TEST REPORT

For

Mobile Phone

In conformity with

FCC Part24, 15
IC RSS-133 Issue4

Model: F905i

Test Item: Mobile Phone

Report No: RY0806P05R1

Issue Date: Jun. 05, 2008

Prepared for

Fujitsu Limited.
1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki 211-8588, Japan

Prepared by

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Table of Contents

1 General information

1.1 *Product description*

Test item	: Mobile phone
Manufacturer	: Fujitsu Limited
Address	: 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki 211-8588, Japan
Model	: F905i
FCC ID	: VQK-OS-F905I
IC Certification No.	: 337E-OSF905I
Operating frequency range	: TX 1850.2-1909.8 MHz (PCS1900) : RX 1930.2-1989.8 MHz (PCS1900)
Type of Modulation	: GMSK
Receipt date of EUT	: 09 Nov 2007
Nominal power voltages	: 3.7VDC (Lithium-ion battery)
Power Class	: 1 (Maximum power 30dBm nominal)
Antenna Type	: integral antenna
Serial numbers	: 357018010000025

1.2 *Test(s) performed/ Summary of test result*

Applicable Standard(s)	: FCC Part24, 15 RSS-133 Issue4
Test(s) started	: Nov 12, 2007
Test(s) completed	: Nov 14, 2007
Purpose of test(s)	: Grant for Certification of FCC / IC
Summary of test result	: Complied

Note: The above judgment is only based on the measurement data and it does not include the measurement uncertainty. Accordingly, the statement below is applied to the test result.
The EUT complies with the limit required in the standard in case that the margin is not less than the measurement uncertainty in the Laboratory.
Compliance of the EUT is more probable than non-compliance is case that the margin is less than the measurement uncertainty in the Laboratory.

Test engineer : T. Kato

Reviewer : R. Kojima

1.3 *Test facility*

The Federal Communications Commission has reviewed the technical characteristics of the test facilities at RF Technologies Ltd., located in 472, Nippa-cho, Kohoku-ku, Yokohama, 223-0057, Japan, and has found these test facilities to be in compliance with the requirements of 47 CFR Part 15, section 2.948, per October 23, 2000.
The description of the test facilities has been filed under registration number 879401 at the Office of the Federal Communications Commission. The facility has been added to the list of laboratories performing these test services for the public on a fee basis.
The list of all public test facilities is available on the Internet at http://www.fcc.gov.

Registered by Voluntary Control Council for Interference by Information Technology Equipment (VCCI).
Each registered facility number is as follows;
Test site (Semi-anechoic chamber 3m) R-2393
Test site (Shielded room) C-2617

Registered by Industry Canada (IC). The registered facility number is as follows;
Test site No.1(Semi-anechoic chamber 3m) : 6974A-1

1.4 *Measurement uncertainty*

The treatment of uncertainty is based on the general matters on the definition of uncertainty in "Guide to the expression of uncertainty in measurement (GUM)" published by ISO. The Lab's uncertainty is determined by referring UKAS Publication LAB34: 2002 "The Expression of Uncertainty in EMC Testing" and CISPR16-4-2: 2003 "Uncertainty in EMC Measurements".
The uncertainty of the measurement result in the level of confidence of approximately 95% (k=2) is as follows;

RF frequency: ± 1 x 10^{-7}
RF power conducted: ± 1.0 dB
Conducted emission of receivers: ± 1.0 dB
Radiated emission (9kHz - 30MHz): ± 3.2 dB
Radiated emission (30MHz - 1000MHz): ± 4.6 dB
Radiated emission (1GHz - GHz): ± 4.6 dB
Temperature: ± 1 degree
Humidity: ± 5 %

1.5 *Description of essencial requirements and test results*

An overview of radio requirements, as laid out in FCC Part24/15, RSS-133 is given below.

1.5.1 Transmitter requirements

Test Description	Section in this report	Applicable	Result
Carrier Output Power (Conducted)	2.1.1	Yes	Passed
Carrier Output Power (Radiated)	2.1.2	Yes	Passed
Frequency Stability (Temperature Variation)	2.1.3	Yes	Passed
Frequency Stability (Voltage Variation)	2.1.4	Yes	Passed
Occupied Bandwidth	2.1.5	Yes	Passed
Out of Band Emissions (Conducted)	2.1.6	Yes	Passed
Out of Band Emissions (Radiated)	2.1.7	Yes	Passed
Band Edge Emissions	2.1.8	Yes	Passed

1.5.2 Receiver requirements

Test Description	Section in this report	Applicable	Result
Spurious Radiated Emissions	2.2.1	Yes	Passed

1.5.3 AC Power Line Parameters

Test Description	Section in this report	Applicable	Result
Conducted Spurious Emissions (Idle mode)	2.3.1	Yes	Passed
Conducted Spurious Emissions (Traffic mode)	2.3.2	Yes	Passed

1.5.4 Normal test conditions

Temperature(*) : +15°C to +35°C
Relative humidity(*) : 20 % to 75 %
Supply voltage : 3.7 VDC (Nominal)
Measurement Frequency : 1850.2MHz(512ch),1880.0MHz(661ch),1909.8MHz(810ch)

* When it is impracticable to carry out tests under these conditions, a note to this effect, stating the ambient temperature and relative humidity during the tests, must be stated separately.

1.5.5 Extreme test conditions

Temperature : -30°C (min) to +50°C (max)
Supply voltage : 3.4 VDC (min) to 4.2 VDC (max)
The equipment has a function that it is automatically turned off when min battery voltage (3.4V) is detected.

1.6 *Setup of equipment under test (EUT)*

1.6.1 Test configuration of EUT

Equipment(s) under test:

	Item	Manufacturer	Model No.	Serial No.	FCC ID/ IC Certification No.
A	Mobile phone	Fujitsu Limited	F905i	357018010000025	VQK-OS-F905I / 337E-OSF905I
B	Battery pack	Fujitsu Limited	CA54310-0006	None	N/A
C	AC Adaptor	NEC Corp.	MAS-BH0008-A001	None	N/A
D	Ear Phone	NTT DoCoMo	P02	None	N/A

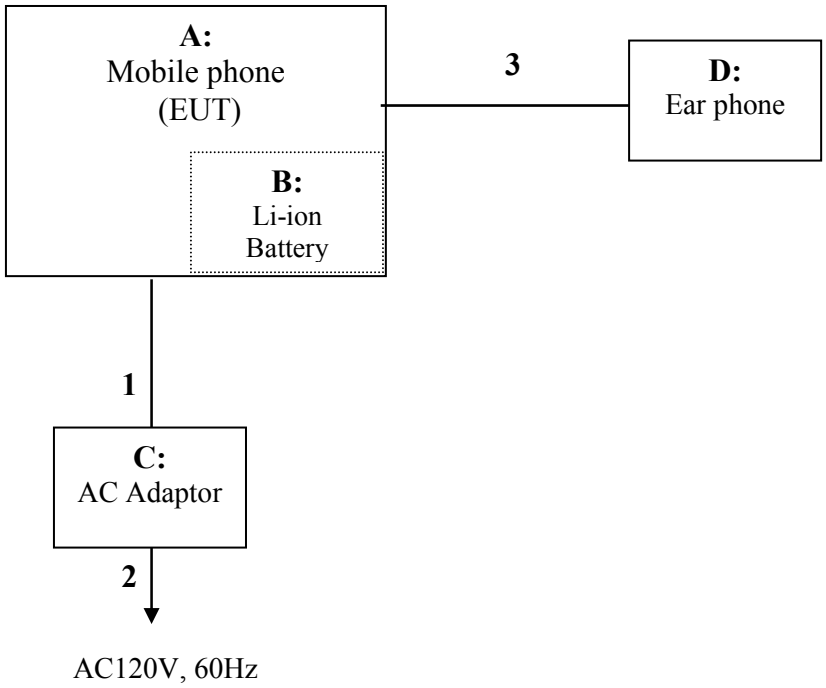
Connected cable(s):

No.	Item	Identification (Manu.e.t.c)	Shielded YES / NO	Ferrite Core YES / NO	Connector Type Shielded YES / NO	Length (m)
1	DC power cable	-	No	No	No	1.5
2	AC power cable	HEWTECH	No	No	No	0.6
3	Ear phone cable	-	No	No	No	1.4

1.6.2 Operating condition:

Traffic mode : EUT is connected with RF tester in Max power level (PL0).
Idle mode : EUT is under idle mode, no output power is transmitted.

1.6.3 Setup diagram of tested system:



1.7 *Equipment modifications*

No modifications have been made to the equipment in order to achieve compliance with the applicable standards described in clause 1.2.

1.8 *Deviation from the standard*

No deviations from the standards described in clause 1.2.

2 Test procedure and result

2.1 *Transmitter requirements*

2.1.1 Carrier Output Power (Conducted)

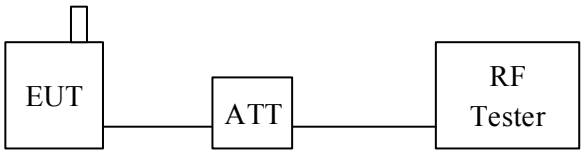
Reference Standard
FCC : Part24.232, 2.0146
IC : RSS133 Issue4 Sec6.4, SRSP-510 Issue3 Sec5.1.2

Test Conditions

Date:	2007/11/13
Ambient Temperature:	20degC
Relative humidity:	55%
Test Voltage:	3.7V

Test Method
a) EUT is connected to RF tester with pseudo random data modulation and set to maximum output power level.
b) The output power is measured with RF tester (CMU200 etc.).

Test Setup



Test Results (Voice Call)

Channel	Frequency (MHz)	Ouput Power (dBm)	Limit (dBm)	Result
Bottom (512ch)	1850.2	29.3	33.0	Pass
Middle (661ch)	1880.0	29.1	33.0	Pass
Top (810ch)	1909.8	29.2	33.0	Pass

Test Results (GPRS)

Channel	Frequency (MHz)	Ouput Power (dBm)	Limit (dBm)	Result
Bottom (512ch)	1850.2	29.3	33.0	Pass
Middle (661ch)	1880.0	29.1	33.0	Pass
Top (810ch)	1909.8	29.2	33.0	Pass

Test Equipment Used

Equipment name	RFT ID No.
RF tester	RC02

Final Result

The EUT met the requirements of the standard for this test.

EUT can employ a power control function that output power can be controlled from +30dBm to +0dBm (nominal) by 2dB step. So EUT meet the requirement of Part24.232(c)

2.1.2 Carrier Output Power (Radiated)

Reference Standard
FCC : Part24.232, 2.0146
IC : RSS133 Issue4 Sec6.4, SRSP-510 Issue3 Sec5.1.2

Test Conditions

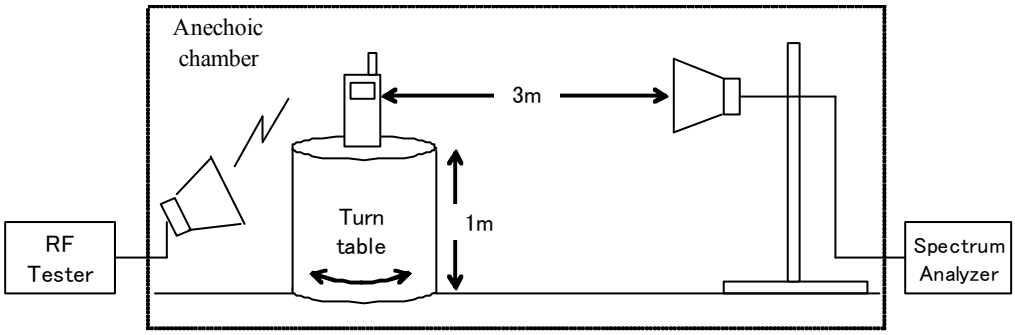
Date:	2007/11/12
Ambient Temperature:	20degC
Relative humidity:	60%
Test Voltage:	3.7V

Test Method
This test is made according to ANSI 63.4:2003.
a) EUT is set on non-conducting turntable and the output power is set to the maximum level.
The height of turntable is 100cm.
b) As a receive antenna, Horn antenna is used for high frequency range (above 1GHz),
and Bilogical antenna is used for low frequency range (30MHz to 1GHz).
c) Maximum power is measured by a spectrum analyzer(SA) in below conditions.
Turntable is rotated 360 degrees.
The height of receive antenna is changed from 1m to 4m.
Receive antenna polarization is set to vertical and horizontal.
This maximum power is recorded.
During this measurement, receive antenna is adjusted the direction to keep the EUT within the beamwidth of receive antenna.
d) Reference antenna is replaced with EUT, and connected with signal generator(SG).
SG output power is adjusted to get same level as the recorded maximum radiated EUT power by SA.
e) Radiated output power (Pout) is calculated with adjusted SG output (Psg) [dBm], reference antenna gain (Gref) [dBi] and cable loss between SG and reference antenna (Lcab) [dB].

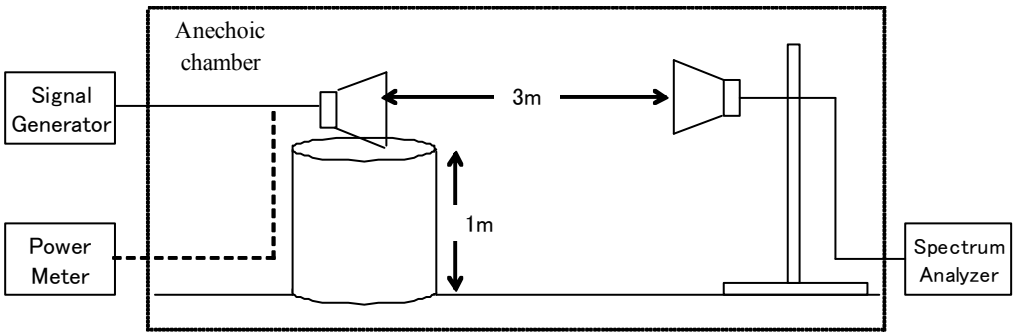
Pout [dBm e.i.r.p] = Psg - Gref + Lcab

Test Setup

[Measurement]



[Substitution]



Test Results (Voice Call)

Channel	Frequency (MHz)	Ouput Power (dBm e.i.r.p)	Limit (dBm e.i.r.p)	Result
Bottom (512ch)	1850.2	29.05	33.0	Pass
Middle (661ch)	1880.0	29.08	33.0	Pass
Top (810ch)	1909.8	29.57	33.0	Pass

Test Results (GPRS)

Channel	Frequency (MHz)	Ouput Power (dBm e.i.r.p)	Limit (dBm e.i.r.p)	Result
Bottom (512ch)	1850.2	28.99	33.0	Pass
Middle (661ch)	1880.0	29.11	33.0	Pass
Top (810ch)	1909.8	29.47	33.0	Pass

Test Equipment Used

Equipment name	RFT ID No.
Spectrum Analyzer	SA06
Receive Antenna	DH01
Reference Antenna	DH02
Signal Generator	SG05
Power Meter	PM01
RF tester	RC02

Final Result

The EUT met the requirements of the standard for this test.

