

RADIO TEST REPORT

Report No: STS1612214F01

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 B240 AK47
Series Model:	N/A
FCC ID:	2AC7ISOLEB240
Test Standard:	FCC Part 22H and 24E

Any reproduction of this document must be done in full. No single part of this document may be reproduced without permission from STS, All Test Data Presented in this report is only applicable to presented Test sample. VAL





Report No.: STS1612214F01

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:	RM1902(A) 19/F 38 PLAZA 38 SHAN TUNG ST MONGKOK KLN HONG KONG			
Product name:	mobile phone			
Brand name SOLE				
Model and/or type reference :	SOLE B240 AK47			
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.

This report shall not be reproduced except in full, without the written approval of STS, this document may be altered or revised by STS, personal only, and shall be noted in the revision of the document.

Date of Test

Date of performance of tests 23 Dec. 2016~31 Dec. 2016

Date of Issue 03 Jan. 2017

Test Result Pass

Testing Engineer

2

(Leo li) Technical Manager • (Tony liu)

Authorized Signatory :

(Bovey Yang)

Shenzhen STS Test Services Co., Ltd.

TABLE OF CONTENTS F	age
1 INTRODUCTION	6
1.1 TEST FACTORY	6
1.2 MEASUREMENT UNCERTAINTY	6
2 PRODUCT INFORMATION	7
3 TEST CONFIGURATION OF EQUIPMENT UNDER TEST	8
4 MEASUREMENT INSTRUMENTS	9
5 TEST ITEMS	10
5.1 CONDUCTED OUTPUT POWER	10
5.2 PEAK TO AVERAGE RATIO	11
5.3 TRANSMITTER RADIATED POWER (EIRP/ERP)	12
5.4 OCCUPIED BANDWIDTH	13
5.5 FREQUENCY STABILITY	14
5.6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS	15
5.7 BAND EDGE	16
5.8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT	17
APPENDIX ATESTRESULT	19
A1CONDUCTED OUTPUT POWER	19
A2 PEAK-TO-AVERAGE RADIO	20
A3 TRANSMITTER RADIATED POWER (EIRP/ERP)	20
A4 OCCUPIED BANDWIDTH(99% OCCUPIED BANDWIDTH/26DB BANDWIDTH)	22
A5 FREQUENCY STABILITY	27
A6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS	29
A7 BAND EDGE	33
A8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT	37
APPENDIX BPHOTOS OF TEST SETUP	41

Report No.: STS1612214F01

#



Report No.: STS1612214F01

Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	03 Jan. 2017	STS1612214F01	ALL	Initial Issue



Shenzhen STS Test Services Co., Ltd.



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. \circ

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



Report No.: STS1612214F01

2 PRODUCT INFORMATION

Product Designation:	mobile phone		
Hardware version:	S118-MB-V3.0		
Software version:	S118_A282_INTEX_HINDBET AM_LCD7789SC3029GIV09305LT_CAM3A01_V01		
FCC ID:	2AC7ISOLEB240		
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:	GSM850:33.96dBm,PCS1900:28.82dBm GPRS850:33.92dBm,GPRS1900:28.79dBm		
Type of Emission:	GSM(850):323KGXW: GSM(1900):317KGXW GPRS(850):322KGXW: GPRS(1900):324KGXW		
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:	DC3.3 V to 4.2 V (Nominal DC3.7V)		
Extreme Temp. Tolerance:	-20℃ to +45℃		
** Note: The High Voltage 4.2 V and Low Voltage 3.3 V was declared by manufacturer, The EUT couldn't be operate normally with higher or lower voltage.			



Report No.: STS1612214F01

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	



Report No.: STS1612214F01

4 MEASUREMENT INSTRUMENTS

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibra- tion	Calibrated Un- til
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
	ion data of "NICD" ab	own in this list was			

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

Shenzhen STS Test Services Co., Ltd.



5 TEST ITEMS 5.1 CONDUCTED OUTPUT POWER

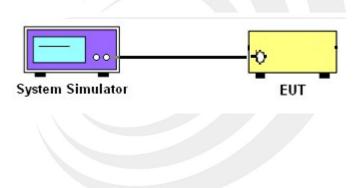
Test overview

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

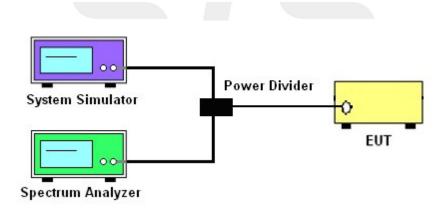
TEST OVERVIEW

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



Shenzhen STS Test Services Co., Ltd.



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.

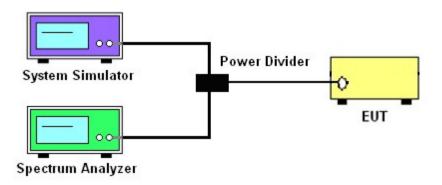
All modes of operation were investigated and the worst case configuration results are reported in this section.

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:

14 of 41

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

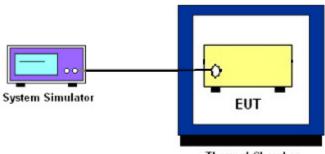
1. The testing follows FCC KDB 971168 D01 Section 9.0.

