

RADIO TEST REPORT

Report No: STS1612280F01

S T S

A

Issued for

Interglobe Connection Corp

3785 NW 82nd Avenue, Suite 403, Miami, FL 33166 USA

Product Name:	mobile phone
Brand Name:	SOLE
Model Name:	SOLE B180 M16
Series Model:	N/A
FCC ID:	2AC7ISOLEB180
Test Standard:	FCC Part 22H and 24E

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Report No.: STS1612280F01

TEST RESULT CERTIFICATION

Applicant's name:	Interglobe Connection Corp
Address	3785 NW 82nd Avenue, Suite 403, Miami, FL 33166 USA
Manufacture's Name	EZA Electronic limited
Address	UNIT 1302(A), 13/F, PROSPERITY COMMERCIAL CENTRE, 982 CANTON ROAD, MONGKOK, KOWLOON, HONG KONG
Product name:	mobile phone
Brand name:	SOLE
Model and/or type reference:	SOLE B180 M16
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 30 Dec. 2016~10 Jan. 2017

Date of Issue 11 Jan. 2017

Test Result..... Pass

Testing Engineer

1

Leo li) Technical Manager (Tony liu) Authorized Signatory : (Bovey Yang)

Shenzhen STS Test Services Co., Ltd.

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Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	11 Jan. 2017	STS1612280F01	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 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:	mobile phone		
Hardware version:	S122-MB-V2.2		
Software version:	S122_A281_SOLE_V1.0.1		
FCC ID:	2AC7ISOLEB180		
	GSM/GPRS:		
Tx Frequency:	850: 824.2 MHz ~ 848.8 MHz		
	1900: 1850.2 MHz ~ 1909.8MHz		
	GSM/GPRS:		
Rx Frequency:	850: 869.2 MHz ~ 893.8 MHz		
	1900: 1930.2 MHz ~ 1989.8 MHz		
Max RF Output Power:	GSM850:32.87dBm,PCS1900:29.88dBm GPRS850:32.75dBm,GPRS1900:29.82dBm		
Type of Emission:	GSM(850):318KGXW: GSM(1900):317KGXW GPRS(850):319KGXW: GPRS(1900):320KGXW		
SIM Card:	SIM 1 and SIM 2 is a chipset unit and tested as single chip- set,SIM 1 is used to tested		
Antenna:	PIFA Antenna		
Antenna gain:	GSM 850: 0.5dBi ,PCS 1900: 0.5dBi		
Power Supply:	DC 3.7V by battery		
Battery parameter:	Capacity: 600mAh, Rated Voltage: 3.7V		
GPRS Class:	Multi-Class12		
Extreme Vol. Limits:	DC3.4 V to 4.2 V (Nominal DC3.7V)		
Extreme Temp. Tolerance:	-20℃ to +45℃		
** Note: The High Voltage 4.2 V and Low Voltage 3.4 V was declared by manufacturer, The			

EUT couldn't be operate normally with higher or lower voltage.