2.1.3 Frequency Stability (Temperature)

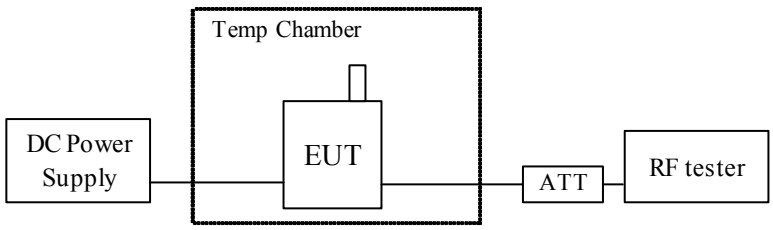
Reference Standard
FCC : Part24.235, 2.1055
IC : RSS133 Issue4 Sec6.3

Test Conditions

Date:	2007/11/13
Ambient Temperature:	20degC
Relative humidity:	55%
Test Voltage:	3.7V

Test Method
To measure the carrier frequency, “Frequency error measurement” function of RF tester is used.
a) EUT is hold about 30 minutes under measurement temperature condition.
b) EUT is powered on with nominal voltage.
c) EUT is connected to RF tester with Max transmit power level.
d) Frequency error is measured by RF tester.
Process b) to d) must be finished within 2 minutes to prevent EUT warming.
e) Process a) to d) is repeated at 10deg increments from -30 to +50degC.

Test Setup



Test Results

Bottom Channel (512ch, Nominal Freq.:1850.2MHz)

Temperature (deg C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	Result
-30	31	0.02	± 2.5	Passed
-20	29	0.02	± 2.5	Passed
-10	32	0.02	± 2.5	Passed
0	43	0.02	± 2.5	Passed
10	42	0.02	± 2.5	Passed
20	35	0.02	± 2.5	Passed
30	38	0.02	± 2.5	Passed
40	38	0.02	± 2.5	Passed
50	42	0.02	± 2.5	Passed

Test Equipment Used

Equipment name	RFT ID No.
RF tester	RC02

Final Result

The EUT met the requirements of the standard for this test

2.1.4 Frequency Stability (Voltage)

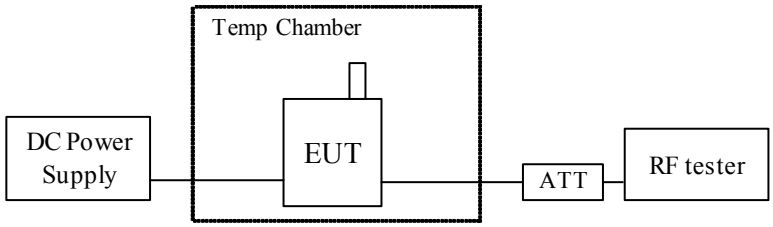
Reference Standard
FCC : Part24.235, 2.1055
IC : RSS133 Issue4 Sec6.3

Test Conditions

Date:	2007/11/13
Ambient Temperature:	20degC
Relative humidity:	55%
Test Voltage:	3.4 to 4.1V

Test Method
To measure the carrier frequency, "Frequency error measurement" function of RF tester is used.
a) EUT is powered on with nominal voltage. Temperature is 20degC.
b) EUT is connected to RF tester with Max transmitter power level.
c) Frequency error is measured by RF tester.
d) Process a) to c) is repeated at minimum and maximum voltage condition.

Test Setup



Test Results

Bottom Channel (512ch, Nominal Freq.:1850.2MHz)

Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	Result
3.4	38	0.02	± 2.5	Passed
3.7	35	0.02	± 2.5	Passed
4.1	32	0.02	± 2.5	Passed

Test Equipment Used

Equipment name	RFT ID No.
RF tester	RC02

Final Result

The EUT met the requirements of the standard for this test

2.1.5 Occupied Bandwidth

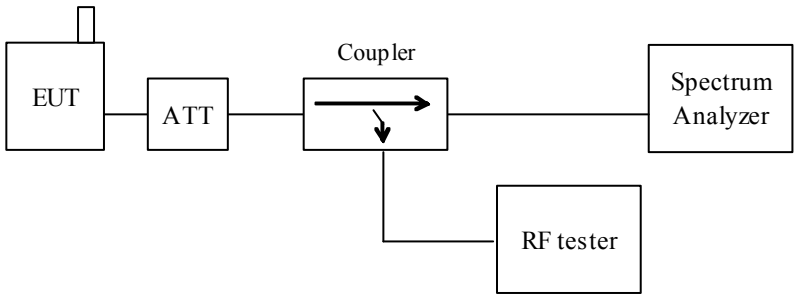
Reference Standard
FCC : Part24.238
IC : RSS-Gen Issue2 Sec4.6.1

Test Conditions

Date:	2007/11/13
Ambient Temperature:	20degC
Relative humidity:	55%
Test Voltage:	3.7V

Test Method
a) EUT is connected to RF tester with Max transmitter power level.
b) 26dB bandwidth is measured by Spectrum Analyzer.
c) 99% occupied bandwidth of transmitter spectrum is measured by Spectrum Analyzer.

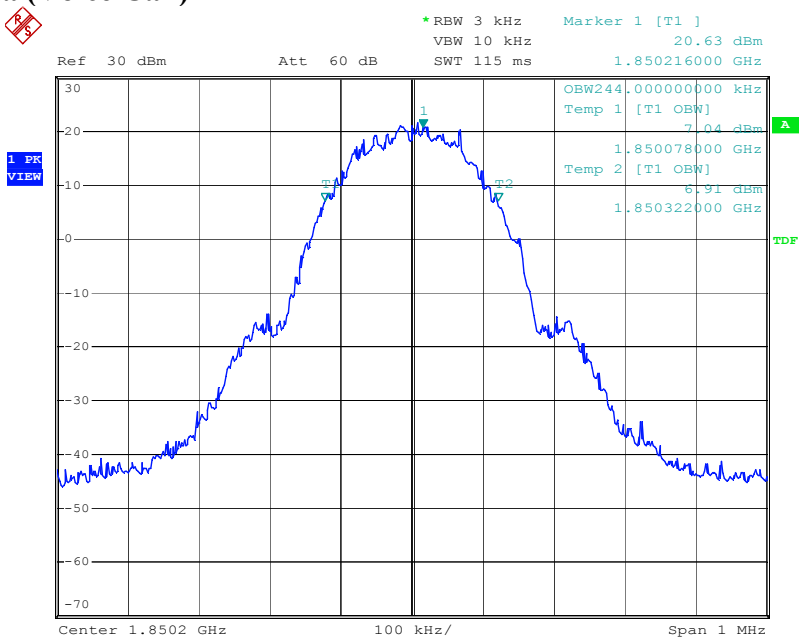
Test Setup



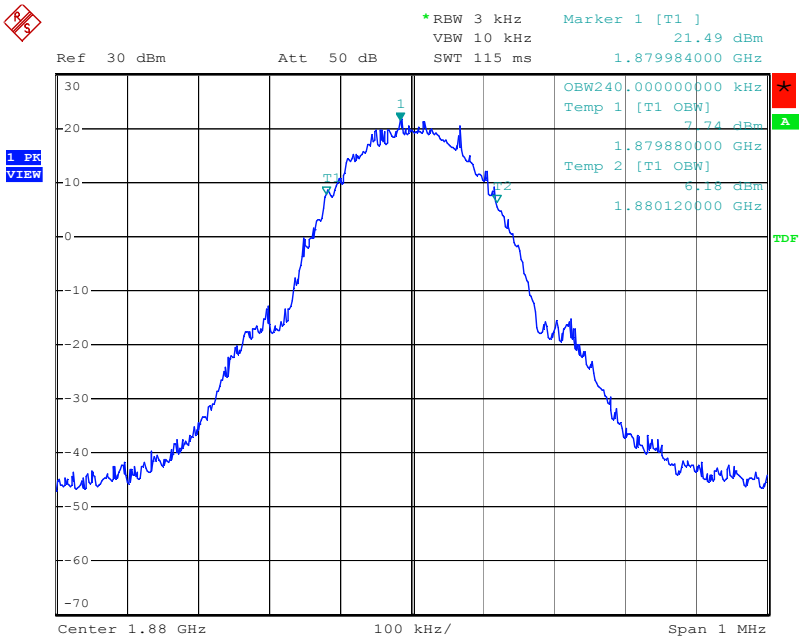
Test Results (Voice Call)

Channel	Frequency (MHz)	Resolution Bandwidth (kHz)	Video Bandwidth (kHz)	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)
Bottom (512ch)	1850.2	3kHz	10kHz	244	310
Middle (661ch)	1880.0	3kHz	10kHz	240	314
Top (810ch)	1909.8	3kHz	10kHz	242	312

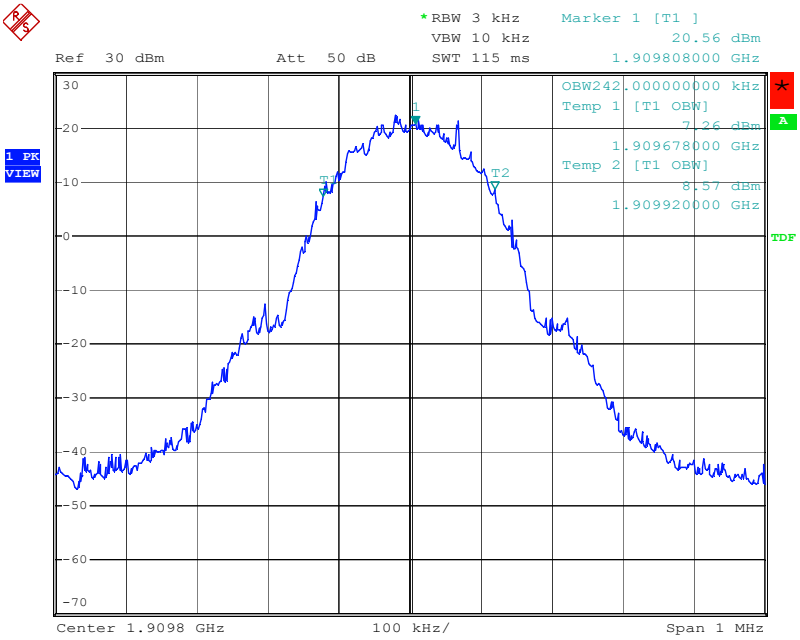
Graphical Data (Voice Call)