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.

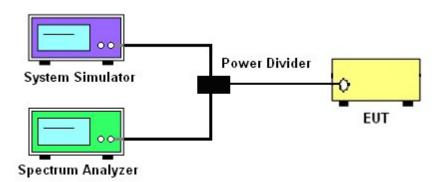
5. The conducted spurious emission for the whole frequency range was taken.

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.

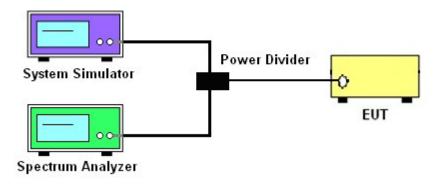
7.The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

= 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 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 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 ≥ 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);

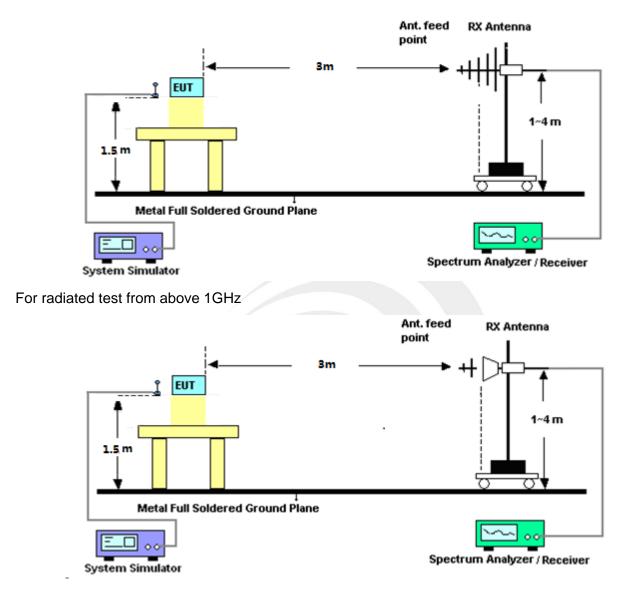
P.SG = measured transmitter output power or PSD, in dBm or dBW;

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



18 of 41

Report No.: STS1612214F01

Shenzhen STS Test Services Co., Ltd.



Report No.: STS1612214F01

APPENDIX ATESTRESULT A1CONDUCTED OUTPUT POWER

GSM 850:

Mode	Frequency (MHz)	AVG Power
GSM850	824.2	33.38
	836.6	33.96
	848.8	32.62
GPRS850	824.2	33.35
	836.6	33.92
	848.8	33.59

PCS 1900:

Mode	Frequency (MHz)	AVG Power
	1850.2	28.82
GSM1900	1880	28.75
	1909.8	28.72
	1850.2	28.79
GPRS1900	1880	28.73
	1909.8	28.71

Shenzhen STS Test Services Co., Ltd.



Report No.: STS1612214F01

A2 PEAK-TO-AVERAGE RADIO

PCS 1900:

Mode	Frequency (MHz)	PEAK Power	AVG Power	PAR
	1850.2	28.91	28.82	0.09
PCS1900	1880	28.86	28.75	0.11
	1909.8	28.83	28.72	0.11
	1850.2	28.81	28.79	0.02
GPRS1900	1880	28.84	28.73	0.11
	1909.8	28.82	28.71	0.11

A3 TRANSMITTER RADIATED POWER (EIRP/ERP)

		Radiate	d Power	(ERP) fo	or GSM 850 MH	Z	
Mode	Frequency	S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	Conclusion
	824.2	24.86	0.44	6.5	30.92	Horizontal	Pass
	824.2	26.81	0.44	6.5	32.87	Vertical	Pass
GSM850	836.6	24.61	0.45	6.5	30.66	Horizontal	Pass
	836.6	26.40	0.45	6.5	32.45	Vertical	Pass
	848.8	24.28	0.46	6.5	30.32	Horizontal	Pass
	848.8	26.07	0.46	6.5	32.11	Vertical	Pass
	824.2	24.88	0.44	6.5	30.94	Horizontal	Pass
	824.2	26.70	0.44	6.5	32.76	Vertical	Pass
	836.6	24.58	0.45	6.5	30.63	Horizontal	Pass
GPRS850	836.6	26.35	0.45	6.5	32.40	Vertical	Pass
	848.8	24.37	0.46	6.5	30.41	Horizontal	Pass
	848.8	26.05	0.46	6.5	32.09	Vertical	Pass



Report No.: STS1612214F01

		Radiated	Power (B	EIRP) fo	r PCS 1900 MH	Z		
			Result					
Mode	Frequency	S G.Level	Cable	Gain	PMeas	Polarization	Conclusion	
		(dBm)	loss	(dBi)	E.I.R.P.(dBm)	Of Max.EIRP.		
	1850.2	18.48	2.41	10.35	26.42	Horizontal	Pass	
DO01 000	1850.2	20.37	2.41	10.35	28.31	Vertical	Pass	
	1880.0	18.42	2.42	10.35	26.35	Horizontal	Pass	
PCS1900	1880.0	20.31	2.42	10.35	28.24	Vertical	Pass	
	1909.8	18.57	2.43	10.35	26.49	Horizontal	Pass	
	1909.8	20.29	2.43	10.35	28.21	Vertical	Pass	
	1850.2	18.41	2.41	10.35	26.35	Horizontal	Pass	
	1850.2	20.14	2.41	10.35	28.08	Vertical	Pass	
	1880.0	18.41	2.42	10.35	26.34	Horizontal	Pass	
GPRS1900	1880.0	20.06	2.42	10.35	27.99	Vertical	Pass	
	1909.8	18.44	2.43	10.35	26.36	Horizontal	Pass	
	1909.8	20.05	2.43	10.35	27.97	Vertical	Pass	

