HCT CO., LTD.

SAN 136-1, AMI-RI , BUBAL-EUP, ICHEON-SI, KYOUNGKI-DO, 467-701, KOREA
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CERTIFICATE OF COMPLIANCE

TEST REPORT

LG Electronics Inc.

LG R&D Complex 533, Hogye-1dong, Dongan-gu,

Anyang-Shi, Kyungki-Do, 431-080 Korea

Date of Issue: March 09, 2009
Test Report No.: HCT-RF09-0309
Test Site: HCT CO., LTD.

FCC : **BEJLEO3**
APPLICANT : **LG Electronics Inc.**

EUT Type:	LTE User Equipment
Tx Frequency:	1710 — 1755 MHz
Rx Frequency:	2110 — 2155 MHz
Max. RF Output Power:	23 dBm (200 mW)
Trade Name/Model(s):	LG Electronics Inc. / LEO3
FCC Classification:	Licensed Non-Broadcast Station Transmitter (TNB)
Application Type:	Certification
FCC Rule Part(s):	§2, §15 Subpart B, §27 Subpart L
Antenna Specifications:	Manufacturer: Round Solutions GmbH & Co. KG
	Gain : -4.0 dBi
Emission Designator(s):	8M62G7D (QPSK), 8M57D7D (16QAM)

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ∮ 2.947.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

HCT Co., Ltd. Certifies that no party to this application has been denied FCC benefits pursuant to section 5301 of the Anti- Drug Abuse Act of 1998, 21 U.S. C. 853(a)

Chang Seok Choi

Report prepared by
:Chang Seok Choi
Test engineer of RF Part

Approved by
: Sang Jun Lee
Manager of RF Part

Table of Contents

MEASUREMENT REPORT

1. SCOPE

Measurement and determination of electromagnetic emissions (EME) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission.

General Information

Company Name:	LG Electronics Inc.
Address:	LG R&D Complex 533, Hogye-1dong, Dongan-gu, Anyang-Shi, Kyungki-Do, 431-080 Korea
Tel. / Fax :	+ 82-31-450-7984 / + 82-31-450-4049
E-Mail:	frank.lee@lge.com

- FCC: BEJLEO3
- Quantity: Quantity production is planned
- EUT Type: LTE User Equipment
- Trade Name: LG Electronics
- Model(s): LEO3
- Tx Frequency: 1710 — 1755 MHz
- Rx Frequency: 2110 — 2155 MHz
- Application Type: Certification
- FCC Classification: Licensed Non-Broadcast Station Transmitter (TNB)
- FCC Rule Part(s): §2, §15 Subpart B, §27 Subpart L
- Modulation(s): QPSK, 16QAM
- Antenna Type: Helical
- Date(s) of Tests: February 23, 2009 ~ February 26, 2009
- Place of Tests: HCT CO., LTD.
  Icheon, Kyounki-Do, KOREA
- Report Serial No.: HCT-RF09-0309

2. INTRODUCTION

EUT DESCRIPTION

The LG Electronics Inc. LEO3 LTE User Equipment.
Its basic purpose is used for communications.
It transmits from 1 710 ~ 1 755 MHz and receives from 2 110 ~ 2 155 MHz.
The RF power is rated at 0.2 W (23 dBm).

MEASURING INSTRUMENT CALIBRATION

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.

TEST FACILITY

The open area test site and conducted measurement facility used to collect the radiated data are located at the 254-1,Maekok-Ri, Hobup-Myun, Ichon-Si, Kyoungki-Do, 467-701, KOREA. The site is constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated July 6, 2006(Registration Number: 90661)

3. DESCRIPTION OF TESTS

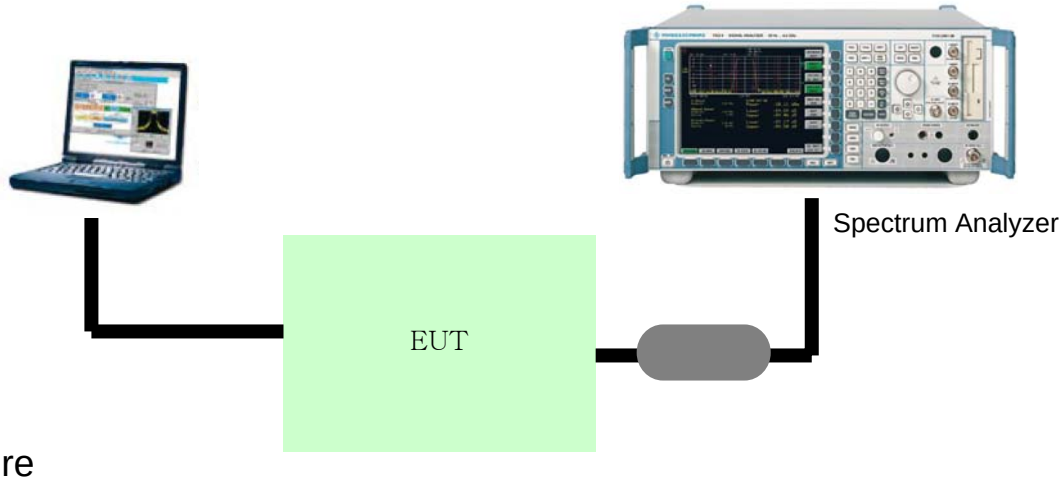
Test Summary

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
2.1046 27.50(d)	RF Power Output	N/A	Conducted	PASS	3.1
2.1049(i)	Occupied Bandwidth	N/A		PASS	3.2
2.1051 27.53(g)	Conducted Spurious Emissions at Antenna Terminals	< 43 +10log$_{10}$(P[Watt])		PASS	3.3
27.50(d)	Equivalent Isotropic Radiated Power	< 1Watt max EIRP	Radiated	PASS	3.4
2.1053 27.53(g)	Field Strength of Spurious Radiation	< 43 +10log$_{10}$(P[Watt])		PASS	3.5
2.1055 27.54	Frequency Stability	Within the allotted band	Conducted	PASS	3.6
15.107	Conducted Emissions	< FCC 15.107 Limits	Line Conducted	PASS	3.7
15.109	Radiated Emissions	< FCC 15.109 Limits	Radiated (30MHz~1GHz) (1GHz~18GHz)	PASS	3.8
2.1091 2.1093	RF Exposure	1.0 mW/cm^2	SAR	PASS	3.9

Test Result: The product presented for testing complied with test requirements as shown above.

3.1 Conducted RF Power Test

Test Set-up



Test Procedure

According to FCC §2.1046 (A), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in § 2.1033(c). The electrical characteristics of the radio frequency load attached to the output terminals when this test is made shall be stated.

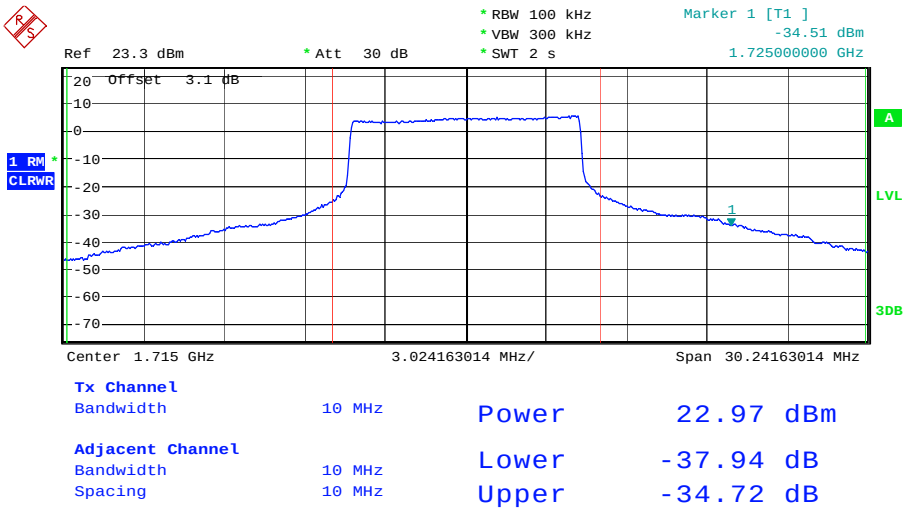
1) The EUT was coupled to the spectrum analyzer and the base station simulator through a power divider. The radio frequency load attached to the EUT antenna terminal was 50 Ohm. The lost of the cables the test system is calibrated to correct the reading.
2) The spectrum analyzer was set to Maxpeak Detector function and Maximum hold mode.
3) The resolution banswidth of the spectrum analyzer was comparable to the emission bandwidth.

Modulation Type	Frequency (MHz)	Output Power (dBm)	Output Power (W)	CCDF (dB)	Limit
QPSK	1715	22.97	0.1981	7.50	-
	1725	23.07	0.2027	7.25	-
	1750	23.04	0.2013	7.06	-
16QAM	1715	23.10	0.2041	7.37	-
	1725	23.06	0.2023	7.47	-
	1750	23.05	0.2018	6.64	-

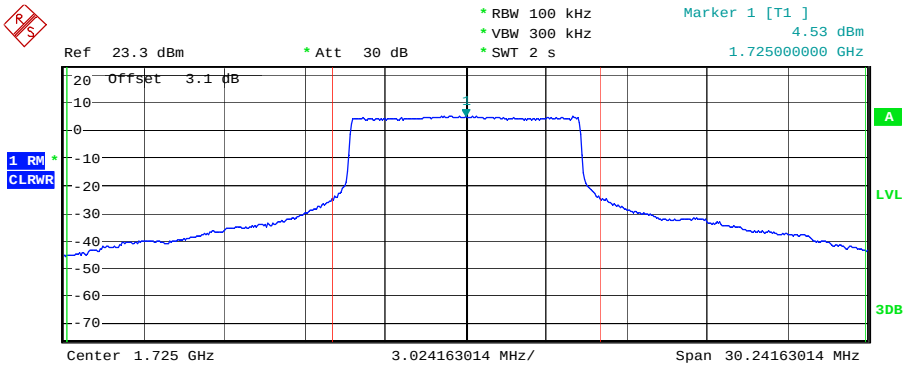
(Test Result)

Test Plots

[QPSK]



(1715 MHz)



Tx Channel

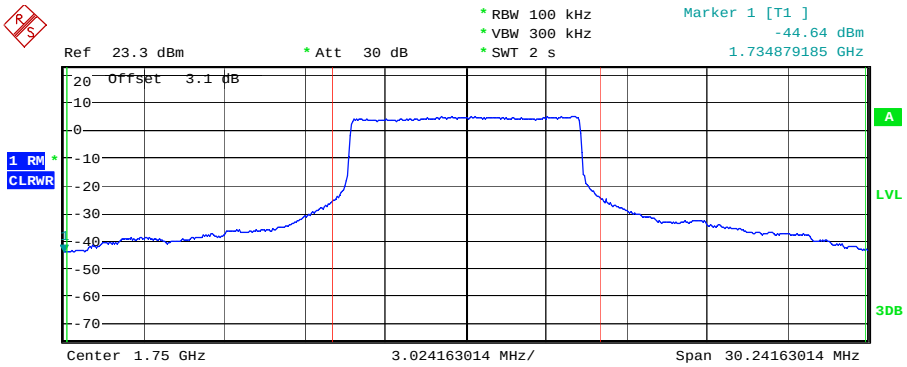
Bandwidth	10 MHz	Power	23.07 dBm

Adjacent Channel

Bandwidth	10 MHz	Lower	-38.17 dB
Spacing	10 MHz	Upper	-36.29 dB

Date: 23.FEB.2009 05:47:46

(1725 MHz)