3 TEST CONFIGURATION OF EQUIPMENT UNDER TEST

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

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	

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4 MEASUREMENT INSTRUMENTS

Manufacturer	Type No.	Serial No.	Last Calibra- tion	Calibrated Un- til
Agilent	E4407B	MY50140340	2016.10.23	2017.10.22
Agilent	N9020A	MY49100060	2016.10.23	2017.10.22
R&S	ESCI	101427	2016.10.23	2017.10.22
Agilent	8960	MY48360751	2016.10.23	2017.10.22
R&S	CMU200	112012	2016.10.23	2017.10.22
R&S	ESCI	102086	2016.10.23	2017.10.22
TESEQ	CBL6111D	34678	2014.11.24	2017.11.23
TESEQ	CBL6111D	34678	2014.11.24	2017.11.23
Schwarzbeck	BBHA 9120D	9120D-1343	2015.03.05	2018.03.04
Schwarzbeck	BBHA 9120D	9120D-1343	2015.03.05	2018.03.04
Agilent	N9020A	MY49100060	2016.10.23	2017.10.22
COM-POWER CORPORATION	AH-840	AHA-840	2016.03.06	2017.03.05
N/A	R01	N/A	NCR	NCR
SCHWARZBECK	AK9515H	SN-96286/96287	NCR	NCR
Agilent	E8257D-521	MY45141029	2016.10.23	2017.10.22
DESAY	ZHL-42W	9638	2016.10.23	2017.10.22
COM-MW	ZBSF-1920-1980	0092	2016.10.23	2017.10.22
COM-MW	ZBSF-C897.5-35	707	2016.10.23	2017.10.22
COM-MW	ZBSF-C1747.5-75	708	2016.10.23	2017.10.22
COM-MW	ZBSF-C1880-60	709	2016.10.23	2017.10.22
COM-MW	ZBSF-C2535-70	710	2016.10.23	2017.10.22
WHKX7.0/18G-8SS	Wainwright	18	2016.10.23	2017.10.22
	Agilent Agilent Agilent Agilent R&S Agilent Agilent R&S R&S TESEQ Schwarzbeck Schwarzbeck Schwarzbeck Agilent COM-POWER CORPORATION SCHWARZBECK Agilent COM-MW COM-MW COM-MW	Agilent E4407B Agilent N9020A R&S ESCI Agilent 8960 R&S CMU200 R&S CMU200 R&S CMU200 R&S CSCI TESEQ CBL6111D Schwarzbeck BBHA 9120D Agilent N9020A Schwarzbeck BBHA 9120D Agilent N9020A QCOM-POWER AH-840 COM-POWER AH-840 SCHWARZBECK AK9515H Agilent E8257D-521 DESAY ZBSF-1920-1980 COM-MW ZBSF-1920-1980 COM-MW ZBSF-C1747.5-75 COM-MW ZBSF-C1880-60 COM-MW ZBSF-C1880-60 COM-MW ZBSF-C1880-60	Agilent E4407B MY50140340 Agilent N9020A MY49100060 R&S ESCI 101427 Agilent 8960 MY48360751 R&S CMU200 112012 R&S CMU200 112012 R&S CMU200 112012 R&S CBL6111D 34678 TESEQ CBL6111D 34678 Schwarzbeck BBHA 9120D 9120D-1343 Schwarzbeck BBHA 9120D 9120D-1343 Agilent N9020A MY49100060 COM-POWER AH-840 9120D-1343 Kest BBHA 9120D 9120D-1343 Schwarzbeck BBHA 9120D 9120D-1343 Magilent N9020A MY49100060 COM-POWER AH-840 N/A Schwarzbeck AK9515H N/A SCHWARZBECK AK9515H N9638 Agilent EBSF-1920-1980 0092 DESAY ZBSF-C1747.5-75 708 COM-MW ZBSF-C18	Agilent E4407B MY50140340 2016.10.23 Agilent N9020A MY49100060 2016.10.23 R&S ESCI 101427 2016.10.23 Agilent 8960 MY48360751 2016.10.23 Agilent 8960 MY48360751 2016.10.23 R&S CMU200 112012 2016.10.23 R&S ESCI 1020860 2016.10.23 R&S CBL6111D 34678 2014.11.24 TESEQ CBL6111D 34678 2015.03.05 Schwarzbeck BBHA 9120D 9120D-1343 2015.03.05 Agilent N9020A MY49100060 2016.10.23 Schwarzbeck BBHA 9120D 9120D-1343 2016.03.06 Agilent N9020A MY49100060 2016.10.23 COM-POWER AH-840 SUB 2016.03.06 N/A R01 N/A NCR SchwarZBECK AK9515H SN-96286/96287 NCR Agilent E8257D-521 MY45141029 2016.10.2

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

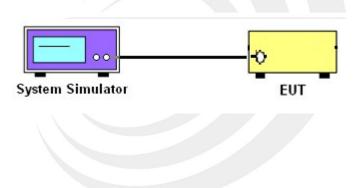
Test overview

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

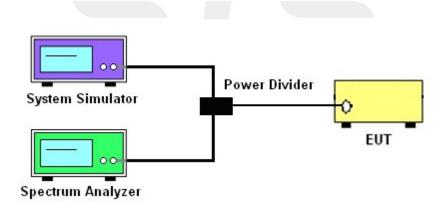
TEST OVERVIEW

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

1. The testing follows FCC KDB 971168 D01

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.

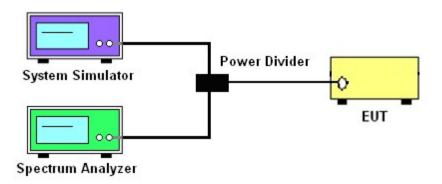
All modes of operation were investigated and the worst case configuration results are reported in this section.

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 $\pm 0.00025\%$ (± 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

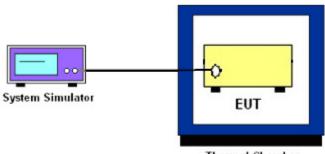
1. The testing follows FCC KDB 971168 D01 Section 9.0.

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 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.

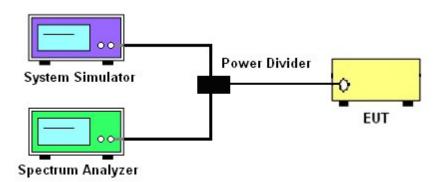
5. The conducted spurious emission for the whole frequency range was taken.

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 then 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.

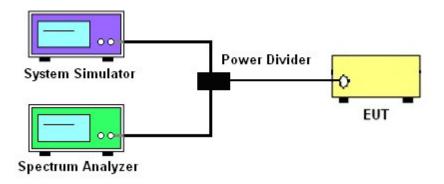
7.The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

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

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

= -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 with the EUT transmitting into an integral antenna. Measurements on signalso-perating below 1GHz are performed using horizontally and vertically polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizon-tally polarizedhorn 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 P Meas, typically dBW or dBm);

