
5639.87	-35.15	13.10	17.11	-39.16	-13.00	-26.16	V				
7520.17	-31.98	11.50	22.20	-42.68	-13.00	-29.68	V				
	The Wor	st Test Res	sults for C	hannel 810	D/1909.8MH	z					
	S G.Lev	Anot(dDi)		PMea	Limit	Margin	Delerity				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
3819.25	-34.87	12.60	12.93	-35.20	-13.00	-22.20	Н				
5729.04	-35.02	13.10	17.11	-39.03	-13.00	-26.03	Н				
7639.30	-32.33	11.50	22.20	-43.03	-13.00	-30.03	Н				
3819.49	-35.27	12.60	12.93	-35.60	-13.00	-22.60	V				
5729.53	-34.99	13.10	17.11	-39.00	-13.00	-26.00	V				
7639.13	-32.61	11.50	22.20	-43.31	-13.00	-30.31	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.



#### Report No.: STS1610007F01

### GPRS 1900: (30-20000)MHz

GPRS1900: (30-20000)MHz											
The Worst Test Results for Channel 512/1850.2MHz											
	S G.Lev	Ant(dDi)		PMea	Limit	Margin	Delerity				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
3700.04	-34.69	12.60	12.93	-35.02	-13.00	-22.02	Н				
5550.29	-35.20	13.10	17.11	-39.21	-13.00	-26.21	Н				
7400.67	-32.71	11.50	22.20	-43.41	-13.00	-30.41	Н				
3700.51	-35.92	12.60	12.93	-36.25	-13.00	-23.25	V				
5550.40	-35.09	13.10	17.11	-39.10	-13.00	-26.10	V				
7400.77	-32.59	11.50	22.20	-43.29	-13.00	-30.29	V				
The Worst Test Results for Channel 661/1880.0MHz											
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity				
Frequency(MHZ)	(dBm)	Ani(ubi)	L055	(dBm)	(dBm)	(dBm)	Tolanty				
3759.84	-34.35	12.60	12.93	-34.68	-13.00	-21.68	Н				
5640.17	-34.15	13.10	17.11	-38.16	-13.00	-25.16	Н				
7520.16	-32.28	11.50	22.20	-42.98	-13.00	-29.98	Н				
3760.22	-35.28	12.60	12.93	-35.61	-13.00	-22.61	V				
5640.28	-35.03	13.10	17.11	-39.04	-13.00	-26.04	V				
7520.14	-32.85	11.50	22.20	-43.55	-13.00	-30.55	V				
	The Wor	st Test Res	sults for C	hannel 81(	)/1909.8MH	z					
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity				
Trequency(initz)	(dBm)	Ant(ubi)	L055	(dBm)	(dBm)	(dBm)	Folanty				
3819.58	-34.90	12.60	12.93	-35.23	-13.00	-22.23	Н				
5729.48	-34.97	13.10	17.11	-38.98	-13.00	-25.98	Н				
7639.22	-32.87	11.50	22.20	-43.57	-13.00	-30.57	Н				
3819.63	-35.76	12.60	12.93	-36.09	-13.00	-23.09	V				
5729.49	-34.83	13.10	17.11	-38.84	-13.00	-25.84	V				
7638.92	-32.02	11.50	22.20	-42.72	-13.00	-29.72	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.



