FCC TEST REPORT

(PART 27)

REPORT NO.:	RF120313C05-2
MODEL NO.:	R528
FCC ID:	UZI-R528
RECEIVED:	Mar. 13, 2012
TESTED:	Mar. 25 ~ Apr. 09, 2012
ISSUED:	Apr. 11, 2012

APPLICANT:	BandRich Inc.
ADDRESS:	6F., No. 71, Zhouzi St., Neihu Dist., Taipei City 11493, 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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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF120313C05-2	Original release	Apr. 11, 2012

1 CERTIFICATION

PRODUCT: LTE/EVDO Rev. A WLAN VOIP Router
MODEL NO.: R528
BRAND: BandLuxe
APPLICANT: BandRich Inc.
TEST SAMPLE: ENGINEERING SAMPLE
TESTED: Mar. 25 ~ Apr. 09, 2012
TEST STANDARDS : FCC Part 27

The above equipment (model: R528) 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 : _____ , **DATE :** Apr. 11, 2012
Andrea Hsia / Specialist

APPROVED BY : _____ , **DATE :** Apr. 11, 2012
Gary Chang / Technical Manager

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

CDMA			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
2.1046 27.50(d)(4)	Equivalent isotropically radiated power	PASS	Meet the requirement of limit.
2.1055 27.54	Frequency Stability	PASS	Meet the requirement of limit.
2.1049 27.53(h)	Occupied Bandwidth	PASS	Meet the requirement of limit.
27.50(d)(5)	Peak to average ratio	PASS	Meet the requirement of limit.
27.53(h)	Band Edge Measurements	PASS	Meet the requirement of limit.
2.1051 27.53(h)	Conducted Spurious Emissions	PASS	Meet the requirement of limit.
2.1053 27.53(h)	Radiated Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is –26.3dB at 3422.50MHz.

LTE BAND 4			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
2.1046 27.50(d)(4)	Equivalent isotropically radiated power	PASS	Meet the requirement of limit.
2.1055 27.54	Frequency Stability	PASS	Meet the requirement of limit.
2.1049 27.53(h)	Occupied Bandwidth	PASS	Meet the requirement of limit.
27.50(d)(5)	Peak to average ratio	PASS	Meet the requirement of limit.
27.53(h)	Band Edge Measurements	PASS	Meet the requirement of limit.
2.1051 27.53(h)	Conducted Spurious Emissions	PASS	Meet the requirement of limit.
2.1053 27.53(h)	Radiated Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is –24.5dB at 3456.20MHz.

LTE BAND 12			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
2.1046 27.50(C)(10)	Effective radiated power	PASS	Meet the requirement of limit.
2.1055 27.54	Frequency Stability	PASS	Meet the requirement of limit.
2.1049 27.53(g)	Occupied Bandwidth	PASS	Meet the requirement of limit.
27.50(d)(5)	Peak to average ratio	PASS	Meet the requirement of limit.
27.53(g)	Band Edge Measurements	PASS	Meet the requirement of limit.
2.1051 27.53(g)	Conducted Spurious Emissions	PASS	Meet the requirement of limit.
2.1053 27.53(g)	Radiated Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -30.1dB at 1422.60MHz.

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.

2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	Aug. 02, 2011	Aug. 01, 2012
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Jul. 21, 2011	Jul. 20, 2012
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Apr. 13, 2011	Apr. 12, 2012
HORN Antenna SCHWARZBECK	9120D	209	Aug. 25, 2011	Aug. 24, 2012
HORN Antenna SCHWARZBECK	BBHA 9170	148	Jul. 20, 2011	Jul. 19, 2012
Preamplifier Agilent	8447D	2944A10633	Oct. 29, 2011	Oct. 28, 2012
Preamplifier Agilent	8449B	3008A01964	Oct. 29, 2011	Oct. 28, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250723/4	Aug. 30, 2011	Aug. 29, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 106	12738/6+309224/4	Aug. 30, 2011	Aug. 29, 2012
Software ADT.	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table ADT.	TT100	TT93021703	NA	NA
Turn Table Controller ADT.	SC100	SC93021703	NA	NA
Communication Tester R&S	CMU200	104484	Dec. 30, 2011	Dec. 29, 2012
Standard Temperature & Humidity Chamber WIT	MHU-225AU	920842	Jun. 15, 2011	Jun. 14, 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: 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 3.

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 988962.

5. The IC Site Registration No. is IC 7450F-3.

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	LTE/EVDO Rev. A WLAN VOIP Router	
MODEL NO.	R528	
POWER SUPPLY	12Vdc	
MODULATION TECHNOLOGY	**CDMA**	QPSK, OQPSK, HPSK
	LTE Band 4	QPSK, 16QAM
	LTE Band 12	QPSK, 16QAM
FREQUENCY RANGE	**CDMA**	1711.25MHz ~1753.75MHz
	LTE Band 4 Channel Bandwidth: 5MHz	1712.5MHz ~1752.5MHz
	LTE Band 4 Channel Bandwidth: 10MHz	1715.0MHz ~1750.0MHz
	LTE Band 4 Channel Bandwidth: 20MHz	1720.0MHz ~1745.0MHz
	LTE Band 12 Channel Bandwidth: 5MHz	701.5MHz ~ 713.5MHz
	LTE Band 12 Channel Bandwidth: 10MHz	703.0MHz ~ 711.0MHz
MAX. ERP POWER	**LTE Band 12 Channel Bandwidth: 5MHz**	21.2dBm (0.1318Watts)
	LTE Band 12 Channel Bandwidth: 10MHz	21.0dBm (0.1259Watts)
MAX. EIRP POWER	**CDMA**	24.7dBm (0.2951Watts)
	LTE Band 4 Channel Bandwidth: 5MHz	24.9dBm (0.3090Watts)
	LTE Band 4 Channel Bandwidth: 10MHz	24.1dBm (0.2570Watts)
	LTE Band 4 Channel Bandwidth: 20MHz	23.9dBm (0.2455Watts)
ANTENNA TYPE	**CDMA**	Monopole antenna with 2.5dBi gain
	LTE Band 4	Monopole antenna with 2.5dBi gain
	LTE Band 12	Monopole antenna with 1dBi gain
DATA CABLE	NA	
I/O PORTS	Refer to user's manual	
ACCESSORY DEVICES	Adapter	

NOTE:

1. The EUT was powered by the following adapter.

BRAND:	Channel Well Technology
MODEL:	SAG024F4
INPUT:	100-240Vac, 47-63Hz, 0.8A
OUTPUT:	12Vdc, 2.0A
POWER LINE:	1.5m non-shielded cable w/o core

2. HW version : V01.
3. SW version : 00013922.
4. The above EUT information is 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

CDMA

Three channels had been tested for each channel bandwidth.

	Channel	Frequency	TX MODE
LOW	25	1711.25MHz	CDMA, 1xEVDO Rev. 0 & 1xEVDO Rev. A
MIDDLE	450	1732.50MHz	CDMA, 1xEVDO Rev. 0 & 1xEVDO Rev. A
HIGH	875	1753.75MHz	CDMA, 1xEVDO Rev. 0 & 1xEVDO Rev. A

NOTE:

1. Below 1 GHz, the channel 25, 450 and 875 were pre-tested in chamber. The channel 450 was the worst case and chosen for final test.
2. After pretest of output power and spurious emission under 1xEVDO Rev. A, 1xEVDO Rev. 0, CDMA mode, find the worst mode is CDMA. Therefore, select CDMA mode to do final test

LTE Band 4

Three channels had been tested for each channel bandwidth.

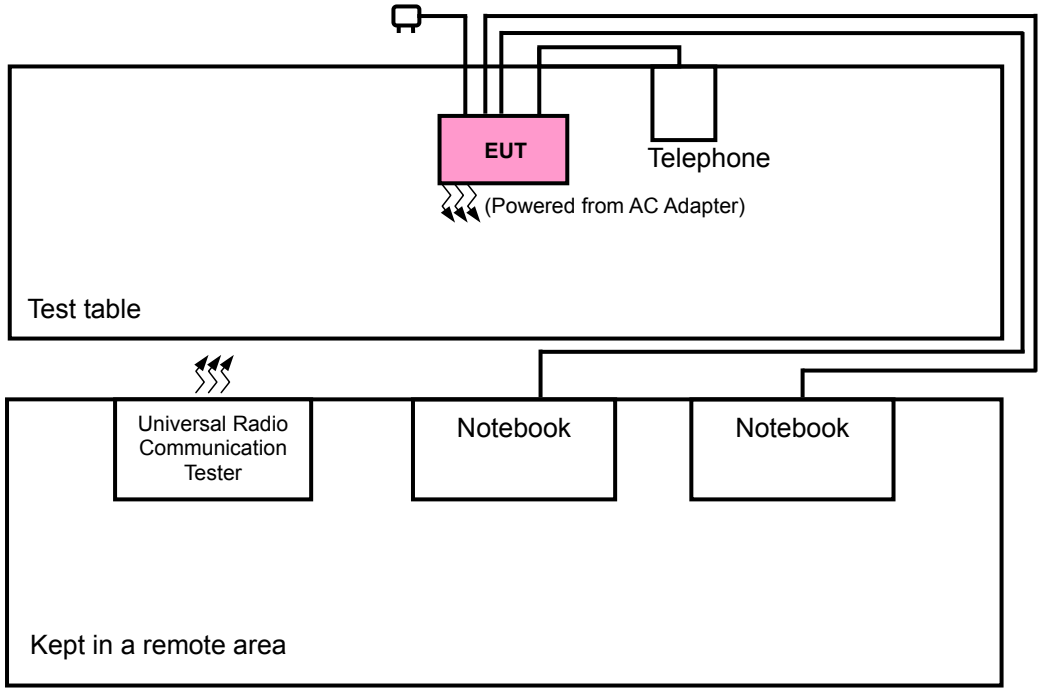
CHANNEL BANDWIDTH	5MHz		10MHz		20MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low channel (L)	19975	1712.5	20000	1715.0	20050	1720.0
Middle channel (M)	20175	1732.5	20175	1732.5	20175	1732.5
High channel (H)	20375	1752.5	20350	1750.0	20300	1745.0

LTE Band 12

Three channels had been tested for each channel bandwidth.

CHANNEL BANDWIDTH	5MHz		10MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low channel (L)	23035	701.5	23050	703.0
Middle channel (M)	23095	707.5	23095	707.5
High channel (H)	23155	713.5	23130	711.0

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 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	TELEPHONE	HTT	HTT-806	NA	NA
2	NOTEBOOK	DELL	E5410	1HC2XM1	NA
3	NOTEBOOK	DELL	E5410	6RP2YM1	NA
4	UNIVERSAL RADIO COMMUNICATION TESTER	R&S	CMU200	104484	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	1.8m RJ11 cable
2	10m RJ45 cable
3	10m RJ45 cable
4	NA

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

NOTE 2: Item 2 ~ 4 acted as a communication partner to transfer data.

3.2.3 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO								DESCRIPTION
	OP	FS	OB	PA	BE	CE	RE<1G	RE≥1G	
-	√	√	√	√	√	√	√	√	-

Where **OP:** Output power **FS:** Frequency stability
OB: Occupied bandwidth **PA:** Peak to Average Ratio
BE: Band edge **CE**: Conducted spurious emissions
RE<1G: Radiated emission below 1GHz **RE≥1G:** Radiated emission above 1GHz

OUTPUT POWER MEASUREMENT:

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

OPERATING BAND	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	AXIS
CDMA	25 to 875	25, 450, 875	CDMA, 1xEVDO Rev. A, 1xEVDO Rev. 0	Z
LTE Band 4	19975 to 20375	19975, 20175, 20375	QPSK	Z
	20000 to 20350	20000, 20175, 20350	QPSK	Z
	20050 to 20300	20050, 20175, 20300	QPSK	Z
LTE Band 12	23035 to 23155	23035, 23095, 23155	QPSK	X
	23050 to 23130	23050, 23095, 23130	QPSK	X

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.

OPERATING BAND	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	AXIS
CDMA	25 to 875	450	CDMA	Z
LTE Band 4	19975 to 20375	20175	QPSK	Z
	20000 to 20350	20175	QPSK	Z
	20050 to 20300	20175	QPSK	Z
LTE Band 12	23035 to 23155	23095	QPSK	X
	23050 to 23130	23095	QPSK	X

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.

OPERATING BAND	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY
CDMA	25 to 875	25, 450, 875	CDMA, 1xEVDO Rev. A, 1xEVDO Rev. 0
LTE Band 4	19975 to 20375	19975, 20175, 20375	QPSK, 16QAM
	20000 to 20350	20000, 20175, 20350	QPSK, 16QAM
	20050 to 20300	20050, 20175, 20300	QPSK, 16QAM
LTE Band 12	23035 to 23155	23035, 23095, 23155	QPSK, 16QAM
	23050 to 23130	23050, 23095, 23130	QPSK, 16QAM

PEAK TO AVERAGE RATIO:

☒ 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.

OPERATING BAND	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY
CDMA	25 to 875	25, 450, 875	CDMA, 1xEVDO Rev. A, 1xEVDO Rev. 0
LTE Band 4	19975 to 20375	19975, 20175, 20375	QPSK, 16QAM
	20000 to 20350	20000, 20175, 20350	QPSK, 16QAM
	20050 to 20300	20050, 20175, 20300	QPSK, 16QAM
LTE Band 12	23035 to 23155	23035, 23095, 23155	QPSK, 16QAM
	23050 to 23130	23050, 23095, 23130	QPSK, 16QAM

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.

OPERATING BAND	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY
CDMA	25 to 875	25, 875	CDMA, 1xEVDO Rev. A, 1xEVDO Rev. 0
LTE Band 4	19975 to 20375	19975, 20375	QPSK, 16QAM
	20000 to 20350	20000, 20350	QPSK, 16QAM
	20050 to 20300	20050, 20300	QPSK, 16QAM
LTE Band 12	23035 to 23155	23035, 23155	QPSK, 16QAM
	23050 to 23130	23050, 23130	QPSK, 16QAM

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.

OPERATING BAND	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY
CDMA	25 to 875	25, 450, 875	CDMA
LTE Band 4	19975 to 20375	19975, 20175, 20375	QPSK
	20000 to 20350	20000, 20175, 20350	QPSK
	20050 to 20300	20050, 20175, 20300	QPSK
LTE Band 12	23035 to 23155	23035, 23095, 23155	QPSK
	23050 to 23130	23050, 23095, 23130	QPSK

RADIATED EMISSION MEASUREMENT (BELOW 1 GHz):

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

OPERATING BAND	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	AXIS
CDMA	25 to 875	450	CDMA	Z
LTE Band 4	19975 to 20375	20175	QPSK	Z
	20000 to 20350	20350	QPSK	Z
	20050 to 20300	20300	QPSK	Z
LTE Band 12	23035 to 23155	23155	QPSK	X
	23050 to 23130	23050	QPSK	X

RADIATED EMISSION MEASUREMENT (ABOVE 1 GHz):

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

OPERATING BAND	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	AXIS
CDMA	25 to 875	25, 450, 875	CDMA	Z
LTE Band 4	19975 to 20375	19975, 20175, 20375	QPSK	Z
	20000 to 20350	20000, 20175, 20350	QPSK	Z
	20050 to 20300	20050, 20175, 20300	QPSK	Z
LTE Band 12	23035 to 23155	23035, 23095, 23155	QPSK	X
	23050 to 23130	23050, 23095, 23130	QPSK	X

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
OP	25deg. C, 65%RH	120Vac, 60Hz	Mark Liao
FS	25deg. C, 65%RH	120Vac, 60Hz	Mark Liao
OB	25deg. C, 65%RH	120Vac, 60Hz	Mark Liao
PA	25deg. C, 65%RH	120Vac, 60Hz	Mark Liao
BE	25deg. C, 65%RH	120Vac, 60Hz	Mark Liao
CE	25deg. C, 65%RH	120Vac, 60Hz	Mark Liao
RE < 1G	25deg. C, 65%RH	120Vac, 60Hz	Haru Yang
RE ≥ 1G	25deg. C, 65%RH 21deg. C, 67%RH	120Vac, 60Hz	Haru Yang Aska Huang

3.3 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 27

ANSI/TIA/EIA-603-C 2004

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

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

4 TEST TYPES AND RESULTS

4.1 OUTPUT POWER MEASUREMENT

4.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

Fixed, mobile, and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP.
Portable stations (hand-held devices) operating in the 698–746 MHz band are limited to 3 watts ERP

4.1.2 TEST PROCEDURES

EIRP / ERP MEASUREMENT:

a. All measurements were done at low, middle and high operational frequency range. RWB and VBW is 5MHz for CDMA mode and10MHz for LTE mode.

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 b. Record the power level of S.G

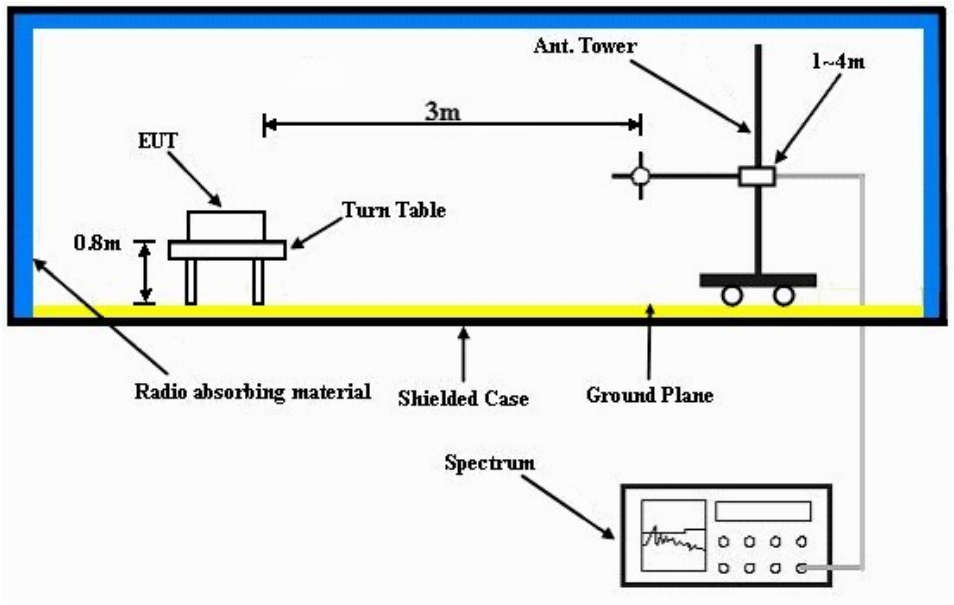
d. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.

CONDUCTED POWER MEASUREMENT:

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

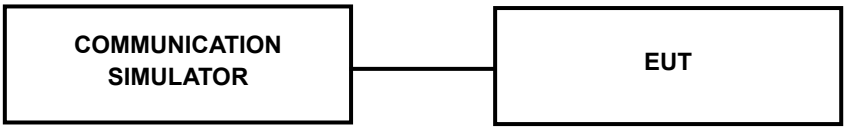
4.1.3 TEST SETUP

EIRP / ERP 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).

4.1.4 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm)

Band	CDMA2000 BC15		
Channel	25	450	875
Frequency	1711.25	1732.5	1753.75
RC1+SO55	23.73	23.61	23.43
RC3+SO55	23.82	23.65	23.61
RC3+SO32(+ F-SCH)	23.72	23.46	23.35
RC3+SO32(+SCH)	23.54	23.44	23.34
RTAP 153.6	23.75	23.62	23.51
RETAP 4096	23.81	23.71	23.65

LTE Band 4						
BW	Modulation	CH	Frequency (MHz)	RB	RB Offset	Measured Power
5 MHz	QPSK	19975	1712.5	1	0	23.35
		20175	1732.5	1	0	22.99
		20375	1752.5	1	0	23.01
		19975	1712.5	1	24	23.05
		20175	1732.5	1	24	22.89
		20375	1752.5	1	24	22.78
		19975	1712.5	12	6	22.58
		20175	1732.5	12	6	22.39
		20375	1752.5	12	6	22.19
		19975	1712.5	25	0	22.62
		20175	1732.5	25	0	22.46
		20375	1752.5	25	0	22.27
	16QAM	19975	1712.5	1	0	22.94
		20175	1732.5	1	0	22.73
		20375	1752.5	1	0	22.78
		19975	1712.5	1	24	22.78
		20175	1732.5	1	24	22.67
		20375	1752.5	1	24	22.51
		19975	1712.5	12	6	21.58
		20175	1732.5	12	6	21.33
		20375	1752.5	12	6	21.35
		19975	1712.5	25	0	22.06
		20175	1732.5	25	0	21.87
		20375	1752.5	25	0	21.73

LTE Band 4						
BW	Modulation	CH	Frequency (MHz)	RB	RB Offset	Measured Power
10 MHz	QPSK	20000	1715.0	1	0	23.17
		20175	1732.5	1	0	23.1
		20350	1750.0	1	0	22.95
		20000	1715.0	1	49	23.1
		20175	1732.5	1	49	22.88
		20350	1750.0	1	49	22.72
		20000	1715.0	25	12	22.56
		20175	1732.5	25	12	22.43
		20350	1750.0	25	12	22.39
		20000	1715.0	50	0	22.52
		20175	1732.5	50	0	22.32
		20350	1750.0	50	0	22.31
	16QAM	20000	1715.0	1	0	23.07
		20175	1732.5	1	0	22.95
		20350	1750.0	1	0	22.76
		20000	1715.0	1	49	22.81
		20175	1732.5	1	49	22.59
		20350	1750.0	1	49	22.39
		20000	1715.0	25	12	21.9
		20175	1732.5	25	12	21.88
		20350	1750.0	25	12	21.82
		20000	1715.0	50	0	21.74
		20175	1732.5	50	0	21.61
		20350	1750.0	50	0	21.53

LTE Band 4						
BW	Modulation	CH	Frequency (MHz)	RB	RB Offset	Measured Power
20 MHz	QPSK	20050	1720.0	1	0	23.22
		20175	1732.5	1	0	23.05
		20300	1745.0	1	0	23.03
		20050	1720.0	1	99	22.93
		20175	1732.5	1	99	22.84
		20300	1745.0	1	99	22.67
		20050	1720.0	50	25	22.62
		20175	1732.5	50	25	22.45
		20300	1745.0	50	25	22.36
		20050	1720.0	100	0	22.55
		20175	1732.5	100	0	22.42
		20300	1745.0	100	0	22.39
	16QAM	20050	1720.0	1	0	22.84
		20175	1732.5	1	0	22.87
		20300	1745.0	1	0	22.78
		20050	1720.0	1	99	22.75
		20175	1732.5	1	99	22.64
		20300	1745.0	1	99	22.48
		20050	1720.0	50	25	21.72
		20175	1732.5	50	25	21.62
		20300	1745.0	50	25	21.57
		20050	1720.0	100	0	21.6
		20175	1732.5	100	0	21.54
		20300	1745.0	100	0	21.48

LTE Band 12						
BW	Modulation	CH	Frequency (MHz)	RB	RB Offset	Measured Power
5 MHz	QPSK	23035	701.5	1	0	23.08
		23095	707.5	1	0	22.69
		23155	713.5	1	0	22.59
		23035	701.5	1	24	22.05
		23095	707.5	1	24	22.67
		23155	713.5	1	24	22.13
		23035	701.5	12	6	21.82
		23095	707.5	12	6	22.17
		23155	713.5	12	6	21.71
		23035	701.5	25	0	21.68
		23095	707.5	25	0	22.11
		23155	713.5	25	0	21.63
	16QAM	23035	701.5	1	0	22.33
		23095	707.5	1	0	22.31
		23155	713.5	1	0	22.22
		23035	701.5	1	24	22
		23095	707.5	1	24	21.69
		23155	713.5	1	24	21.57
		23035	701.5	12	6	20.82
		23095	707.5	12	6	21.32
		23155	713.5	12	6	20.81
		23035	701.5	25	0	20.95
		23095	707.5	25	0	21.39
		23155	713.5	25	0	20.91

LTE Band 12						
BW	Modulation	CH	Frequency (MHz)	RB	RB Offset	Measured Power
10 MHz	QPSK	23050	703	1	0	22.35
		23095	707.5	1	0	22.26
		23130	711	1	0	22.01
		23050	703	1	49	21.98
		23095	707.5	1	49	21.81
		23130	711	1	49	21.91
		23050	703	25	12	21.74
		23095	707.5	25	12	21.37
		23130	711	25	12	21.64
		23050	703	50	0	21.09
		23095	707.5	50	0	21.28
		23130	711	50	0	21.11
	16QAM	23050	703	1	0	21.71
		23095	707.5	1	0	21.4
		23130	711	1	0	21.38
		23050	703	1	49	21.12
		23095	707.5	1	49	21.23
		23130	711	1	49	21.42
		23050	703	25	12	20.97
		23095	707.5	25	12	21.01
		23130	711	25	12	20.99
		23050	703	50	0	20.73
		23095	707.5	50	0	20.98
		23130	711	50	0	20.64

EIRP POWER (dBm)

CDMA: FOR CDMA MODE:

MODE	TX channel 25						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1711.25	-12.3	23.3	1.0	24.3	30.0	-5.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1711.25	-14.4	20.3	1.0	21.3	30.0	-8.7

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE	TX channel 450						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1732.50	-12.0	23.7	1.0	24.7	30.0	-5.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1732.50	-15.8	18.9	1.0	19.9	30.0	-10.1

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE	TX channel 875						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1753.75	-13.1	22.7	1.0	23.7	30.0	-6.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1753.75	-17.2	17.6	1.0	18.6	30.0	-11.4

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

FOR 1XEVDO Rev. 0 MODE:

MODE		TX channel 25					
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1711.25	-12.9	22.7	1.0	23.7	30.0	-6.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1711.25	-14.8	19.9	1.0	20.9	30.0	-9.1

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE		TX channel 450					
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1732.50	-12.5	23.2	1.0	24.2	30.0	-5.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1732.50	-16.4	18.3	1.0	19.3	30.0	-10.7

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE		TX channel 875					
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1753.75	-13.8	22.0	1.0	23.0	30.0	-7.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1753.75	-17.9	16.9	1.0	17.9	30.0	-12.1

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

FOR 1XEVDO Rev. A MODE:

MODE	TX channel 25						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1711.25	-12.6	23.0	1.0	24.0	30.0	-6.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1711.25	-14.6	20.1	1.0	21.1	30.0	-8.9

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE	TX channel 450						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1732.50	-12.3	23.4	1.0	24.4	30.0	-5.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1732.50	-16.1	18.6	1.0	19.6	30.0	-10.4

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE	TX channel 875						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1753.75	-13.5	22.3	1.0	23.3	30.0	-6.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1753.75	-17.7	17.1	1.0	18.1	30.0	-11.9

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 4

CHANNEL BANDWIDTH: 5MHz

MODE	TX channel 19975						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1712.50	-12.1	23.5	1.0	24.5	30.0	-5.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1712.50	-15.1	19.6	1.0	20.6	30.0	-9.4

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE	TX channel 20175						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1732.50	-11.8	23.9	1.0	24.9	30.0	-5.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1732.50	-16.4	18.3	1.0	19.3	30.0	-10.7

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE	TX channel 20375						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1752.50	-12.2	23.5	1.0	24.5	30.0	-5.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1752.50	-17.8	17.0	1.0	18.0	30.0	-12.0

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

CHANNEL BANDWIDTH: 10MHz

MODE	TX channel 20000						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1715.00	-12.9	22.7	1.0	23.7	30.0	-6.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1715.00	-18.1	16.6	1.0	17.6	30.0	-12.4

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE	TX channel 20175						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1732.50	-12.8	22.8	1.0	23.8	30.0	-6.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1732.50	-17.9	16.8	1.0	17.8	30.0	-12.2

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE	TX channel 20350						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1750.00	-12.6	23.1	1.0	24.1	30.0	-5.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1750.00	-17.7	17.1	1.0	18.1	30.0	-11.9

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

CHANNEL BANDWIDTH: 20MHz

MODE		TX channel 2050					
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1720.00	-13.0	22.6	1.0	23.6	30.0	-6.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1720.00	-15.7	19.0	1.0	20.6	30.0	-10.0

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE		TX channel 20175					
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1732.50	-13.1	22.5	1.0	23.5	30.0	-6.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1732.50	-17.0	17.7	1.0	18.7	30.0	-11.3

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE		TX channel 20300					
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1745.00	-12.8	22.9	1.0	23.9	30.0	-6.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1745.00	-17.3	17.4	1.0	18.4	30.0	-11.6

NOTE: Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 12

CHANNEL BANDWIDTH: 5MHz

MODE	TX channel 23035						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	701.50	-9.9	22.6	0.0	20.5	34.8	-14.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	701.50	-16.8	12.4	0.0	10.2	34.8	-24.5

NOTE: ERP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE	TX channel 23095						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	707.50	-11.3	21.2	0.0	19.1	34.8	-15.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	707.50	-16.5	12.8	0.0	10.7	34.8	-24.1

NOTE: ERP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE	TX channel 23155						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	713.50	-9.1	23.3	0.0	21.2	34.8	-13.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	713.50	-14.6	14.7	0.0	12.6	34.8	-22.2

NOTE: ERP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

CHANNEL BANDWIDTH: 10MHz

MODE	TX channel 20350						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	703.00	-9.4	23.1	0.0	21.0	34.8	-13.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	703.00	-14.4	14.9	0.0	12.8	34.8	-22.0

NOTE: ERP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE	TX channel 23095						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	707.50	-9.7	22.8	0.0	20.7	34.8	-14.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	707.50	-15.2	14.0	0.0	11.9	34.8	-22.9

NOTE: ERP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

MODE	TX channel 23130						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	711.00	-10.8	21.7	0.0	19.6	34.8	-15.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	711.00	-16.0	13.3	0.0	11.2	34.8	-23.6

NOTE: ERP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

4.2 FREQUENCY STABILITY MEASUREMENT

4.2.1 LIMITS OF FREQUENCY STABILIITY MEASUREMENT

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

4.2.2 TEST PROCEDURE

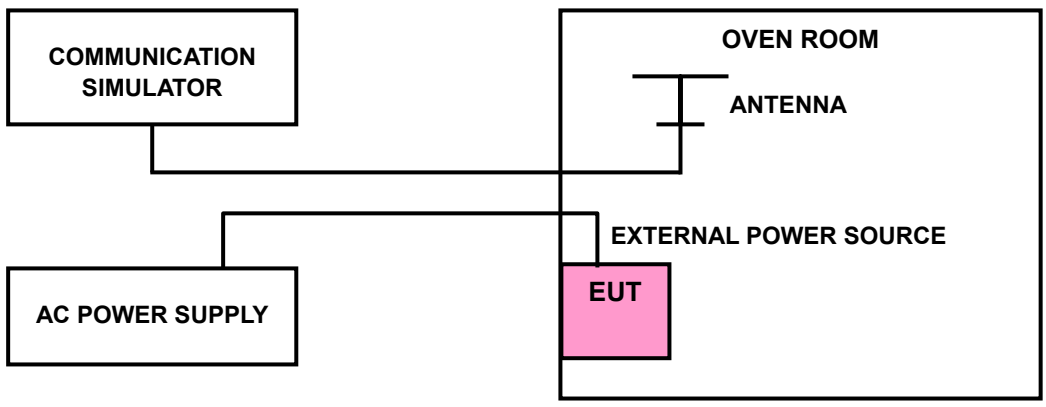
a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.

b. EUT is connected the external power supply to control the AC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.

c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5℃ during the measurement testing. 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 communication simulator.

4.2.3 TEST SETUP



4.2.4 TEST RESULTS

CDMA

AFC FREQUENCY ERROR vs. VOLTAGE			
VOLTAGE (Volts)	**FREQUENCY ERROR (Hz)**	**FREQUENCY ERROR (ppm)**	**LIMIT (ppm)**
126.5	-10	-0.006	2.5
93.5	-3	-0.002	2.5

NOTE: The applicant defined the normal working voltage of the host equipment is from 93.5Vac to 126.5Vac.

AFC FREQUENCY ERROR vs. TEMP.			
TEMP. (℃)	**FREQUENCY ERROR (Hz)**	**FREQUENCY ERROR (ppm)**	**LIMIT (ppm)**
55	-13	-0.008	2.5
50	-11	-0.006	2.5
40	-7	-0.004	2.5
30	-5	-0.003	2.5
20	-2	-0.001	2.5
10	3	0.002	2.5
0	5	0.003	2.5
-10	2	0.001	2.5
-20	-2	-0.001	2.5
-30	-6	-0.003	2.5

LTE Band 4:

CHANNEL BANDWIDTH: 5MHz

AFC FREQUENCY ERROR vs. VOLTAGE			
VOLTAGE (Volts)	**FREQUENCY ERROR (Hz)**	**FREQUENCY ERROR (ppm)**	**LIMIT (ppm)**
126.5	-6	-0.003	2.5
93.5	-3	-0.002	2.5

NOTE: The applicant defined the normal working voltage of the host equipment is from 93.5Vac to 126.5Vac.

AFC FREQUENCY ERROR vs. TEMP.			
TEMP. (℃)	**FREQUENCY ERROR (Hz)**	**FREQUENCY ERROR (ppm)**	**LIMIT (ppm)**
55	-8	-0.005	2.5
50	-6	-0.003	2.5
40	-5	-0.003	2.5
30	-3	-0.002	2.5
20	-1	-0.001	2.5
10	-2	-0.001	2.5
0	-4	-0.002	2.5
-10	-5	-0.003	2.5
-20	-6	-0.003	2.5
-30	-7	-0.004	2.5

CHANNEL BANDWIDTH: 10MHz

AFC FREQUENCY ERROR vs. VOLTAGE			
VOLTAGE (Volts)	FREQUENCY ERROR (Hz)	FREQUENCY ERROR (ppm)	LIMIT (ppm)
126.5	-8	-0.005	2.5
93.5	-2	-0.001	2.5

NOTE: The applicant defined the normal working voltage of the host equipment is from 93.5Vac to 126.5Vac.

AFC FREQUENCY ERROR vs. TEMP.			
TEMP. (℃)	FREQUENCY ERROR (Hz)	FREQUENCY ERROR (ppm)	LIMIT (ppm)
55	-10	-0.006	2.5
50	-8	-0.005	2.5
40	-7	-0.004	2.5
30	-5	-0.003	2.5
20	-2	-0.001	2.5
10	-1	-0.001	2.5
0	-4	-0.002	2.5
-10	-7	-0.004	2.5
-20	-8	-0.005	2.5
-30	-11	-0.006	2.5

CHANNEL BANDWIDTH: 20MHz

AFC FREQUENCY ERROR vs. VOLTAGE			
VOLTAGE (Volts)	FREQUENCY ERROR (Hz)	FREQUENCY ERROR (ppm)	LIMIT (ppm)
126.5	-9	-0.005	2.5
93.5	-4	-0.002	2.5

NOTE: The applicant defined the normal working voltage of the host equipment is from 93.5Vac to 126.5Vac.