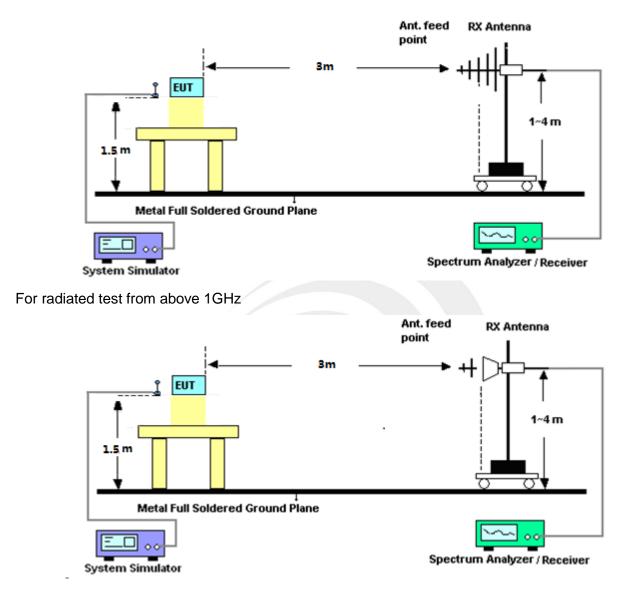
P.SG = measured transmitter output power or PSD, in dBm or dBW;

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.



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	32.87
	836.6	32.82
	848.8	32.79
	824.2	32.75
GPRS850	836.6	32.73
	848.8	32.70

PCS 1900:

Mode	Frequency (MHz)	AVG Power		
	1850.2	29.88		
GSM1900	1880	29.54		
	1909.8	29.49		
	1850.2	29.82		
GPRS1900	1880	29.48		
	1909.8	29.43		

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A2 PEAK-TO-AVERAGE RADIO

PCS 1900:

Mode	Frequency (MHz)	PEAK Power	AVG Power	PAR
	1850.2	29.99	29.88	0.11
PCS1900	1880	29.66	29.54	0.12
-	1909.8	29.63	29.49	0.14
	1850.2	29.95	29.82	0.13
GPRS1900	1880	29.62	29.48	0.14
	1909.8	29.54	29.43	0.11

A3 TRANSMITTER RADIATED POWER (EIRP/ERP)

	Radiated Power (ERP) for GSM 850 MHZ										
Mode	Frequency	S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	Conclusion				
	824.2	24.57	0.44	6.5	30.63	Horizontal	Pass				
0014050	824.2	26.28	0.44	6.5	32.34	Vertical	Pass				
	836.6	24.33	0.45	6.5	30.38	Horizontal	Pass				
GSM850	836.6	26.26	0.45	6.5	32.31	Vertical	Pass				
	848.8	24.40	0.46	6.5	30.44	Horizontal	Pass				
	848.8	26.24	0.46	6.5	32.28	Vertical	Pass				
	824.2	24.49	0.44	6.5	30.55	Horizontal	Pass				
	824.2	26.22	0.44	6.5	32.28	Vertical	Pass				
	836.6	24.35	0.45	6.5	30.40	Horizontal	Pass				
GPRS850	836.6	26.16	0.45	6.5	32.21	Vertical	Pass				
	848.8	24.41	0.46	6.5	30.45	Horizontal	Pass				
	848.8	26.08	0.46	6.5	32.12	Vertical	Pass				



Report No.: STS1612280F01

	Radiated Power (EIRP) for PCS 1900 MHZ										
Mode	Frequency	S G.Level	Cable	Gain	PMeas	Polarization	Conclusion				
		(dBm)	loss (dBi)	E.I.R.P.(dBm)	Of Max.EIRP.						
	1850.2	19.55	2.41	10.35	27.49	Horizontal	Pass				
	1850.2	21.44	2.41	10.35	29.38	Vertical	Pass				
DCC1000	1880.0	19.26	2.42	10.35	27.19	Horizontal	Pass				
PCS1900	1880.0	21.12	2.42	10.35	29.05	Vertical	Pass				
	1909.8	19.25	2.43	10.35	27.17	Horizontal	Pass				
	1909.8	21.1	2.43	10.35	29.02	Vertical	Pass				
	1850.2	19.53	2.41	10.35	27.47	Horizontal	Pass				
	1850.2	21.17	2.41	10.35	29.11	Vertical	Pass				
	1880.0	19.29	2.42	10.35	27.22	Horizontal	Pass				
GPRS1900	1880.0	21.04	2.42	10.35	28.97	Vertical	Pass				
	1909.8	19.17	2.43	10.35	27.09	Horizontal	Pass				
	1909.8	20.9	2.43	10.35	28.82	Vertical	Pass				

П



Report No.: STS1612280F01

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

	Occupied Bandwidth for GSM 850 band								
Mode	Fraguanay (MHz)	Occupied Bandwidth	Emission Bandwidth						
Widde	Frequency(MHz)	(99%)(kHz)	(-26dBc)(kHz)						
Low Channel	824.2	241.39	317.8						
Middle Channel	836.6	242.49	316.0						
High Channel	848.8	245.37	316.7						
	Occupied Band	width for GPRS 850 band							
Mode		Occupied Bandwidth	Emission Bandwidth						
wode	Frequency(MHz)	(99%)(kHz)	(-26dBc)(kHz)						
Low Channel	824.2	240.72	310.8						
Middle Channel	836.6	243.54	318.9						
High Channel	848.8	247.02	313.5						