Tx Channel

Bandwidth	10 MHz	Power	23.04 dBm

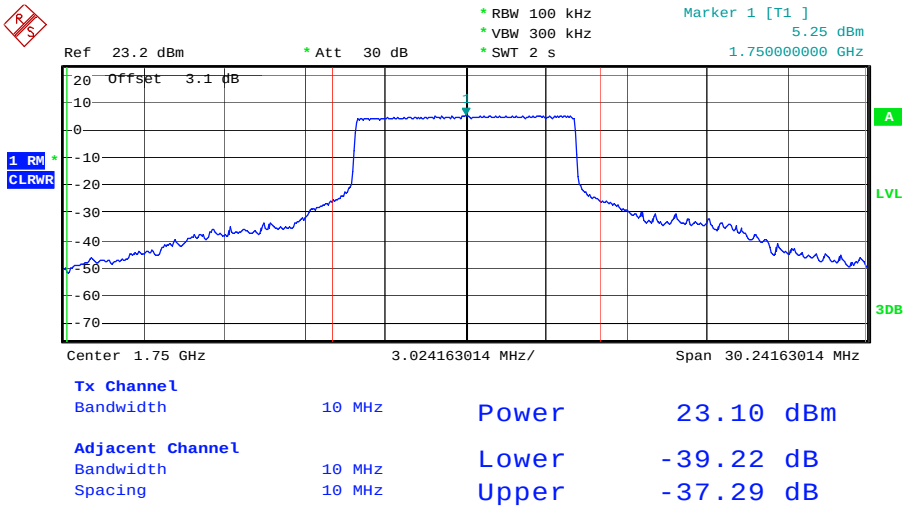
Adjacent Channel

Bandwidth	10 MHz	Lower	-39.02 dB
Spacing	10 MHz	Upper	-36.65 dB

Date: 23.FEB.2009 05:49:05

(1750 MHz)

[16QAM]



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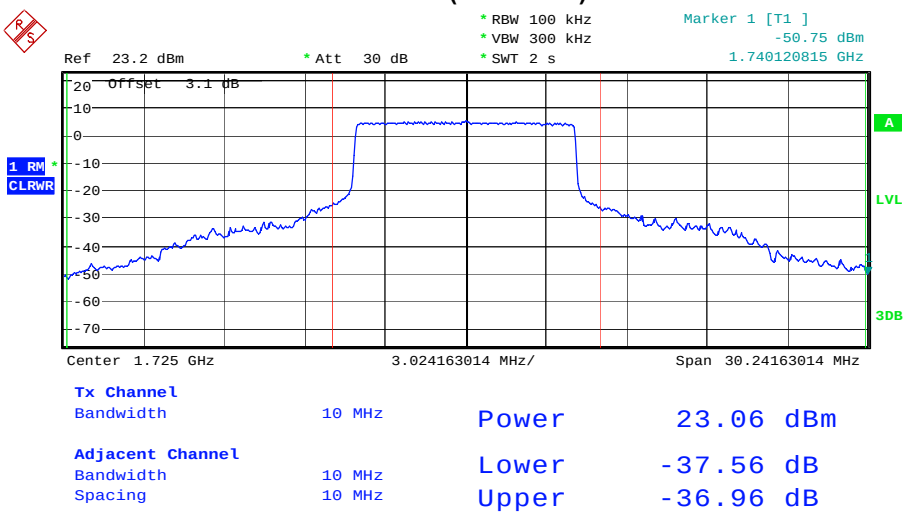
(1715 MHz)



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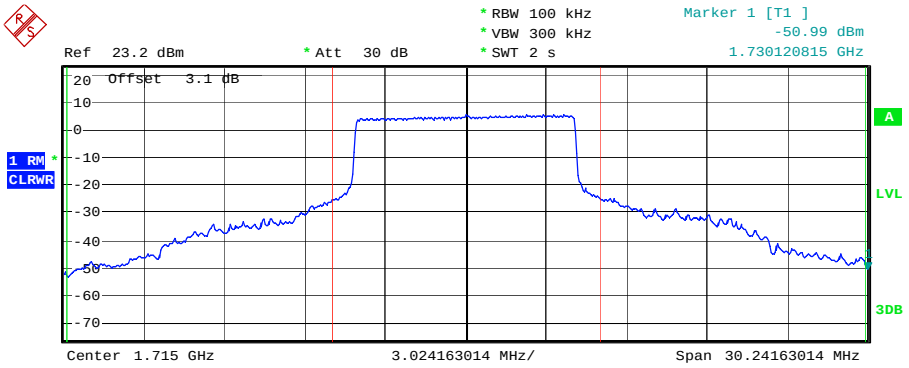
(1725 MHz)



Tx Channel

Bandwidth	10 MHz	Power	23.05 dBm

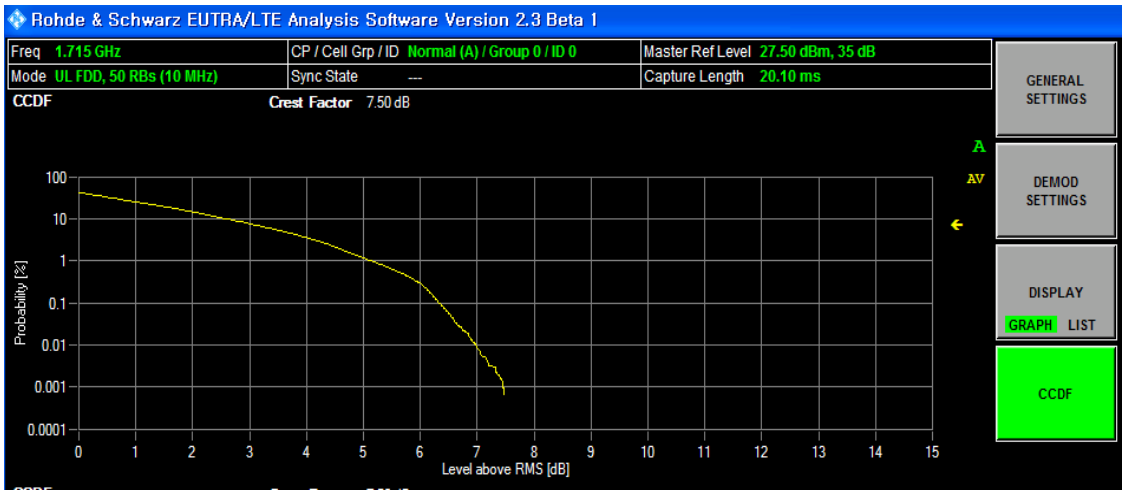
Adjacent Channel

Bandwidth	10 MHz	Lower	-38.30 dB
Spacing	10 MHz	Upper	-35.83 dB

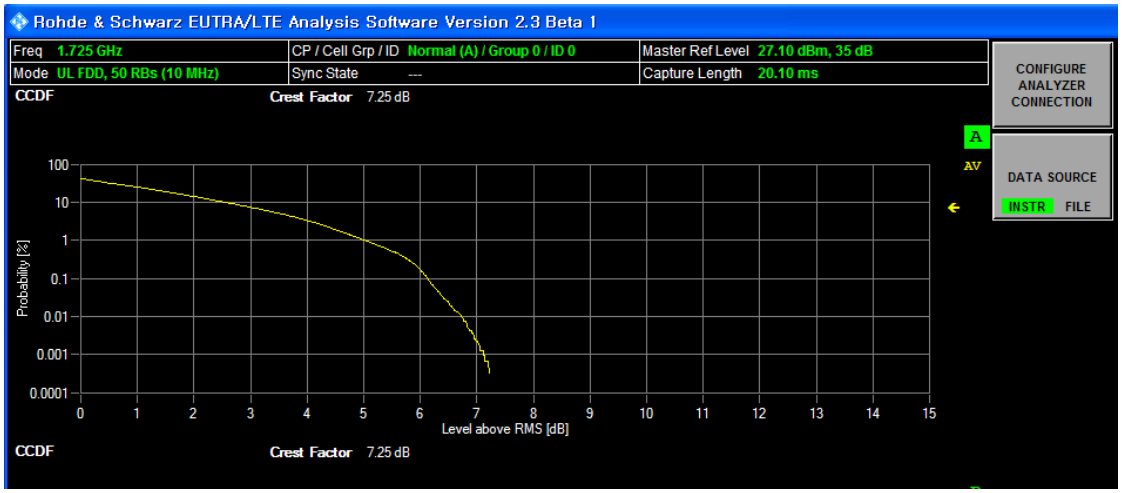
Date: 24.FEB.2009 00:10:15

(1750 MHz)

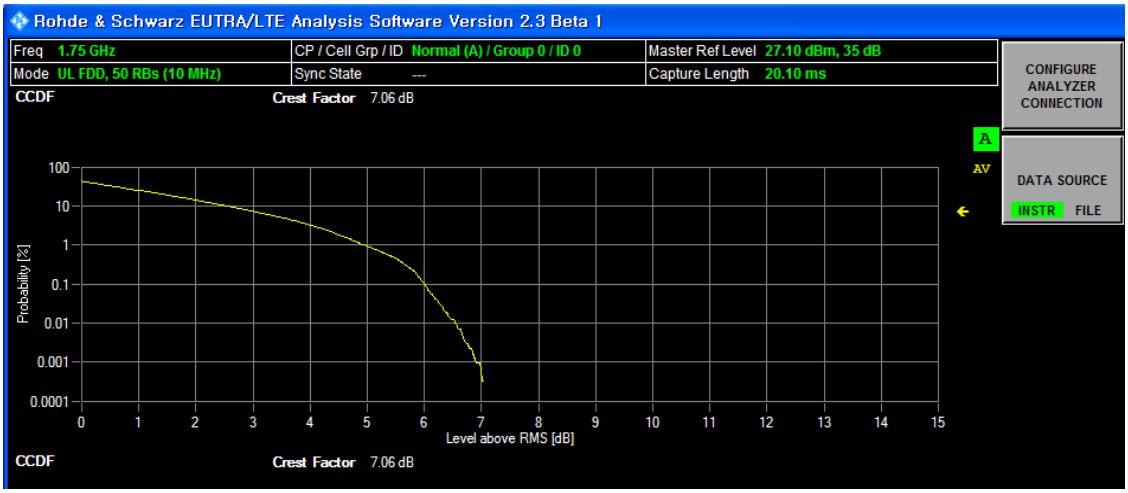
[Peak to Average Ratio-QPSK]



(1715 MHz)

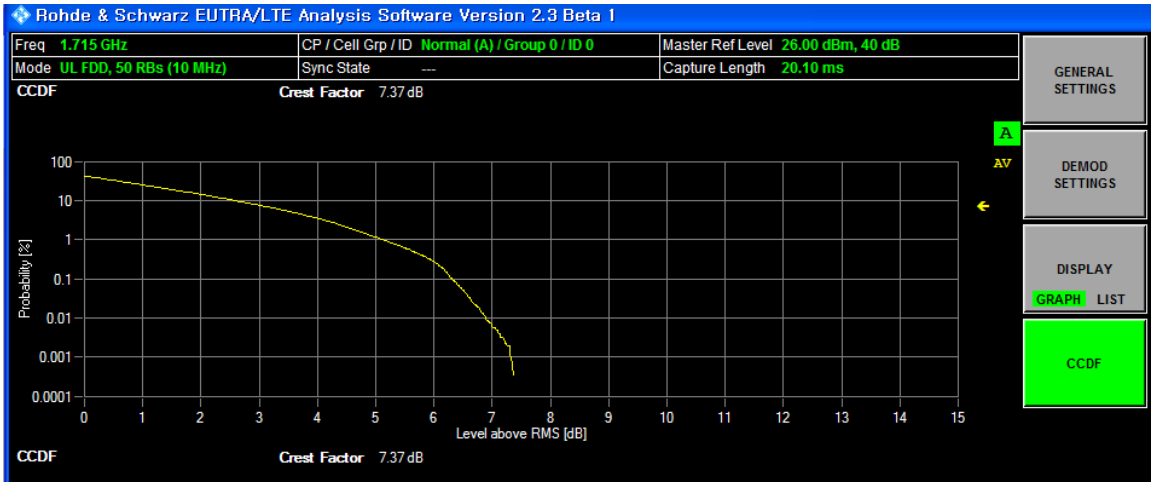


(1725 MHz)