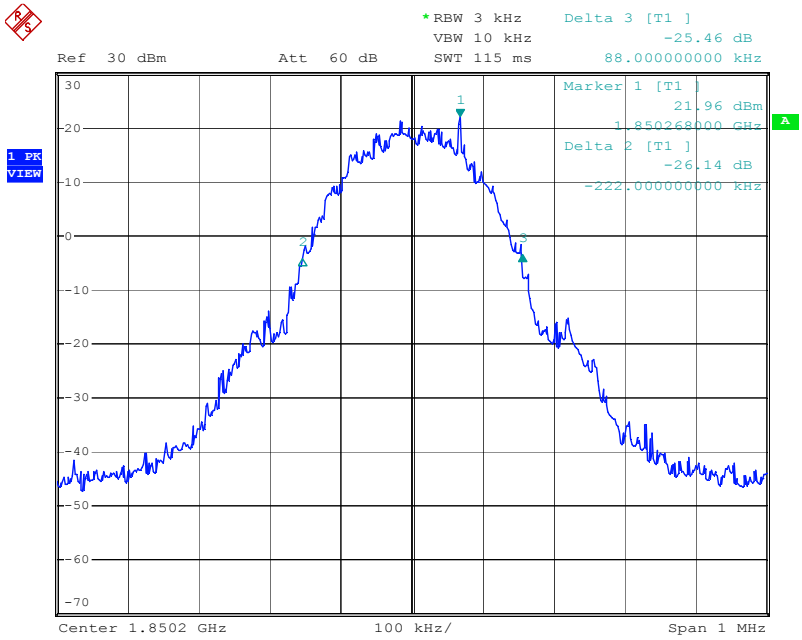
512ch Occupied Bandwidth



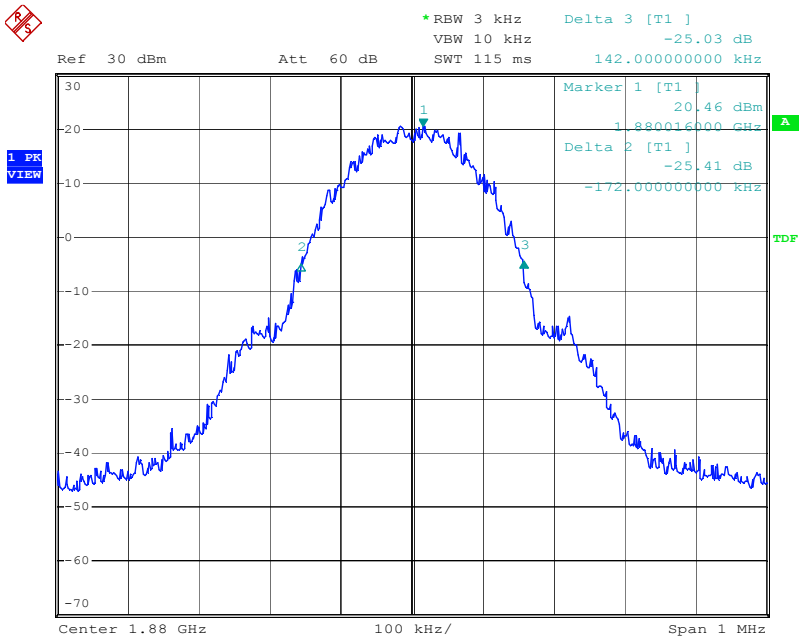
661ch Occupied Bandwidth



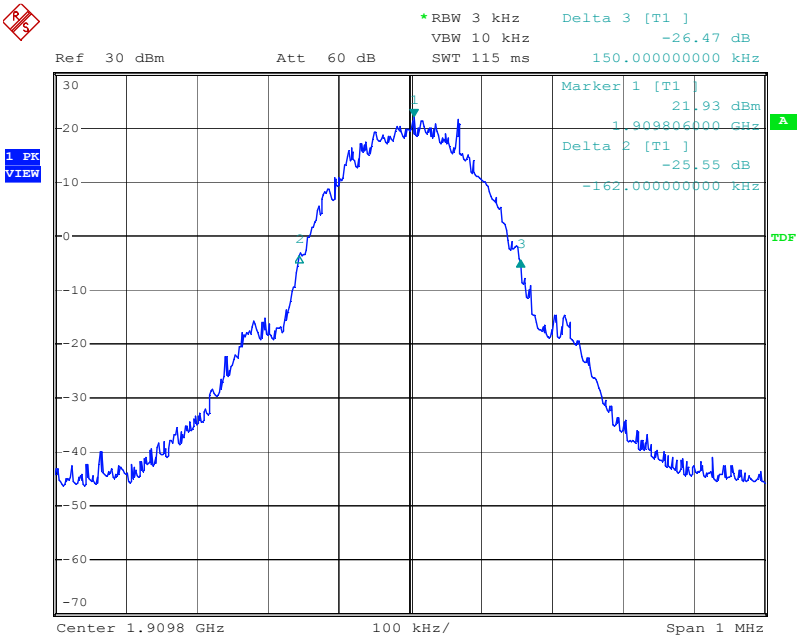
810ch Occupied Bandwidth



512ch 26dB Bandwidth



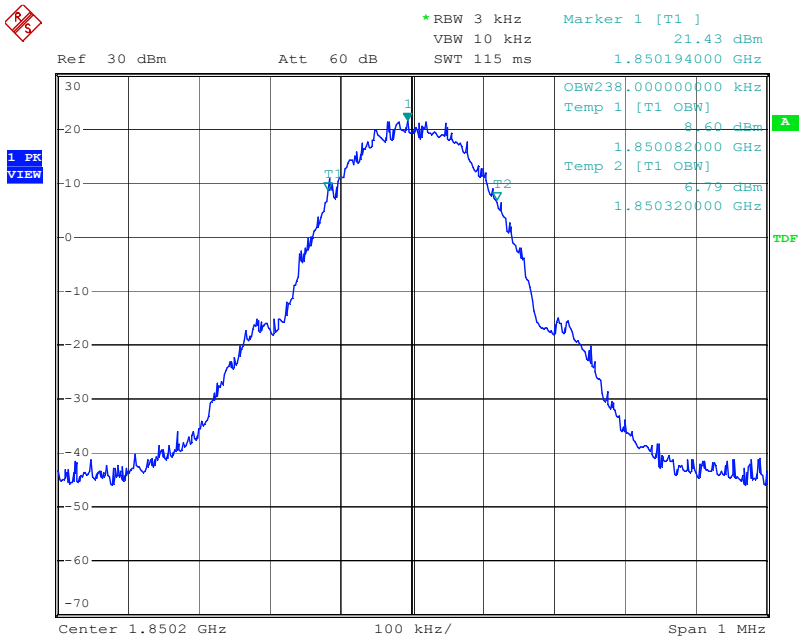
661ch 26dB Bandwidth



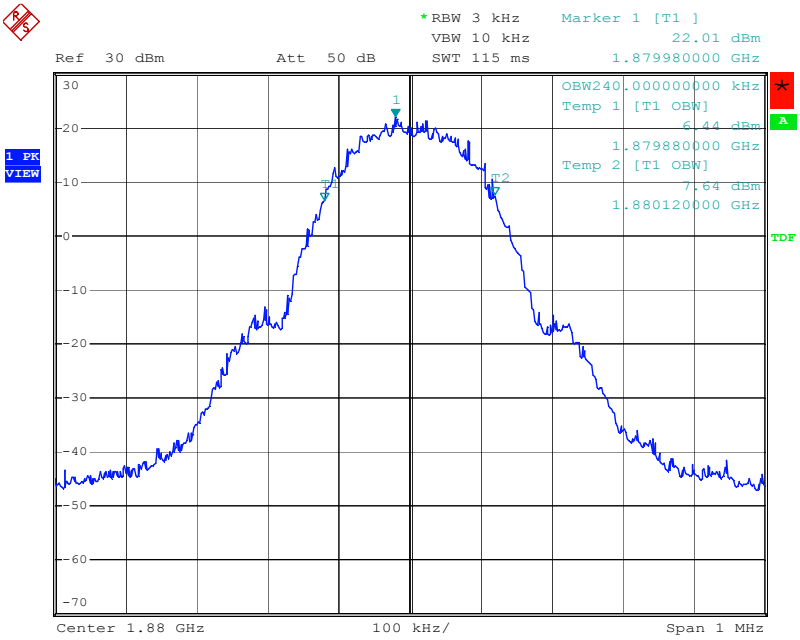
810ch 26dB Bandwidth

Test Results (GPRS)

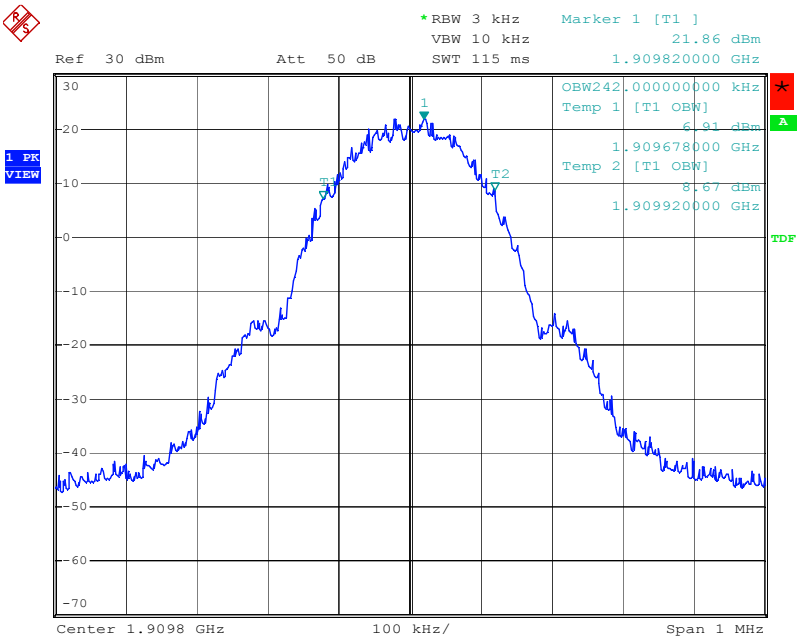
Channel	Frequency (MHz)	Resolution Bandwidth (kHz)	Video Bandwidth (kHz)	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)
Bottom (512ch)	1850.2	3kHz	10kHz	238	310
Middle (661ch)	1880.0	3kHz	10kHz	240	306
Top (810ch)	1909.8	3kHz	10kHz	242	306



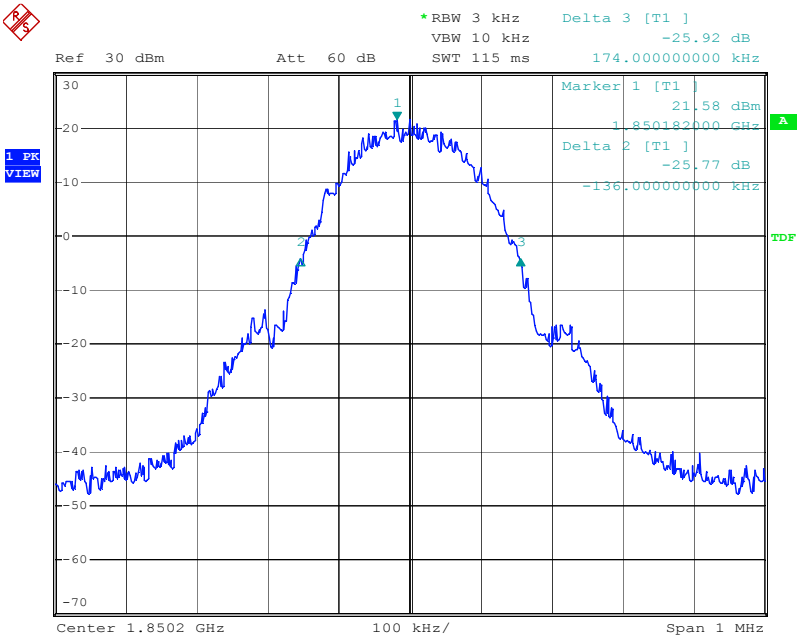
GPRS 512ch Occupied Bandwidth



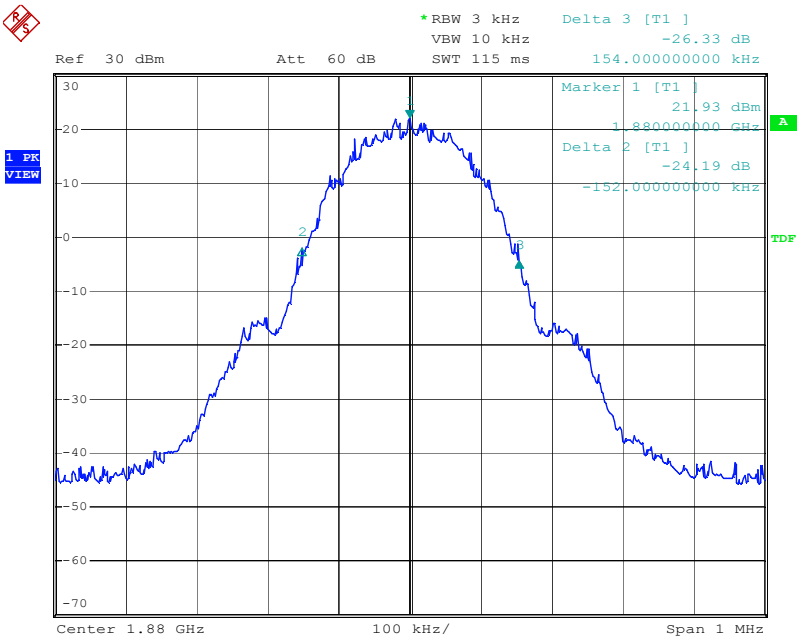
GPRS 661ch Occupied Bandwidth



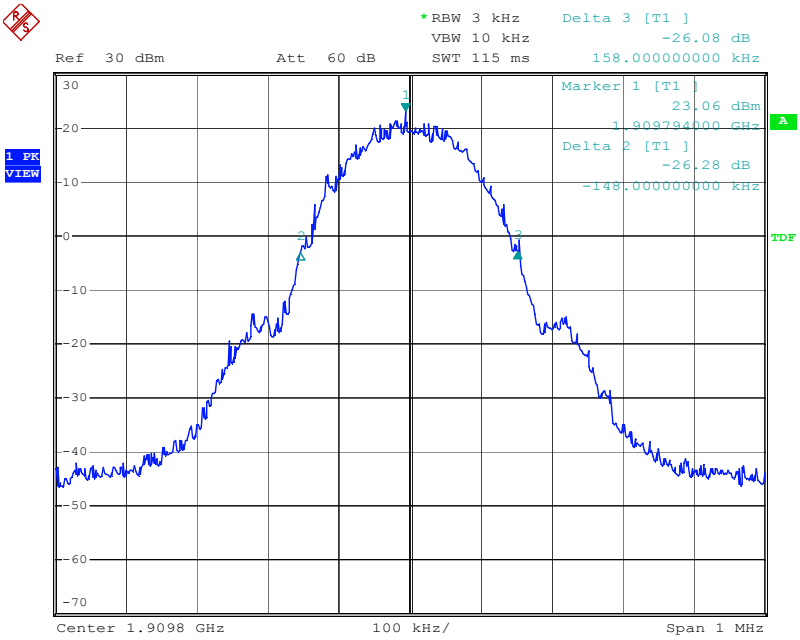
GPRS 810ch Occupied Bandwidth



GPRS 512ch 26dB Bandwidth



GPRS 661ch 26dB Bandwidth



GPRS 810ch 26dB Bandwidth

Test Equipment Used

Equipment name	RFT ID No.
Spectrum Analyzer	SA06
RF tester	RC02

2.1.6 Transmitter Out of Band Spurious Emissions (Conducted)

Reference Standard
FCC : Part24.238
IC : RSS133 Issue4 Sec6.5

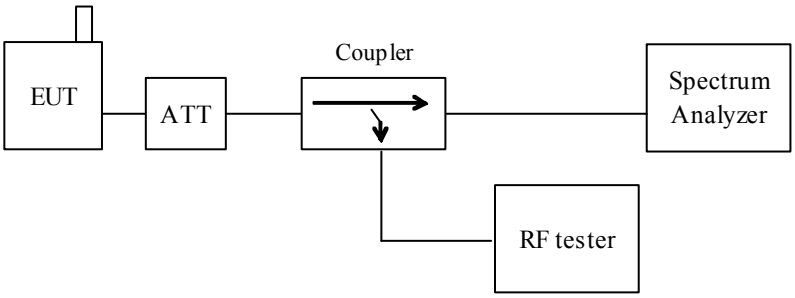
Test Conditions

Date:	2007/11/13
Ambient Temperature:	20degC
Relative humidity:	55%
Test Voltage:	3.7V

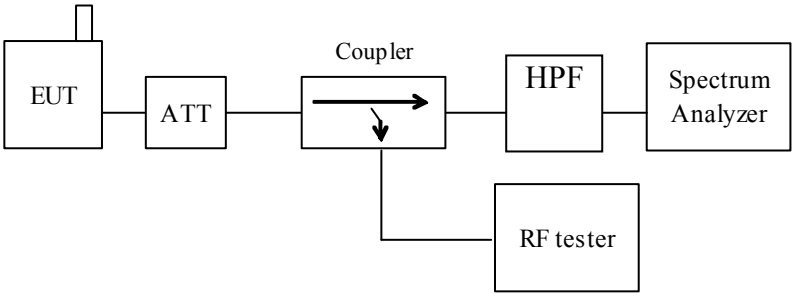
Test Method
a) EUT is connected to RF tester with Max transmitter power level.
b) Out of band Spurious is measured by Spectrum Analyzer.
c) Resolution band width of spectrum analyzer is set to 1MHz (above 1GHz) or 100kHz (below1GHz).