	Occupied Bandwidth for GSM1900 band								
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	Emission Bandwidth (-26dBc)(kHz)						
Low Channel	1850.2	247.04	315.7						
Middle Channel	1880.0	248.41	317.4						
High Channel	1909.8	248.39	317.3						
	Occupied Band	width for GPRS 1900 band							
Mode	Frequency(MHz)	Occupied Bandwidth	Emission Bandwidth						
wode		(99%)(kHz)	(-26dBc)(kHz)						
Low Channel	1850.2	247.12	314.7						
Middle Channel	1880.0	244.85	317.3						
High Channel	1909.8	243.61	319.7						

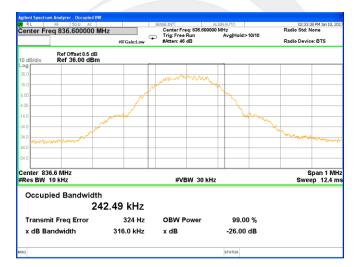


Report No.: STS1612280F01

GSM 850 CH 128



GSM 850 CH 190





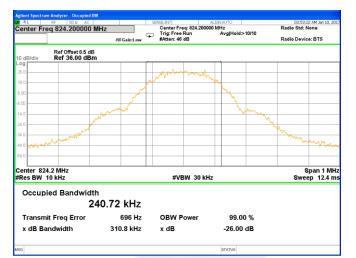
GSM 850 CH 251

Shenzhen STS Test Services Co., Ltd.



Report No.: STS1612280F01

GPRS 850 CH 128



GPRS 850 CH 190





GPRS 850 CH 251

Shenzhen STS Test Services Co., Ltd.



Report No.: STS1612280F01

PCS 1900 CH 512



PCS 1900 CH 661



PCS 1900 CH 810



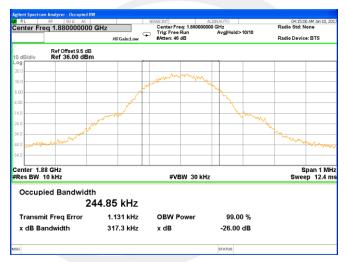
Shenzhen STS Test Services Co., Ltd.



GPRS 1900 CH 512



GPRS 1900 CH 661



GPRS 1900 CH 810





Report No.: STS1612280F01

A5 FREQUENCY STABILITY

Normal Voltage = 3.7V. ; 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		23.04	0.275							
40		30.47	0.364							
30	Normal Voltage	20.58	0.246	2.5ppm	PASS					
20		29.94	0.358							
10		15.21	0.182							
0		29.18	0.349							
-10		29.12	0.348							
-20	/	34.71	0.415							
-30		31.06	0.371							
25	Maximum Voltage	22.14	0.265							
25	BEP	35.96	0.430							

	GPRS 850 Middle Channel/836.6MHz								
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result				
50		28.62	0.342						
40		13.60	0.163						
30		31.17	0.373	-					
20		13.24	0.158						
10	Normal Voltage	24.71	0.295						
0		25.15	0.301	2.5ppm	PASS				
-10		17.48	0.209						
-20		12.21	0.146						
-30		17.03	0.204						
25	Maximum Voltage	34.11	0.024						
25	BEP	33.62	0.014]					



Report No.: STS1612280F01

	GSM 1900 Middle Channel/1880MHz									
Temperature (°C)	Voltage (Volt)	Limit	Result							
50		27.63	0.015							
40		13.95	0.007							
30	Normal Voltage	27.33	0.015	Within Au- thorized Band	PASS					
20		34.59	0.018							
10		23.69	0.013							
0		23.21	0.012							
-10		31.69	0.017							
-20		35.64	0.019							
-30		36.24	0.019							
25	Maximum Voltage	16.30	0.009							
25	BEP	22.54	0.012							

	GPRS 1900 Middle Channel/1880MHz									
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result					
50		12.35	0.007							
40	Normal Voltage	18.84	0.010							
30		25.59	0.014							
20		31.84	0.017	Within Au- thorized Band						
10		18.53	0.010							
0		14.84	0.008		PASS					
-10		18.03	0.010							
-20		33.24	0.018							
-30		15.17	0.008							
25	Maximum Voltage	24.89	0.013							
25	BEP	22.65	0.012							

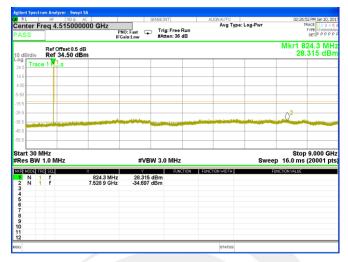
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A6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

GSM 850 BAND

Lowest Channel



Middle Channel

igilent Spectrum Ana	vzer - Swept SA				_		
RL RF	50 Ω AC	SENSE	INT	ALIGNAUTO		02:34:10 PM	lan 10,
enter Freq 4 ASS	.515000000 GHz	PNO: Fast TI IFGain:Low ##	rig: Free Run Atten: 36 dB	Ауд Туре	: Log-Pwr	TRACE TVPE DET	2 3 ////// P P P
dB/div Ref	Offset 8.5 dB 34.50 dBm					Mkr1 836. 28.28	
Trace 1	1_s						
4.5							
.50							
.50							
5.5					-		
5.5						2	
5.5	and the second second second second second	and the second second		والمعتقا فمرجعته المراجع والمعاركم	A REAL PROPERTY AND	a Versela	10
5.5							
5.5							
tart 30 MHz Res BW 1.0 N	IHz	#VBW 3	.0 MHz		Swe	Stop 9.0 ep 16.0 ms (200	00 ()01
(R MODE TRC SCL)	× 836.9 M	Hz 28,288 dBm	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
2 N 1 f 3	7.430 3 G	Hz -33.280 dBm	i				
4							
5 6 7							
9							
0							
2							_
a				STATUS			