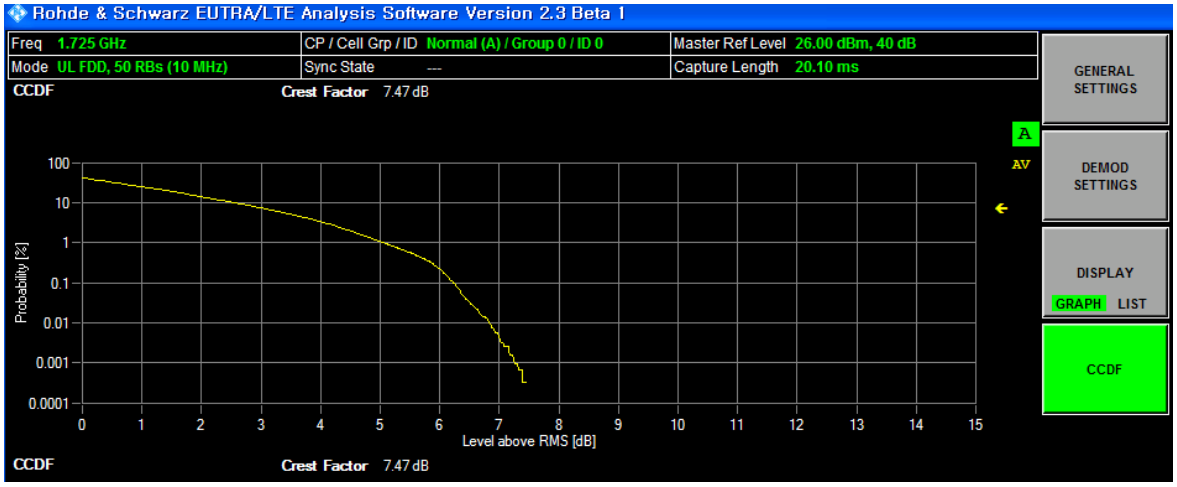


(1750 MHz)

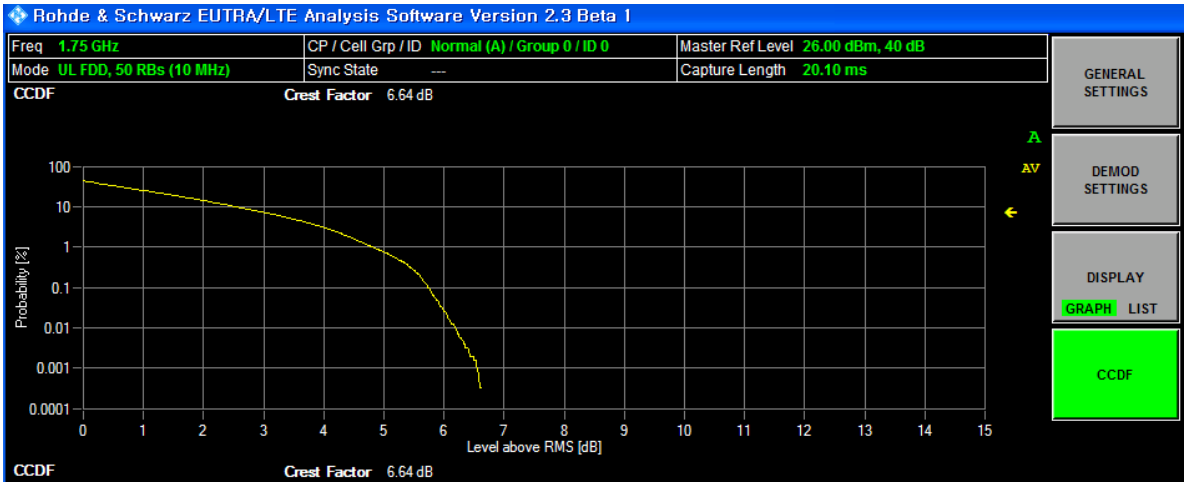
[Peak to Average Ratio-16QAM]



(1715 MHz)



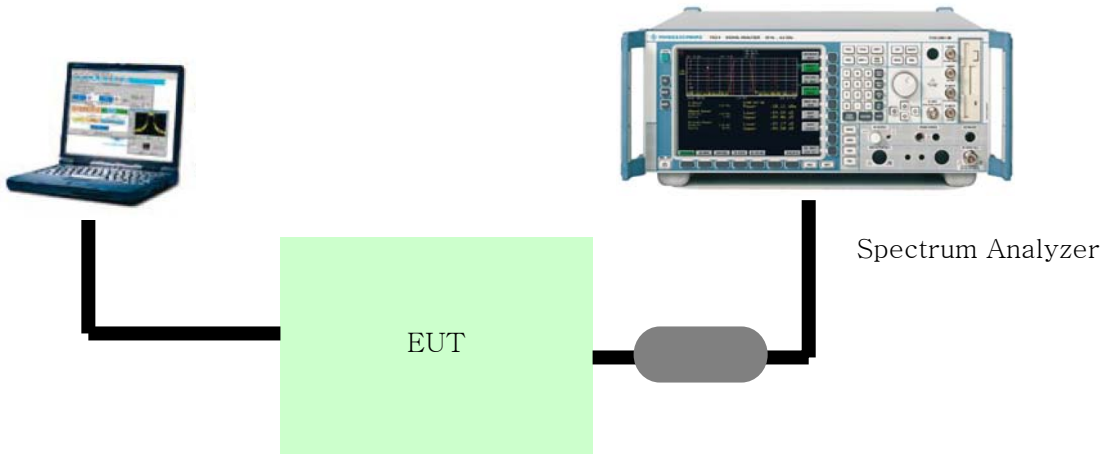
(1725 MHz)



(1750 MHz)

3.2 Occupied bandwidth

Test Set-up



Test Procedure

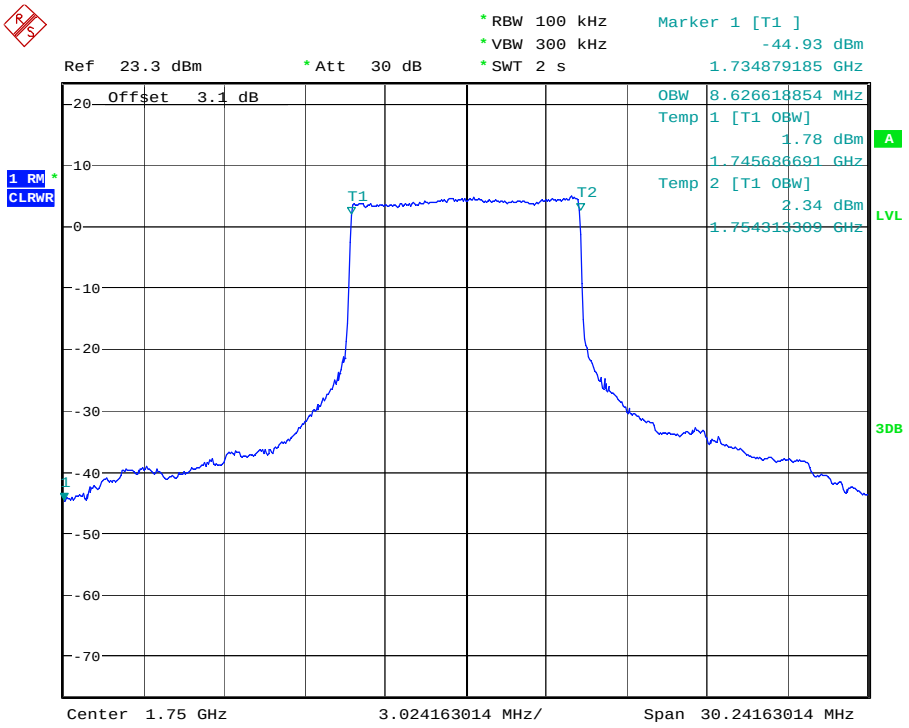
The EUT was setup to maximum output power at its lowest channel. The occupied bandwidth was measured using a spectrum analyzer. The measurements are repeated for the highest,lowest and a middle channel. The EUT's occupied bandwidth is measured by 99% bandwidth. Plots of the EUT's occupied bandwidth are shown herein.

Modulation Type	Frequency (MHz)	Occupied BandWidth (MHz)	Limit
QPSK	1715	8.626	-
	1725	8.626	-
	1750	8.578	-
16QAM	1715	8.529	-
	1725	8.578	-
	1750	8.578	-

(Test Result)

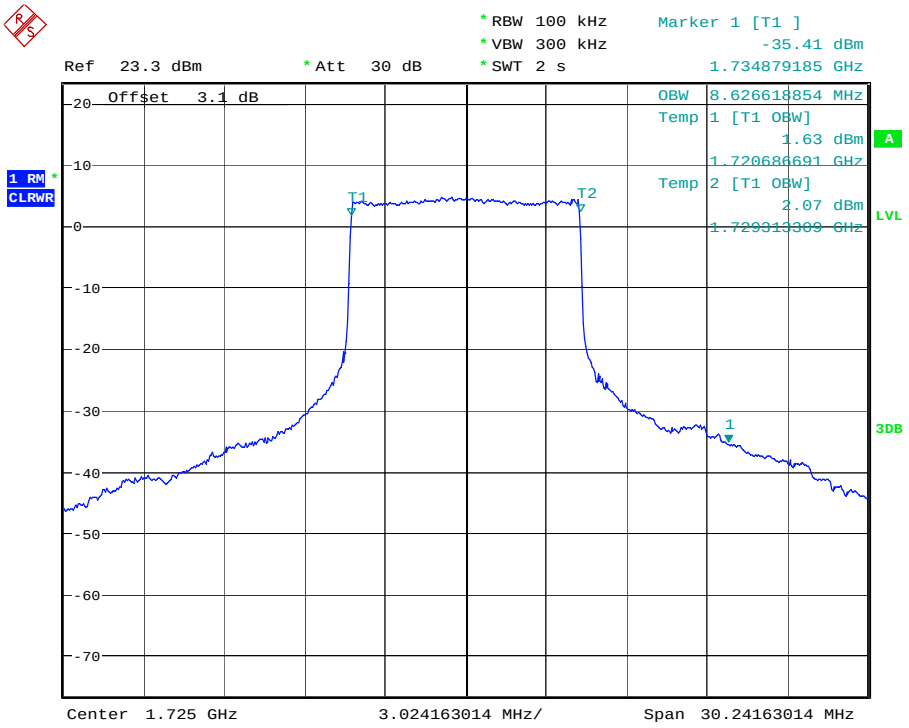
Test Plots

[QPSK]



