

RADIO TEST REPORT

Report No: STS1609113F01

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 C24
Series Model:	N/A
FCC ID:	2AC7ISOLEC24
Test Standard:	FCC Part 22H and 24E

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Report No.: STS1609113F01

TEST RESULT CERTIFICATION

Applicant's name:	Interglobe Connection Corp
Address:	3785 NW 82 nd 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, CHINA
Product name:	mobile phone
Brand name:	SOLE
Model and/or type reference:	SOLE C24
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 14 Sep. 2016~22 Sep. 2016

Date of Issue 23 Sep. 2016

Test Result..... Pass

Testing Engineer :	Junter	
	(Tony Liu)	
Technical Manager :	(Vita Li)	
Authorized Signatory :	hovery Juney	
	(Bovey Yang)	
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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	23 Sep. 2016	STS1609113F01	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:	mobile phone	
Hardware version number:	S601-M-V1.0	
Software version number:	N/A	
FCC ID:	2AC7ISOLEC24	
	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:	GSM850:32.65dBm,PCS1900:28.91dBm GPRS850:32.45dBm,GPRS1900:28.71dBm	
Type of Emission:	GSM(850):319KGXW: GSM(1900):322KGXW GPRS(850):318KGXW: GPRS(1900):321KGXW	
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	
Antenna gain:	GSM 850:2.19dBi ,PCS 1900: 2.08dBi	
Power Supply:	DC 3.7V by battery	
Battery parameter:	Capacity: 600mAh, Rated Voltage: 3.7V	
GPRS Class:	Multi-Class12	
Extreme Vol. Limits:	DC3.4V to 4.2V (Nominal DC3.7V)	
Extreme Temp. Tolerance:	-20℃ to +45℃	
** Note: The High Voltage 4.2	2V and Low Voltage 3.4V 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

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
Spectrum Analyzer	Agilent	E4407B	MY50140340	2015.10.25	2016.10.24
Signal Analyzer	Agilent	N9020A	MY49100060	2015.11.18	2016.11.17
Test Receiver	R&S	ESCI	101427	2015.10.25	2016.10.24
Communication Tester	Agilent	8960	MY48360751	2015.11.20	2016.11.19
Communication Tester	R&S	CMU200	112012	2015.10.25	2016.10.24
Test Receiver	R&S	ESCI	102086	2015.10.25	2016.10.24
Bilog Antenna	TESEQ	CBL6111D	34678	2015.11.25	2016.11.24
Bilog Antenna (Calibration antenna)	TESEQ	CBL6111D	34678	2015.11.25	2016.11.24
Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-1343	2016.03.06	2017.03.05
Horn Antenna (Calibration antenna)	Schwarzbeck	BBHA 9120D	9120D-1343	2016.03.06	2017.03.05
MXA SIGNAL Analyzer	Agilent	N9020A	MY49100060	2015.10.25	2016.10.24
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	N/A	N/A
High frequency cable	SCHWARZBECK	AK9515H	SN-96286/96287	N/A	N/A
Vector signal generator	Agilent	E8257D-521	MY45141029	2015.10.16	2016.10.14
Power amplifier	DESAY	ZHL-42W	9638	2015.10.24	2016.10.23

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



5 TEST ITEMS 5.1 CONDUCTED OUTPUT POWER

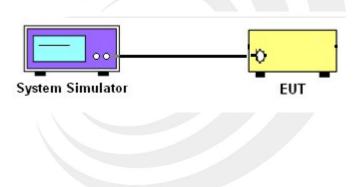
Test overview

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

Test procedures

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

Test setup





5.2 PEAK TO AVERAGE RATIO

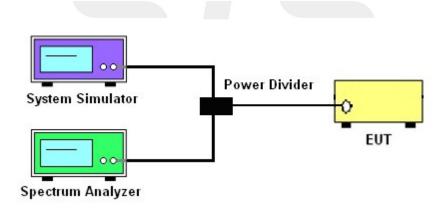
TEST OVERVIEW

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

TEST PROCEDURES

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

TEST SETUP





5.3 TRANSMITTER RADIATED POWER (EIRP/ERP) TEST OVERVIEW

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

TEST PROCEDURE

1. The testing follows FCC KDB 971168 D01

Section 5.2.2 (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.

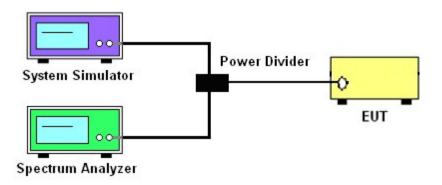
All modes of operation were investigated and the worst case configuration results are reported in this section.

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

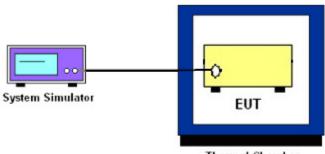
1. The testing follows FCC KDB 971168 D01 Section 9.0.