Highest Channel

RL		R AC	SENSE: IN	IT	ALIGNAUTO		02:38:	56 PM Jan 10, 20
enter F ASS	req 4.5150		D: Fast 🖵 Trig iin:Low #Att	: Free Run en: 36 dB	Avg Typ	e: Log-Pwr	т	TYPE MUMUUM DET P P P P
0 dB/div	Ref Offset 8 Ref 34.50							49.0 MH 115 dB
Mag Trac	e 1 F <mark>1</mark> s							
4.6								
50	_							
50	_							
i.5								
5.6					^2			
1.5			and the state of the		in the second second		-	
i.5								
1.5								
tart 30 I Res BW	MHz 1.0 MHz		#VBW 3.0	MHz		Swee	Stop p 16.0 ms	9.000 Gi (20001 p
N 1	RC SCL f	× 849.0 MHz 5.950 2 GHz	28.115 dBm -34.528 dBm	FUNCTION	FUNCTION WIDTH	f	UNCTION VALUE	
2 N 1								
3								
3								
3 4 5 6 7								
3 4 5 6 7 8 9								
2 N 1 3 4 5 6 7 8 9 9 0 1 2								

Shenzhen STS Test Services Co., Ltd.



GPRS 850 BAND

Lowest Channel

	rum Analyzer - Swept								
Contor F	RF 50 Ω /			ENSE: INT	A	IGNAUTO Avg Type:	Log-Pwr		7 AM Jan 10, 2017
PASS	req 4.5150000	P	NO: Fast 😱	Trig: Free F #Atten: 36	Run	rug type.	209-111		DET P P P P P
FA35		IFO	Gain:Low	#Atten: 36 (18			111-1-0	
10 dB/div	Ref Offset 8.5 di Ref 30.50 dB								24.3 MHz 083 dBm
Log 20.6 Trac	e 1 P.Ls								
10.5									
0.500									
-9.50									
-19.5									
-29.5								2	
-39.5		and the second second	Sector States			a second lateral second	and the same of the same		-
-49.5									
-59.5									
Start 30 I	MH7							Ston	9.000 GHz
#Res BW			#VB	N 3.0 MHz			Swee	p 16.0 ms	(20001 pts)
MKR MODE T	RC SCL	×	Y	FUNC	TION FUNC	TION WIDTH	FI,	INCTION VALUE	
1 N 2 N	1	824.3 MHz 7.421 3 GHz	29.083 -39.031	dBm					
3									
5									
6									
2 N 1 3 4 5 6 7 8 9 10									
10									
11 12									
MSG						STATUS			

Middle Channel

enter Freq 4.51500	PN	0: Fast Trig	g: Free Run ten: 36 dB	ALIGNAUTO Avg Ty	pe: Log-Pwr	08:03	2:19 AM Jan 10, 2 TRACE 1 2 3 4 TYPE MINIMA DET P P P P
Ref Offset 8.5 dB/div Ref 31.50 d	dB	III.LOW III.					836.9 MI 8.156 dB
1.5 Trace 1 P 1.s							
1.5							
50					_		
60							
1.5							
1.5						0 ²	
1.5		No. of Concession, Name	-				No. of Concession, Name
3.5							
3.5							
art 30 MHz Res BW 1.0 MHz		#VBW 3.0	MHz		Swe	Sto ep 16.0 m	op 9.000 G s (20001 p
R MODE TRE SCL 1 N 1 f 2 N 1 f	836.9 MHz	28.156 dBm	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
3	7.367 5 GHz	-36.139 dBm					
4 5 7							
3							
)							
2							

Highest Channel

L RE	yzer - Swept SA 50.0 AC	SENSE	INT	ALIGNAUTO		08:03:48	AM Jan 10.
	515000000 GHz	PNO: Fast Tr	ig: Free Run tten: 36 dB	Avg Type:	Log-Pwr	TR	ACE 1 2 3 VPE MWWW DET P P P
B/div Ref)ffset 8.5 dB 31.50 dBm					Mkr1 84 27.1	9.0 M
Trace 1 P	ls						
;							
				02			
	and the local data and the second data and the	A DESCRIPTION OF A DESC			-	A REAL PROPERTY AND A REAL	
rt 30 MHz s BW 1.0 M	Hz	#VBW 3.	0 MHz		Swee	Stop p 16.0 ms (9.000 C 20001
MODE TRC SCL N 1 f N 1 f	× 849.0 MH 5.456 9 GH	z 27.962 dBm z -39.730 dBm	FUNCTION	FUNCTION WIDTH	FL	INCTION VALUE	
NII	0.400 9 GH	2 -39.750 dBm					
				STATUS			

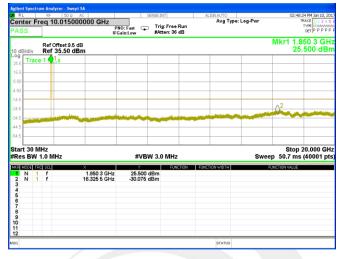
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Report No.: STS1612280F01