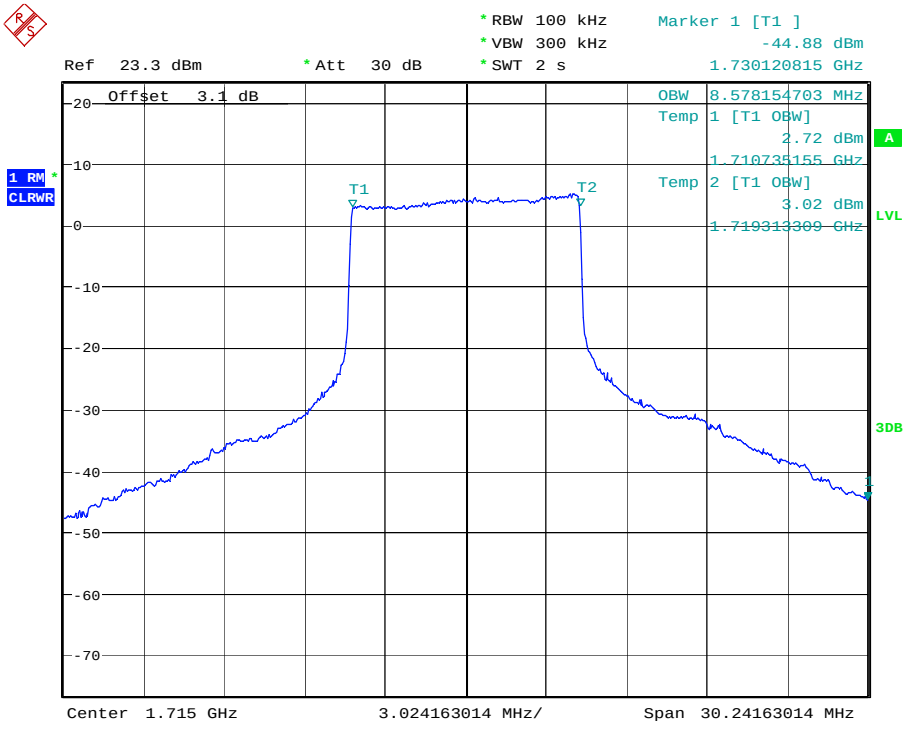
Date: 23.FEB.2009 05:49:39

(1715 MHz)



Date: 23.FEB.2009 05:51:02

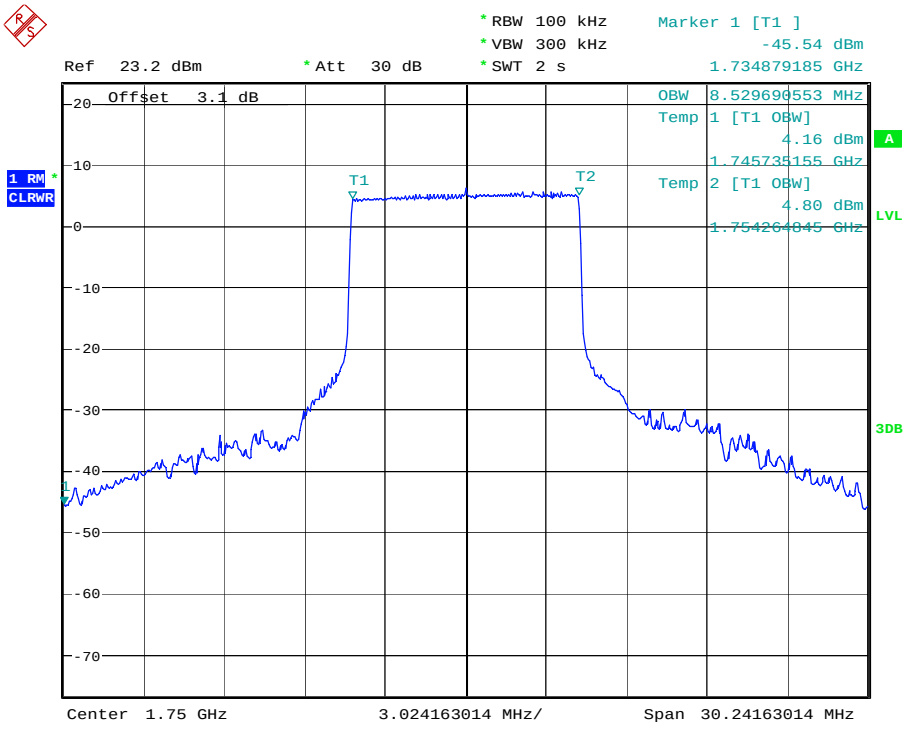
(1725 MHz)



Date: 23.FEB.2009 05:51:49

(1750 MHz)

[16QAM]



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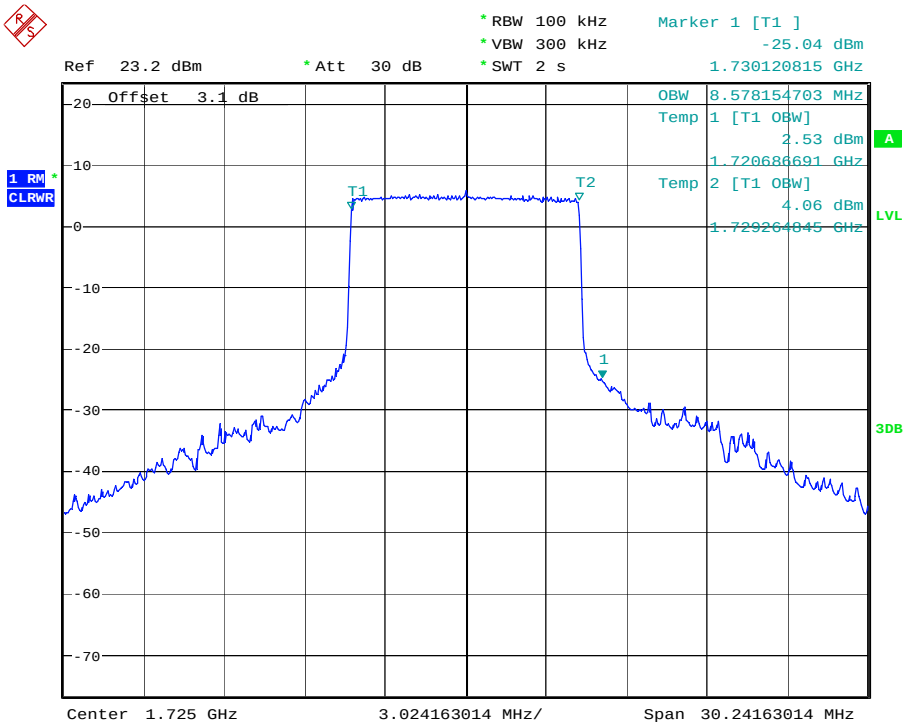
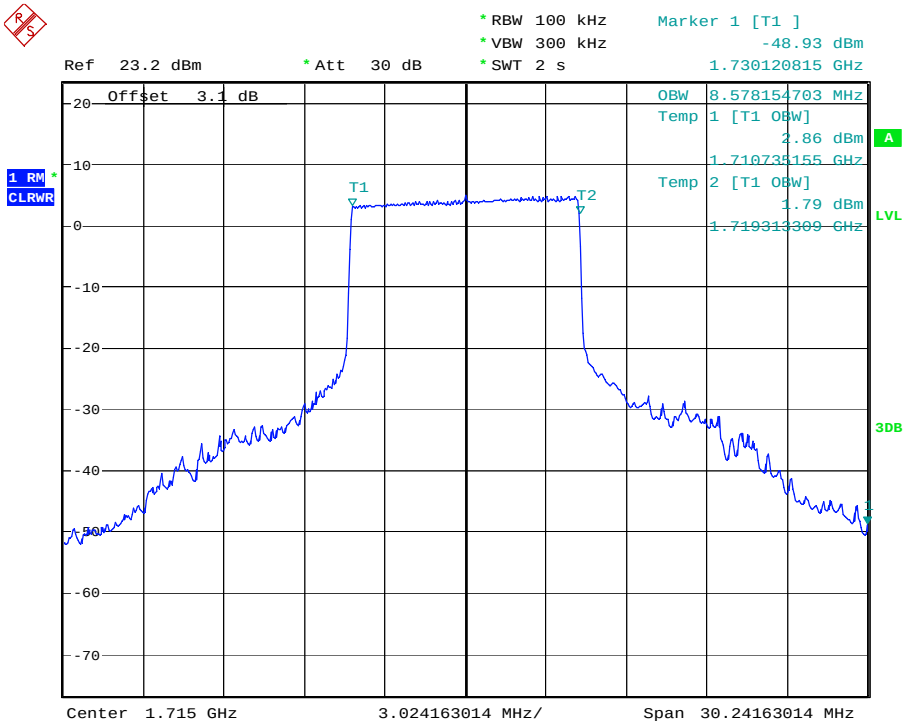
(1715 MHz)



Date: 24.FEB.2009 00:13:20

(1725MHz)

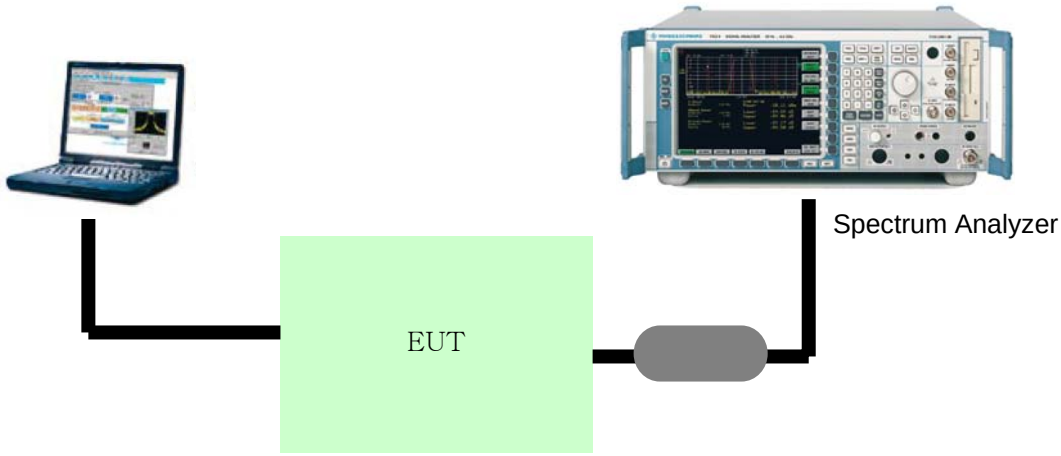


Date: 24.FEB.2009 00:13:57

(1750 MHz)

3.3 Spurious Emissions at Antenna Terminal

Test Set-up

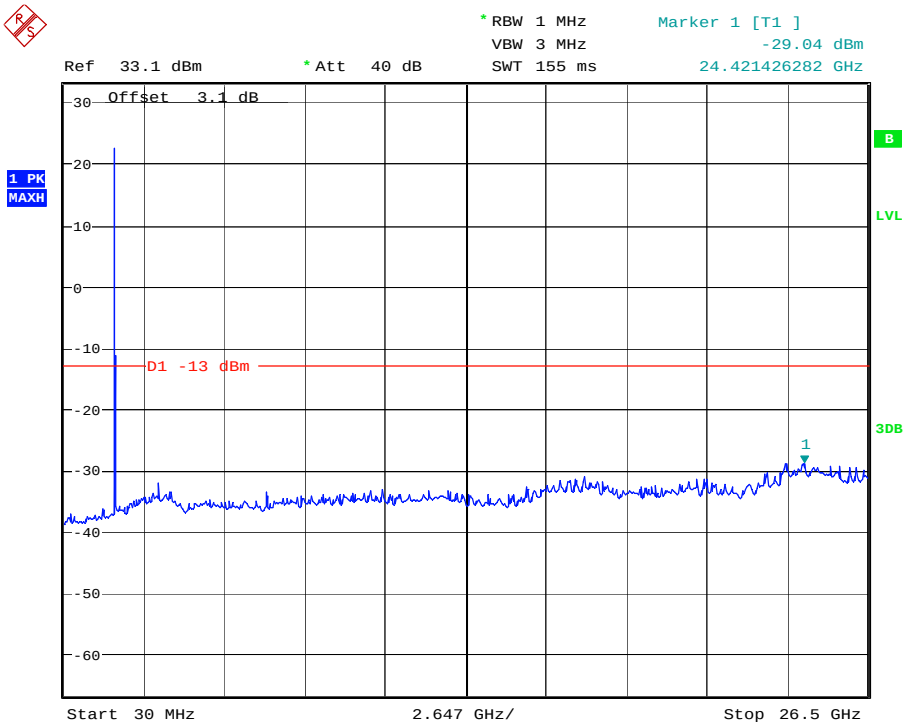


Test Procedure

The EUT was setup to maximum output power at its lowest channel. The Resolution BW of the analyzer is set to 1 % of the emission bandwidth to show compliance with the - 13 dBm limit, in the 1 MHz bands immediately outside and adjacent to the edge of the frequency block. The 1 MHz RBW was used to scan from 10 MHz to 10 GHz.. A display line was placed at - 13 dBm to show compliance. The high, lowest and a middle channel were tested for out of band measurements.

