D-PL-12111-01-01

CNAS L0447

Registration No.910917

TEST REPORT

Report No.: SRTC2014-H024-E0010

Product Name: GSM/GPRS/EDGE/UMTS

Digital Mobile Phone with Bluetooth and WiFi

Marketing Name: ONE TOUCH 7040F

Product Model: Yaris-5

Applicant: TCT Mobile Limited

Manufacturer: TCT Mobile Limited

Specification: FCC Part 24E, Part 22H, Part 2

(April 25, 2013 edition)

FCC ID: RAD474

The State Radio_monitoring_center Testing Center (SRTC)

No.80 Beilishi Road Xicheng District Beijing, China

Tel: 86-10-68009202 Fax: 86-10-68009205

CONTENTS

1. General information

1.1 Notes of the test report

The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written permission of The State Radio_monitoring_center Testing Center (SRTC).
The test results relate only to individual items of the samples which have been tested.

1.2 Information about the testing laboratory

Company: The State Radio_monitoring_center Testing Center (SRTC)
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Email: wangjf@srrc.org.cn / wangjunfeng@srtc.org.cn

1.3 Applicant's details

Company: TCT Mobile Limited
Address: 5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park, Pudong Area
City: Shanghai
Country or Region: P.R.China
Grantee Code: RAD
Contacted person: Gong Zhizhou
Tel: +86-21-61460890
Fax: +86-21-61460602
Email: zhizhou.gong@tcl.com

1.4 Manufacturer's details

Company: TCT Mobile Limited
Address: 5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park, Pudong Area
City: Shanghai
Country or Region: P.R.China
Contacted person: Gong Zhizhou
Tel: +86-21-61460890
Fax: +86-21-61460602
Email: zhizhou.gong@tcl.com

1.5 Application details

Date of reception of test sample: 16th January 2014
Date of test: 26th January 2014 to 17th February 2014

1.6 Reference specification

FCC Part 24E, Part22H, Part 2 (April 25, 2013 edition)

1.7 Information of EUT

1.7.1 General information

Name of EUT	GSM/GPRS/EDGE/UMTS Digital Mobile Phone with Bluetooth and WiFi
FCC ID	RAD474
Frequency Range	WCDMA Band II: Tx:1850~1910MHz Rx:1930~1990MHz
Rated Output Power	24.0dBm
Modulation Type	QPSK
Emission Designator	4M50F9W
Duplex Mode	FDD
Duplex Spacing	80MHz
Antenna Type	Fixed Internal
Power Supply	Battery or Charger
Rated Power Supply Voltage	3.8V
Extreme Temperature	Lowest: -30°C Highest: +50°C
Extreme Voltage	Minimum: 3.5V Maximum: 4.35V
HW Version	PIO07
SW Version	AGJ

1.7.2 EUT details

Product Name	Marketing Name	Product Model	IMEI
GSM/GPRS/EDGE/UMTS Digital Mobile Phone with Bluetooth and WiFi	ONE TOUCH 7040F	Yaris-5	014039005202801

1.7.3 Auxiliary equipment details

Equipment	Charger
Manufacturer	Ten Pao Industrial Co., Ltd.
Model Number	S005UU0500100
Input Voltage	100V-240V a.c.
Output Voltage	5.0V d.c.
Frequency	50/60Hz

Equipment	Charger
Manufacturer	HUIZHOU BYD ELECTRONIC CO., LTD.
Model Number	TUUS050100-A00
Input Voltage	100V-240V a.c.
Output Voltage	5.0V d.c.
Frequency	50/60Hz

Equipment	Battery
Manufacturer	BYD COMPANY LIMITED
Model Number	TLi020F1
Capacity	2000mAh
Rated Voltage	4.35V d.c.

Equipment	Battery
Manufacturer	BYD COMPANY LIMITED
Model Number	TLi019B1
Capacity	1900mAh
Rated Voltage	4.35V d.c.

Equipment	Battery
Manufacturer	SCUD (FUJIAN) Electronics Co., Ltd.
Model Number	TLi019B2
Capacity	1900mAh
Rated Voltage	4.35V d.c.

Equipment	Data Cable
Manufacturer	Shenzhen Juwei Electronics Co., Ltd.
Model Number	CDA3122002C1

Equipment	Data Cable
Manufacturer	Huizhou Shenghua Industry Co., Ltd.
Model Number	CDA3122002C2

Note: As the information described above, there are two different models of charger manufactured by two different companies, three different models of battery manufactured by two different companies and two different models of data cable manufactured by two different companies.

The relevant tests have been performed in order to verify in which combination case (EUT exercised by only one model of charger, one model of battery and one model of data cable) the EUT would have the worst features. So all the tests shown in this test report are performed when the EUT exercised by the charger S005UU0500100, the battery TLi019B2 and the data cable CDA3122002C1.

2. Test information

2.1 Summary of the test results

No.	Test case	FCC reference	Verdict
1	RF Power Output	22.913(a)/24.232(b)	Pass
2	Effective Radiated Power and Effective Isotropic Radiated Power	22.913(a)/24.232(b)	Pass
3	Occupied Bandwidth	2.1049	Pass
4	Emission Bandwidth	22.917(b)/24.238(b)	Pass
5	Spurious Emissions at antenna terminal	2.1051/22.917/24.238	Pass
6	Band Edges Compliance	22.917(b)/24.238(b)	Pass
7	Frequency Stability	2.1055/22.355/24.235	Pass
8	Radiated Spurious Emissions	2.1053/22.917(a)/24.238	Pass

This Test Report Is Issued by: Mr. Song Qizhu Director of the test lab	Checked by: Mr. Wang Junfeng Deputy director of the test lab
Tested by: Mr. Li Bin Test engineer	Issued date: **2014.02.28**

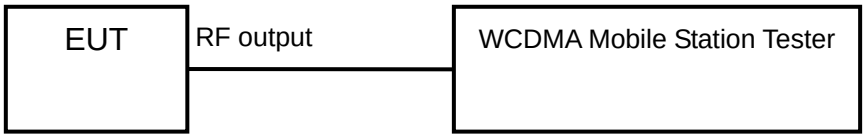
2.2 Test result

2.2.1 RF Power Output-FCC Part24.232(b)

Ambient condition:

Temperature	Relative humidity	Pressure
21°C	44%	101.5kPa

Test Setup:



Test procedure:

After a radio link has been established between EUT and Tester, the output power of the cell signal of the testing equipment will be decreased until the output power of the EUT reach a maximum value. Then the test data can be read at the tester screen. The loss between RF output port of the EUT and the input port of the tester will be taken into consideration.
The measurement will be conducted at three channels No9262, No9400 and No9538 (Bottom, middle and top channels of WCDMA band II)

Limits	≤24dBm

Test result:

WCDMA Mode:

Carrier frequency (MHz)	Channel No.	RF Power Output (dBm)
1852.4	9262	23.41
1880.0	9400	23.31
1907.6	9538	22.84

HSDPA/HSUPA Mode:

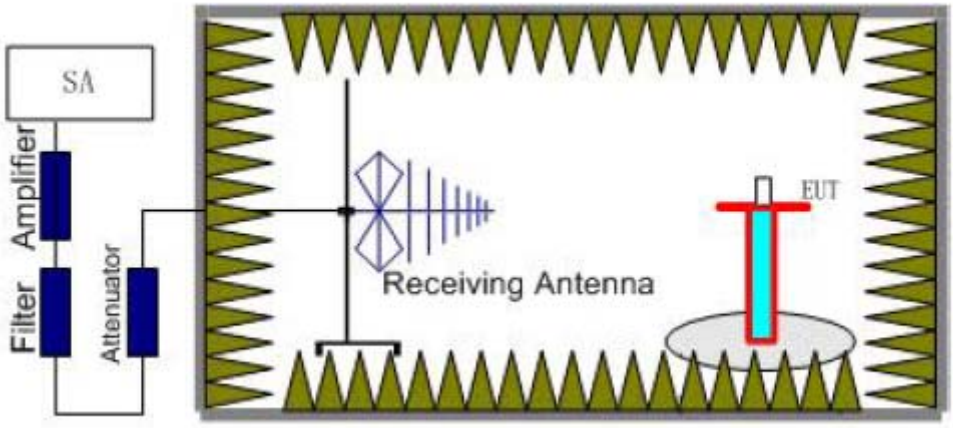
Carrier frequency (MHz)	Channel No.	RF Power Output (dBm)
1852.4	9262	21.80
1880.0	9400	21.70
1907.6	9538	21.20

2.2.2 Effective Isotropic Radiated Power-FCC Part24.232(b)

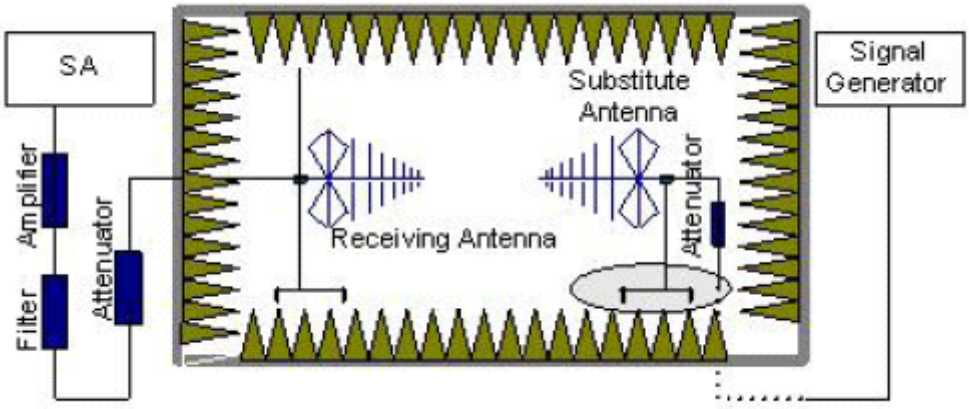
Ambient condition:

Temperature	Relative humidity	Pressure
20.5°C	38.3%	100.1kPa

Test setup:



Step 1



Step 2

Test procedure:

The measurements procedures in TIA-603C-2004 are used.

Step 1:

The measurement is carried out in the fully anechoic chamber. EUT was placed on a 2.4 meters high non-conductive table at a 3 meters test distance from the test receive antenna. A receiving antenna was placed on the antenna mast 3

meters from the EUT. The height of receiving antenna is 2.4m and varies in certain range to find the maximum power value. A radio link shall be established between EUT and Tester. The output power of the cell signal of the tester will be decreased until the output power of the EUT reach a maximum value. A peak detector is used and RBW is set to 3MHz. Then the height of receive antenna shall be moved from 1 to 4 meters, and the antenna shall be performed under horizontal and vertical polarization. The turn table shall be rotated from 0 to 360 degrees for detecting the maximum power value on spectrum analyzer or receiver. And the maximum value of the receiver should be recorded as (Pr).

Step 2:
A log-periodic antenna or double-ridged waveguide horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator. To repeat the same procedure as step1 and the level of signal generator will be adjusted till the same power value on the spectrum analyzer or receiver. The ERP/EIRP of the EUT can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
A power (Pmea) is applied to the input of the substitution antenna, and adjusts the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (Pmea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
A “reference path loss” should be calculated after test. The attenuation of “reference path loss” is the cable loss between the Signal Source with the Substitution Antenna (Pca) and the Substitution Antenna Gain (Ga).
The measurement results are obtained as described below:
Power (EIRP) = Pmea+ Pca+ Ga

The measurement will be done at three channels No9262, No9400 and No9538 (Bottom, middle and top channels of WCDMA band II).

Limits	≤33dBm

Test result:

WCMDA Mode:

Frequency (MHz)	Peak EIRP(dBm)	Pca Cable loss	Ga Antenna Gain (dB)	Pmea (dBm)	Polarization
1852.4	22.7	-5.0	8.6	19.1	Vertical
1880.0	22.5	-5.0	8.6	18.9	Vertical
1907.6	22.9	-5.0	8.6	19.3	Vertical

HSDPA/HSUPA Mode:

Frequency (MHz)	Peak EIRP(dBm)	Pca Cable loss	Ga Antenna Gain (dB)	Pmea (dBm)	Polarization
1852.4	22.4	-5.0	8.6	18.8	Vertical
1880.0	22.2	-5.0	8.6	18.6	Vertical
1907.6	22.5	-5.0	8.6	18.9	Vertical

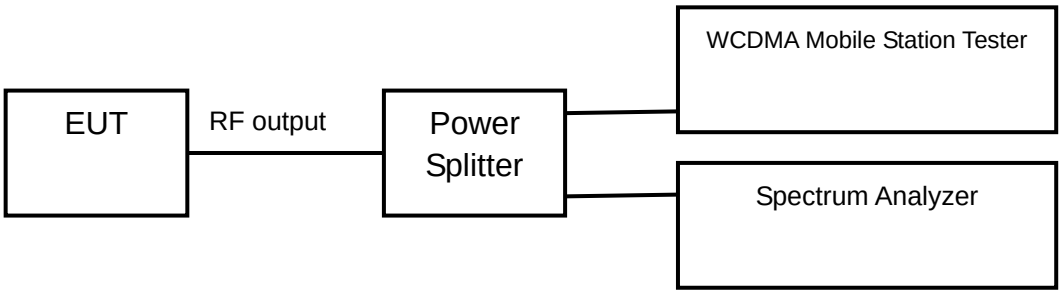
Frequency: 1907.6MHz
Peak EIRP(dBm) = Pmea(19.3dBm)+Pca(-5.0dB)+Ga(8.6dB) = 22.9dBm

2.2.3 Occupied Bandwidth-FCC Part2.1049

Ambient condition:

Temperature	Relative humidity	Pressure
21°C	44%	101.5kPa

Test Setup:



Test procedure:

After a radio link has been established between EUT and Tester, the output power of the cell signal of the testing equipment will be decreased until the output power of the EUT reach a maximum value. The occupied bandwidth is measured using spectrum analyzer. RBW is set to 30kHz on spectrum analyzer. The bandwidth of 99% power can be read on spectrum analyzer.

The measurement will be conducted at three channels No9262, No9400 and No9538 (Bottom, middle and top channels of WCDMA band II)

Limits: No specific occupied bandwidth requirements in part 2.1049

Test result:

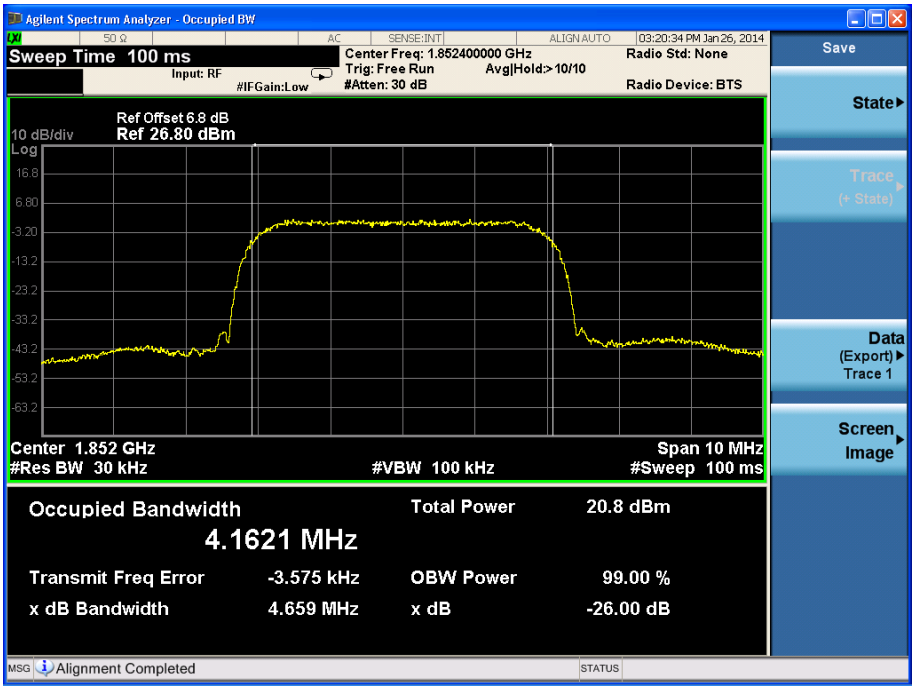
WCDMA Mode:

Carrier frequency (MHz)	Channel No.	Bandwidth of 99% Power (MHz)
1852.4	9262	4.1621
1880.0	9400	4.1600
1907.6	9538	4.1614

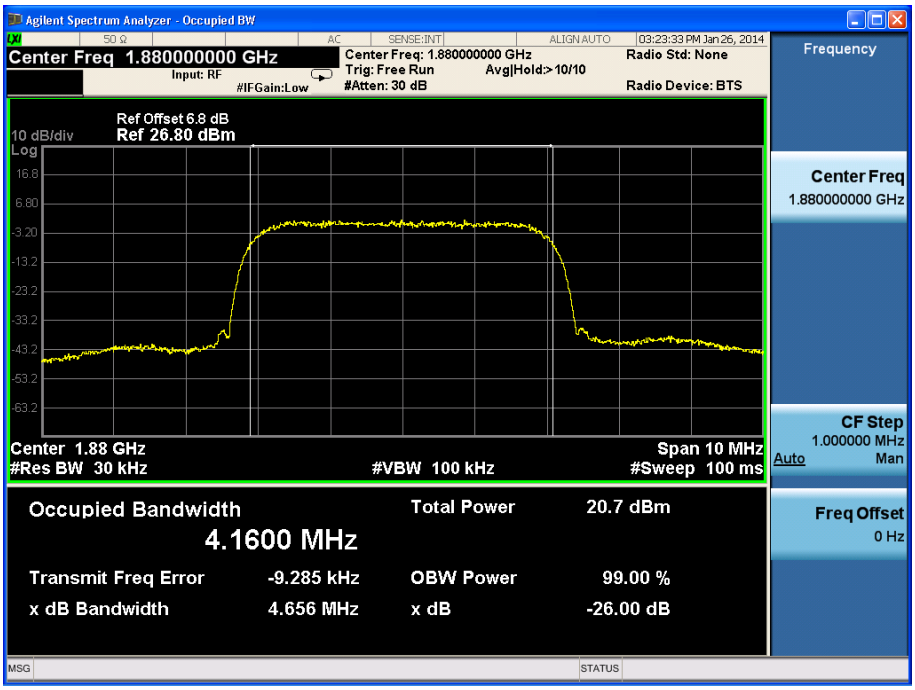
HSDPA/HSUPA Mode:

Carrier frequency (MHz)	Channel No.	Bandwidth of 99% Power (MHz)
1852.4	9262	4.1633
1880.0	9400	4.1651
1907.6	9538	4.1600

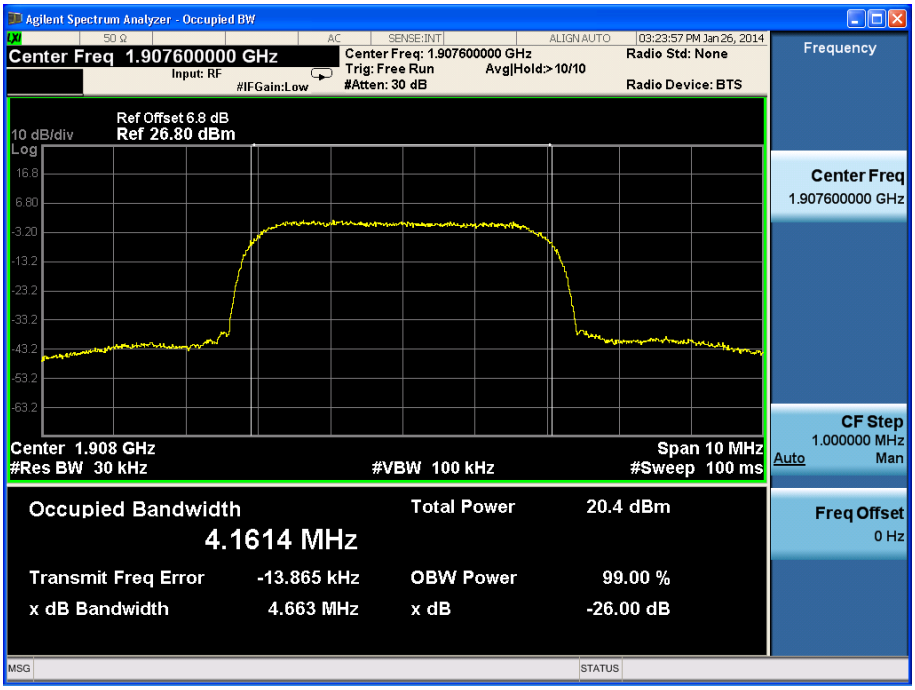
WCDMA Mode:



Channel 9262

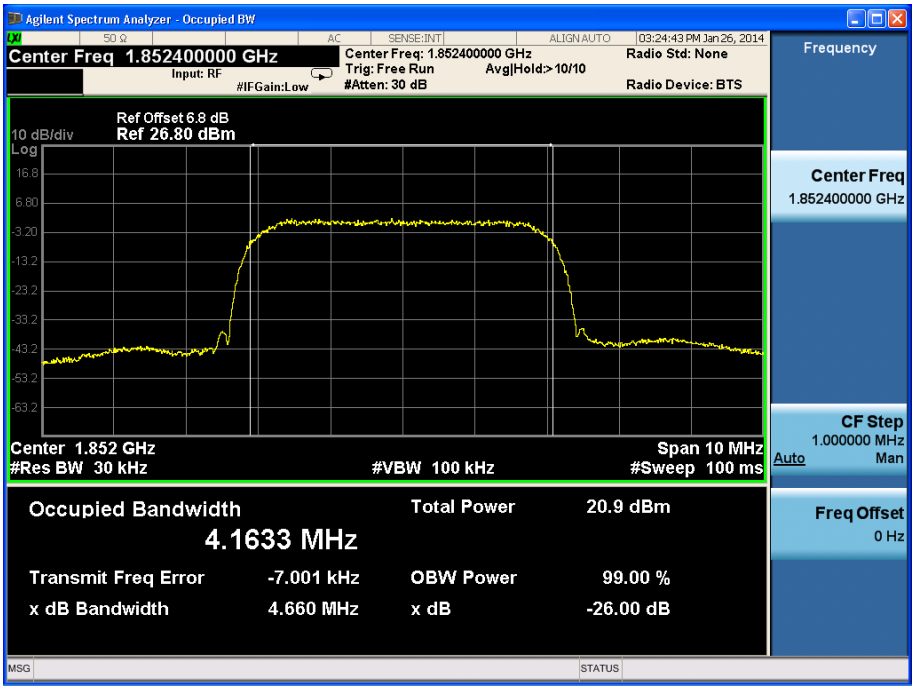


Channel 9400

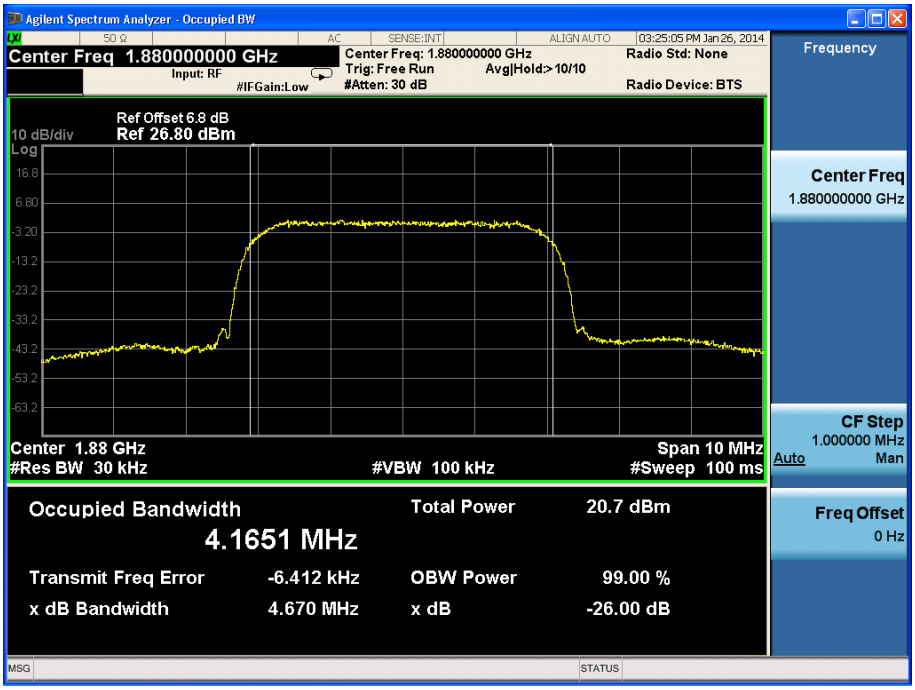


Channel 9538

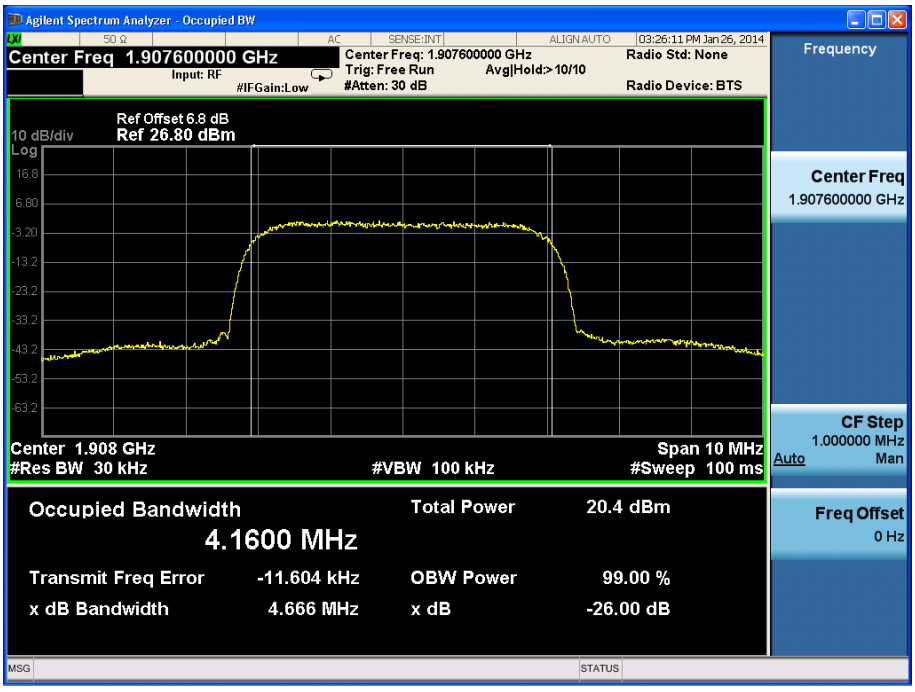
HSDPA/HSUPA Mode:



Channel 9262



Channel 9400



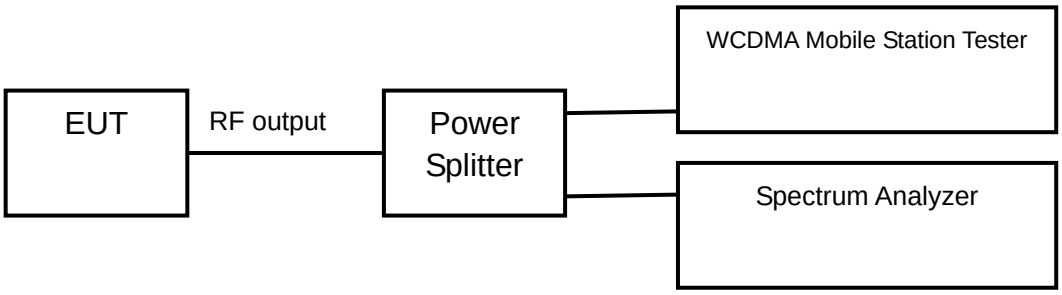
Channel 9538

2.2.4 Emission Bandwidth-FCC Part24.238(b)

Ambient condition:

Temperature	Relative humidity	Pressure
21°C	44%	101.5kPa

Test Setup:



Test procedure:

After a radio link has been established between EUT and Tester, the output power of the cell signal of the testing equipment will be decreased until the output power of the EUT reach a maximum value. The emission bandwidth is measured using spectrum analyzer. RBW is set to 30kHz on spectrum analyzer. The bandwidth of -26dBc power can be read on spectrum analyzer.

The measurement will be conducted at three channels No9262, No9400 and No9538 (Bottom, middle and top channels of WCDMA band II)

Limits: No specific emission bandwidth requirements in part 24.238(b)

Test result:

WCDMA Mode:

Carrier frequency (MHz)	Channel No.	Bandwidth of -26dBc Power (MHz)
1852.4	9262	4.659
1880.0	9400	4.656
1907.6	9538	4.663

HSDPA/HSUPA Mode:

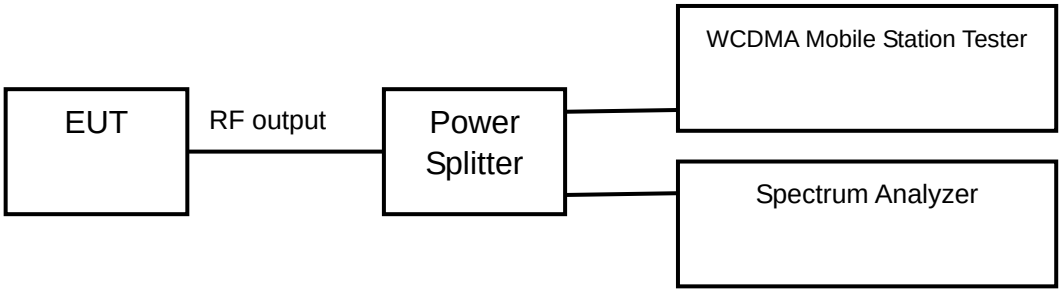
Carrier frequency (MHz)	Channel No.	Bandwidth of -26dBc Power (MHz)
1852.4	9262	4.660
1880.0	9400	4.670
1907.6	9538	4.666

2.2.5 Spurious Emissions at antenna terminal-FCC Part2.1051/24.238

Ambient condition:

Temperature	Relative humidity	Pressure
21°C	44%	101.5kPa

Test Setup:



Test procedure:

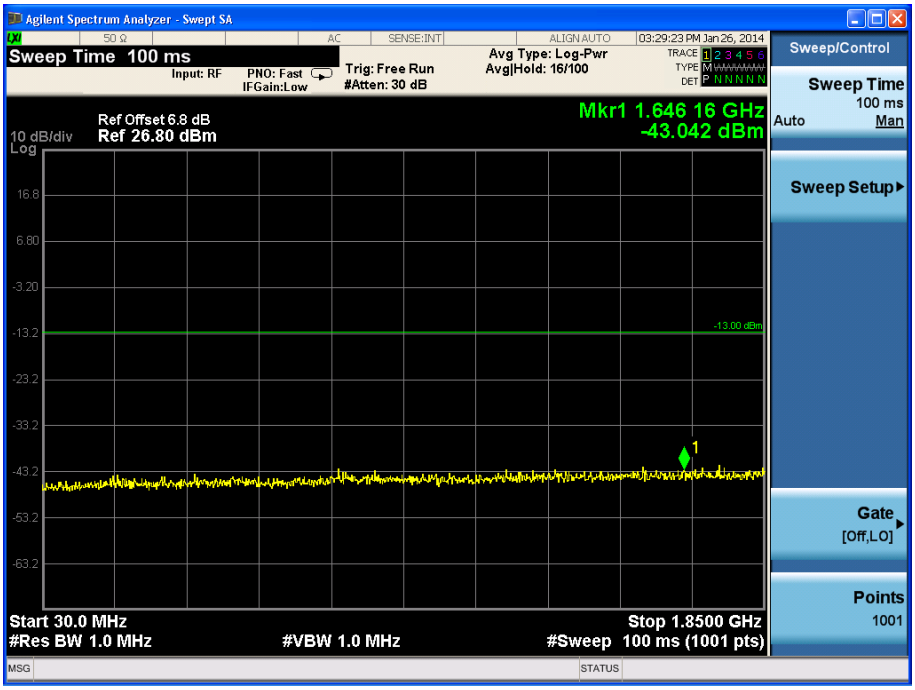
After a radio link has been established between EUT and Tester, the output power of the cell signal of the testing equipment will be decreased until the output power of the EUT reach a maximum value. The measurement is carried out using a spectrum analyzer. The spectrum analyzer scans from 30MHz to 20GHz (higher than the 10^{th} harmonic of the carrier). The peak detector is used and RBW is set to 1MHz on spectrum analyzer.

The measurement will be conducted at one channel No9400 (middle channel of WCDMA band II)

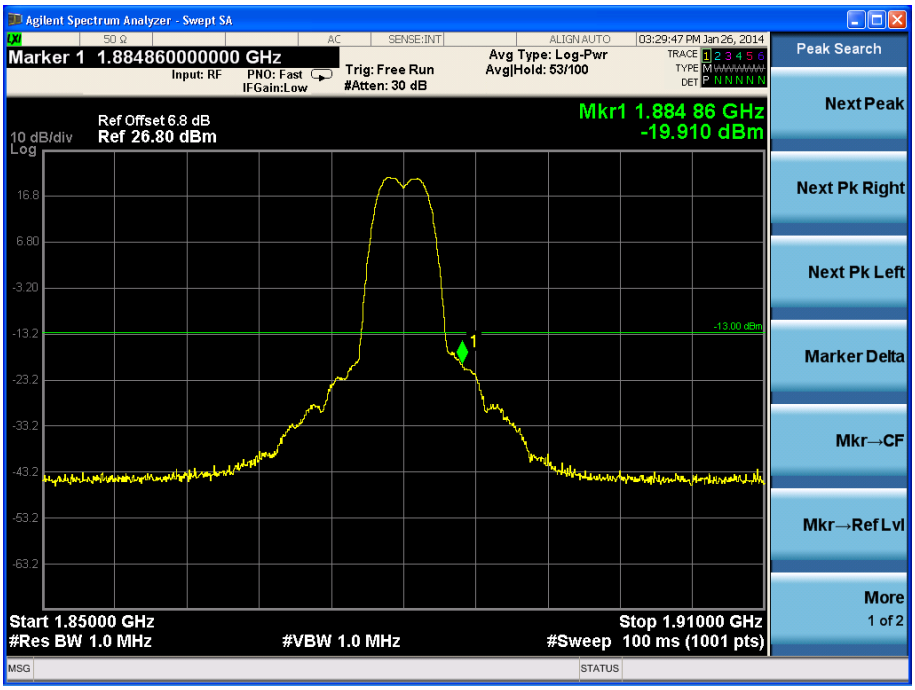
Limits	≤-13dBm

Test result:
Refer to the following figures.

WCDMA Mode:



Channel 9400, 30MHz~1850MHz

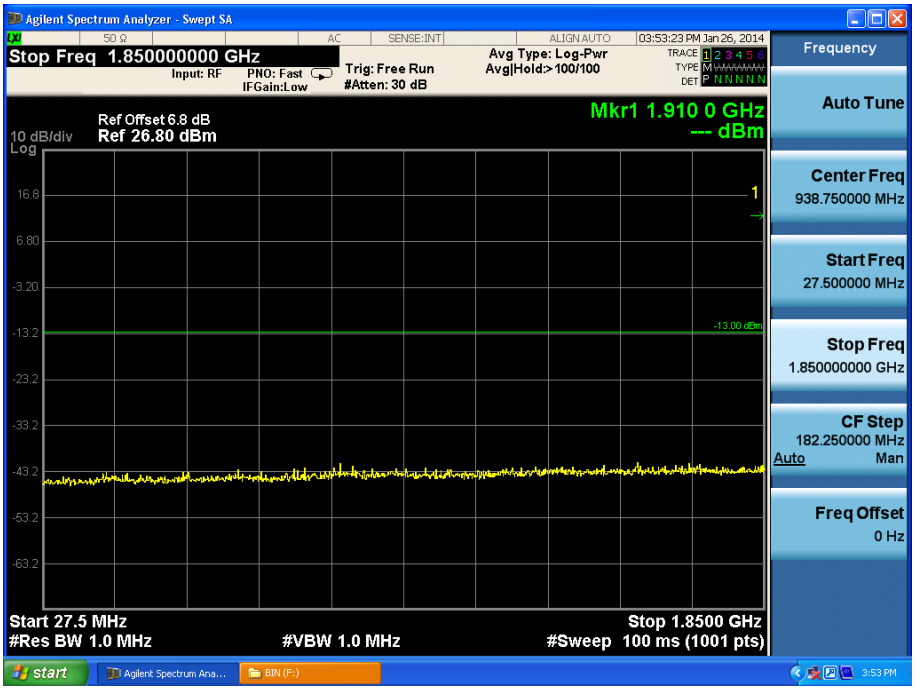


Channel 9400, 1850MHz~1910MHz

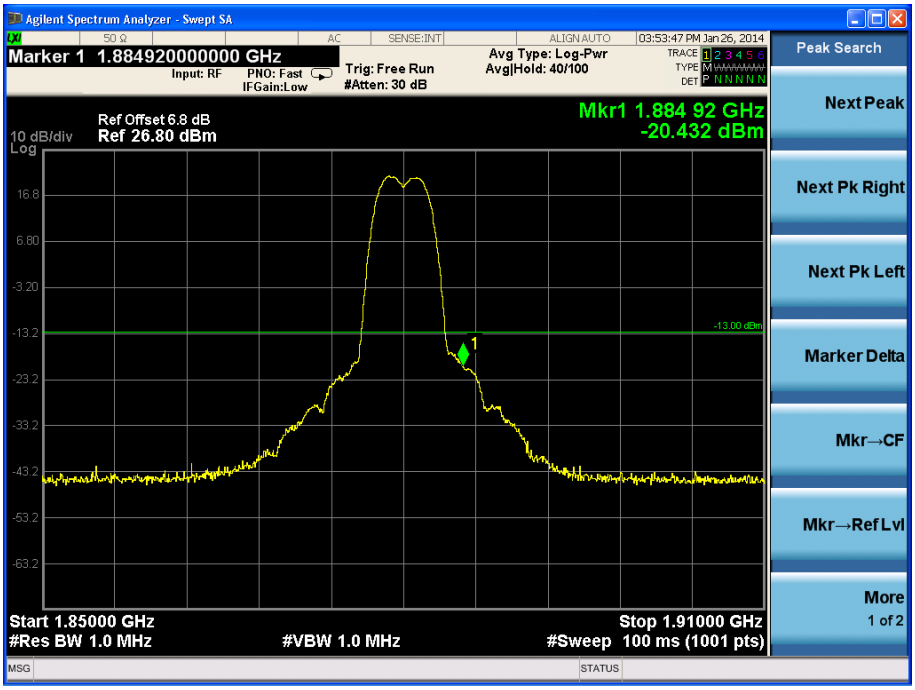
Note: The signal beyond the limit is the base station simulator carrier.

Channel 9400, 1910MHz~20GHz

HSDPA/HSUPA Mode:



Channel 9400, 30MHz~1850MHz



Channel 9400, 1850MHz~1910MHz

Note: The signal beyond the limit is the base station simulator carrier.

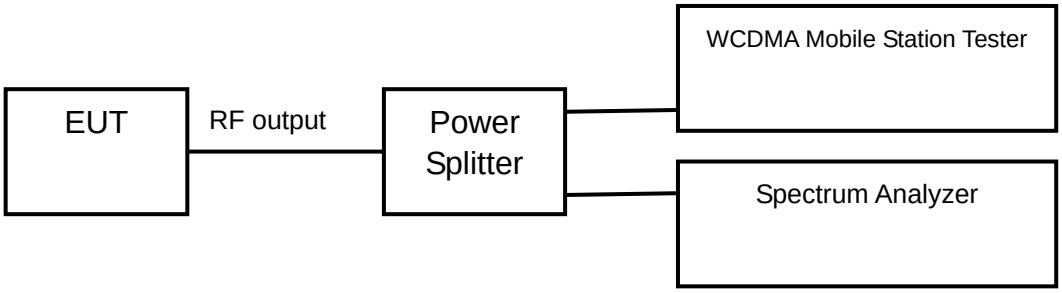
Channel 9400, 1910MHz~20GHz

2.2.6 Band Edges Compliance-FCC Part24.238(b)

Ambient condition:

Temperature	Relative humidity	Pressure
21°C	44%	101.5kPa

Test Setup:



Test procedure:

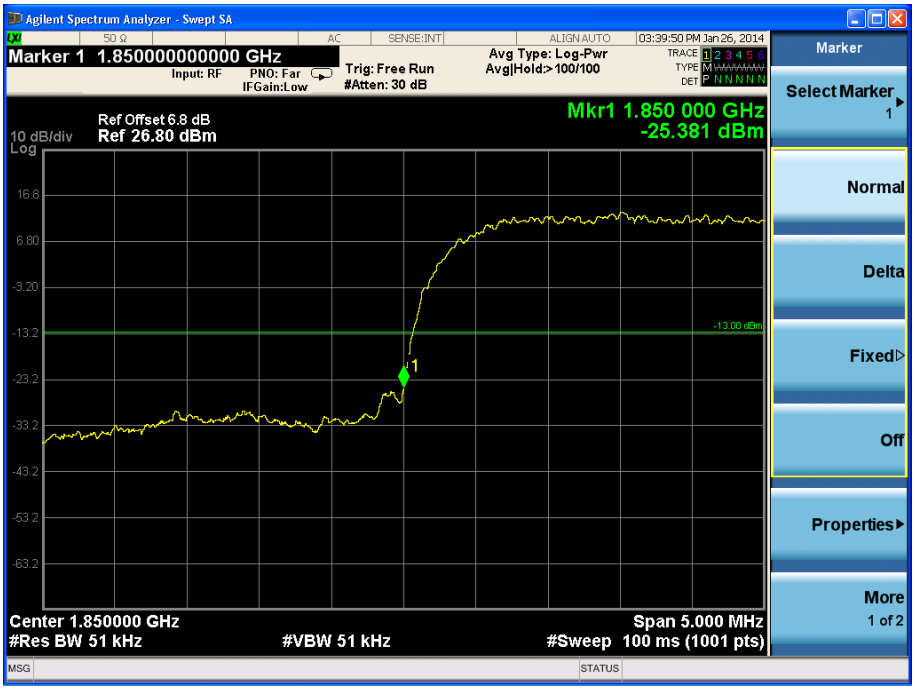
After a radio link has been established between EUT and Tester, the output power of the cell signal of the testing equipment will be decreased until the output power of the EUT reach a maximum value. The measurement is carried out using a spectrum analyzer. The peak detector is used and RBW is set to at least 1% of the emission bandwidth on spectrum analyzer.

The measurement will be conducted at two channels No9262 and No9538 (Bottom and top channels of WCDMA band II)

Limits	≤-13dBm

Test result:
Refer to the following figures.

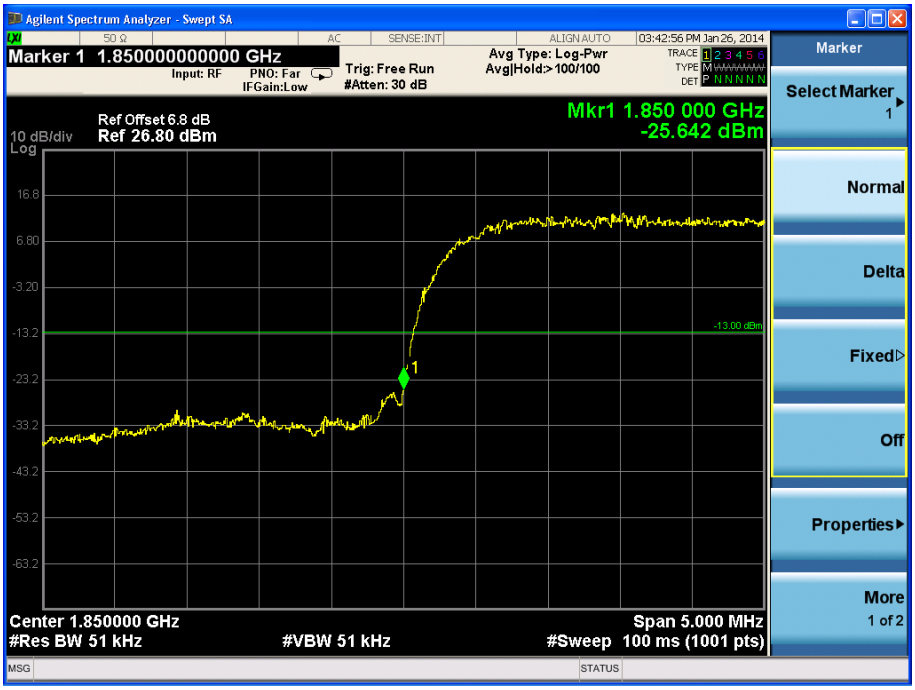
WCDMA Mode:



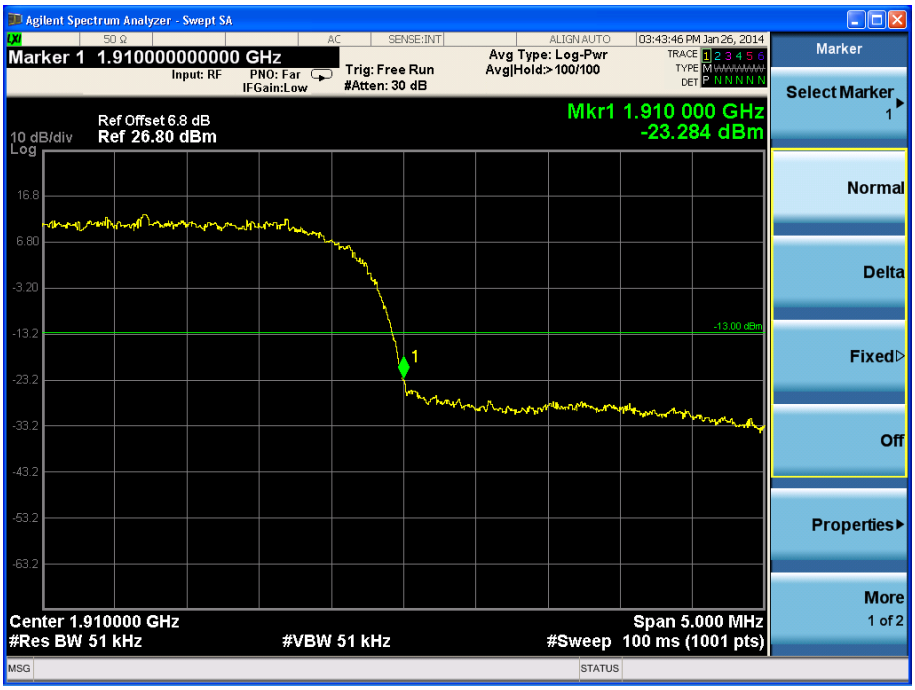
Channel 9262

Channel 9538

HSDPA/HSUPA Mode:



Channel 9262



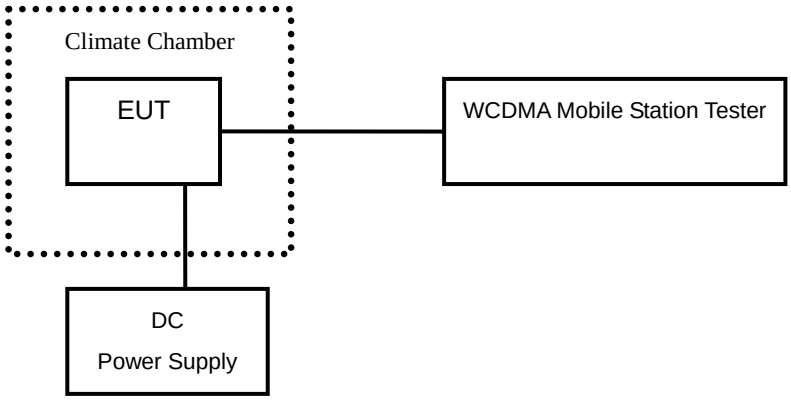
Channel 9538

2.2.7 Frequency Stability-FCC Part2.1055/24.235

Ambient condition:

Temperature	Relative humidity	Pressure
21°C	44%	101.5kPa

Test setup:



Test Procedure:
A radio link shall be established between EUT and Tester. The tester will sample the transmitter RF output signal and measure its frequency. The temperature inside the climate chamber is varied from -30 to +50°C in 10°C step size, and also the DC power supply voltage to the EUT is varied from 3.5 to 4.35V. The measurement will be conducted at three channels No9262, No9400 and No9538 (Bottom, middle and top channels of WCDMA band II).

Limits: No specific frequency stability requirements in part 2.1055 and part 24.235.

Test result:

WCDMA Mode:

Temperature(°C)	Test Result (ppm)@3.8V		
	Channel 9262	Channel 9400	Channel 9538
-30	0.006	0.006	0.006
-20	0.004	0.004	0.004
-10	0.004	0.003	0.003
0	0.003	0.001	0.004
+10	0.002	0.002	0.002
+20	0.003	0.003	0.003
+30	0.004	0.004	0.004
+40	0.006	0.003	0.005
+50	0.008	0.006	0.006

Voltage (V)	Test Result (ppm)@20°C		
	Channel 9262	Channel 9400	Channel 9538
3.5	0.003	0.003	0.002
4.35	0.004	0.003	0.003

HSDPA/HSUPA Mode:

Temperature(°C)	Test Result (ppm)@3.8V		
	Channel 9262	Channel 9400	Channel 9538
-30	0.005	0.006	0.004
-20	0.004	0.007	0.005
-10	0.004	0.004	0.005
0	0.003	0.002	0.003
+10	0.002	0.003	0.002
+20	0.003	0.002	0.001
+30	0.004	0.004	0.004
+40	0.004	0.004	0.003
+50	0.006	0.005	0.005

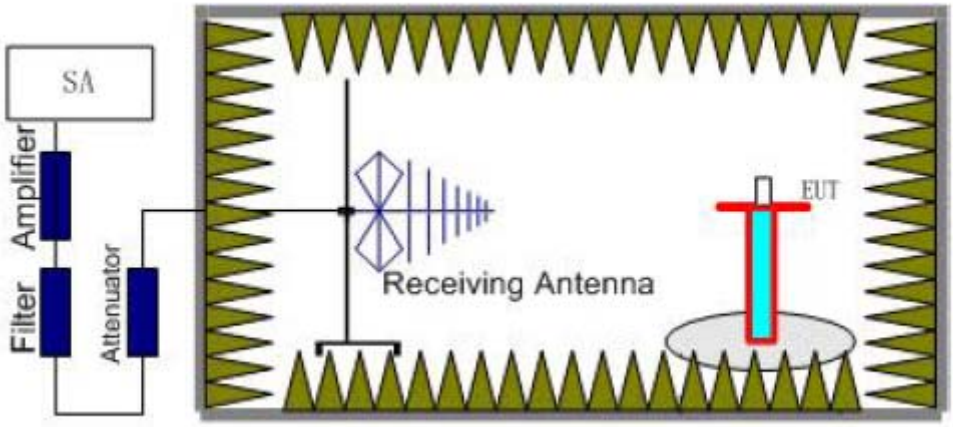
Voltage (V)	Test Result (ppm)@20°C		
	Channel 9262	Channel 9400	Channel 9538
3.5	0.002	0.002	0.002
4.35	0.002	0.003	0.002

2.2.8 Radiated Spurious Emissions-FCC Part2.1053/24.238

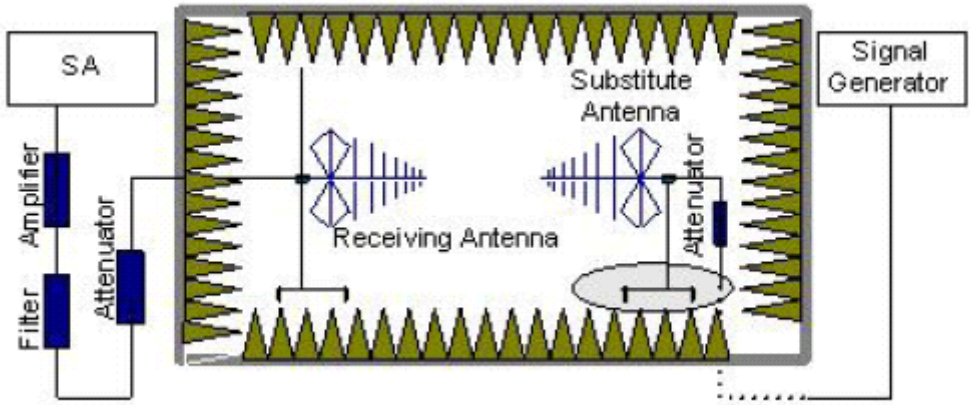
Ambient condition

Temperature	Relative humidity	Pressure
20.5°C	38.3%	100.1kPa

Test Setup:



Step 1



Step 2

Test procedure:

The measurements procedures in TIA-603C-2004 are used.