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

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5.6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS Test Overview

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

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

Test procedure

1. The testing 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.

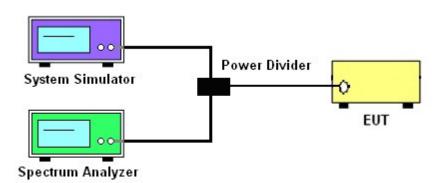
7. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

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

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

= -13dBm.

Test Setup





5.7 BAND EDGE

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. 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.

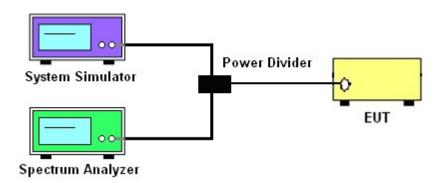
6.The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

= 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 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 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 ≥ 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 PMe as, typically dBW or dBm);

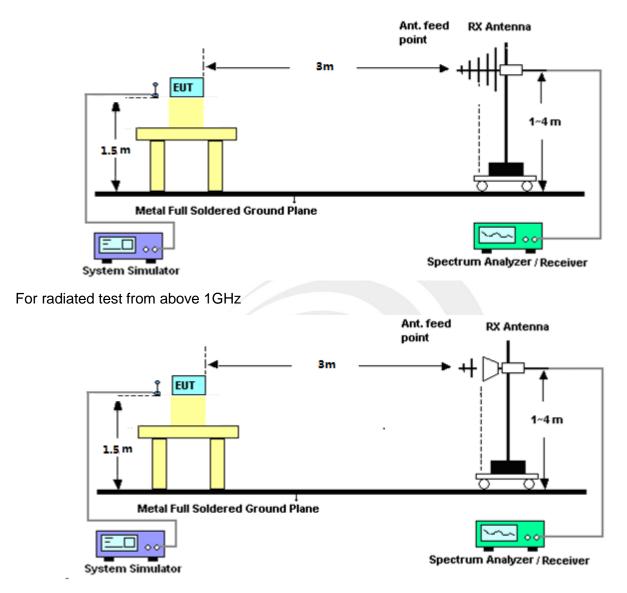
P.SG = measured transmitter output power or PSD, in dBm or dBW;

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	32.65
	836.6	32.55
	848.8	32.37
	824.2	32.38
GPRS850	836.6	32.45
	848.8	32.21

PCS 1900:

Mode	Frequency (MHz)	AVG Power
	1850.2	28.91
GSM1900	1880	28.84
	1909.8	28.81
	1850.2	28.71
GPRS1900	1880	28.61
	1909.8	28.64

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A2 PEAK-TO-AVERAGE RADIO

PCS 1900:

Mode	Frequency (MHz)	PEAK Power	AVG Power	PAR
	1850.2	29.59	28.91	0.68
PCS1900	1880	29.46	28.84	0.62
	1909.8	29.35	28.81	0.54
	1850.2	29.40	28.71	0.69
GPRS1900	1880	29.20	28.61	0.59
	1909.8	29.22	28.64	0.58

A3 TRANSMITTER RADIATED POWER (EIRP/ERP)

	Radiated Power (ERP) for GSM 850 MHZ										
	Result										
Mode	Frequency	S G.Level (dBm)			PMeas E.R.P(dBm)	Polarization Of Max. ERP	Conclusion				
	824.2	24.13	0.44	6.5	30.19	Horizontal	Pass				
	824.2	25.95	0.44	6.5	32.01	Vertical	Pass				
COMOEO	836.6	23.90	0.45	6.5	29.95	Horizontal	Pass				
GSM850	836.6	25.74	0.45	6.5	31.79	Vertical	Pass				
	848.8	23.73	0.46	6.5	29.77	Horizontal	Pass				
	848.8	25.61	0.46	6.5	31.65	Vertical	Pass				
	824.2	23.94	0.44	6.5	30.00	Horizontal	Pass				
	824.2	25.61	0.44	6.5	31.67	Vertical	Pass				
	836.6	23.78	0.45	6.5	29.83	Horizontal	Pass				
GPRS850	836.6	25.60	0.45	6.5	31.65	Vertical	Pass				
	848.8	23.83	0.46	6.5	29.87	Horizontal	Pass				
	848.8	25.66	0.46	6.5	31.70	Vertical	Pass				



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	Radiated Power (EIRP) for PCS 1900 MHZ											
Mode	Frequency	S G.Level	Cable	Gain	PMeas	Polarization	Conclusion					
		(dBm)	loss (dBi) l	E.I.R.P.(dBm)	Of Max.EIRP.							
	1850.2	18.42	2.41	10.35	26.36	Horizontal	Pass					
	1850.2	20.30	2.41	10.35	28.24	Vertical	Pass					
PCS1900	1880.0	18.41	2.42	10.35	26.34	Horizontal	Pass					
PC31900	1880.0	20.17	2.42	10.35	28.10	Vertical	Pass					
	1909.8	18.36	2.43	10.35	26.28	Horizontal	Pass					
	1909.8	20.25	2.43	10.35	28.17	Vertical	Pass					
	1850.2	18.36	2.41	10.35	26.30	Horizontal	Pass					
	1850.2	20.09	2.41	10.35	28.03	Vertical	Pass					
GPRS1900	1880.0	18.33	2.42	10.35	26.26	Horizontal	Pass					
GPRS1900	1880.0	19.95	2.42	10.35	27.88	Vertical	Pass					
	1909.8	18.27	2.43	10.35	26.19	Horizontal	Pass					
	1909.8	20.13	2.43	10.35	28.05	Vertical	Pass					