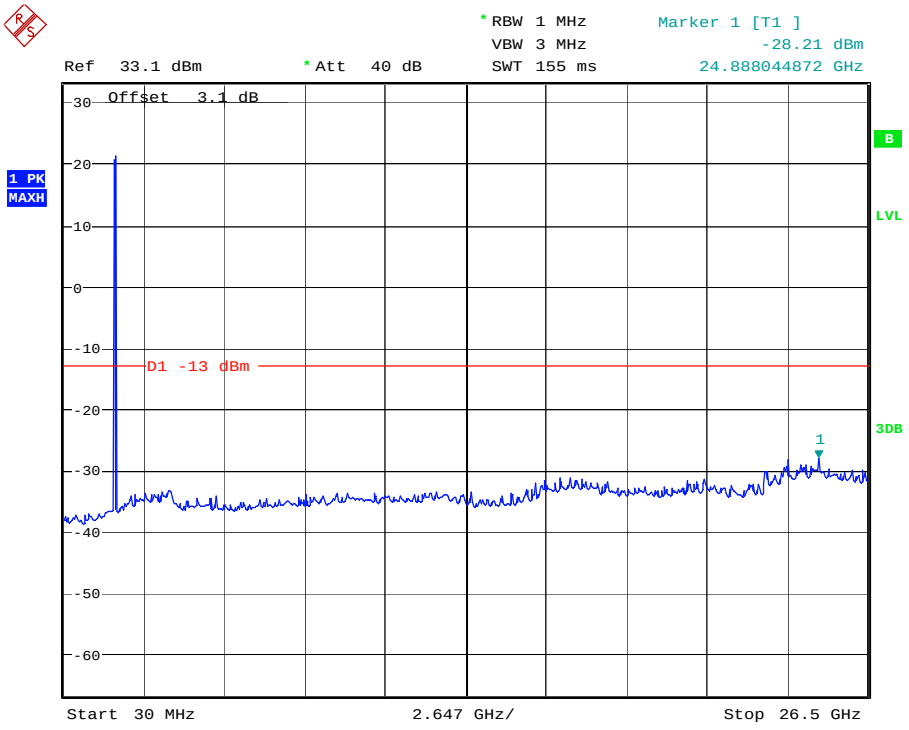
Test Plots

[Spurious Emission - QPSK]



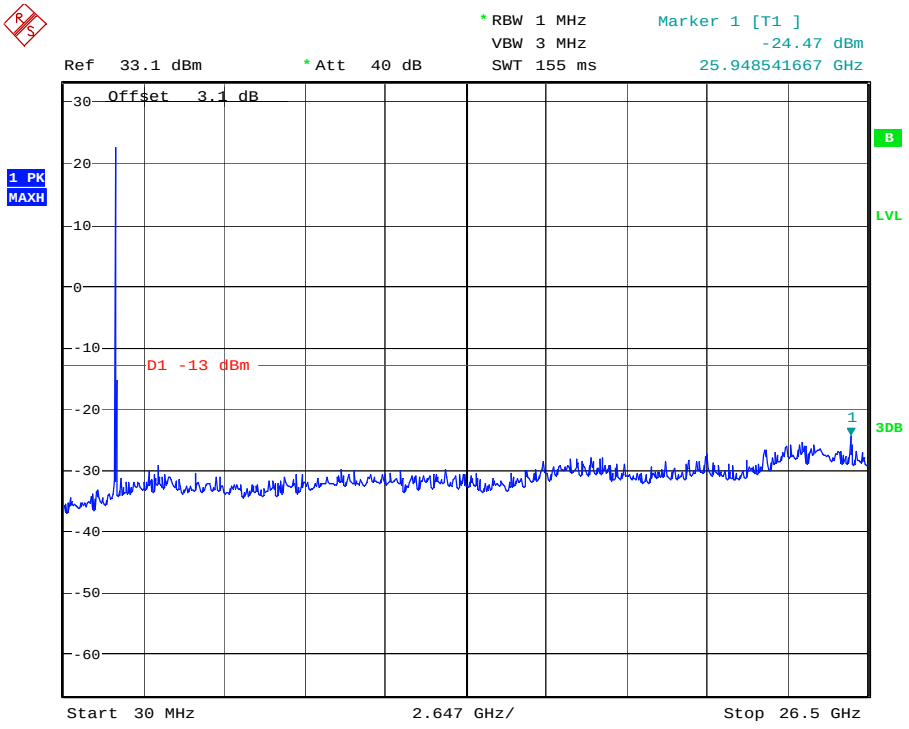
Date: 23.FEB.2009 06:02:39

(1715 MHz)



Date: 23.FEB.2009 06:01:13

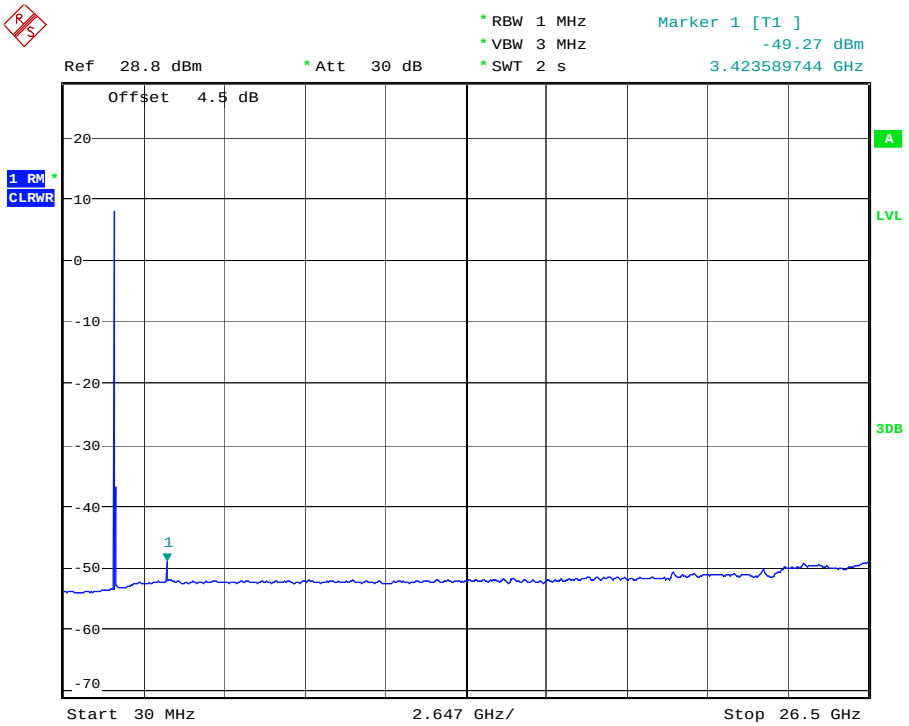
(1725 MHz)



Date: 23.FEB.2009 05:59:48

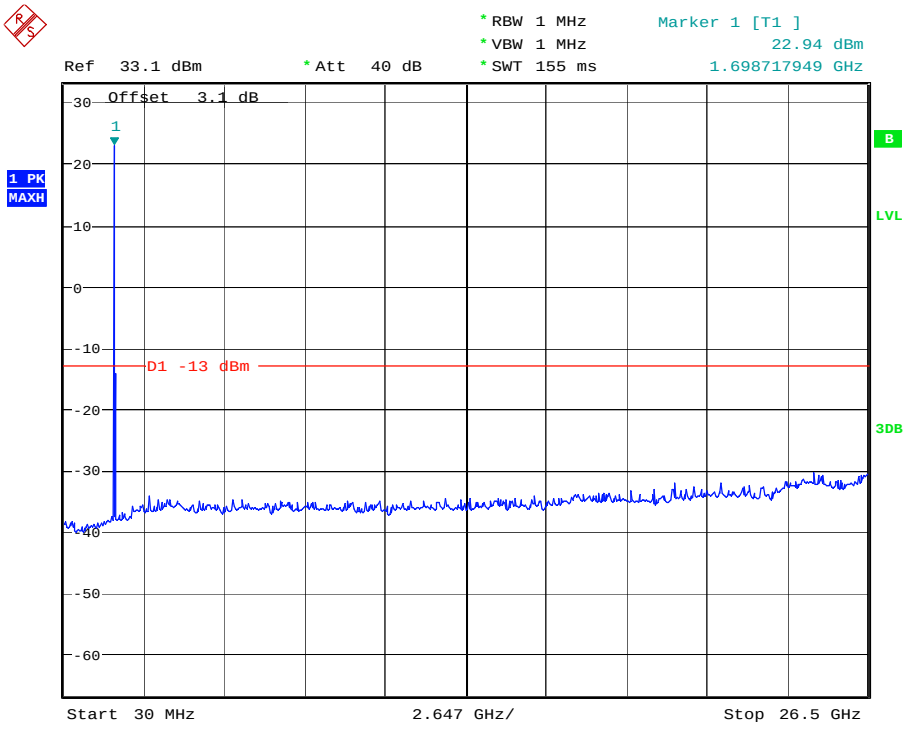
(1750 MHz)

[Spurious Emission – 16QAM]



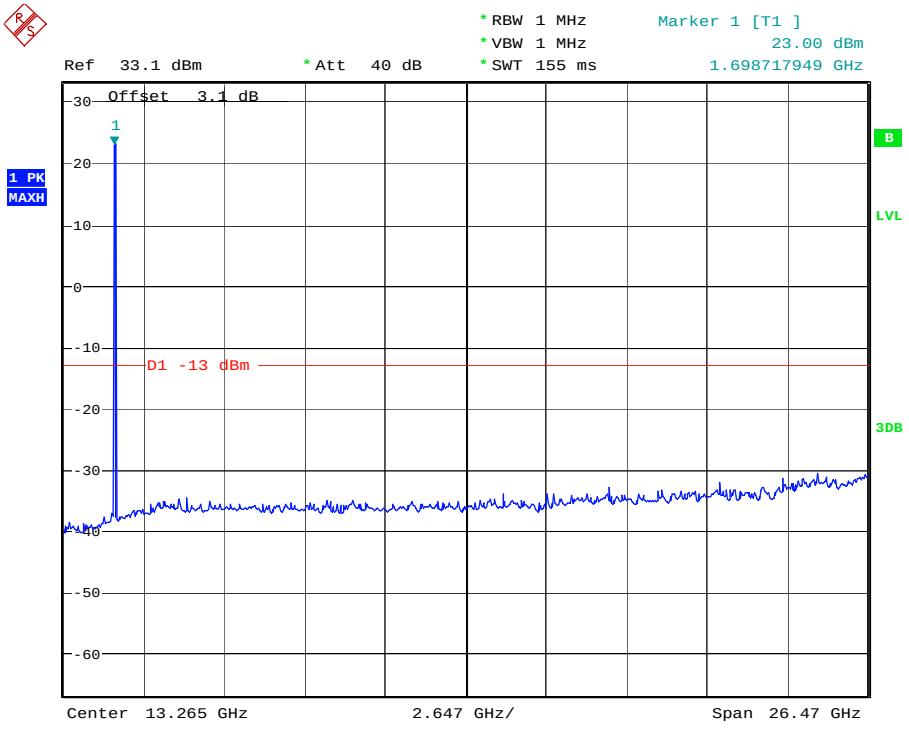
Date: 26.AUG.2008 02:27:08

(1715 MHz)