П



Report No.: STS1612214F01

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

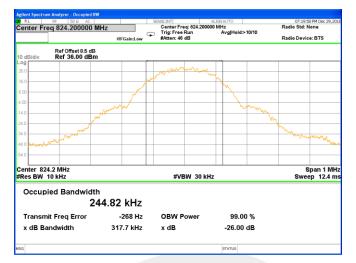
	Occupied Band	lwidth for GSM 850 band		
Mode	Frequency(MHz)	Occupied Bandwidth	Emission Bandwidth	
wode	Fiequency(MHz)	(99%)(kHz)	(-26dBc)(kHz)	
Low Channel	824.2	244.82	317.7	
Middle Channel	836.6	247.43	323.4	
High Channel	848.8	247.51	322.9	
	Occupied Band	width for GPRS 850 band		
Mode		Occupied Bandwidth	Emission Bandwidth	
wode	Frequency(MHz)	(99%)(kHz)	(-26dBc)(kHz)	
Low Channel	824.2	244.18	311.2	
Middle Channel	836.6	244.58	321.8	
High Channel	848.8	244.30	309.1	

	Occupied Band	lwidth for GSM1900 band	
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	1850.2	248.23	308.5
Middle Channel	1880.0	246.96	307.4
High Channel	1909.8	245.18	316.8
	Occupied Bandy	width for GPRS 1900 band	
Mode		Occupied Bandwidth	Emission Bandwidth
wode	Frequency(MHz)	(99%)(kHz)	(-26dBc)(kHz)
Low Channel	1850.2	246.04	318.8
Middle Channel	1880.0	240.69	316.7
High Channel	1909.8	248.82	323.9



Report No.: STS1612214F01

GSM 850 CH 128



GSM 850 CH 190





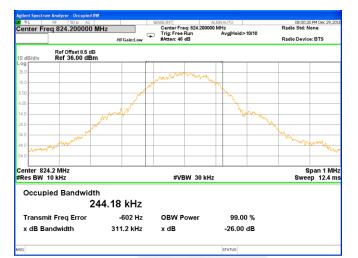
GSM 850 CH 251

Shenzhen STS Test Services Co., Ltd.



Report No.: STS1612214F01

GPRS 850 CH 128



GPRS 850 CH 190





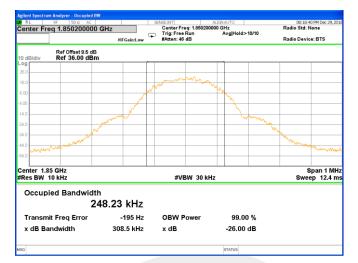
GPRS 850 CH 251

Shenzhen STS Test Services Co., Ltd.

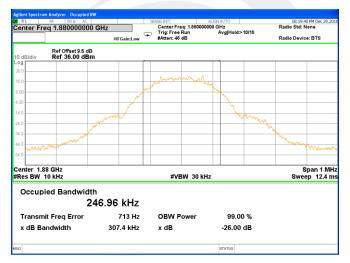


Report No.: STS1612214F01

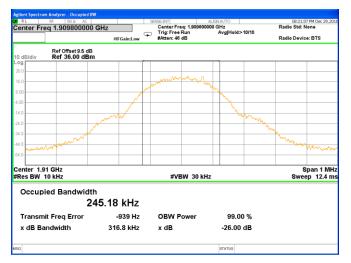
PCS 1900 CH 512



PCS 1900 CH 661



PCS 1900 CH 810



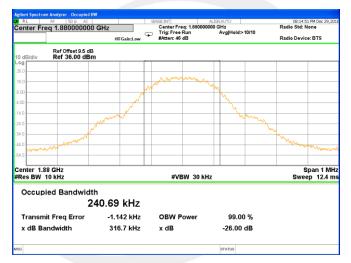
Shenzhen STS Test Services Co., Ltd.



GPRS 1900 CH 512



GPRS 1900 CH 661



GPRS 1900 CH 810



Shenzhen STS Test Services Co., Ltd.