Test Setup

30MHz to 3500MHz



above 3500MHz



Test Results (Voice Call)

Bottom Channel (512ch, Nominal Freq.:1850.2MHz)

Measurement Frequency (MHz)	Measurement Bandwidth (MHz)	Emission Level (dBm)	Limit (dBm)	Result Pass/Fail
3700.4	1	-50.6	-13.0	Pass
5550.6	1	-39.4	-13.0	Pass
7400.8	1	-57.8	-13.0	Pass
9251.0	1	-53.1	-13.0	Pass
11101.2	1	-	-13.0	Pass
12951.4	1	-60.0	-13.0	Pass
14801.6	1	-	-13.0	Pass
16651.8	1	-	-13.0	Pass
18502.0	1	-	-13.0	Pass
others		-	-13.0	Pass

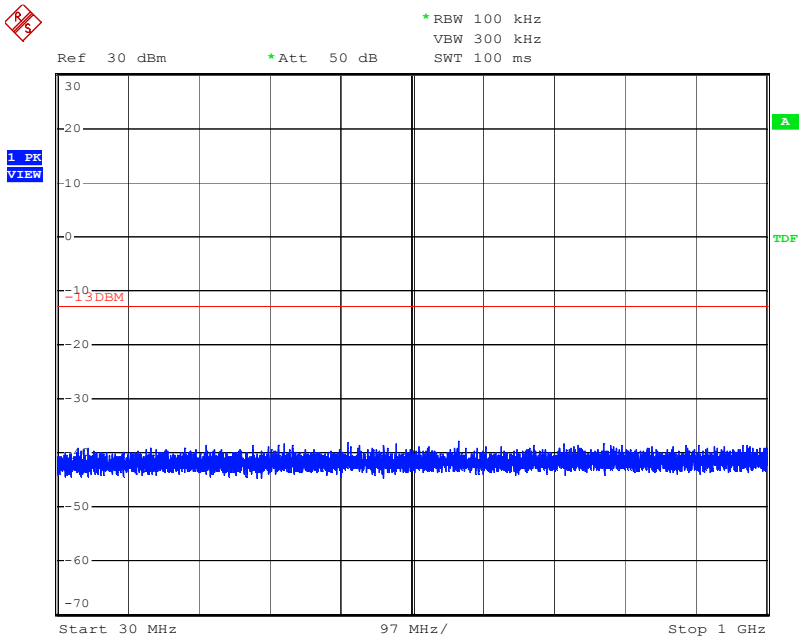
Middle Channel (661ch, Nominal Freq.:1880.0MHz)

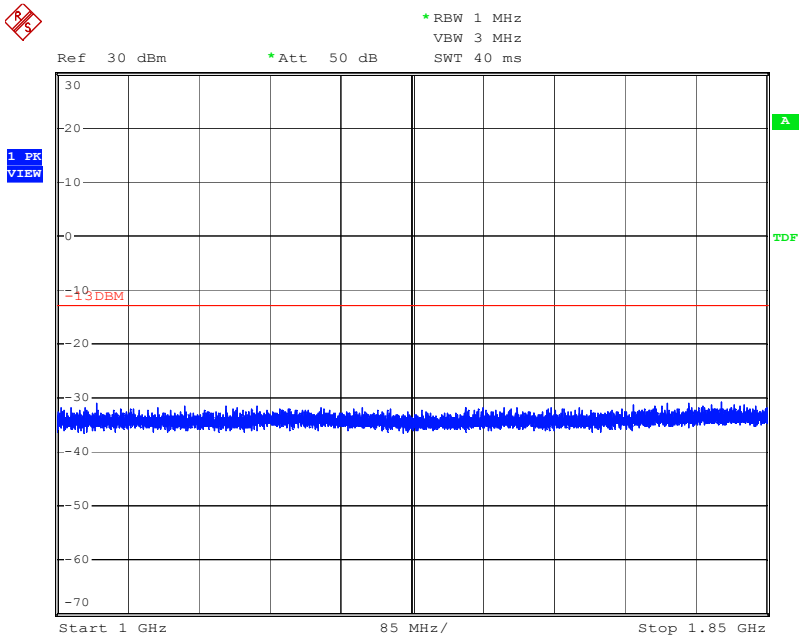
Measurement Frequency (MHz)	Measurement Bandwidth (MHz)	Emission Level (dBm)	Limit (dBm)	Result Pass/Fail
3760.0	1	-55.3	-13.0	Pass
5640.0	1	-37.2	-13.0	Pass
7520.0	1	-60.1	-13.0	Pass
9400.0	1	-52.2	-13.0	Pass
11280.0	1	-	-13.0	Pass
13160.0	1	-	-13.0	Pass
15040.0	1	-	-13.0	Pass
16920.0	1	-	-13.0	Pass
18800.0	1	-	-13.0	Pass
others		-	-13.0	Pass

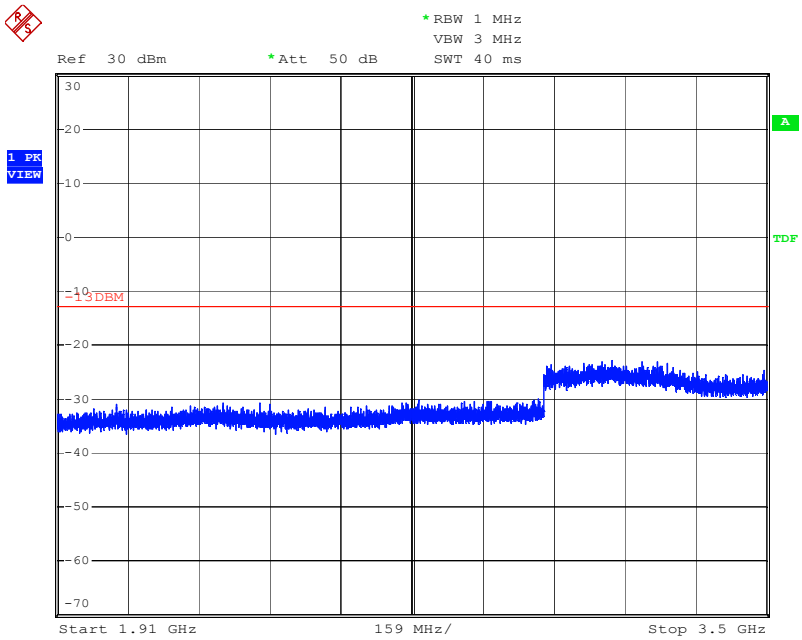
Top Channel (810ch, Nominal Freq.:1909.8MHz)

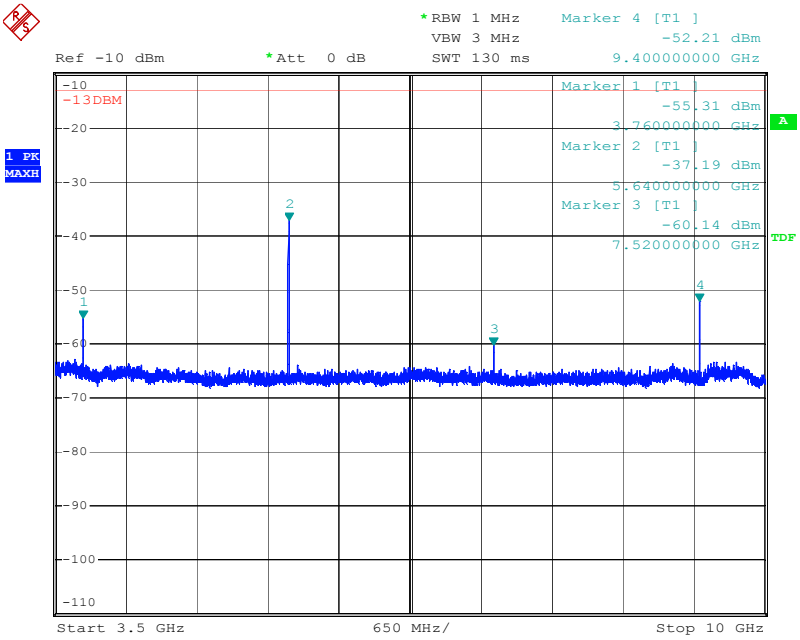
Measurement Frequency (MHz)	Measurement Bandwidth (MHz)	Emission Level (dBm)	Limit (dBm)	Result Pass/Fail
3819.6	1	-54.3	-13.0	Pass
5729.4	1	-36.3	-13.0	Pass
7639.2	1	-60.0	-13.0	Pass
9549.0	1	-46.8	-13.0	Pass
11458.8	1	-	-13.0	Pass
13368.6	1	-	-13.0	Pass
15278.4	1	-	-13.0	Pass
17188.2	1	-	-13.0	Pass
19098.0	1	-	-13.0	Pass
others		-	-13.0	Pass

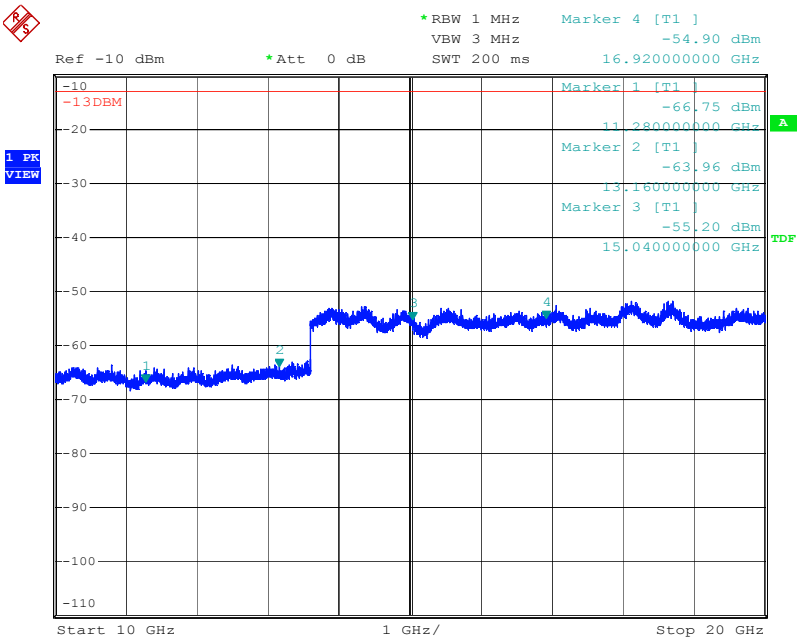
Graphical Data (Voice Call : 661ch)




RBW 1 MHz
VBW 3 MHz
SWT 40 ms
Ref 30 dBm
Att 50 dB
1 PK
VIEW
A
TDF
-13DBM
Start 1 GHz
85 MHz/
Stop 1.85 GHz


RBW 1 MHz
VBW 3 MHz
SWT 40 ms
Ref 30 dBm
Att 50 dB
1 PK
VIEW
A
TDF
-13DBM
Start 1.91 GHz
159 MHz/
Stop 3.5 GHz


RBW 1 MHz
VBW 3 MHz
SWT 130 ms
Marker 4 [T1]
-52.21 dBm
9.400000000 GHz
Ref -10 dBm
Att 0 dB
-13DBM
1 PK
MAXH
Marker 1 [T1]
-55.31 dBm
3.760000000 GHz
Marker 2 [T1]
-37.19 dBm
5.640000000 GHz
Marker 3 [T1]
-60.14 dBm
7.520000000 GHz
A
TDF
Start 3.5 GHz
650 MHz/
Stop 10 GHz


RBW 1 MHz
VBW 3 MHz
SWT 200 ms
Marker 4 [T1]
-54.90 dBm
16.920000000 GHz
Ref -10 dBm
Att 0 dB
-13DBM
1 PK
VIEW
Marker 1 [T1]
-66.75 dBm
11.280000000 GHz
Marker 2 [T1]
-63.96 dBm
13.160000000 GHz
Marker 3 [T1]
-55.20 dBm
15.040000000 GHz
A
TDF
Start 10 GHz
1 GHz/
Stop 20 GHz

Test Results (GPRS)

Bottom Channel (GPRS 512ch, Nominal Freq.:1850.2MHz)

Measurement Frequency (MHz)	Measurement Bandwidth (MHz)	Emission Level (dBm)	Limit (dBm)	Result Pass/Fail
3700.4	1	-51.1	-13.0	Pass
5550.6	1	-39.4	-13.0	Pass
7400.8	1	-57.6	-13.0	Pass
9251.0	1	-53.3	-13.0	Pass
11101.2	1	-	-13.0	Pass
12951.4	1	-60.3	-13.0	Pass
14801.6	1	-	-13.0	Pass
16651.8	1	-	-13.0	Pass
18502.0	1	-	-13.0	Pass
others		-	-13.0	Pass

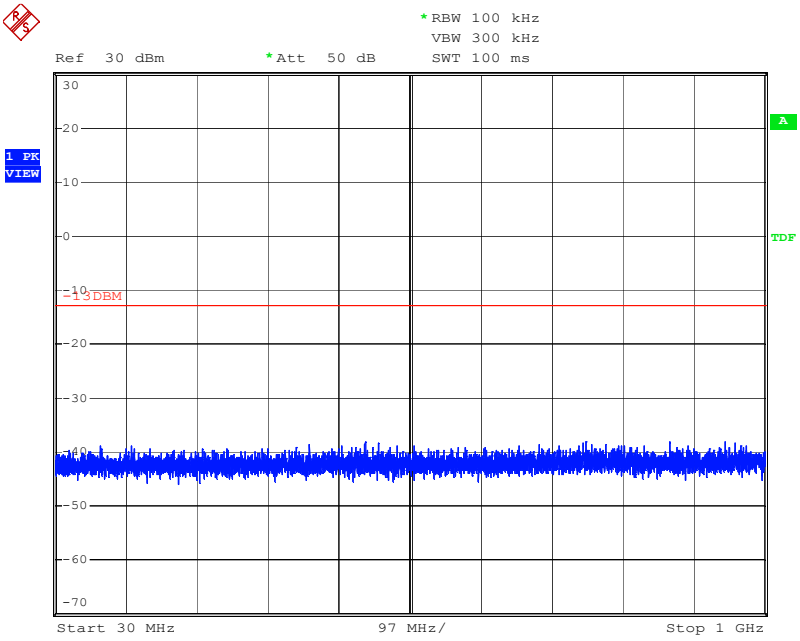
Middle Channel (GPRS 661ch, Nominal Freq.:1880.0MHz)