Date: 24.FEB.2009 00:43:15

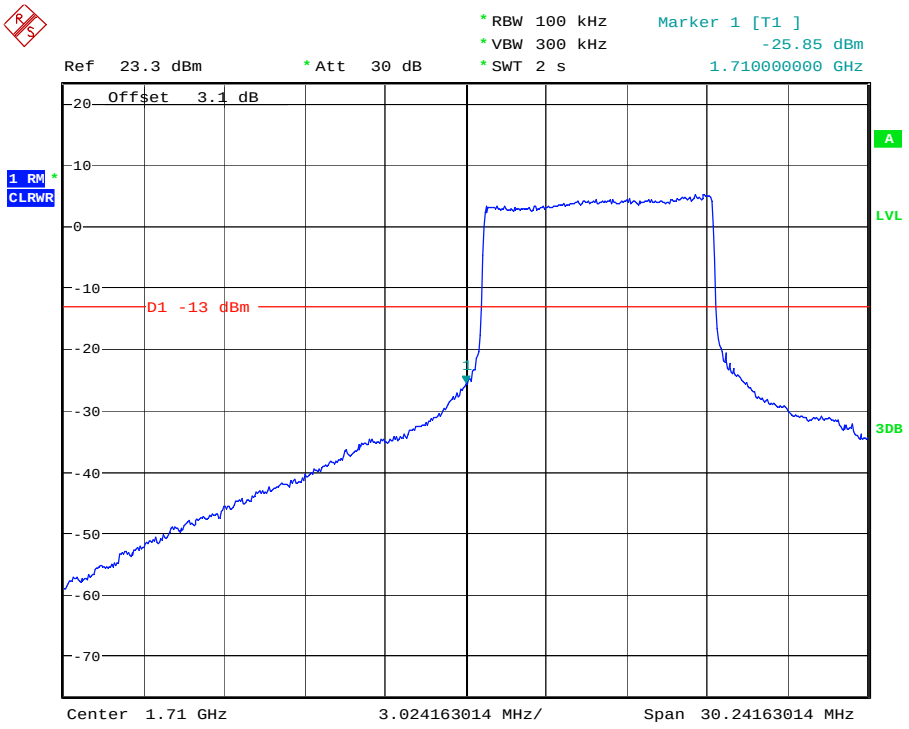
(1725 MHz)



Date: 24.FEB.2009 00:44:20

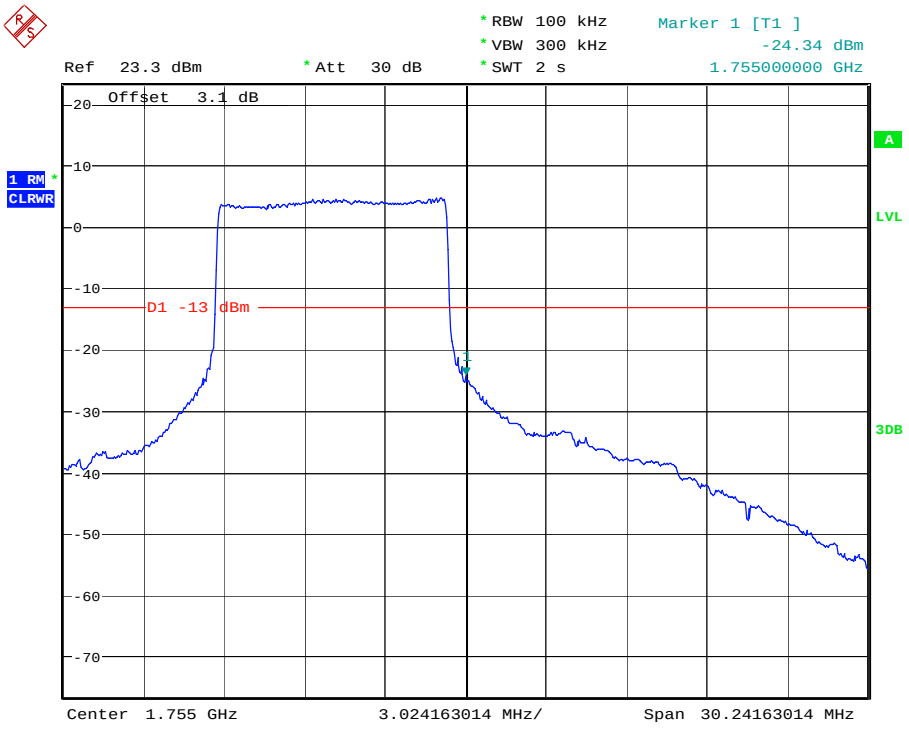
(1750 MHz)

[Band Edge - QPSK]



Date: 23.FEB.2009 05:53:15

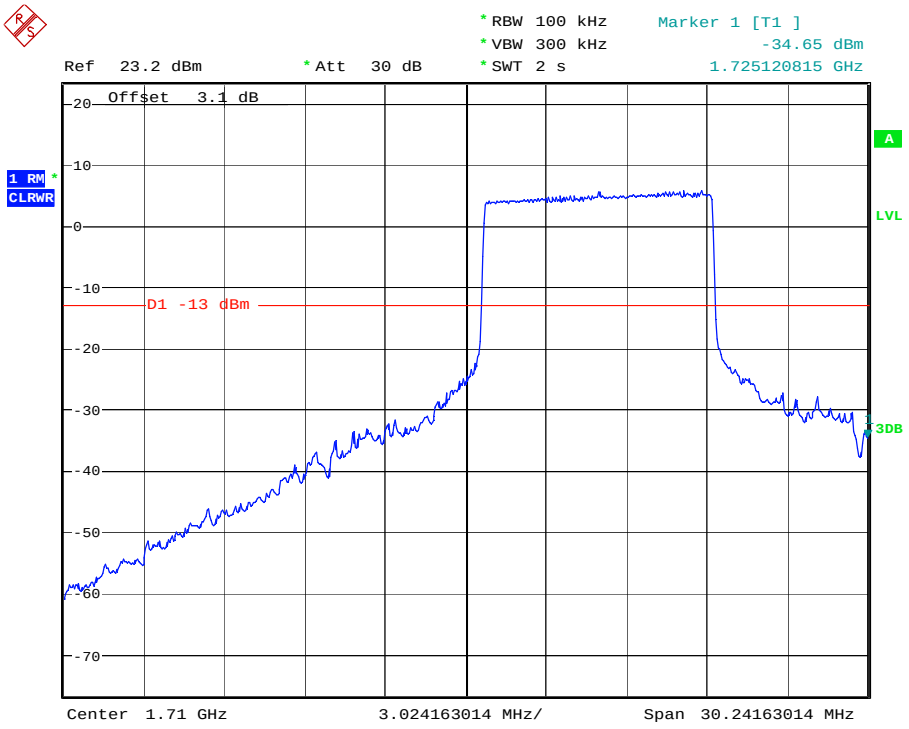
(1715 MHz)



Date: 23.FEB.2009 05:54:32

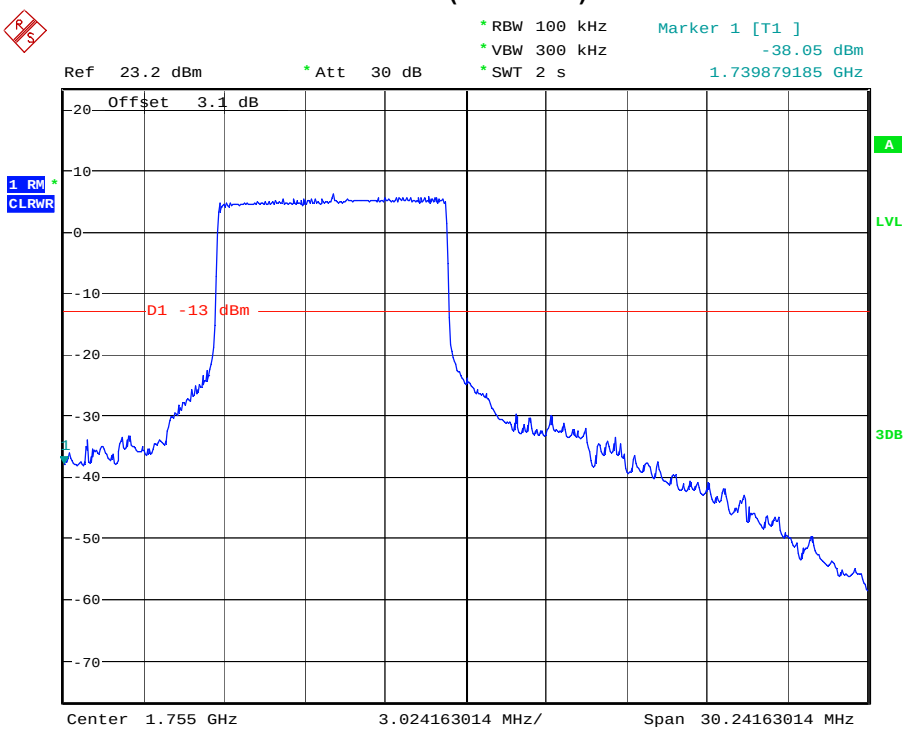
(1750 MHz)

[Band Edge – 16QAM]



Date: 24.FEB.2009 00:23:43

(1715 MHz)

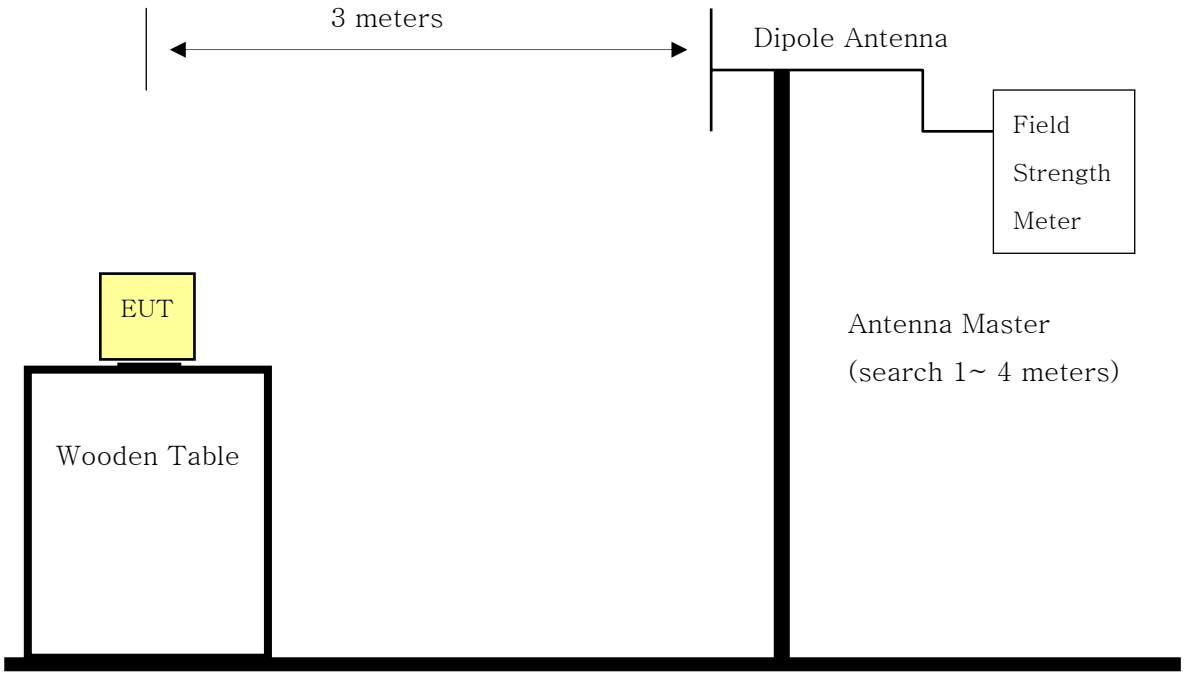


Date: 24.FEB.2009 00:20:14

(1750 MHz)