GSM1900 BAND(30M-20G)

Lowest Channel



Middle Channel

RL	RF			SENS	EINT	ALIG	NAUTO			:57 PM Jan 10,
enter	Freq	10.01500		0: Fast 🖵 1 ain:Low 🕯	rig: Free Run Atten: 36 dB		Avg Type:	Log-Pwr		TYPE MWWW DET P P P P
0 dB/di	v Ref	Offset 9.5 d 35.50 dB							Mkr1 1.8 25	880 2 G .759 dE
og 5.6	ace 1 P	1 <u>s</u>								
5.6										
50										
50										
1.5										
1.5									2	
1.5		and burners				-	in the second	A REAL PROPERTY.		-
4.5										
1.5										
	0 MHz W 1.0 I	MHz		#VBW 3	3.0 MHz			Swe	Stop ep 50.7 ms	20.000 G
	TRC SCL		× 1.880 2 GHz	25.759 dBr	FUNCTION	FUNCTIO	IN WIDTH		FUNCTION VALUE	
2 N	1 1		16.165 8 GHz	-29.341 dBr						
4 5										
4 5 6 7										
4 5 6 7 8 9										
3 4 5 6 7 8 9 0										
4 5 7 8										

Highest Channel

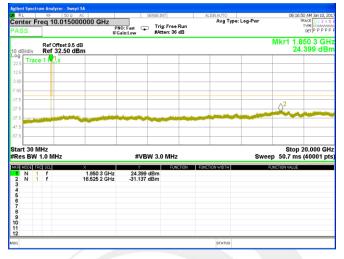
RL		50 Ω AC	58	VSE:INT	ALIGNAUTO			7 PM Jan 10, 20:
enter F ASS	Freq 10.0	15000000 GHz	PNO: Fast 😱	Trig: Free Run #Atten: 36 dB	Аvg Туре	: Log-Pwr		ACE 1 2 3 4 5 TYPE MUMANAN DET P P P P P
) dB/div	Ref Offse Ref 35.						Mkr1 1.9 25.	10 2 GH 852 dBi
5.6 Trac	ce 1 F 13							
5.6								
.50								
50								
1.5							. ∂ ²	
4.5					A DESCRIPTION OF THE OWNER OF THE	and the second second		
4.5								
4.5								
art 30 I Res BW	MHz 1.0 MHz		#VBW	3.0 MHz		Sweep	Stop 2 50.7 ms	0.000 GH (40001 pt
R MODE T	RC SCL	× 1.910 2 GH	z 25.852 di	FUNCTION	FUNCTION WIDTH	FUI	NCTION VALUE	
2 N	1	16.465 3 GH		3m				
4 5 7								
/ B 9								
0								
1								
2								

Shenzhen STS Test Services Co., Ltd.



GPRS1900 BAND(30M-20G)

Lowest Channel



Middle Channel

RL			0Ω AC		SENSE: INT	ALIGNAUTO		08:15	:26 AM Jan 10, 2
ente ASS		q 10.01	5000000 GHz	PNO: Fast	⊃ Trig: Free Run #Atten: 36 dB	Avg Ty	e: Log-Pwr		TYPE MWWW DET P P P P
0 dB/	div	Ref Offset Ref 32.5	9.5 dB 0 dBm						880 2 G 4.479 dB
og -	Trace	1 F 1s							
2.5									
.50									
.50									
7.5								2	-
7.5								Q ²	
7.5			and a second second	Notes and the	No. of Concession, Name		No.		
7.5									
7.5									
	30 MH BW 1	iz .0 MHz		#VB	W 3.0 MHz		Swee	Stop 20.7 m	20.000 G
	DE TRC	SCL	×	Ŷ	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
1 N 2 N	1	F	1.880 2 GH 16.465 3 GH		dBm dBm				
3									
5									
7									
7 8									
6 7 8 9 0									

Highest Channel

RL RF			SEN	SE:INT	AL	IGNAUTO		08:14	:19 AM Jan 10, 20
enter Freq ASS	10.0150000	DO GHz PNO: IFGair		Trig: Free Run #Atten: 36 dB	1	Avg Type:	Log-Pwr		TYPE MUMMM DET P P P P
dB/div Re	f Offset 9.5 dB f 32.50 dBm								910 2 GH I.293 dBi
Trace 1 F	21.								
2.6									
50									
60									
.5								∧ ²	
1.5					- de marti		-	Service of the servic	
.5									
7.5									_
art 30 MHz Res BW 1.0	MHz		#VBW	3.0 MHz			Swee	Stop p 50.7 m	20.000 GH
R MODE TRC SC	u x		Y	FUNCTIO	N FUNCT	ION WIDTH		UNCTION VALUE	
N 1 f 2 N 1 f 3		.910 2 GHz 5.145 8 GHz	24.293 dE -32.903 dB	im m					
5 5 7									
3									
2									

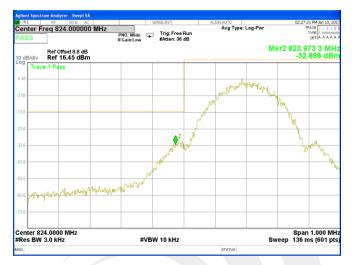
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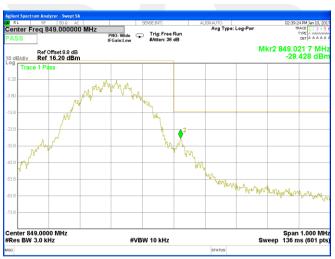
A7 BAND EDGE

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

Shenzhen STS Test Services Co., Ltd.