AFC FREQUENCY ERROR vs. TEMP.			
TEMP. (℃)	FREQUENCY ERROR (Hz)	FREQUENCY ERROR (ppm)	LIMIT (ppm)
55	-11	-0.006	2.5
50	-8	-0.005	2.5
40	-6	-0.003	2.5
30	-4	-0.002	2.5
20	-5	-0.003	2.5
10	-3	-0.002	2.5
0	-1	-0.001	2.5
-10	-6	-0.003	2.5
-20	-7	-0.004	2.5
-30	-9	-0.005	2.5

LTE Band 12:

CHANNEL BANDWIDTH: 5MHz

AFC FREQUENCY ERROR vs. VOLTAGE			
VOLTAGE (Volts)	**FREQUENCY ERROR (Hz)**	**FREQUENCY ERROR (ppm)**	**LIMIT (ppm)**
126.5	-7	-0.010	2.5
93.5	-2	-0.003	2.5

NOTE: The applicant defined the normal working voltage of the host equipment is from 93.5Vac to 126.5Vac.

AFC FREQUENCY ERROR vs. TEMP.			
TEMP. (℃)	**FREQUENCY ERROR (Hz)**	**FREQUENCY ERROR (ppm)**	**LIMIT (ppm)**
55	-8	-0.011	2.5
50	-6	-0.008	2.5
40	-3	-0.004	2.5
30	-1	-0.001	2.5
20	-3	-0.004	2.5
10	-4	-0.006	2.5
0	-6	-0.008	2.5
-10	-9	-0.013	2.5
-20	-11	-0.016	2.5
-30	-10	-0.014	2.5

CHANNEL BANDWIDTH: 10MHz

AFC FREQUENCY ERROR vs. VOLTAGE			
VOLTAGE (Volts)	FREQUENCY ERROR (Hz)	FREQUENCY ERROR (ppm)	LIMIT (ppm)
126.5	-7	-0.010	2.5
93.5	-5	-0.007	2.5

NOTE: The applicant defined the normal working voltage of the host equipment is from 93.5Vac to 126.5Vac.

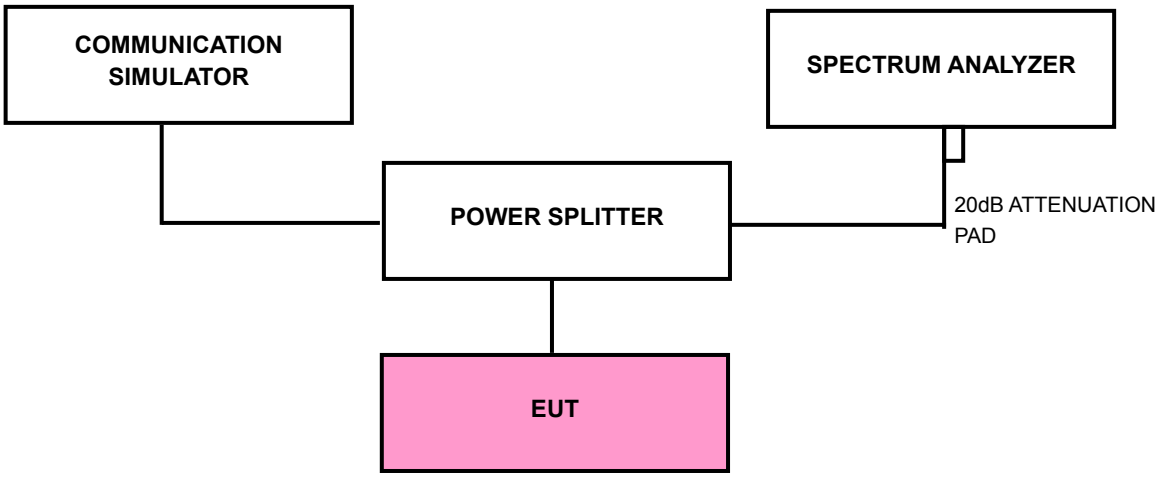
AFC FREQUENCY ERROR vs. TEMP.			
TEMP. (℃)	FREQUENCY ERROR (Hz)	FREQUENCY ERROR (ppm)	LIMIT (ppm)
55	-8	-0.011	2.5
50	-6	-0.008	2.5
40	-5	-0.007	2.5
30	-2	-0.003	2.5
20	-3	-0.004	2.5
10	-6	-0.008	2.5
0	-7	-0.010	2.5
-10	-9	-0.013	2.5
-20	-11	-0.016	2.5
-30	-13	-0.018	2.5

4.3 OCCUPIED BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. 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.

4.3.2 TEST SETUP



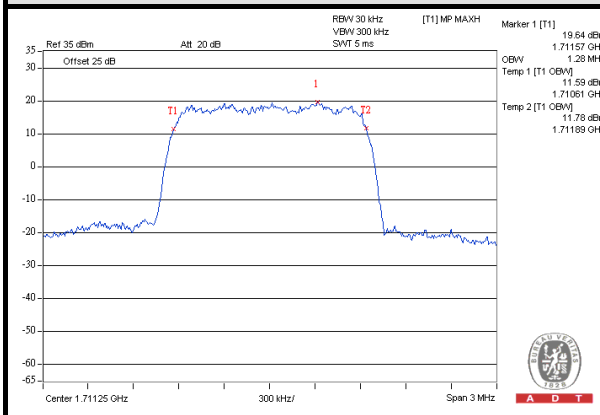
4.3.3 TEST RESULTS

FOR CDMA

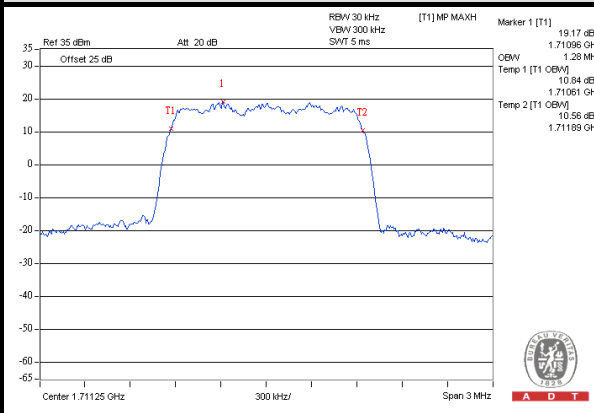
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)		
		CDMA MODE	1xEV-DO Rev. 0 MODE	1xEV-DO Rev. A MODE
25	1711.25	1.28	1.28	1.28
450	1732.50	1.28	1.28	1.28
875	1753.75	1.28	1.28	1.28

SPECTRUM PLOT OF WORST VALUE

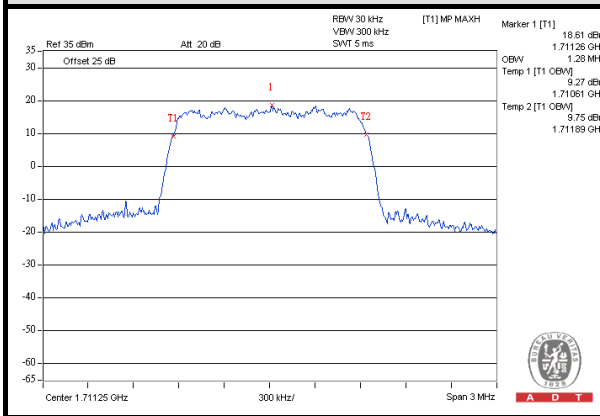
CDMA MODE



1xEV-DO Rev. 0 MODE



1xEV-DO Rev. A MODE



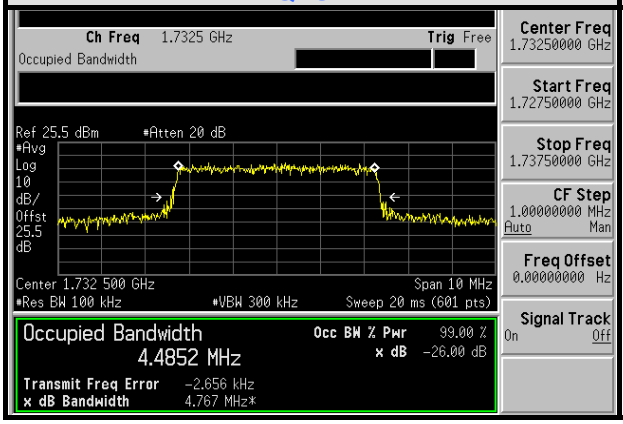
LTE BAND 4

CHANNEL BANDWIDTH: 5MHz

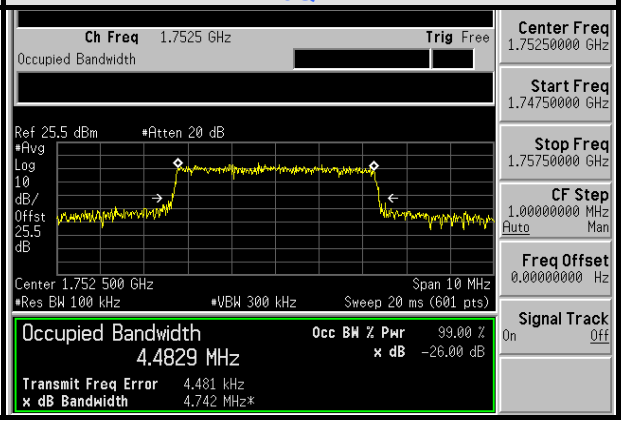
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)	
		QPSK	16QAM
19975	1712.5	4.4664	4.4823
20175	1732.5	4.4852	4.4743
20375	1752.5	4.4724	4.4829

SPECTRUM PLOT OF WORST VALUE

QPSK



16QAM

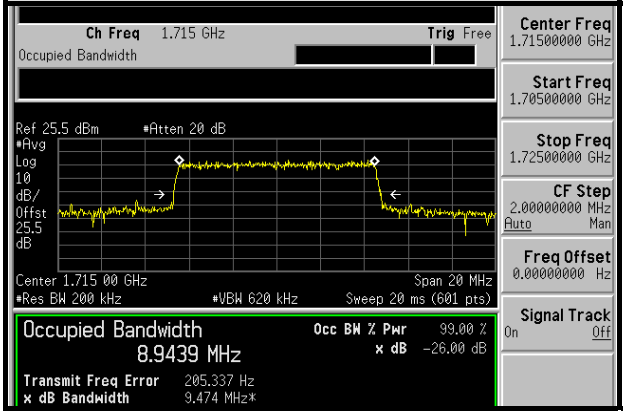


CHANNEL BANDWIDTH: 10MHz

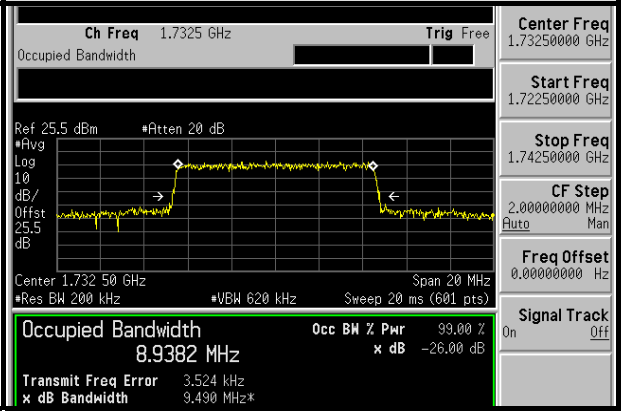
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)	
		QPSK	16QAM
20000	1715.0	8.9439	8.9031
20175	1732.5	8.9285	8.9382
20350	1750.0	8.9034	8.9211

SPECTRUM PLOT OF WORST VALUE

QPSK



16QAM

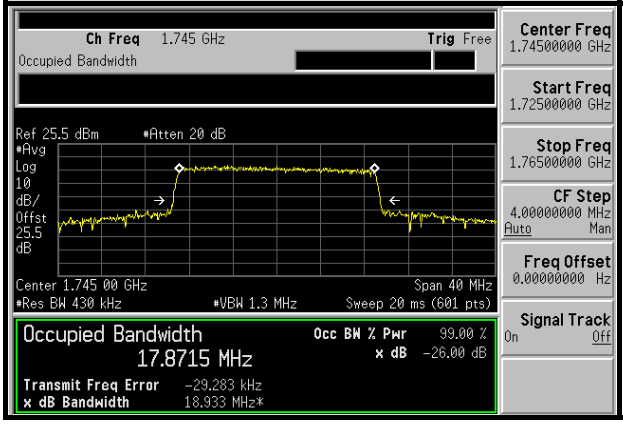


CHANNEL BANDWIDTH: 20MHz

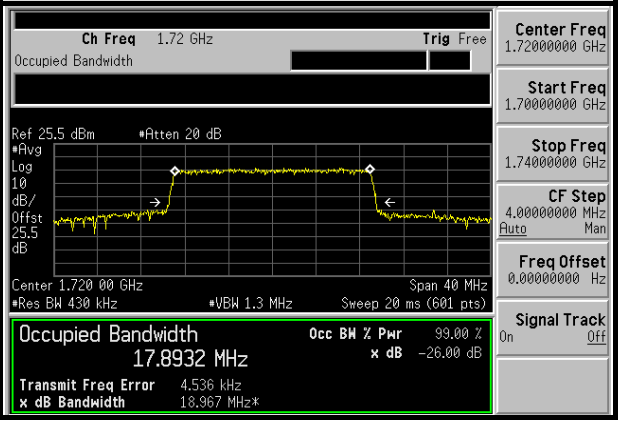
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)	
		QPSK	16QAM
20050	1720.0	17.8318	17.8932
20175	1732.5	17.8083	17.8512
20300	1745.0	17.8715	17.7663

SPECTRUM PLOT OF WORST VALUE

QPSK



16QAM



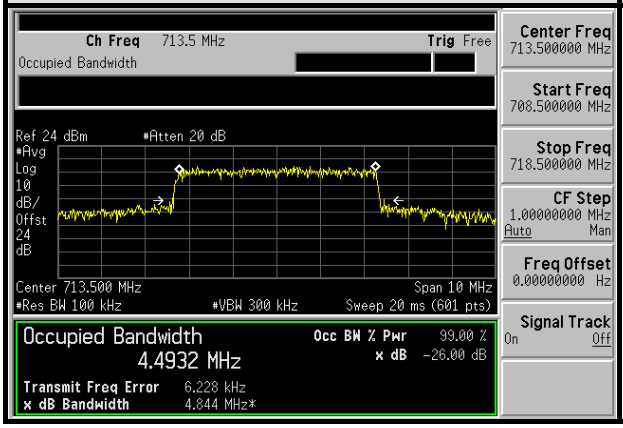
LTE BAND 12

CHANNEL BANDWIDTH: 5MHz

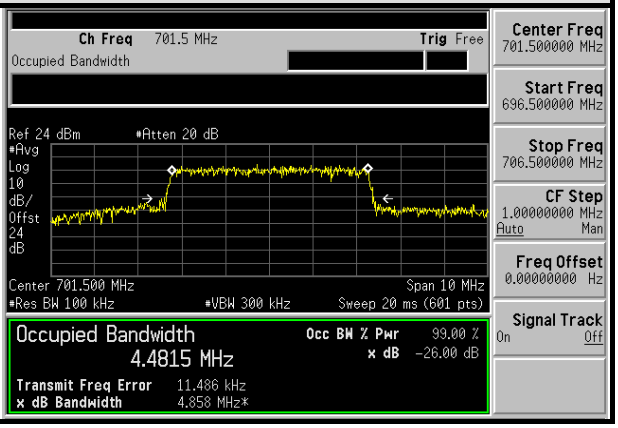
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)	
		QPSK	16QAM
23035	701.5	4.4866	4.4815
23095	707.5	4.4899	4.4647
23155	713.5	4.4932	4.4704

SPECTRUM PLOT OF WORST VALUE

QPSK



16QAM

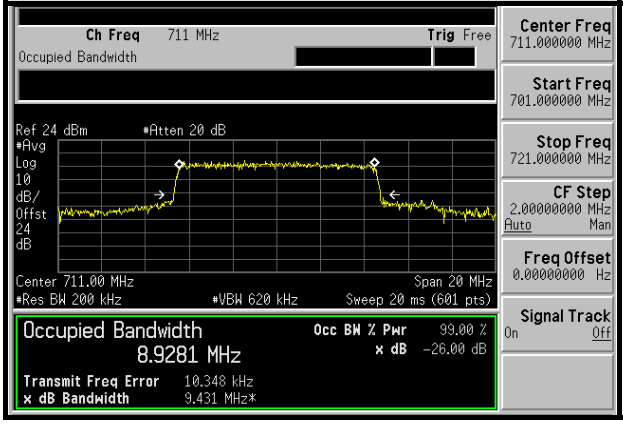


CHANNEL BANDWIDTH: 10MHz

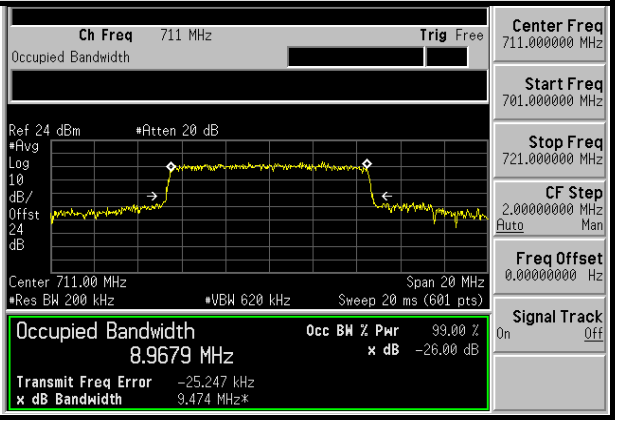
CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)	
		QPSK	16QAM
23050	703.0	8.9125	8.9306
23095	707.5	8.9204	8.8885
23130	711.0	8.9281	8.9679

SPECTRUM PLOT OF WORST VALUE

QPSK



16QAM

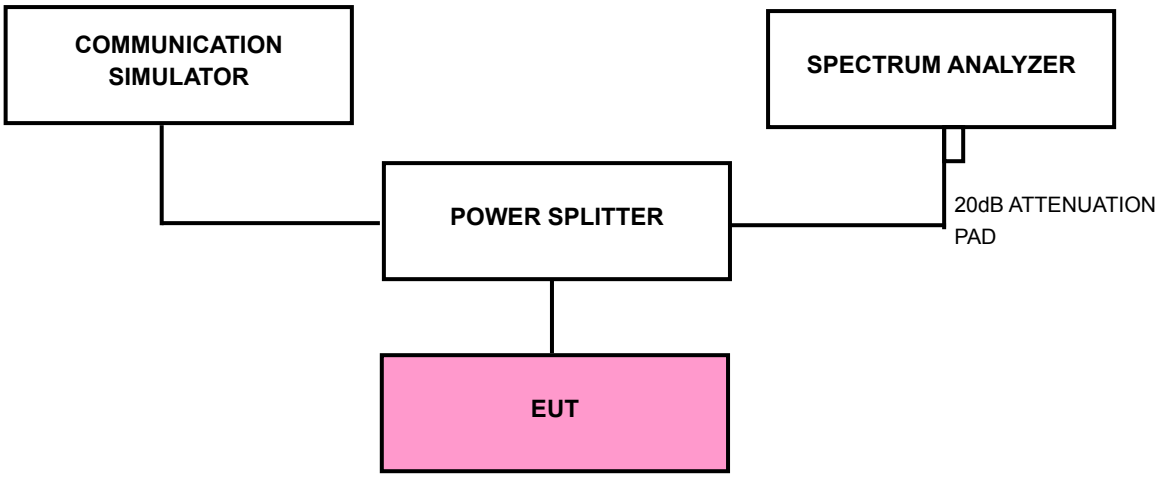


4.4 PEAK TO AVERAGE RATIO

4.4.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB

4.4.2 TEST SETUP



4.4.3 TEST PROCEDURES

1. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1%.

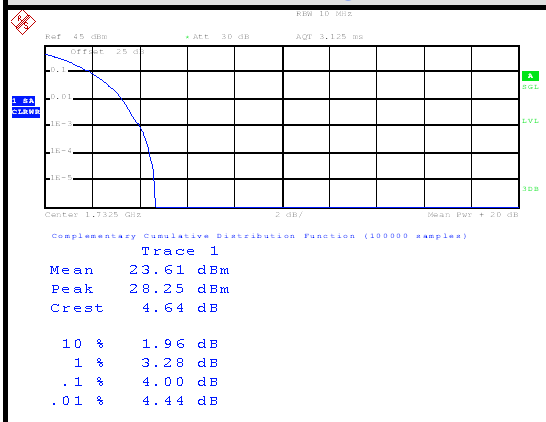
4.4.4 TEST RESULTS

CDMA(RC3+SO55)

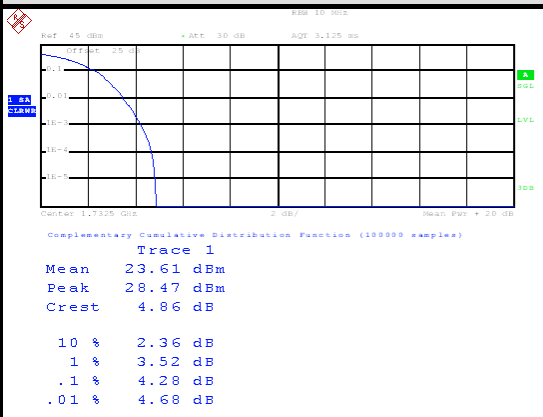
CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)		
		CDMA MODE	1xEV-DO Rev. 0 MODE	1xEV-DO Rev. A MODE
25	1711.25	3.72	4.00	4.68
450	1732.50	4.00	4.28	5.00
875	1753.75	3.72	3.96	4.84

SPECTRUM PLOT OF WORST VALUE

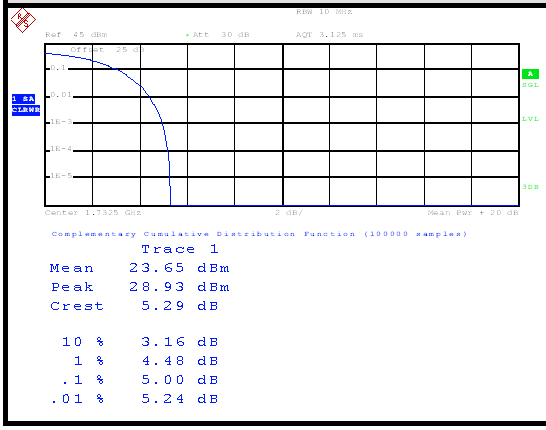
CDMA MODE



1xEV-DO Rev. 0 MODE



1xEV-DO Rev. A MODE



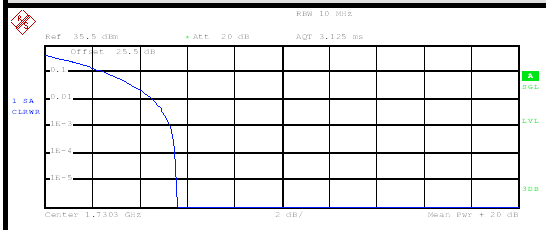
LTE BAND 4

CHANNEL BANDWIDTH: 5MHz, QPSK

CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)			
		1RB LOWER	1RB UPPER	50% RB	100% RB
19975	1712.5	4.96	5.12	5.28	5.36
20175	1732.5	5.32	5.32	5.52	5.60
20375	1752.5	5.00	5.04	5.24	5.36

SPECTRUM PLOT OF WORST VALUE

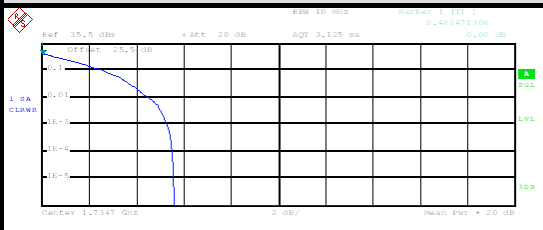
1RB LOWER



Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.93 dBm
Peak	28.52 dBm
Crest	5.59 dB
10 %	2.60 dB
1 %	4.60 dB
.1 %	5.32 dB
.01 %	5.48 dB

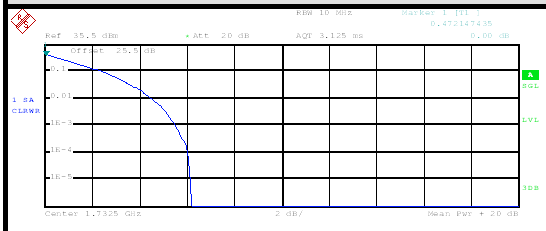
1RB UPPER



Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.84 dBm
Peak	28.41 dBm
Crest	5.57 dB
10 %	2.64 dB
1 %	4.56 dB
.1 %	5.32 dB
.01 %	5.52 dB

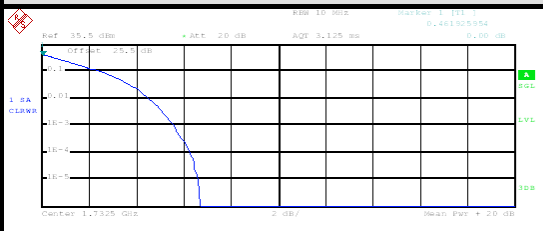
50% RB



Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.30 dBm
Peak	28.48 dBm
Crest	6.18 dB
10 %	2.48 dB
1 %	4.56 dB
.1 %	5.52 dB
.01 %	6.04 dB

100% RB



Complementary Cumulative Distribution Function (100000 samples)

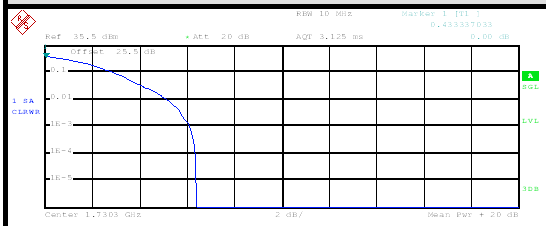
Trace 1	
Mean	22.41 dBm
Peak	29.10 dBm
Crest	6.69 dB
10 %	2.56 dB
1 %	4.56 dB
.1 %	5.60 dB
.01 %	6.28 dB

CHANNEL BANDWIDTH: 5MHz, 16QAM

CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)			
		1RB LOWER	1RB UPPER	50% RB	100% RB
19975	1712.5	5.92	5.84	5.96	5.92
20175	1732.5	6.12	5.96	6.36	6.12
20375	1752.5	6.12	6.00	5.96	5.84

SPECTRUM PLOT OF WORST VALUE

1RB LOWER

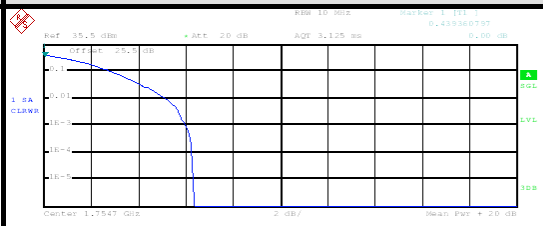


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	22.71 dBm
Peak	29.08 dBm
Crest	6.37 dB
10 %	2.96 dB
1 %	5.24 dB
.1 %	6.12 dB
.01 %	6.36 dB

1RB UPPER

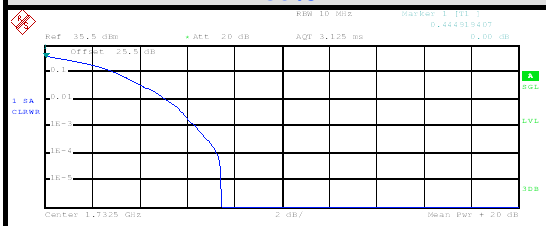


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	22.47 dBm
Peak	28.80 dBm
Crest	6.33 dB
10 %	2.92 dB
1 %	5.24 dB
.1 %	6.00 dB
.01 %	6.28 dB

50% RB

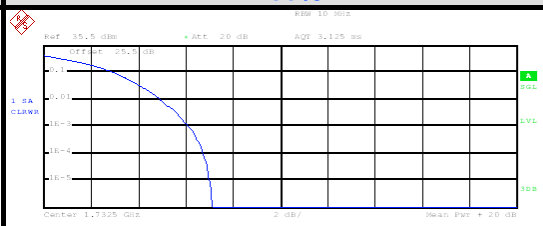


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	21.30 dBm
Peak	28.76 dBm
Crest	7.46 dB
10 %	3.00 dB
1 %	5.16 dB
.1 %	6.36 dB
.01 %	7.28 dB

100% RB



Complementary Cumulative Distribution Function (100000 samples)

Trace 1

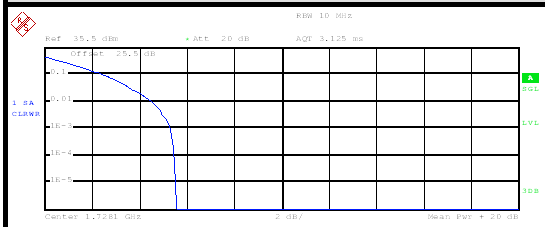
Mean	21.81 dBm
Peak	28.90 dBm
Crest	7.09 dB
10 %	3.00 dB
1 %	4.96 dB
.1 %	6.12 dB
.01 %	6.76 dB

CHANNEL BANDWIDTH: 10MHz, QPSK

CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)			
		1RB LOWER	1RB UPPER	50% RB	100% RB
20000	1715.0	5.08	5.04	5.32	5.36
20175	1732.5	5.32	5.20	5.56	5.48
20350	1750.0	4.92	5.04	5.32	5.36

SPECTRUM PLOT OF WORST VALUE

1RB LOWER

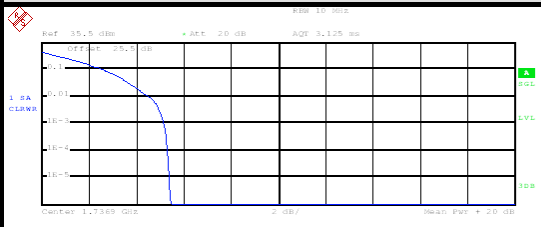


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	23.07 dBm
Peak	28.62 dBm
Crest	5.55 dB
10 %	2.48 dB
1 %	4.56 dB
.1 %	5.32 dB
.01 %	5.48 dB

1RB UPPER

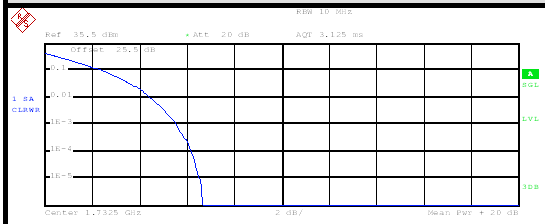


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	22.82 dBm
Peak	28.27 dBm
Crest	5.44 dB
10 %	2.60 dB
1 %	4.56 dB
.1 %	5.20 dB
.01 %	5.32 dB

50% RB

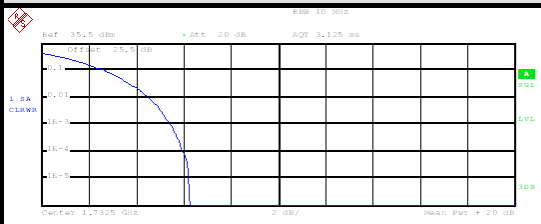


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	22.41 dBm
Peak	29.07 dBm
Crest	6.66 dB
10 %	2.48 dB
1 %	4.48 dB
.1 %	5.56 dB
.01 %	6.20 dB

100% RB



Complementary Cumulative Distribution Function (100000 samples)

Trace 1

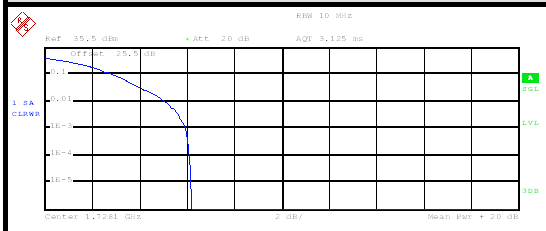
Mean	22.29 dBm
Peak	28.52 dBm
Crest	6.23 dB
10 %	2.72 dB
1 %	4.52 dB
.1 %	5.48 dB
.01 %	5.96 dB

CHANNEL BANDWIDTH: 10MHz, 16QAM

CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)			
		1RB LOWER	1RB UPPER	50% RB	100% RB
20000	1715.0	5.64	5.92	5.96	6.16
20175	1732.5	5.96	5.80	6.20	6.32
20350	1750.0	5.60	5.60	5.84	6.14

SPECTRUM PLOT OF WORST VALUE

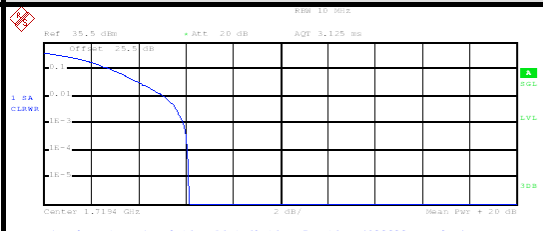
1RB LOWER



Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.90 dBm
Peak	29.08 dBm
Crest	6.18 dB
10 %	2.92 dB
1 %	5.12 dB
.1 %	5.96 dB
.01 %	6.12 dB

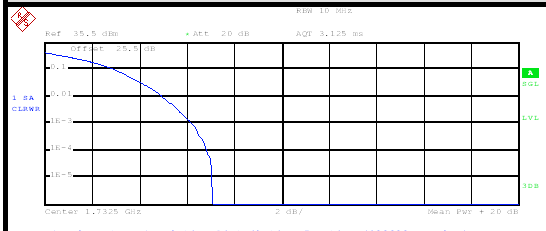
1RB UPPER



Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.80 dBm
Peak	28.95 dBm
Crest	6.15 dB
10 %	2.92 dB
1 %	5.12 dB
.1 %	5.92 dB
.01 %	6.08 dB

50% RB



Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.81 dBm
Peak	28.86 dBm
Crest	7.05 dB
10 %	3.00 dB
1 %	5.00 dB
.1 %	6.20 dB
.01 %	6.84 dB

100% RB

Complementary Cumulative Distribution Function (100000 samples)

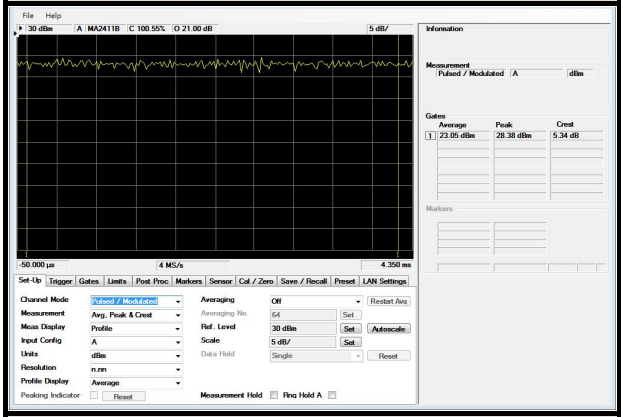
	Trace 1
Mean	21.59 dBm
Peak	29.19 dBm
Crest	7.59 dB
10 %	3.16 dB
1 %	5.16 dB
.1 %	6.32 dB
.01 %	7.24 dB