Report No.: STS1612214F01

A5 FREQUENCY STABILITY

Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.3 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	-	26.76	0.320							
40		20.33	0.243							
30		20.95	0.250							
20		17.06	0.204							
10	Normal Voltage	19.28	0.230							
0		28.48	0.340	2.5ppm	PASS					
-10		16.21	0.194							
-20	/	17.81	0.213							
-30		20.97	0.251							
25	Maximum Voltage	27.23	0.325							
25	BEP	27.90	0.333							

	GPRS	850 Middle Cha	nnel/836.6MHz		
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50		30.01	0.359		
40		21.06	0.252		
30		36.04	0.431		
20		34.78	0.416		
10	Normal Voltage	33.19	0.397		
0		20.82	0.249	2.5ppm	PASS
-10		22.63	0.270		
-20		36.19	0.433		
-30		33.17	0.396		
25	Maximum Voltage	24.50	0.024		
25	BEP	21.40	0.014]	



Report No.: STS1612214F01

	GSM ²	1900 Middle Cha	nnel/1880MHz		
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50		15.72	0.008		
40		24.45	0.013		
30		12.43	0.007		
20		36.42	0.019	Within Au- thorized Band	
10	Normal Voltage	18.63	0.010		
0		22.82	0.012		PASS
-10		23.24	0.012		
-20		21.90	0.012		
-30		14.56	0.008		
25	Maximum Voltage	33.04	0.018		
25	BEP	34.44	0.018		

	GPRS 1900 Middle Channel/1880MHz								
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result				
50		27.81	0.015						
40		20.66	0.011						
30		13.18	0.007		PASS				
20		19.39	0.010	Within Au- thorized Band					
10	Normal Voltage	19.66	0.010						
0		28.49	0.015						
-10		22.82	0.012						
-20		21.16	0.011						
-30		12.84	0.007						
25	Maximum Voltage	19.11	0.010						
25	BEP	31.64	0.017						

╡

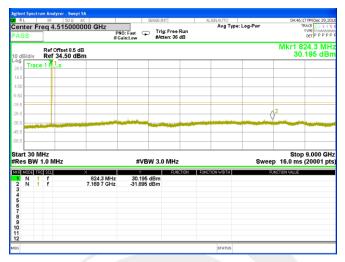


Report No.: STS1612214F01

A6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

GSM 850 BAND

Lowest Channel



Middle Channel

		AC	SENSE		ALIGNAUTO			2 PM Dec 29,2
er Frec		DOOOD GHz	0: Fast 😱 Ti	rig: Free Run		pe:Log-Pwr	T	TYPE MWWW DET P P P P
								36.9 M 085 dE
Trace 1	11s							
					/	2		
					and the second			
			#VBW 3	.0 MHz		Sw		9.000 C (20001
		×	Y an and the	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
		6.028 7 GHz	-31.785 dBm					
	aiv R Frace 1 30 MHz BW 1.0	30 MHz BW 1.0 MHz 30 MHz BW 1.0 MHz 31 f	IFG Ref Office 18.5 dB If Ref 34.50 dBm Trace 1 P 1.5 If a constraint of the second of the secon	PR0:Fast I I// Ref 33.50 dBm I// Ref 33.50 dBm 30 MHz I// Ref 34.50 dBm 30 MHz I// Ref 34.50 dBm 30 MHz I// Ref 34.50 dBm	PHO: Fast BCellucian Trig: Free Run BCellucian In Ref Offset 8.5 dB Ref 04:50 dBm Trace 1 F 5 30 MHz 4/WW 3.0 MHz 30 MHz #VBW 3.0 MHz SI EXERCISE 30.0 MHz SI EXERCISE 30.0 MHz SI EXERCISE 30.0 MHz SI EXERCISE 30.0 MHz	Trige Tries State	Internet Proc. Fail Trig: Free Run Ref Offset 8.5 dB Ref Offset 8.5 dB Ref Offset 8.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB Image: State 1.5 dB	Internation PHOLF Aut If Galactow Trig: Free Run Atten: 36 dB Mkr1 8: 30. Ref Offset 8.5 dB Mkr1 8: 30. If action 2000 Image: State 2000 Joint Action 2000 Image: State 2000

Highest Channel

RL	RF 50 Ω AC		SENSE:INT	ALIGNAUTO		04:44:55 PM Dec 29, 20
enter Freq	4.515000000 0	PNO: Fast IFGain:Low	Trig: Free Ru #Atten: 36 dE	in C	e: Log-Pwr	TYPE MIMOUND DET P P P P
0 dB/div R	ef Offset 8.5 dB ef 34.50 dBm					Mkr1 849.0 MH 30.102 dB
og Trace 1	1.s					
14.5						
150						
50						
5.5						
5.5						2
5.5		and the second second			a service and the service of the ser	Y
5.5						
6.5						
tart 30 MHz						Stop 9.000 GI
Res BW 1.0	MHz		#VBW 3.0 MHz		Sweep	16.0 ms (20001 p
Ke mode tric s		19.0 MHz 30	Y FUNCTI 102 dBm	DN FUNCTION WIDTH	FUNC	TION VALUE
2 N 1 1	7.51	46 GHz -31	.986 dBm			
3 4						
5						
7						
9						
0						
1						

Shenzhen STS Test Services Co., Ltd.