The spectrum was scanned from 30MHz to the 10th harmonic of the highest frequency generated within the equipment.

Step 1:

The measurement is carried out in the fully anechoic chamber. EUT was placed

on a 2.4 meter high non-conductive table at a 3 meter test distance from the test receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT. The height of receiving antenna is 2.4m and varies in certain range to find the maximum power value. A radio link shall be established between EUT and Tester. The output power of the cell signal of the tester will be decreased until the output power of the EUT reach a maximum value. The measurement is carried out using a spectrum analyzer or receiver. The spectrum analyzer scans from 30MHz to 20GHz (higher than the 10^{th} harmonic of the carrier). The peak detector is used and RBW is set to 1MHz on spectrum analyzer. Then the antenna height and turn table rotation is adjusted till the maximum power value is founded on spectrum analyzer or receiver. A notch filter is necessary in the band near to the carrier frequency. A high pass filter is needed to avoid the distortion of the testing equipment in the band above the carrier frequency.

Step 2:
A log-periodic antenna or double-ridged waveguide horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
A power (Pmea) is applied to the input of the substitution antenna, and adjusts the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (Pmea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
A “reference path loss” should be calculated after test. The attenuation of “reference path loss” is the cable loss between the Signal Source with the Substitution Antenna (Pca) and the Substitution Antenna Gain (Ga).

Calculation procedure:
The data of cable loss and antenna gain has been calibrated in full testing frequency range before the testing.

The power of the Radiated Spurious Emissions is calculated by adding the cable loss and antenna gain. The basic equation with a sample calculation is as followed:
Power(EIRP) = P_{mea}+ P_{ca} + G_a
This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15dB) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP – 2.15 (dB).

Assumed the power of signal source record is -20dBm. A cable loss of -30dB, and an antenna gain of 11dB are added.
$P=P_{mea}+P_{ca}+G_a=(-20dBm)+(-30dB)+(11dB)= -39dBm$

The measurement will be done at carrier frequencies that pertain to bottom (Channel 9262), middle (Channel 9400) and top (Channel 9538) channels of WCDMA band II.

Test result:

WCDMA Mode:
Channel 9262

Frequency (MHz)	Power (dBm)	Pca Cable loss (dB)	Ga Antenna Gain (dB)	Pmea (dBm)	Limited (dBm)	Polarization
2446.32	-44.6	-5.6	8.6	-47.5	-13	Vertical
2789.32	-43.4	-5.8	8.9	-46.5	-13	Vertical
3726.67	-43.6	-6.9	9.1	-45.8	-13	Vertical I
6698.43	-42.3	-8.9	11.2	-44.6	-13	Horizontal
9974.15	-38.5	-13.7	13.8	-38.6	-13	Vertical
17826.69	-31.5	-15.9	12.4	-28.0	-13	Vertical

Channel 9400

Frequency (MHz)	Power (dBm)	Pca Cable loss (dB)	Ga Antenna Gain (dB)	Pmea (dBm)	Limited (dBm)	Polarization
2456.81	-44.6	-5.6	8.6	-46.3	-13	Vertical
2768.45	-43.5	-5.8	8.9	-43.9	-13	Vertical
3782.13	-43.5	-6.9	9.1	-46.1	-13	Vertical
6703.21	-42.6	-8.9	11.2	-45.1	-13	Vertical
9985.63	-38.4	-13.7	13.8	-39.0	-13	Vertical
17853.23	-30.7	-15.9	12.4	-27.8	-13	Vertical

Channel 9538

Frequency (MHz)	Power (dBm)	Pca Cable loss (dB)	Ga Antenna Gain (dB)	Pmea (dBm)	Limited (dBm)	Polarization
2443.79	-44.4	-5.6	8.6	-45.5	-13	Vertical
2811.27	-43.3	-5.8	8.9	-43.7	-13	Vertical
3734.45	-43.3	-6.9	9.1	-46.2	-13	Vertical
6684.41	-42.6	-8.9	11.2	-44.5	-13	Vertical
9975.23	-37.6	-13.7	13.8	-38.3	-13	Vertical
17798.77	-32.4	-15.9	12.4	-28.3	-13	Vertical

HSDPA/HSUPA Mode:
Channel 9262

Frequency (MHz)	Power (dBm)	Pca Cable loss (dB)	Ga Antenna Gain (dB)	Pmea (dBm)	Limited (dBm)	Polarization
2433.56	-44.5	-5.6	8.6	-47.5	-13	Vertical
2746.45	-44.1	-5.8	8.9	-47.2	-13	Vertical
3743.54	-43.5	-6.9	9.1	-45.7	-13	Vertical
6686.34	-43.1	-8.9	11.2	-45.4	-13	Vertical
9987.67	-39.5	-13.7	13.8	-39.6	-13	Horizontal
17847.43	-32.8	-15.9	12.4	-29.3	-13	Vertical

Channel 9400

Frequency (MHz)	Power (dBm)	Pca Cable loss (dB)	Ga Antenna Gain (dB)	Pmea (dBm)	Limited (dBm)	Polarization
2430.37	-44.4	-5.6	8.6	-47.4	-13	Vertical
2787.84	-43.8	-5.8	8.9	-46.9	-13	Vertical
3754.46	-44.1	-6.9	9.1	-46.3	-13	Vertical
6680.63	-42.4	-8.9	11.2	-44.7	-13	Vertical
9967.24	-38.6	-13.7	13.8	-38.7	-13	Vertical
17844.74	-31.4	-15.9	12.4	-27.9	-13	Vertical

Channel 9538

Frequency (MHz)	Power (dBm)	Pca Cable loss (dB)	Ga Antenna Gain (dB)	Pmea (dBm)	Limited (dBm)	Polarization
2472.74	-44.7	-5.6	8.6	-47.7	-13	Vertical
2799.93	-44.5	-5.8	8.9	-47.6	-13	Vertical
3768.25	-44.1	-6.9	9.1	-46.3	-13	Horizontal
6702.52	-42.3	-8.9	11.2	-44.6	-13	Vertical
9988.64	-37.4	-13.7	13.8	-37.5	-13	Vertical
17771.97	-32.7	-15.9	12.4	-29.2	-13	Vertical

2.3. List of test equipments

No.	Name/Model	Manufacturer	S/N	Calibration Due Date
1	E5515C(8960) Mobile Station Tester	Agilent	MY48367401	2014.8
2	N9020A Spectrum Analyzer	Agilent	MY48010771	2014.8
3	DC Power Supply E3645A	Agilent	MY40000740	2014.8
4	Power Splitter 11850C	Agilent	026057	2014.8
5	Temperature chamber SH241	ESPEC	92000390	2014.8
6	12.65m×8.03m×7.50m Fully-Anechoic Chamber	FRANKONIA	-----	-----
7	Turn table Diameter:1m	HD	-----	-----
8	Antenna master FAC(MA4.0)	MATURO	-----	-----
9	HF 906 Double-Ridged Waveguide Horn Antenna	R&S	100030	2014.8
10	HL562 Ultra log antenna	R&S	100016	2014.8
11	3160-09 Receive antenna	SCHWARZ-BECK	002058-002	2014.8
12	ESI 40 EMI test receiver	R&S	100015	2014.8
13	Radio tester	CMU 200	114667	2014.8

Appendix

Appendix1 Test Setup