П



Report No.: STS1609113F01

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

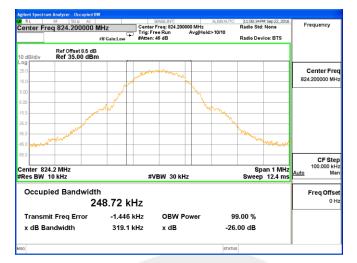
	Occupied Bandwidth for GSM 850 band									
Mode		Occupied Bandwidth	Emission Bandwidth							
wode	Frequency(MHz)	(99%)(kHz)	(-26dBc)(kHz)							
Low Channel	824.2	248.72	319.1							
Middle Channel	836.6	246.06	316.8							
High Channel	848.8	248.69	317.9							
	Occupied Band	width for GPRS 850 band								
Mode		Occupied Bandwidth	Emission Bandwidth							
Widde	Frequency(MHz)	(99%)(kHz)	(-26dBc)(kHz)							
Low Channel	824.2	246.06	317.1							
Middle Channel	836.6	241.87	314.4							
High Channel	848.8	244.12	318.4							

	Occupied Bandwidth for GSM1900 band									
Mode	Frequency(MHz)	Occupied Bandwidth	Emission Bandwidth							
Mode		(99%)(kHz)	(-26dBc)(kHz)							
Low Channel	1850.2	244.31	319.7							
Middle Channel	1880.0	249.83	314.5							
High Channel	1909.8	243.86	321.8							
	Occupied Bandy	width for GPRS 1900 band								
Mode		Occupied Bandwidth	Emission Bandwidth							
wode	Frequency(MHz)	(99%)(kHz)	(-26dBc)(kHz)							
Low Channel	1850.2	247.14	318.0							
Middle Channel	1880.0	245.89	315.6							
High Channel	1909.8	241.90	321.3							

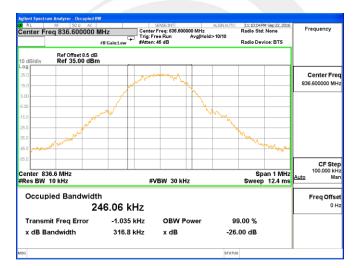


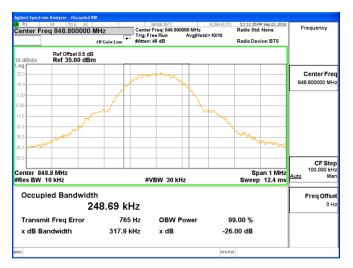
Report No.: STS1609113F01

GSM 850 CH 128



GSM 850 CH 190





GSM 850 CH 251

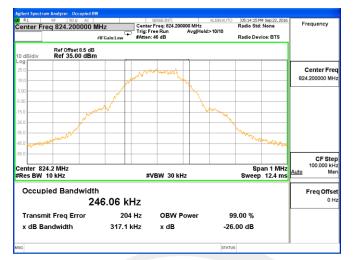
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Report No.: STS1609113F01

GPRS 850 CH 128



GPRS 850 CH 190





GPRS 850 CH 251

Shenzhen STS Test Services Co., Ltd.

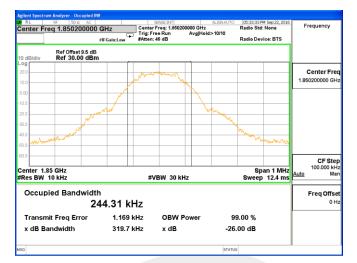
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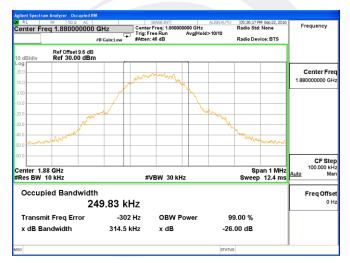


Report No.: STS1609113F01

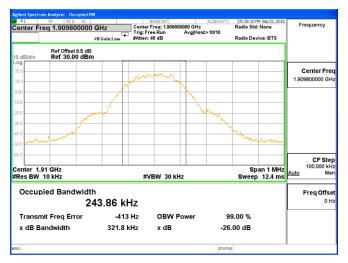
PCS 1900 CH 512



PCS 1900 CH 661



PCS 1900 CH 810



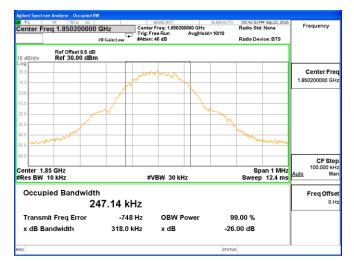
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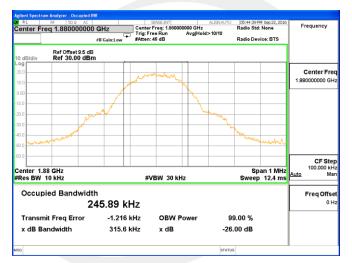
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GPRS 1900 CH 512