3.4 Equivalent Isotropic Radiated Power

Test Set-up



[Open Field Test Site]

Test Procedure

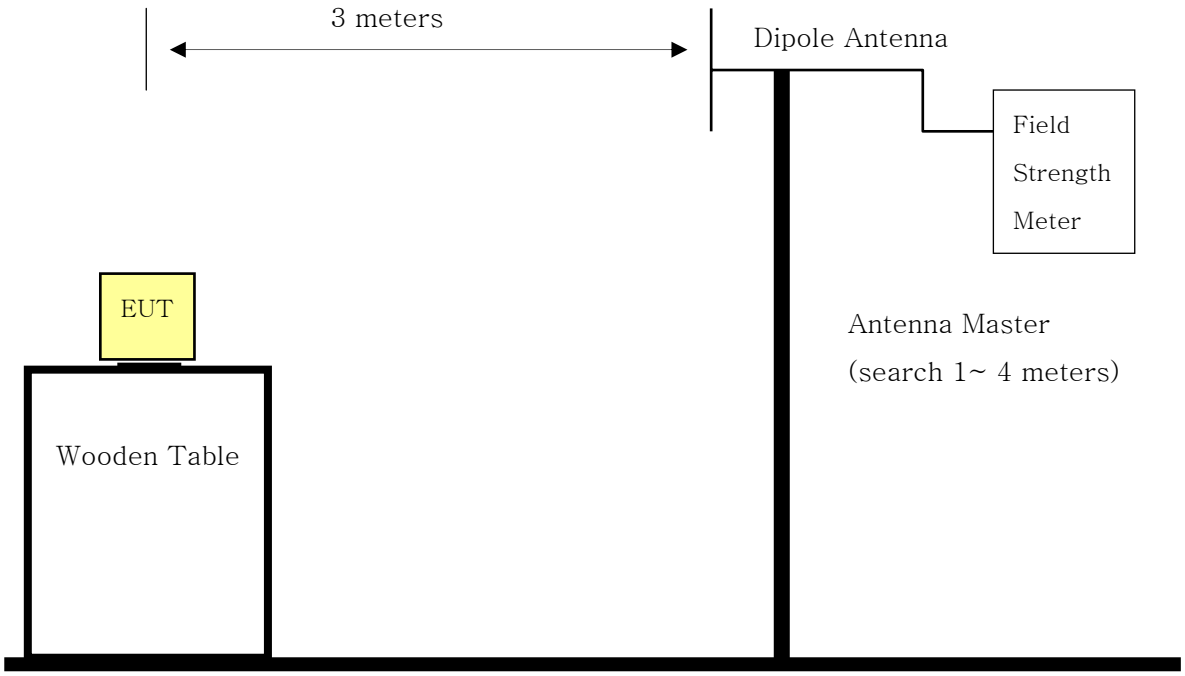
The measurement facilities used for this test have been documented in previous filings with the commission pursuant to section 2.948.

The open field test site is situated in open field with ground screen whose site attenuation characteristics meet ANSI C63.4 –2003. A mast capable of lifting the receiving antenna from a height of one to four meters is used together with a turn-able wooden platform mounted at three from the antenna mast.

1) The EUT mounted on a wooden tripod is 0.8 meter above test site ground level.
2) During the test, the turn table is rotated and the antenna height is also varied from 1 to 4 meters until the maximum signal is found.
3) Record the field strength meter's level.
4) Replace the EUT with λ/ 2 dipole antenna that is connected to a calibrated signal generator.
5) Increase the signal generator output till the field strength meter's level is equal to the item (4).
6) The signal generator output level is the rating of effective radiated power (ERP).
7) The instrument settings used (RBW/ VBW) during ERP/ EIRP output power measurement are as Below;

3.5 Field strength of spurious radiation

Test Set-up



[Open Field Test Site]

Test Procedure

The measurement facilities used for this test have been documented in previous filings with the commission pursuant to section 2.948.
The open field test site is situated in open field with ground screen whose site attenuation characteristics meet ANSI C63.4 –2003. A mast capable of lifting the receiving antenna from a height of one to four meters is used together with a turn-able wooden platform mounted at three from the antenna mast.

1) The unit mounted on a wooden table 1.5 m × 1.0 m × 0.80 m is 0.8 meter above test site ground level.
2) During the emission test, the turn table is rotated and the EUT is manipulated to find the configuration resulting in maximum emission under normal condition of installation and operation.
3) The antenna height and polarization are also varied from 1 to 4 meters until the maximum signal is found.
4) The spectrum shall be scanned up to the 10th harmonic of the fundamental frequency.
5) The instrument settings used (RBW/ VBW) during ERP/ EIRP output power measurement are as below ;

Test Result

▣ OPERATING FREQUENCY: 1 715 MHz

▣ MEASURED OUTPUT POWER: 20.17 dBm

▣ DISTANCE: 3 meters

▣ LIMIT: 43 + 10 lo_{g10} (W) = 33.16 dBc

Freq. (MHz)	LEVEL@ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
3432.57	-62.79	12.05	-50.74	V	70.91
5136.67	-54.26	12.15	-42.11	V	62.28
6857.23	-57.66	13.41	-44.25	H	64.42

※ This device was tested under all configurations and the worst case is reported with 16QAM.
This unit was tested with its external Adapter.

▣ OPERATING FREQUENCY: 1 725 MHz

▣ MEASURED OUTPUT POWER: 21.78 dBm

▣ DISTANCE: 3 meters

▣ LIMIT: 43 + 10 lo_{g10} (W) = 34.77 dBc

Freq. (MHz)	LEVEL@ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
3432.26	-62.02	12.05	-43.87	V	71.75
5185.17	-55.26	12.15	-43.11	H	64.89
6915.62	-55.48	13.41	-42.07	V	63.85

※ This device was tested under all configurations and the worst case is reported with 16QAM.
This unit was tested with its external Adapter.

▣ OPERATING FREQUENCY: 1 750 MHz

▣ MEASURED OUTPUT POWER: 20.94 dBm

▣ DISTANCE: 3 meters

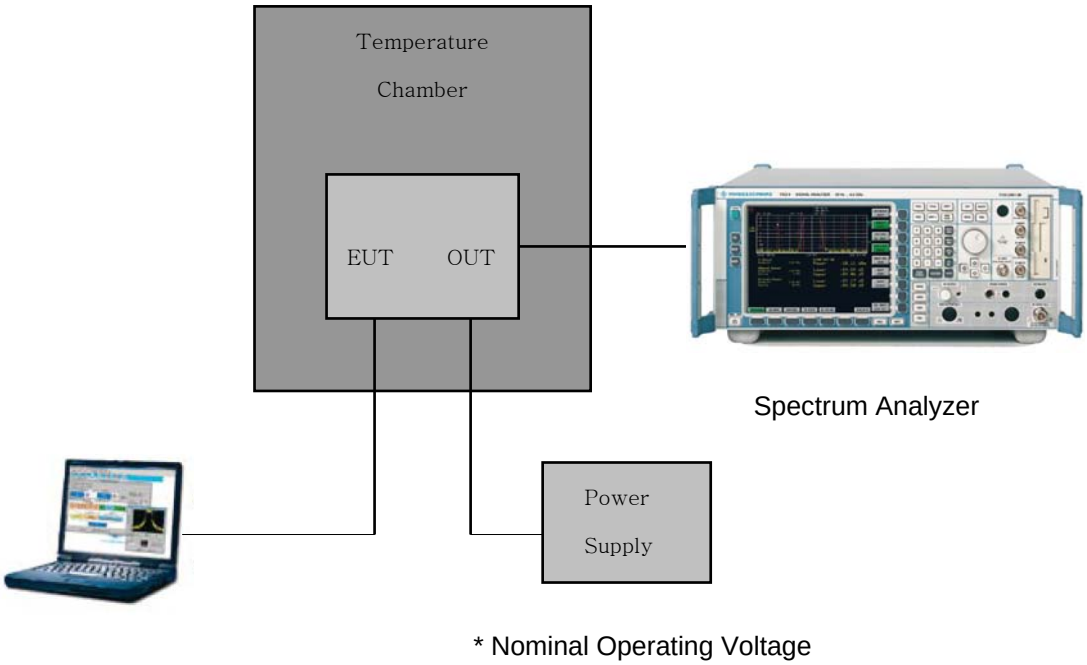
▣ LIMIT: 43 + 10 lo_{g10} (W) = 33.93 dBc

Freq. (MHz)	LEVEL@ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
3413.62	-54.44	12.05	-42.39	V	63.33
4796.05	-61.33	12.15	-49.18	V	70.52
6993.35	-55.17	13.71	-41.46	H	62.4

※ This device was tested under all configurations and the worst case is reported with 16QAM.
This unit was tested with its external Adapter.

3.6 Frequency stability

Test Set-up



* Nominal Operating Voltage

Test Procedure

The frequency stability of the transmitter is measured by:

a.) **Temperature:** The temperature is varied from - 30 °C to + 50 °C using an environmental chamber.

b.) **Primary Supply Voltage:** The primary supply voltage is varied from battery end point to 115 % of the voltage normally at the input to the device or at the power supply terminals if cables are not normally supplied.

Specification **—** The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ± 0.000 25 %(± 2.5 ppm) of the center frequency.

Time Period and Procedure:

1. The carrier frequency of the transmitter and the individual oscillators is measured at room temperature (25 °C to 27 °C to provide a reference).
2. The equipment is subjected to an overnight “soak” at - 30 °C without any power applied.
3. After the overnight “soak” at 30 °C (usually 14-16 hours), the equipment is turned on in a “standby” condition for one minute before applying power to the transmitter. Measurement of the carrier frequency of the transmitter and the individual oscillators is made within a three minute interval after applying power to the transmitter.
4. Frequency measurements are made at 10 °C interval up to room temperature. At least a period of one and one half-hour is provided to allow stabilization of the equipment at each temperature level.
5. Again the transmitter carrier frequency and the individual oscillators is measured at room temperature to begin measurement of the upper temperature levels.
6. Frequency were made at 10 °C intervals starting at - 30 °C up to + 50 °C allowing at least two hours at each temperature for stabilization. In all measurements the frequency is measured within three minutes after applying power to the transmitter.
7. The artificial load is mounted external to the temperature chamber.

NOTE: The EUT is tested 1725 MHz, 16QAM.