GPRS 850 BAND

Lowest Channel

	um Analyzer - Swept !								
LXI RL	RF 50 Ω /			SENSE:INT	AL	IGNAUTO			2 PM Dec 29, 2016
	eq 4.5150000	000 GHz	NO: Fast	Trig: Free	Run	Avg Type:	Log-Pwr		TYPE MULLIAMA
PASS			Gain:Low	#Atten: 36	dB				DETPPPPP
	Ref Offset 8.5 dl							Mkr1 8	24.3 MHz
10 dB/div	Ref 34.50 dB							30.	028 dBm
Log 24.5 Trace	e 1 <mark>61</mark> .s								
24.0									
14.5									
4.50									
-5.50									
-15.5									
-25.5									
-35.5 Lutterson				and the second second	and the second secon	وبالمجادي الشرار		and the second second	the state of the state
-45.5									
-55.5									
								-	
Start 30 N #Res BW			#VB	W 3.0 MHz			Sweet	Stop 16.0 ms	9.000 GHz (20001 pts)
MKR MODE TH		x			TION FUNCT	TION WIDTH		INCTION VALUE	(2000) (200)
1 N 1	f	824.3 MHz	30.028		TION FUNC	ION WIDTH	FL.	INCTION VALUE	
2 N 1	f	7.877 0 GHz	-31.490	dBm					
4									
5									
2 N 1 3 4 5 6 7 8 9 10									
8									
10									
11 12									
MSG						STATUS			
mou						oraros			

Middle Channel

enter Freq 4.5150	Ω AC 00000 GHz	SENSE:IM	Free Run	ALIGNAUTO Avg Type	: Log-Pwr	05:08:56 PM Dec 29, TRACE 1 2 3 4 TVPE MWWW
ASS	IFG		n: 36 dB			Mkr1 836.9 M
dB/div Ref 34.50	dBm					29.955 dE
g 1.6 Trace 1 F 1.s						
.6						
50						
50						
.6				-		
.5						
5 mail current status	Construction of the local division of the lo	and the state of the			مەلەلى _ي ىرىداناتىرى	and the second division of the second divisio
.5						
.5						
art 30 MHz tes BW 1.0 MHz		#VBW 3.0	MHz		Swee	Stop 9.000 G p 16.0 ms (20001 j
R MODE TRC SCL	×	Y	FUNCTION	FUNCTION WIDTH	÷	UNCTION VALUE
N 1 f N 1 f	836.9 MHz 5.525 9 GHz	29.955 dBm -31.745 dBm				
2						

Highest Channel

	Swept SA 0 Ω AC	SENSE: INT		ALIGNAUTO		05:09	:30 PM Dec 2
ter Freq 4.515 S	PN	0: Fast Trig: Fi ain:Low #Atten:	ee Run 36 dB	Avg Type:	Log-Pwr		TYPE MHA
Ref Offset B/div Ref 34.5						Mkr1 8 29	349.0 M 9.825 d
Trace 1 Ft.1s							
						2	-
		a sa da				²	
							-
t 30 MHz s BW 1.0 MHz		#VBW 3.0 M	Hz		Swe	Sto ep 16.0 ms	p 9.000 s (20001
MODE TRC SCL	× 849.0 MHz	29.825 dBm	FUNCTION	INCTION WIDTH		FUNCTION VALUE	
N 1 f	7.417 2 GHz	-31.927 dBm					
				STATUS			

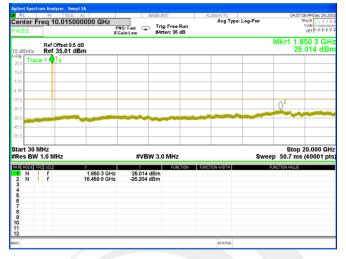
Shenzhen STS Test Services Co., Ltd.



Report No.: STS1612214F01

GSM1900 BAND(30M-20G)

Lowest Channel



Middle Channel

ASS FGaincian Anter: 36 dB Conference of the second anter and the second anter			R AC	SENSE: J	NT Th	ALIGNAUTO		04:57	:44 PM Dec 29,
END END 25.944 d 56 7 <	enter F	Freq 10.015	PN		g: Free Run ten: 36 dB	Ауд Туре	: Log-Pwr		TYPE MWWW DET P P P F
Trace 11 2 15 Trace	0 dB/div								
30 30<	og Trac	ce 1 Rels							
50 7 45 7 46 7 46 7 46 7 47 7 48 7 48 7 48 7 48 7 49 7 49 7 40 8	5.6								
15 15 15 15 15 15 15 15 15 15	.50								
Image: State of the s	50								
Image: State of the s	1.5							^2	
15 Stop 20.000 atri 30 MHz #VBW 3.0 MHz Stop 20.000 VEX.001 #VBW 3.0 MHz Stop 20.000 VEX.001 #VDW 3.0 MHz #VDW 3.0 MHz	4.5							V-	-
Image: State in the s	1.5	and the second sec		and the second	and the second	and the second second			and the second division of the second divisio
Arr 30 MHz Stop 20.000 Res BW 1.0 MHz #VBW 3.0 MHz Sweep 50.7 ms (40001 Ret BW 1.0 MHz #VBW 3.0 MHz Sweep 50.7 ms (40001 Ret BW 1.0 MHz 2 State 1 1 8.80 2 GHz 2 State 1 2 N 1 1 1 8.80 2 GHz 24.399 dBm 10.40001 10.4000100 5 5 5 5 5 10.1000 10.10000000000000000000000000000000000	4.5								
Ress BW 1.0 MHz #VBW 3.0 MHz Sweep 50.7 ms (40001 74 model lieg fact V 1 100/21001 100/21001 100/21001 100/21004/0001	4.5								
Ress BW 1.0 MHz #VBW 3.0 MHz Sweep 50.7 ms (40001 74 model lieg fact V 1 100/21001 100/21001 100/21001 100/21004/0001		Milla						Oten	20.000 0
II I f 1.890.2 GHz 25.944 dBm 24.399 dBm 24.3	art 30 i			#VBW 3.0	MHz		Swe	ep 50.7 ms	20.000 G
2 N 1 f 16.190 2 GHz -24.399 dBm 5 6 7 8 9 8 9 9	Res BW	1.0 MHZ							
4 6 7 8 9 9	KR MODE 1				FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
	7 MODE 1 1 N 2 N		1.880 2 GHz	25.944 dBm	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
	OR MODE 1 1 N 2 N 3		1.880 2 GHz	25.944 dBm	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
9	TE MODE 1 1 N 2 N 3 4 5		1.880 2 GHz	25.944 dBm	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
	72 170009 1 1 N 2 N 3 4 5 6 7		1.880 2 GHz	25.944 dBm	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
2	1 N 2 N 3 4 5 6 7 8 9		1.880 2 GHz	25.944 dBm	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
	1 N 2 N 3 4 5 6 7 8 9 9		1.880 2 GHz	25.944 dBm	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	