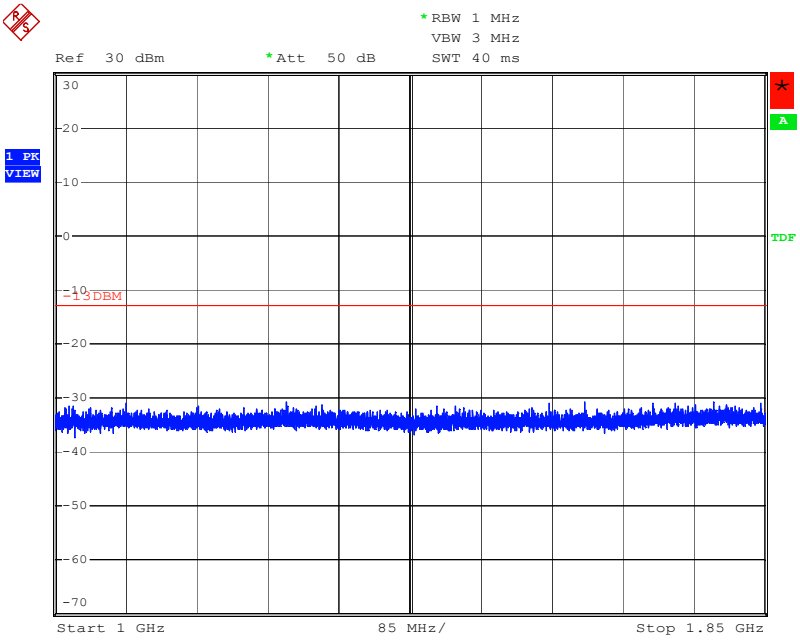
Measurement Frequency (MHz)	Measurement Bandwidth (MHz)	Emission Level (dBm)	Limit (dBm)	Result Pass/Fail
3760.0	1	-56.1	-13.0	Pass
5640.0	1	-37.1	-13.0	Pass
7520.0	1	-60.2	-13.0	Pass
9400.0	1	-52.5	-13.0	Pass
11280.0	1	-	-13.0	Pass
13160.0	1	-	-13.0	Pass
15040.0	1	-	-13.0	Pass
16920.0	1	-	-13.0	Pass
18800.0	1	-	-13.0	Pass
others		-	-13.0	Pass

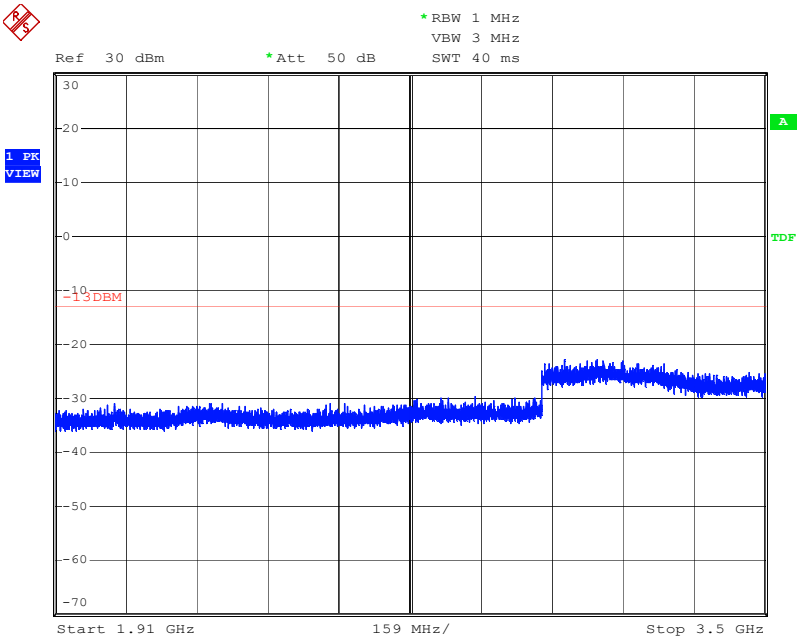
Top Channel (GPRS 810ch, Nominal Freq.:1909.8MHz)

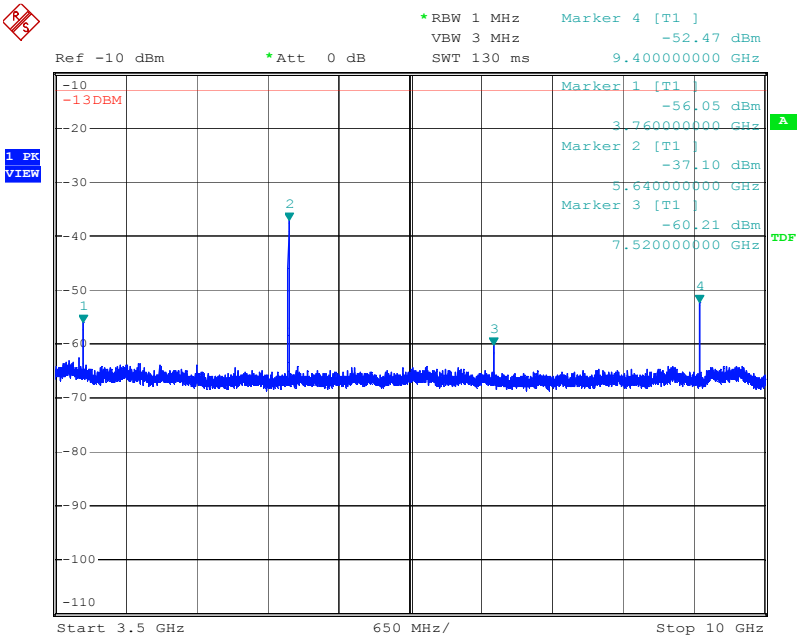
Measurement Frequency (MHz)	Measurement Bandwidth (MHz)	Emission Level (dBm)	Limit (dBm)	Result Pass/Fail
3819.6	1	-54.4	-13.0	Pass
5729.4	1	-36.4	-13.0	Pass
7639.2	1	-60.2	-13.0	Pass
9549.0	1	-46.7	-13.0	Pass
11458.8	1	-	-13.0	Pass
13368.6	1	-	-13.0	Pass
15278.4	1	-	-13.0	Pass
17188.2	1	-	-13.0	Pass
19098.0	1	-	-13.0	Pass
others		-	-13.0	Pass

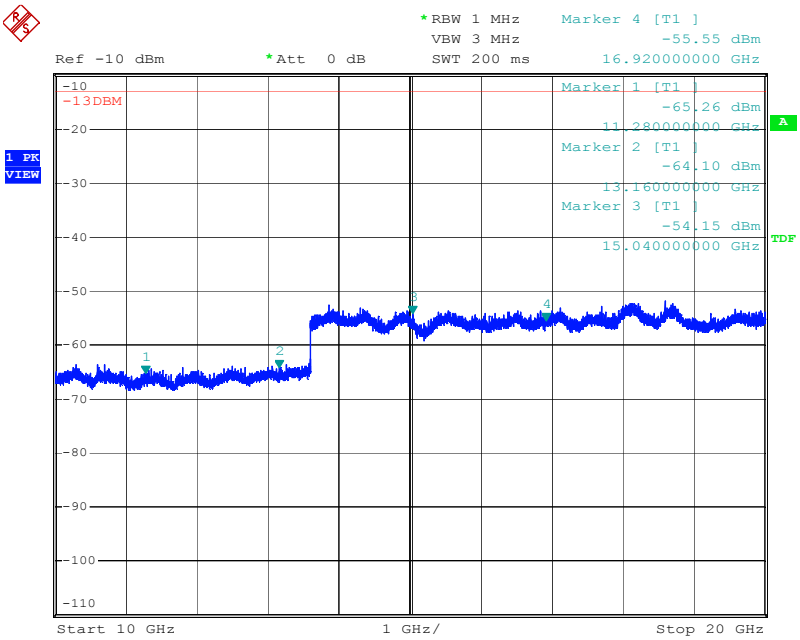
Graphical Data (GPRS : 661ch)




RBW 1 MHz
VBW 3 MHz
SWT 40 ms
Ref 30 dBm
Att 50 dB
1 PK VIEW
-13DBM
TDF
Start 1 GHz
85 MHz/
Stop 1.85 GHz


RBW 1 MHz
VBW 3 MHz
SWT 40 ms
Ref 30 dBm
Att 50 dB
1 PK VIEW
-13DBM
TDF
Start 1.91 GHz
159 MHz/
Stop 3.5 GHz


RBW 1 MHz
VBW 3 MHz
SWT 130 ms
Marker 4 [T1]
-52.47 dBm
9.400000000 GHz
Ref -10 dBm
Att 0 dB
Marker 1 [T1]
-56.05 dBm
3.760000000 GHz
Marker 2 [T1]
-37.10 dBm
5.640000000 GHz
Marker 3 [T1]
-60.21 dBm
7.520000000 GHz
-13DBM
1 PK VIEW
A
TDF
Start 3.5 GHz
650 MHz/
Stop 10 GHz


RBW 1 MHz
VBW 3 MHz
SWT 200 ms
Marker 4 [T1]
-55.55 dBm
16.920000000 GHz
Ref -10 dBm
Att 0 dB
Marker 1 [T1]
-65.26 dBm
11.280000000 GHz
Marker 2 [T1]
-64.10 dBm
13.160000000 GHz
Marker 3 [T1]
-54.15 dBm
15.040000000 GHz
-13DBM
1 PK VIEW
A
TDF
Start 10 GHz
1 GHz/
Stop 20 GHz

Test Equipment Used

Equipment name	RFT ID No.
Spectrum Analyzer	SA06
RF tester	RC02

Final Result

The EUT met the requirements of the standard for this test.

2.1.7 Transmitter Out of Band Spurious Emissions (Radiated)

Reference Standard
FCC : Part24.238
IC : RSS133 Issue4 Sec6.5

Test Conditions

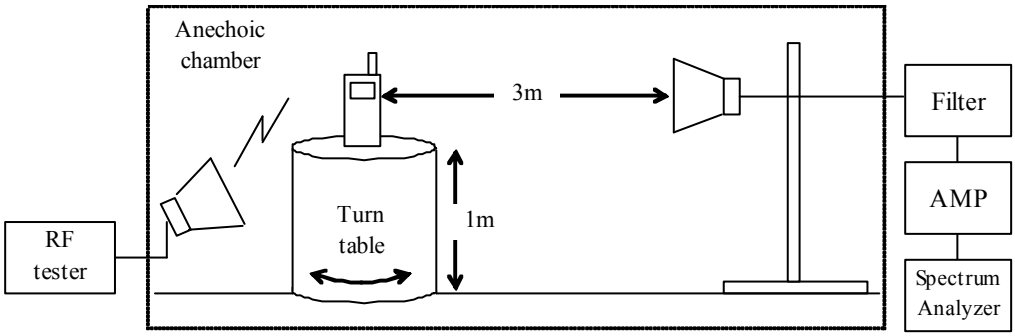
Date:	2007/11/12
Ambient Temperature:	20degC
Relative humidity:	60%
Test Voltage:	3.7V

Test Method
This test is made according to ANSI 63.4:2003.
a) EUT is set on non-conducting turntable and the output power is set to the maximum level. The height of turntable is 100cm.
b) As a receive antenna, Horn antenna is used for high frequency range (above 1GHz), and Bilogical antenna is used for low frequency range (30MHz to 1GHz).
c) The maximum level of each spurious emission is measured by a spectrum analyzer(SA) in below conditions.
Turntable is rotated 360 degrees.
The height of receive antenna is changed from 1m to 4m.
Receive antenna polarization is set to vertical and horizontal.
EUT was placed at three different orientations (X, Y and Z axis) in order to find the worst orientation.
This emission level is recorded.
During this measurement, receive antenna is adjusted the direction to keep the EUT within the beamwidth of receive antenna.
d) Reference antenna is replaced with EUT, and connected with signal generator(SG). SG output power is adjusted to get same level as the recorded maximum radiated EUT power by SA.
e) Radiated output power (Pout) is calculated with adjusted SG output (Psg) [dBm], reference antenna gain (Gref) [dBi] and cable loss between SG and reference antenna (Lcab) [dB].

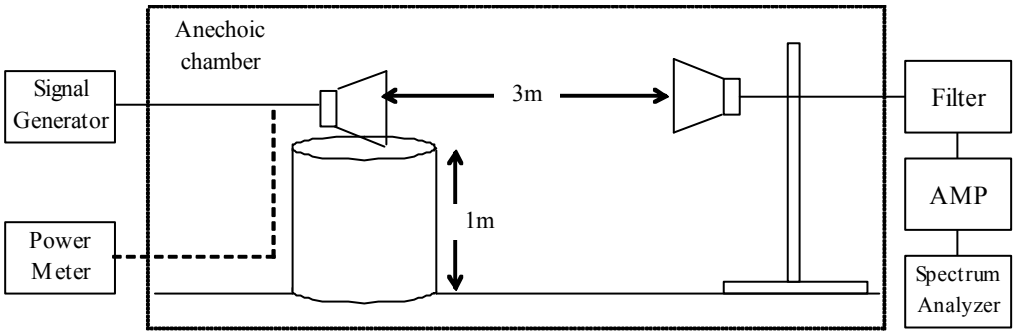
Pout [dBm e.r.p] = Psg - (Gref - 2.15) + Lcab

Test Setup

[Measurement]



[Substitution]



Test Results

Voice Call

Bottom Channel (512ch, Nominal Freq.:1850.2MHz)

Measurement Frequency (MHz)	Measurement Bandwidth (MHz)	Emission Level(dBm)		Limit (dBm)	Result Pass/Fail
		Horizontal	Vertical		
3700.4	1	-32.2	-32.0	-13.0	Pass
5550.6	1	-21.4	-21.8	-13.0	Pass
7400.8	1	-28.3	-29.0	-13.0	Pass
9251.0	1	-31.6	-29.4	-13.0	Pass
11101.2	1	-30.5	-30.3	-13.0	Pass
12951.4	1	< -34.5	< -34.6	-13.0	Pass
14801.6	1	< -31.5	< -31.9	-13.0	Pass
16651.8	1	< -28.0	< 28.1	-13.0	Pass
18502.0	1	< -29.4	< 29.5	-13.0	Pass
others		-	-	-13.0	Pass

Middle Channel (661ch, Nominal Freq.:1880.0MHz)

Measurement Frequency (MHz)	Measurement Bandwidth (MHz)	Emission Level(dBm)		Limit (dBm)	Result Pass/Fail
		Horizontal	Vertical		
3760.0	1	-34.5	-33.9	-13.0	Pass
5640.0	1	-23.7	-22.8	-13.0	Pass
7520.0	1	-30.3	-30.3	-13.0	Pass
9400.0	1	-30.8	-30.2	-13.0	Pass
11280.0	1	-32.2	-30.6	-13.0	Pass
13160.0	1	< -35.7	< -35.3	-13.0	Pass
15040.0	1	< -30.6	< -30.6	-13.0	Pass
16920.0	1	< -30.7	< -30.4	-13.0	Pass
18800.0	1	< -32.1	< -31.6	-13.0	Pass
others		-	-	-13.0	Pass