GPRS 1900 CH 661



GPRS 1900 CH 810



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Report No.: STS1609113F01

A5 FREQUENCY STABILITY

Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.4V .; Maximum Voltage = 4.2V

	GSM 850Middle Channel/836.6MHz										
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result						
50	-	21.50	0.257								
40		18.72	0.224								
30		29.63	0.354								
20		12.46	0.149	-	PASS						
10	Normal Voltage	14.82	0.177								
0		30.85	0.369	2.5ppm							
-10		23.98	0.287								
-20		20.88	0.250								
-30	/	31.69	0.379								
25	Maximum Voltage	18.44	0.220								
25	BEP	19.04	0.228								

	GPRS 850Middle Channel/836.6MHz										
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result						
50		13.76	0.164								
40		20.00	0.239								
30		17.52	0.209								
20		12.56	0.150								
10	Normal Voltage	35.78	0.428								
0		35.81	0.428	2.5ppm	PASS						
-10		22.60	0.270								
-20		15.17	0.181								
-30		31.92	0.382								
25	Maximum Voltage	24.99	0.024								
25	BEP	23.12	0.014								



Report No.: STS1609113F01

	GSM 1900Middle Channel/1880.0MHz										
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result						
50		31.27	0.017								
40		36.47	0.019								
30		25.52	0.014		PASS						
20		27.28	0.015	Within Au- thorized							
10	Normal Voltage	23.12	0.012								
0		20.12	0.011								
-10		16.09	0.009	Band							
-20		26.71	0.014								
-30		25.21	0.013								
25	Maximum Voltage	34.48	0.018								
25	BEP	32.57	0.017								

	GPRS 1900Middle Channel/1880.0MHz										
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result						
50		24.47	0.013								
40		22.66	0.012								
30		18.71	0.010		PASS						
20		35.60	0.019	Within Au-							
10	Normal Voltage	17.02	0.009								
0		19.56	0.010								
-10		14.36	0.008	Band							
-20		36.33	0.019								
-30		28.92	0.015								
25	Maximum Voltage	34.24	0.018								
25	BEP	27.65	0.015								

=#

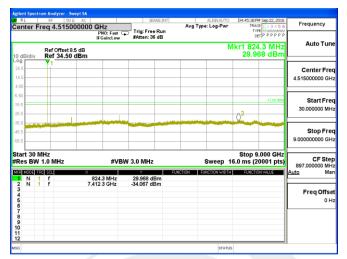
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A6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

GSM 850 BAND

Lowest Channel



Middle Channel

-	D4:46:39PM Sep 22, 2016	ALIGNAUTO		SENSE: INT		r - Swept SA 50 Ω AC	RF		L.
Frequency	TRACE 1 2 3 4 5 6	: Log-Pwr	Avg Ty	Trig: Free Run) GHz	15000000	eq 4.5	Fre	nter
	DET P P P P P P			#Atten: 36 dB	PNO: Fast C IFGain:Low				
Auto Tu	kr1 836.9 MHz 29.925 dBm	М				et 8.5 dB .50 dBm			IB/di
Center Fr							7 1		
4.515000000 G									
Start Fr	-13.00 dBm								
30.000000 N	10.00 000		-						
			\triangle^2		بالحميد المراس	1	-		
Stop Fi									-
9.000000000 0									
	Stop 9.000 GHz 6.0 ms (20001 pts)	Sweep 16		№ 3.0 MHz	#VB		HZ .0 MH		rt 30 es B
<u>Auto</u> M	FUNCTION VALUE	NCTION WIDTH	NCTION	29.925 dBm	836.9 MHz	×	SCL	TRC 1	MODE N
				-35.431 dBm	.887 4 GHz	5	f	1	N
Freq Off									
Ľ`									
1		STATUS						-	-

Highest Channel

Frequency		TRAC	ALIGNAUTO e: Log-Pwr	Avg T	SENSE: INT		GHz	50 Q AC	RF req 4.5		en
	E MWWWWWWW T P P P P P P	DE				Trig: Fre #Atten: 3	PNO: Fast C IFGain:Low				
Auto Tu	0.0 MHz 64 dBm	1kr1 849 29.70	M					set 8.5 dB 4.50 dBm		3/div	
Center F									1		og 24.6
4.515000000						_					4.6
									_		1.50
Start F	-13.00 dBm					_			_		50
30.000000	10.00 000			-	-						5.5
00.000000		2							_		5.5
			and the second second		-	and the second division of the	and the second second	and a second second			6.5
Stop F 9.000000000											5.5
9.000000000					-						55.5
CF S 897.000000	.000 GHz 0001 pts)		Sweep 1		z	3W 3.0 MHz	#VB	z	MHZ 1.0 MH	t 30 I s BW	
Auto	N VALUE	FUNCTIO	INCTION WIDTH	NCTION		Y		×	RC SCL		
						29.764 d -35.166 d	849.0 MHz 511 0 GHz		f	N	1 2
Freq Off											3
											5
											7
											8 9
											0
											2