Highest Channel

RL RF	er - Swept SA S0 Ω AC	SENSE	INT	ALIGNAUTO	05:00:59 PM Dec 29
nter Freq 10.	015000000 GHz	PNO: Fast Tr FGain:Low #A	ig: Free Run tten: 36 dB	Avg Type: Log	J-Pwr TRACE 1 2 3 TYPE MINN DET P P P
dB/div Ref 3	set 9.5 dB 5.50 dBm				Mkr1 1.910 2 G 26.506 d
g Trace 1 F					
50					
50					
5					\Diamond^2
5			and the second	and the second second	والمتحاصي المراحمة فتعطيهم
.5					
.5					
art 30 MHz es BW 1.0 MH	z	#VBW 3.	0 MHz		Stop 20.000 C Sweep 50.7 ms (40001
N 1 f	× 1.910 2 GHz	26,506 dBm	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
N 1 f	16.517 7 GHz	-25.760 dBm			
2					
				STATUS	

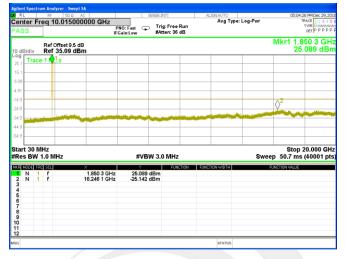
Shenzhen STS Test Services Co., Ltd.



Report No.: STS1612214F01

GPRS1900 BAND(30M-20G)

Lowest Channel



Middle Channel

enter	RF			58	NSE:INT	A	LIGNAUTO			:05 PM Dec 29,7
ASS	Freq	10.0150		i0: Fast 😱	Trig: Free F #Atten: 36 (Run 18	Avg Type:	: Log-Pwr		TYPE MUMAU DET P P P P
0 dB/di	Ref	f Offset 9.5 f 35.50 d	dB Bm						Mkr1 1.8 25	380 2 G 984 dE
5.6 Tr	ace 1 🖡	1 <u>s</u>								
5.6		<u> </u>								
.50		<u> </u>								
50									_	
.5									0.2	
.5									0	
5		-		and the second second	And the owned			Concession of the local division of the loca		
1.5										
1.5										
art 3	0 MHz								Stop	20.000 G
tart 3	0 MHz W 1.0	MHz		#VBW	3.0 MHz			Swee	Stop ep 50.7 ms	20.000 G (40001)
art 3 Res B			X 1 990 2 CH7	Y	FUNC	TION FUNC	TION WIDTH		Stop ep 50.7 ms eunenon vaue	20.000 G (40001
art 30 Res B	W 1.0		8 1.880 2 GHz 16.527 7 GHz		EUNC	TION FUNC	TION WIDTH		ep 50.7 ms	20.000 G (40001
art 30 Res B N N 2 N	W 1.0		1.880 2 GHz	25,984 di	EUNC	TION FUNC	TION WIDTH		ep 50.7 ms	20.000 G (40001
art 3 Res B N N 2 N 3	W 1.0		1.880 2 GHz	25,984 di	EUNC	TION FUNC	TION WIDTH		ep 50.7 ms	20.000 G ; (40001 j
tart 34 Res B 10 N 2 N 3 4 5 6 7	W 1.0		1.880 2 GHz	25,984 di	EUNC	TION FUNC	TIONWIDTH		ep 50.7 ms	20.000 G (40001)
tart 3 Res B 1 N 2 N 3 4 5 5 6 7 7 8 9	W 1.0		1.880 2 GHz	25,984 di	EUNC	TION FUNC	TION WIDTH		ep 50.7 ms	20.000 G
tart 3 Res B 1 N 2 N 3 4 5 6 7 8	W 1.0		1.880 2 GHz	25,984 di	EUNC	TION FUNC	TIONWIDTH		ep 50.7 ms	20.000 G

Highest Channel

RL		AC	SENS	E:INT	ALIGNAUTO			20 PM Dec 29, 20
enter Fre	q 10.0150	000000 GHz	NO: Fast	Trig: Free Run #Atten: 36 dB	Avg Type:	Log-Pwr		TYPE MWWWW DET P P P P
	Ref Offset 9.6 Ref 35.50 (5 dB					Mkr1 1.9 26	910 2 GH .404 dB
g Trace								
5.6								
50								
50	_							
.5		_					2	-
1.5							LV.	
1.5								
1.5								
art 30 MH ≹es BW 1.			#VBW	3.0 MHz		Swee	Stop p 50.7 ms	20.000 GH (40001 pt
R MODE TRC	SCL f	× 1.910 2 GHz	26.404 dB	FUNCTION	FUNCTION WIDTH		FUNCTION VALUE	
2 N 1	f	16.509 2 GHz	-25.340 dB	m				
4								
5								
3								
)								
1								
1					STATUS			

Shenzhen STS Test Services Co., Ltd.