Top Channel (810ch, Nominal Freq.:1909.8MHz)

Measurement Frequency (MHz)	Measurement Bandwidth (MHz)	Emission Level(dBm)		Limit (dBm)	Result Pass/Fail
		Horizontal	Vertical		
3819.6	1	-32.8	-33.6	-13.0	Pass
5729.4	1	-24.5	-22.4	-13.0	Pass
7639.2	1	-30.9	-30.7	-13.0	Pass
9549.0	1	-26.5	-24.6	-13.0	Pass
11458.8	1	-32.1	-30.0	-13.0	Pass
13368.6	1	< -33.8	< 33.5	-13.0	Pass
15278.4	1	< -31.0	< 30.8	-13.0	Pass
17188.2	1	< -26.9	< 26.9	-13.0	Pass
19098.0	1	< -28.1	< 28.4	-13.0	Pass
others		-	-	-13.0	Pass

GPRS

Bottom Channel (512ch, Nominal Freq.:1850.2MHz)

Measurement Frequency (MHz)	Measurement Bandwidth (MHz)	Emission Level(dBm)		Limit (dBm)	Result Pass/Fail
		Horizontal	Vertical		
3700.4	1	-32.5	-31.8	-13.0	Pass
5550.6	1	-21.5	-21.9	-13.0	Pass
7400.8	1	-28.2	-29.3	-13.0	Pass
9251.0	1	-31.7	-29.1	-13.0	Pass
11101.2	1	-30.7	-30.0	-13.0	Pass
12951.4	1	< -32.3	< -33.4	-13.0	Pass
14801.6	1	< -30.9	< -32.5	-13.0	Pass
16651.8	1	< -28.4	< -29.4	-13.0	Pass
18502.0	1	< -29.0	< 29.3	-13.0	Pass
others		-	-	-13.0	Pass

Middle Channel (661ch, Nominal Freq.:1880.0MHz)

Measurement Frequency (MHz)	Measurement Bandwidth (MHz)	Emission Level(dBm)		Limit (dBm)	Result Pass/Fail
		Horizontal	Vertical		
3760.0	1	-34.8	-33.7	-13.0	Pass
5640.0	1	-23.8	-23.0	-13.0	Pass
7520.0	1	-30.3	-30.6	-13.0	Pass
9400.0	1	-30.9	-29.9	-13.0	Pass
11280.0	1	-32.3	-30.4	-13.0	Pass
13160.0	1	< -33.5	< -34.1	-13.0	Pass
15040.0	1	< -30.0	< -31.1	-13.0	Pass
16920.0	1	< -31.1	< -31.8	-13.0	Pass
18800.0	1	< -31.7	< -31.4	-13.0	Pass
others		-	-	-13.0	Pass

Top Channel (810ch, Nominal Freq.:1909.8MHz)

Measurement Frequency (MHz)	Measurement Bandwidth (MHz)	Emission Level(dBm)		Limit (dBm)	Result Pass/Fail
		Horizontal	Vertical		
3819.6	1	-33.1	-33.4	-13.0	Pass
5729.4	1	-24.6	-22.5	-13.0	Pass
7639.2	1	-30.9	-31.0	-13.0	Pass
9549.0	1	-26.6	-24.3	-13.0	Pass
11458.8	1	-32.3	-29.7	-13.0	Pass
13368.6	1	< -31.6	< -32.3	-13.0	Pass
15278.4	1	< -30.4	< -31.4	-13.0	Pass
17188.2	1	< -27.2	< -28.2	-13.0	Pass
19098.0	1	< -27.7	< -28.2	-13.0	Pass
others		-	-	-13.0	Pass

Test Equipment Used

Equipment name	RFT ID No.
Spectrum Analyzer	SA06
Receive Antenna	DH01
Reference Antenna	DH02
Signal Generator	SG05
Power Meter	PM01
RF tester	RC02

Final Result

The EUT met the requirements of the standard for this test.

2.1.8 Band Edge Emissions

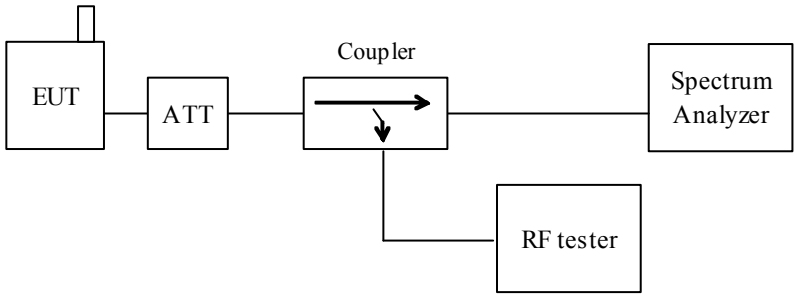
Reference Standard
FCC : Part24.238
IC : RSS133 Issue4 Sec6.5

Test Conditions

Date:	2007/11/13
Ambient Temperature:	20degC
Relative humidity:	55%
Test Voltage:	3.7V

Test Method
a) EUT is connected to RF tester with Max transmitter power level.
b) Lower band edge level is measured in bottom channel transmission.
c) Higher band edge level is measured in top channel transmission.
d) 1% of band width is used for resolution band width for spectrum analyzer.

Test Setup



Test Results (Voice Call)

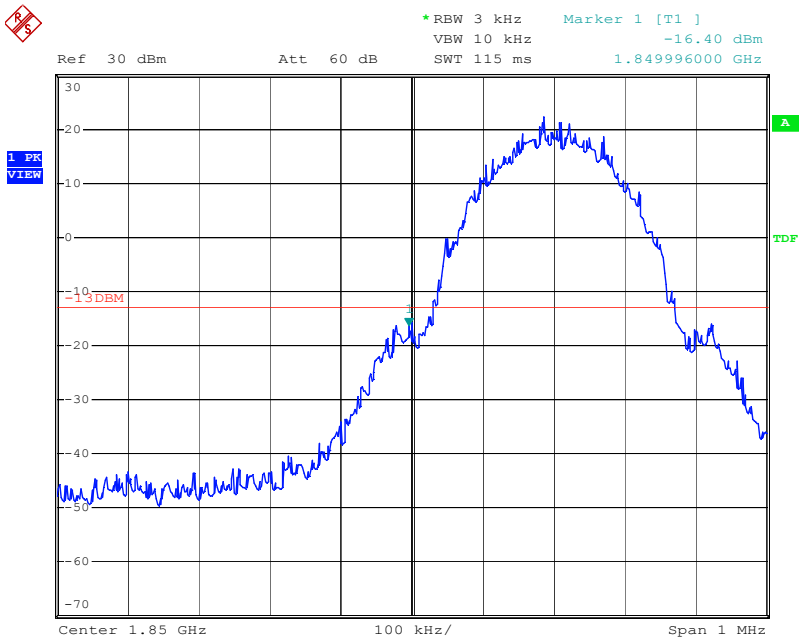
Bottom Band Edge

Measured Frequency (MHz)	Peak Level (dBm)	Limit (dBm)	Result
1850.0	-16.4	-13	Passed

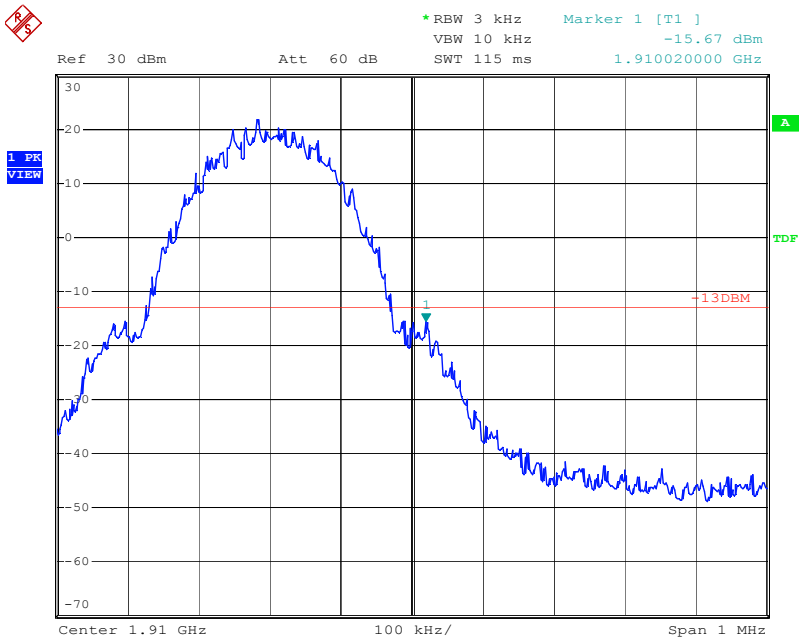
Top Band Edge

Measured Frequency (MHz)	Peak Level	Limit	Result
1910.0	-15.7	-13	Passed

Graphical Data (Voice Call)



Bottom band edge



Top band edge

Test Results (GPRS)

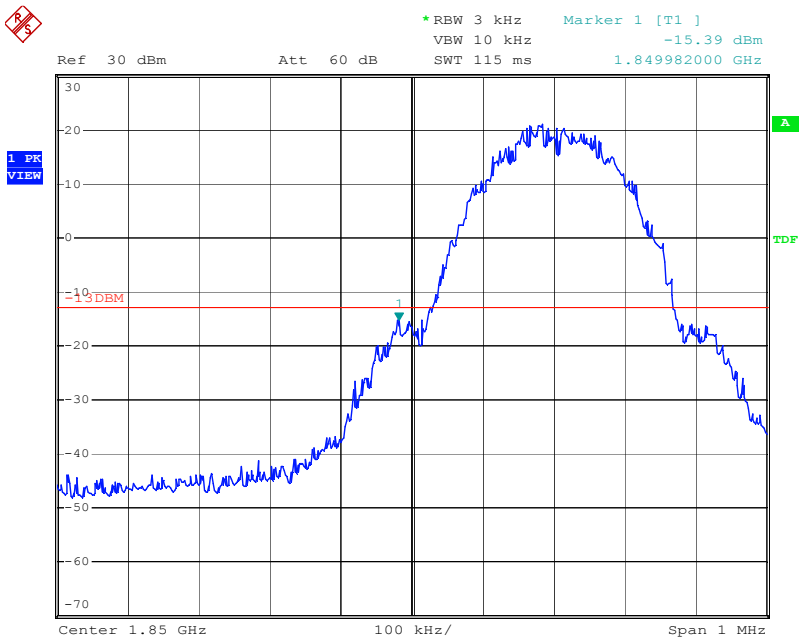
Bottom Band Edge

Measured Frequency (MHz)	Peak Level (dBm)	Limit (dBm)	Result
1850.0	-15.4	-13	Passed

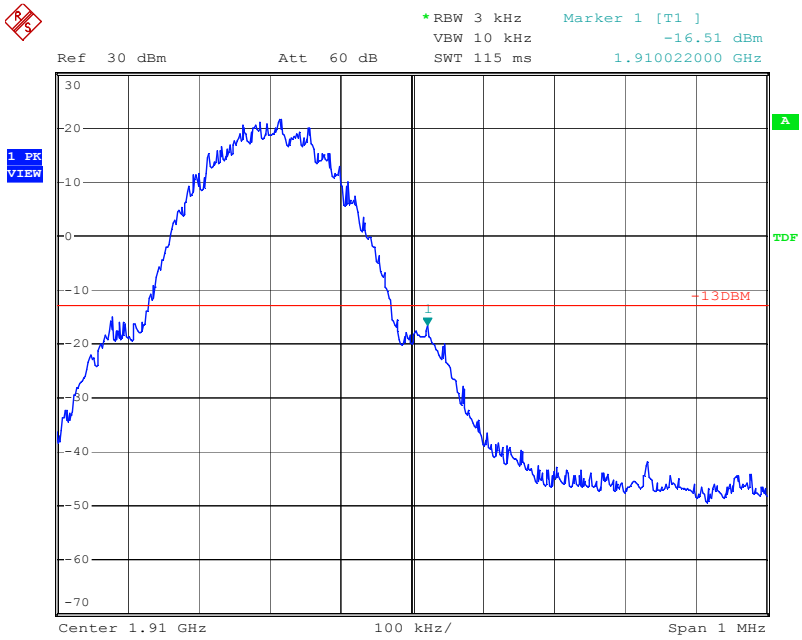
Top Band Edge

Measured Frequency (MHz)	Peak Level	Limit	Result
1910.0	-16.5	-13	Passed

Graphical Data (GPRS)



Bottom band edge



Top band edge

Test Equipment Used

Equipment name	RFT ID No.
Spectrum Analyzer	SA06
RF tester	RC02

Final Result

The EUT met the requirements of the standard for this test.

2.1.9 Transmitter AC Line Conducted Emission requirement

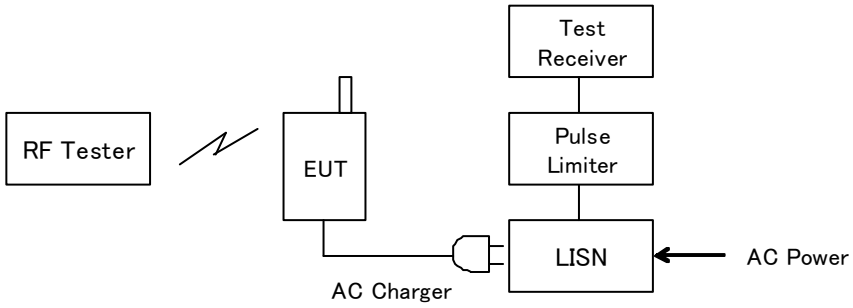
Reference Standard
FCC : Part15.207
IC : RSS-Gen Issue2 Sec7.2.2

Test Conditions

Date:	2007/11/12
Ambient Temperature:	20degC
Relative humidity:	60%
Test Voltage:	3.7V

Test Method
a) EUT is connected to RF tester with Max transmitter power level.
b) AC power is supplied to AC charger through LISN.
c) AC charger is connected to EUT.
d) AC Line conducted emission is measured by EMI receiver.
Both Live/Neutral is measured emission level.