CHANNEL BANDWIDTH: 20MHz, QPSK

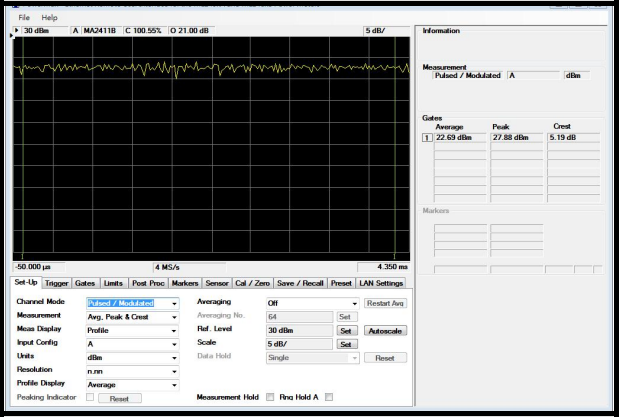
CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)			
		1RB LOWER	1RB UPPER	50% RB	100% RB
20050	1720.0	5.00	5.07	5.67	5.46
20175	1732.5	5.34	4.94	5.37	5.22
20300	1745.0	4.99	5.19	5.30	4.96

SPECTRUM PLOT OF WORST VALUE

1RB LOWER

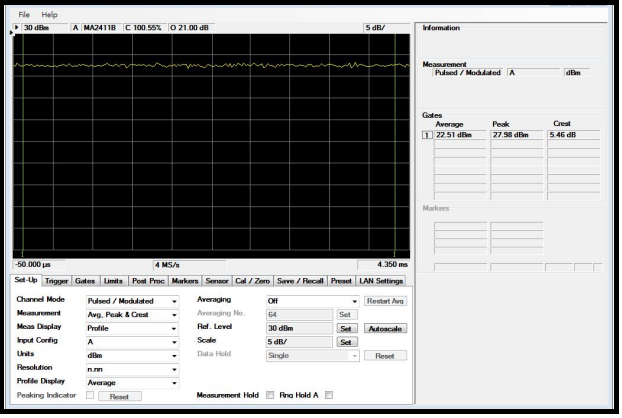


1RB UPPER



50% RB

100% RB

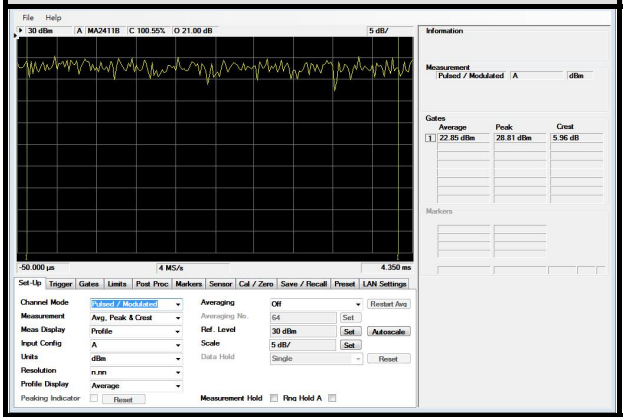


CHANNEL BANDWIDTH: 20MHz, 16QAM

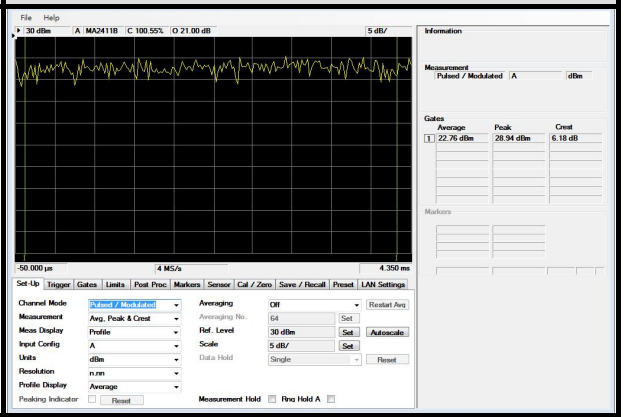
CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)			
		1RB LOWER	1RB UPPER	50% RB	100% RB
20050	1720.0	5.74	6.18	6.26	6.51
20175	1732.5	5.96	5.87	6.37	6.21
20300	1745.0	5.54	6.08	6.35	6.07

SPECTRUM PLOT OF WORST VALUE

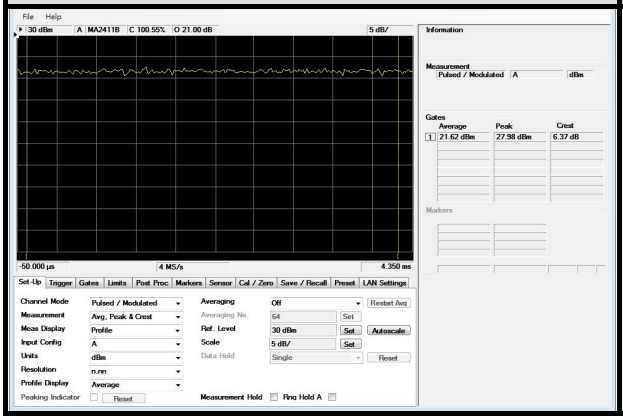
1RB LOWER



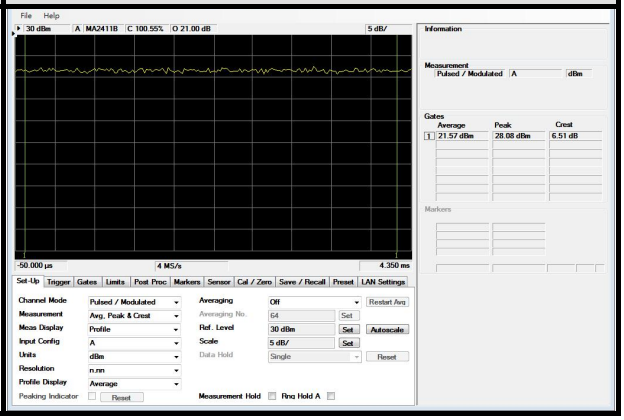
1RB UPPER



50% RB



100% RB



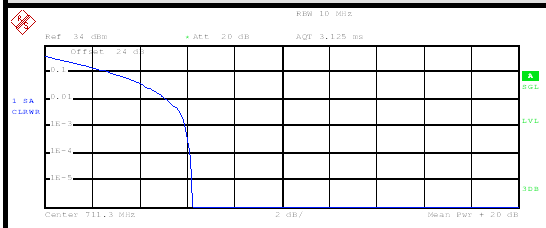
LTE BAND 12

CHANNEL BANDWIDTH: 5MHz, QPSK

CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)			
		1RB LOWER	1RB UPPER	50% RB	100% RB
23035	701.5	4.52	5.52	6.04	6.04
23095	707.5	5.48	5.56	5.92	6.00
23155	713.5	5.96	5.12	5.96	6.00

SPECTRUM PLOT OF WORST VALUE

1RB LOWER

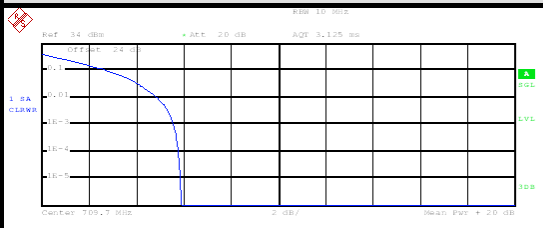


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	22.56 dBm
Peak	28.76 dBm
Crest	6.20 dB
10 %	2.80 dB
1 %	5.20 dB
.1 %	5.96 dB
.01 %	6.12 dB

1RB UPPER

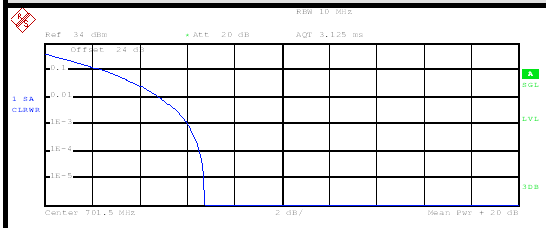


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	22.65 dBm
Peak	28.55 dBm
Crest	5.90 dB
10 %	2.80 dB
1 %	4.92 dB
.1 %	5.56 dB
.01 %	5.80 dB

50% RB

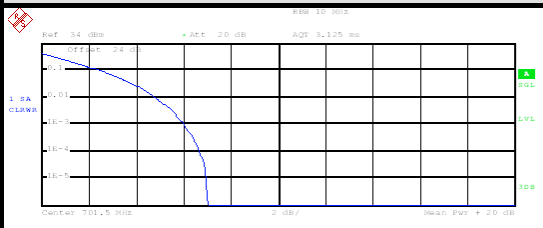


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	21.81 dBm
Peak	28.55 dBm
Crest	6.74 dB
10 %	2.56 dB
1 %	4.88 dB
.1 %	6.04 dB
.01 %	6.56 dB

100% RB



Complementary Cumulative Distribution Function (100000 samples)

Trace 1

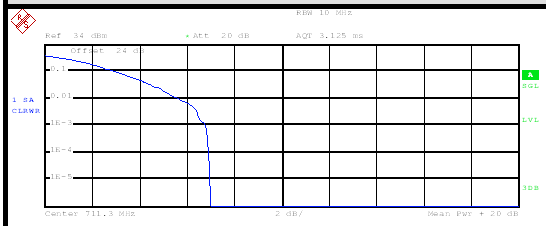
Mean	21.61 dBm
Peak	28.61 dBm
Crest	7.00 dB
10 %	2.56 dB
1 %	4.84 dB
.1 %	6.04 dB
.01 %	6.68 dB

CHANNEL BANDWIDTH: 5MHz, 16QAM

CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)			
		1RB LOWER	1RB UPPER	50% RB	100% RB
23035	701.5	5.04	6.16	6.96	6.80
23095	707.5	6.20	6.44	6.72	6.64
23155	713.5	6.80	5.64	6.76	6.76

SPECTRUM PLOT OF WORST VALUE

1RB LOWER

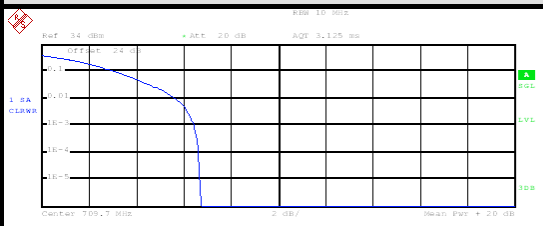


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	22.21 dBm
Peak	29.18 dBm
Crest	6.97 dB
10 %	3.04 dB
1 %	5.72 dB
.1 %	6.80 dB
.01 %	6.92 dB

1RB UPPER

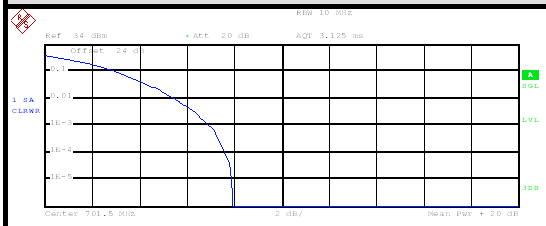


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	21.67 dBm
Peak	28.39 dBm
Crest	6.73 dB
10 %	3.16 dB
1 %	5.68 dB
.1 %	6.44 dB
.01 %	6.64 dB

50% RB

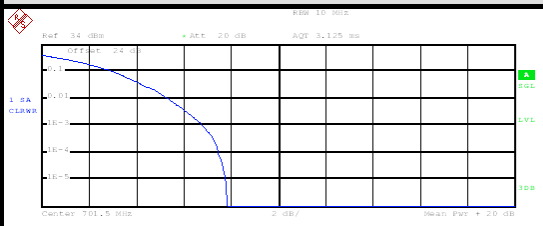


Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	20.77 dBm
Peak	28.69 dBm
Crest	7.92 dB
10 %	3.04 dB
1 %	5.52 dB
.1 %	6.96 dB
.01 %	7.60 dB

100% RB



Complementary Cumulative Distribution Function (100000 samples)

Trace 1

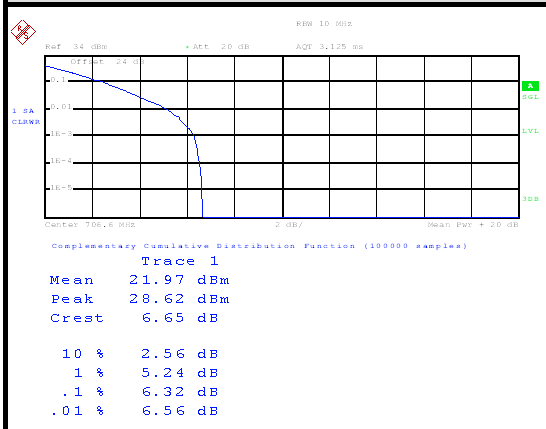
Mean	20.92 dBm
Peak	28.75 dBm
Crest	7.83 dB
10 %	3.08 dB
1 %	5.40 dB
.1 %	6.80 dB
.01 %	7.48 dB

CHANNEL BANDWIDTH: 10MHz, QPSK

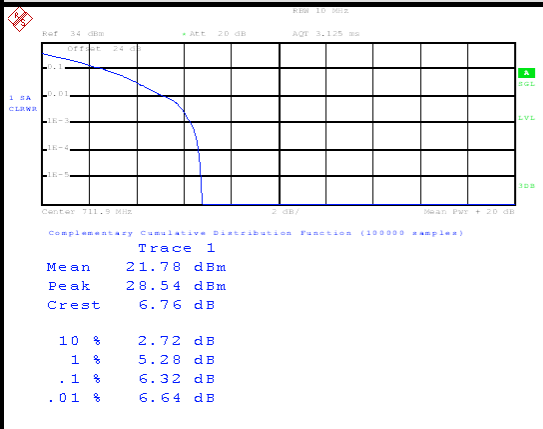
CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)			
		1RB LOWER	1RB UPPER	50% RB	100% RB
23050	703.0	5.48	6.24	6.12	5.32
23095	707.5	6.08	6.32	6.00	5.72
23130	711.0	6.32	5.80	6.04	5.48

SPECTRUM PLOT OF WORST VALUE

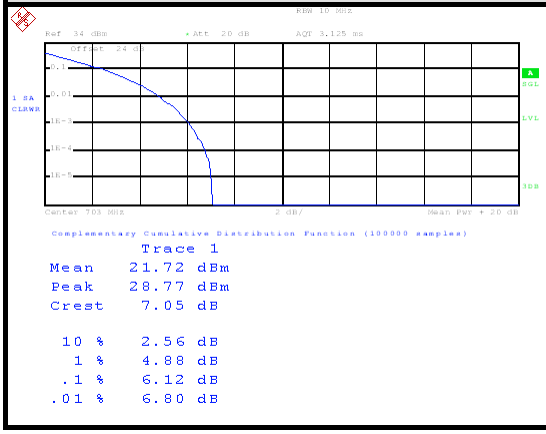
1RB LOWER



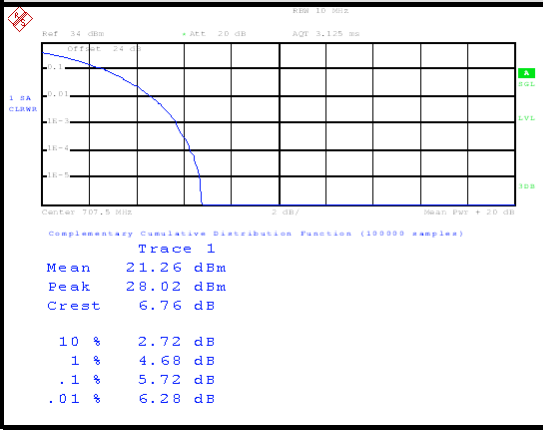
1RB UPPER



50% RB



100% RB

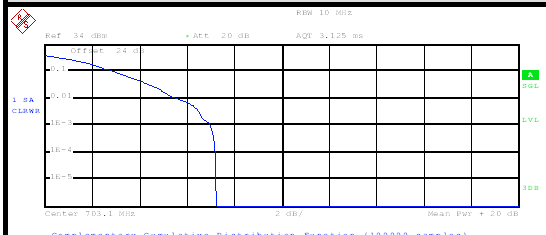


CHANNEL BANDWIDTH: 10MHz, 16QAM

CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)			
		1RB LOWER	1RB UPPER	50% RB	100% RB
23050	703.0	5.56	7.04	6.68	6.44
23095	707.5	7.00	7.16	6.64	6.64
23130	711.0	6.92	6.44	6.76	6.64

SPECTRUM PLOT OF WORST VALUE

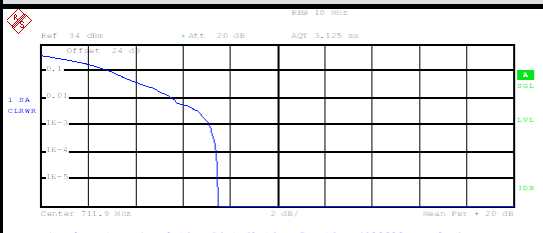
1RB LOWER



Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	21.35 dBm
Peak	28.58 dBm
Crest	7.23 dB
10 %	2.96 dB
1 %	5.72 dB
.1 %	7.00 dB
.01 %	7.20 dB

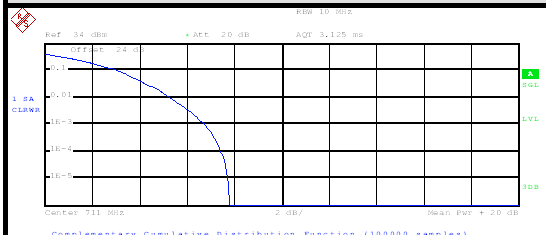
1RB UPPER



Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	21.18 dBm
Peak	28.66 dBm
Crest	7.48 dB
10 %	3.00 dB
1 %	5.60 dB
.1 %	7.16 dB
.01 %	7.44 dB

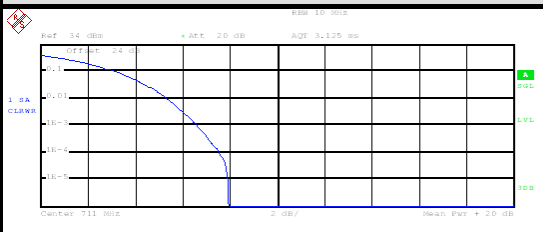
50% RB



Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	20.90 dBm
Peak	28.69 dBm
Crest	7.79 dB
10 %	3.12 dB
1 %	5.32 dB
.1 %	6.76 dB
.01 %	7.44 dB

100% RB



Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	20.62 dBm
Peak	28.57 dBm
Crest	7.95 dB
10 %	3.24 dB
1 %	5.36 dB
.1 %	6.64 dB
.01 %	7.56 dB

4.5 BAND EDGE MEASUREMENT

4.5.1 LIMITS OF BAND EDGE MEASUREMENT

For operations in the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

For operations in the 1710–1755 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 43 +10 log10(P) dB. The limit of emission equal to –13dBm.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.

4.5.2 TEST SETUP

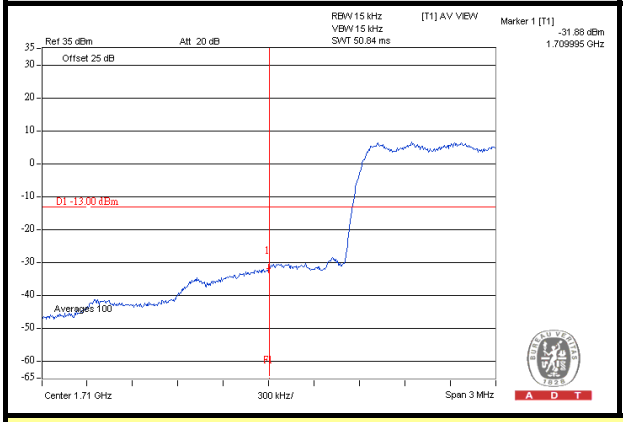
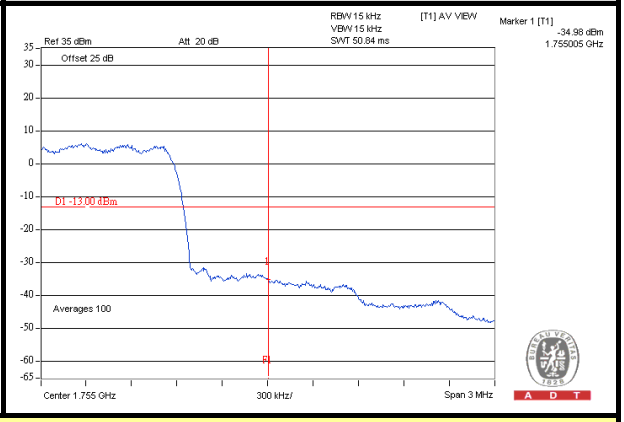
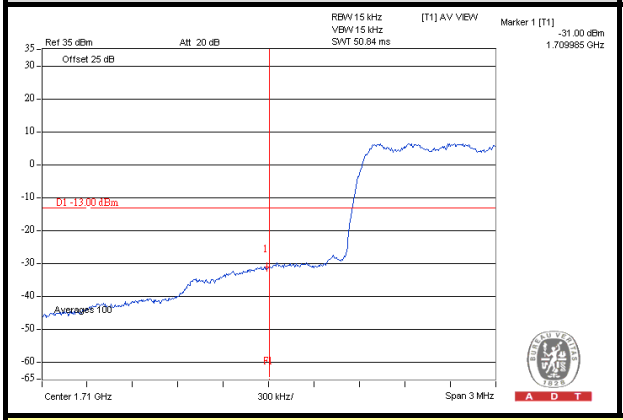
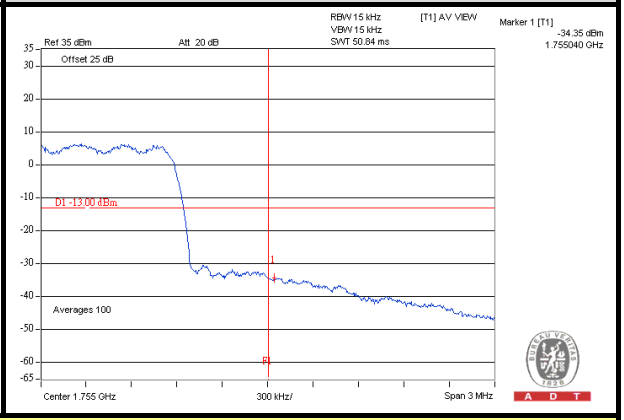
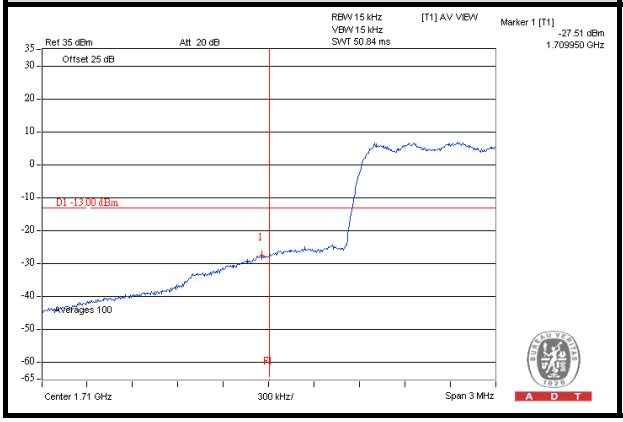
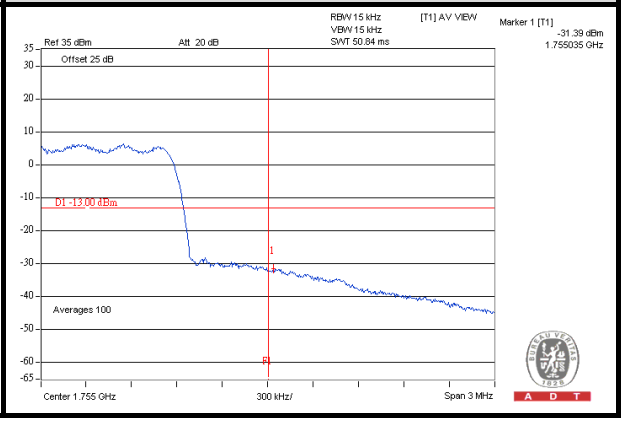
Same as Item 4.1.4 (Conducted Power Setup)

4.5.3 TEST PROCEDURES

a. All measurements were done at 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. This splitter loss and cable loss are the worst loss 7.2 dB in the transmitted path track.
c. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 50kHz and VB of the spectrum is 200kHz.
d. Record the max trace plot into the test report.

