



FCC TEST REPORT (PART 24)

REPORT NO.: RF120117C24-6

MODEL NO.: PJ75100

FCC ID: NM8PJ75100

RECEIVED: Jan. 17, 2012

TESTED: Feb. 06 ~ Mar. 27, 2012

ISSUED: Mar. 27, 2012

APPLICANT: HTC Corporation

ADDRESS: 23, Xinghua Rd., Taoyuan 330, Taiwan, R.O.C.

ISSUED BY: Bureau Veritas Consumer Products Services
(H.K.) Ltd., Taoyuan Branch

LAB ADDRESS: No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist.,
New Taipei City, Taiwan (R.O.C)

TEST LOCATION: No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei
Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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TABLE OF CONTENTS

RELEASE CONTROL RECORD	4
1 CERTIFICATION	5
2 SUMMARY OF TEST RESULTS.....	6
2.1 MEASUREMENT UNCERTAINTY	7
3 GENERAL INFORMATION	8
3.1 GENERAL DESCRIPTION OF EUT.....	8
3.2 DESCRIPTION OF TEST MODES.....	9
3.2.1 CONFIGURATION OF SYSTEM UNDER TEST	10
3.3 DESCRIPTION OF SUPPORT UNITS.....	11
3.3.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL	12
3.4 GENERAL DESCRIPTION OF APPLIED STANDARDS	15
4 TEST TYPES AND RESULTS.....	16
4.1 OUTPUT POWER MEASUREMENT	16
4.1.1 LIMITS OF OUTPUT POWER MEASUREMENT	16
4.1.2 TEST INSTRUMENTS	17
4.1.3 TEST PROCEDURES.....	18
4.1.4 TEST SETUP	19
4.1.5 EUT OPERATING CONDITIONS.....	19
4.1.6 TEST RESULTS.....	20
4.2 FREQUENCY STABILITY MEASUREMENT	24
4.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT	24
4.2.2 TEST INSTRUMENTS	24
4.2.3 TEST PROCEDURE	25
4.2.4 TEST SETUP	25
4.2.5 TEST RESULTS.....	26
4.3 OCCUPIED BANDWIDTH MEASUREMENT	29
4.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT	29
4.3.2 TEST INSTRUMENTS	29
4.3.3 TEST SETUP	29
4.3.4 TEST PROCEDURES.....	30
4.3.5 EUT OPERATING CONDITION	30
4.3.6 TEST RESULTS.....	31
4.4 BAND EDGE MEASUREMENT	36
4.4.1 LIMITS OF BAND EDGE MEASUREMENT	36
4.4.2 TEST INSTRUMENTS	36
4.4.3 TEST SETUP	36
4.4.4 TEST PROCEDURES.....	37
4.4.5 EUT OPERATING CONDITION	37
4.4.6 TEST RESULTS.....	38
4.5 CONDUCTED SPURIOUS EMISSIONS.....	41



A D T

4.5.1	LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT	41
4.5.2	TEST INSTRUMENTS	41
4.5.3	TEST PROCEDURE	42
4.5.4	TEST SETUP	42
4.5.5	EUT OPERATING CONDITIONS.....	42
4.5.6	TEST RESULTS.....	43
4.6	RADIATED EMISSION MEASUREMENT	58
4.6.1	LIMITS OF RADIATED EMISSION MEASUREMENT.....	58
4.6.2	TEST INSTRUMENTS	58
4.6.3	TEST PROCEDURES.....	58
4.6.4	DEVIATION FROM TEST STANDARD	58
4.6.5	TEST SETUP	59
4.6.6	EUT OPERATING CONDITIONS.....	59
4.6.7	TEST RESULTS.....	60
5	PHOTOGRAPHS OF THE TEST CONFIGURATION.....	80
6	INFORMATION ON THE TESTING LABORATORIES.....	81
7	APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	82



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	Mar. 27, 2012



1 CERTIFICATION

PRODUCT: Smartphone

MODEL NO.: PJ75100

BRAND: HTC

APPLICANT: HTC Corporation

TESTED: Feb. 06 ~ Mar. 27, 2012

TEST SAMPLE: Production Unit

TEST STANDARDS: **FCC Part 24, Subpart E**

The above equipment (model: PJ75100) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Ivonne Wu , **DATE** : Mar. 27, 2012
Ivonne Wu / Senior Specialist

APPROVED BY : Gary Chang , **DATE** : Mar. 27, 2012
Gary Chang / Technical Manager

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

CDMA BC1			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
2.1046 24.232	Maximum Peak Output Power Limit: max. 2 watts e.i.r.p peak power	PASS	Meet the requirement of limit. Max. e.i.r.p is 22.98dBm at 1880.0 MHz.
2.1055 24.235	Frequency Stability AFC Freq. Error vs. Voltage AFC Freq. Error vs. Temperature Limit: max. +/-2.5ppm	PASS	Meet the requirement of limit.
2.1049 24.238(b)	Occupied Bandwidth	PASS	Meet the requirement of limit.
24.238(b)	Band Edge Measurements	PASS	Meet the requirement of limit.
2.1051 24.238	Conducted Spurious Emissions	PASS	Meet the requirement of limit.
2.1053 24.238	Radiated Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -11.03dB at 42.42MHz.

LTE BAND 25			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
2.1046 24.232	Maximum Peak Output Power Limit: max. 2 watts e.i.r.p peak power	PASS	Meet the requirement of limit. Max. e.i.r.p is 19.85dBm at 1852.5 MHz.
2.1055 24.235	Frequency Stability AFC Freq. Error vs. Voltage AFC Freq. Error vs. Temperature Limit: max. +/-2.5ppm	PASS	Meet the requirement of limit.
2.1049 24.238(b)	Occupied Bandwidth	PASS	Meet the requirement of limit.
24.238(b)	Band Edge Measurements	PASS	Meet the requirement of limit.
2.1051 24.238	Conducted Spurious Emissions	PASS	Meet the requirement of limit.
2.1053 24.238	Radiated Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -11.04dB at 42.42MHz.

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.34 dB
	200MHz ~1000MHz	3.35 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Smartphone	
MODEL NO.	PJ75100	
POWER SUPPLY	5.0Vdc (adapter or host equipment) 3.7Vdc (Li-ion battery)	
MODULATION TYPE	CDMA	QPSK, OQPSK, HPSK
	LTE Band 25	QPSK, 16QAM
FREQUENCY RANGE	CDMA	1851.25MHz ~ 1908.75MHz
	LTE Band 25 Channel Bandwidth: 5MHz	1852.5MHz ~ 1912.5MHz
	LTE Band 25 Channel Bandwidth: 10MHz	1855MHz ~ 1910MHz
MAX. EIRP POWER	CDMA	0.20Watts
	LTE Band 25	0.10Watts
ANTENNA TYPE	Fixed Internal antenna with -2dBi gain for CDMA Fixed Internal antenna with -3.5dBi gain for EVDO & LTE	
I/O PORTS	Refer to users' manual	
DATA CABLE	Refer to Note as below	
ACCESSORY DEVICES	Refer to Note as below	

NOTE:

1. The EUT's accessories list refers to EUT photo.
2. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

The device includes CDMA, EV-DO and LTE transmitter. CDMA transmitter only supports 1x RTT without EV-DO mode. EV-DO transmitter only supports EV-DO without 1x RTT mode.

	CHANNEL	FREQUENCY	TX MODE
LOW	25	1851.25 MHz	1xEVDO Rev. 0 & Rev. A
MIDDLE	600	1880.00 MHz	1xEVDO Rev. 0 & Rev. A
HIGH	1175	1908.75 MHz	1xEVDO Rev. 0 & Rev. A

NOTE:

1. Below 1 GHz, the channel 25, 600 and 1175 were pre-tested in chamber. The channel 600 was the worst case and chosen for final test.
2. Above 1 GHz, the channel 600 was tested individually.
3. The channel space is 0.05MHz.
4. After pretest of output power and spurious emission for rev 0 and rev A, measured value of rev 0 is higher than rev A mode. Therefore, all tests were performed under rev 0 mode.

	CHANNEL	FREQUENCY	TX MODE
LOW	25	1851.25 MHz	CDMA2000
MIDDLE	600	1880.00 MHz	CDMA2000
HIGH	1175	1908.75 MHz	CDMA2000

NOTE:

1. Below 1 GHz, the channel 25, 600 and 1175 were pre-tested in chamber. The channel 600 was the worst case and chosen for final test.
2. Above 1 GHz, the channel 600 was tested individually.
3. The channel space is 0.05MHz.

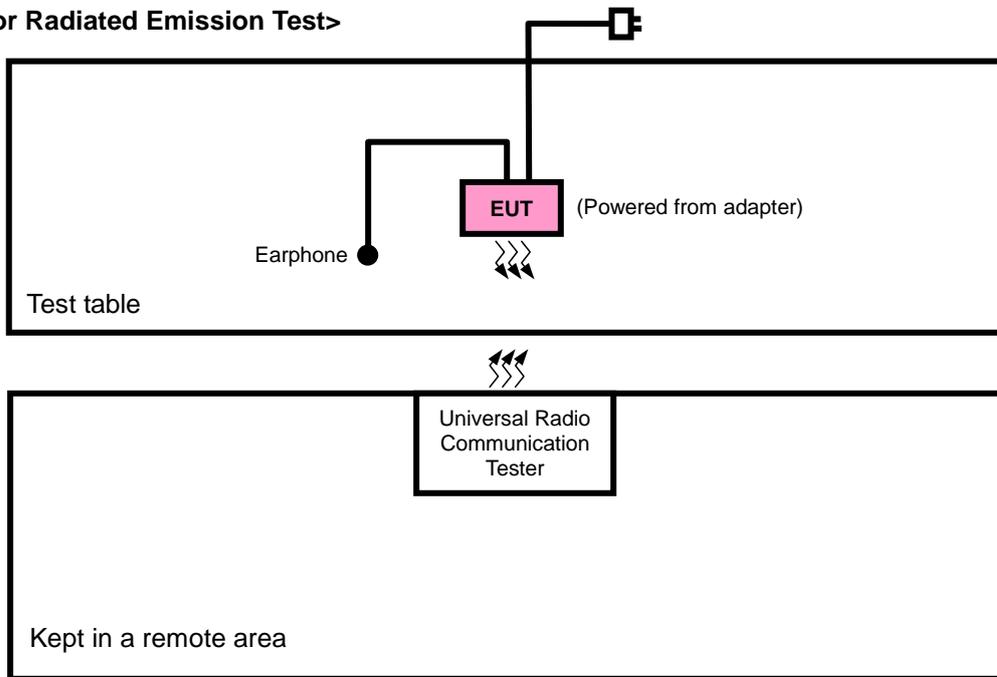
LTE Band 25:

Three channels had been tested for each channel bandwidth.

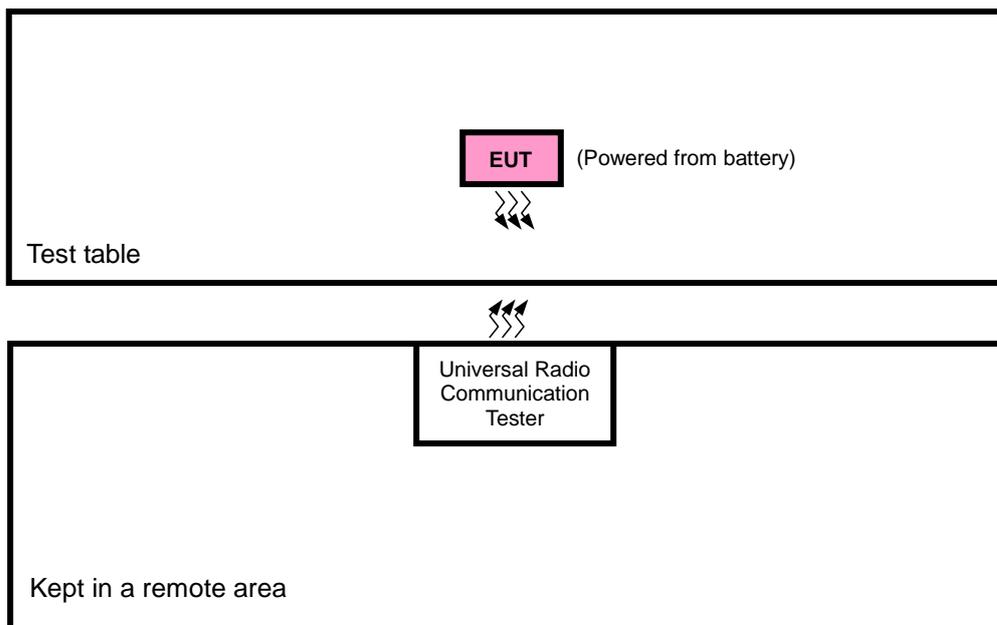
CHANNEL BANDWIDTH	5MHz		10MHz	
	Channel	Frequency(MHz)	Channel	Frequency(MHz)
Low channel (L)	26065	1852.5	26090	1855.0
Middle channel (M)	26365	1882.5	26365	1882.5
High channel (H)	26665	1912.5	26640	1910.0

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST

<For Radiated Emission Test>



<For Output Power Test>



3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Universal Radio Communication Tester	R&S	CMU200	104484	NA
2	Radio Communication Analyzer	Anritsu	MT8820C	6201010284	NA
3	Earphone	Merry	RC E190	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	NA
3	NA

NOTE 1: All power cords of the above support units are non shielded (1.8m).

NOTE 2: Item 1-2 acted as a communication partners to transfer data.

NOTE 3: Item 3 was provided by client.



3.3.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO						DESCRIPTION
	OP	FS	OB	BE	CE	RE	
-	√	√	√	√	√	√	-

Where **OP:** Output power **FS:** Frequency stability
OB: Occupied bandwidth **BE:** Band edge
CE: Conducted spurious emissions **RE:** Radiated emission

OUTPUT POWER MEASUREMENT:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	AXIS
25 to 1175	25, 600, 1175	CDMA	Y
25 to 1175	25, 600, 1175	1xEVDO Rev. 0	Z
26065 to 26685	26065, 26365, 26685	QPSK	Z
26090 to 26640	26090, 26365, 26640	QPSK	Z

FREQUENCY STABILITY MEASUREMENT:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY
25 to 1175	600	CDMA
26065 to 26665	26365	QPSK
26090 to 26640	26365	QPSK

OCCUPIED BANDWIDTH MEASUREMENT:

- This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY
25 to 1175	25, 600, 1175	CDMA
26065 to 26665	26365	QPSK
26090 to 26640	26365	QPSK

BAND EDGE MEASUREMENT:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY
25 to 1175	25, 1175	CDMA
26065 to 26665	26065, 26665	QPSK
26090 to 26640	26090, 26640	QPSK

CONDUCTED SPURIOUS EMISSIONS MEASUREMENT:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY
25 to 1175	600	CDMA
26065 to 26665	26365	QPSK
26090 to 26640	26365	QPSK

RADIATED EMISSION MEASUREMENT:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	AXIS
25 to 1175	600	CDMA	Y
25 to 1175	600	1xEVDO Rev. 0	Z
26065 to 26665	26365	QPSK	Y
26090 to 26640	26365	QPSK	Y

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
OP	25deg. C, 53%RH	3.7Vdc	Phoenix Chen
FS	25deg. C, 53%RH	3.7Vdc	Phoenix Chen
OB	25deg. C, 53%RH	3.7Vdc	Phoenix Chen
EM	25deg. C, 53%RH	3.7Vdc	Phoenix Chen
BE	25deg. C, 53%RH	3.7Vdc	Phoenix Chen
CE	25deg. C, 53%RH	3.7Vdc	Phoenix Chen
RE	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu



3.4 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2

FCC 47 CFR Part 24

ANSI C63.4-2003

ANSI/TIA/EIA-603-C 2004

NOTE: All test items have been performed and recorded as per the above standards.

4 TEST TYPES AND RESULTS

4.1 OUTPUT POWER MEASUREMENT

4.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

The radiated peak output power shall be according to the specific rule Part 24.232(b) that “Mobile / Portable station are limited to 2 watts e.i.r.p” and 24.232(c) specific that “Peak transmit power must be measure over any interval of continuous transmission using instrumentation calibration in terms of rms-equivalent voltage.”



4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100744	Apr. 19, 2011	Apr. 18, 2012
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Aug. 04, 2011	Aug. 03, 2012
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 12, 2011	Apr. 11, 2012
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-563	Sep. 06, 2011	Sep. 05, 2012
HORN Antenna SCHWARZBECK	BBHA 9170	148	Jul. 20, 2011	Jul. 19, 2012
Preamplifier Agilent	8449B	3008A01911	Oct. 29, 2011	Oct. 28, 2012
Preamplifier Agilent	8447D	2944A10638	Oct. 29, 2011	Oct. 28, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295013/4 283403/4	Aug. 19, 2011	Aug. 18, 2012
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 13, 2011	Aug. 12, 2012
Software	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower & Turn Table Controller EMCO	2090	NA	NA	NA

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Chamber 9.
 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Site Registration No. is 460141.
 5. The IC Site Registration No. is IC 7450F-4.

4.1.3 TEST PROCEDURES

EIRP MEASUREMENT:

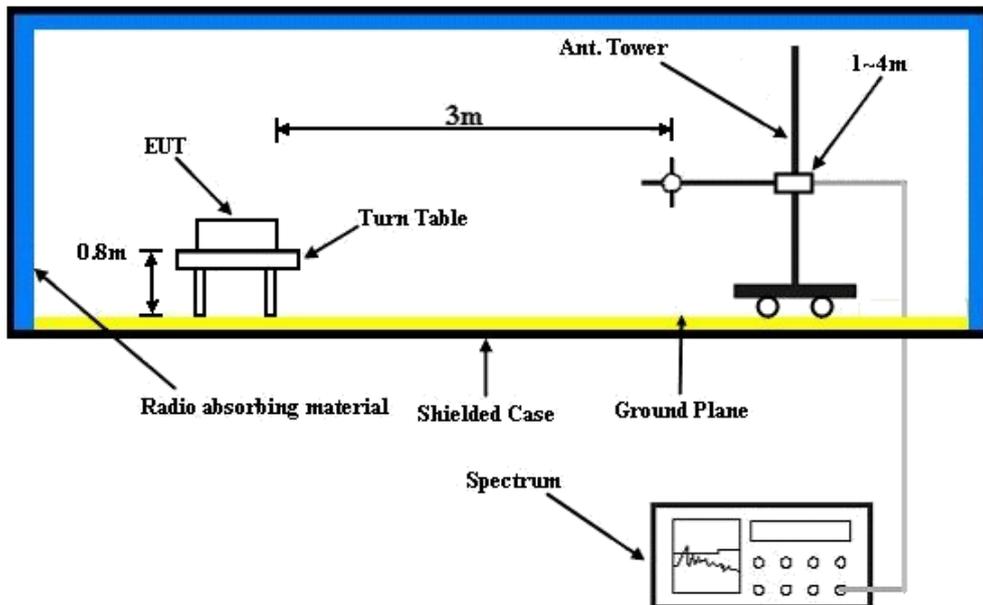
- a. The power was measured with R&S Spectrum Analyzer. All measurements were done at 6 channels, 25, 600 and 1175 (CDMA) & 26090, 26365 and 26640 (LTE band 25) (low, middle and high operational frequency range.)
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step c. Record the power level of S.G
- d. $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn.}$

CONDUCTED POWER MEASUREMENT:

- a. The EUT was set up for the maximum power with CDMA/LTE link data modulation and link up with simulator.
- b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

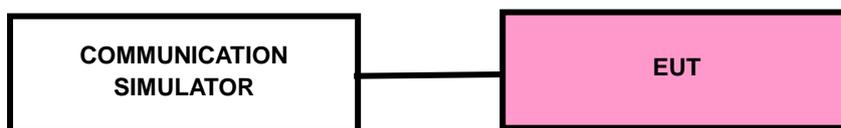
4.1.4 TEST SETUP

EIRP POWER MEASUREMENT:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

CONDUCTED POWER MEASUREMENT:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.5 EUT OPERATING CONDITIONS

- a. The EUT makes a call to the communication simulator.
- b. The communication simulator station system controlled an EUT to export maximum output power under transmission mode and specific channel frequency.