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.



A8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

GSM 850: (30-9000)MHz

		GSM	850: (30-9	000)MHz					
	The W	orst Test R	esults Ch	annel 128/	824.2 MHz				
	S G.Lev	Ant(dDi)		PMea	Limit Marg		Polarity		
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polanty		
1648.38	-40.51	9.40	4.75	-35.86	-13.00	-22.86	Н		
2472.52	-40.35	10.60	8.39	-38.14	-13.00	-25.14	Н		
3296.81	-31.02	12.00	11.79	-30.81	-13.00	-17.81	Н		
1648.45	-44.16	9.40	4.75	-39.51	-13.00	-26.51	V		
2472.59	-45.38	10.60	8.39	-43.17	-13.00	-30.17	V		
3296.59	-43.35	12.00	11.79	-43.14	-13.00	-30.14	V		
The Worst Test Results Channel 190/836.6 MHz									
Frequency(MHz)	S G.Lev	S G.Lev (dBm) Ant(dBi)	Loss	PMea	Limit	Margin	Polarity		
	(dBm)		2033	(dBm)	(dBm)	(dBm)	Folanty		
1672.83	-41.47	9.50	4.76	-36.73	-13.00	-23.73	Н		
2509.84	-40.45	10.70	8.40	-38.15	-13.00	-25.15	Н		
3346.39	-31.91	12.20	11.80	-31.51	-13.00	-18.51	Н		
1672.92	-43.51	9.40	4.75	-38.86	-13.00	-25.86	V		
2509.60	-45.32	10.60	8.39	-43.11	-13.00	-30.11	V		
3346.11	-43.49	12.20	11.82	-43.11	-13.00	-30.11	V		
	The W	orst Test R	esults Ch	annel 251/	848.8 MHz				
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity		
Trequency(ivii iz)	(dBm)	Аш(аы)	L055	(dBm)	(dBm)	(dBm)	Folanty		
1697.49	-41.02	9.60	4.77	-36.19	-13.00	-23.19	Н		
2546.54	-39.23	10.80	8.50	-36.93	-13.00	-23.93	Н		
3395.24	-32.31	12.50	11.90	-31.71	-13.00	-18.71	Н		
1697.40	-43.27	9.60	4.77	-38.44	-13.00	-25.44	V		
2546.13	-45.05	10.80	8.50	-42.75	-13.00	-29.75	V		
3395.29	-43.38	12.50	11.90	-42.78	-13.00	-29.78	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.: STS1612280F01

GPRS 850: (30-9000)MHz

GPRS 850: (30-9000)MHz									
	The W	orst Test R	esults Ch	annel 128/	824.2 MHz				
	S G.Lev			PMea	Limit	Margin	Delerity		
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity		
1648.03	-40.38	9.40	4.75	-35.73	-13.00	-22.73	Н		
2472.53	-39.80	10.60	8.39	-37.59	-13.00	-24.59	Н		
3296.74	-31.32	12.00	11.79	-31.11	-13.00	-18.11	Н		
1648.49	-44.18	9.40	4.75	-39.53	-13.00	-26.53	V		
2472.50	-44.49	10.60	8.39	-42.28	-13.00	-29.28	V		
3296.45	-43.52	12.00	11.79	-43.31	-13.00	-30.31	V		
The Worst Test Results Channel 190/836.6 MHz									
Frequency(MHz)	S G.Lev	Lev Ant(dBi)		PMea	Limit	Margin	Delerity		
	(dBm)	Апцаві)	Loss	(dBm)	(dBm)	(dBm)	Polarity		
1672.98	-41.25	9.50	4.76	-36.51	-13.00	-23.51	Н		
2509.69	-40.56	10.70	8.40	-38.26	-13.00	-25.26	Н		
3346.26	-32.25	12.20	11.80	-31.85	-13.00	-18.85	Н		
1673.03	-43.89	9.40	4.75	-39.24	-13.00	-26.24	V		
2509.86	-45.03	10.60	8.39	-42.82	-13.00	-29.82	V		
3346.10	-42.64	12.20	11.82	-42.26	-13.00	-29.26	V		
	The W	orst Test R	esults Ch	annel 251/	848.8 MHz				
	S G.Lev	Ant(dBi)		PMea	Limit	Margin	Delority		
Frequency(MHz)	(dBm)	Апцаві)	Loss	(dBm)	(dBm)	(dBm)	Polarity		
1697.43	-40.73	9.60	4.77	-35.90	-13.00	-22.90	Н		
2546.33	-39.30	10.80	8.50	-37.00	-13.00	-24.00	Н		
3394.99	-31.57	12.50	11.90	-30.97	-13.00	-17.97	Н		
1697.40	-43.93	9.60	4.77	-39.10	-13.00	-26.10	V		
2546.15	-44.29	10.80	8.50	-41.99	-13.00	-28.99	V		
3395.27	-42.60	12.50	11.90	-42.00	-13.00	-29.00	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.: STS1612280F01