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GPRS 850 BAND

Lowest Channel

RL RL	RE SDQ A					
	RF 50 A A		SENSE: INT	ALIGNAUT Avg Type: Log-Pw		
enter Fre	eq 4.5150000	PN0: Fast IFGain:Low	Trig: Free Run #Atten: 36 dB	nig type cogi a	DET P P P P P	
dB/div	Ref Offset 8.5 dE Ref 34.50 dBr				Mkr1 824.3 MHz 30.011 dBm	Auto Tu
4.6	1					
15						Center F 4.515000000 0
50						4.515000000
5					-13.00 dBm	Start F
5				A2		30.000000
5		and the second second				
5						Stop F
.5						9.000000000
art 30 M					Stop 9.000 GHz	
es BW 1		#VBW	3.0 MHz	Sweep	16.0 ms (20001 pts)	
MODE TRO	SCL	×		UNCTION FUNCTION WID	TH FUNCTION VALUE	Auto M
N 1 N 1	f	824.3 MHz 6.013 0 GHz	30.011 dBm -34.181 dBm			
						Freq Off
N 1						
1						
:						
				STA	TUS	

Middle Channel

							er - Swept SA		pectru	
Frequency	4 Sep 22, 2016 E 1 2 3 4 5 6 E MWMMMM	TRAC	ALIGNAUTO : Log-Pwr	Avg Ty	SENSE:INT) GHz	50 0 AC	RF eq 4.	r Fr	RL nte
Auto Tur	.9 MHz	₀ kr1 836	M		Trig: Free Run #Atten: 36 dB	PNO: Fast C IFGain:Low	fset 8.5 dB 4.50 dBm			dB/d
Center Fre 4.515000000 GF							4.00 0011	X1		.6
Start Fre 30.000000 Mi	-13.00 dBn									0
Stop Fre 9.000000000 GF										5
CF Ste 897.000000 Mi <u>Auto</u> Mi	.000 GHz 0001 pts) NVAUE	Stop 9 6.0 ms (2 5000	Sweep 1 Nettonwioth	INCTION	W 3.0 MHz	#VB	×	1.0 M	E TRO	es E
Freq Offs 0 F					-35.693 dBm	555 8 GHz		ŕ	i	N
			STATUS							

Highest Channel

-	PM Sep 22, 2016		ALIGNAUTO		SE:INT	SEN		50 Q AC	RF	
Frequency		TV	Avg Type: Log-Pwr		D	Trig: Free		5000000	eq 4.51	er Fr
	DETPPPPP	D				#Atten: 36	PNO: Fast IFGain:Low			
Auto Tu	l9.0 MHz 775 dBm		M						Ref Offse Ref 34.	div
Center F 4.515000000 (1	
								_	_	
Start F	-13.00 dBm							_		
30.000000					×2					
	-				$\langle \rangle^2$			and a second		
Stop F 9.000000000										
3.00000000										
CF S 897.000000	9.000 GHz 20001 pts)	Stop 9 16.0 ms (2	Sweep 1			3.0 MHz	#VBW		Hz 1.0 MHz	30 M BW
Auto	TION VALUE	H FUNCTI	NCTION WIDTH	TION	m	Y 29.775 dE	49.0 MHz		f	de tri I 1
Freq Off					m	-35.447 dE	87 8 GHz	5.1	1	1
(
			STATUS							

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GSM1900 BAND(30M-20G)

Lowest Channel

Igilent Spectr	um Analyzei	r - Swept SA							
Center F	^{RF} req 10.0	50 Ω AC		SENSE: IF	Avg	ALIGNAUTO	TRA	M Sep 22, 2016 CE 1 2 3 4 5 6 PE Mutation	Frequency
10 dB/div		et 9.5 dB .50 dBm	PNO: Fast C IFGain:Low	#Atten: 36 dB		Mk	r1 1.85	o 1 GHz 06 dBm	Auto Tun
25.6 15.6 5.50	V1								Center Fre 10.015000000 GF
4.50 14.5 24.5			2 ²				3	-13.00 dBm	Start Fr 30.000000 M
34.5 44.5 54.5									Stop Fr 20.000000000 G
tart 30 M Res BW	1.0 MHz	×	#VB	W 3.0 MHz	FUNCTION	Sweep 5	1.3 ms (3	0.000 GHz 35001 pts)	CF St 1.997000000 G Auto M
1 N 1 2 N 1 3 N 1 5 6 7 8 9 9 10 11	f f	1.8	50 1 GHz 00 3 GHz 05 3 GHz	29.006 dBm -33.927 dBm -28.736 dBm	PORCHUN	FUNCTION WIDTH	FUNCT		Auto M Freq Offs 0
a						STATUS	3		1