4.1.6 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm)

Band	CDMA2000 BC1		
Channel	25	600	1175
Frequency	1851.25	1880	1908.75
RC1+SO55	24.79	24.82	24.79
RC3+SO55	24.83	24.75	24.67
RC3+SO32(+ F-SCH)	24.78	24.75	24.69
RC3+SO32(+SCH)	24.77	24.74	24.68
RTAP 153.6	23.89	23.55	23.58
RETAP 4096	23.99	23.60	23.66

LTE Band 25								
BW	Modulation	CH	Frequency	RB	RB Offset	MPR	Target	Measured
			(MHz)				Power	Power
5 MHz	QPSK	26065	1852.5	1	0	0	24	23.94
		26365	1882.5	1	0	0	24	23.94
		26665	1912.5	1	0	0	24	23.91
		26065	1852.5	1	24	0	24	23.96
		26365	1882.5	1	24	0	24	23.94
		26665	1912.5	1	24	0	24	23.65
		26065	1852.5	12	6	1	24	23.18
		26365	1882.5	12	6	1	24	23.18
		26665	1912.5	12	6	1	24	23.39
		26065	1852.5	25	0	1	24	23.31
	26365	1882.5	25	0	1	24	23.2	
	26665	1912.5	25	0	1	24	23.42	
	16QAM	26065	1852.5	1	0	1	24	23.25
		26365	1882.5	1	0	1	24	23.25
		26665	1912.5	1	0	1	24	23.42
		26065	1852.5	1	24	1	24	23.43
		26365	1882.5	1	24	1	24	23.31
		26665	1912.5	1	24	1	24	23.12
		26065	1852.5	12	6	2	24	22.14
		26365	1882.5	12	6	2	24	22.16
26665		1912.5	12	6	2	24	22.49	
26065		1852.5	25	0	2	24	22.7	
26365	1882.5	25	0	2	24	22.68		
26665	1912.5	25	0	2	24	22.88		



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LTE Band 25								
BW	Modulation	CH	Frequency	RB	RB Offset	MPR	Target	Measured
			(MHz)				Power	Power
10 MHz	QPSK	26090	1855	1	0	0	24	23.95
		26365	1882.5	1	0	0	24	23.94
		26640	1910	1	0	0	24	23.98
		26090	1855	1	49	0	24	23.98
		26365	1882.5	1	49	0	24	23.94
		26640	1910	1	49	0	24	23.99
		26090	1855	25	12	1	24	23.41
		26365	1882.5	25	12	1	24	23.2
		26640	1910	25	12	1	24	23.59
		26090	1855	50	0	1	24	23.53
		26365	1882.5	50	0	1	24	23.29
		26640	1910	50	0	1	24	23.57
	16QAM	26090	1855	1	0	1	24	23.27
		26365	1882.5	1	0	1	24	23.23
		26640	1910	1	0	1	24	23.34
		26090	1855	1	49	1	24	23.53
		26365	1882.5	1	49	1	24	23.31
		26640	1910	1	49	1	24	23.77
		26090	1855	25	12	2	24	22.82
		26365	1882.5	25	12	2	24	22.57
		26640	1910	25	12	2	24	22.63
		26090	1855	50	0	2	24	22.47
		26365	1882.5	50	0	2	24	22.4
		26640	1910	50	0	2	24	22.48



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EIRP POWER

FOR CDMA MODE

Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(W)	Polarization (H/V)
Y	25	1851.25	-15.63	38.19	22.56	0.18	H
	600	1880.0	-15.72	38.70	22.98	0.20	H
	1175	1908.75	-17.05	39.35	22.30	0.17	H
	25	1851.25	-17.23	38.48	21.25	0.13	V
	600	1880.0	-17.02	38.59	21.57	0.14	V
	1175	1908.75	-18.34	38.87	20.53	0.11	V

FOR 1xEVDO Rev. 0 MODE

Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	ERP(W)	Polarization (H/V)
Z	25	1851.25	-19.88	38.19	18.31	0.07	H
	600	1880.0	-20.26	38.70	18.44	0.07	H
	1175	1908.75	-21.87	39.35	17.48	0.06	H
	25	1851.25	-23.96	38.48	14.52	0.03	V
	600	1880.0	-24.88	38.59	13.71	0.02	V
	1175	1908.75	-26.01	38.87	12.86	0.02	V



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FOR LTE BAND 25:

CHANNEL BANDWIDTH: 5MHz

Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(W)	Polarization (H/V)
Z	26065	1852.5	-18.34	38.19	19.85	0.10	H
	26365	1882.5	-19.31	38.70	19.39	0.09	H
	26685	1912.5	-20.29	39.35	19.06	0.08	H
	26065	1852.5	-22.87	38.48	15.61	0.04	V
	26365	1882.5	-23.85	38.59	14.74	0.03	V
	26685	1912.5	-24.40	38.87	14.47	0.03	V

CHANNEL BANDWIDTH: 10MHz

Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(W)	Polarization (H/V)
Z	26090	1855.0	-18.43	38.19	19.76	0.09	H
	26365	1882.5	-19.49	38.70	19.21	0.08	H
	26640	1910.0	-20.56	39.35	18.79	0.08	H
	26090	1855.0	-23.16	38.48	15.32	0.03	V
	26365	1882.5	-23.62	38.59	14.97	0.03	V
	26640	1910.0	-24.23	38.87	14.64	0.03	V



4.2 FREQUENCY STABILITY MEASUREMENT

4.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

According to the FCC part 24.235 shall be tested the frequency stability. The rule is defined that "The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block." The frequency error rate is according to the JTC standard that the frequency error rate shall be accurate to within 2.5ppm of the received frequency from the base station.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Spectrum Analyzer Agilent	E4446A	MY43360128	Feb. 22, 2011	Feb. 21, 2012
Hewlett Packard RF cable	8120-6192	01428251	NA	NA
RF cable	SUCOFLEX 104	257029	Sep. 11, 2011	Sep. 10, 2012
WIT Standard Temperature & Humidity Chamber	MHU-225AU	920842	Jun. 15, 2011	Jun. 14, 2012

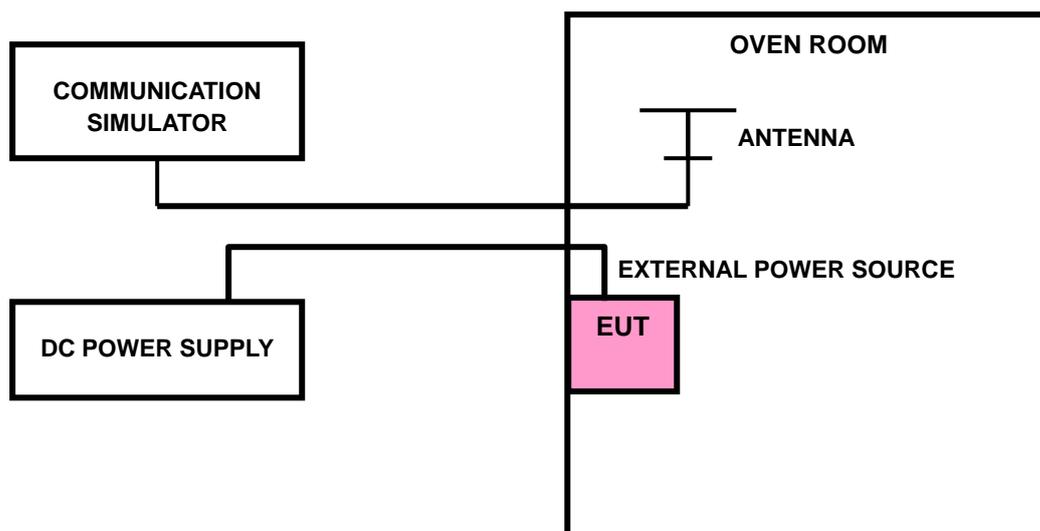
NOTE: The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

4.2.3 TEST PROCEDURE

- a. Because of the measure the carrier frequency under the condition of the AFC lock, it shall be used the mobile station in the CDMA/LTE link mode. This is accomplished with the use of the R&S CMU200 simulator station. The oven room could control the temperatures and humidity. The CDMA link channel is the 600, and the LTE link channel is 26365.
- b. Power must be removed when changing from one temperature to another or one voltage to another voltage. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- c. EUT is connected the external power supply to control the DC input power. The various Volts from the minimum 3.6Volts to 4.2Volts. Each step shall be record the frequency error rate.
- d. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing.
- e. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

NOTE: The frequency error was recorded frequency error from the GSM simulator.

4.2.4 TEST SETUP



4.2.5 TEST RESULTS

FOR CDMA:

AFC FREQUENCY ERROR vs. VOLTAGE			
VOLTAGE (Volts)	FREQUENCY ERROR (Hz)	FREQUENCY ERROR (ppm)	LIMIT (ppm)
3.8	4.76	0.003	2.5
3.6	15.66	0.008	2.5
4.2	3.96	0.002	2.5

NOTE: The applicant defined the normal working voltage of the battery is from 3.6Vdc to 4.2Vdc.

AFC FREQUENCY ERROR vs. TEMP.			
TEMP. (°C)	FREQUENCY ERROR (Hz)	FREQUENCY ERROR (ppm)	LIMIT (ppm)
-10	3.59	0.002	2.5
0	3.81	0.002	2.5
10	4.22	0.002	2.5
20	4.4	0.002	2.5
30	3.9	0.002	2.5
40	4.17	0.002	2.5
50	3.77	0.002	2.5
55	5.11	0.003	2.5

FOR LTE Band 25:

CHANNEL BANDWIDTH: 5MHz

AFC FREQUENCY ERROR vs. VOLTAGE			
VOLTAGE (Volts)	FREQUENCY ERROR (Hz)	FREQUENCY ERROR (ppm)	LIMIT (ppm)
3.8	27	0.250	2.5
3.6	-17	0.248	2.5
4.2	-30	0.251	2.5

NOTE: The applicant defined the normal working voltage of the battery is from 3.6Vdc to 4.2Vdc.

AFC FREQUENCY ERROR vs. TEMP.			
TEMP. (°C)	FREQUENCY ERROR (Hz)	FREQUENCY ERROR (ppm)	LIMIT (ppm)
-10	23	0.012	2.5
0	58	0.031	2.5
10	46	0.024	2.5
20	33	0.017	2.5
30	11	0.006	2.5
40	-63	-0.033	2.5
50	-70	-0.037	2.5
55	19	0.010	2.5



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CHANNEL BANDWIDTH: 10MHz

AFC FREQUENCY ERROR vs. VOLTAGE			
VOLTAGE (Volts)	FREQUENCY ERROR (Hz)	FREQUENCY ERROR (ppm)	LIMIT (ppm)
3.8	39	0.250	2.5
3.6	-41	0.248	2.5
4.2	-62	0.251	2.5

NOTE: The applicant defined the normal working voltage of the battery is from 3.6Vdc to 4.2Vdc.

AFC FREQUENCY ERROR vs. TEMP.			
TEMP. (°C)	FREQUENCY ERROR (Hz)	FREQUENCY ERROR (ppm)	LIMIT (ppm)
-10	98	0.052	2.5
0	-47	-0.025	2.5
10	51	0.027	2.5
20	55	0.029	2.5
30	43	0.023	2.5
40	-48	-0.025	2.5
50	-61	-0.032	2.5
55	-72	-0.038	2.5

4.3 OCCUPIED BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

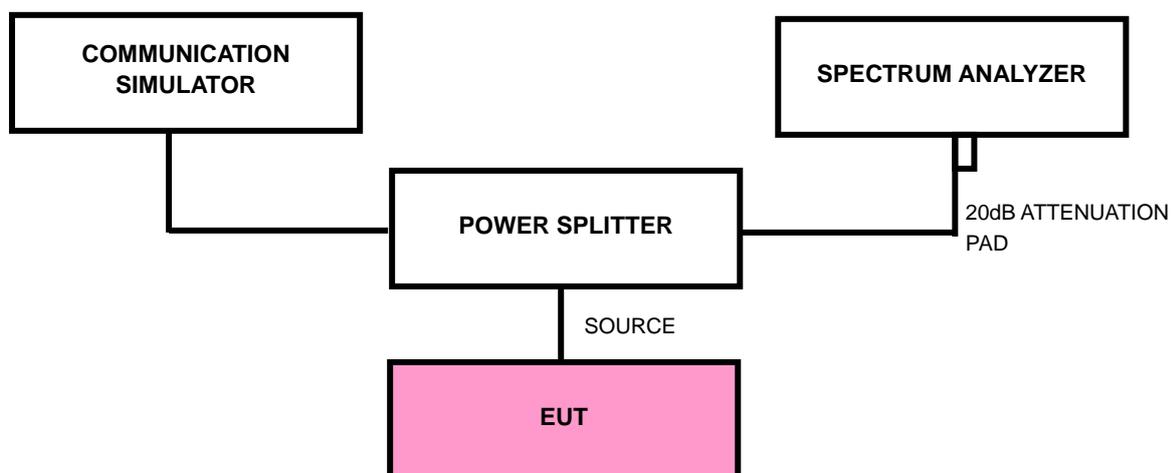
The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
SPECTRUM ANALYZER R&S	FSP40	100039	Feb. 23, 2011	Feb. 22, 2012
Mini-Circuits Power Splitter	ZN2PD-9G	NA	May 25, 2011	May 24, 2012
RF cable	SUCOFLEX 104	274403/4	Aug. 20, 2011	Aug. 19, 2012
RF cable	SUCOFLEX 104	250729/4	Aug. 19, 2011	Aug. 18, 2012
RF cable	SUCOFLEX 104	214377/4	Aug. 19, 2011	Aug. 18, 2012
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA

NOTE: The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

4.3.3 TEST SETUP



4.3.4 TEST PROCEDURES

- a. The power was measured with R&S Spectrum Analyzer. All measurements were done at 4 channels, 25, 600 and 1175 (CDMA) & 26365 (LTE band 25) (low, middle and high operational frequency range.)
- b. The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- c. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

4.3.5 EUT OPERATING CONDITION

- a. The EUT makes a call to the communication simulator.
- b. The communication simulator station system controlled a EUT to export maximum and minimum output power under transmission mode and specific channel frequency.



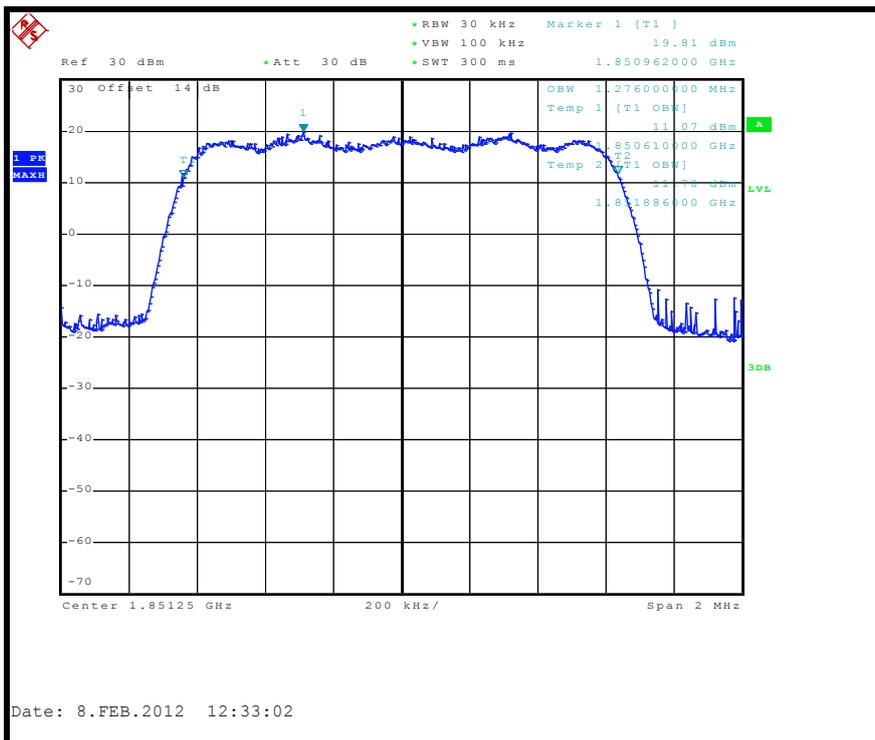
A D T

4.3.6 TEST RESULTS

FOR CDMA

CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)
25	1851.25	1.276
600	1880.00	1.272
1175	1908.75	1.272

CH 25

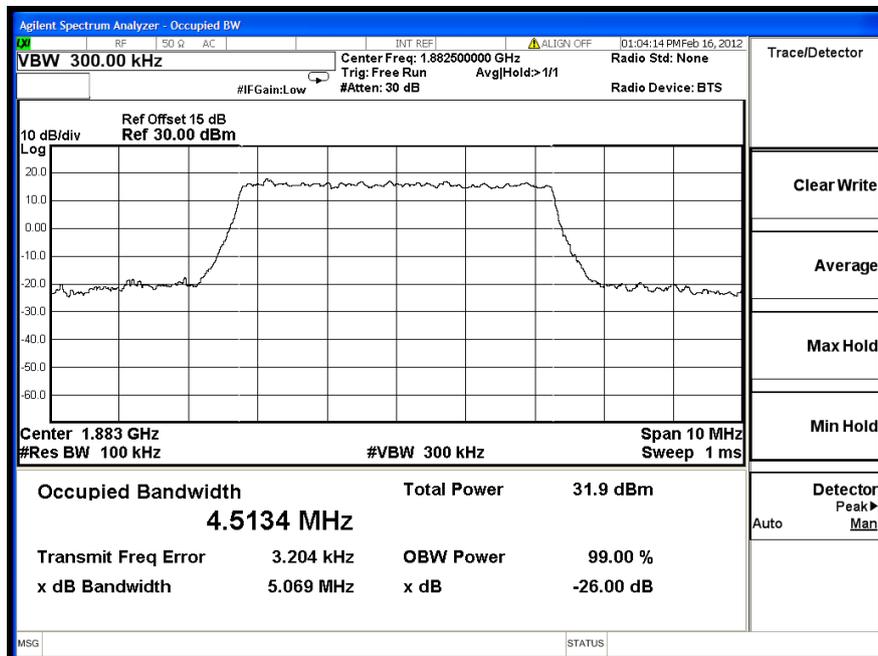




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FOR LTE BAND 25
CHANNEL BANDWIDTH: 5MHz / QPSK

CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)
26365	1882.5	4.513

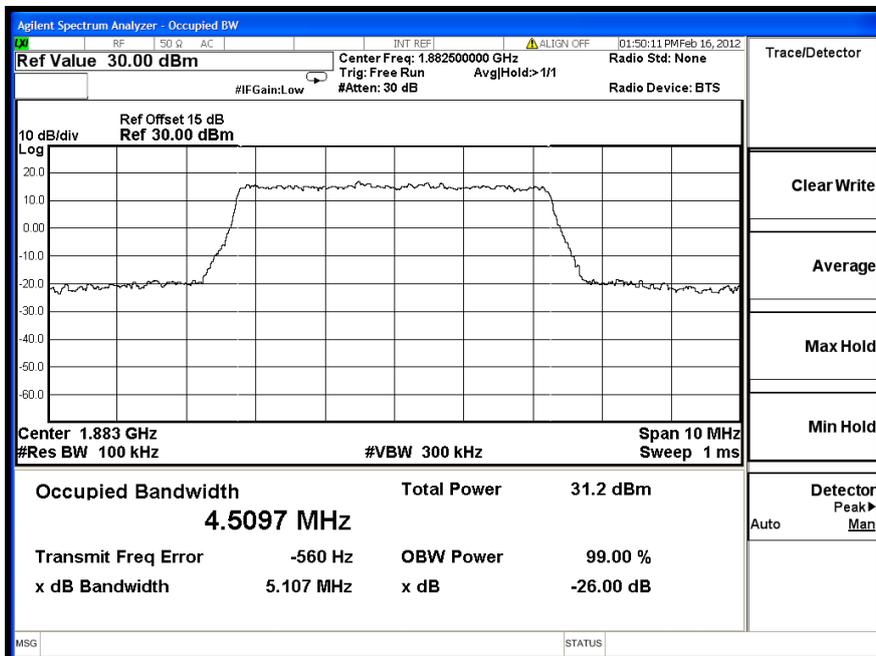




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FOR LTE BAND 25
CHANNEL BANDWIDTH: 5MHz / 16QAM

CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)
26365	1882.5	4.510

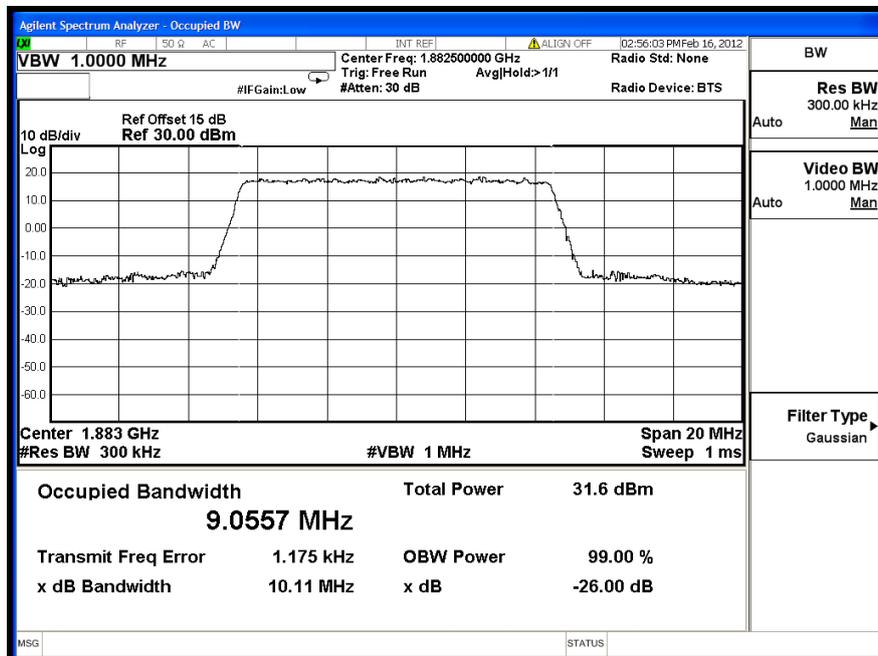




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FOR LTE BAND 25
CHANNEL BANDWIDTH: 10MHz / QPSK

CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)
26365	1882.5	9.056

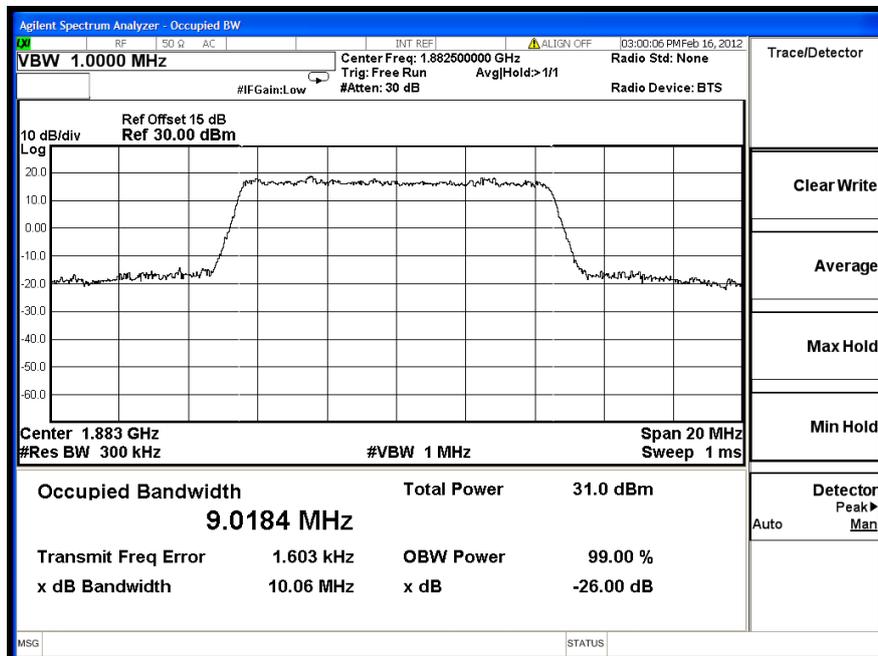




A D T

FOR LTE BAND 25
CHANNEL BANDWIDTH: 10MHz / 16QAM

CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)
26365	1882.5	9.018



4.4 BAND EDGE MEASUREMENT

4.4.1 LIMITS OF BAND EDGE MEASUREMENT

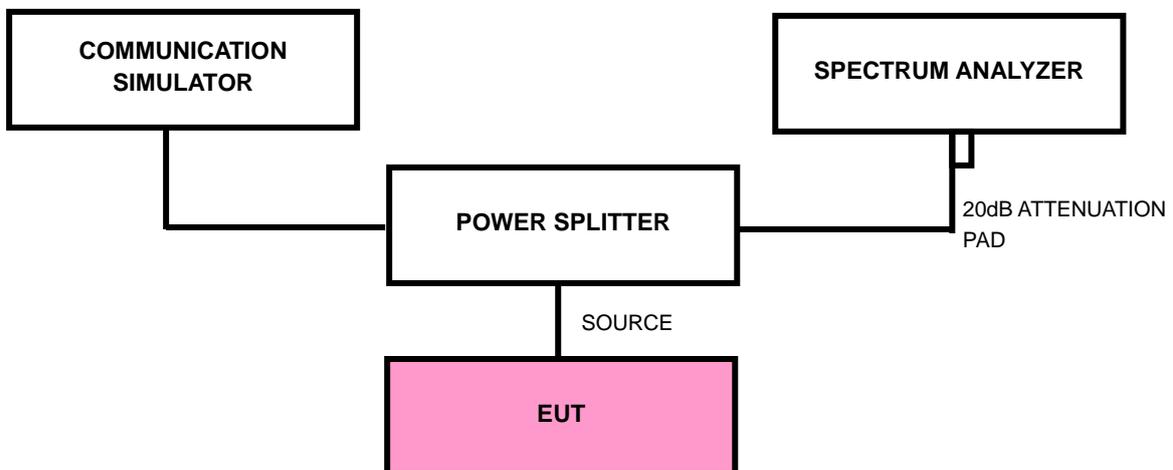
According to FCC 24.238(a) specified that power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

4.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
SPECTRUM ANALYZER R&S	FSP40	100039	Feb. 23, 2011	Feb. 22, 2012
Mini-Circuits Power Splitter	ZN2PD-9G	NA	May 25, 2011	May 24, 2012
RF cable	SUCOFLEX 104	274403/4	Aug. 20, 2011	Aug. 19, 2012
RF cable	SUCOFLEX 104	250729/4	Aug. 19, 2011	Aug. 18, 2012
RF cable	SUCOFLEX 104	214377/4	Aug. 19, 2011	Aug. 18, 2012
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA

NOTE: The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

4.4.3 TEST SETUP



4.4.4 TEST PROCEDURES

- a. The power was measured with R&S Spectrum Analyzer. All measurements were done at channel 25 & 1175 (CDMA), 26065 & 26665 (LTE Band 25 with 5MHz), and 26090 & 26640 (LTE Band 25 with 10MHz) (low and high operational frequency range.)
- b. The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- c. The center frequency of spectrum is the band edge frequency and span is 3 MHz. RB of the spectrum is 15kHz and VB of the spectrum is 15kHz (CDMA).
- d. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 10kHz and VB of the spectrum is 30kHz (LTE).
- e. Record the max trace plot into the test report.

4.4.5 EUT OPERATING CONDITION

- a. The EUT makes a call to the communication simulator.
- b. The communication simulator station system controlled an EUT to export maximum output power under transmission mode and specific channel frequency.

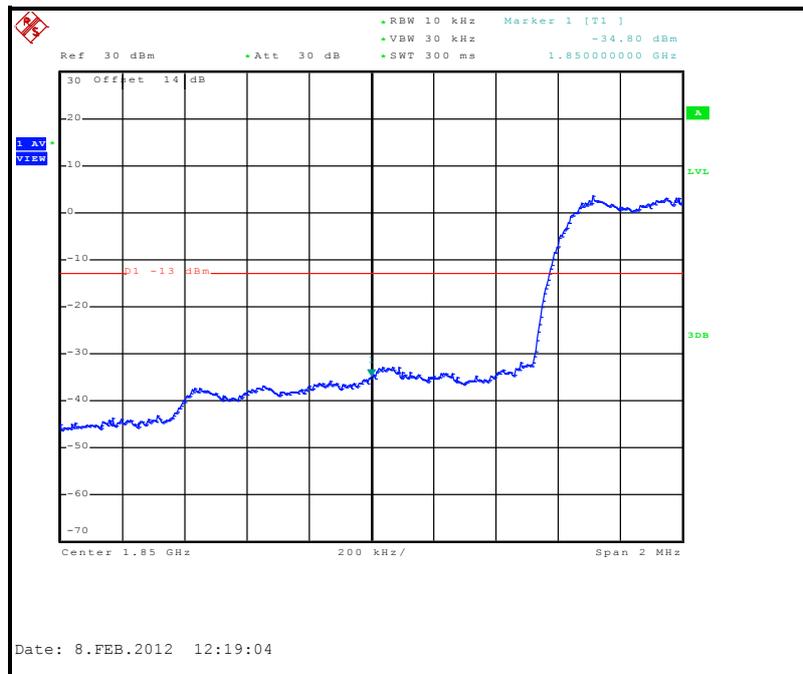


A D T

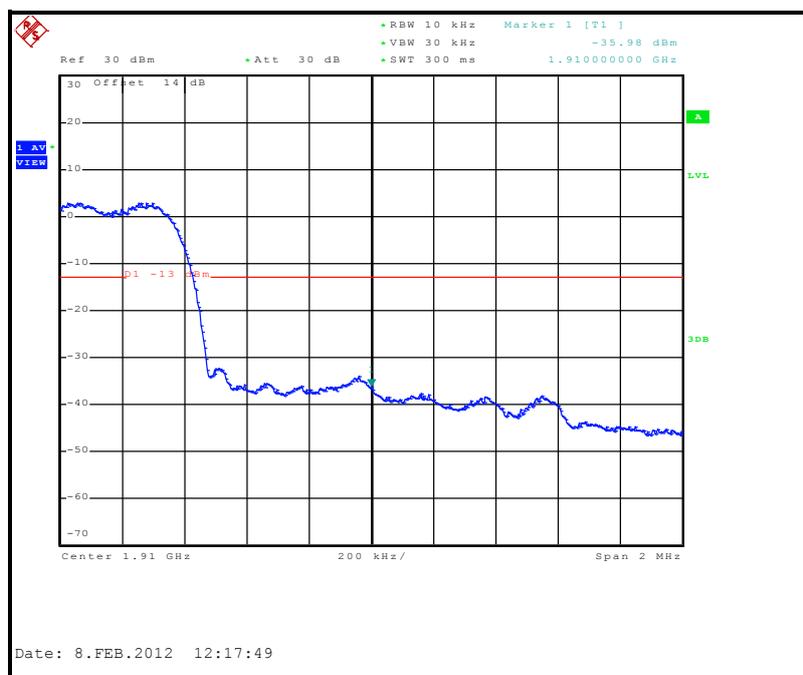
4.4.6 TEST RESULTS

FOR CDMA MODE

LOWER BAND EDGE



HIGHER BAND EDGE



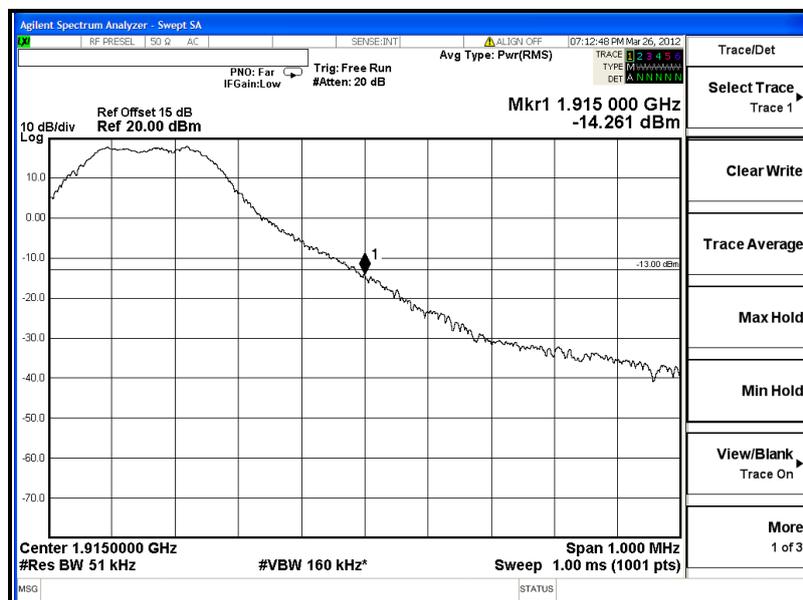


A D T

FOR LTE BAND 25
CHANNEL BANDWIDTH: 5MHz
LOWER BAND EDGE

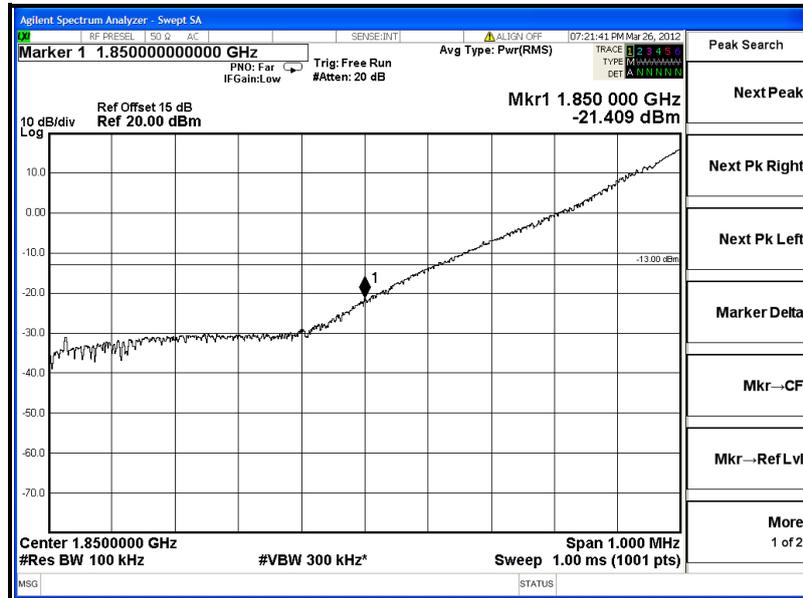


HIGHER BAND EDGE

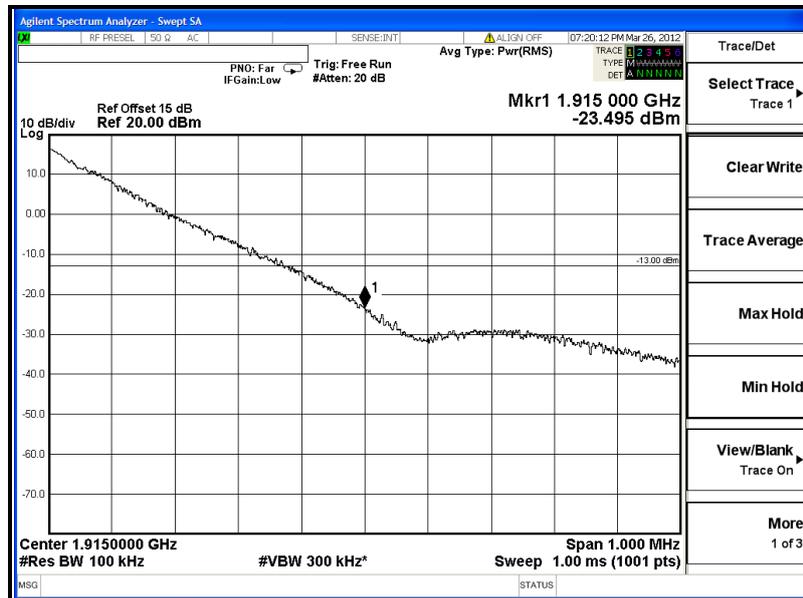


CHANNEL BANDWIDTH: 10MHz

LOWER BAND EDGE



HIGHER BAND EDGE





4.5 CONDUCTED SPURIOUS EMISSIONS

4.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

In the FCC 24.238(a), On any frequency outside a licensee's frequency block within USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. The specified minimum attenuation becomes 43dB and the limit of emission equal to -13dBm .