Test Setup



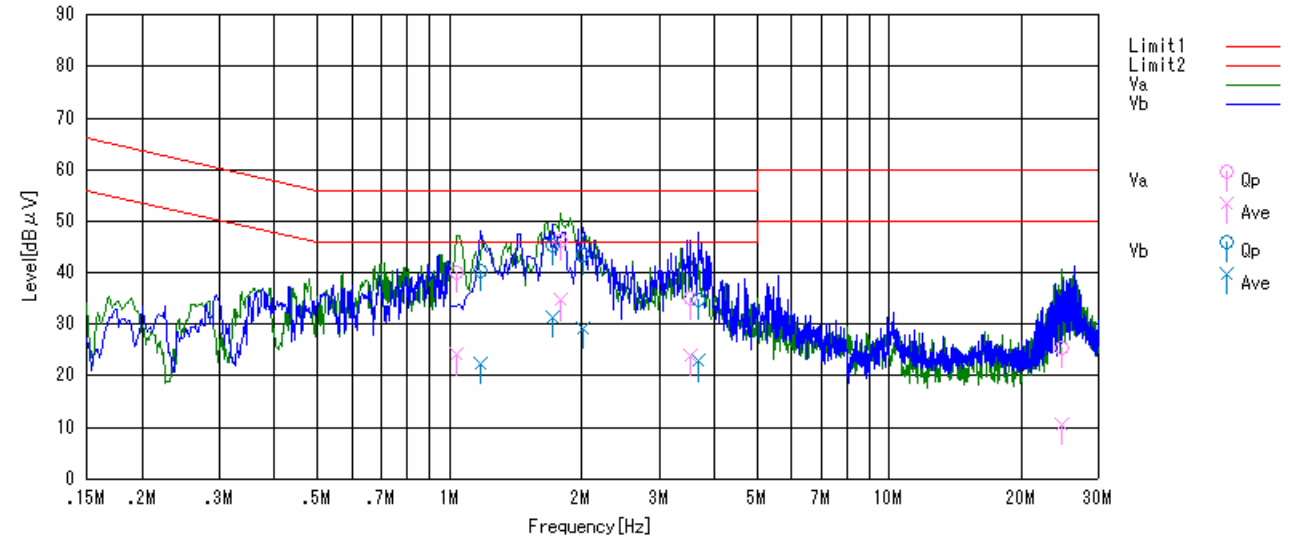
Limit

Frequency (MHz)	Limit QP (dBuV)	Limit AV (dBuV)
0.15 - 0.5	66 - 56	56 - 46
0.5 - 5	56	46
5 - 30	60	50

Test Results

Frequency (MHz)	Line (Live/Neutral)	QP Level (dBuV)	AV Level (dBuV)	QP Limit (dBuV)	AV Limit (dBuV)	Result
1.036	Live	40.1	24.1	56	46	Passed
1.180	Neutral	40.3	22.4	56	46	Passed
1.720	Neutral	45.4	31.4	56	46	Passed
1.792	Live	46.2	34.6	56	46	Passed
2.008	Neutral	43.4	29.2	56	46	Passed
3.538	Live	34.9	23.9	56	46	Passed
3.664	Neutral	34.8	22.8	56	46	Passed
24.7	Live	25.5	10.5	56	46	Passed

Graphical Data



Test Equipment Used

Equipment name	RFT ID No.
EMI Receiver	TR04
LISN	LN05
RF tester	RC02

Final Result

The EUT met the requirements of the standard for this test

2.2 *Receiver requirement*

2.2.1 Receiver Spurious Emissions (Radiated)

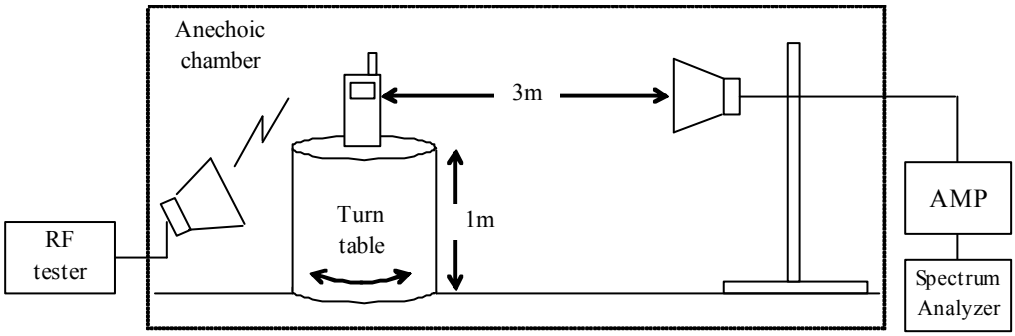
Reference Standard
FCC : Part15.109
IC : RSS133 Issue4 Sec6.6

Test Conditions

Date:	2007/11/12
Ambient Temperature:	20degC
Relative humidity:	60%
Test Voltage:	3.7V

Test Method
a) EUT is connected to RF tester with idle mode.
b) Radiated receiver spurious emission is received by receive antenna.
c) Turn table is rotated 360deg.
d) Maximum level of each spurious is measured by spectrum analyzer.
e) RBW of spectrum analyzer is set to 100kHz for 30 - 1000MHz, 1MHz for above 1GHz.
f) Level is measured with QP detect for 30 - 1000MHz, Average detect for above 1GHz.
g) EUT was placed at three different orientations (X, Y and Z axis) in order to find the worst orientation.

Test Setup



Limit

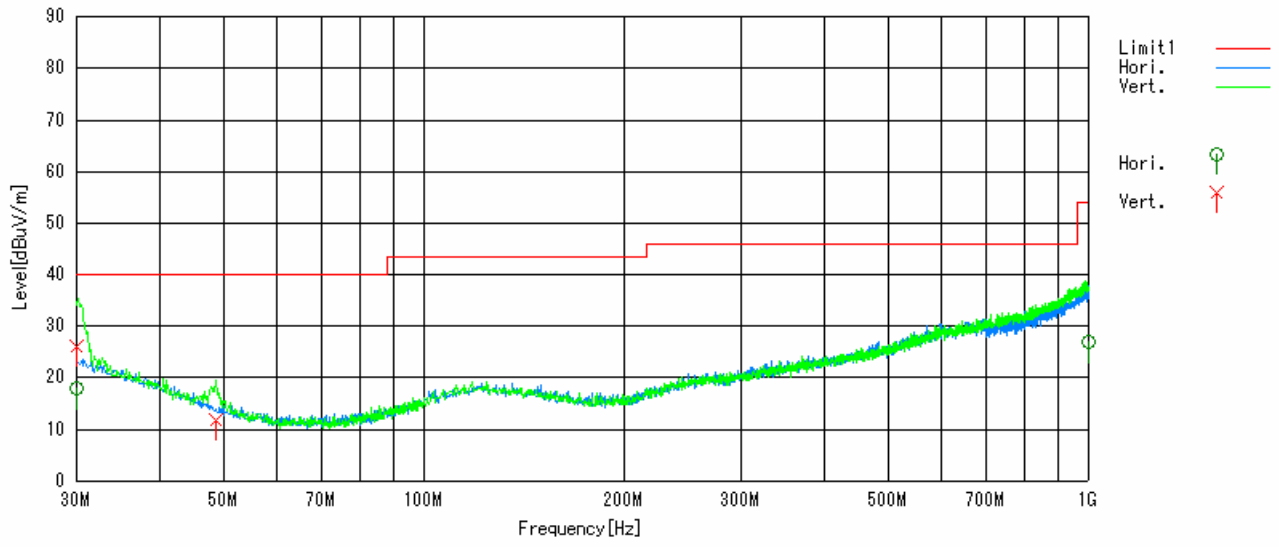
Frequency (MHz)	Distance (m)	Field strength (uV/m)	Field strength (dBuV/m)
30 - 88	3	100	40
88 - 216	3	150	43.5
216 - 960	3	200	46
above 960	3	500	54

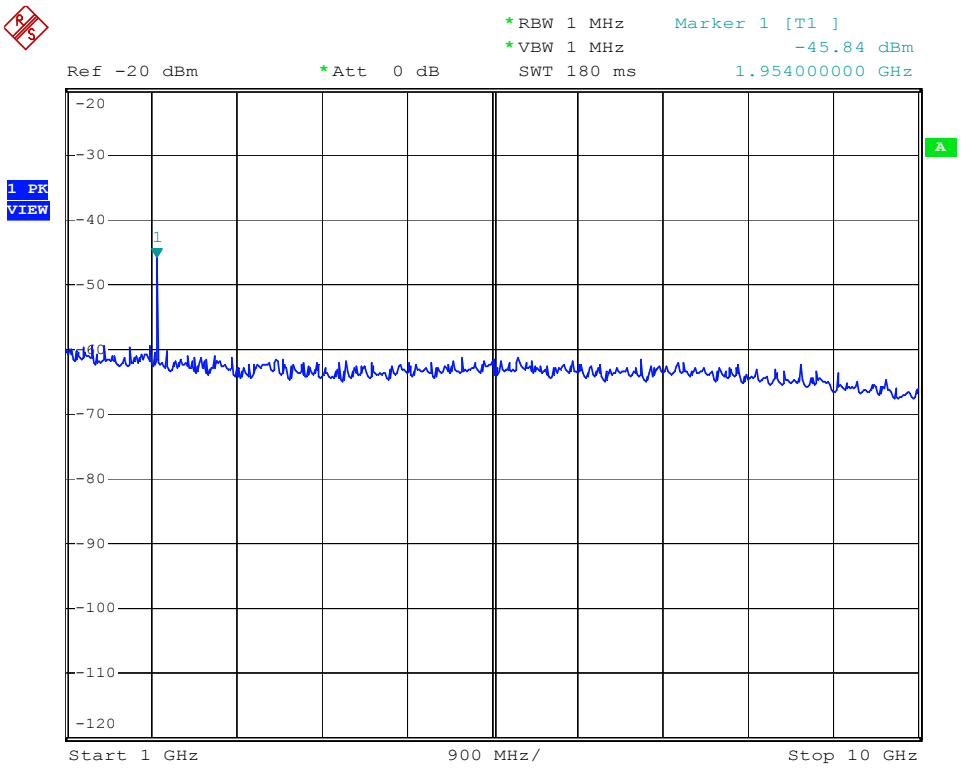
Test Results

Frequency (MHz)	Antenna	Field strength (dBuV/m)	Limit (dBuV/m)	Result
30.00	Vert	26.1	40	Passed
48.43	Vert	11.7	40	Passed

The EUT could not achieved receiving mode only therefore the measurement was carried out under receiving ready condition of the EUT. The EUT is registered to the RF tester.

Graphical Data





Note: Spurious around 2GHz is Downlink power from GSM tester to set EUT to receiver mode.
This is not emission from EUT.

Test Equipment Used

Equipment name	RFT ID No.
Spectrum Analyzer	SA06
Receive Antenna	DH01
Pre-AMP	PR03
RF tester	RC02

Final Result

The EUT met the requirements of the standard for this test.

2.2.2 Receiver AC Line Conducted Emission requirement

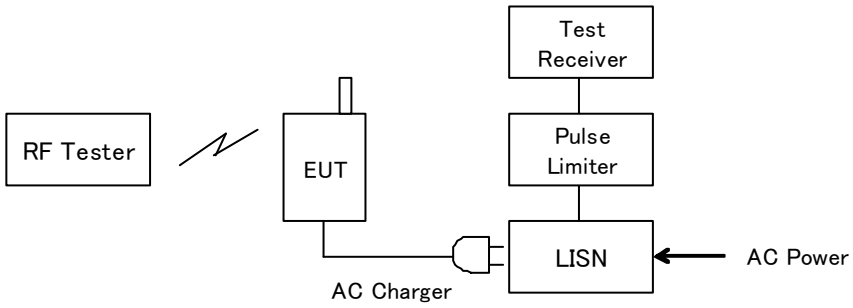
Reference Standard
FCC : Part15.107
IC : RSS-Gen Issue2 Sec7.2.2

Test Conditions

Date:	2007/11/12
Ambient Temperature:	20degC
Relative humidity:	60%
Test Voltage:	3.7V

Test Method
a) EUT is connected to RF tester with idle mode.
b) AC power is supplied to AC charger through LISN.
c) AC charger is connected to EUT.
d) AC Line conducted emission is measured by EMI receiver.
Both Live/Neutral is measured emission level.

Test Setup



Limit

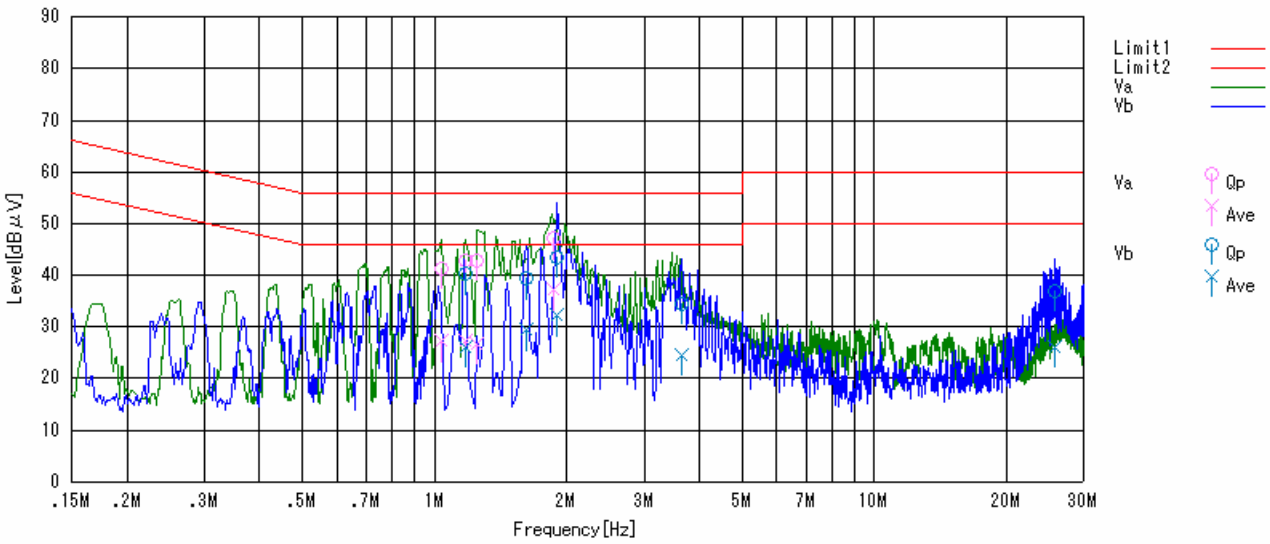
Frequency (MHz)	Limit QP (dBuV)	Limit AV (dBuV)
0.15 - 0.5	66 - 56	56 - 46
0.5 - 5	56	46
5 - 30	60	50

Test Results

The EUT could not achieved receiving mode only therefore the measurement was carried out under receiving ready condition of the EUT. The EUT is registered to the RF tester.