#### Report No.: STS1610007F01

#### UMTS band V(30-9000)MHz

WCDMA Band V: (30-9000)MHz												
The wost testresults channel 4132/826.4MHz												
	S G.Lev	Ant(dDi)		PMea	Limit	Margin	Delerity					
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity					
1652.02	-40.70	9.40	4.75	-36.05	-13.00	-23.05	Н					
2479.71	-40.29	10.60	8.39	-38.08	-13.00	-25.08	Н					
3305.64	-31.18	12.00	11.79	-30.97	-13.00	-17.97	Н					
1652.45	-44.60	9.40	4.75	-39.95	-13.00	-26.95	V					
2479.41	-44.11	10.60	8.39	-41.90	-13.00	-28.90	V					
3305.66	-42.62	12.00	11.79	-42.41	-13.00	-29.41	V					
The Worst Test Results Channel 4183/836.6MHz												
	S G.Lev	Anot(dDi)		PMea	Limit	Margin	Delerity					
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity					
1673.22	-41.11	9.50	4.76	-36.37	-13.00	-23.37	Н					
2509.66	-39.59	10.70	8.40	-37.29	-13.00	-24.29	Н					
3346.25	-31.57	12.20	11.80	-31.17	-13.00	-18.17	Н					
1673.12	-43.26	9.40	4.75	-38.61	-13.00	-25.61	V					
2509.44	-43.98	10.60	8.39	-41.77	-13.00	-28.77	V					
3346.12	-42.76	12.20	11.82	-42.38	-13.00	-29.38	V					
	The Wo	orst Test R	esults Cha	annel 4233	/846.6MHz							
Frequency(MHz)	S G.Lev	Anot(dDi)		PMea	Limit	Margin	Polarity					
Frequency(MHZ)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity					
1693.57	-40.86	9.60	4.77	-36.03	-13.00	-23.03	Н					
2539.47	-40.34	10.80	8.50	-38.04	-13.00	-25.04	Н					
3385.85	-31.20	12.50	11.90	-30.60	-13.00	-17.60	Н					
1693.47	-43.67	9.60	4.77	-38.84	-13.00	-25.84	V					
2539.38	-44.88	10.80	8.50	-42.58	-13.00	-29.58	V					
3386.13	-43.33	12.50	11.90	-42.73	-13.00	-29.73	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.



#### Report No.: STS1610007F01

### UMTS band II(30-20000)MHz

WCDMA Band II: (30-20000)MHz											
The Worst Test Results for Channel 9262/1852.4MHz											
	S G.Lev			PMea	Limit	Margin	Deleritu				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
3704.14	-33.88	12.60	12.93	-34.21	-13.00	-21.21	Н				
5557.24	-34.81	13.10	17.11	-38.82	-13.00	-25.82	Н				
7409.76	-33.48	11.50	22.20	-44.18	-13.00	-31.18	Н				
3704.30	-35.50	12.60	12.93	-35.83	-13.00	-22.83	V				
5557.47	-35.24	13.10	17.11	-39.25	-13.00	-26.25	V				
7409.83	-31.74	11.50	22.20	-42.44	-13.00	-29.44	V				
The Worst Test Results for Channel 9400/1880MHz											
Frequency(MHz)	S G.Lev	Apt(dBi)	Loss	PMea	Limit	Margin	Polarity				
Frequency(MHZ)	(dBm)	Ant(dBi)	LUSS	(dBm)	(dBm)	(dBm)	Polarity				
3759.91	-34.31	12.60	12.93	-34.64	-13.00	-21.64	Н				
5640.27	-35.21	13.10	17.11	-39.22	-13.00	-26.22	Н				
7520.21	-32.69	11.50	22.20	-43.39	-13.00	-30.39	Н				
3759.97	-34.77	12.60	12.93	-35.10	-13.00	-22.10	V				
5639.85	-33.98	13.10	17.11	-37.99	-13.00	-24.99	V				
7519.82	-31.98	11.50	22.20	-42.68	-13.00	-29.68	V				
	The Wors	st Test Res	ults for Ch	nannel 953	8/1907.6MH	Iz					
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity				
Frequency(MHZ)	(dBm)	Ani(ubi)	L055	(dBm)	(dBm)	(dBm)	Folanty				
3815.59	-34.08	12.60	12.93	-34.41	-13.00	-21.41	Н				
5722.21	-34.18	13.10	17.11	-38.19	-13.00	-25.19	Н				
7630.10	-33.07	11.50	22.20	-43.77	-13.00	-30.77	Н				
3815.24	-34.64	12.60	12.93	-34.97	-13.00	-21.97	V				
5722.42	-33.99	13.10	17.11	-38.00	-13.00	-25.00	V				
7630.15	-33.17	11.50	22.20	-43.87	-13.00	-30.87	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

RADIATED SPURIOUS EMISSION





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Shenzhen STS Test Services Co., Ltd.