4.5.2 TEST INSTRUMENTS

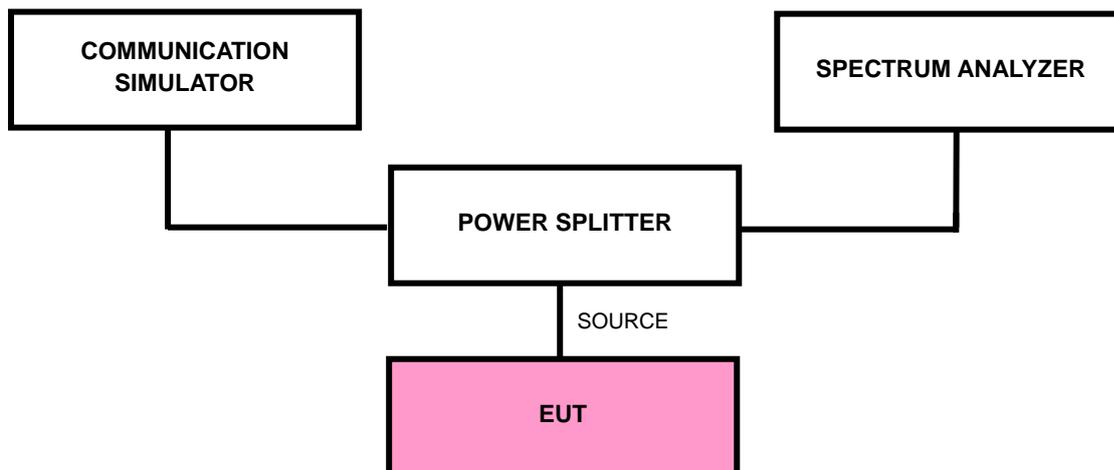
DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
SPECTRUM ANALYZER R&S	FSP40	100039	Feb. 23, 2011	Feb. 22, 2012
Mini-Circuits Power Splitter	ZN2PD-9G	NA	May 25, 2011	May 24, 2012
RF cable	SUCOFLEX 104	274403/4	Aug. 20, 2011	Aug. 19, 2012
RF cable	SUCOFLEX 104	250729/4	Aug. 19, 2011	Aug. 18, 2012
RF cable	SUCOFLEX 104	214377/4	Aug. 19, 2011	Aug. 18, 2012
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA

NOTE: The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

4.5.3 TEST PROCEDURE

- a. The power was measured with R&S Spectrum Analyzer. All measurements were done at channel 600 (CDMA) & 26365 (LTE Band 25).
- b. The conducted spurious emission used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- c. Measuring frequency range is from 30 MHz to 19.1GHz. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

4.5.4 TEST SETUP



4.5.5 EUT OPERATING CONDITIONS

- a. The EUT makes a call to the communication simulator.
- b. The communication simulator station system controlled an EUT to export maximum output power under transmission mode and specific channel frequency.

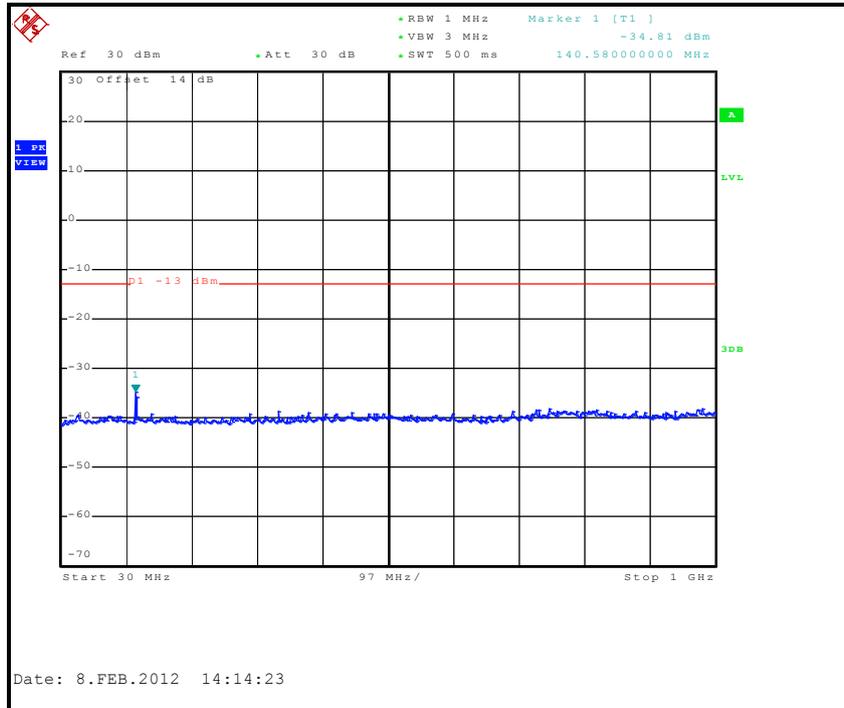


A D T

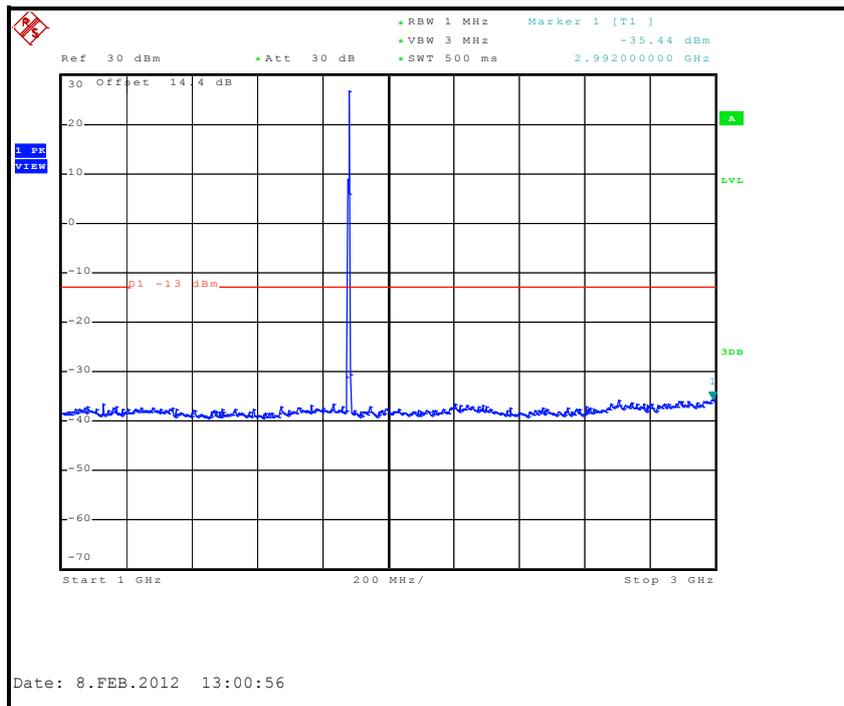
4.5.6 TEST RESULTS

FOR CDMA:

CH 600: 30MHz ~ 1GHz



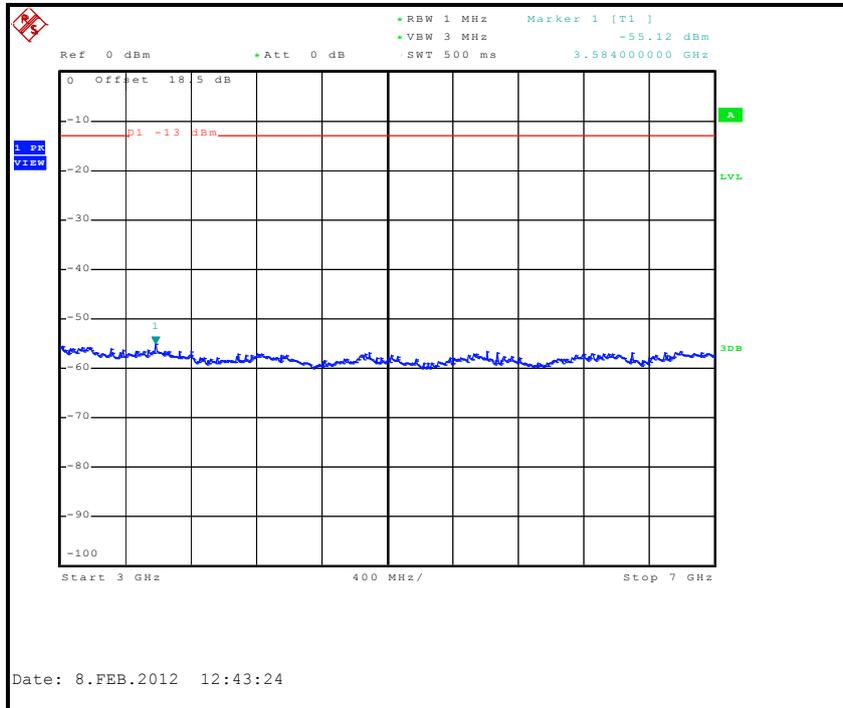
1GHz ~ 3GHz



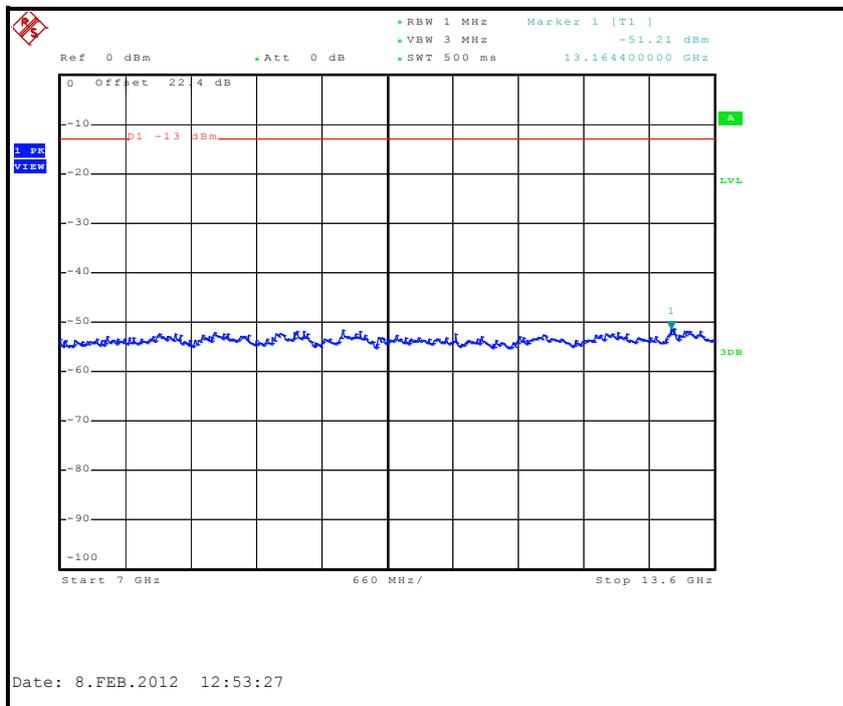


A D T

3GHz ~ 7GHz



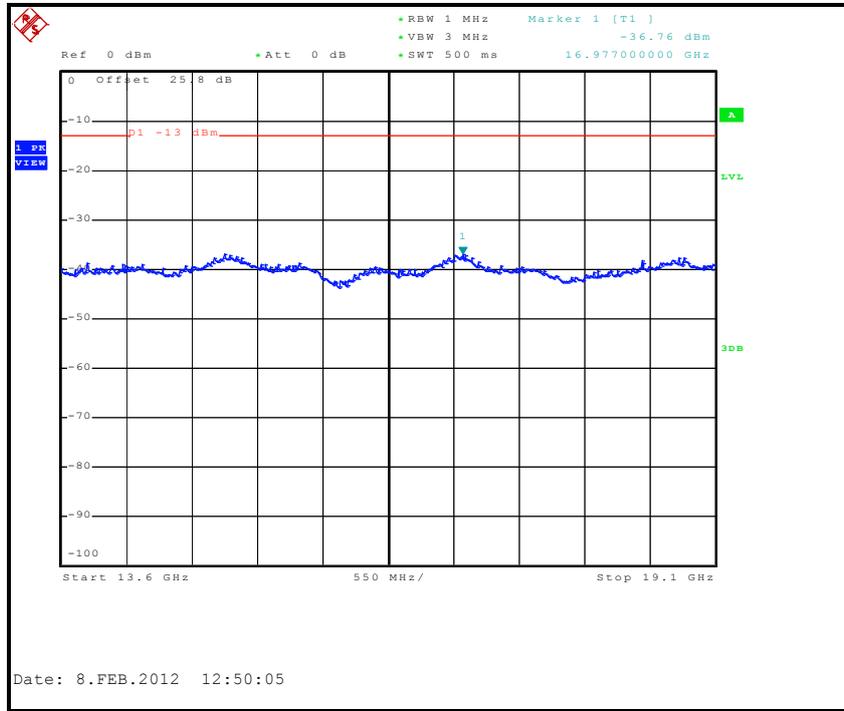
7GHz ~ 13.6GHz





A D T

13.6GHz ~ 19.1GHz



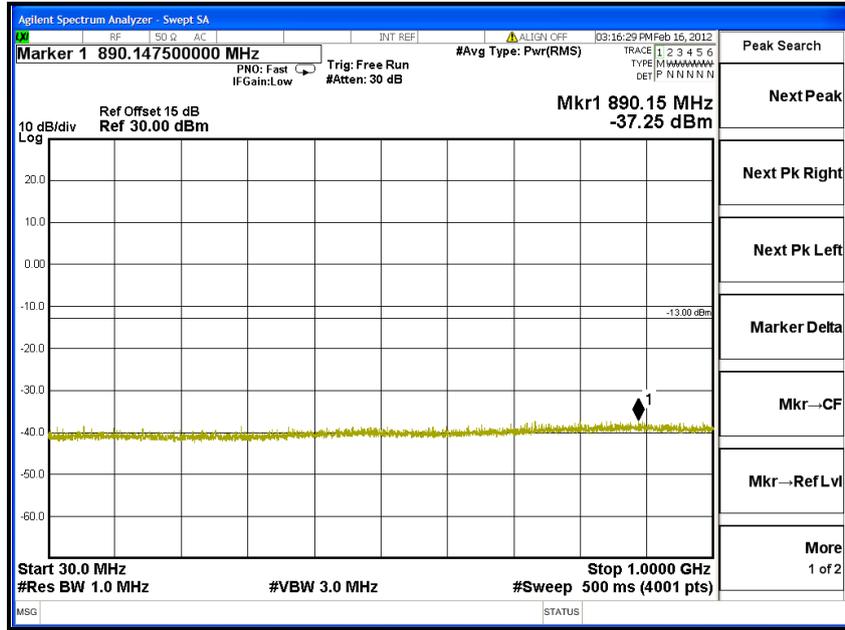


A D T

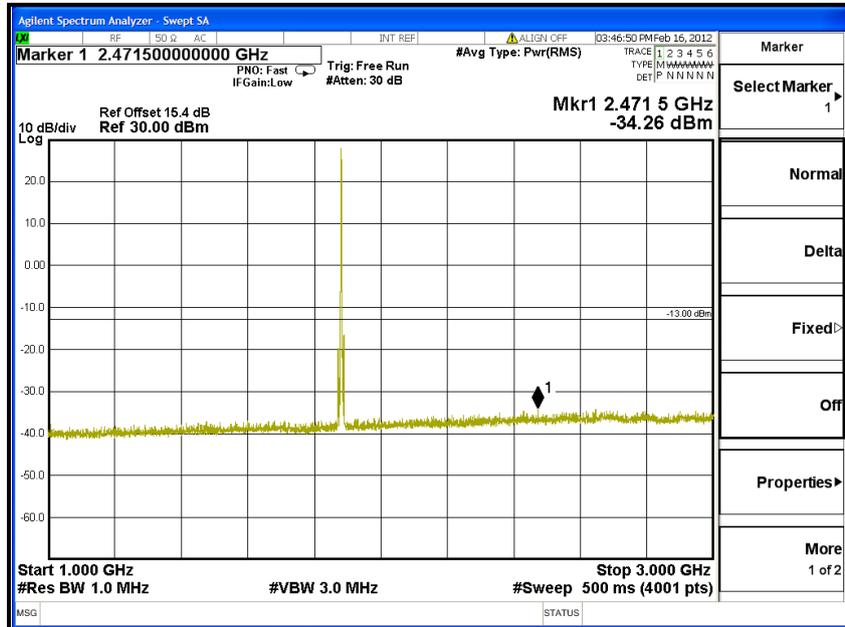
FOR LTE BAND 25

CHANNEL BANDWIDTH: 5MHz / QPSK / 0 RB Offset

CH 26365: 30MHz ~ 1GHz



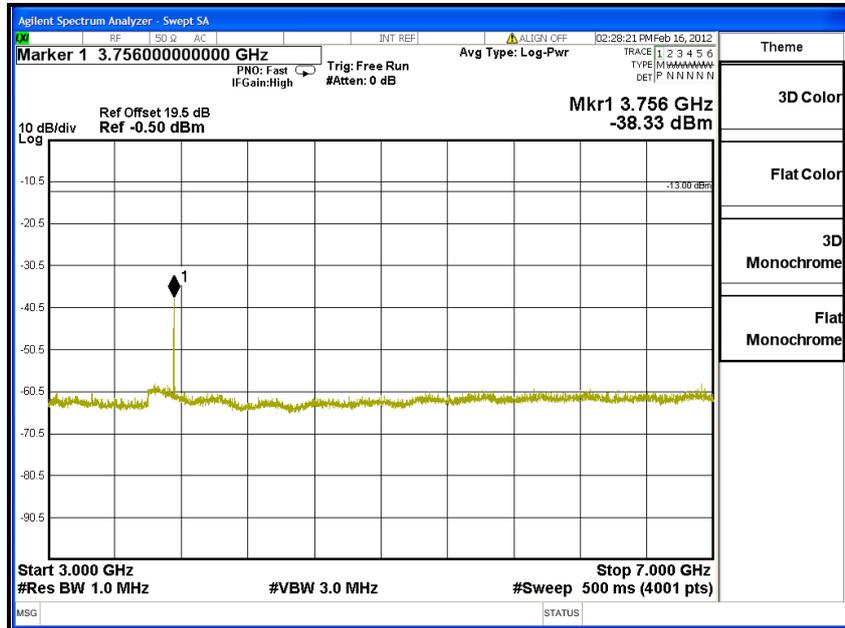
1GHz ~ 3GHz



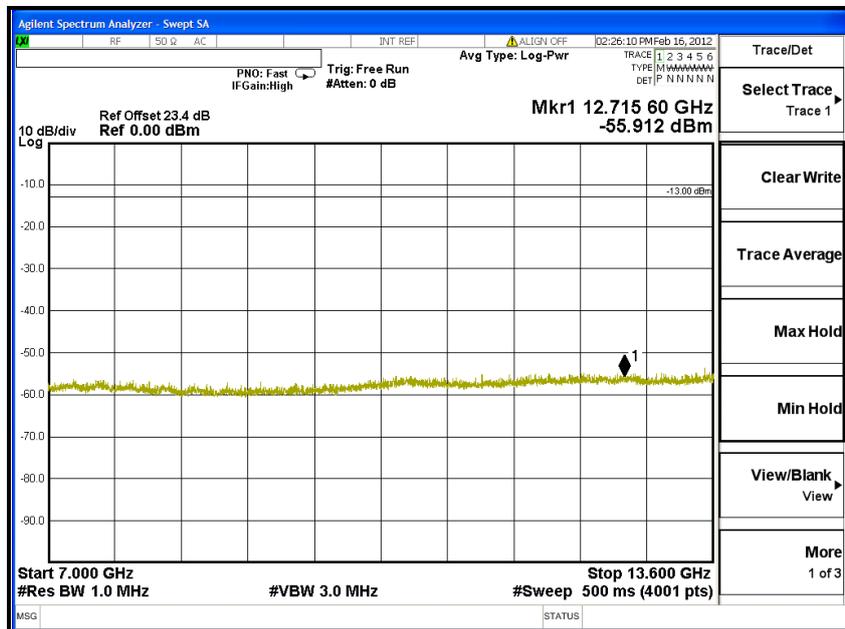


A D T

3GHz ~ 7GHz



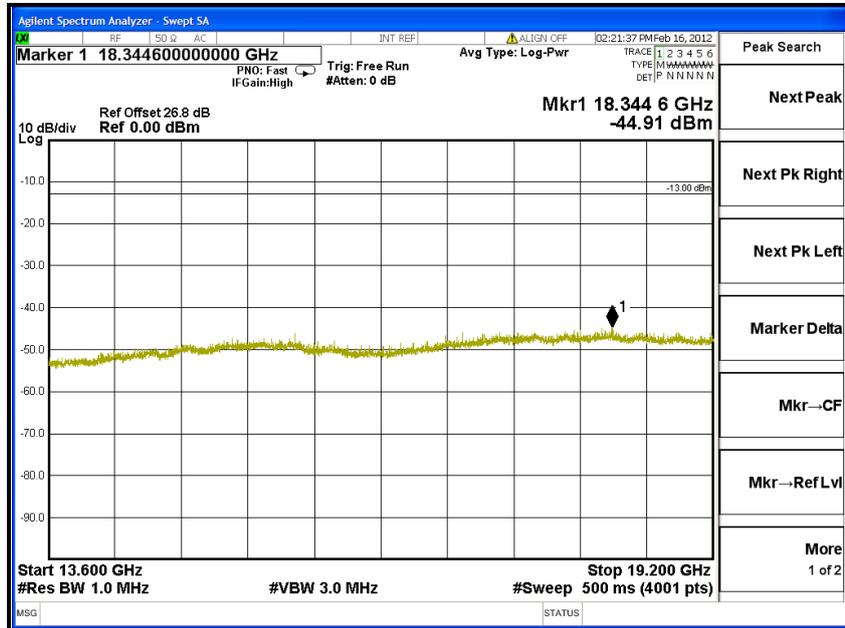
7GHz ~ 13.6GHz





A D T

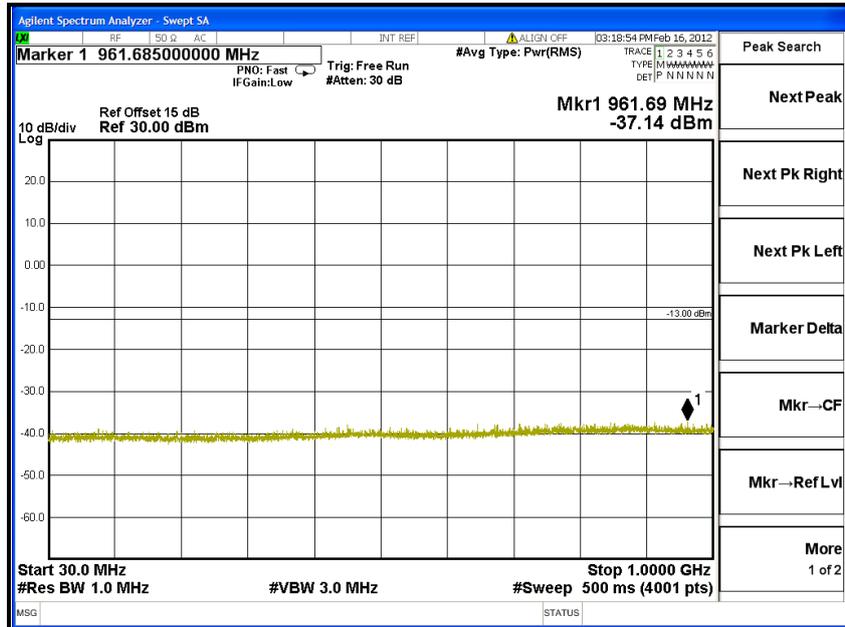
13.6GHz ~ 19.1GHz



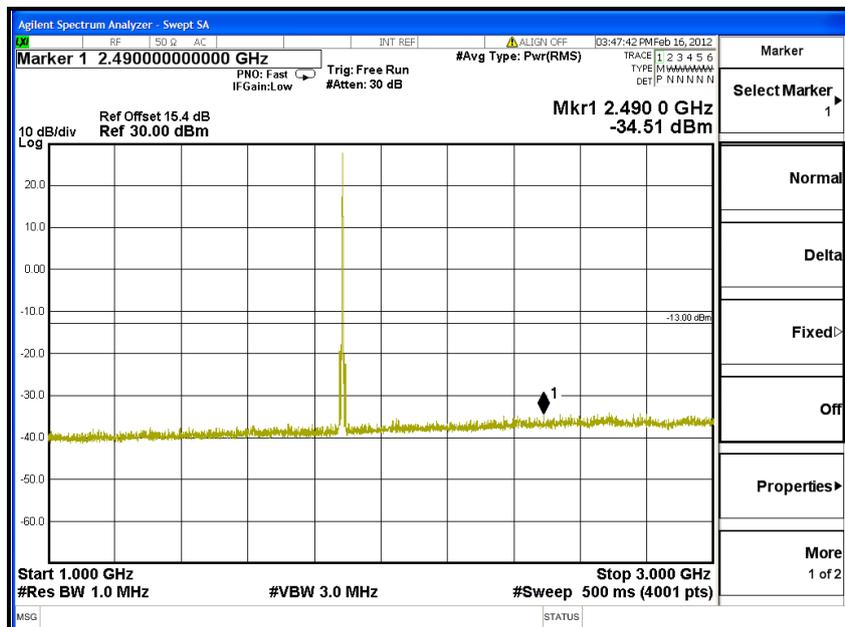


A D T

CHANNEL BANDWIDTH: 5MHz / QPSK / 24 RB Offset CH 26365: 30MHz ~ 1GHz



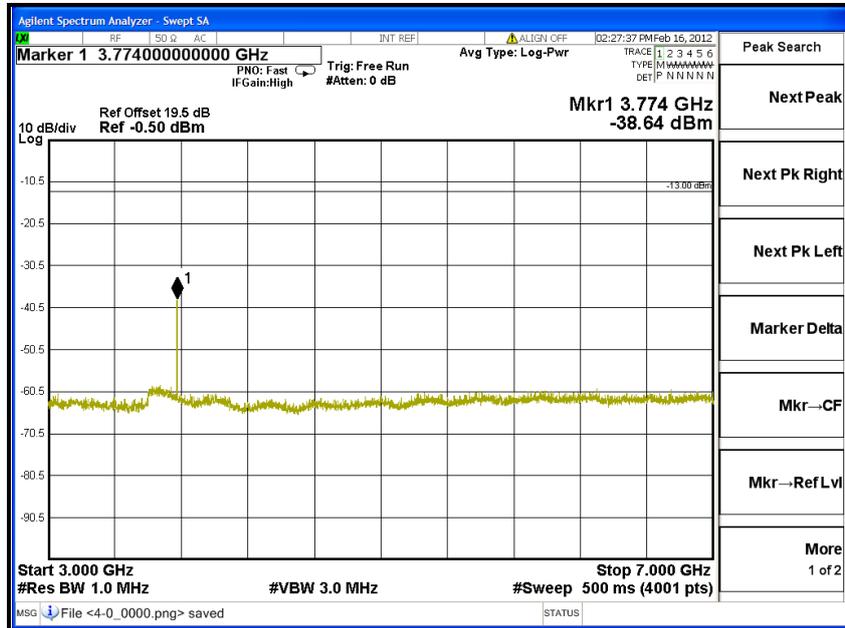
1GHz ~ 3GHz



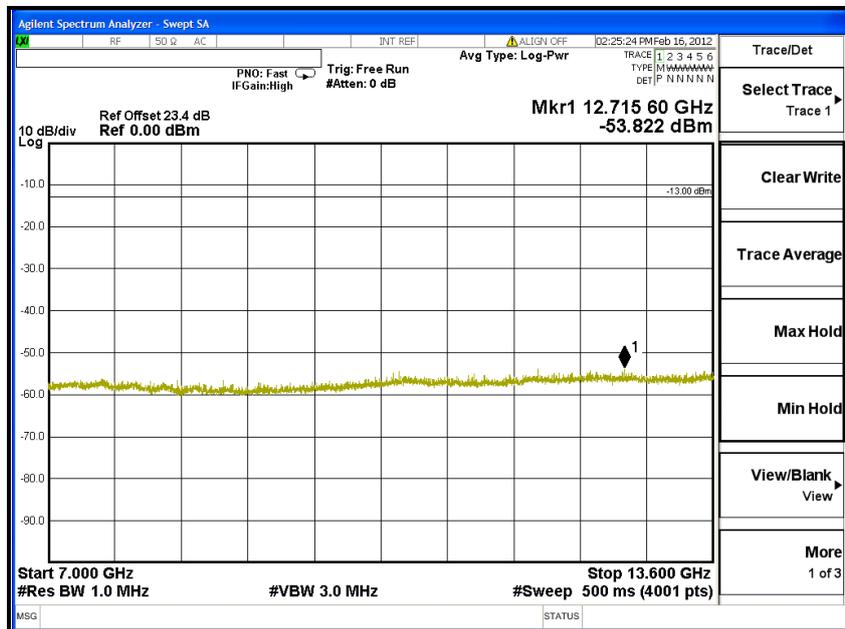


A D T

3GHz ~ 7GHz



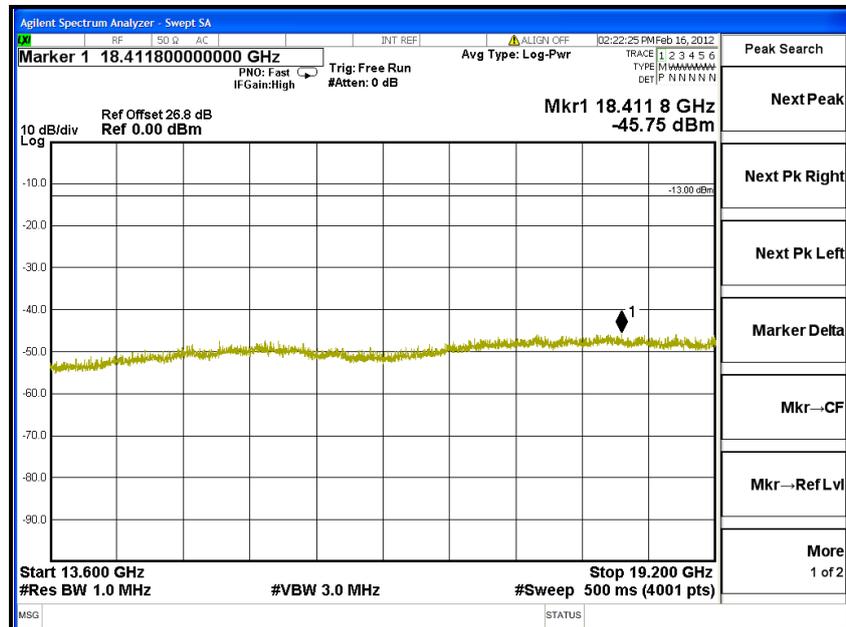
7GHz ~ 13.6GHz





A D T

13.6GHz ~ 19.1GHz

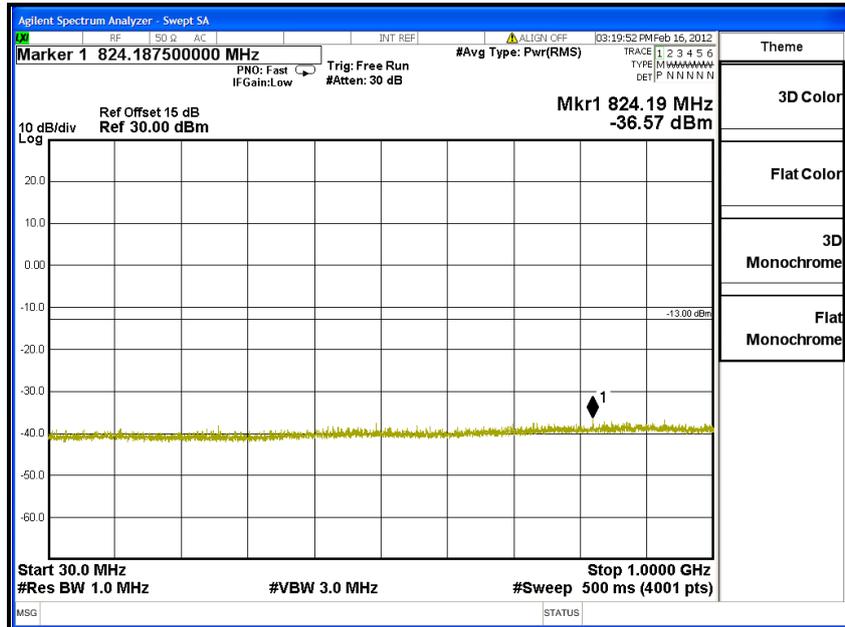




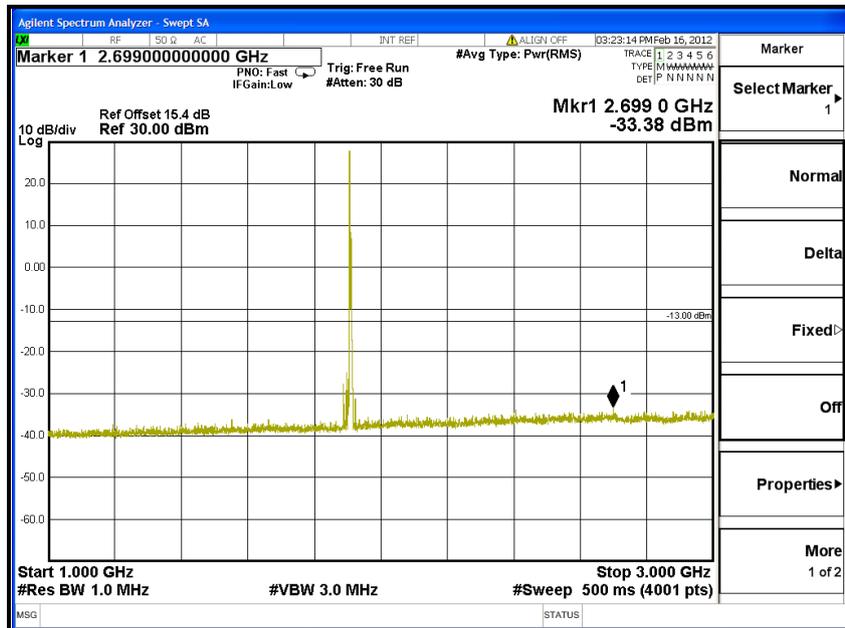
A D T

CHANNEL BANDWIDTH: 10MHz / QPSK / 0 RB Offset

CH 26365: 30MHz ~ 1GHz



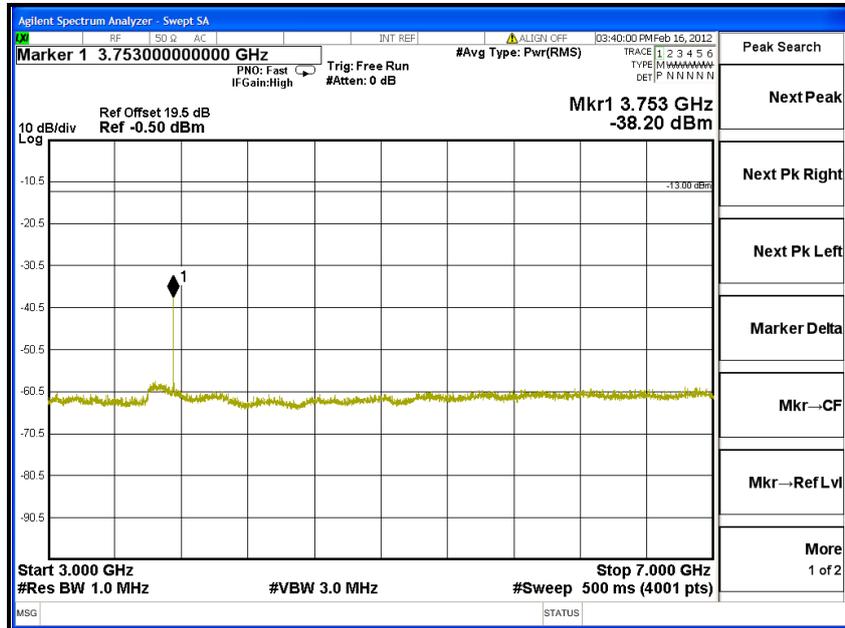
1GHz ~ 3GHz



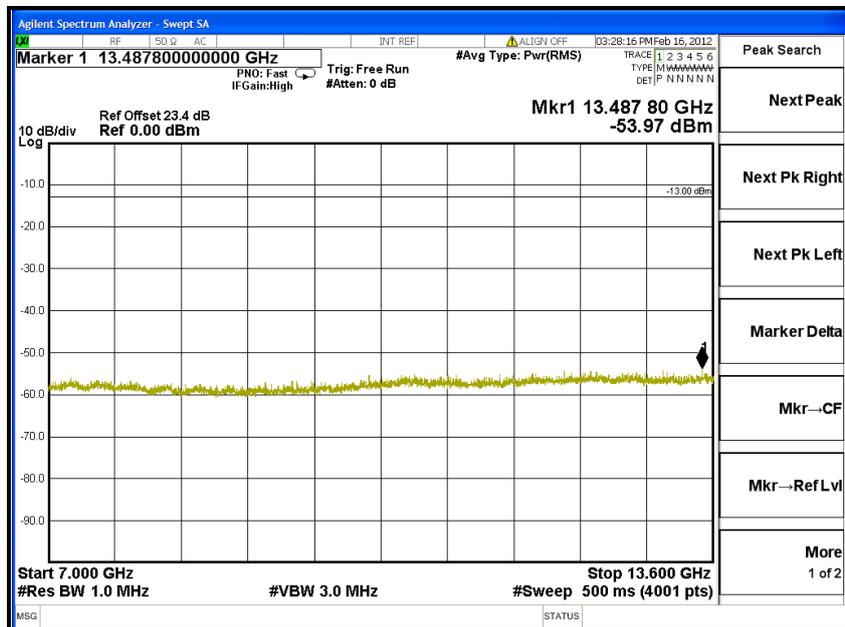


A D T

3GHz ~ 7GHz



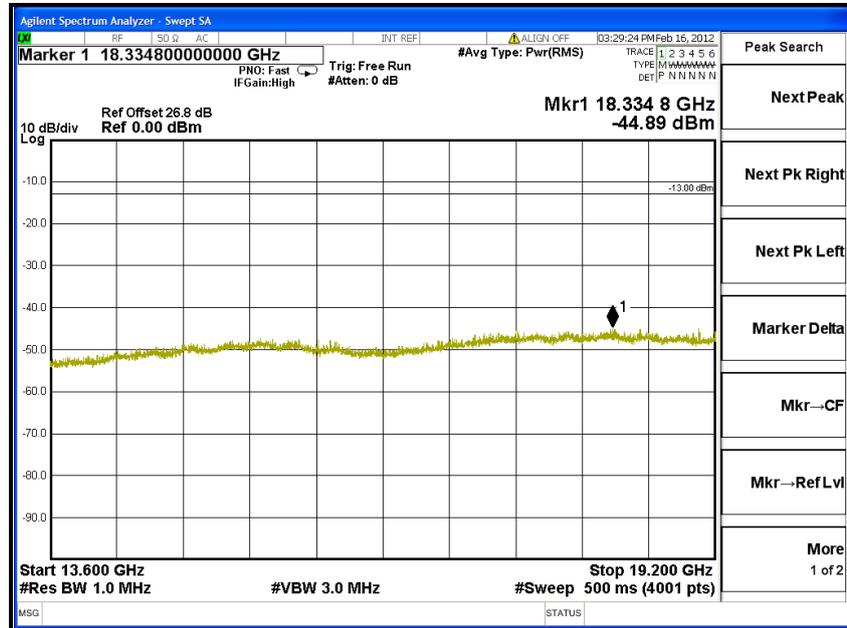
7GHz ~ 13.6GHz





A D T

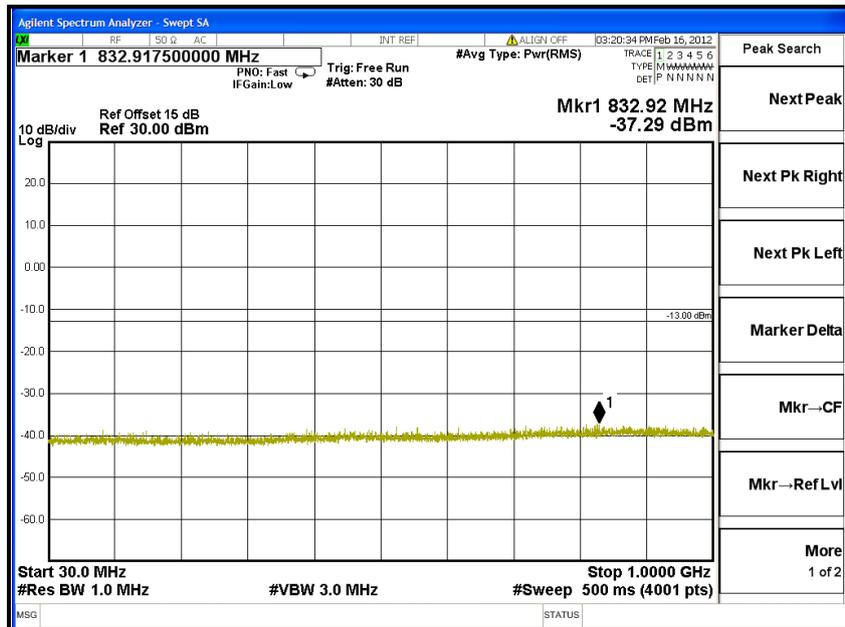
13.6GHz ~ 19.1GHz



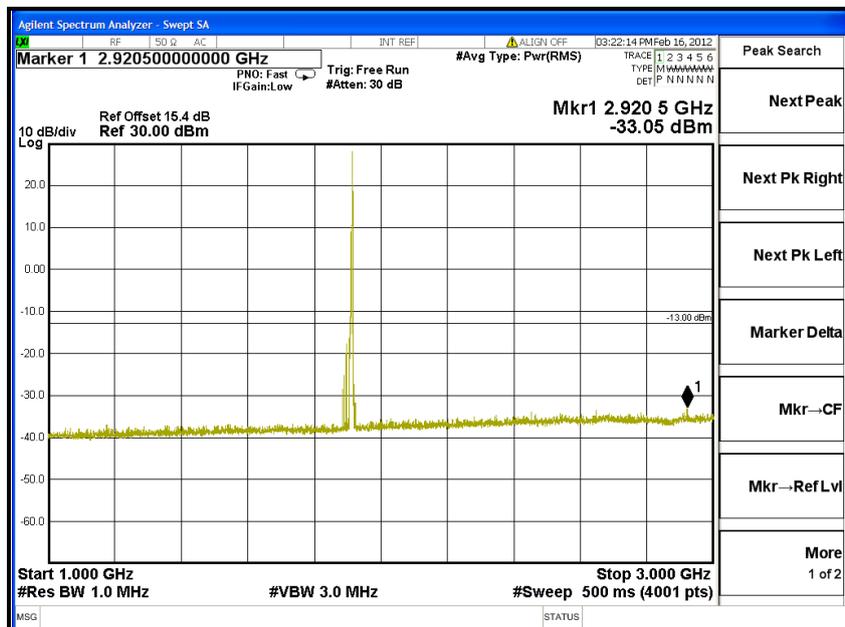


A D T

CHANNEL BANDWIDTH: 10MHz / QPSK / 49 RB Offset CH 26365: 30MHz ~ 1GHz



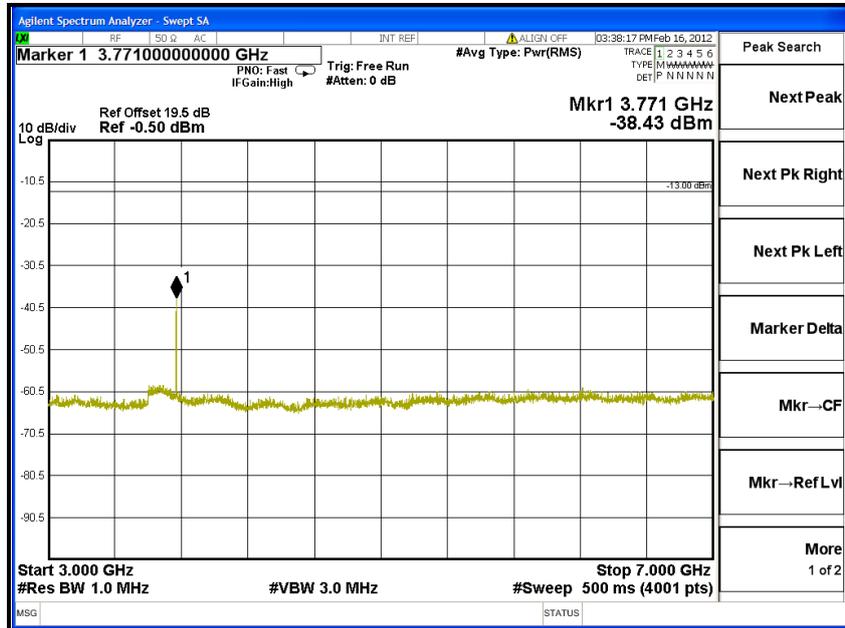
1GHz ~ 3GHz



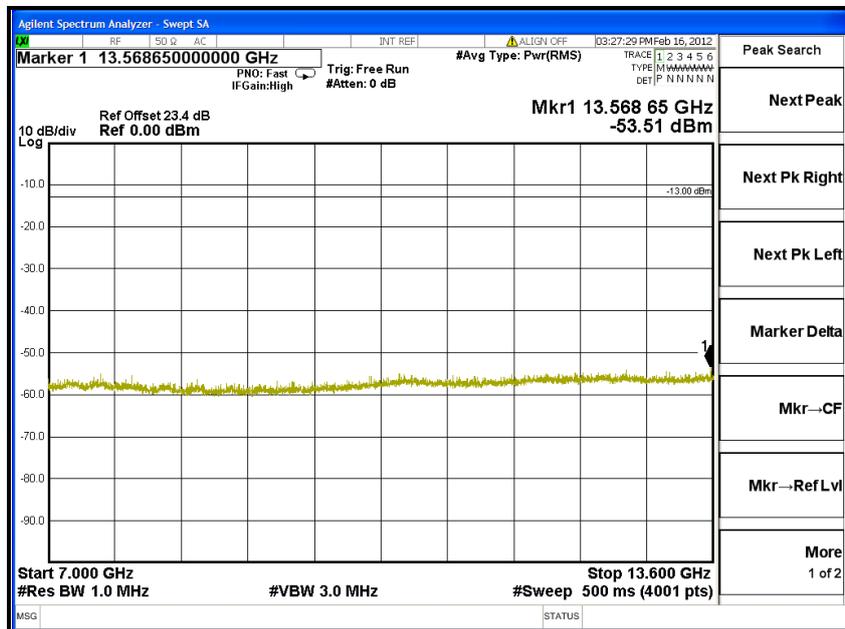


A D T

3GHz ~ 7GHz



7GHz ~ 13.6GHz





A D T

13.6GHz ~ 19.1GHz



4.6 RADIATED EMISSION MEASUREMENT

4.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

In the FCC 24.238(a), On any frequency outside a licensee's frequency block within USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P)$ dB. The emission of limit equal to -13dBm .

4.6.2 TEST INSTRUMENTS

Same as 4.1.2.

4.6.3 TEST PROCEDURES

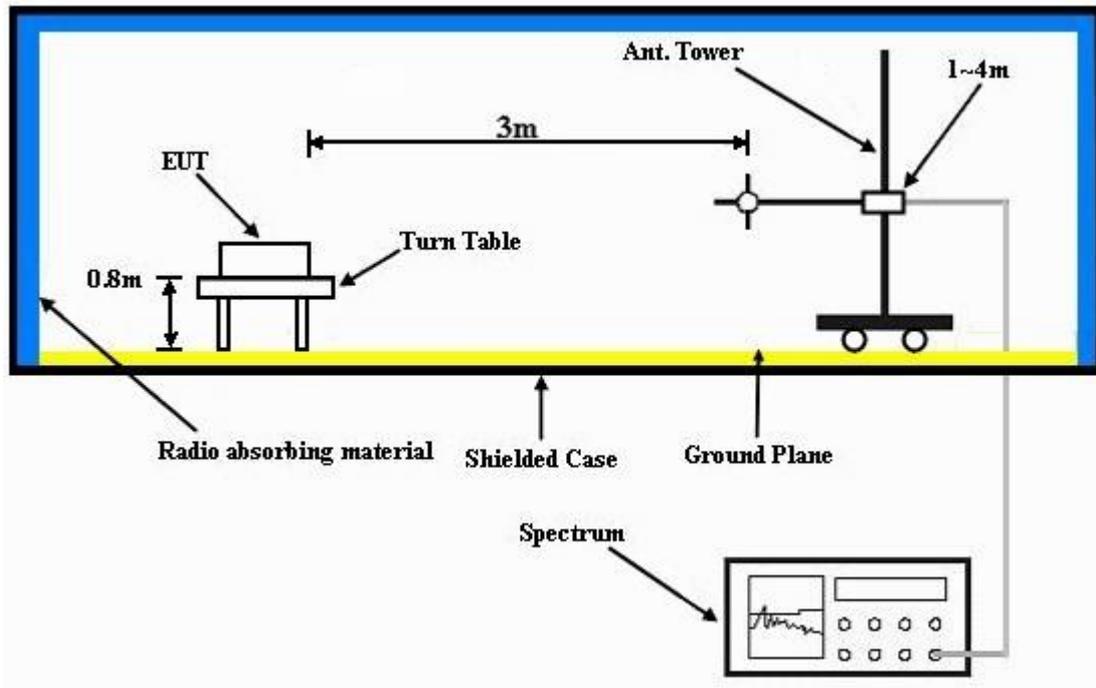
- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G
- c. $\text{EIRP} = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$.

NOTE: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.6.6 EUT OPERATING CONDITIONS

- a. The EUT makes a call to the communication simulator.