Middle Channel

								alyzer - Swept SA			
Frequency		TRAC	ALIGNAUTO : Log-Pwr	Avg Ty	NSE:INT		00 GHz	50 9 AC	req		Cer
Auto Tune	4 GHz 52 dBm	r1 1.88	Mk			Trig: Fre- #Atten: 3	PNO: Fast IFGain:Low	'Offset 9.5 dB f 35.50 dBm		B/div	10 d
Center Freq 10.015000000 GHz									ÿ		Log 25.5 15.5 5.50
Start Free 30.000000 MHz	-13.00 dBm	0 ³		¢2							-4.50 -14.5 -24.5
Stop Free 20.000000000 GH:											-34.5 -44.5 -54.5
CF Step 1.997000000 GH: Auto Mar	.000 GHz 5001 pts)	1.3 ms (3	Sweep 5 Notion who th	NCTION		W 3.0 MHz		×	MHz (1.0	s BV	#Re
Freq Offse 0 H:					Bm	-32.558 d -28.014 d	1.972 1 GHz 6.525 2 GHz	1	1	N N	234567
											8 9 10 11 12
			STATUS								MSG

Highest Channel

		lyzer - Swept SA								
	RF Teg 1	50 Ω AC			E:INT		LIGNAUTO		4 Sep 22, 2016	Frequency
			PNO: Fast C IFGain:Low	Trig: Free I #Atten: 36				TYP DE	TPPPPPP	
10 dB/div		Offset 9.5 dB 35.50 dBm	il cuint cu				Mk	r1 1.910 29.2	0 GHz 39 dBm	Auto Tune
25.5 15.5	V1									Center Freq 10.015000000 GHz
-4.50 -14.5 -24.5				2				∆ ³	-13.00 dBn	Start Freq 30.000000 MHz
-34.5 -44.5 -54.5										Stop Freq 20.00000000 GHz
Start 30 #Res BW	1.0 1	ЛНz	#VB	W 3.0 MHz				1.3 ms (3	.000 GHz 5001 pts)	CF Step 1.997000000 GHz
MKR MODE	RC SCU		1.910 0 GHz	29.289 dB		ION FUI	ICTION WIDTH	FUNCTIO	IN VALUE	<u>Auto</u> Man
2 N 3 N 4 5 6			7.478 8 GHz 6.505 3 GHz	-34.215 dBi -27.135 dBi						Freq Offset 0 Hz
4 5 6 7 8 9 10 11 12										
MSG							STATUS			

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GPRS1900 BAND(30M-20G)

Lowest Channel

	um Analyze									
enter F	RF req 10.0	50 Q AC	000 GHz		ENSE:INT	Avg Typ	alignauto e: Log-Pwr	TRA	M Sep 22, 2016	Frequency
0 dB/div		et 9.5 dB .70 dBm	PNO: Fast IFGain:Low		36 dB		Mk	r1 1.85	0 1 GHz 78 dBm	Auto Tur
og 23.7 13.7	V1									Center Fr 10.015000000 G
30 5.3 5.3								⊘ ³	-13.00 dBn	Start Fr 30.000000 M
i.3 i.3 i.3										Stop Fr 20.000000000 0
art 30 M Res BW	1.0 MHz	-		BW 3.0 MH	-		Sweep 5	1.3 ms (3	0.000 GHz 35001 pts)	CF St 1.997000000 G Auto N
1 N 1 2 N 1 3 N 1 5 6 7 8 9 0 0	f f f		1.850 1 GHz 6.680 0 GHz 6.465 3 GHz	27.378 -34.317 -27.330	dBm dBm					Auto N Freq Off: 0

Middle Channel

								zer - Swept SA		ectru		
Frequency	M Sep 22, 2016 E 1 2 3 4 5 6	TRAC	ALIGNAUTO E: Log-Pwr	Avg Typ	NSE:INT		000 GHz	50 Ω AC	RF 8q 10	Fre		µø Cer
Auto Tune	4 GHz 3 dBm	r1 1.880	Mk			Trig: Free #Atten: 3	PNO: Fast (IFGain:Low	fset 9.5 dB 15.50 dBm			B/di	
Center Fred 10.015000000 GHz									V 1			Log 25.6 15.6 5.50
Start Free 30.000000 MH	-13.00 dBm	Q ³		3 ²								-4.50 -14.5 -24.5
Stop Free 20.000000000 GH											-	-34.5 -44.6 -54.6
CF Step 1.997000000 GH Auto Mar	.000 GHz 5001 pts)	1.3 ms (3	Sweep 5			W 3.0 MHz	<	*	.0 M	W 1	s B	MKR
Freq Offse					Зm	27.643 d -33.262 d -28.775 d	1.880 4 GHz 1.972 1 GHz 7.044 4 GHz	1	f f f	1	NNN	1234567
												8 9 10 11 12
			STATUS									MSG