4.5.4 TEST RESULTS

FOR CDMA

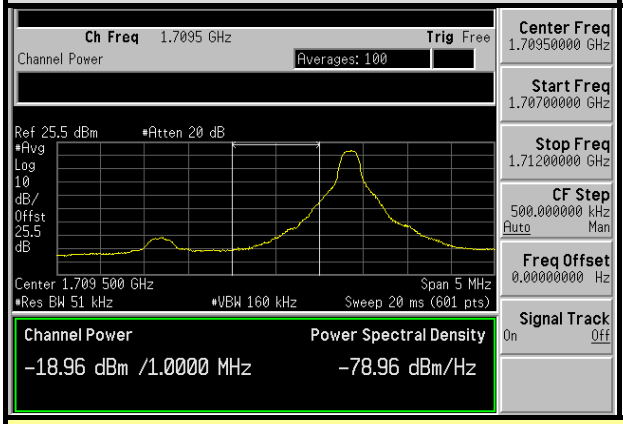
CDMA MODE	
CHANNEL: 25	**CHANNEL:** 875
	
1xEV-DO Rev. 0 MODE	
CHANNEL: 25	**CHANNEL:** 875
	
1xEV-DO Rev. A MODE	
CHANNEL: 25	**CHANNEL:** 875
	

FOR LTE BAND 4

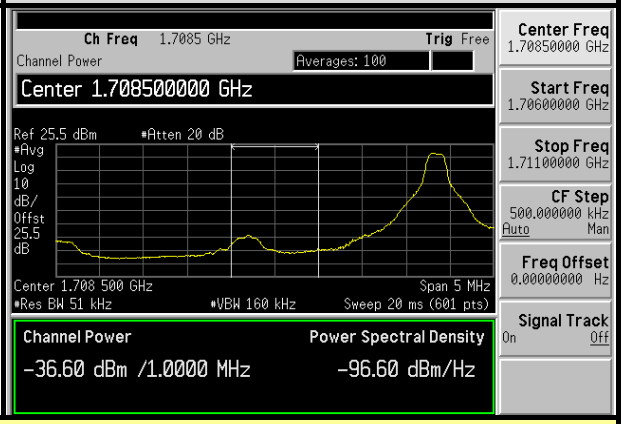
CHANNEL BANDWIDTH: 5MHz, QPSK

LOWER EDGE / 1 RB ALLOCATED

CHANNEL: 19975

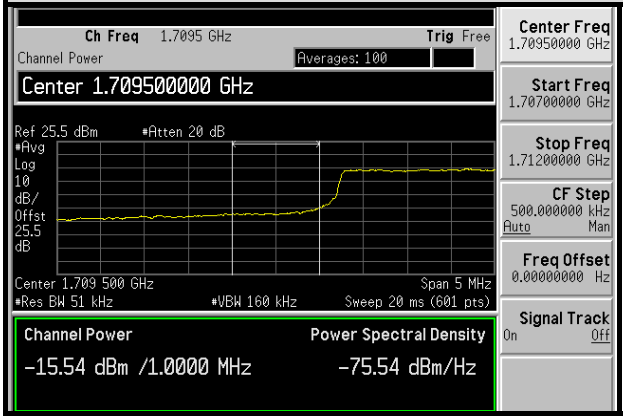


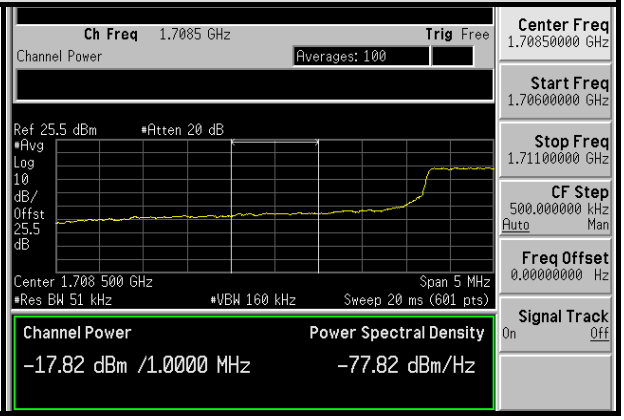
CHANNEL: 20375



LOWER EDGE / FULL RB ALLOCATED

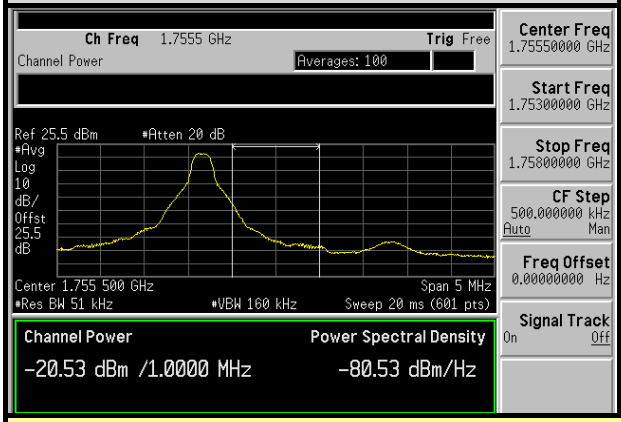
CHANNEL: 19975



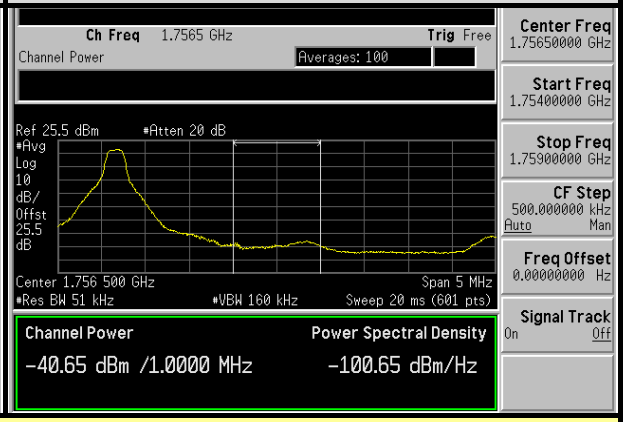


UPPER EDGE / 1 RB ALLOCATED

CHANNEL: 19975

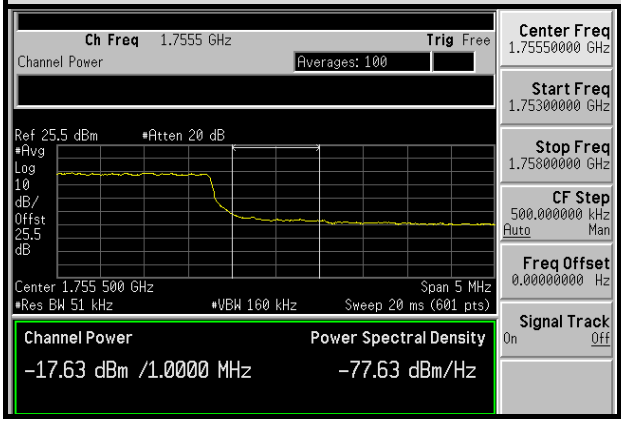


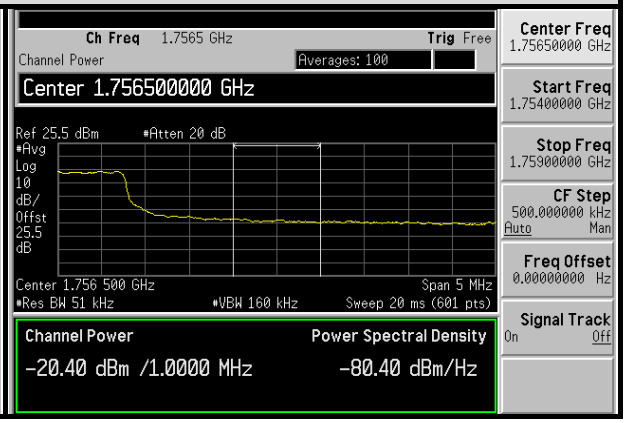
CHANNEL: 20375



UPPER EDGE / FULL RB ALLOCATED

CHANNEL: 20375

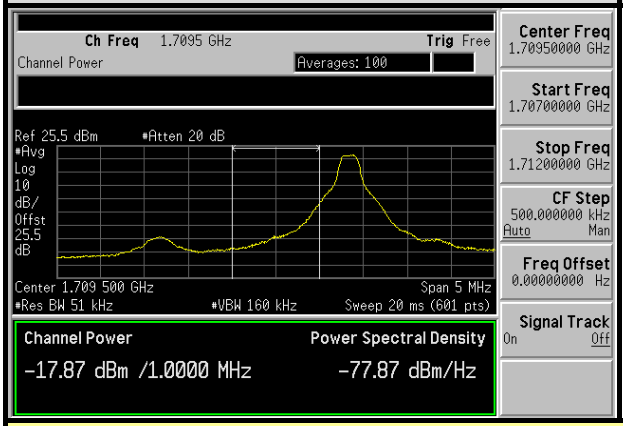




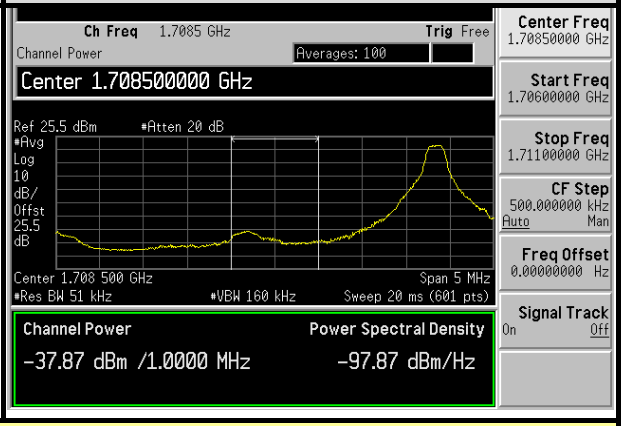
CHANNEL BANDWIDTH: 5MHz, 16QAM

LOWER EDGE / 1 RB ALLOCATED

CHANNEL: 19975

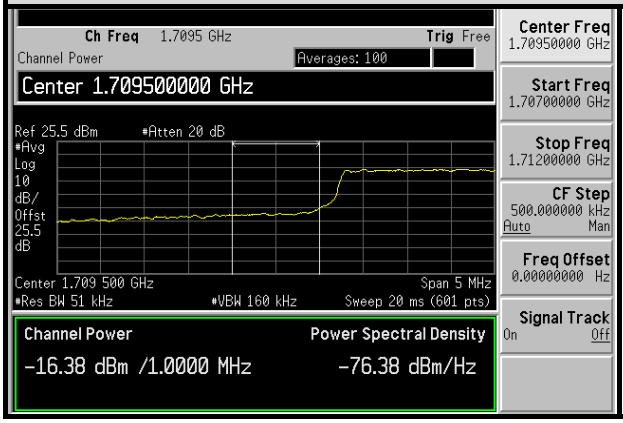


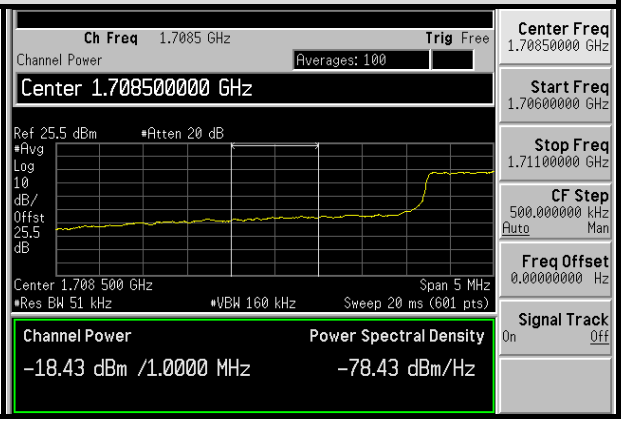
CHANNEL: 20375



LOWER EDGE / FULL RB ALLOCATED

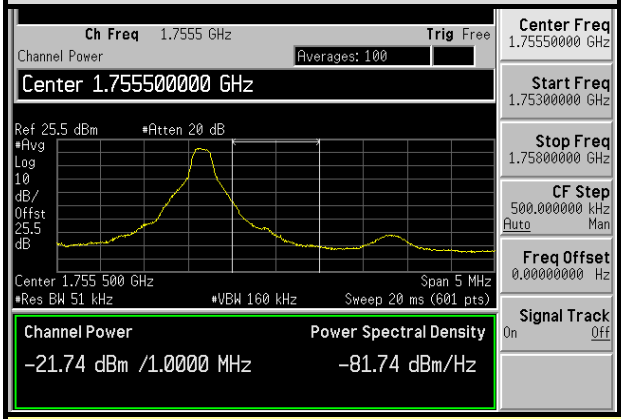
CHANNEL: 19975





UPPER EDGE / 1 RB ALLOCATED

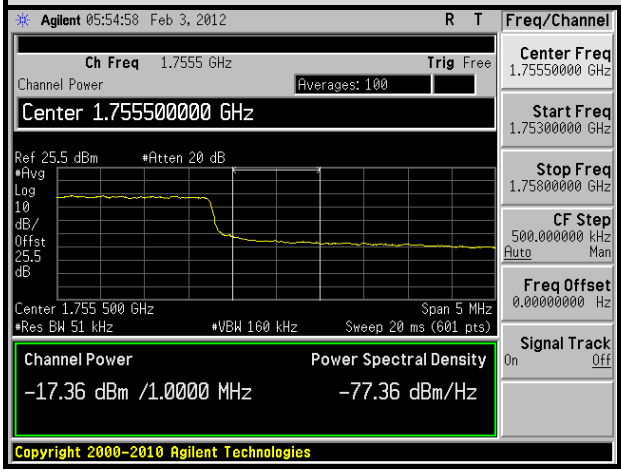
CHANNEL: 19975

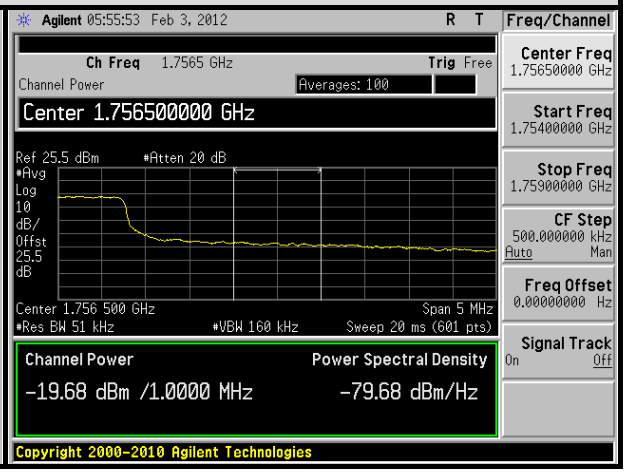


CHANNEL: 20375

UPPER EDGE / FULL RB ALLOCATED

CHANNEL: 20375

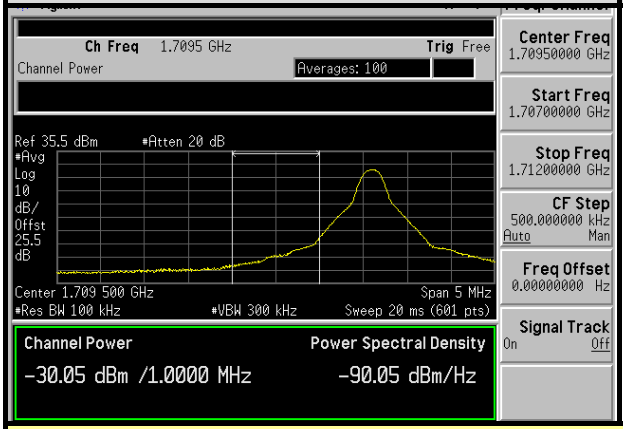




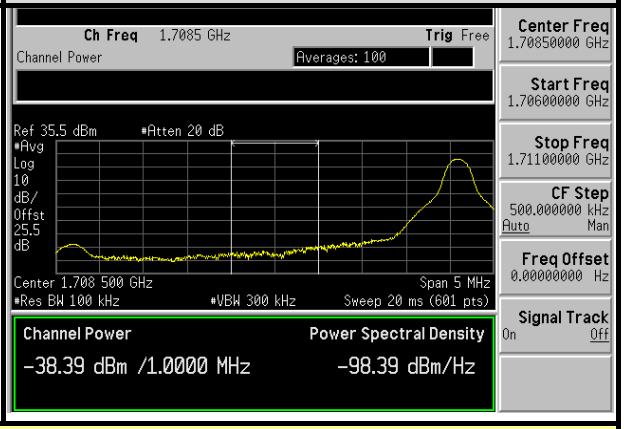
CHANNEL BANDWIDTH: 10MHz, QPSK

LOWER EDGE / 1 RB ALLOCATED

CHANNEL: 20000

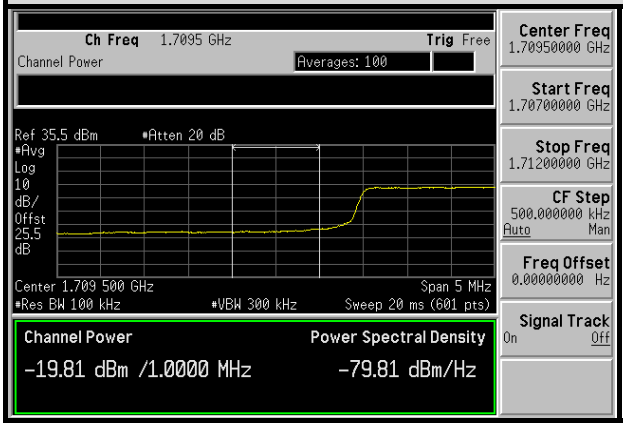


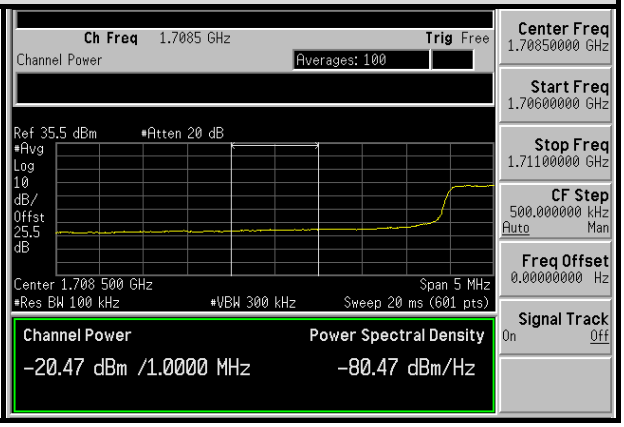
CHANNEL: 20350



LOWER EDGE / FULL RB ALLOCATED

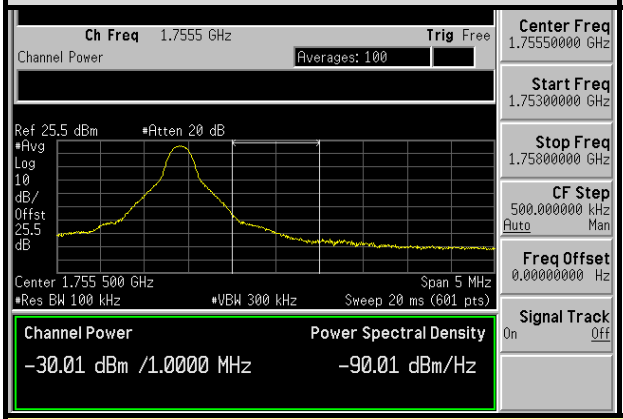
CHANNEL: 20000



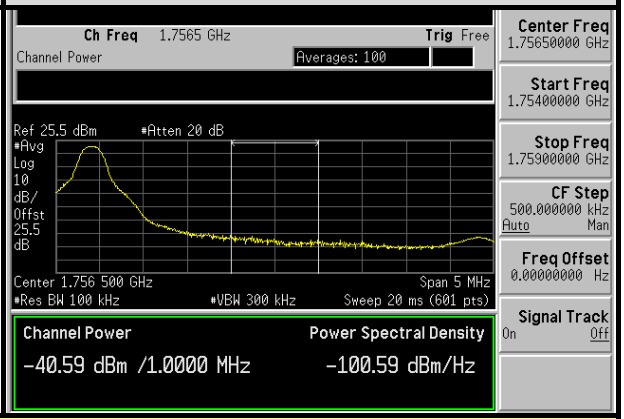


UPPER EDGE / 1 RB ALLOCATED

CHANNEL: 20000

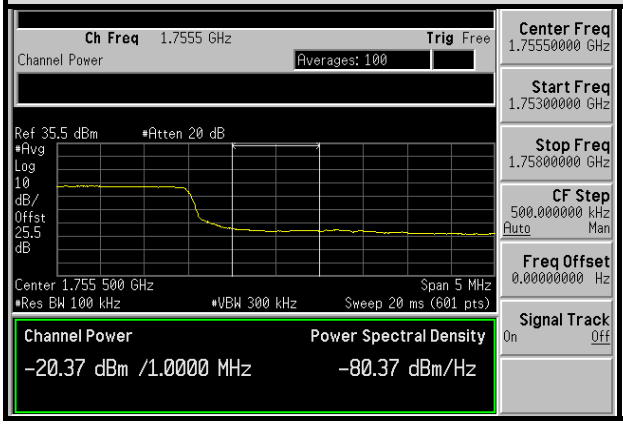


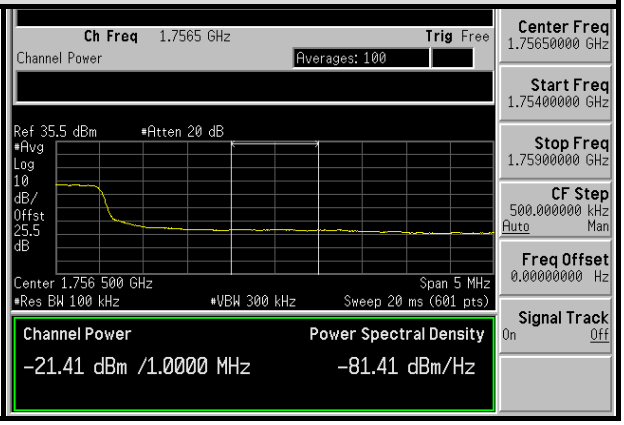
CHANNEL: 20350



UPPER EDGE / FULL RB ALLOCATED

CHANNEL: 20350

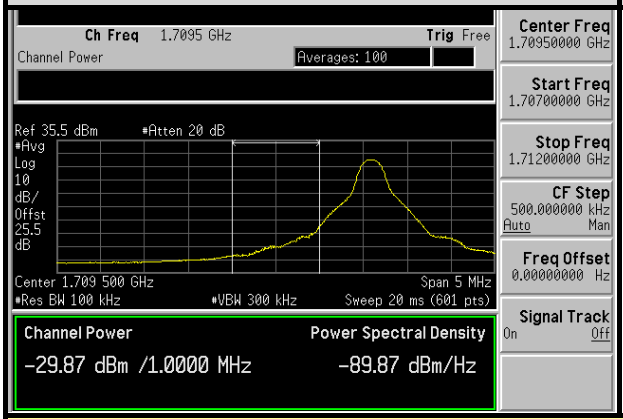




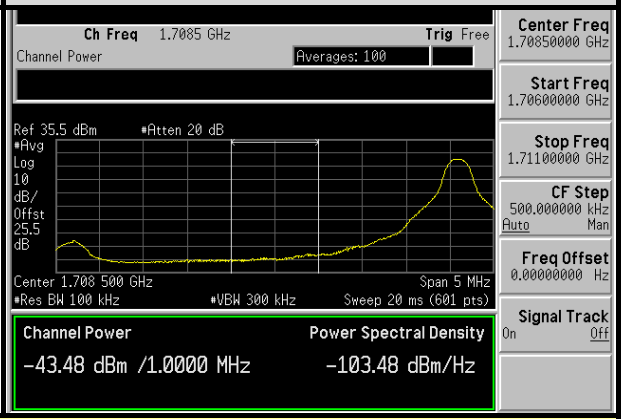
CHANNEL BANDWIDTH: 10MHz, 16QAM

LOWER EDGE / 1 RB ALLOCATED

CHANNEL: 20000

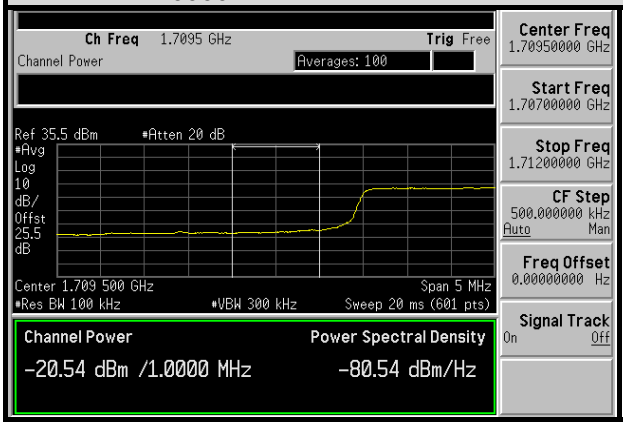


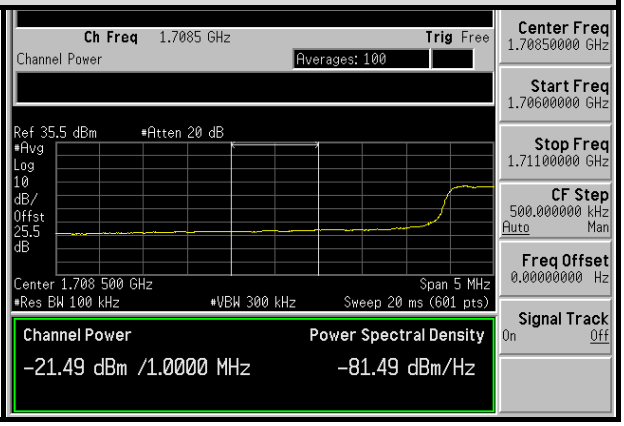
CHANNEL: 20350



LOWER EDGE / FULL RB ALLOCATED

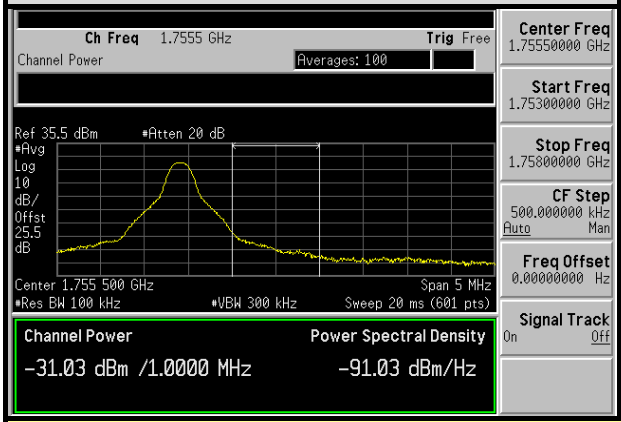
CHANNEL: 20000



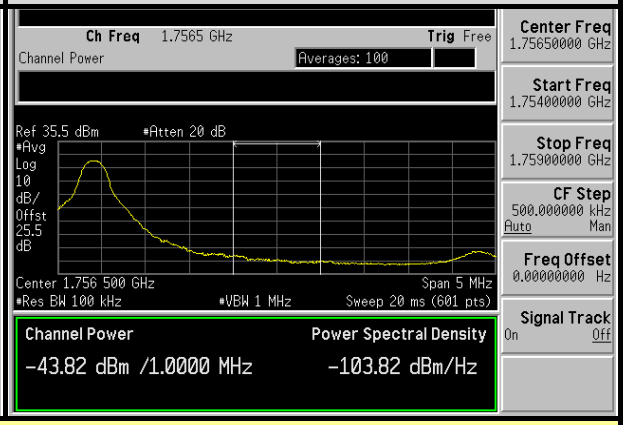


UPPER EDGE / 1 RB ALLOCATED

CHANNEL: 20000

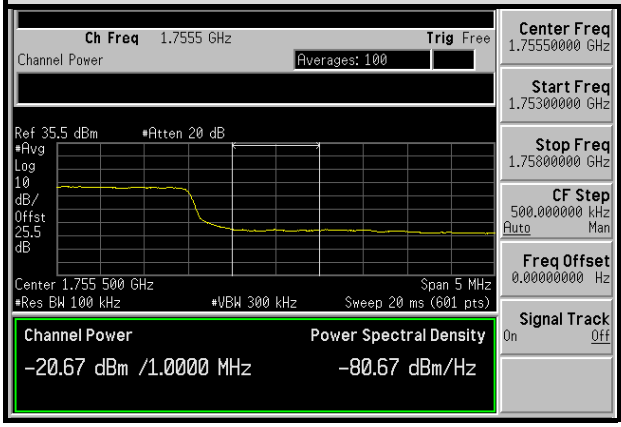


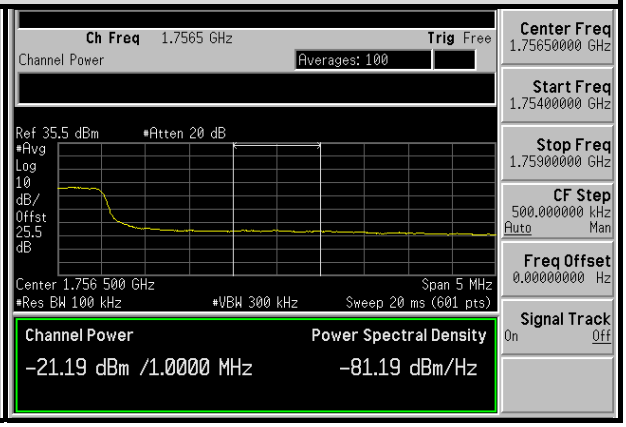
CHANNEL: 20350



UPPER EDGE / FULL RB ALLOCATED

CHANNEL: 20350

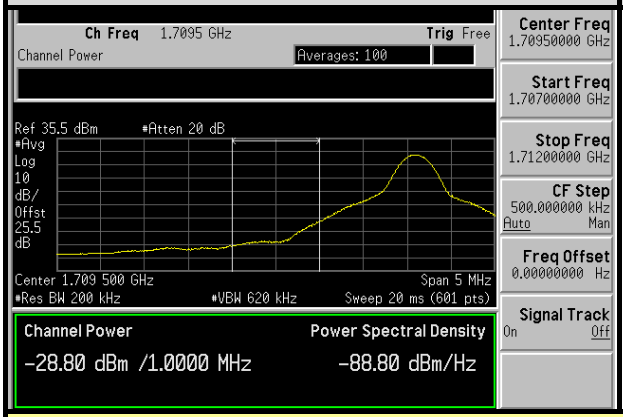




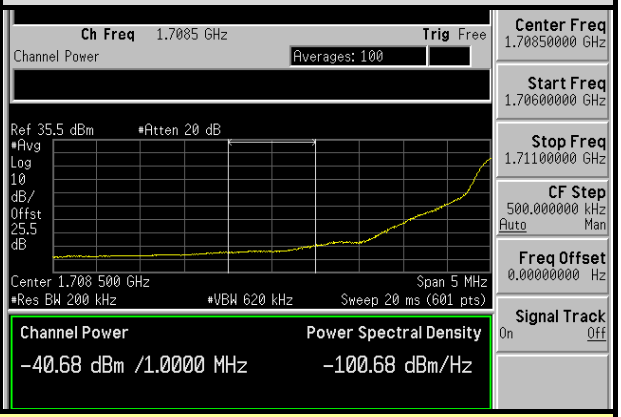
CHANNEL BANDWIDTH: 20MHz, QPSK

LOWER EDGE / 1 RB ALLOCATED

CHANNEL: 20050

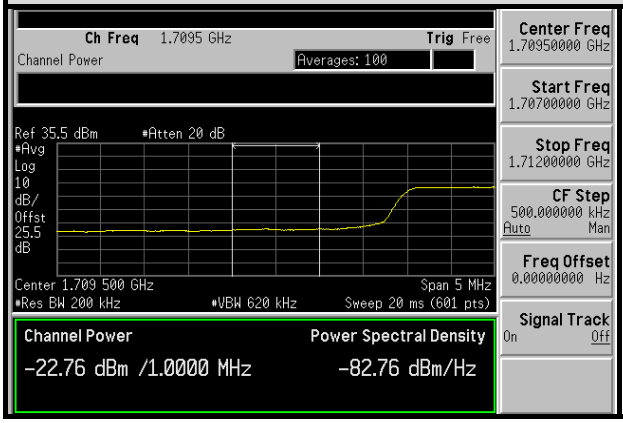


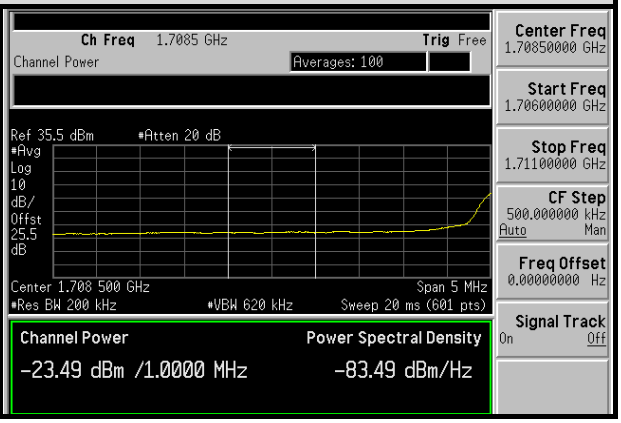