- b. The communication simulator station system controlled an EUT to export maximum output power under transmission mode and specific channel frequency.



A D T

4.6.7 TEST RESULTS

FOR CDMA:

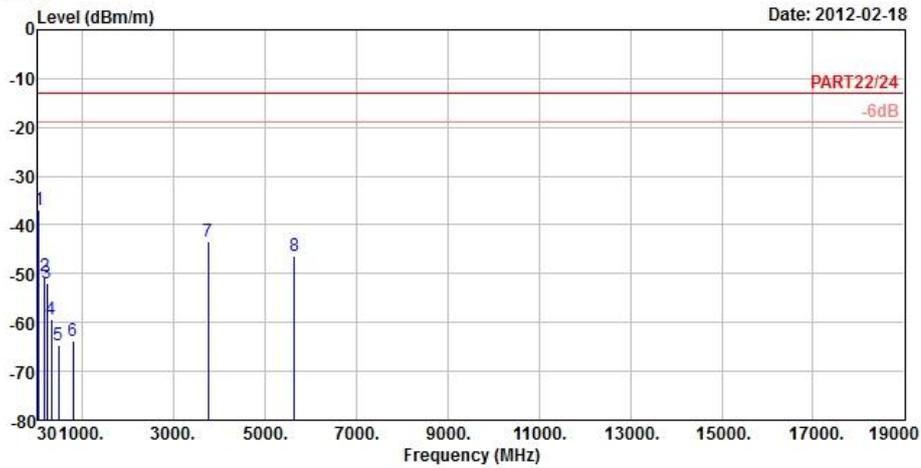


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 15

Date: 2012-02-18



Site : 966 Chamber 5
 Condition : PART22/24 3m EIRP_RSE_1G~19G HORIZONTAL
 Brand/Model: PJ75100
 Remark : 1XRTT CH600 Link(Battery 1)
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Read	Limit	Over			
Level	Level	Line	Limit	Factor	Remark	
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1 pp	42.96	-36.91	-35.58	-13.00	-23.91	-1.33 Peak
2	184.98	-50.56	-44.32	-13.00	-37.56	-6.24 Peak
3	223.59	-51.98	-45.12	-13.00	-38.98	-6.86 Peak
4	318.20	-59.22	-52.98	-13.00	-46.22	-6.24 Peak
5	486.90	-64.66	-61.23	-13.00	-51.66	-3.43 Peak
6	800.50	-63.66	-65.79	-13.00	-50.66	2.13 Peak
7	3760.00	-43.28	-35.20	-13.00	-30.28	-8.08 Peak
8	5640.00	-46.39	-44.87	-13.00	-33.39	-1.52 Peak



A D T

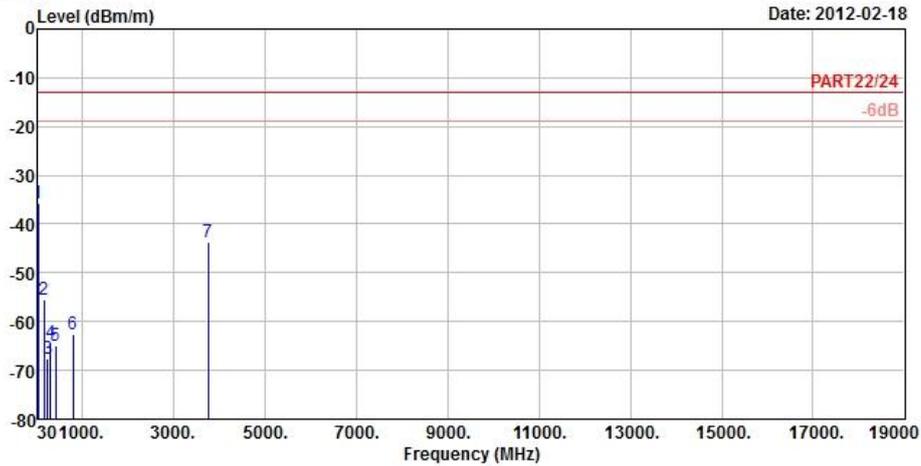


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 16

Date: 2012-02-18



Site : 966 Chamber 5
 Condition : PART22/24 3m EIRP_RSE_1G~19G VERTICAL
 Brand/Model: PJ75100
 Remark : 1XRTT CH600 Link(Battery 1)
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	pp	42.69	-35.86	-34.53	-13.00	-22.86	-1.33 Peak
2		166.35	-55.64	-49.00	-13.00	-42.64	-6.64 Peak
3		234.93	-67.69	-61.31	-13.00	-54.69	-6.38 Peak
4		306.30	-64.44	-58.11	-13.00	-51.44	-6.33 Peak
5		421.10	-64.82	-59.72	-13.00	-51.82	-5.10 Peak
6		790.00	-62.61	-64.67	-13.00	-49.61	2.06 Peak
7		3760.00	-43.66	-35.58	-13.00	-30.66	-8.08 Peak



A D T

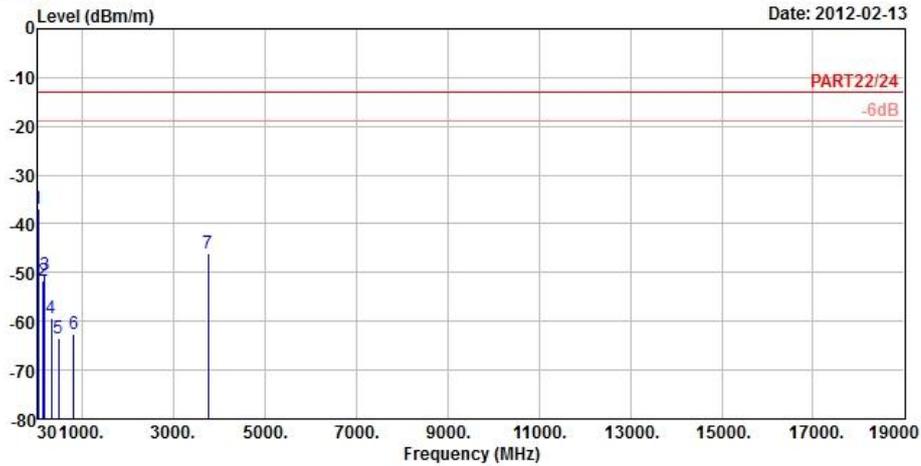
FOR 1xEVDO Rev. 0:



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 15



Site : 966 Chamber 5
 Condition : PART22/24 3m EIRP_RSE_1G~19G HORIZONTAL
 Brand/Model: PJ75100
 Remark : 1xEVDO CH600 Link(Battery 1)
 Tested by : KAY WU
 Temperature : 25°C
 Humidity : 65%
 Plane : Z

	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1 pp	42.69	-36.78	-35.45	-13.00	-23.78	-1.33 Peak
2	151.23	-51.78	-45.40	-13.00	-38.78	-6.38 Peak
3	184.71	-50.40	-44.27	-13.00	-37.40	-6.13 Peak
4	318.20	-59.20	-52.96	-13.00	-46.20	-6.24 Peak
5	481.30	-63.42	-59.84	-13.00	-50.42	-3.58 Peak
6	810.30	-62.55	-64.74	-13.00	-49.55	2.19 Peak
7	3760.00	-46.14	-38.06	-13.00	-33.14	-8.08 Peak