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



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



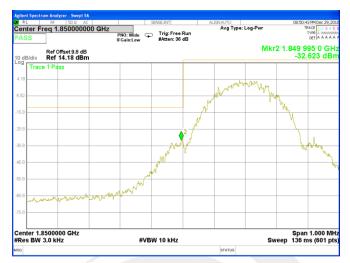
Note:Offset=Cable loss(8.5)+10log(3.2/3)=8.5+0.3=8.8 dB

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: (30-9000)MHz											
	The	Worst Test	Results Ch	annel 128/8	824.2 MHz						
	S G.Lev			PMea	Limit	Margin	Delerity				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
1648.19	-40.60	9.40	4.75	-35.95	-13.00	-22.95	Н				
2472.60	-39.84	10.60	8.39	-37.63	-13.00	-24.63	Н				
3296.43	-32.28	12.00	11.79	-32.07	-13.00	-19.07	Н				
1648.12	-44.10	9.40	4.75	-39.45	-13.00	-26.45	V				
2472.64	-44.64	10.60	8.39	-42.43	-13.00	-29.43	V				
3296.89	-43.73	12.00	11.79	-43.52	-13.00	-30.52	V				
	The	Worst Test	Results Ch	annel 190/8	36.6 MHz						
	S G.Lev			PMea	Limit	Margin	Delerity				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
1673.14	-41.00	9.50	4.76	-36.26	-13.00	-23.26	Н				
2509.62	-40.05	10.70	8.40	-37.75	-13.00	-24.75	Н				
3346.30	-32.10	12.20	11.80	-31.70	-13.00	-18.70	Н				
1673.27	-43.60	9.40	4.75	-38.95	-13.00	-25.95	V				
2509.52	-44.64	10.60	8.39	-42.43	-13.00	-29.43	V				
3346.19	-43.01	12.20	11.82	-42.63	-13.00	-29.63	V				
	The	Worst Test	Results Ch	annel 251/8	848.8 MHz						
Frequency(MHz)	S G.Lev	Apt(dDi)	1.000	PMea	Limit	Margin	Delority				
Frequency(MHZ)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
1697.33	-40.58	9.60	4.77	-35.75	-13.00	-22.75	Н				
2546.41	-40.08	10.80	8.50	-37.78	-13.00	-24.78	Н				
3395.31	-32.20	12.50	11.90	-31.60	-13.00	-18.60	Н				
1697.33	-43.35	9.60	4.77	-38.52	-13.00	-25.52	V				
2546.17	-44.24	10.80	8.50	-41.94	-13.00	-28.94	V				
3394.95	-43.13	12.50	11.90	-42.53	-13.00	-29.53	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.: STS1612214F01

GPRS 850: (30-9000)MHz

GPRS 850: (30-9000)MHz											
	The	Worst Test	Results Ch	annel 128/8	24.2 MHz						
	S G.Lev	Apt(dDi)		PMea	Limit	Margin	Delarity				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
1648.41	-41.24	9.40	4.75	-36.59	-13.00	-23.59	Н				
2472.33	-40.48	10.60	8.39	-38.27	-13.00	-25.27	Н				
3296.82	-31.57	12.00	11.79	-31.36	-13.00	-18.36	Н				
1648.27	-43.40	9.40	4.75	-38.75	-13.00	-25.75	V				
2472.66	-44.62	10.60	8.39	-42.41	-13.00	-29.41	V				
3296.51	-42.53	12.00	11.79	-42.32	-13.00	-29.32	V				
	The	Worst Test	Results Ch	annel 190/8	36.6 MHz						
	S G.Lev			PMea	Limit	Margin	Delerity				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
1673.16	-41.12	9.50	4.76	-36.38	-13.00	-23.38	Н				
2509.80	-40.64	10.70	8.40	-38.34	-13.00	-25.34	Н				
3346.06	-31.80	12.20	11.80	-31.40	-13.00	-18.40	Н				
1673.18	-43.16	9.40	4.75	-38.51	-13.00	-25.51	V				
2509.74	-44.45	10.60	8.39	-42.24	-13.00	-29.24	V				
3346.10	-43.70	12.20	11.82	-43.32	-13.00	-30.32	V				
	The	Worst Test	Results Ch	annel 251/8	848.8 MHz						
	S G.Lev	Apt(dDi)	1.000	PMea	Limit	Margin	Delarity				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
1697.37	-40.91	9.60	4.77	-36.08	-13.00	-23.08	Н				
2546.48	-40.30	10.80	8.50	-38.00	-13.00	-25.00	Н				
3394.92	-31.64	12.50	11.90	-31.04	-13.00	-18.04	Н				
1697.34	-43.96	9.60	4.77	-39.13	-13.00	-26.13	V				
2546.38	-44.17	10.80	8.50	-41.87	-13.00	-28.87	V				
3395.31	-43.71	12.50	11.90	-43.11	-13.00	-30.11	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.: STS1612214F01