CHANNEL: 20300



LOWER EDGE / FULL RB ALLOCATED

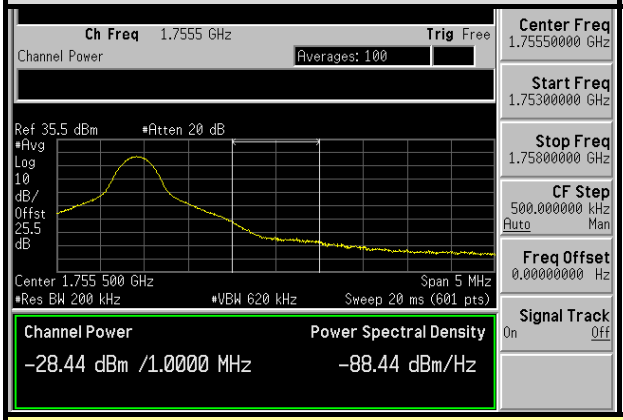
CHANNEL: 20050





UPPER EDGE / 1 RB ALLOCATED

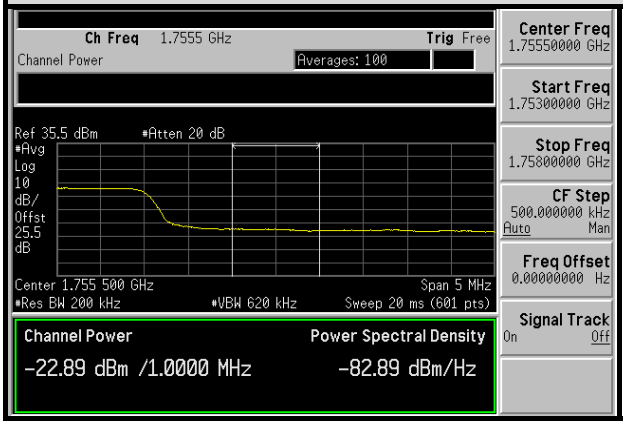
CHANNEL: 20050

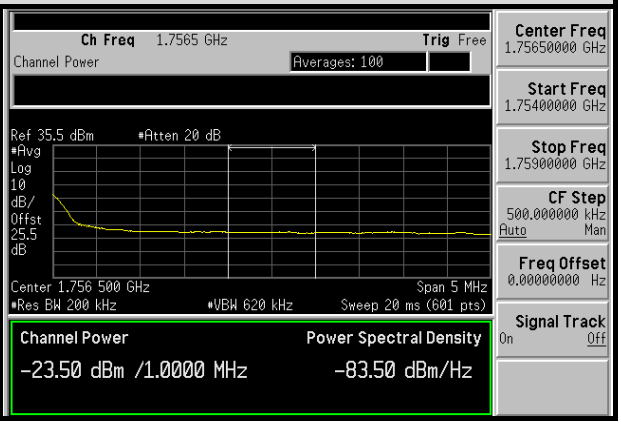


CHANNEL: 20300

UPPER EDGE / FULL RB ALLOCATED

CHANNEL: 20300

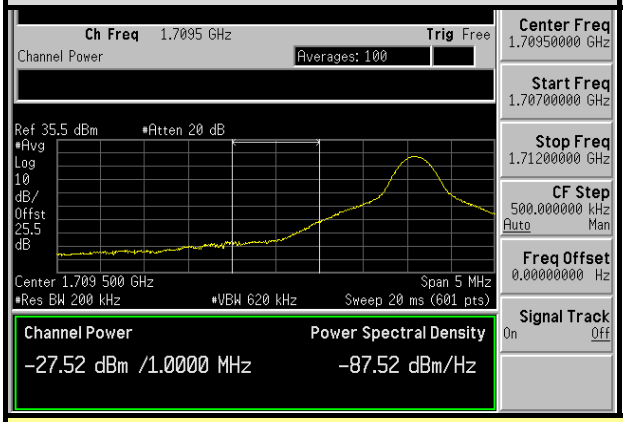




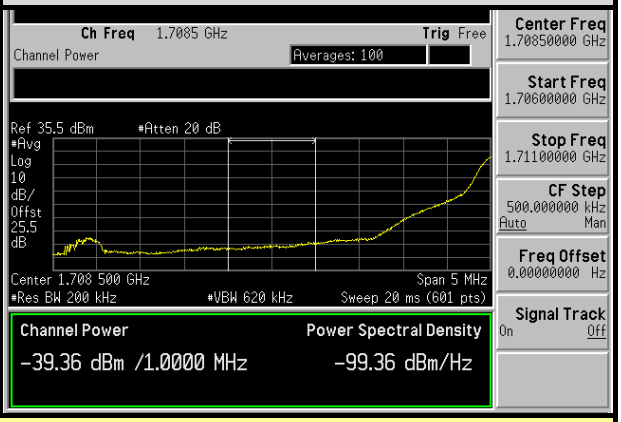
CHANNEL BANDWIDTH: 20MHz, 16QAM

LOWER EDGE / 1 RB ALLOCATED

CHANNEL: 20050

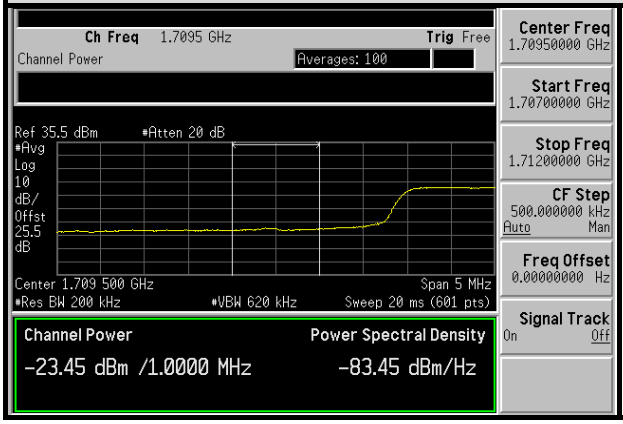


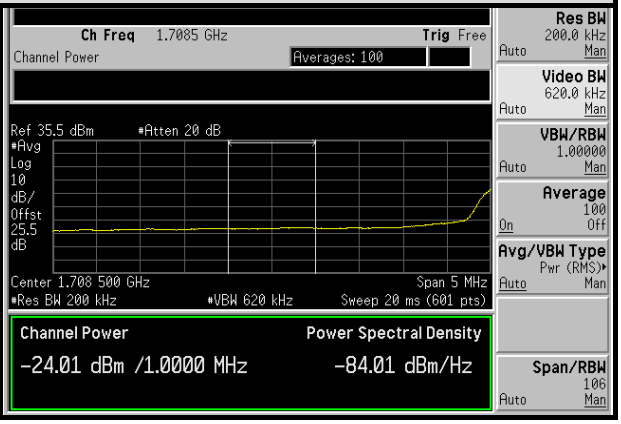
CHANNEL: 20300



LOWER EDGE / FULL RB ALLOCATED

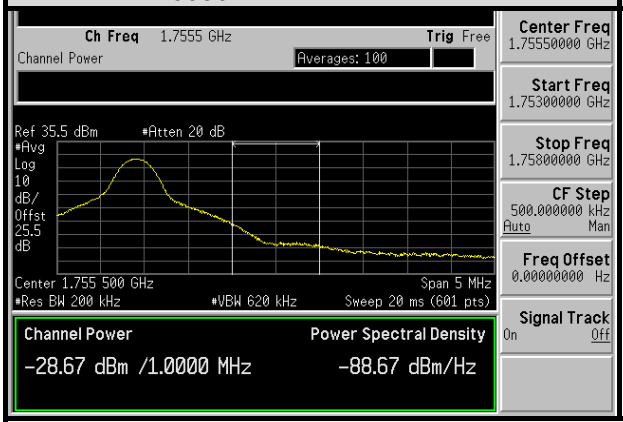
CHANNEL: 20050



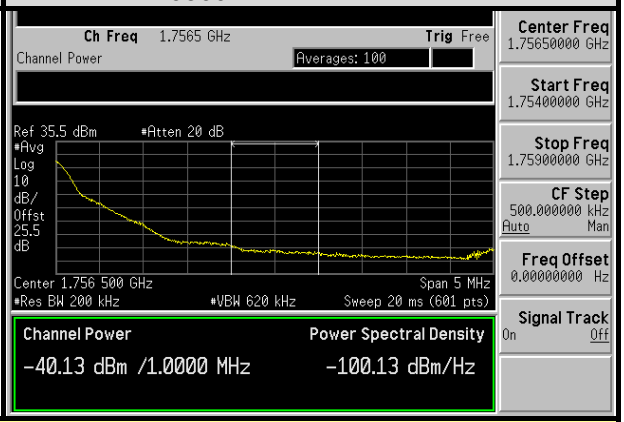


UPPER EDGE / 1 RB ALLOCATED

CHANNEL: 20050

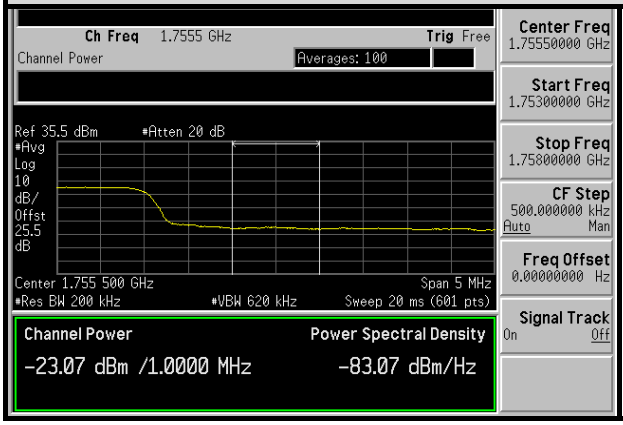


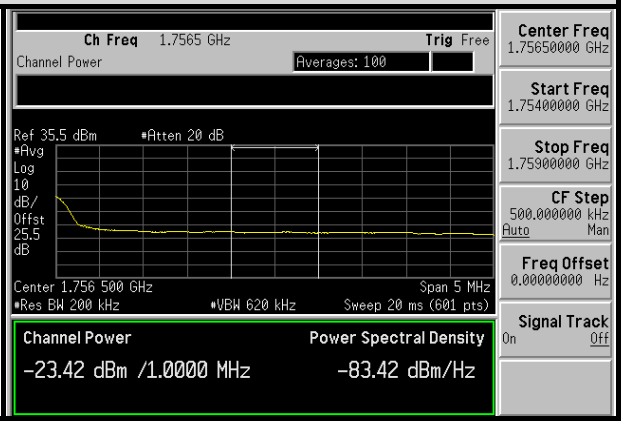
CHANNEL: 20300



UPPER EDGE / FULL RB ALLOCATED

CHANNEL: 20300



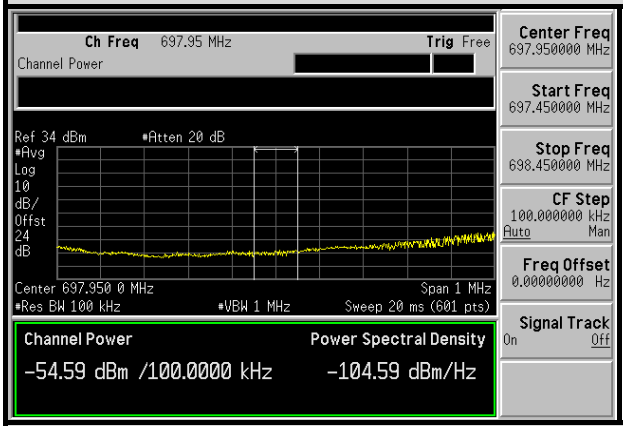


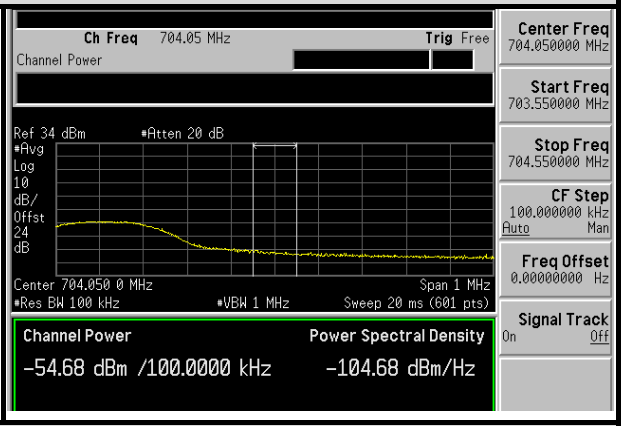
FOR LTE BAND 12

CHANNEL BANDWIDTH: 5MHz, QPSK

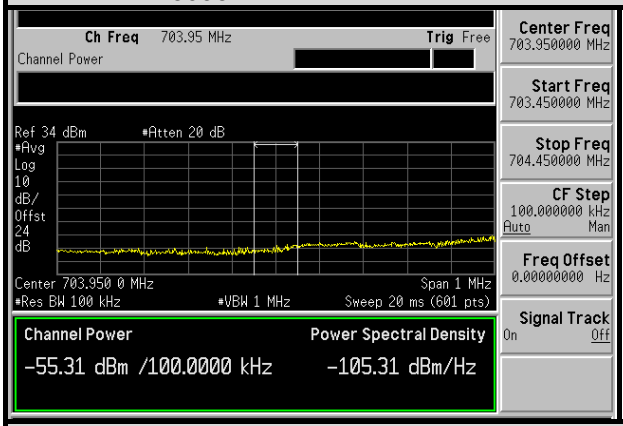
1RB LOWER

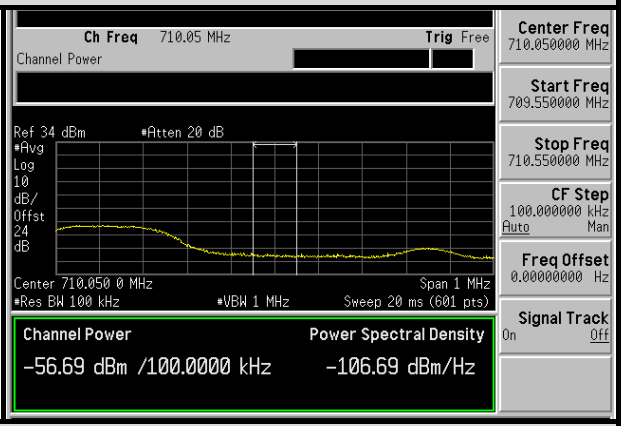
CHANNEL: 23035



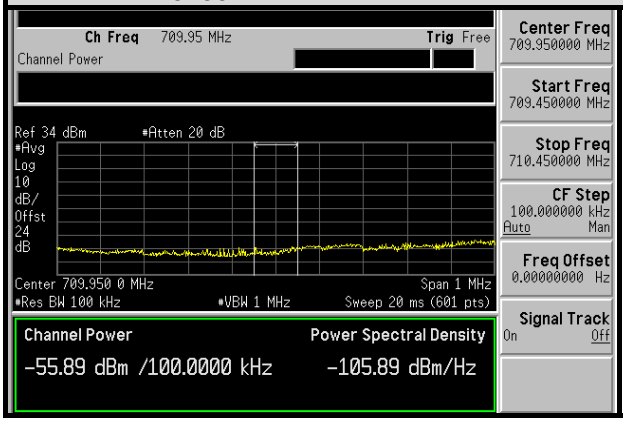


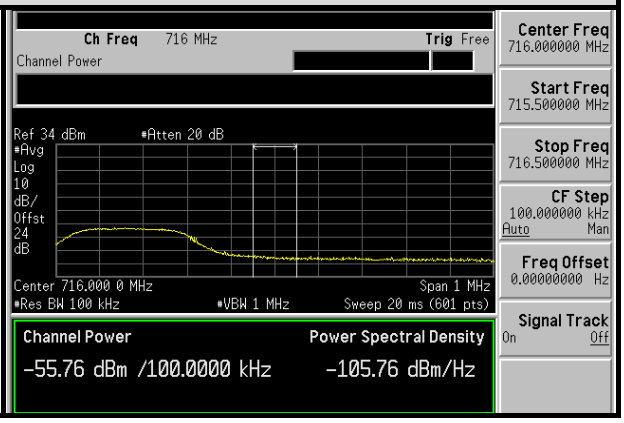
CHANNEL: 23095





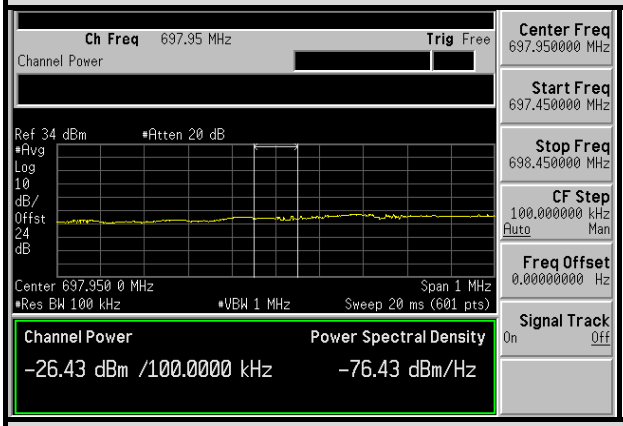
CHANNEL: 23155

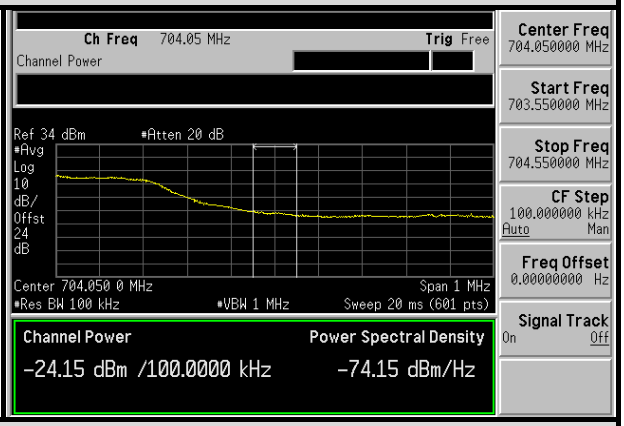




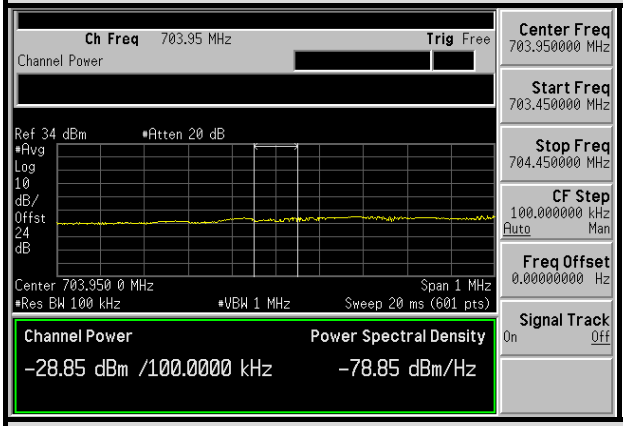
100% RB

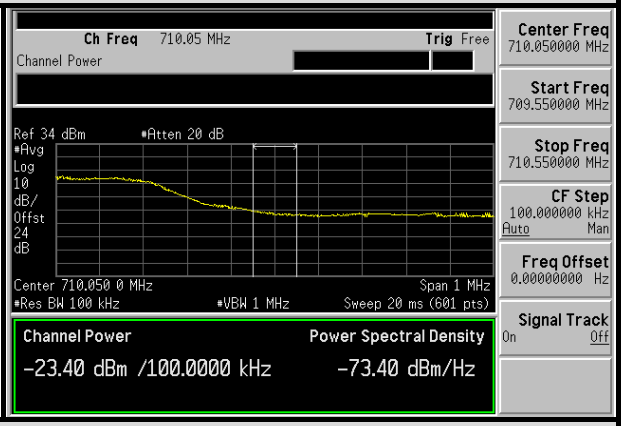
CHANNEL: 23035



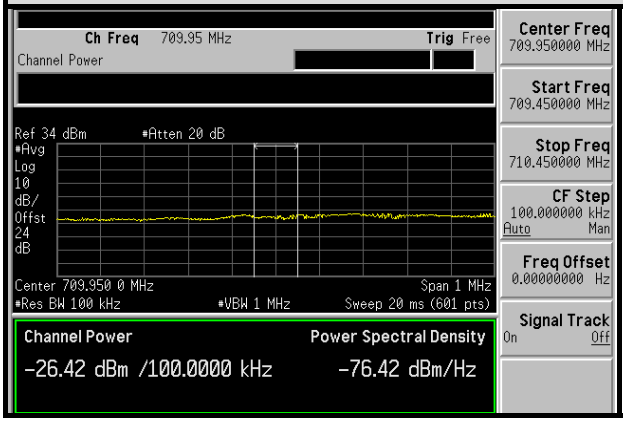


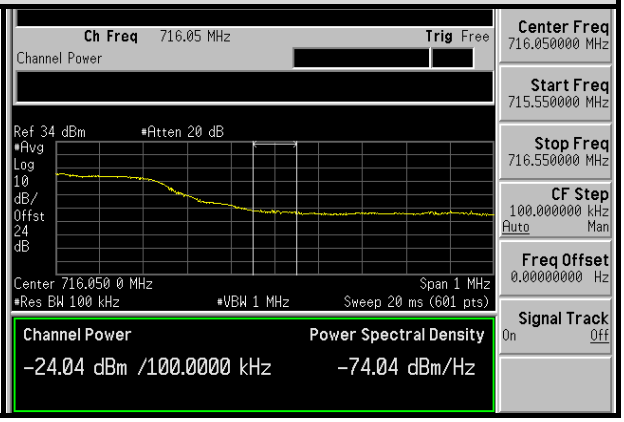
CHANNEL: 23095





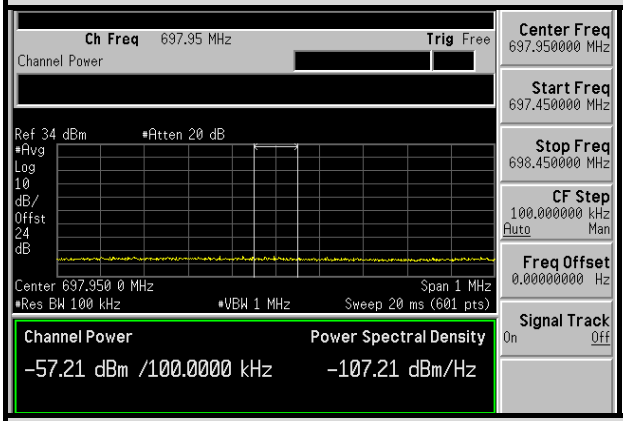
CHANNEL: 23155

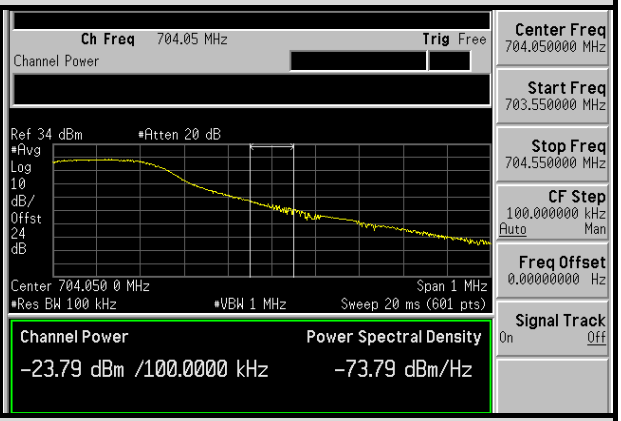




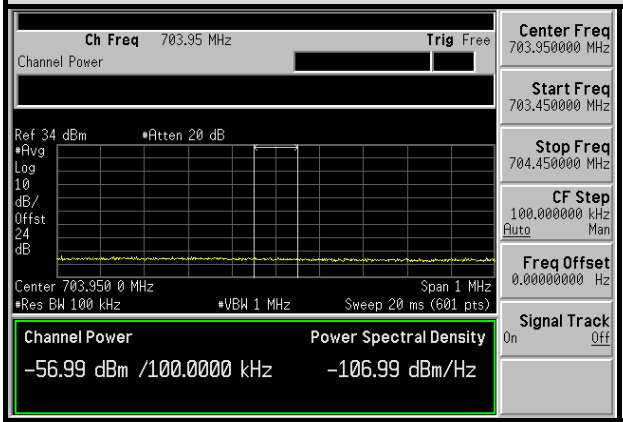
1RB UPPER

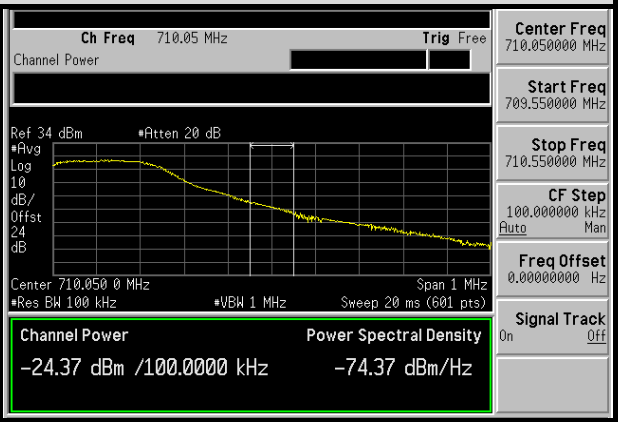
CHANNEL: 23035



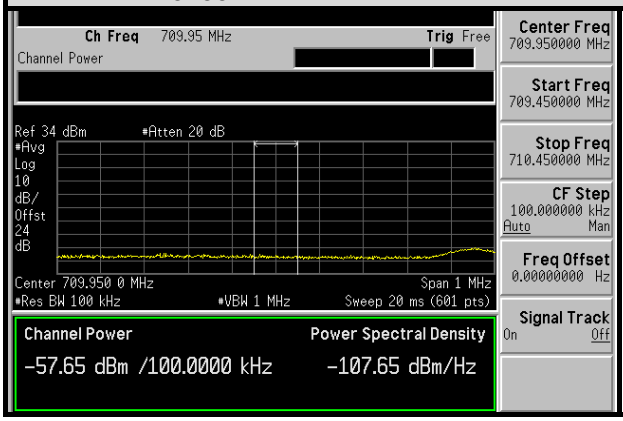


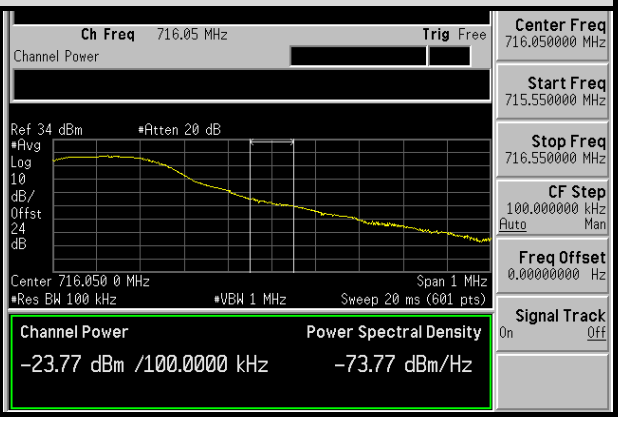
CHANNEL: 23095





CHANNEL: 23155

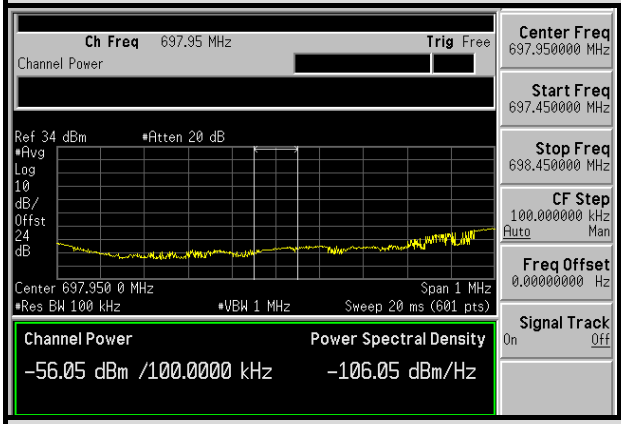


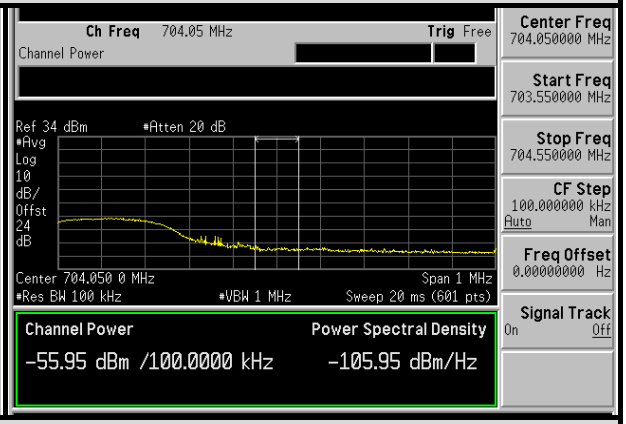


CHANNEL BANDWIDTH: 5MHz, 16QAM

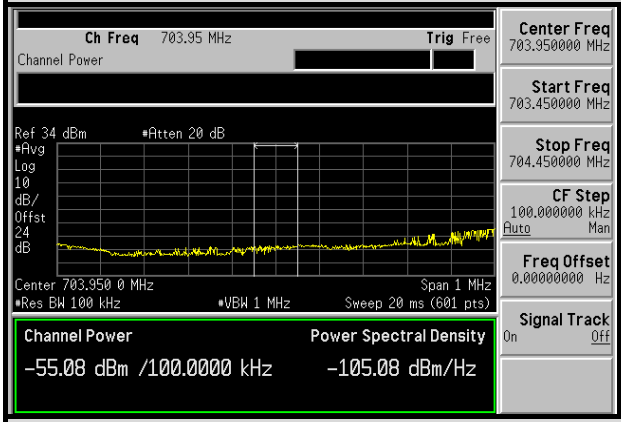
1RB LOWER

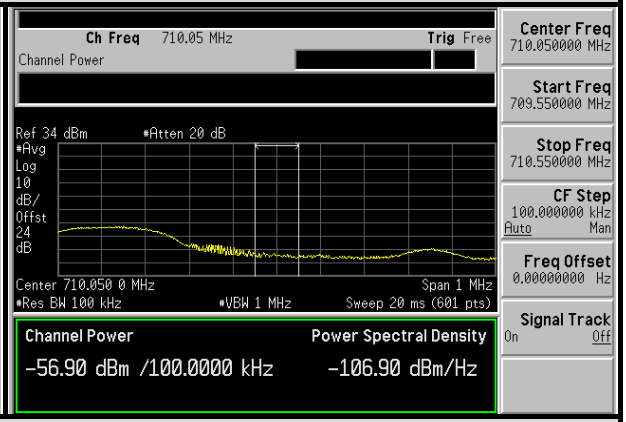
CHANNEL: 23035



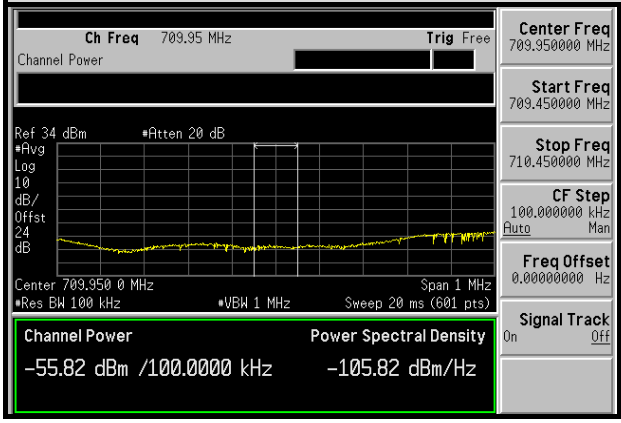


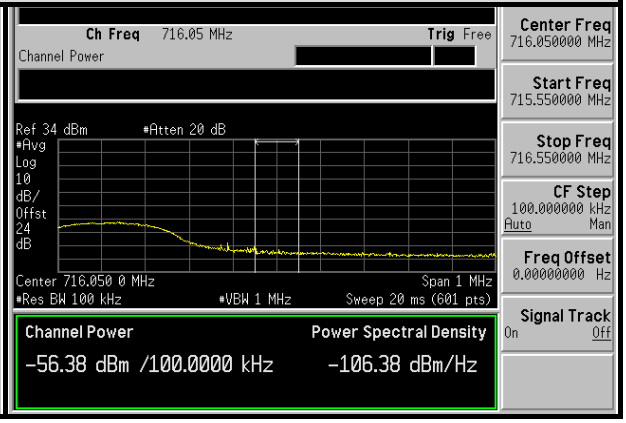
CHANNEL: 23095





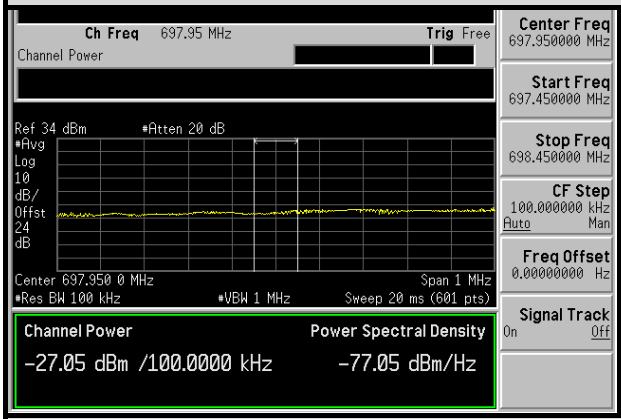
CHANNEL: 23155

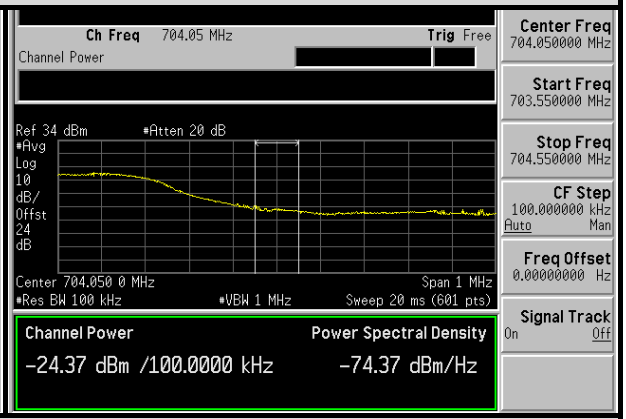




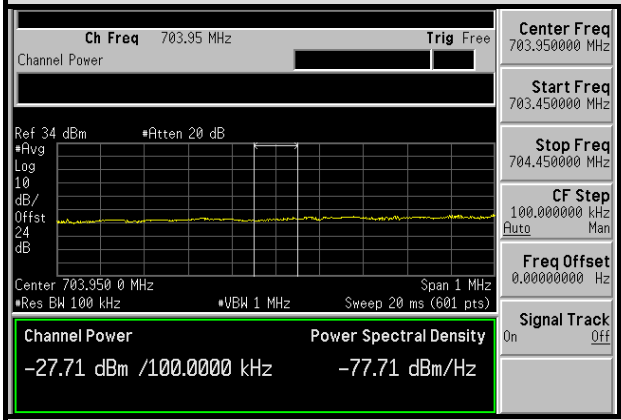
100% RB

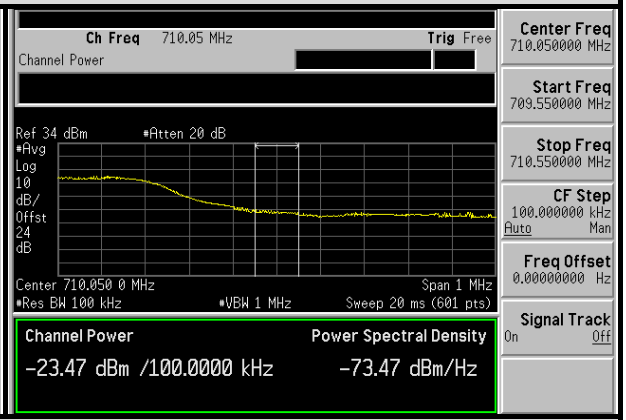
CHANNEL: 23035



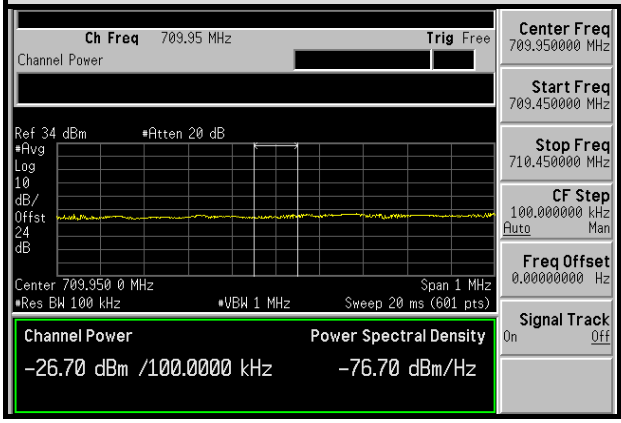


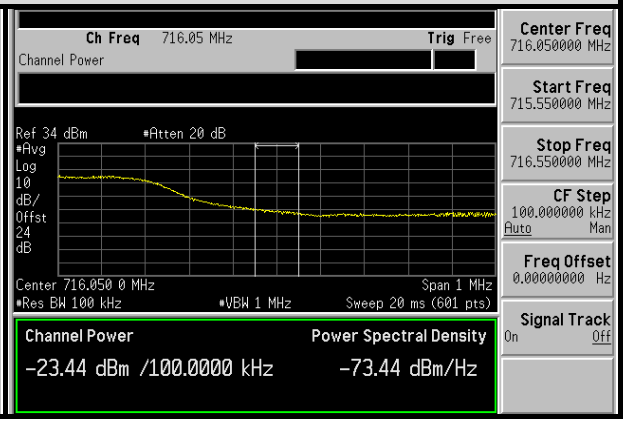
CHANNEL: 23095





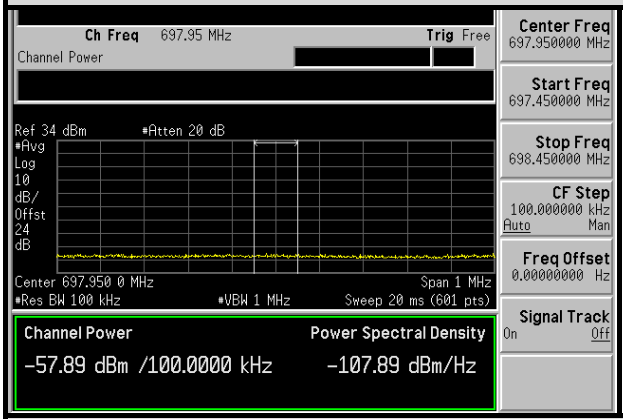
CHANNEL: 23155

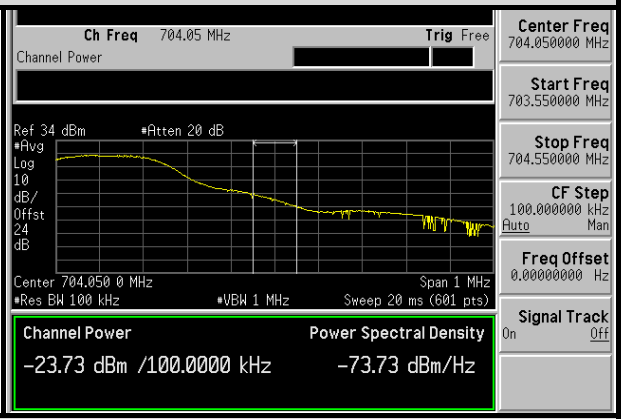




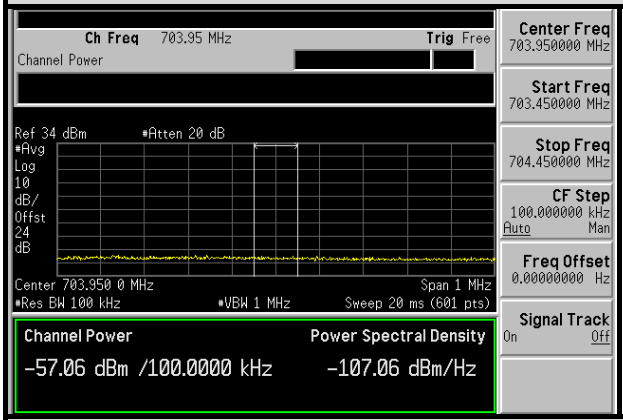
1RB UPPER

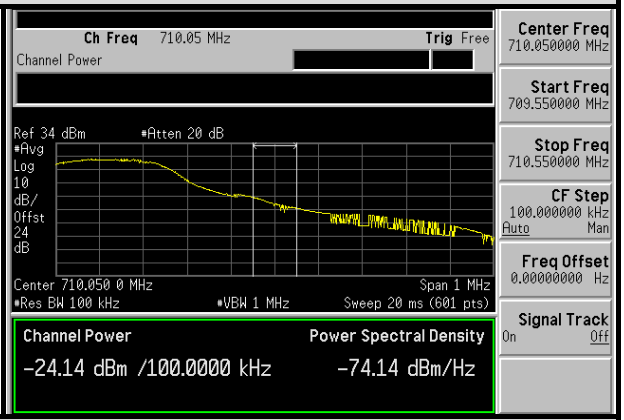
CHANNEL: 23035