A D T

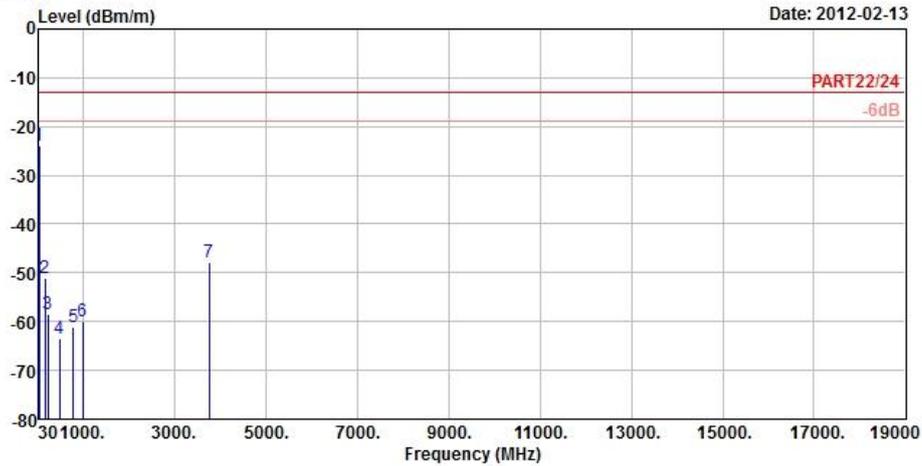


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 16

Date: 2012-02-13



Site : 966 Chamber 5
 Condition : PART22/24 3m EIRP_RSE_1G~19G VERTICAL
 Brand/Model: PJ75100
 Remark : 1xEVDO CH600 Link(Battery 1)
 Tested by : KAY WU
 Temperature : 25°C
 Humidity : 65%
 Plane : Z

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	pp	42.42	-24.03	-22.70	-13.00	-11.03	-1.33 Peak
2		158.52	-51.07	-44.59	-13.00	-38.07	-6.48 Peak
3		224.67	-58.43	-51.62	-13.00	-45.43	-6.81 Peak
4		478.50	-63.51	-59.86	-13.00	-50.51	-3.65 Peak
5		788.60	-61.15	-63.20	-13.00	-48.15	2.05 Peak
6		981.80	-60.01	-64.32	-13.00	-47.01	4.31 Peak
7		3760.00	-47.90	-39.82	-13.00	-34.90	-8.08 Peak



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FOR LTE Band 25:

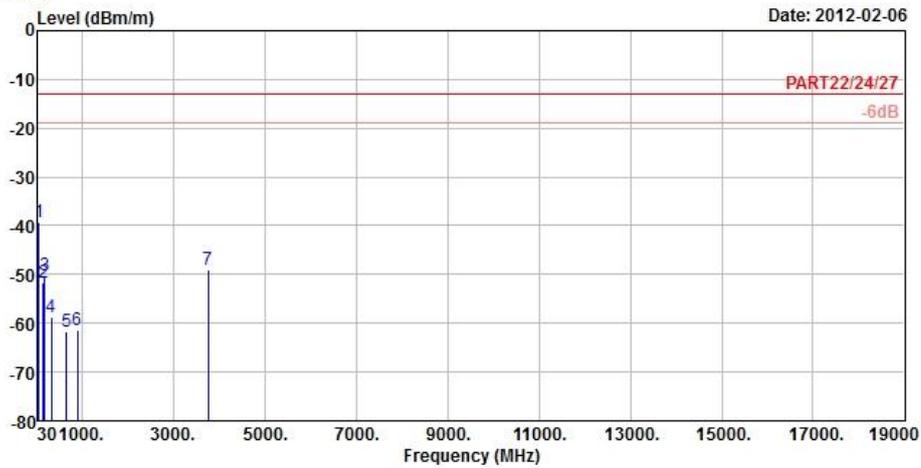
Channel Bandwidth: 5MHz / QPSK / 1 RB / 24 Offset



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 15



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G HORIZONTAL
 Brand/Model: PJ75100
 Remark : LTE 5M QPSK BAND25 CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	pp	42.96	-39.21	-37.88	-13.00	-26.21	-1.33 Peak
2		151.23	-51.63	-45.25	-13.00	-38.63	-6.38 Peak
3		184.98	-50.33	-44.09	-13.00	-37.33	-6.24 Peak
4		321.00	-58.75	-52.53	-13.00	-45.75	-6.22 Peak
5		651.40	-61.68	-62.26	-13.00	-48.68	0.58 Peak
6		889.40	-61.43	-64.07	-13.00	-48.43	2.64 Peak
7		3756.00	-49.09	-41.01	-13.00	-36.09	-8.08 Peak



A D T

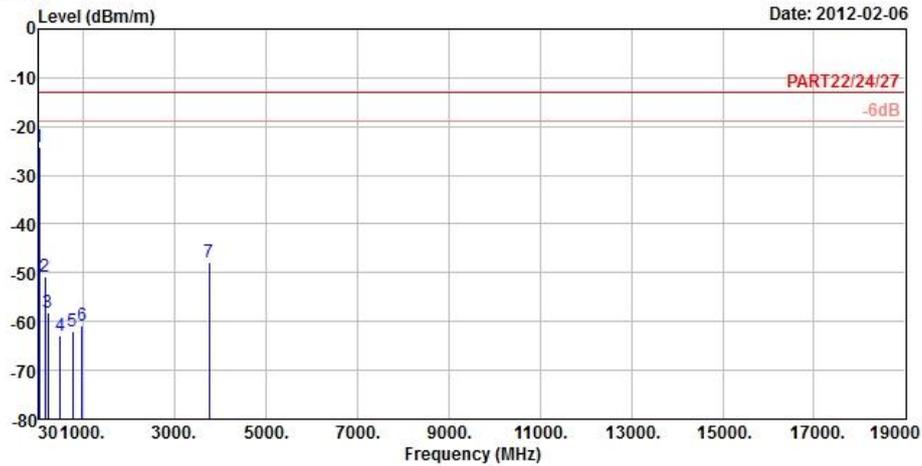


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 16

Date: 2012-02-06



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G VERTICAL
 Brand/Model: PJ75100
 Remark : LTE 5M QPSK BAND25 CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	pp	42.42	-24.19	-22.86	-13.00	-11.19	-1.33 Peak
2		158.52	-50.87	-44.39	-13.00	-37.87	-6.48 Peak
3		223.32	-58.09	-51.19	-13.00	-45.09	-6.90 Peak
4		490.40	-63.00	-59.66	-13.00	-50.00	-3.34 Peak
5		762.70	-61.91	-63.78	-13.00	-48.91	1.87 Peak
6		965.70	-60.87	-64.87	-13.00	-47.87	4.00 Peak
7		3756.00	-47.68	-39.60	-13.00	-34.68	-8.08 Peak



A D T

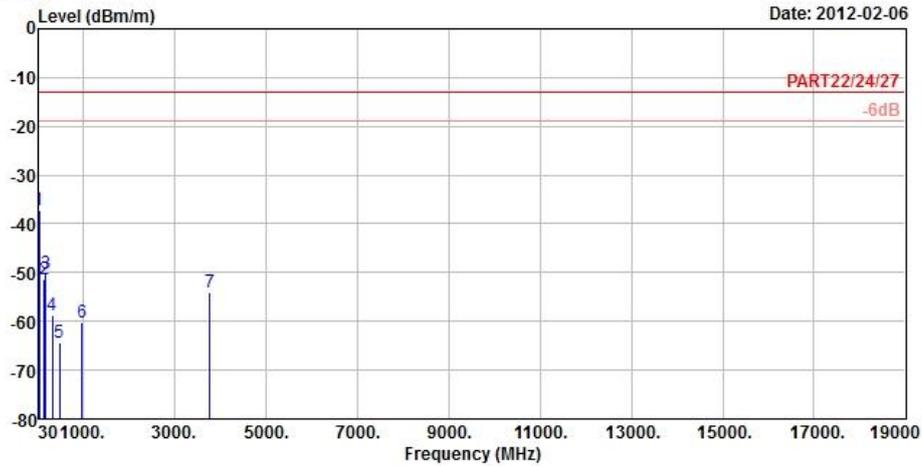
Channel Bandwidth: 5MHz / QPSK / 25 RB / 0 Offset



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 15



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G HORIZONTAL
 Brand/Model: PJ75100
 Remark : LTE 5M QPSK BAND25(25,0) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1 pp	42.42	-37.21	-35.88	-13.00	-24.21	-1.33 Peak
2	151.23	-51.22	-44.84	-13.00	-38.22	-6.38 Peak
3	184.98	-50.27	-44.03	-13.00	-37.27	-6.24 Peak
4	314.00	-58.64	-52.37	-13.00	-45.64	-6.27 Peak
5	480.60	-64.24	-60.66	-13.00	-51.24	-3.58 Peak
6	979.70	-60.15	-64.42	-13.00	-47.15	4.27 Peak
7	3765.00	-53.88	-45.91	-13.00	-40.88	-7.97 Peak



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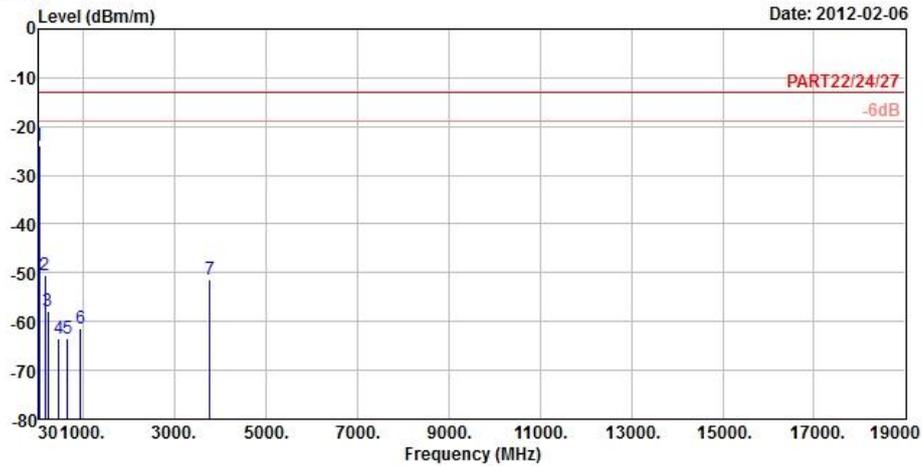


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 16

Date: 2012-02-06



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G VERTICAL
 Brand/Model: PJ75100
 Remark : LTE 5M QPSK BAND25(25,0) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1 pp	42.42	-24.04	-22.71	-13.00	-11.04	-1.33 Peak
2	158.25	-50.57	-44.09	-13.00	-37.57	-6.48 Peak
3	223.32	-57.84	-50.94	-13.00	-44.84	-6.90 Peak
4	471.50	-63.33	-59.50	-13.00	-50.33	-3.83 Peak
5	650.70	-63.35	-63.91	-13.00	-50.35	0.56 Peak
6	937.70	-61.28	-64.73	-13.00	-48.28	3.45 Peak
7	3765.00	-51.41	-43.44	-13.00	-38.41	-7.97 Peak



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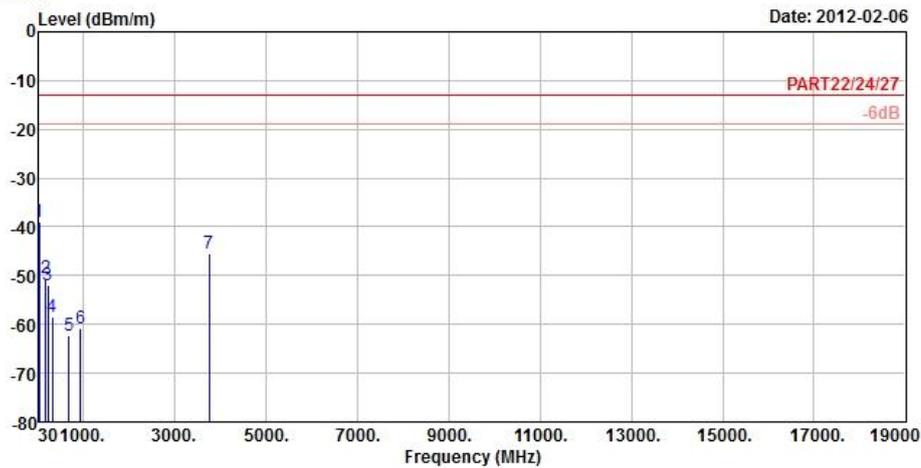
Channel Bandwidth: 5MHz / 16QAM / 1 RB / 24 Offset



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 15



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G HORIZONTAL
 Brand/Model: PJ75100
 Remark : LTE 5M 16QAM BAND25(1,24) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Read	Limit	Over			
Level	Level	Line	Limit	Factor	Remark	
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1 pp	42.69	-38.90	-37.57	-13.00	-25.90	-1.33 Peak
2	185.25	-50.45	-44.21	-13.00	-37.45	-6.24 Peak
3	224.13	-51.93	-45.07	-13.00	-38.93	-6.86 Peak
4	316.80	-58.46	-52.21	-13.00	-45.46	-6.25 Peak
5	690.60	-62.37	-63.65	-13.00	-49.37	1.28 Peak
6	939.10	-60.69	-64.16	-13.00	-47.69	3.47 Peak
7	3756.00	-45.51	-37.43	-13.00	-32.51	-8.08 Peak



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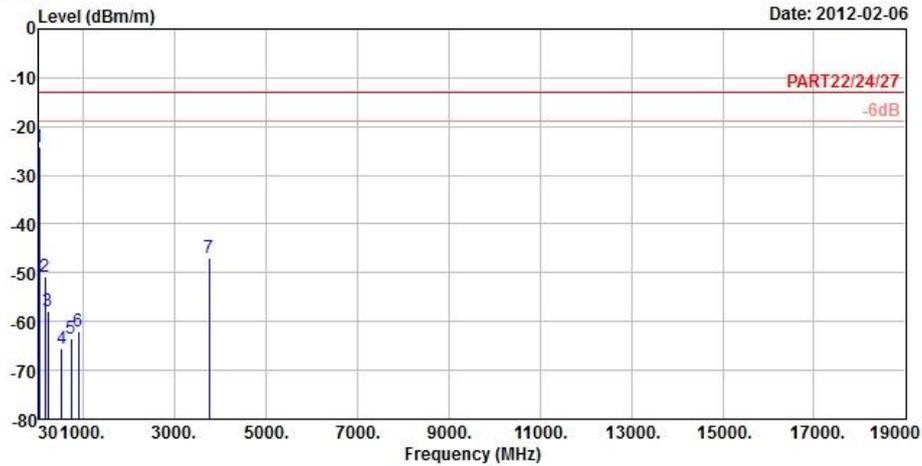


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 16

Date: 2012-02-06



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G VERTICAL
 Brand/Model: PJ75100
 Remark : LTE 5M 16QAM BAND25(1,24) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1 pp	42.69	-24.15	-22.82	-13.00	-11.15	-1.33 Peak
2	158.79	-50.72	-44.22	-13.00	-37.72	-6.50 Peak
3	224.40	-57.78	-50.92	-13.00	-44.78	-6.86 Peak
4	528.90	-65.66	-63.34	-13.00	-52.66	-2.32 Peak
5	741.00	-63.35	-65.08	-13.00	-50.35	1.73 Peak
6	888.00	-61.97	-64.60	-13.00	-48.97	2.63 Peak
7	3756.00	-46.94	-38.86	-13.00	-33.94	-8.08 Peak



A D T

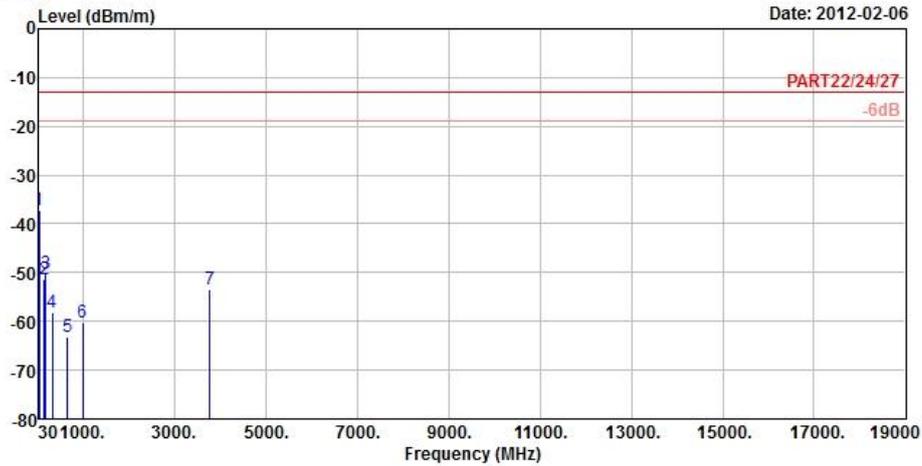
Channel Bandwidth: 5MHz / 16QAM / 25 RB / 0 Offset



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 15



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G HORIZONTAL
 Brand/Model: PJ75100
 Remark : LTE 5M 16QAM BAND25(25,0) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1 pp	42.69	-37.16	-35.83	-13.00	-24.16	-1.33 Peak
2	151.50	-51.50	-45.12	-13.00	-38.50	-6.38 Peak
3	184.98	-50.19	-43.95	-13.00	-37.19	-6.24 Peak
4	316.10	-58.22	-51.96	-13.00	-45.22	-6.26 Peak
5	648.60	-63.07	-63.59	-13.00	-50.07	0.52 Peak
6	990.20	-60.16	-64.64	-13.00	-47.16	4.48 Peak
7	3765.00	-53.48	-45.51	-13.00	-40.48	-7.97 Peak



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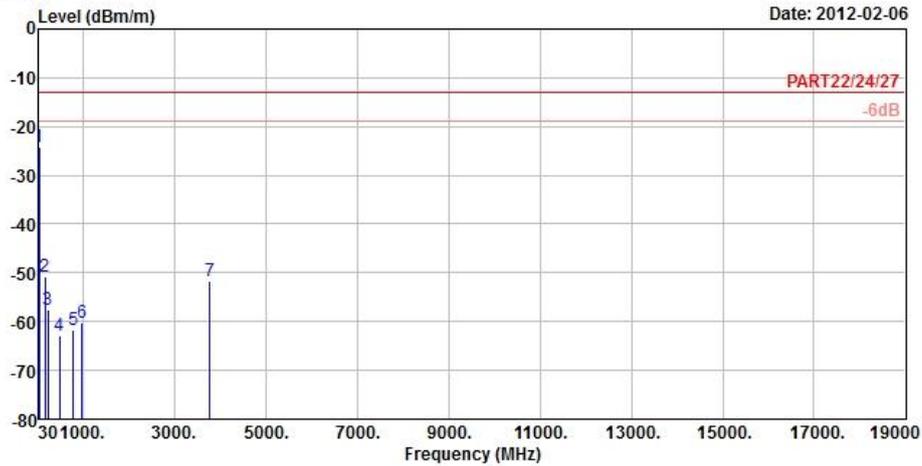