Highest Channel

		nalyzer - Swe									
Center	R Freq		000000 G	Hz I0: Fast C		SE:INT	Avg Ty	ALIGNAUTO pe: Log-Pwr	TRAC	M Sep 22, 2016	Frequency
10 dB/div		f Offset 9.5 f 34.00 c	IFG 6 dB	io: Fast C ain:Low	#Atten: 36			Mk	r1 1.91	0 0 GHz 06 dBm	Auto Tune
24.0 14.0		1									Center Freq 10.015000000 GHz
-6.00 -16.0 -26.0		11.1			²				∂ ³	-13.00 dBm	Start Free 30.000000 MHz
-36.0 -46.0 -56.0											Stop Free 20.000000000 GH:
Start 30 #Res BV	V 1.0		×	#VB	W 3.0 MHz		JNCTION	Sweep 5	1.3 ms (3	.000 GHz 5001 pts)	CF Step 1.997000000 GH: Auto Mar
1 N 2 N 3 N 4 5 6 7 7 8 9 10 11 12	1 f 1 f 1 f		1.910 (9.535 7 16.445 3	7 GHz	27.606 dE -36.077 dE -27.991 dE	8m Im					Freq Offset 0 Hz
tsg								STATUS			1

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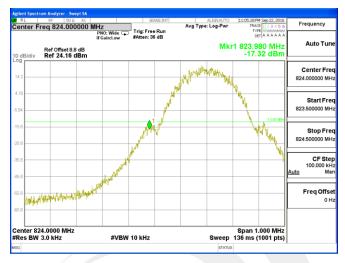
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GSM 850

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

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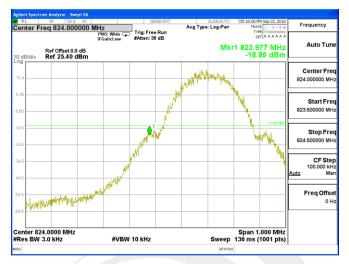
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GPRS 850

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

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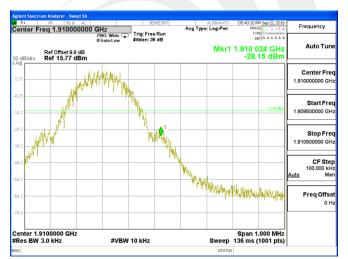
GSM 1900

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

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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

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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					
1648.35	-40.83	9.40	4.75	-36.18	-13.00	-23.18	Н					
2472.49	-40.02	10.60	8.39	-37.81	-13.00	-24.81	Н					
3296.52	-31.25	12.00	11.79	-31.04	-13.00	-18.04	Н					
1648.22	-43.67	9.40	4.75	-39.02	-13.00	-26.02	V					
2472.61	-44.80	10.60	8.39	-42.59	-13.00	-29.59	V					
3296.52	-43.43	12.00	11.79	-43.22	-13.00	-30.22	V					
The Worst Test Results Channel 190/836.6 MHz												
Frequency(MHz) S G.Lev Ant(dBi) Loss PMea Limit Margin Polarity												
Frequency(MHZ)	(dBm)	Anii(ubi)	L055	(dBm)	(dBm)	(dBm)	Folanty					
1673.15	-40.19	9.50	4.76	-35.45	-13.00	-22.45	Н					
2509.83	-39.82	10.70	8.40	-37.52	-13.00	-24.52	Н					
3346.30	-32.05	12.20	11.80	-31.65	-13.00	-18.65	Н					
1673.18	-43.68	9.40	4.75	-39.03	-13.00	-26.03	V					
2509.60	-45.15	10.60	8.39	-42.94	-13.00	-29.94	V					
3346.11	-42.82	12.20	11.82	-42.44	-13.00	-29.44	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					
Frequency(MHZ)	(dBm)	Anii(ubi)	L055	(dBm)	(dBm)	(dBm)	Folanty					
1697.19	-40.27	9.60	4.77	-35.44	-13.00	-22.44	Н					
2546.45	-39.76	10.80	8.50	-37.46	-13.00	-24.46	Н					
3395.30	-31.02	12.50	11.90	-30.42	-13.00	-17.42	Н					
1697.48	-43.75	9.60	4.77	-38.92	-13.00	-25.92	V					
2546.29	-45.15	10.80	8.50	-42.85	-13.00	-29.85	V					
3395.26	-42.86	12.50	11.90	-42.26	-13.00	-29.26	V					