Frequency (MHz)	Line (Live/Neutral)	QP Level (dBuV)	AV Level (dBuV)	QP Limit (dBuV)	AV Limit (dBuV)	Result
1.036	Live	41.3	27.2	56	46	Passed
1.180	Live	42.8	27.3	56	46	Passed
1.180	Neutral	40.2	26.1	56	46	Passed
1.252	Live	42.8	26.7	56	46	Passed
1.612	Neutral	39.3	29.3	56	46	Passed
1.858	Live	47.1	37.1	56	46	Passed
1.900	Neutral	43.4	32.1	56	46	Passed
3.646	Neutral	34.5	24.5	56	46	Passed
25.720	Neutral	37.0	26.0	56	46	Passed

Graphical Data



Test Equipment Used

Equipment name	RFT ID No.
EMI Receiver	TR04
LISN	LN05
RF tester	RC02

Final Result

The EUT met the requirements of the standard for this test

4 List of utilized test equipment/ calibration

RFT ID No.	Kind of Equipment and Precision	Manufacturer	Model No.	Serial Number	Calibration Date	Calibrated until
AC01	Anechoic Chamber	Japan Shiled Closure	203397C		2007/5/8	2008/5/6
BA03	Bilogical Antenna	CAHSE	CBL6111	1309	2007/5/14	2008/5/12
BI01	Biconical Antenna	SCHWARZBECK	VHA9103	2359	2007/5/21	2008/5/19
BRF1	Band Reject Filter (WCDMA2000)		BRF2000-06	VT0001	2007/4/24	2008/4/22
BRF2	Band Reject Filter (Bluetooth)	MICRO TRONICS	BRM50701	024	2007/4/26	2008/4/24
CL11	Antenna Cable	RFT	-	-	2007/6/12	2008/6/10
CL21	RF Cable 0.5m	SUCOFLEX	SF104PE	48772/4PE	2007/5/25	2008/5/23
CL22	RF Cable 2.0m	SUCOFLEX	SF104	274755/4	2007/5/25	2008/5/23
CL23	RF Cable 0.5m	SUCOFLEX	SF104PE	48773/4PE	2007/6/8	2008/6/6
CL24	RF Cable 5.0m	SUCOFLEX	SF104PE	48775/4PE	2007/6/8	2008/6/6
DC01	Directional Coupler	KRYTAR	1850	77202	2007/4/24	2008/4/22
HC01	Harmonic Current Analysis system	NF	ES4153	9075640	2007/3/1	2008/2/28
HPF1	High Pass Filter (3500MHz)	TOKIMEC	TF323DCA	603	2007/6/8	2008/6/6
HPF2	High Pass Filter (900MHz)	M-City	HPF0900-01	RF0003-01	2007/6/1	2008/5/30
LA01	Logperiodic Antenna	SCHWARZBECK	USLP 9143	338	2007/5/21	2008/5/19
LN02	LISN (3ph 32A)	SCHWARZBECK	NSLK8128	8128-212	2007/2/2	2008/2/1
LN05	LISN	Kyoritsu	KNW-407	8-1773-2	2007/5/14	2008/5/12
LN06	LISN	Kyoritsu	KNW-407	8-1773-3	2007/5/14	2008/5/12
LN08	LISN (5uF)	SCHWARZBECK	NNBM8125	8126A-9262	2007/9/10	2008/9/8
LN11	LISN (for communication line)	FCC	FCC-TLISN-T4-02	20330	2007/1/2	2008/1/1
LN12	LISN (for PLC)	FCC	FCC-TLISN-T2-PLC	20428	2007/8/17	2008/8/15
LP01	Loop Antenna	EMCO	6502	3436	2007/6/8	2008/6/6
MA01	Active Monopole Antenna	SCHWARZBECK	VAMP9243	9438	2007/2/8	2008/2/7
PL01	Pulse Limiter	PMM	PL-01	0000J10109	2007/1/30	2008/1/29
PM03	Power Meter	Anritsu	ML2438A	99070001	2007/8/7	2008/8/5
PR03	Pre. Amplifier	Anritsu	HM648A	M41984	2007/5/14	2008/5/12
PR04	Pre. Amplifier (1-26G)	RFT	LNP126	060208-01	2007/6/8	2008/6/6
PR08	Pre. Amplifier	Sonoma Instrument	315	263504	2007/2/23	2008/2/22
PR09	Pre. Amplifier (1-13G)	RFT	AMF4D	001	2007/9/18	2008/9/16

RFT ID No.	Kind of Equipment and Precision	Manufacturer	Model No.	Serial Number	Calibration Date	Calibrated until
PU03	Power Sensor	Anritsu	MA2472A	990103	2007/8/7	2008/8/5
SA06	Spectrum Analyzer (F/W: 3.60 SP1)	Rohde & Schwarz	FSP40	100071	2007/10/25	2008/10/23
SH01	Standard Horn Antenna (18-26G)	A.H. Systems	SAS-572	208	2006/5/3	2008/5/1
SH02	Standard Horn Antenna (18-26G)	A.H. Systems	SAS-572	209	2006/5/3	2008/5/1
SH03	Standard Horn Antenna (26-40G)	A.H. Systems	SAS-573	150	2006/5/3	2008/5/1
SH04	Standard Horn Antenna (26-40G)	A.H. Systems	SAS-573	151	2006/5/3	2008/5/1
SH05	Standard Horn Antenna (40-60G)	CTEC	261U/383	001	2007/9/1	2009/8/30
SH06	Standard Horn Antenna (40-60G)	CTEC	261U/383	002	2007/9/1	2009/8/30
SH07	Standard Horn Antenna (60-90G)	Custom Microwave	HO12R	001	2007/9/1	2009/8/30
SH08	Standard Horn Antenna (60-90G)	Custom Microwave	HO12R	002	2007/9/1	2009/8/30
TL01	Transient Limiter	Agilent Technologies	11947A	3107A04000	2006/11/6	2007/11/5
TR04	Test Receiver (F/W : 3.82 SP1)	Rohde & Schwarz	ESCI	100447	2007/9/19	2008/9/17
TR06	Test Receiver (F/W : 3.93 SP2)	Rohde & Schwarz	ESU26	100002	2007/8/15	2008/8/13
AA01	Audio Analyzer	Rohde & Schwarz	UPA	841451/0011	2007/9/20	2008/9/18
AA02	Audio Analyzer	Rohde & Schwarz	UPL16	100140	2007/5/11	2008/5/9
CD01	CDN	FCC	TSCDN-M2-16-25A	03015-CDN	2007/1/9	2008/1/8
CD02	CDN	FCC	TSCDN-M3-16-25A	03017-CDN	2007/1/9	2008/1/8
CD03	CDN (Surge Burst)	EMC Partner	CDN2000-06-32	115	2006/11/29	2007/11/28
CD05	CDN	FCC	TSCDN-M1-16A	07013	2007/5/1	2008/4/29
CP01	Current Probe	FCC	TSMC-42	202	2006/12/1	2007/11/30
CP02	Current Probe	EMCO	94111-1	00077330	2007/6/28	2008/6/26
CI02	Current Injection Probe	FCC	TSBC-120-9	171	2007/1/30	2008/1/29
CI04	Current Injection Probe	FCC	TSBC-140	642	2007/5/3	2008/5/1
CL12	Antenna Cable	RFT	–	–	2007/4/2	2008/3/31
EA01	EM Field Analyzer	narda	EFA-200	D-0050	2006/11/27	2007/11/26
EC02	EM Injection Clamp	FCC	TSCI-32	503	2007/6/13	2008/6/11
EM02	EM Probe/Monitor	narda	EMC-300	B-0066	2007/3/8	2008/3/6
EM03	EM Probe/Monitor	narda	EMC-300	C-0032	2007/3/8	2008/3/6
HB01	High Power Biconical Antenna	SCHWARZBECK	VHBD 9134	014	2007/2/20	2008/2/19

RFT ID No.	Kind of Equipment and Precision	Manufacturer	Model No.	Serial Number	Calibration Date	Calibrated until
IM01	EMC Immunity Tester	EMC-PARTNER	TRANSIENT 1000	176-V2.15	2006/11/5	2007/11/4
LA03	Logperiodic Antenna (High Power)	SCHWARZBECK	VULP9118-D	613	2007/4/2	2008/3/31
NC74	Sound Calibrator	RION	NC-74	34851836	2007/4/16	2008/4/14
RP01	RF Power Amplifier	ifi	CMX50	E190-1101	2007/7/31	2008/7/29
RP02	RF Power Amplifier	PST(1-2G 10W)	AR1929-10	M2P3A00-095	2007/1/30	2008/1/29
RP05	RF Power Amplifier	ifi	M75	K215-0306	2007/3/26	2008/3/24
RP06	RF Power Amplifier 2.5G 1W	Stealth Microwave	SL0825-40	12611	2007/4/13	2008/4/11
RP07	RF Power Amplifier 350W	PRANA	AP32LT235	0604-740	2007/7/31	2008/7/29
RP08	RF Power Amplifier 1W	RF Technologies	M5D	0611R01	2006/11/18	2007/11/17
AT05	Attenuator 3dB 50W	Weinschel	45-3-33	LC530	2007/2/5	2008/2/4
AT12	Attenuator 6dB 30W	FUJISOKU	FAT-530A	63454	2007/2/5	2008/2/4
AT14	Attenuator	JFW	50HF-003N	—	2007/4/25	2008/4/23
AT15	Attenuator	JFW	50HF-006N	—	2007/4/25	2008/4/23
AT20	Attenuator	JFW	50HF-010N	—	2007/3/16	2008/3/14
AT21	Attenuator 6dB 5W 18GHz	Weinschel	WA2-6-34	A1020	2007/3/9	2008/3/7
AT22	Attenuator 6dB 5W 18GHz	Weinschel	WA2-6-34	A1021	2007/3/9	2008/3/7
AT23	Attenuator 6dB 5W 18GHz	Weinschel	WA2-6-34	A1022	2007/3/9	2008/3/7
AT24	Attenuator 6dB 5W 18GHz	Weinschel	WA2-6-34	A1023	2007/3/9	2008/3/7
AT25	Attenuator 6dB 5W 18GHz	Weinschel	WA2-6-34	A1024	2007/3/9	2008/3/7
AT26	Attenuator 6dB 5W 18GHz	Weinschel	WA2-6-34	A1025	2007/3/9	2008/3/7
AT27	Attenuator 10dB 5W 18GHz	Weinschel	WA2-10-34	A1026	2007/3/9	2008/3/7
AT28	Attenuator 10dB 5W 18GHz	Weinschel	WA2-10-34	A1027	2007/3/9	2008/3/7
AT29	Attenuator 10dB 5W 18GHz	Weinschel	WA2-10-34	A1028	2007/3/9	2008/3/7
AT30	Attenuator 20dB 5W 18GHz	Weinschel	WA2-20-34	A1029	2007/3/9	2008/3/7
AT31	Attenuator 20dB 5W 18GHz	Weinschel	WA2-20-34	A1030	2007/3/9	2008/3/7
AT32	Attenuator 20dB 5W 18GHz	Weinschel	WA2-20-34	A1031	2007/3/9	2008/3/7
AT33	Attenuator 10dB 26GHz	INMET	26A-10	FT2075	2007/6/1	2008/5/30
DH01	DRG Horn Antenna	A.H. Systems	SAS-571	785	2006/2/6	2008/2/5
DH02	DRG Horn Antenna	A.H. Systems	SAS-200/571	239	2007/4/20	2009/4/18

RFT ID No.	Kind of Equipment and Precision	Manufacturer	Model No.	Serial Number	Calibration Date	Calibrated until
PM01	Power Meter	Rohde & Schwarz	NRVS	100055	2007/1/29	2008/1/28
PU01	Power Meter Insertion Unit	Rohde & Schwarz	URV5-Z4	100055	2007/1/29	2008/1/28
RC02	Radio communication tester (F/W : V4.10)	Rohde & Schwarz	CMU200	105097	2007/9/19	2008/9/17
RC03	Radio communication tester (F/W : 10.20 #005)	Anritsu	MT8820B	6200636657	2007/5/24	2008/5/22
SG04	Signal Generator	Rohde & Schwarz	SMG	51400285	2007/4/6	2008/4/4
SG05	Signal Generator	Rohde & Schwarz	SMR20	100905	2007/6/12	2008/6/10
SG07	Signal Generator	Agilent Technologies	N5181A	MY47070251	2007/5/11	2008/5/9
TA02	Dummy Load	Mini-Circuits	DL-30N	-	2007/2/23	2008/2/22
TA03	Dummy Load	Mini-Circuits	DL-30N	-	2007/2/23	2008/2/22
TA04	Dummy Load (4GHz, 50W)	Weinschel	WA1423-4	A462	2007/3/9	2008/3/7
TA05	Dummy Load (4GHz, 50W)	Weinschel	WA1423-4	A463	2007/3/9	2008/3/7
TA11	Dummy Load (BNC)	-	-	-	2007/7/9	2008/7/7
TA12	Dummy Load (BNC)	STACK	-	-	2007/7/9	2008/7/7
TC01	Temperature Chamber	ESPEC	SH-641	92000964	2007/4/23	2008/4/21
AC51	AC power supply	TAKASAGO	AA2000D	506960030014	not applicable	not applicable
AC52	AC power supply	KIKUSUI	PCR6000W		not applicable	not applicable
AF51	Active Filter	NF corp.	DV-04	434339	not applicable	not applicable
BC51	Burst Clamp	SCHAFFNER	CDN8015	21369	not applicable	not applicable
CG51	Comb Generator	tsj	TG-C2	TGC2-0009	not applicable	not applicable
CG52	Comb Generator	tsj	TG-R2	TGR2-0009	not applicable	not applicable
CJ51	CDN Calibration JIG 1	RFT	-	-	not applicable	not applicable
CJ52	CDN Calibration JIG 2	RFT	-	-	not applicable	not applicable
CJ53	EM clamp Calibration JIG 1	RFT	-	-	not applicable	not applicable
CJ54	EM clamp Calibration JIG 2	RFT	-	-	not applicable	not applicable
DC51	DC power supply	KIKUSUI	PMC18-3A	DF002941	not applicable	not applicable
DC52	DC power supply	KIKUSUI			not applicable	not applicable
LP51	Test Loop Antenna	Panasonic	VQ-085C	0O2861A122	not applicable	not applicable
MP51	Microphone	G.R.A.S	26AK + 12AK	50941 + 58712	not applicable	not applicable
MS51	Mouth Simulator	G.R.A.S	44AA	52222	not applicable	not applicable
TS51	TEMSEL	KYORITSU	KTC-5055	8S-688-6	not applicable	not applicable

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.