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 16

Date: 2012-02-06



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G VERTICAL
 Brand/Model: PJ75100
 Remark : LTE 5M 16QAM BAND25(25,0) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	pp	42.42	-24.23	-22.90	-13.00	-11.23	-1.33 Peak
2		157.71	-50.75	-44.27	-13.00	-37.75	-6.48 Peak
3		223.86	-57.51	-50.65	-13.00	-44.51	-6.86 Peak
4		484.80	-63.01	-59.53	-13.00	-50.01	-3.48 Peak
5		788.60	-61.59	-63.64	-13.00	-48.59	2.05 Peak
6		976.90	-60.15	-64.36	-13.00	-47.15	4.21 Peak
7		3765.00	-51.52	-43.55	-13.00	-38.52	-7.97 Peak



A D T

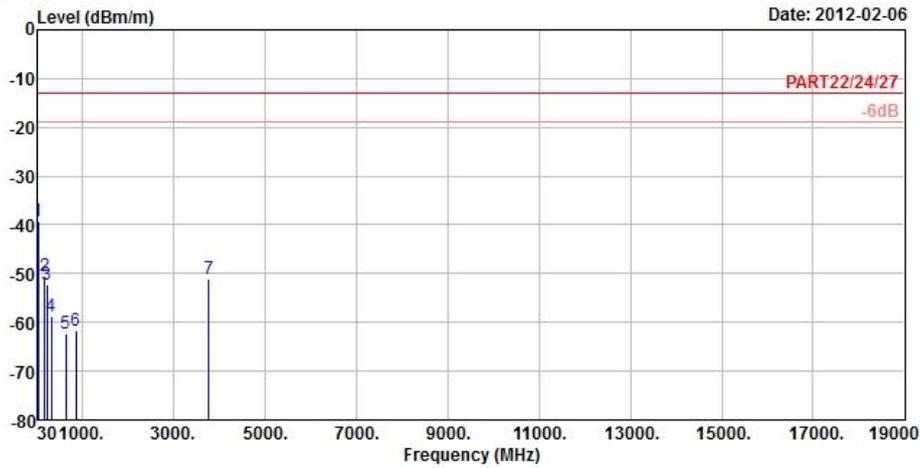
Channel Bandwidth: 10MHz / QPSK / 1 RB / 49 Offset



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 15



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G HORIZONTAL
 Brand/Model: PJ75100
 Remark : LTE B25 10M QPSK(1.49) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Read	Limit	Over			
Peak	Level	Level	Line	Limit	Factor	Remark
	dBm/m	dBm	dBm/m	dB	dB/m	
1 pp	42.42	-39.36	-38.03	-13.00	-26.36	-1.33 Peak
2	184.98	-50.46	-44.22	-13.00	-37.46	-6.24 Peak
3	220.89	-52.18	-45.19	-13.00	-39.18	-6.99 Peak
4	318.20	-58.66	-52.42	-13.00	-45.66	-6.24 Peak
5	645.80	-62.36	-62.83	-13.00	-49.36	0.47 Peak
6	864.20	-61.74	-64.24	-13.00	-48.74	2.50 Peak
7	3776.00	-51.06	-43.09	-13.00	-38.06	-7.97 Peak



A D T

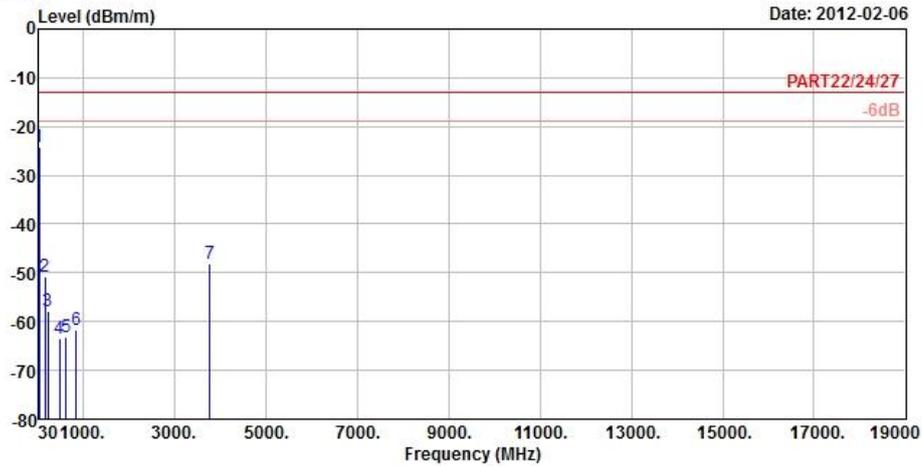


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 16

Date: 2012-02-06



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G VERTICAL
 Brand/Model: PJ75100
 Remark : LTE B25 10M QPSK(1.49) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	pp	42.42	-24.23	-22.90	-13.00	-11.23	-1.33 Peak
2		158.79	-50.82	-44.32	-13.00	-37.82	-6.50 Peak
3		224.13	-57.77	-50.91	-13.00	-44.77	-6.86 Peak
4		483.40	-63.56	-60.03	-13.00	-50.56	-3.53 Peak
5		617.10	-63.20	-63.15	-13.00	-50.20	-0.05 Peak
6		841.80	-61.65	-64.02	-13.00	-48.65	2.37 Peak
7		3776.00	-48.15	-40.18	-13.00	-35.15	-7.97 Peak

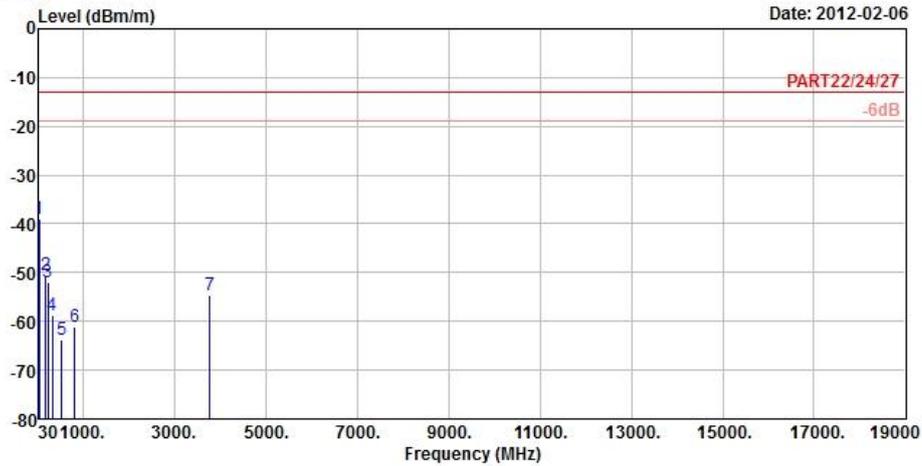
Channel Bandwidth: 10MHz / QPSK / 50 RB / 0 Offset



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 15



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G HORIZONTAL
 Brand/Model: PJ75100
 Remark : LTE B25 10M QPSK(50,0) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1 pp	42.42	-39.05	-37.72	-13.00	-26.05	-1.33 Peak
2	185.25	-50.49	-44.25	-13.00	-37.49	-6.24 Peak
3	223.59	-51.86	-45.00	-13.00	-38.86	-6.86 Peak
4	318.20	-58.81	-52.57	-13.00	-45.81	-6.24 Peak
5	524.70	-63.81	-61.39	-13.00	-50.81	-2.42 Peak
6	820.10	-61.16	-63.41	-13.00	-48.16	2.25 Peak
7	3765.00	-54.47	-46.50	-13.00	-41.47	-7.97 Peak



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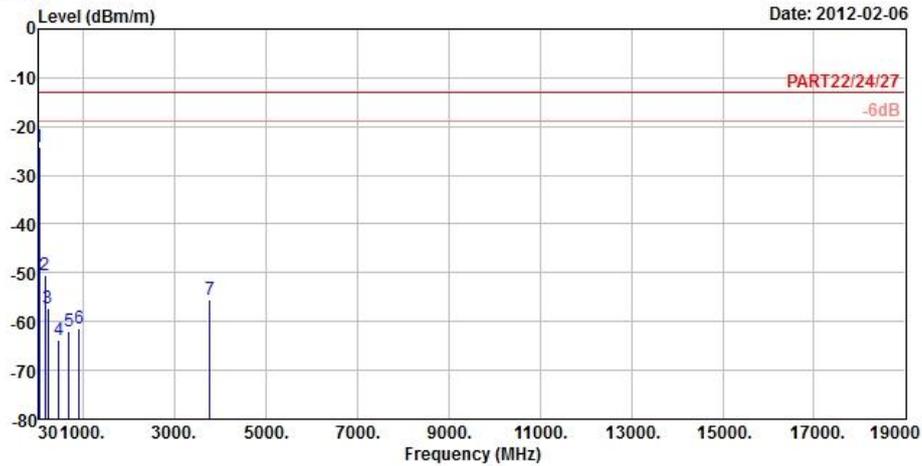


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 16

Date: 2012-02-06



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G VERTICAL
 Brand/Model: PJ75100
 Remark : LTE B25 10M QPSK(50,0) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	pp	42.42	-24.24	-22.91	-13.00	-11.24	-1.33 Peak
2		158.52	-50.54	-44.06	-13.00	-37.54	-6.48 Peak
3		222.24	-57.30	-50.35	-13.00	-44.30	-6.95 Peak
4		464.50	-63.65	-59.65	-13.00	-50.65	-4.00 Peak
5		687.80	-62.13	-63.35	-13.00	-49.13	1.22 Peak
6		909.00	-61.28	-64.15	-13.00	-48.28	2.87 Peak
7		3765.00	-55.64	-47.67	-13.00	-42.64	-7.97 Peak



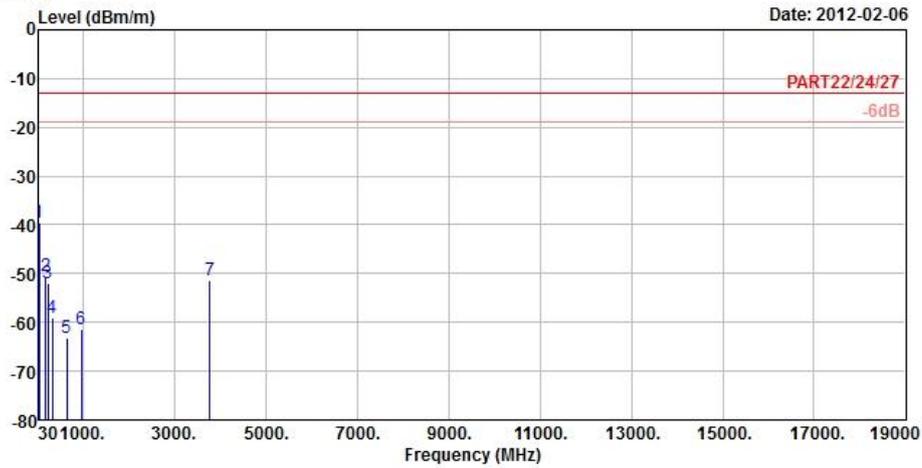
Channel Bandwidth: 10MHz / 16QAM / 1 RB / 49 Offset



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 15



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G HORIZONTAL
 Brand/Model: PJ75100
 Remark : LTE B25 10M 16QAM(1.49) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Read	Limit	Over			
Peak	Level	Line	Limit	Factor	Remark	
	dBm/m	dBm	dBm/m	dB	dB/m	
1 pp	42.69	-39.45	-38.12	-13.00	-26.45	-1.33 Peak
2	185.79	-50.49	-44.14	-13.00	-37.49	-6.35 Peak
3	223.86	-51.93	-45.07	-13.00	-38.93	-6.86 Peak
4	318.20	-58.93	-52.69	-13.00	-45.93	-6.24 Peak
5	641.60	-63.16	-63.56	-13.00	-50.16	0.40 Peak
6	958.70	-61.36	-65.21	-13.00	-48.36	3.85 Peak
7	3776.00	-51.37	-43.40	-13.00	-38.37	-7.97 Peak



A D T

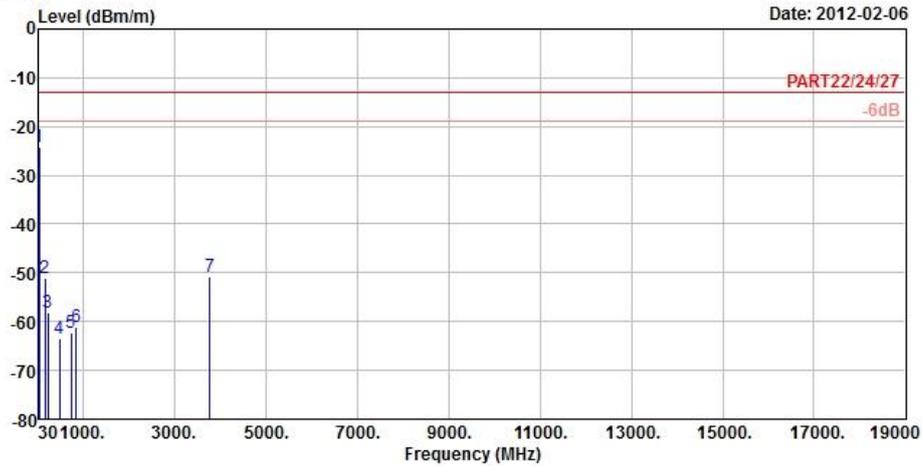


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 16

Date: 2012-02-06



Site : 966 Chamber 5
 Condition : PART22/24/27 3m EIRP_RSE _1G~19G VERTICAL
 Brand/Model: PJ75100
 Remark : LTE B25 10M 16QAM(1.49) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	pp	42.69	-24.30	-22.97	-13.00	-11.30	-1.33 Peak
2		159.33	-51.05	-44.55	-13.00	-38.05	-6.50 Peak
3		223.59	-58.03	-51.17	-13.00	-45.03	-6.86 Peak
4		475.70	-63.41	-59.68	-13.00	-50.41	-3.73 Peak
5		734.70	-62.16	-63.84	-13.00	-49.16	1.68 Peak
6		842.50	-61.19	-63.56	-13.00	-48.19	2.37 Peak
7		3776.00	-50.90	-42.93	-13.00	-37.90	-7.97 Peak



A D T

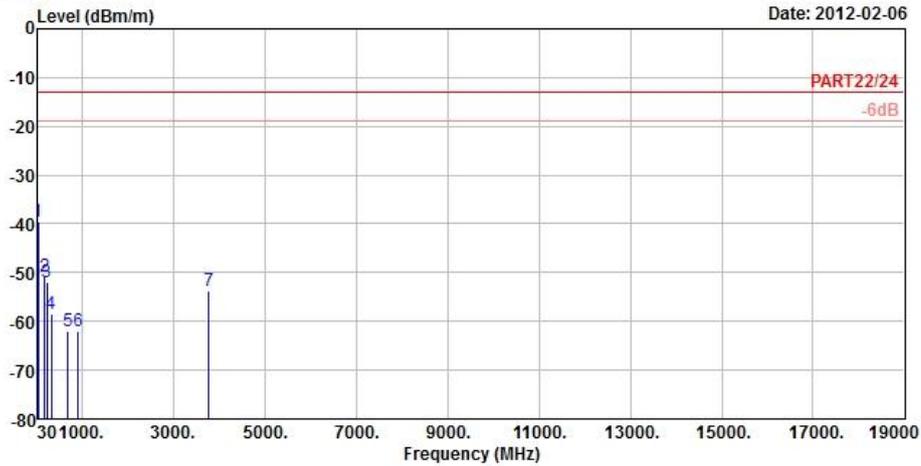
Channel Bandwidth: 10MHz / 16QAM / 50 RB / 0 Offset



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 15



Site : 966 Chamber 5
 Condition : PART22/24 3m EIRP_RSE _1G~19G HORIZONTAL
 Brand/Model: PJ75100
 Remark : LTE B25 10M 16QAM(50,0) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1 pp	42.15	-39.43	-38.10	-13.00	-26.43	-1.33 Peak
2	185.25	-50.67	-44.43	-13.00	-37.67	-6.24 Peak
3	223.05	-52.08	-45.18	-13.00	-39.08	-6.90 Peak
4	317.50	-58.44	-52.19	-13.00	-45.44	-6.25 Peak
5	688.50	-62.07	-63.31	-13.00	-49.07	1.24 Peak
6	907.60	-61.89	-64.74	-13.00	-48.89	2.85 Peak
7	3765.00	-53.84	-45.87	-13.00	-40.84	-7.97 Peak



A D T

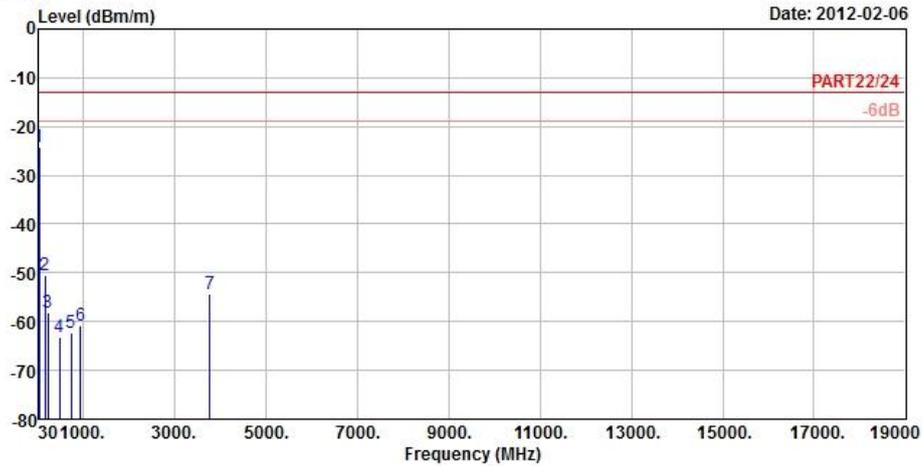


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 16

Date: 2012-02-06



Site : 966 Chamber 5
 Condition : PART22/24 3m EIRP_RSE _1G~19G VERTICAL
 Brand/Model: PJ75100
 Remark : LTE B25 10M 16QAM(50,0) CH26365
 Tested by : David Huang
 Temperature : 25°C
 Humidity : 65%
 Plane : Y

	Freq	Level	Read	Limit	Over		
	MHz	dBm/m	Level	Line	Limit	Factor	Remark
			dBm	dBm/m	dB	dB/m	
1	pp	42.42	-24.25	-22.92	-13.00	-11.25	-1.33 Peak
2		158.52	-50.55	-44.07	-13.00	-37.55	-6.48 Peak
3		223.05	-58.11	-51.21	-13.00	-45.11	-6.90 Peak
4		474.30	-63.18	-59.43	-13.00	-50.18	-3.75 Peak
5		735.40	-62.28	-63.97	-13.00	-49.28	1.69 Peak
6		942.60	-60.71	-64.25	-13.00	-47.71	3.54 Peak
7		3765.00	-54.19	-46.22	-13.00	-41.19	-7.97 Peak



5 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



6 INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

Copies of accreditation and authorization certificates of our laboratories obtained from approval agencies can be downloaded from our web site:

www.adt.com.tw/index.5.phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety/Telecom Lab:

Tel: 886-3-3183232

Fax: 886-3-3185050

Email: service.adt@tw.bureauveritas.com

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

7 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

---END---