PCS 1900: (30-20000)MHz

		DCS	1900: (30-2	20000)MHz			
	The V	/orst Test R	esults for C	hannel 512/	/1850.2MHz		
	S G.Lev	Ant(dDi)		PMea	Limit	Margin	Delarity
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity
3700.07	-34.90	12.60	12.93	-35.23	-13.00	-22.23	Н
5550.25	-34.02	13.10	17.11	-38.03	-13.00	-25.03	Н
7400.81	-32.60	11.50	22.20	-43.30	-13.00	-30.30	Н
3700.51	-35.89	12.60	12.93	-36.22	-13.00	-23.22	V
5550.21	-34.13	13.10	17.11	-38.14	-13.00	-25.14	V
7400.56	-32.86	11.50	22.20	-43.56	-13.00	-30.56	V
	The V	/orst Test R	esults for C	hannel 661/	[/] 1880.0MHz		
	S G.Lev	Anot(dDi)		PMea	Limit	Margin	Delerity
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity
3759.82	-34.18	12.60	12.93	-34.51	-13.00	-21.51	Н
5639.81	-34.59	13.10	17.11	-38.60	-13.00	-25.60	Н
7520.14	-32.33	11.50	22.20	-43.03	-13.00	-30.03	Н
3760.02	-35.20	12.60	12.93	-35.53	-13.00	-22.53	V
5640.04	-34.31	13.10	17.11	-38.32	-13.00	-25.32	V
7519.91	-32.30	11.50	22.20	-43.00	-13.00	-30.00	V
	The V	Vorst Test R	esults for C	hannel 810/	/1909.8MHz	-	
	S G.Lev	Anot(dDi)		PMea	Limit	Margin	Delerity
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity
3819.55	-33.68	12.60	12.93	-34.01	-13.00	-21.01	Н
5729.42	-34.26	13.10	17.11	-38.27	-13.00	-25.27	Н
7639.16	-32.78	11.50	22.20	-43.48	-13.00	-30.48	Н
3819.43	-35.89	12.60	12.93	-36.22	-13.00	-23.22	V
5729.24	-34.44	13.10	17.11	-38.45	-13.00	-25.45	V
7639.00	-32.15	11.50	22.20	-42.85	-13.00	-29.85	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.: STS1612214F01

GPRS 1900: (30-20000)MHz

GPRS1900: (30-20000)MHz									
	The V	/orst Test R	esults for C	hannel 512	/1850.2MHz				
	S G.Lev	A mt(dDi)	Loss	PMea	Limit	Margin	Delerity		
Frequency(MHz)	(dBm)	Ant(dBi)	LUSS	(dBm)	(dBm)	(dBm)	Polarity		
3700.26	-34.43	12.60	12.93	-34.76	-13.00	-21.76	Н		
5550.21	-35.40	13.10	17.11	-39.41	-13.00	-26.41	Н		
7400.69	-33.24	11.50	22.20	-43.94	-13.00	-30.94	Н		
3700.51	-35.76	12.60	12.93	-36.09	-13.00	-23.09	V		
5550.38	-34.66	13.10	17.11	-38.67	-13.00	-25.67	V		
7400.63	-32.38	11.50	22.20	-43.08	-13.00	-30.08	V		
	The V	/orst Test R	esults for C	hannel 661/	/1880.0MHz				
	S G.Lev	Apt(dDi)	1.000	PMea	Limit	Margin	Delority		
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity		
3759.96	-34.87	12.60	12.93	-35.20	-13.00	-22.20	Н		
5639.85	-33.99	13.10	17.11	-38.00	-13.00	-25.00	Н		
7520.03	-32.96	11.50	22.20	-43.66	-13.00	-30.66	Н		
3759.95	-35.77	12.60	12.93	-36.10	-13.00	-23.10	V		
5640.28	-34.99	13.10	17.11	-39.00	-13.00	-26.00	V		
7519.87	-32.37	11.50	22.20	-43.07	-13.00	-30.07	V		
	The V	orst Test R	esults for C	hannel 810/	/1909.8MHz				
Frequency(MHz)	S G.Lev	Apt(dDi)	1.000	PMea	Limit	Margin	Delarity		
Frequency(MHZ)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity		
3819.61	-34.05	12.60	12.93	-34.38	-13.00	-21.38	Н		
5729.08	-34.32	13.10	17.11	-38.33	-13.00	-25.33	Н		
7639.24	-33.30	11.50	22.20	-44.00	-13.00	-31.00	Н		
3819.47	-35.58	12.60	12.93	-35.91	-13.00	-22.91	V		
5729.35	-35.03	13.10	17.11	-39.04	-13.00	-26.04	V		
7639.26	-33.03	11.50	22.20	-43.73	-13.00	-30.73	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



Shenzhen STS Test Services Co., Ltd.