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

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



Report No.: STS1609113F01

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	Ant(dDi)		PMea	Limit	Margin	Delerity				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
1648.16	-41.20	9.40	4.75	-36.55	-13.00	-23.55	Н				
2472.55	-39.73	10.60	8.39	-37.52	-13.00	-24.52	Н				
3296.92	-31.88	12.00	11.79	-31.67	-13.00	-18.67	Н				
1648.15	-44.02	9.40	4.75	-39.37	-13.00	-26.37	V				
2472.51	-45.06	10.60	8.39	-42.85	-13.00	-29.85	V				
3296.74	-43.78	12.00	11.79	-43.57	-13.00	-30.57	V				
The Worst Test Results Channel 190/836.6 MHz											
Fraguanay (MHz) S G.Lev Ant(dBi) Loss PMea Limit Margin Balarity											
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
1672.90	-41.15	9.50	4.76	-36.41	-13.00	-23.41	Н				
2509.49	-40.42	10.70	8.40	-38.12	-13.00	-25.12	Н				
3346.09	-31.40	12.20	11.80	-31.00	-13.00	-18.00	Н				
1672.96	-44.38	9.40	4.75	-39.73	-13.00	-26.73	V				
2509.67	-44.53	10.60	8.39	-42.32	-13.00	-29.32	V				
3346.41	-42.61	12.20	11.82	-42.23	-13.00	-29.23	V				
	The W	orst Test R	esults Ch	annel 251/	848.8 MHz						
	S G.Lev	A pt(dDi)	1 000	PMea	Limit	Margin	Delority				
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity				
1697.32	-41.23	9.60	4.77	-36.40	-13.00	-23.40	Н				
2546.52	-40.58	10.80	8.50	-38.28	-13.00	-25.28	н				
3395.07	-31.74	12.50	11.90	-31.14	-13.00	-18.14	Н				
1697.55	-43.30	9.60	4.77	-38.47	-13.00	-25.47	V				
2546.19	-44.29	10.80	8.50	-41.99	-13.00	-28.99	V				
3395.26	-43.86	12.50	11.90	-43.26	-13.00	-30.26	V				

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

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



Report No.: STS1609113F01

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	Deleritu					
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity					
3700.37	-33.51	12.60	12.93	-33.84	-13.00	-20.84	Н					
5550.62	-34.61	13.10	17.11	-38.62	-13.00	-25.62	Н					
7400.49	-33.41	11.50	22.20	-44.11	-13.00	-31.11	Н					
3700.51	-35.13	12.60	12.93	-35.46	-13.00	-22.46	V					
5550.34	-34.42	13.10	17.11	-38.43	-13.00	-25.43	V					
7400.62	-32.69	11.50	22.20	-43.39	-13.00	-30.39	V					
The Worst Test Results for Channel 661/1880.0MHz												
Eraguanau/(MHz) S.G.Lev Ant/dBi) Lass PMea Limit Margin Balarity												
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity					
3759.78	-34.77	12.60	12.93	-35.10	-13.00	-22.10	Н					
5640.28	-34.99	13.10	17.11	-39.00	-13.00	-26.00	Н					
7520.01	-33.30	11.50	22.20	-44.00	-13.00	-31.00	Н					
3759.85	-35.24	12.60	12.93	-35.57	-13.00	-22.57	V					
5639.96	-34.28	13.10	17.11	-38.29	-13.00	-25.29	V					
7520.13	-32.18	11.50	22.20	-42.88	-13.00	-29.88	V					
	The Wor	st Test Res	sults for C	hannel 810	D/1909.8MH	z						
	S G.Lev	Ant(dDi)		PMea	Limit	Margin	Delerity					
Frequency(MHz)	(dBm)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity					
3819.49	-33.71	12.60	12.93	-34.04	-13.00	-21.04	Н					
5729.46	-34.46	13.10	17.11	-38.47	-13.00	-25.47	Н					
7639.06	-32.59	11.50	22.20	-43.29	-13.00	-30.29	Н					
3819.56	-36.00	12.60	12.93	-36.33	-13.00	-23.33	V					
5729.27	-35.18	13.10	17.11	-39.19	-13.00	-26.19	V					
7639.06	-33.07	11.50	22.20	-43.77	-13.00	-30.77	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.: STS1609113F01

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						
3700.43	-34.48	12.60	12.93	-34.81	-13.00	-21.81	Н						
5550.49	-35.41	13.10	17.11	-39.42	-13.00	-26.42	Н						
7400.69	-33.50	11.50	22.20	-44.20	-13.00	-31.20	Н						
3700.51	-35.23	12.60	12.93	-35.56	-13.00	-22.56	V						
5550.67	-34.80	13.10	17.11	-38.81	-13.00	-25.81	V						
7400.73	-32.21	11.50	22.20	-42.91	-13.00	-29.91	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)	Ant(dBi)	Loss	(dBm)	(dBm)	(dBm)	Polarity						
3760.18	-34.77	12.60	12.93	-35.10	-13.00	-22.10	Н						
5639.87	-34.20	13.10	17.11	-38.21	-13.00	-25.21	Н						
7520.23	-32.88	11.50	22.20	-43.58	-13.00	-30.58	Н						
3760.16	-34.83	12.60	12.93	-35.16	-13.00	-22.16	V						
5640.30	-34.52	13.10	17.11	-38.53	-13.00	-25.53	V						
7519.92	-31.87	11.50	22.20	-42.57	-13.00	-29.57	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)	Folanty						
3819.69	-33.58	12.60	12.93	-33.91	-13.00	-20.91	Н						
5729.08	-34.33	13.10	17.11	-38.34	-13.00	-25.34	Н						
7639.26	-33.41	11.50	22.20	-44.11	-13.00	-31.11	Н						
3819.35	-35.90	12.60	12.93	-36.23	-13.00	-23.23	V						
5729.53	-34.30	13.10	17.11	-38.31	-13.00	-25.31	V						
7638.94	-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 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





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