Main Power [V]	Freq. Error [Hz]	Difference [Hz]	ppm
10.2	-96.23	52.54	-0.056
12.0	-43.69	0	-0.025
13.8	-100.12	56.43	-0.058

(Frequency Drift with Supply Voltage Variation)

Temp. [Celsius]	Freq. Error [Hz]	Difference [Hz]	Ppm
50	63.80	80.98	0.037
40	4.73	21.91	0.003
30	-3.03	14.15	0.002
20	-17.18	0	0.010
10	-71.95	54.77	0.042
0	-87.62	70.44	0.051
-10	44.74	61.92	0.026
-20	-27.65	10.47	0.016

(Frequency Drift with Temperature Variation)

3.7 Conducted Emissions

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolt
The limits at specific frequency range is listed as follows:

Frequency Range (MHz)	Limits (dBμV)	
	Quasi-peak	Average
0.15 to 0.50	79	66
0.50 to 30	73	60

Test Procedure

1. The EUT is placed on a wooden table 80 cm above the reference ground plane.
2. The EUT is connected via LISN to a test power supply.
3. The measurement results are obtained as described below:
4. Detectors – Quasi Peak and Average Detector.

HCT

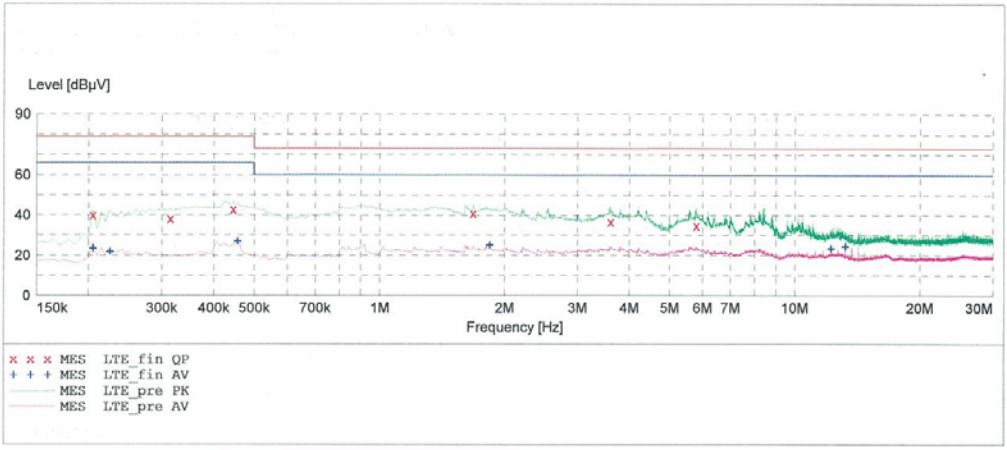
EMC TEST LAB

EUT: LEO3_BAND4
Manufacturer: LG
Operating Condition: IDLE MODE
Test Site: SHIELD ROOM
Operator: YH, LEE
Test Specification: CISPR22 CLASS A
Comment: H

SCAN TABLE: "CISPR22 CLASS A"

Short Description: EN 55022 Voltage

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	500.0 kHz	5.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	30.0 MHz	5.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "LTE_fin QP"

2/23/2009 11:53AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.205000	40.00	10.1	79	39.0	---	---
0.315000	38.20	10.1	79	40.8	---	---
0.445000	42.90	10.1	79	36.1	---	---
1.680000	40.80	10.3	73	32.2	---	---
3.605000	36.60	10.5	73	36.4	---	---
5.795000	34.70	10.8	73	38.3	---	---

MEASUREMENT RESULT: "LTE_fin AV"

2/23/2009 11:53AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.205000	23.40	10.1	66	42.6	---	---
0.225000	21.90	10.1	66	44.1	---	---
0.455000	27.00	10.2	66	39.0	---	---
1.840000	25.10	10.3	60	34.9	---	---
12.195000	23.50	11.5	60	36.5	---	---
13.190000	24.50	11.6	60	35.5	---	---

Page 1/1 2/23/2009 11:53AM HCT EMC LAB

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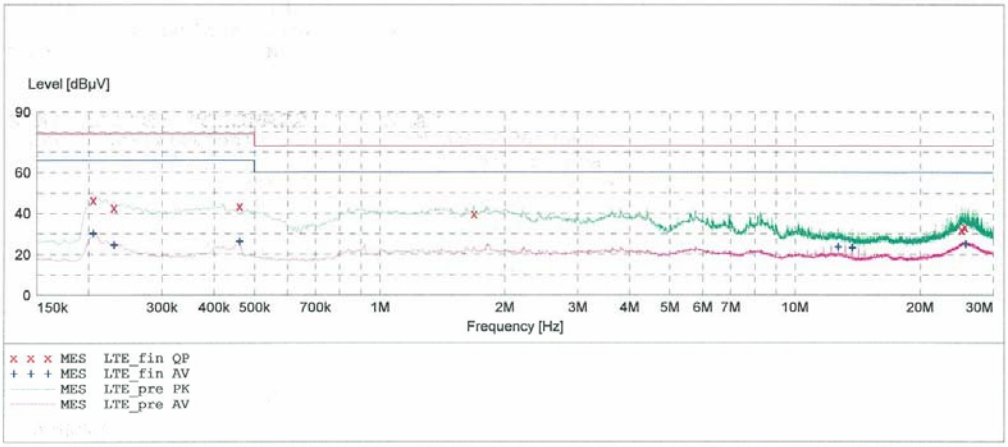
EMC TEST LAB

```
EUT:                    LEO3_BAND4
Manufacturer:           LG
Operating Condition:    IDLE MODE
Test Site:              SHIELD ROOM
Operator:               YH, LEE
Test Specification:     CISPR22 CLASS A
Comment:                N
```

SCAN TABLE: "CISPR22 CLASS A"

```
  Short Description:                EN 55022 Voltage
  Start       Stop        Step      Detector  Meas.     IF       Transducer
  Frequency   Frequency   Width               Time      Bandw.
  150.0 kHz   500.0 kHz   5.0 kHz   MaxPeak   10.0 ms   9 kHz    None
                                    Average
  500.0 kHz   30.0 MHz    5.0 kHz   MaxPeak   10.0 ms   9 kHz    None
                                    Average
```



MEASUREMENT RESULT: "LTE_fin QP"

2/23/2009 11:57AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.205000	46.50	10.1	79	32.5	---	---
0.230000	42.70	10.1	79	36.3	---	---
0.460000	43.40	10.2	79	35.6	---	---
1.685000	39.70	10.3	73	33.3	---	---
25.145000	32.00	12.9	73	41.0	---	---
25.620000	33.30	12.9	73	39.7	---	---

MEASUREMENT RESULT: "LTE_fin AV"

2/23/2009 11:57AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.205000	30.30	10.1	66	35.7	---	---
0.230000	24.70	10.1	66	41.3	---	---
0.460000	26.40	10.2	66	39.6	---	---
12.690000	23.90	11.5	60	36.1	---	---
13.690000	23.40	11.7	60	36.6	---	---
25.715000	25.20	12.9	60	34.8	---	---

Page 1/1 2/23/2009 11:57AM HCT EMC LAB

3.8 Radiated Emissions

Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency of emission (MHz)	Field strength (microvolts/meter)
30-88	100
88-216	150
216-960	200
Above 960	500

Test Result

Frequency MHz	Reading dBuV	Ant. Factor dB/m	Cable Loss Db	ANT POL (H/V)	Total dBuV/m	Limit dBuV/m	Margin dB
95.0	24.0	8.7	2.3	V	35.0	43.5	−8.5
491.5	13.6	16.8	5.2	H	35.6	46	−10.4
737.3	14.0	20.8	6.4	H	41.2	46	−4.8
798.3	13.2	21.4	6.7	V	41.3	46	−4.7
983.1	10.3	23.1	7.9	V	41.3	53.9	−12.6

(30 MHz ~ 1 GHz)

Frequency MHz	Detector	Ant. Factor dB/m	AMP	Cable Loss dB	ANT POL (H/V)	Total dBuV/m	Limit dBuV/m	Margin dB
1089.5	AV	25.21	42.3	1.35	V	37.5	49.5	12.0
1639.8	AV	25.23	42.5	1.85	V	36.6	49.5	12.9
1978.8	AV	25.31	42.7	2.01	V	36.4	49.5	13.1
2739.9	AV	28.12	42.2	2.40	V	36.4	49.5	13.1
1089.5	PK	25.21	42.3	1.35	V	41.6	69.5	27.9
1639.8	AV	25.23	42.5	1.85	V	41.3	69.5	28.2
1978.8	AV	25.31	42.7	2.01	V	42.9	69.5	26.6
2739.9	AV	28.12	42.2	2.40	V	43.5	69.5	26.0

(1 GHz ~ 18 GHz)

3.9 RF Exposure Statement

1. LIMITS

According to §1.1310 and §2.1091 RF exposure is calculated.

(B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength (V/m)	Magnetic field Strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
0.3 - 1.34.....	614	1.63	*(100)	30
1.34 - 30.....	824/f	2.19/f	*(180/ f^2)	30
30 - 300.....	27.5	0.073	0.2	30
300 - 1500.....	.....	.....	f/1500	30
1500 - 100.000.....	.....	.....	1.0	30

F = frequency in MHz

* = Plane-wave equivalent power density

2. MAXIMUM PERMISSIBLE EXPOSURE Prediction

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

S = Power density

P = power input to antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Max Peak output Power at antenna input terminal	23.10000	dBm
Max Peak output Power at antenna input terminal	204.17379	mW
Prediction distance	20.00000	cm
Prediction frequency	1715.00000	MHz
Antenna Gain(typical)	-4.00000	dBi
Antenna Gain(numeric)	0.39811	-
Power density at prediction frequency (S)	0.01617	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.00000	mW/cm^2

3. RESULTS

The power density level at 20 cm is 0.01617 mW/cm^2, which is below the uncontrolled exposure limit of 1.0 mW/cm^2 at 1715 MHz for AWS band.

4. LIST OF TEST EQUIPMENT

Manufacture	Model/ Equipment	Serial Number	Calibration Interval	Calibration Due
R&S	ESI40 / Spectrum Analyzer	831564/003	Annual	10/31/2009
R&S	FSQ26 / Spectrum Analyzer	200542	Annual	11/10/2009
Agilent	E4416A / Power Meter	MY41291412	Annual	01/21/2010
Agilent	E9327A / Power Sensor	MY4442009	Annual	07/28/2009
MITEQ	AMF-6D-01180-35-20P/ AMP	990893	Annual	05/20/2009
Wainwright	WHK1.2/15G-10EF/H.P.F	2	Annual	06/28/2009
Wainwright	WHK3.3/18G-10EF/H.P.F	1	Annual	06/28/2009
Agilent	775D / Dual Directional Coupler	16072	Annual	12/24/2009
Agilent	1506A / Power Divider	99441	Annual	12/24/2009
Digital	EP-3010 / Power Supply	3110117	Annual	01/07/2010
Korea Engineering	KR-1005L / Chamber	KRAB07063-2CH	Annual	12/31/2009
Schwarzbeck	VULB9160/ TRILOG Antenna	3150	Biennial	12/18/2010
Schwarzbeck	VULB9160/ TRILOG Antenna	3125	Biennial	05/16/2009
Schwarzbeck	BBHA 9120D/ Horn Antenna	147	Biennial	03/26/2010
Schwarzbeck	BBHA 9120D/ Horn Antenna	1201	Biennial	05/02/2009

5. CONCLUSION

The data collected shows that the LTE User Equipment **FCC ID: BEJLEO3** complies with all the requirements of Parts 27 of the FCC rules.