PCS 1900: (30-20000)MHz

DCS 1900: (30-20000)MHz									
	The Wor	st Test Res	sults for C	hannel 512	2/1850.2MH	Z			
	S G.Lev			PMea	Limit	Margin	Delerity		
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity		
3700.33	-34.78	12.60	12.93	-35.11	-13.00	-22.11	Н		
5550.63	-34.09	13.10	17.11	-38.10	-13.00	-25.10	Н		
7400.64	-33.54	11.50	22.20	-44.24	-13.00	-31.24	Н		
3700.51	-35.90	12.60	12.93	-36.23	-13.00	-23.23	V		
5550.45	-34.92	13.10	17.11	-38.93	-13.00	-25.93	V		
7400.82	-32.44	11.50	22.20	-43.14	-13.00	-30.14	V		
The Worst Test Results for Channel 661/1880.0MHz									
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Delerity		
	(dBm)	Апцаві)	2033	(dBm)	(dBm)	(dBm)	Polarity		
3760.18	-34.20	12.60	12.93	-34.53	-13.00	-21.53	Н		
5639.99	-34.16	13.10	17.11	-38.17	-13.00	-25.17	Н		
7520.17	-33.26	11.50	22.20	-43.96	-13.00	-30.96	Н		
3760.30	-35.84	12.60	12.93	-36.17	-13.00	-23.17	V		
5640.21	-35.00	13.10	17.11	-39.01	-13.00	-26.01	V		
7519.93	-32.57	11.50	22.20	-43.27	-13.00	-30.27	V		
	The Wor	st Test Res	sults for C	hannel 810)/1909.8MH	z			
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Polarity		
Frequency(MHZ)	(dBm)	Ani(ubi)	L055	(dBm)	(dBm)	(dBm)	Fulanty		
3819.39	-33.56	12.60	12.93	-33.89	-13.00	-20.89	Н		
5729.27	-34.87	13.10	17.11	-38.88	-13.00	-25.88	Н		
7639.25	-32.15	11.50	22.20	-42.85	-13.00	-29.85	Н		
3819.43	-35.52	12.60	12.93	-35.85	-13.00	-22.85	V		
5729.12	-33.93	13.10	17.11	-37.94	-13.00	-24.94	V		
7639.15	-32.09	11.50	22.20	-42.79	-13.00	-29.79	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.: STS1612280F01

GPRS 1900: (30-20000)MHz

	GPRS1900: (30-20000)MHz									
	The Wor	st Test Res	sults for C	hannel 512	2/1850.2MH	Z				
	S G.Lev	Ant(dBi)		PMea	Limit	Margin	Delerity			
Frequency(MHz)	(dBm)	Апциы)	i) Loss -	(dBm)	(dBm)	(dBm)	Polarity			
3700.33	-33.68	12.60	12.93	-34.01	-13.00	-21.01	Н			
5550.65	-34.61	13.10	17.11	-38.62	-13.00	-25.62	Н			
7400.83	-32.36	11.50	22.20	-43.06	-13.00	-30.06	Н			
3700.51	-35.94	12.60	12.93	-36.27	-13.00	-23.27	V			
5550.57	-34.47	13.10	17.11	-38.48	-13.00	-25.48	V			
7400.75	-31.77	11.50	22.20	-42.47	-13.00	-29.47	V			
The Worst Test Results for Channel 661/1880.0MHz										
Frequency(MHz)	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Delerity			
	(dBm)	Ant(dBi)		(dBm)	(dBm)	(dBm)	Polarity			
3759.79	-33.77	12.60	12.93	-34.10	-13.00	-21.10	Н			
5639.81	-34.17	13.10	17.11	-38.18	-13.00	-25.18	Н			
7519.85	-32.87	11.50	22.20	-43.57	-13.00	-30.57	Н			
3760.06	-34.84	12.60	12.93	-35.17	-13.00	-22.17	V			
5640.34	-34.70	13.10	17.11	-38.71	-13.00	-25.71	V			
7520.12	-31.76	11.50	22.20	-42.46	-13.00	-29.46	V			
	The Wor	st Test Res	sults for C	hannel 810)/1909.8MH	z				
	S G.Lev	Ant(dBi)	Loss	PMea	Limit	Margin	Delority			
Frequency(MHz)	(dBm)	Ani(ubi)	L055	(dBm)	(dBm)	(dBm)	Polarity			
3819.48	-33.77	12.60	12.93	-34.10	-13.00	-21.10	Н			
5729.44	-34.27	13.10	17.11	-38.28	-13.00	-25.28	Н			
7639.19	-32.78	11.50	22.20	-43.48	-13.00	-30.48	Н			
3819.46	-35.96	12.60	12.93	-36.29	-13.00	-23.29	V			
5729.37	-34.57	13.10	17.11	-38.58	-13.00	-25.58	V			
7639.30	-32.41	11.50	22.20	-43.11	-13.00	-30.11	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.



APPENDIX BPHOTOS OF TEST SETUP

RADIATED SPURIOUS EMISSION





Shenzhen STS Test Services Co., Ltd.