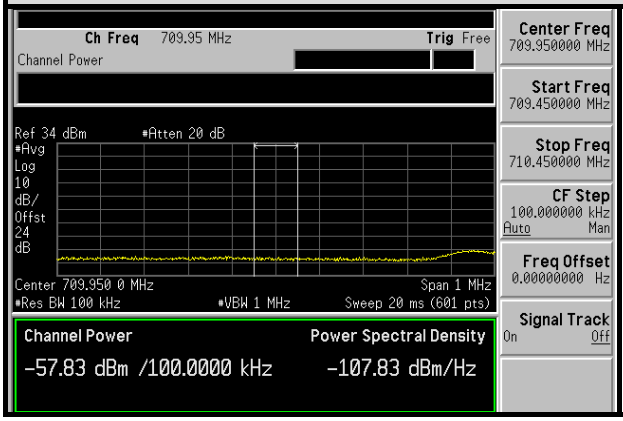


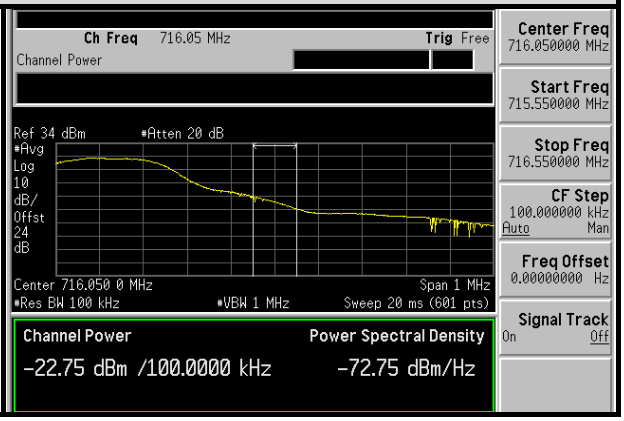
CHANNEL: 23095





CHANNEL: 23155

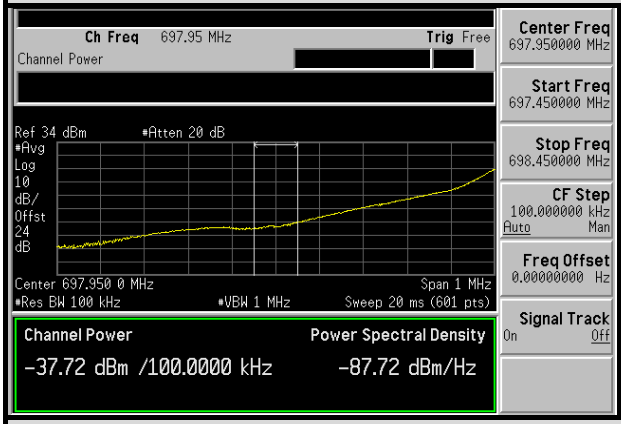


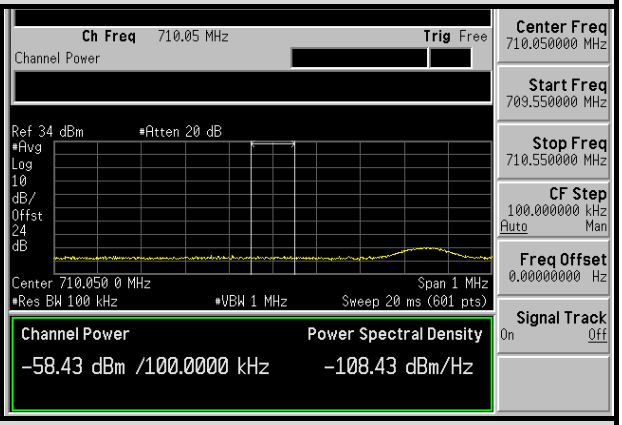


CHANNEL BANDWIDTH: 10MHz, QPSK

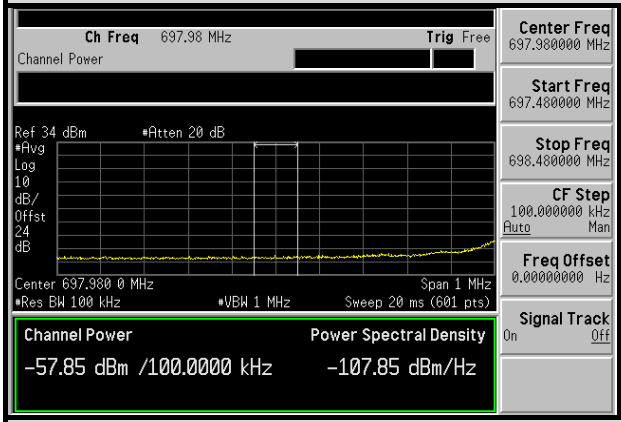
1RB LOWER

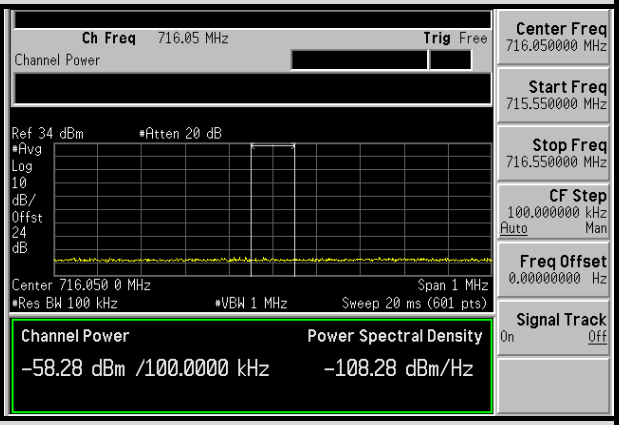
CHANNEL: 23050



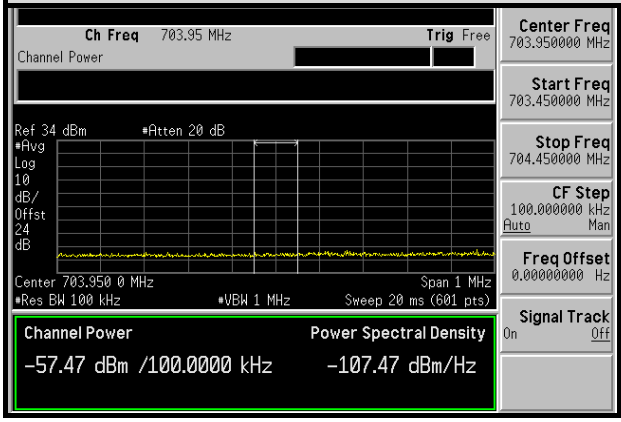


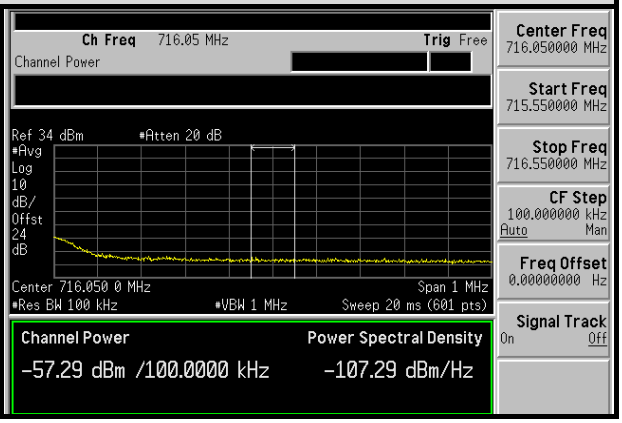
CHANNEL: 23095





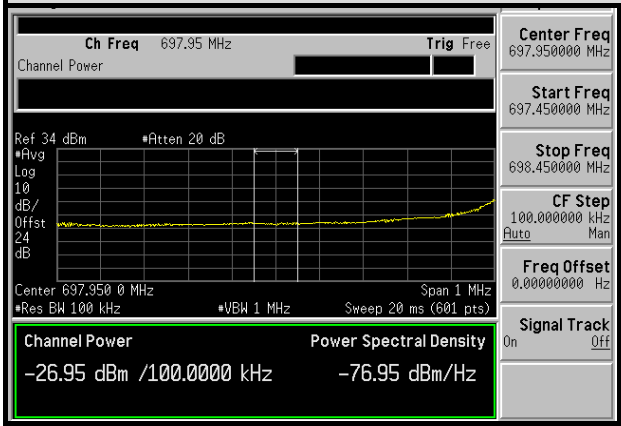
CHANNEL: 23130

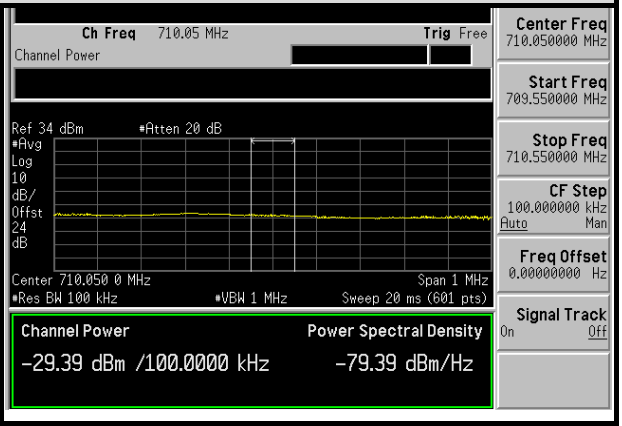




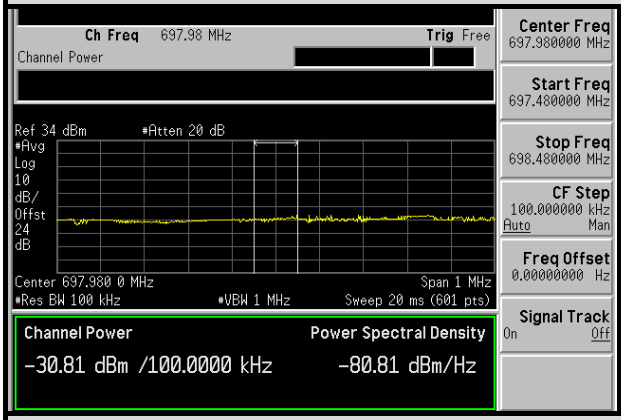
100% RB

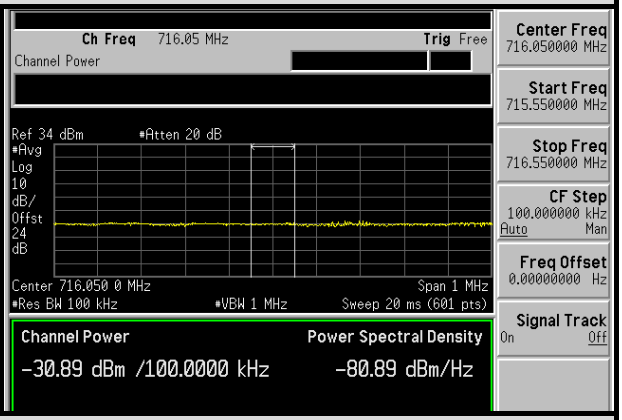
CHANNEL: 23050



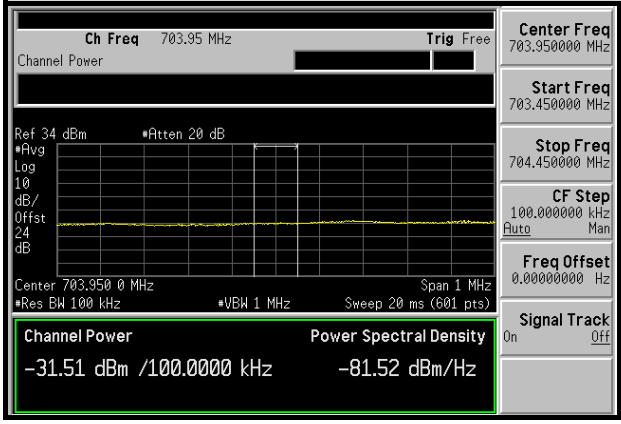


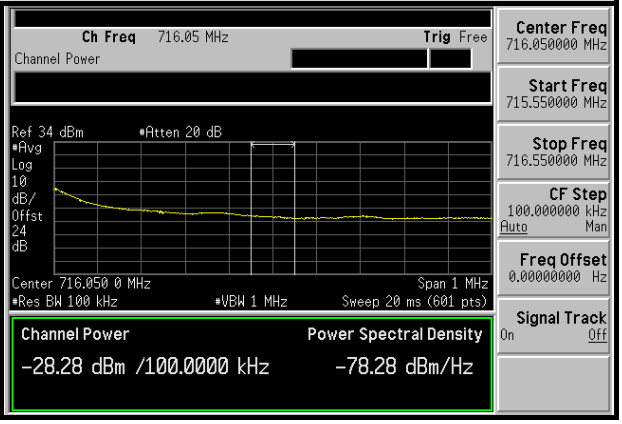
CHANNEL: 23095





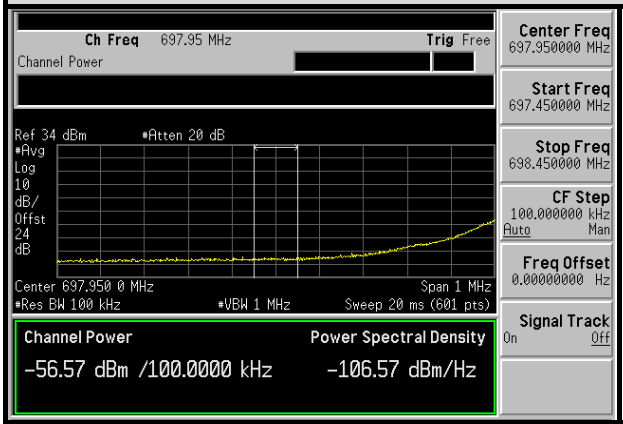
CHANNEL: 23130

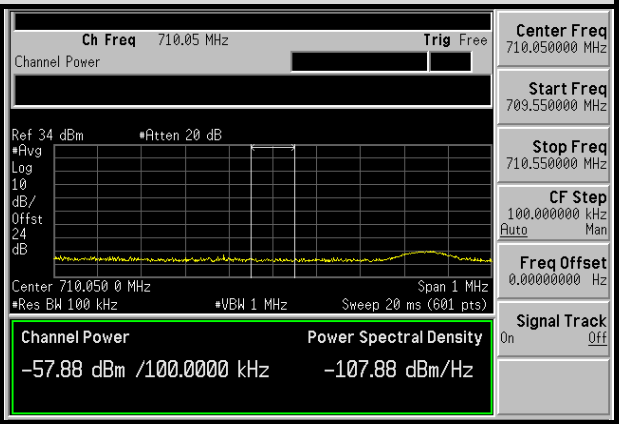




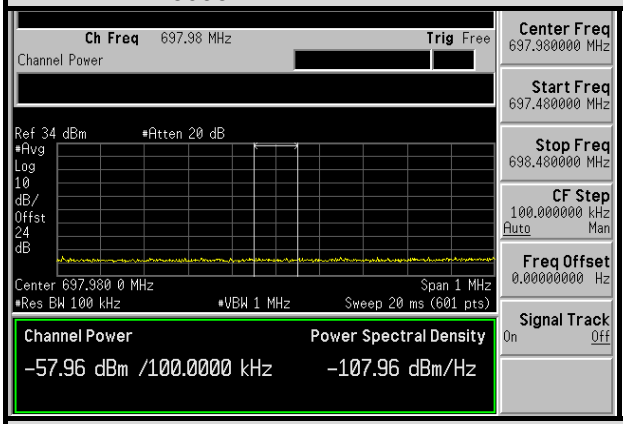
1RB UPPER

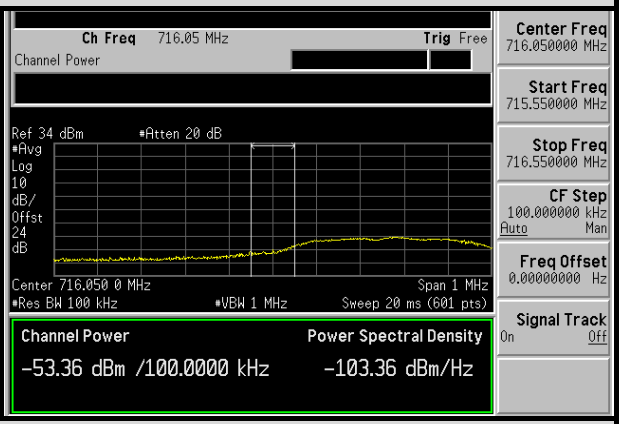
CHANNEL: 23050



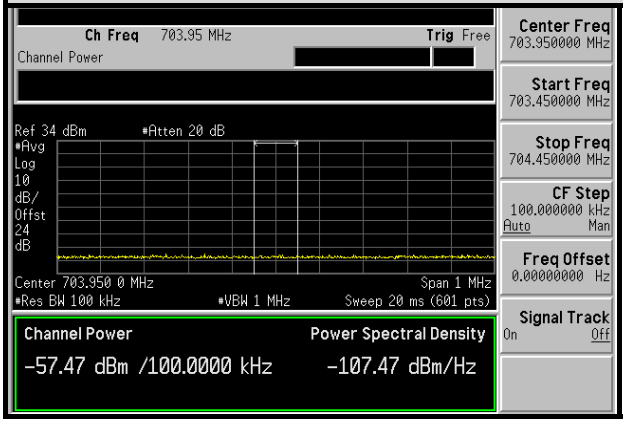


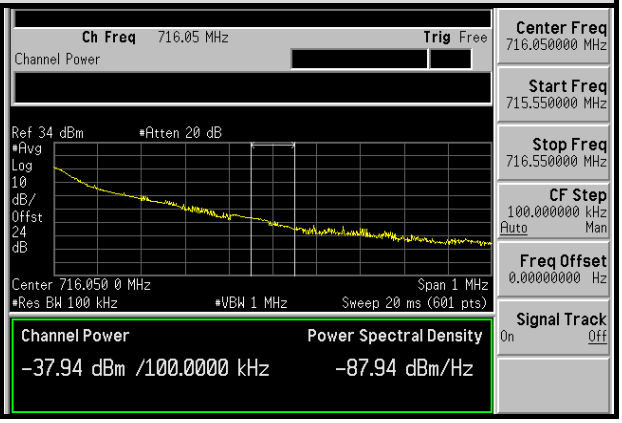
CHANNEL: 23095





CHANNEL: 23130

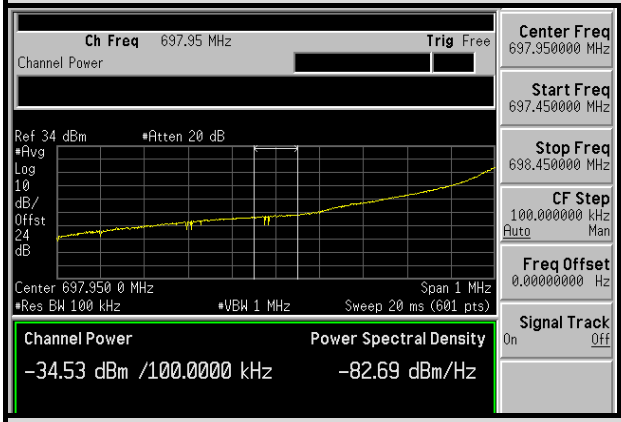


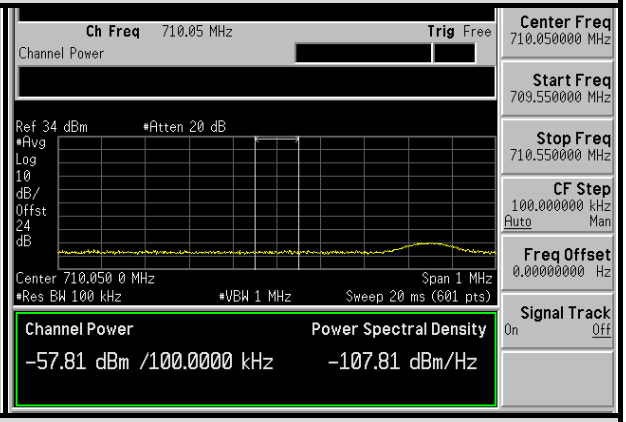


CHANNEL BANDWIDTH: 10MHz, 16QAM

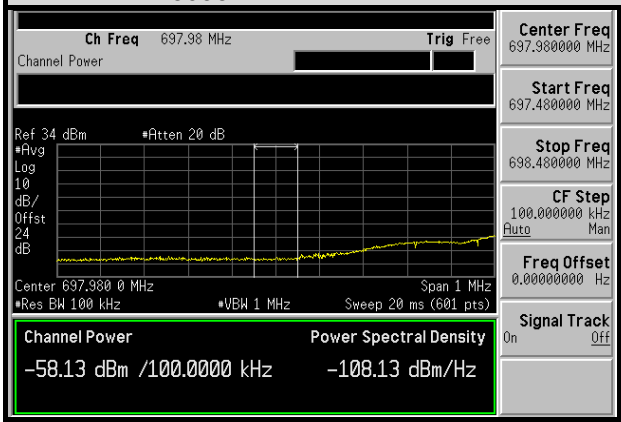
1RB LOWER

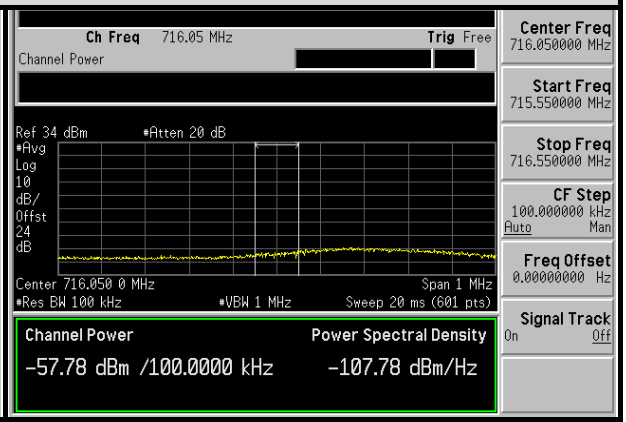
CHANNEL: 23050



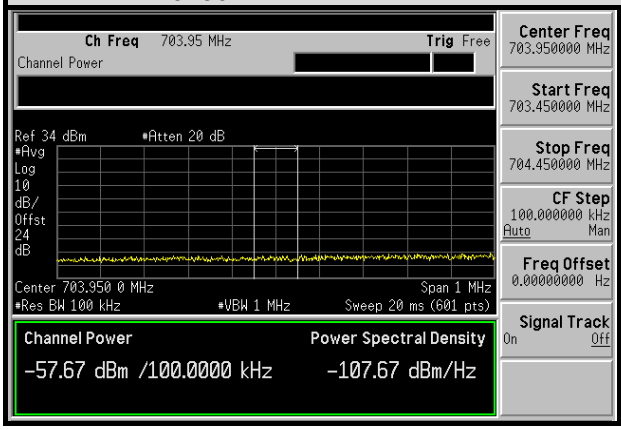


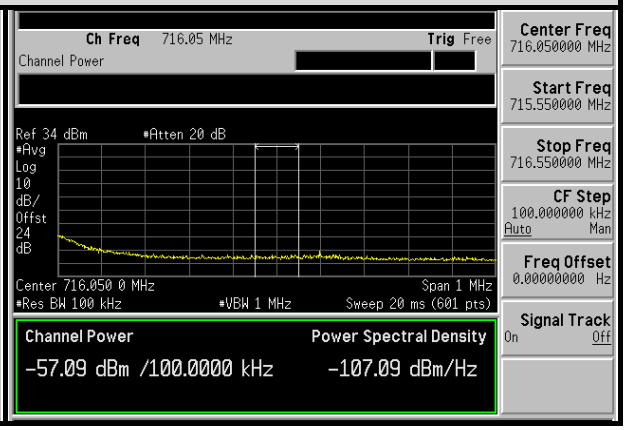
CHANNEL: 23095





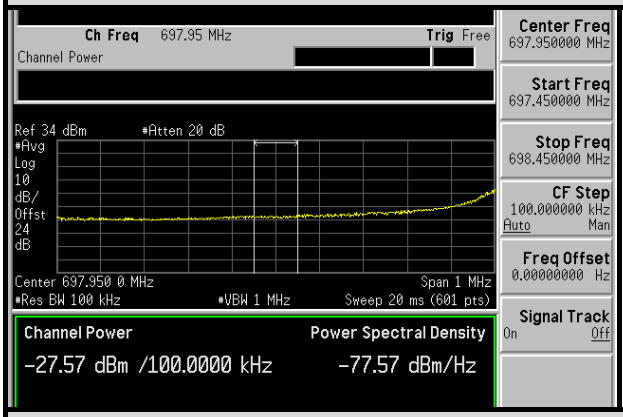
CHANNEL: 23130

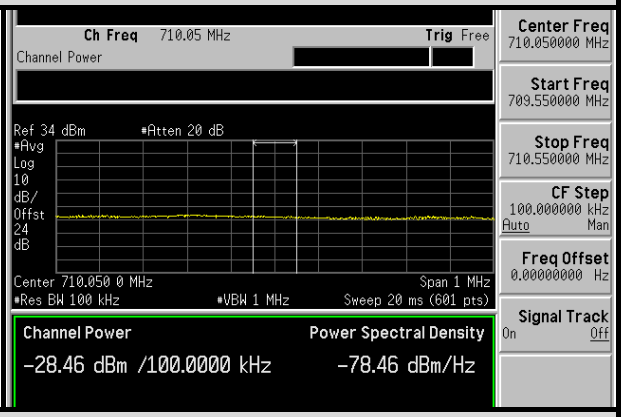




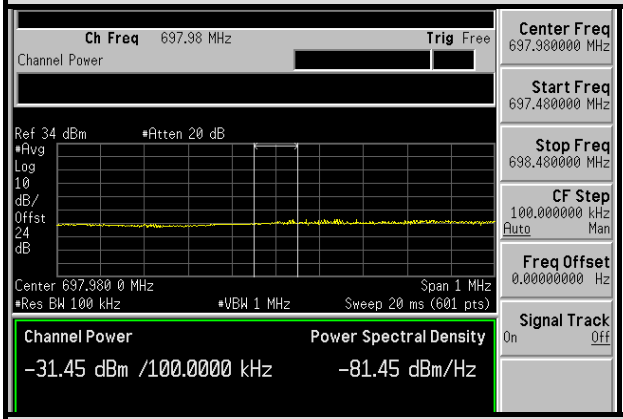
100% RB

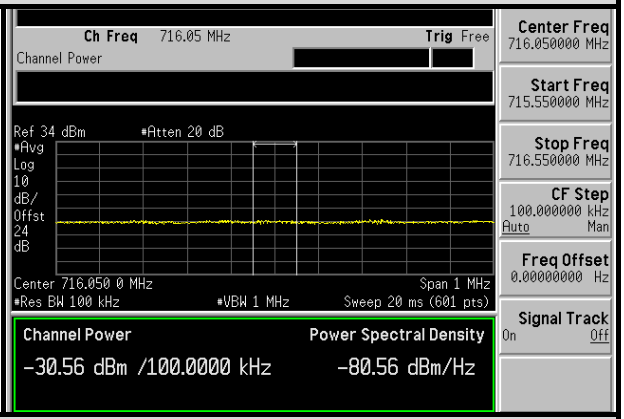
CHANNEL: 23050



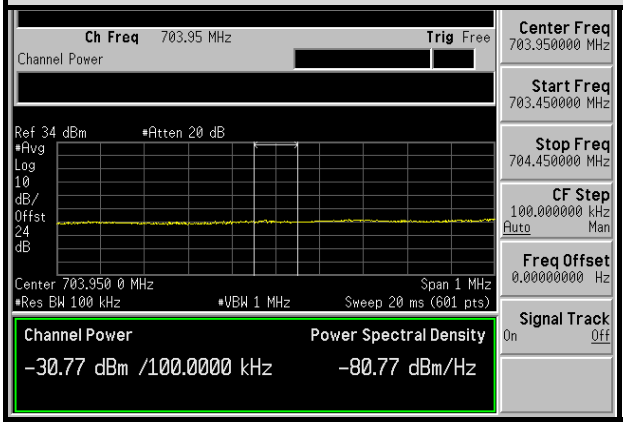


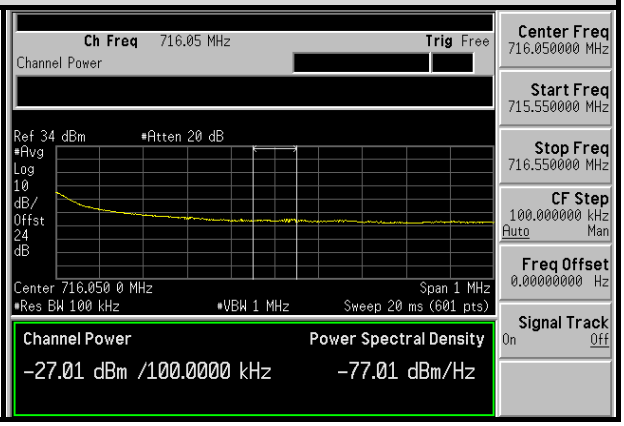
CHANNEL: 23095





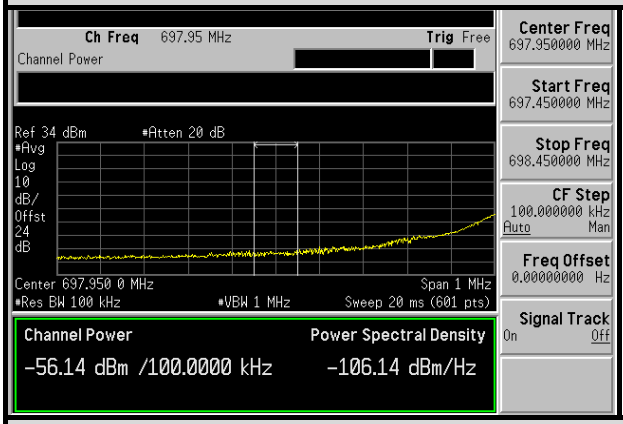
CHANNEL: 23130

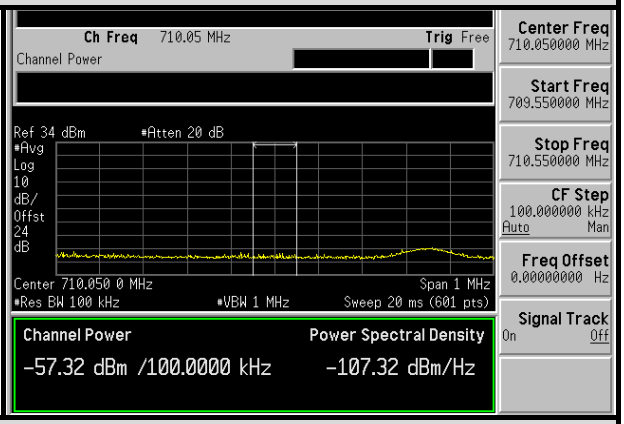




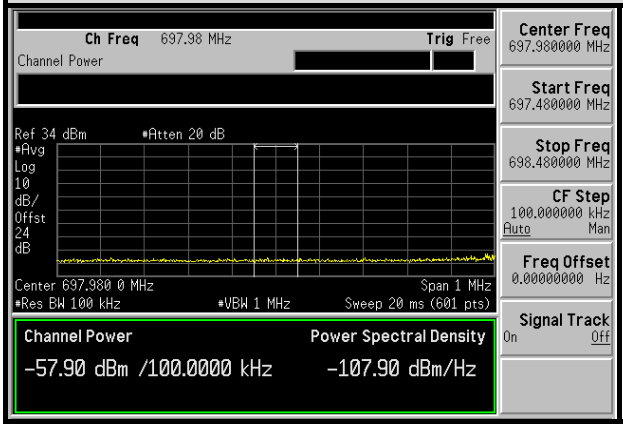
1RB UPPER

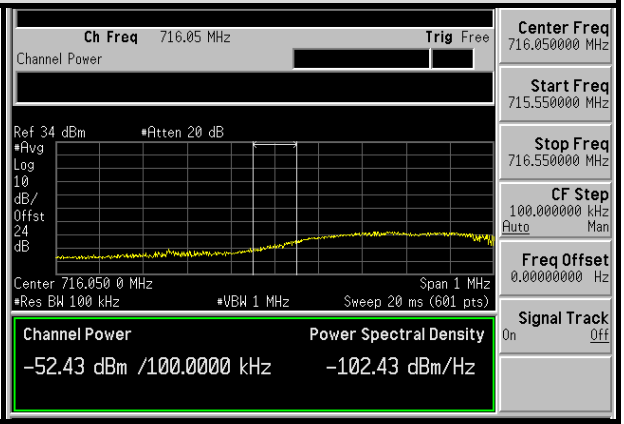
CHANNEL: 23050



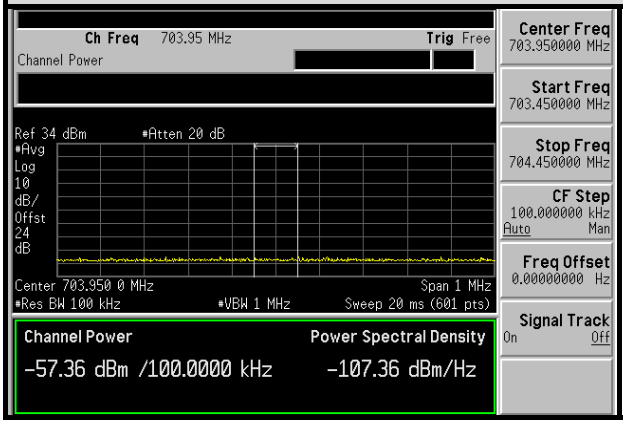


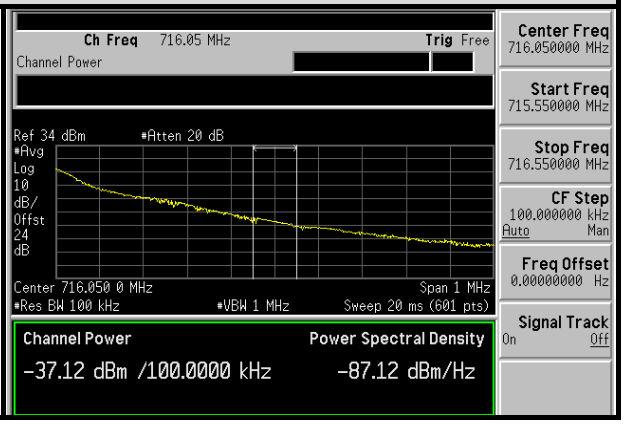
CHANNEL: 23095





CHANNEL: 23130





4.6 CONDUCTED SPURIOUS EMISSIONS

4.6.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

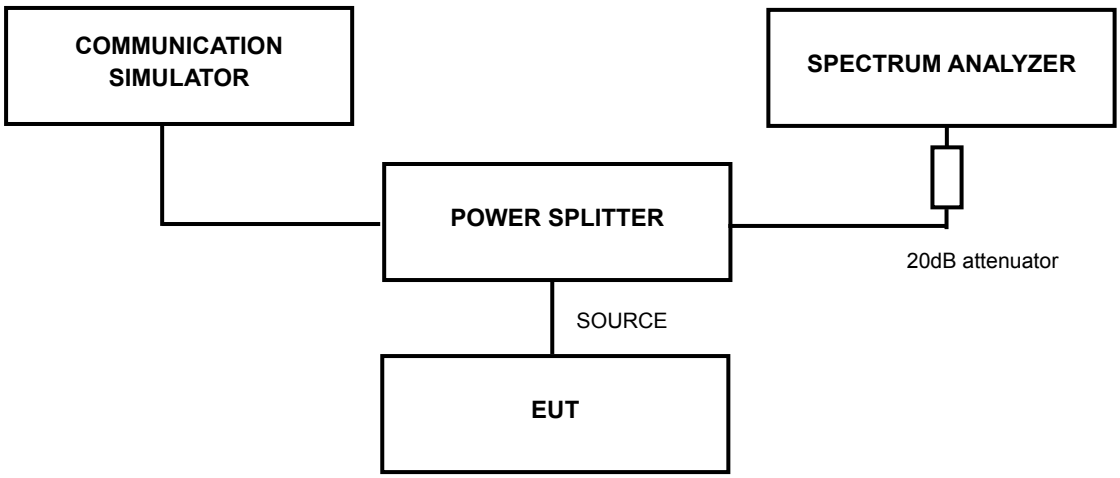
The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 43 +10 log10(P) dB. The limit of emission equal to –13dBm

4.6.2 TEST PROCEDURE

a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.

b. Measuring frequency range is from 9 kHz to 19.1GHz. 20dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

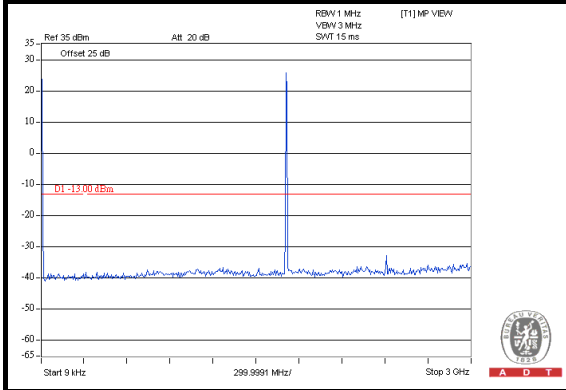
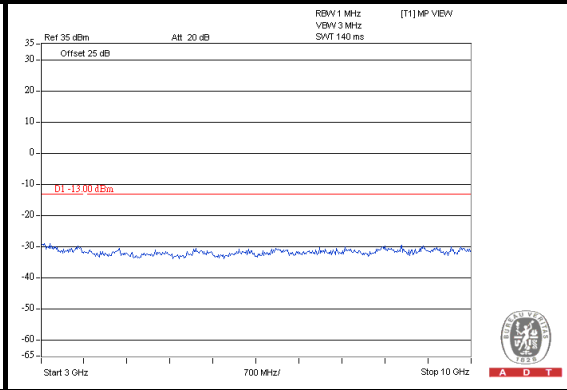
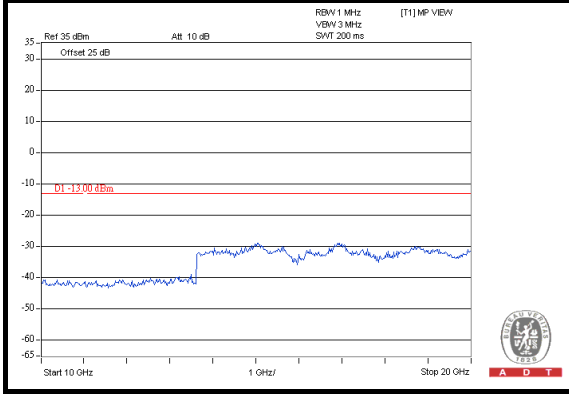
4.6.3 TEST SETUP



4.6.4 TEST RESULTS

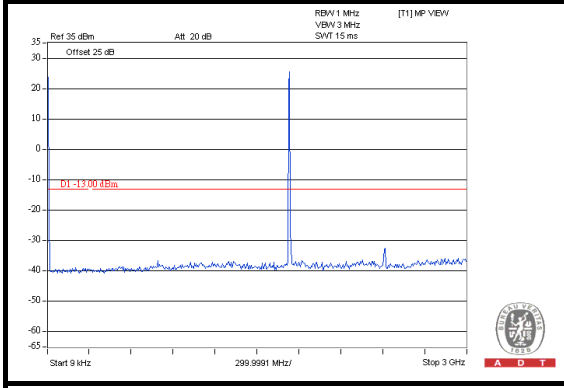
CDMA

FOR CDMA MODE:

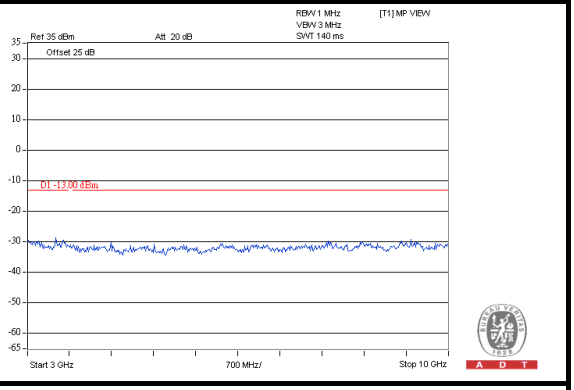
CH 25	
9kHz ~ 3GHz	3GHz ~ 10GHz
	
10GHz ~ 20GHz	
	

CH 450

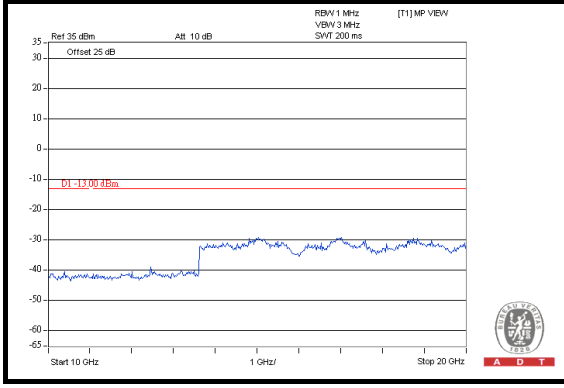
9kHz ~ 3GHz



3GHz ~ 10GHz

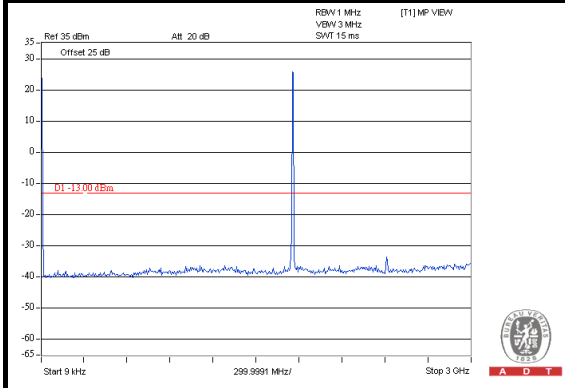


10GHz ~ 20GHz

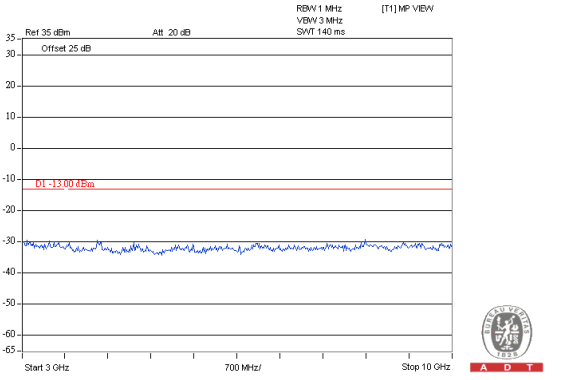


CH 875

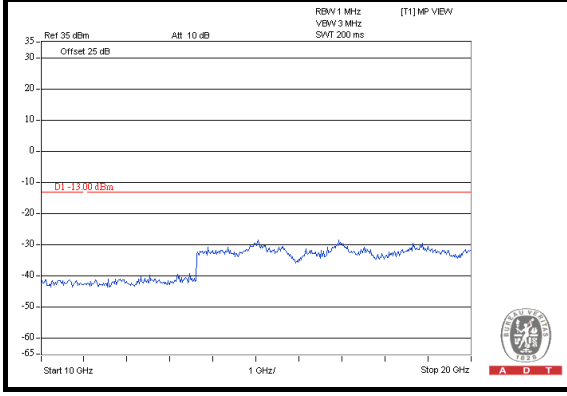
9kHz ~ 3GHz



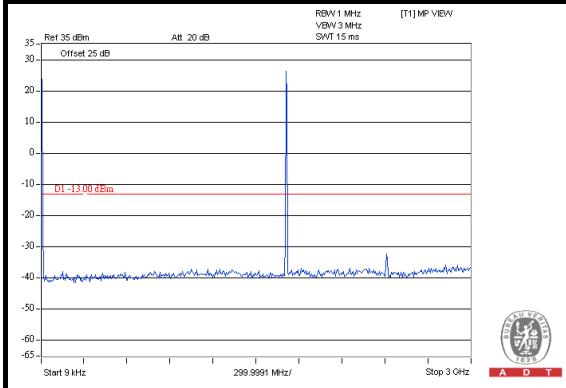
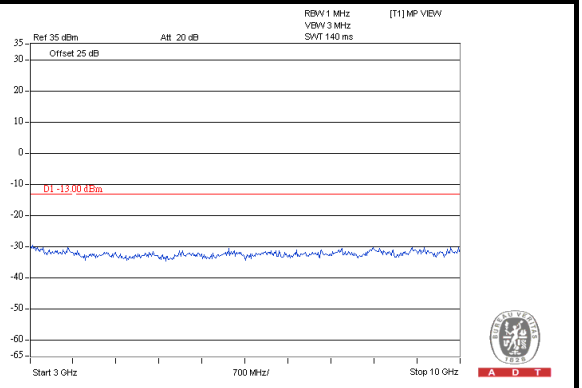
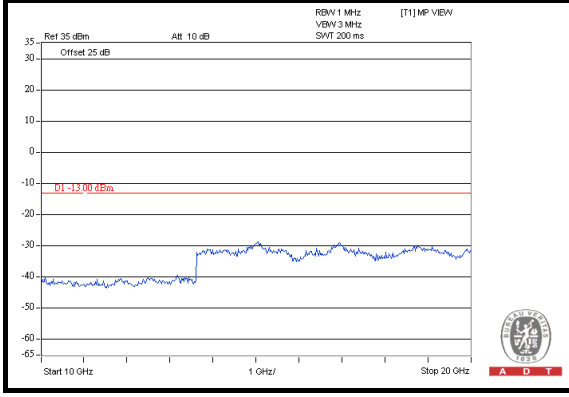
3GHz ~ 10GHz



10GHz ~ 20GHz

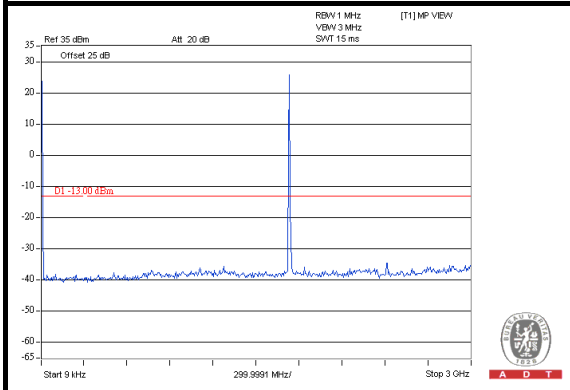


FOR 1xEV-DO Rev. 0 MODE:

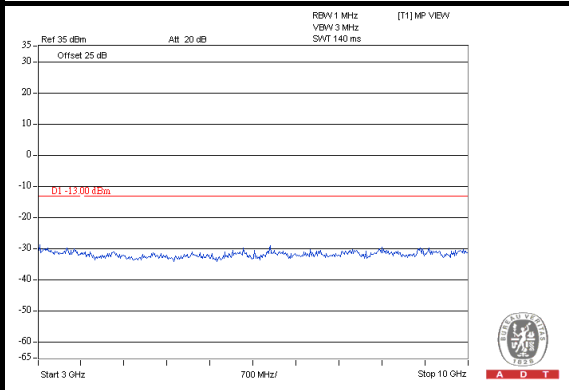
CH 25	
9kHz ~ 3GHz	3GHz ~ 10GHz
	
10GHz ~ 20GHz	
	

CH 450

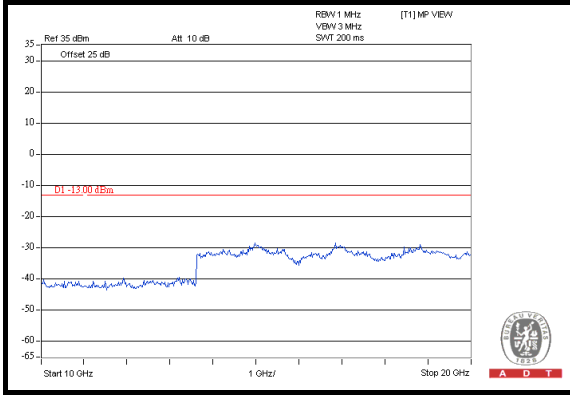
9kHz ~ 3GHz



3GHz ~ 10GHz

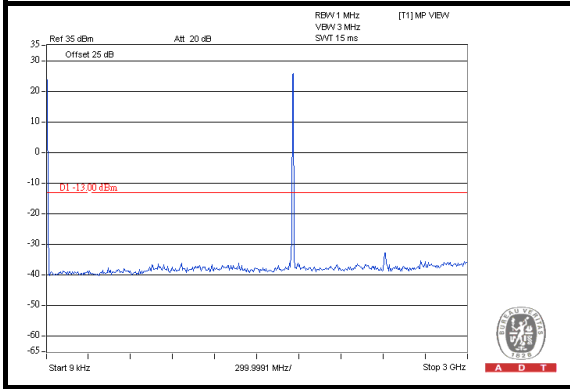


10GHz ~ 20GHz

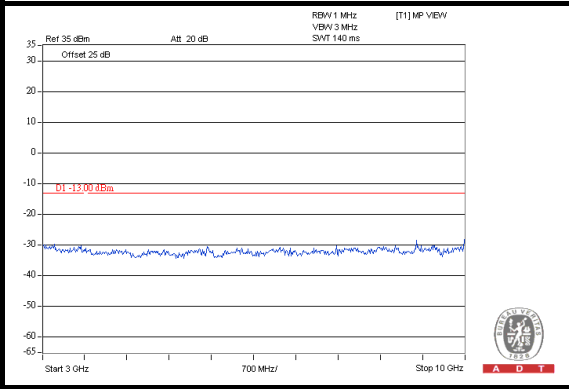


CH 875

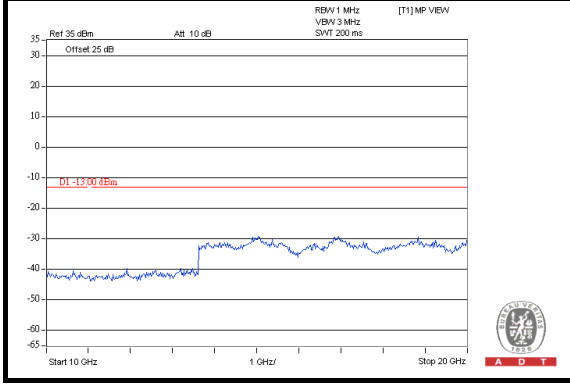
9kHz ~ 3GHz



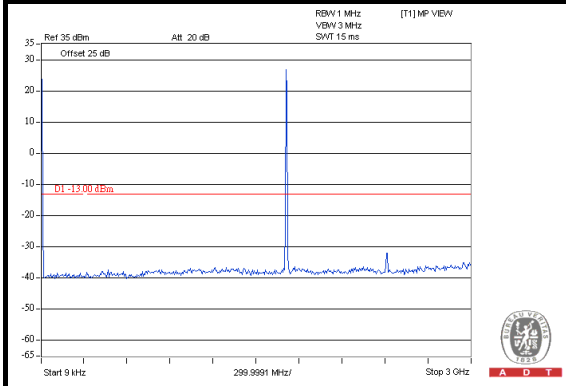
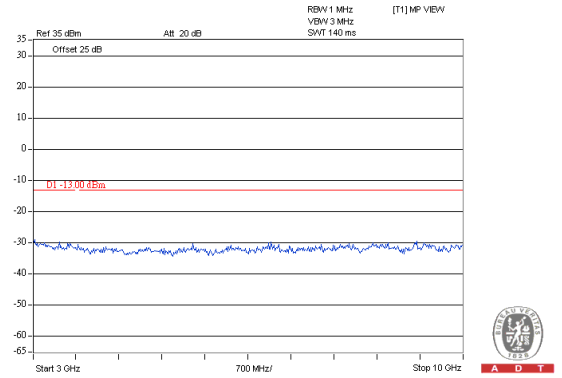
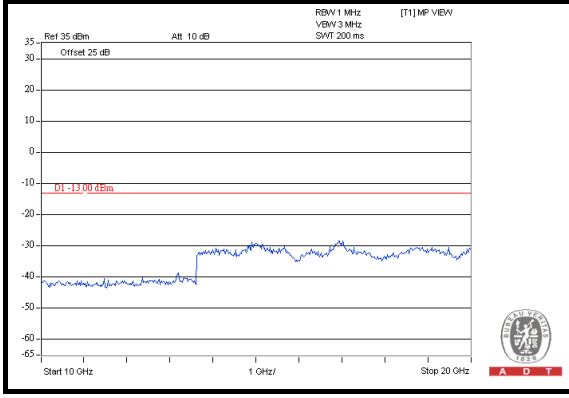
3GHz ~ 10GHz



10GHz ~ 20GHz

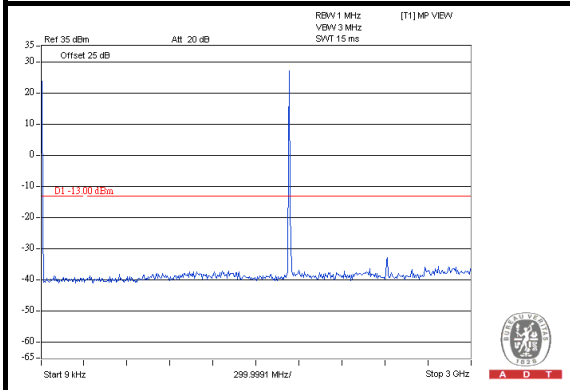


FOR 1xEV-DO Rev. A MODE:

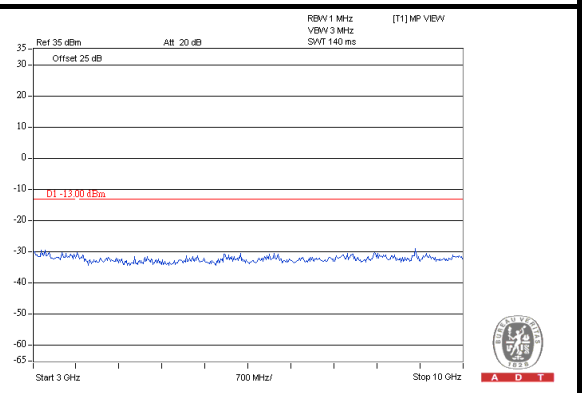
CH 25	
9kHz ~ 3GHz	3GHz ~ 10GHz
	
10GHz ~ 20GHz	
	

CH 450

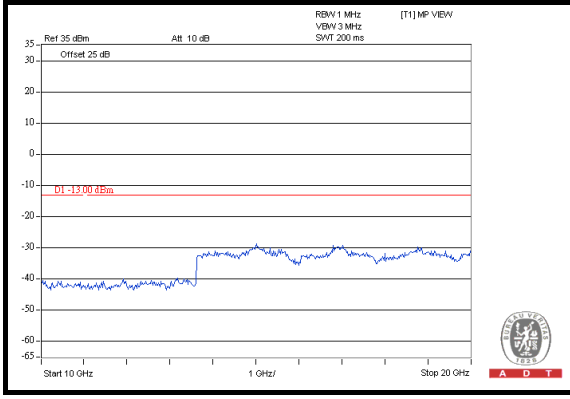
9kHz ~ 3GHz



3GHz ~ 10GHz

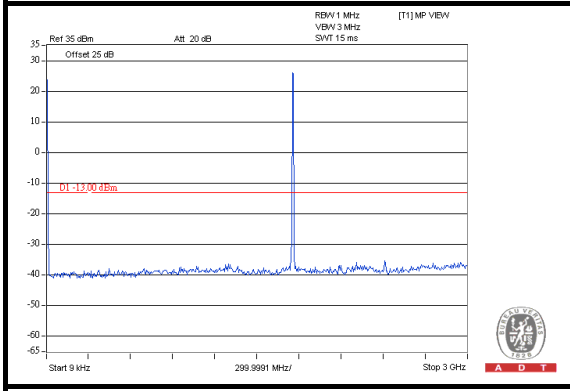


10GHz ~ 20GHz

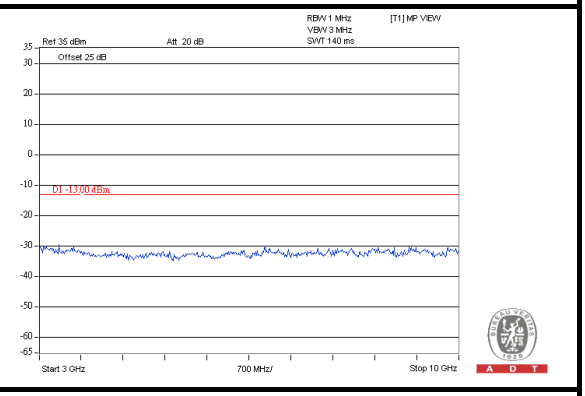


CH 875

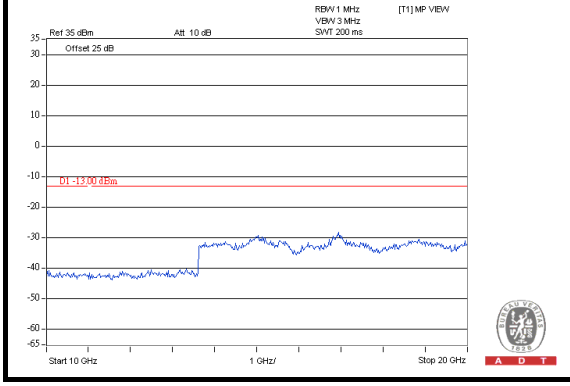
9kHz ~ 3GHz



3GHz ~ 10GHz



10GHz ~ 20GHz

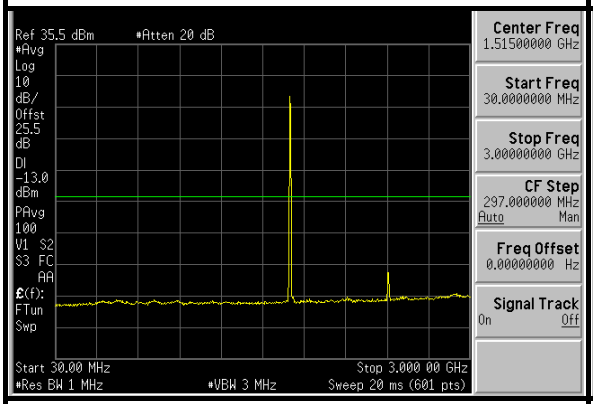


LTE Band 4:

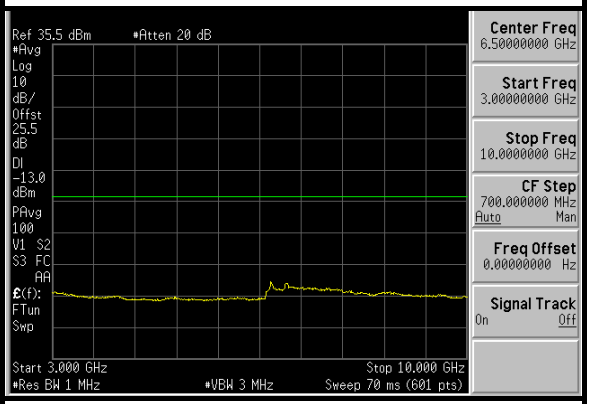
CHANNEL BANDWIDTH: 5MHz

CH 19975

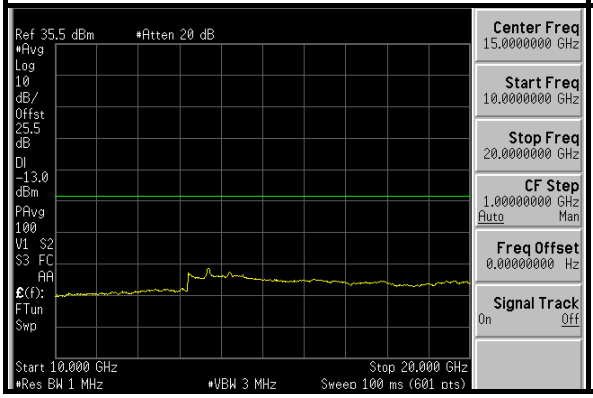
30MHz ~ 3GHz



3GHz ~ 10GHz

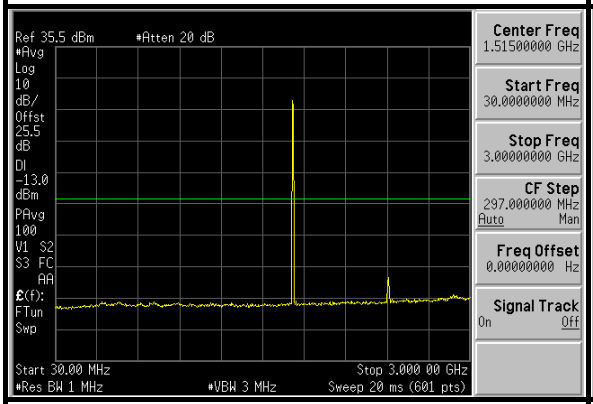


10GHz ~ 20GHz

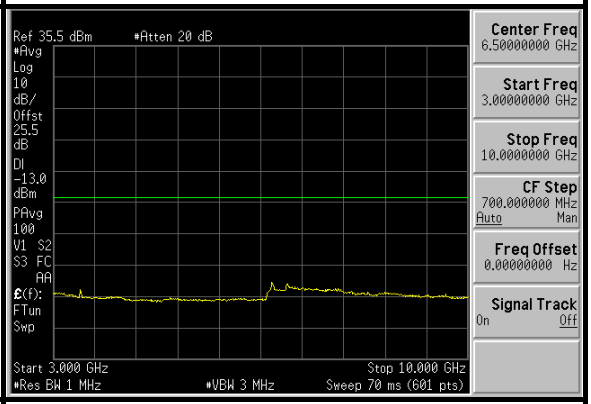


CH 20175

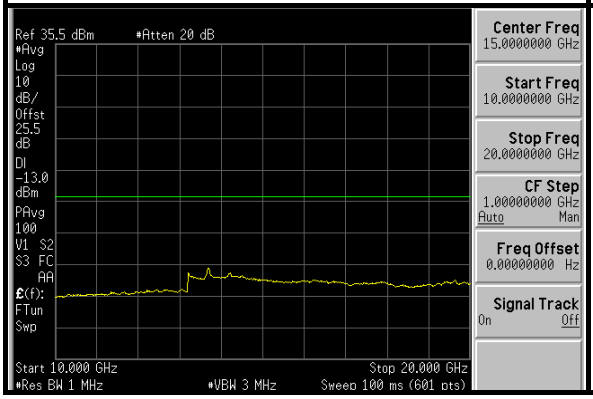
30MHz ~ 3GHz



3GHz ~ 10GHz

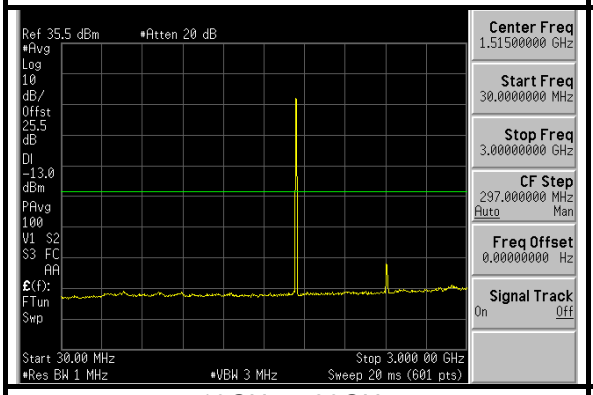


10GHz ~ 20GHz

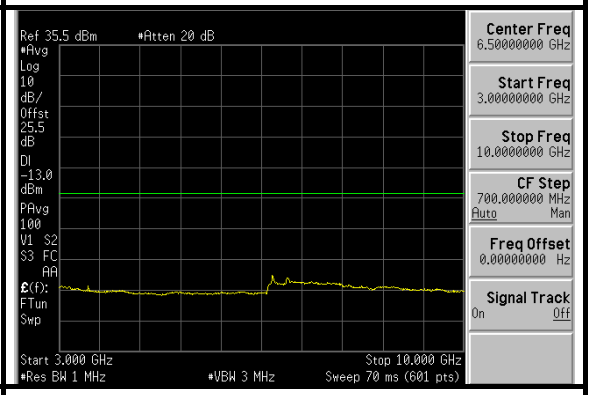


CH 20375

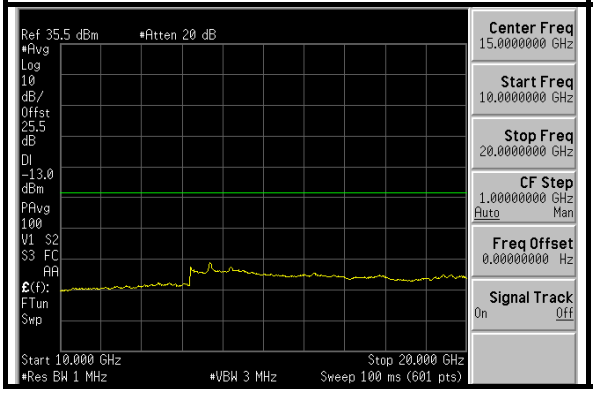
30MHz ~ 3GHz



3GHz ~ 10GHz



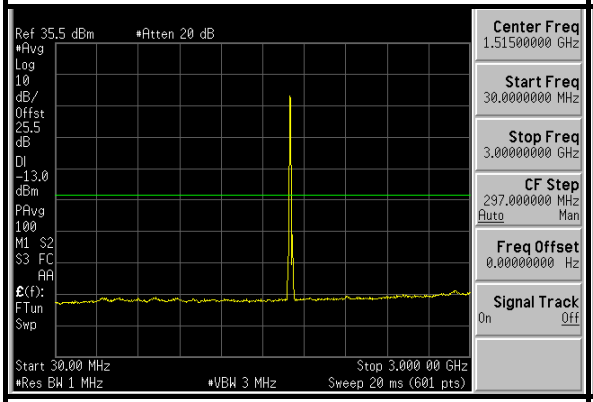
10GHz ~ 20GHz



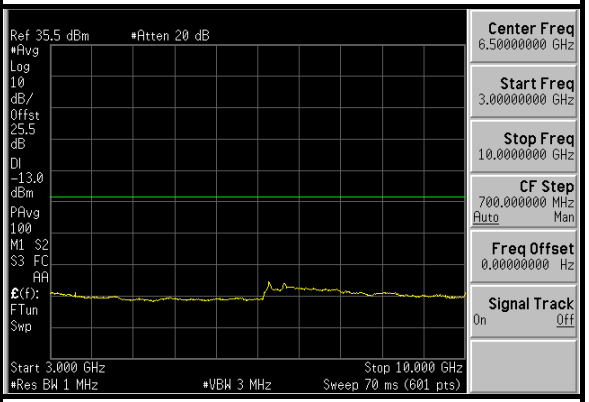
CHANNEL BANDWIDTH: 10MHz

CH 20000

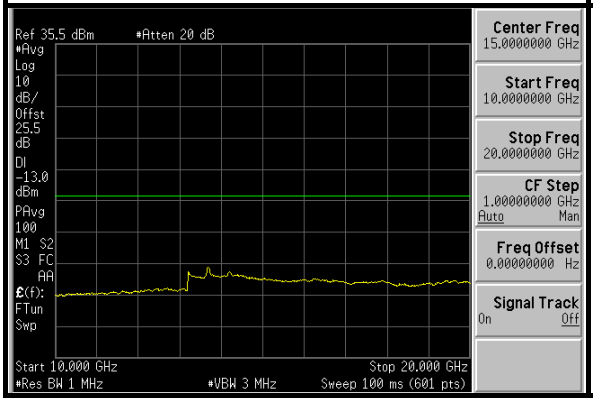
30MHz ~ 3GHz



3GHz ~ 10GHz

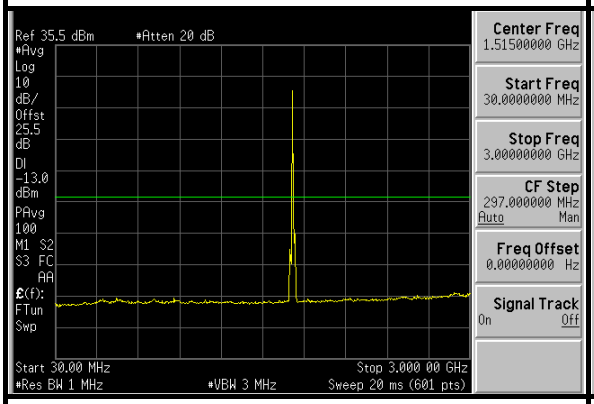


10GHz ~ 20GHz

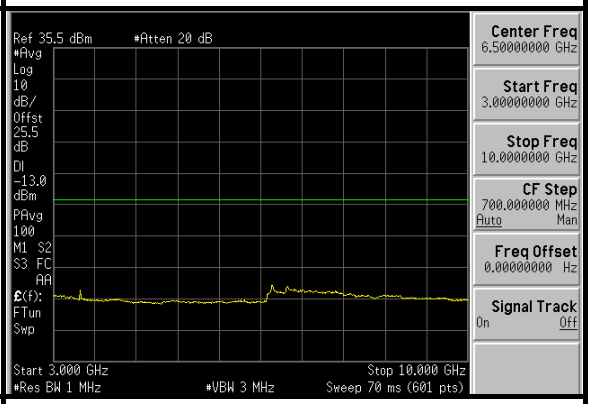


CH 20175

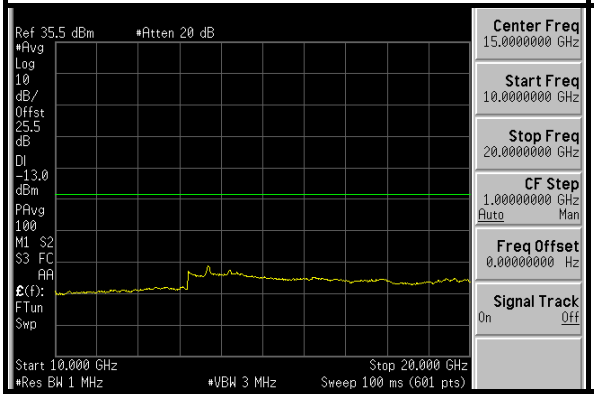
30MHz ~ 3GHz



3GHz ~ 10GHz

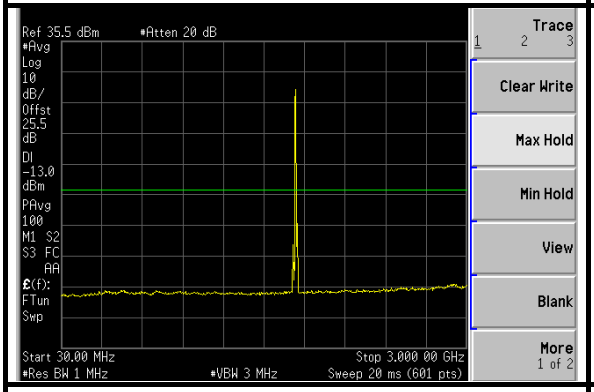


10GHz ~ 20GHz

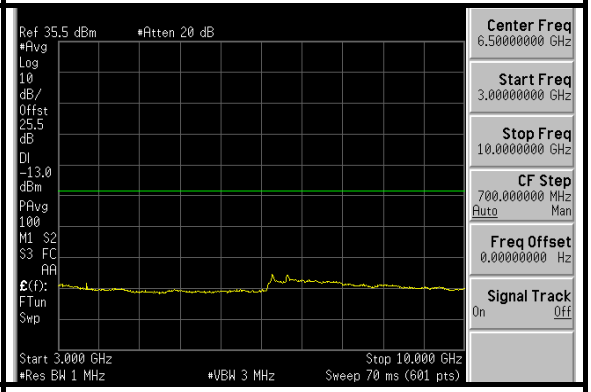


CH 20350

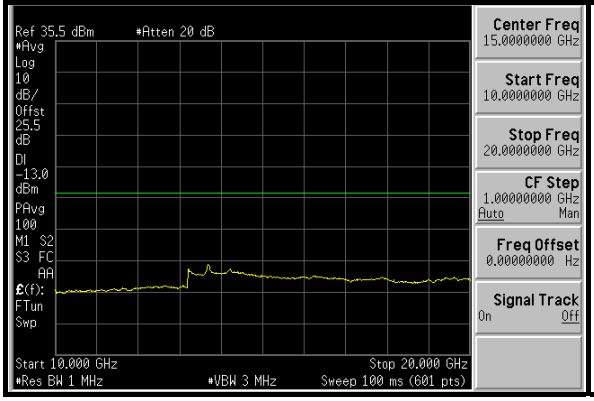
30MHz ~ 3GHz



3GHz ~ 10GHz



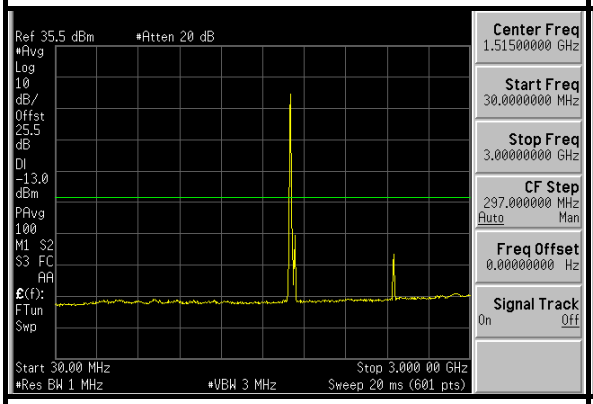
10GHz ~ 20GHz



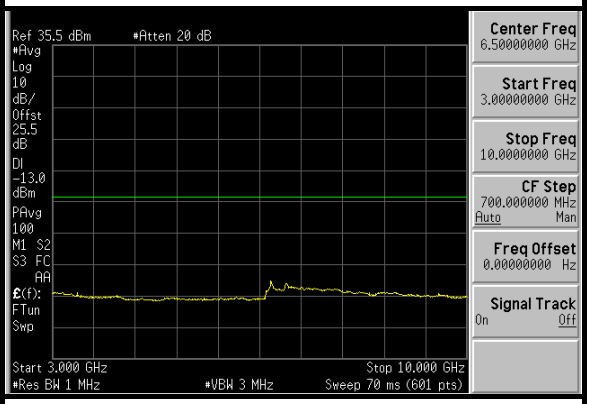
CHANNEL BANDWIDTH: 20MHz

CH 20050

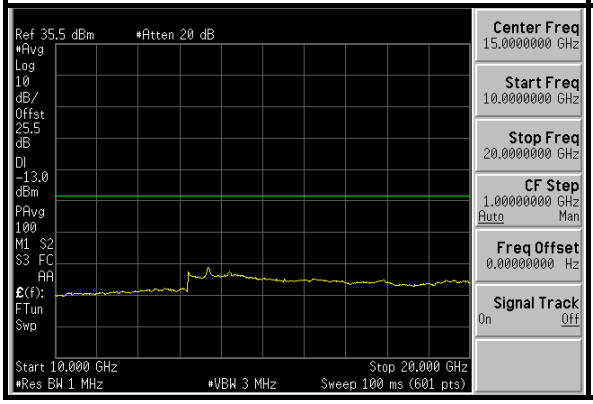
30MHz ~ 3GHz



3GHz ~ 10GHz

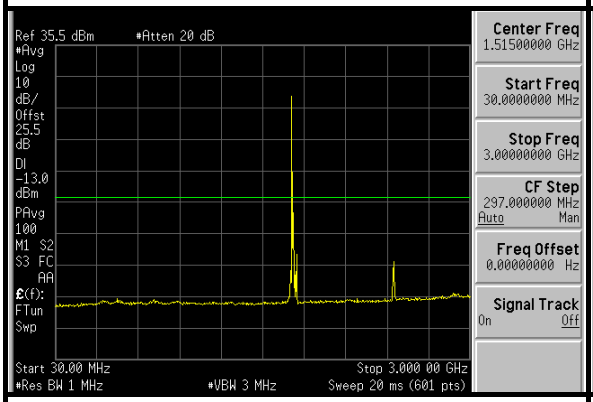


10GHz ~ 20GHz

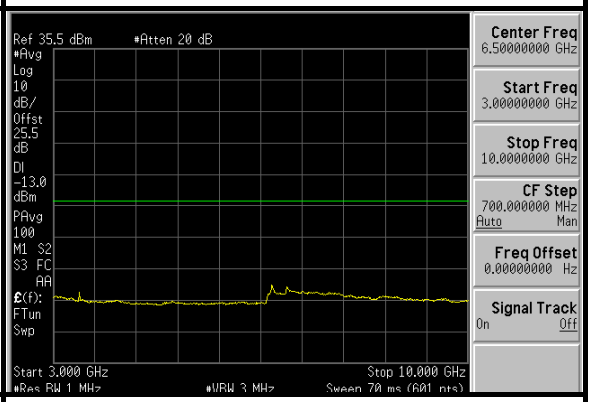


CH 20175

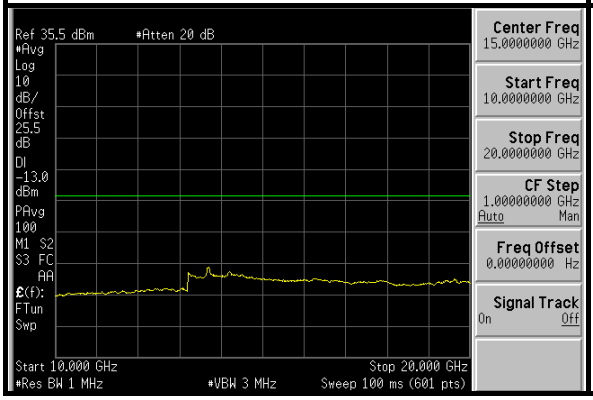
30MHz ~ 3GHz



3GHz ~ 10GHz

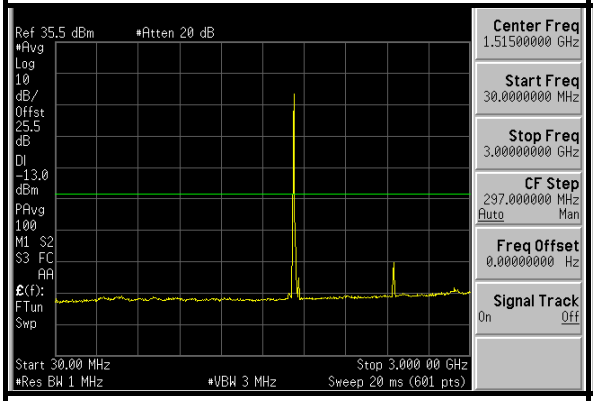


10GHz ~ 20GHz

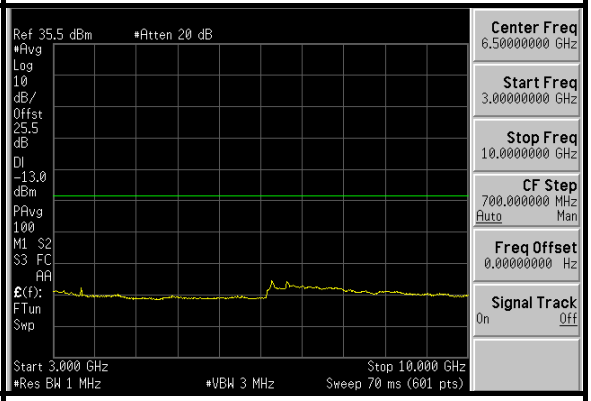


CH 20300

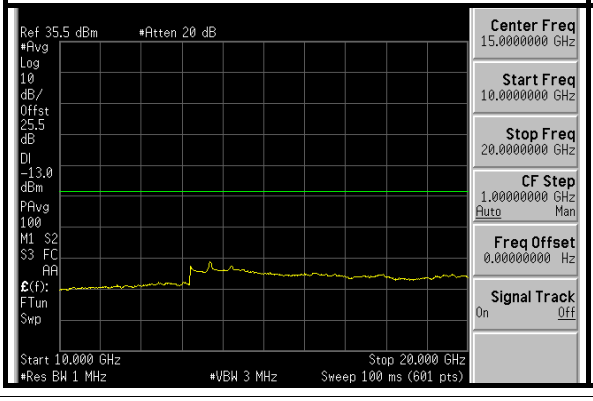
30MHz ~ 3GHz



3GHz ~ 10GHz



10GHz ~ 20GHz

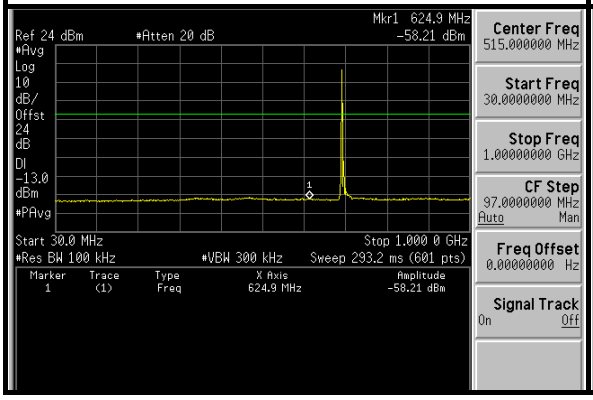


LTE Band 12:

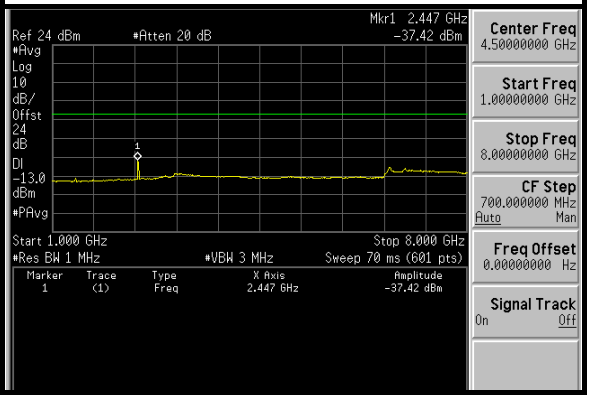
CHANNEL BANDWIDTH: 5MHz

CH 23035

30MHz ~ 1GHz

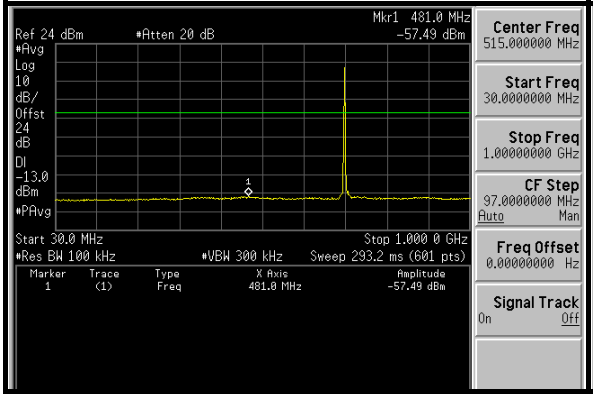


1GHz ~ 8GHz

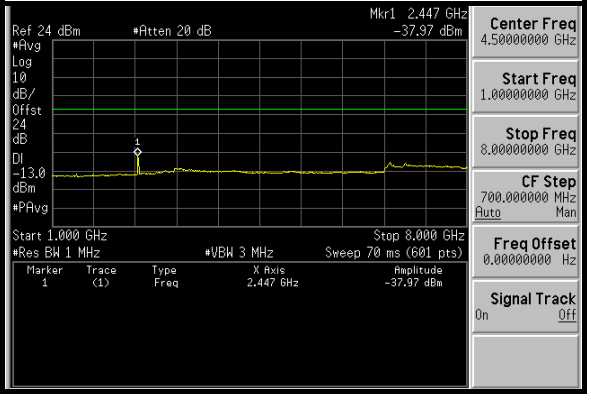


CH 23095

30MHz ~ 1GHz

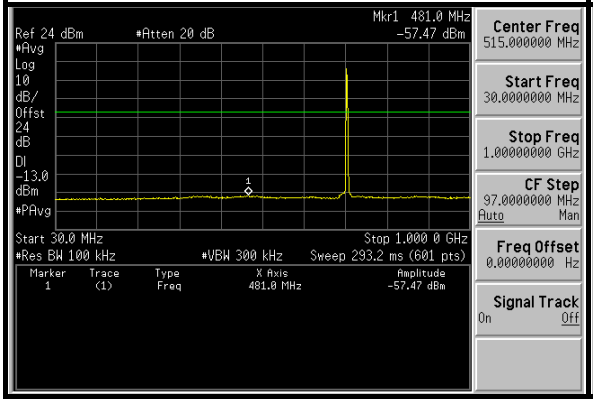


1GHz ~ 8GHz

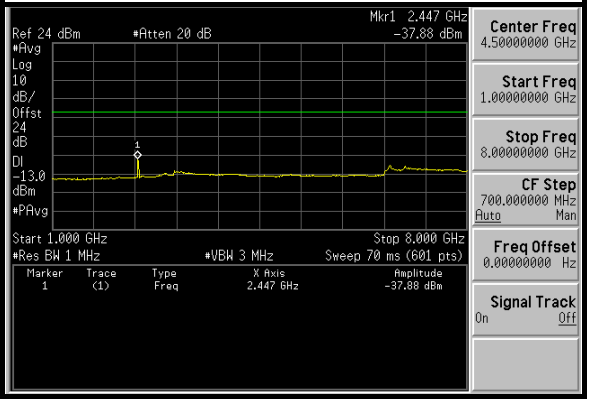


CH 23155

30MHz ~ 1GHz



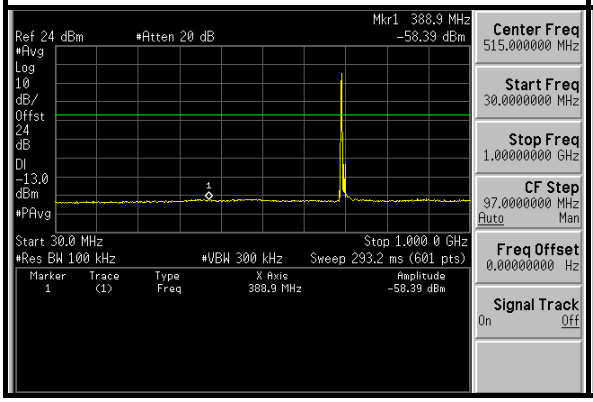
1GHz ~ 8GHz



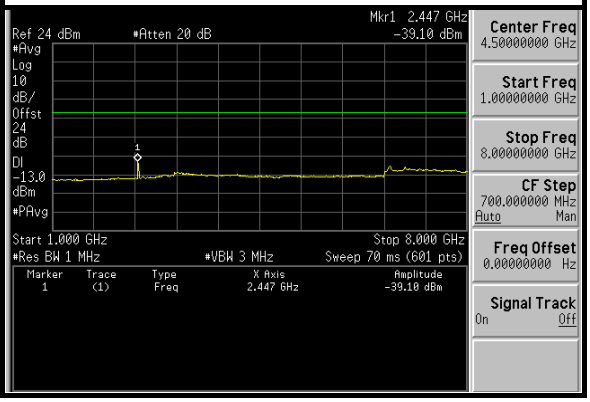
CHANNEL BANDWIDTH: 10MHz

CH 23050

30MHz ~ 1GHz

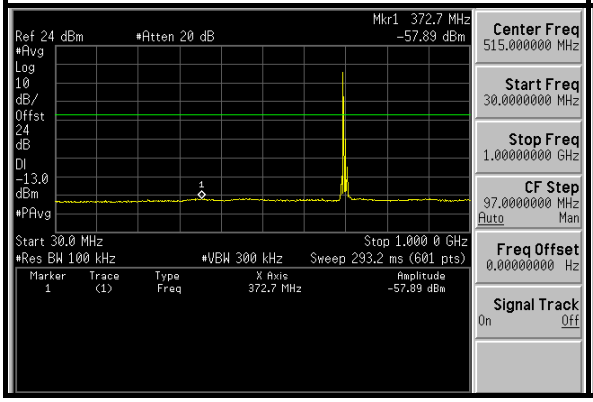


1GHz ~ 8GHz

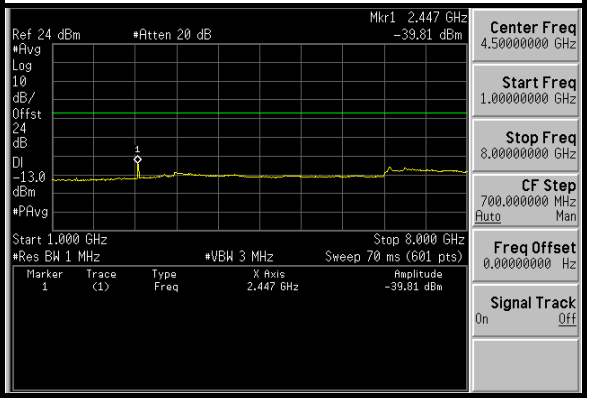


CH 23095

30MHz ~ 1GHz

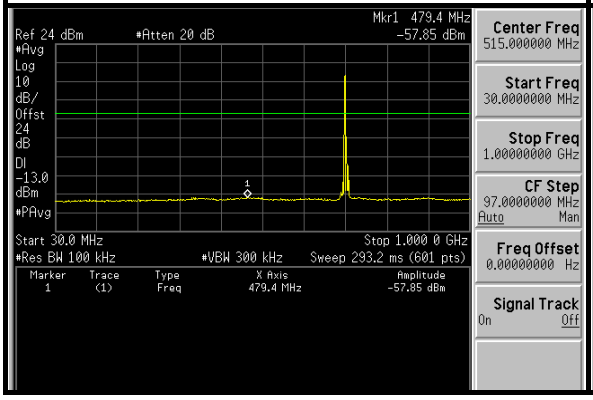


1GHz ~ 8GHz

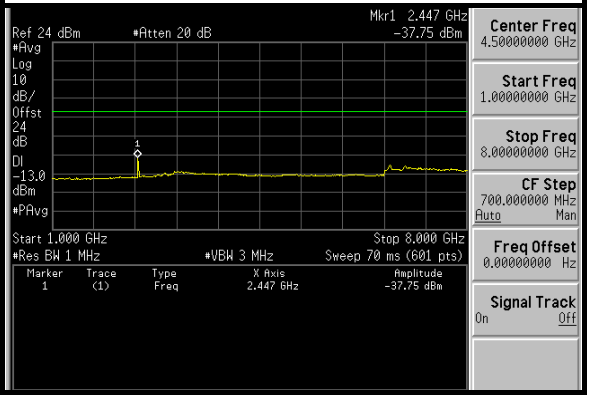


CH 23130

30MHz ~ 1GHz



1GHz ~ 8GHz



4.7 RADIATED EMISSION MEASUREMENT

4.7.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The 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. The emission limit equal to –13dBm.

4.7.2 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. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.

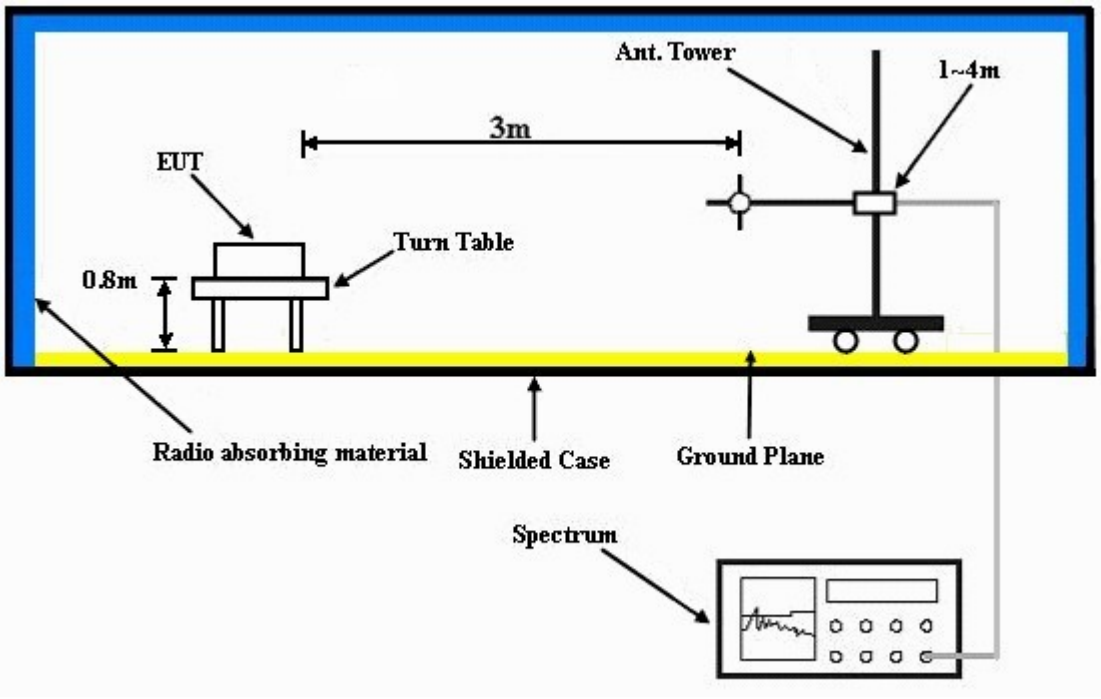
d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.P.R power - 2.15dBi.

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

4.7.3 DEVIATION FROM TEST STANDARD

No deviation

4.7.4 TEST SETUP



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

4.7.5 TEST RESULTS

CDMA

FOR CDMA MODE:

Below 1GHz

MODE	TX channel 450	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	INPUT POWER	120Vac, 60 Hz
TESTED BY	Haru Yang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	39.72	-60.6	-49.2	-11.4	-60.6	-13.0	-47.6
2	103.87	-64.0	-64.7	0.7	-64.0	-13.0	-51.0
3	249.66	-47.9	-53.3	5.4	-47.9	-13.0	-34.9
4	376.01	-62.0	-67.2	5.2	-62.0	-13.0	-49.0
5	500.42	-55.7	-60.6	4.9	-55.7	-13.0	-42.7
6	749.24	-48.5	-53.1	4.6	-48.5	-13.0	-35.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	49.44	-56.3	-52.5	-9.8	-62.3	-13.0	-49.3
2	82.48	-57.1	-60.3	-0.7	-61.0	-13.0	-48.0
3	133.03	-66.5	-69.2	0.0	-69.2	-13.0	-56.2
4	249.66	-44.8	-53.0	5.4	-47.6	-13.0	-34.6
5	376.01	-62.9	-67.9	5.2	-62.7	-13.0	-49.7
6	500.42	-51.2	-54.4	4.9	-49.5	-13.0	-36.5

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Above 1GHz

MODE	Channel 25	FREQUENCY RANGE	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH
TESTED BY	Haru Yang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	**3422.50**	**-49.9**	**-46.4**	**7.1.**	**-39.3**	**-13.0**	**-26.3**
2	5133.75	-61.2	-51.3	6.6	-44.7	-13.0	-31.7
3	6845.00	-61.4	-46.1	5.0	-41.1	-13.0	-28.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3422.50	-51.8	-48.3	7.1.	-41.2	-13.0	-28.2
2	5133.75	-63.3	-54.4	6.6	-47.8	-13.0	-34.8
3	6845.00	-63.6	-48.6	5.0	-43.6	-13.0	-30.6

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

MODE	Channel 450	**FREQUENCY RANGE**	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	25deg. C, 65%RH
TESTED BY	Haru Yang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3465.00	-54.5	-51.1	7.2	-43.9	-13.0	-30.9
2	5197.50	-61.5	-51.5	6.7	-44.8	-13.0	-31.8
3	6930.00	-62.6	-47.1	4.8	-42.3	-13.0	-29.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3465.00	-50.5	-47.0	7.2	-39.8	-13.0	-26.8
2	5197.50	-59.0	-50.3	6.7	-43.6	-13.0	-30.6
3	6930.00	-62.7	-47.4	4.8	-42.6	-13.0	-29.6

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

MODE	Channel 875	**FREQUENCY RANGE**	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	25deg. C, 65%RH
TESTED BY	Haru Yang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3507.50	-52.7	-49.3	7.2	-42.1	-13.0	-29.1
2	5261.25	-61.3	-51.1	6.7	-44.4	-13.0	-31.4
3	7015.00	-61.6	-45.9	4.7	-41.2	-13.0	-28.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3507.50	-51.4	-47.8	7.2	-40.6	-13.0	-27.6
2	5261.25	-59.1	-50.3	6.7	-43.6	-13.0	-30.6
3	7015.00	-62.2	-46.7	4.7	-42.0	-13.0	-29.0

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

LTE Band 4:

Below 1GHz

Channel Bandwidth: 5MHz

MODE	TX channel 20175	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	INPUT POWER	120Vac, 60 Hz
TESTED BY	Haru Yang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	39.72	-60.4	-44.9	-11.4	-56.3	-13.0	-43.3
2	129.14	-48.6	-54.5	0.0	-54.5	-13.0	-41.5
3	197.17	-47.7	-58.6	5.1	-53.5	-13.0	-40.5
4	249.66	-48.9	-59.4	5.4	-54.0	-13.0	-41.0
5	376.01	-64.1	-70.0	5.2	-64.8	-13.0	-51.8
6	500.42	-61.9	-66.5	4.9	-61.6	-13.0	-48.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	33.89	-46.8	-41.4	-12.1	-53.5	-13.0	-40.5
2	133.03	-45.5	-48.2	0.0	-48.2	-13.0	-35.2
3	193.29	-52.1	-58.8	4.6	-54.2	-13.0	-41.2
4	249.66	-51.6	-59.8	5.4	-54.4	-13.0	-41.4
5	274.93	-58.6	-65.9	5.3	-60.6	-13.0	-47.6
6	500.42	-63.9	-67.1	4.9	-62.2	-13.0	-49.2

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 10MHz

MODE	TX channel 20350	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	INPUT POWER	120Vac, 60 Hz
TESTED BY	Haru Yang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	31.94	-60.4	-44.0	-12.4	-56.4	-13.0	-43.4
2	129.14	-49.3	-55.2	0.0	-55.2	-13.0	-42.2
3	199.12	-48.4	-59.5	5.4	-54.1	-13.0	-41.1
4	249.66	-48.3	-58.8	5.4	-53.4	-13.0	-40.4
5	407.11	-62.7	-67.9	5.3	-62.6	-13.0	-49.6
6	500.42	-59.8	-64.4	4.9	-59.5	-13.0	-46.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	45.55	-49.5	-44.9	-10.5	-55.4	-13.0	-42.4
2	131.08	-45.0	-48.1	0.0	-48.1	-13.0	-35.1
3	195.23	-51.9	-59.0	4.9	-54.1	-13.0	-41.1
4	249.66	-54.7	-62.9	5.4	-57.5	-13.0	-44.5
5	274.93	-58.9	-66.2	5.3	-60.9	-13.0	-47.9
6	500.42	-60.6	-63.8	4.9	-58.9	-13.0	-45.9

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 20MHz

MODE	TX channel 20300	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	INPUT POWER	120Vac, 60 Hz
TESTED BY	Haru Yang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	31.94	-59.4	-43.0	-12.4	-55.4	-13.0	-42.4
2	129.14	-49.1	-55.0	0.0	-55.0	-13.0	-42.0
3	199.12	-49.1	-60.2	5.4	-54.8	-13.0	-41.8
4	249.66	-51.4	-61.9	5.4	-56.5	-13.0	-43.5
5	389.62	-64.9	-70.1	5.2	-64.9	-13.0	-51.9
6	500.42	-63.0	-67.6	4.9	-62.7	-13.0	-49.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	45.55	-49.3	-44.7	-10.5	-55.2	-13.0	-42.2
2	131.08	-45.7	-48.8	0.0	-48.8	-13.0	-35.8
3	154.41	-52.7	-51.7	0.0	-51.7	-13.0	-38.7
4	197.17	-52.9	-60.3	5.1	-55.2	-13.0	-42.2
5	399.34	-53.0	-57.7	5.3	-52.4	-13.0	-39.4
6	500.42	-62.8	-66.0	4.9	-61.1	-13.0	-48.1

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Above 1GHz

Channel Bandwidth: 5MHz

MODE	Channel 19975	FREQUENCY RANGE	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3420.60	-50.2	-35.2	-4.4	-39.6	-13.0	-26.6
2	5130.90	-60.8	-38.8	-5.5	-44.3	-13.0	-31.3
3	6841.20	-60.3	-33.6	-6.4	-40.0	-13.0	-27.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3420.60	-50.7	-35.7	-4.4	-40.1	-13.0	-27.1
2	5130.90	-61.0	-40.3	-5.5	-45.8	-13.0	-32.8
3	6841.20	-62.2	-35.8	-6.4	-42.2	-13.0	-29.2

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

MODE	Channel 20175	**FREQUENCY RANGE**	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3460.60	-48.8	-33.7	-4.5	-38.2	-13.0	-25.2
2	5190.90	-60.4	-38.2	-5.5	-43.7	-13.0	-30.7
3	6921.20	-61.6	-34.8	-6.5	-41.3	-13.0	-28.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3460.60	-49.3	-34.1	-4.5	-38.6	-13.0	-25.6
2	5190.90	-60.2	-39.3	-5.5	-44.8	-13.0	-31.8
3	6921.20	-61.6	-35.0	-6.5	-41.5	-13.0	-28.5

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

MODE	Channel 20375	**FREQUENCY RANGE**	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3500.60	-49.6	-34.5	-4.5	-39.0	-13.0	-26.0
2	5250.90	-61.0	-38.5	-5.6	-44.1	-13.0	-31.3
3	7001.20	-62.4	-35.5	-6.5	-42.0	-13.0	-29.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3500.60	-51.3	-36.0	-4.5	-40.5	-13.0	-27.5
2	5250.90	-61.3	-40.2	-5.6	-45.8	-13.0	-32.8
3	7001.20	-62.5	-35.9	-6.5	-42.4	-13.0	-29.4

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 10MHz

MODE	Channel 20000	FREQUENCY RANGE	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3421.00	-49.9	-34.9	-4.4	-39.3	-13.0	-26.3
2	5131.50	-62.4	-40.4	-5.5	-45.9	-13.0	-32.9
3	6842.00	-61.8	-35.1	-6.4	-41.5	-13.0	-28.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3421.00	-50.2	-35.2	-4.4	-39.6	-13.0	-26.6
2	5131.50	-62.6	-41.9	-5.5	-47.4	-13.0	-34.4
3	6842.00	-61.0	-34.6	-6.4	-41.0	-13.0	-28.0

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

MODE	Channel 20175	**FREQUENCY RANGE**	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	**3456.20**	**-48.1**	**-33.0**	**-4.5**	**-37.5**	**-13.0**	**-24.5**
2	5184.30	-61.5	-39.4	-5.5	-44.9	-13.0	-31.9
3	6912.40	-61.5	-34.7	-6.5	-41.2	-13.0	-28.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3456.20	-51.8	-36.7	-4.5	-41.2	-13.0	-28.2
2	5184.30	-60.2	-39.4	-5.5	-44.9	-13.0	-31.9
3	6912.40	-62.3	-35.7	-6.5	-42.2	-13.0	-29.2

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

MODE	Channel 20350	**FREQUENCY RANGE**	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3491.00	-50.3	-35.2	-4.5	-39.7	-13.0	-26.7
2	5236.50	-60.2	-37.8	-5.6	-43.4	-13.0	-30.4
3	6982.00	-61.8	-35.0	-6.5	-41.5	-13.0	-28.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3491.00	-50.5	-35.3	-4.5	-39.8	-13.0	-26.8
2	5236.50	-60.5	-39.4	-5.6	-45.0	-13.0	-32.0
3	6982.00	-60.6	-34.0	-6.5	-40.5	-13.0	-27.5

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 20MHz

MODE	Channel 20050	FREQUENCY RANGE	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3422.00	-48.8	-33.8	-4.4	-38.2	-13.0	-25.2
2	5133.00	-62.5	-40.5	-5.5	-46.0	-13.0	-33.0
3	6844.00	-60.5	-33.8	-6.4	-40.2	-13.0	-27.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3422.00	-51.6	-36.6	-4.4	-41.0	-13.0	-28.0
2	5133.00	-61.5	-40.8	-5.5	-46.3	-13.0	-33.3
3	6844.00	-61.4	-35.0	-6.4	-41.4	-13.0	-28.4

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

MODE	Channel 20175	**FREQUENCY RANGE**	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3477.00	-49.2	-34.1	-4.5	-38.6	-13.0	-25.6
2	5170.50	-61.4	-39.3	-5.5	-44.8	-13.0	-31.8
3	6894.00	-60.9	-34.1	-6.5	-40.6	-13.0	-27.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3447.00	-50.4	-35.3	-4.5	-39.8	-13.0	-26.8
2	5170.50	-59.8	-39.0	-5.5	-44.5	-13.0	-31.5
3	6894.00	-61.5	-34.9	-6.5	-41.4	-13.0	-28.4

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

MODE	Channel 20300	**FREQUENCY RANGE**	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3472.20	-49.3	-34.2	-4.5	-38.7	-13.0	-25.7
2	5208.30	-61.8	-39.6	-5.5	-45.1	-13.0	-32.1
3	6944.40	-60.8	-34.0	-6.5	-40.5	-13.0	-27.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	3472.20	-51.8	-36.6	-4.5	-41.1	-13.0	-28.1
2	5208.30	-60.1	-39.2	-5.5	-44.7	-13.0	-31.7
3	6944.40	-61.6	-35.0	-6.5	-41.5	-13.0	-28.5

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

LTE Band 12:

Below 1GHz

Channel Bandwidth: 5MHz

MODE	TX channel 23155	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	INPUT POWER	120Vac, 60 Hz
TESTED BY	Haru Yang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	33.89	-59.0	-42.9	-12.1	-57.1	-13.0	-44.1
2	129.14	-48.2	-54.1	0.0	-56.2	-13.0	-43.2
3	199.12	-47.7	-58.8	5.4	-55.5	-13.0	-42.5
4	249.66	-44.5	-55.0	5.4	-51.8	-13.0	-38.8
5	366.29	-55.0	-61.6	5.2	-58.5	-13.0	-45.5
6	566.51	-56.9	-61.0	4.6	-58.5	-13.0	-45.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	45.55	-49.2	-44.6	-10.5	-57.2	-13.0	-44.2
2	131.08	-44.5	-47.6	0.0	-49.8	-13.0	-36.8
3	197.17	-51.2	-58.6	5.1	-55.6	-13.0	-42.6
4	249.66	-49.2	-57.4	5.4	-54.1	-13.0	-41.1
5	500.42	-60.8	-64.0	4.9	-61.2	-13.0	-48.2
6	560.68	-56..6	-58.4	4.6	-55.9	-13.0	-42.9

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 10MHz

MODE	TX channel 23050	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	INPUT POWER	120Vac, 60 Hz
TESTED BY	Haru Yang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	39.72	-60.1	-44.6	-11.4	-58.1	-13.0	-45.1
2	66.93	-49.1	-49.0	5.8	-56.9	-13.0	-43.9
3	131.08	-48.9	-54.7	0.0	-56.9	-13.0	-43.9
4	193.29	-47.9	-58.5	4.6	-56.0	-13.0	-43.0
5	249.66	-44.0	-54.5	5.4	-51.2	-13.0	-38.2
6	354.63	-54.1	-61.5	5.2	-58.4	-13.0	-45.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	49.44	-48.6	-44.8	-9.8	-56.8	-13.0	-43.8
2	131.08	-44.9	-48.0	0.0	-50.1	-13.0	-37.1
3	195.23	-51.3	-58.4	4.9	-55.6	-13.0	-42.6
4	249.66	-49.6	-57.8	5.4	-54.5	-13.0	-41.5
5	284.65	-59.4	-66.3	5.2	-63.2	-13.0	-50.2
6	500.42	-62.1	-65.3	4.9	-62.5	-13.0	-49.5

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Above 1GHz

Channel Bandwidth: 5MHz

MODE	Channel 23035	FREQUENCY RANGE	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	1398.60	-49.1	-48.2	4.7	-43.5	-13.0	-30.5
2	2097.90	-61.7	-59.9	6.4	-53.5	-13.0	-40.5
3	2797.20	-62.2	-58.6	6.4	-52.2	-13.0	-39.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	1398.60	-52.0	-53.3	4.7	-48.6	-13.0	-35.6
2	2097.90	-62.2	-60.6	6.4	-54.2	-13.0	-41.2
3	2797.20	-61.6	-58.5	6.4	-52.1	-13.0	-39.1

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

MODE	Channel 23095	**FREQUENCY RANGE**	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1404.60	-49.3	-48.4	4.7	-43.7	-13.0	-30.7
2	2103.90	-62.1	-60.3	6.4	-53.9	-13.0	-40.9
3	2803.20	-62.1	-58.5	6.4	-52.1	-13.0	-39.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1404.60	-51.2	-52.5	4.7	-47.8	-13.0	-34.8
2	2103.90	-62.3	-60.6	6.4	-54.2	-13.0	-41.2
3	2803.20	-62.2	-59.1	6.4	-52.7	-13.0	-39.7

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

MODE	Channel 23155	**FREQUENCY RANGE**	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	**1422.60**	**-48.6**	**-47.9**	**4.8**	**-43.1**	**-13.0**	**-30.1**
2	2133.90	-60.8	-58.8	6.4	-52.4	-13.0	-39.4
3	2845.20	-61.9	-58.1	6.4	-51.7	-13.0	-38.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1422.60	-50.3	-51.7	4.8	-46.9	-13.0	-33.9
2	2133.90	-61.7	-59.6	6.4	-53.2	-13.0	-40.2
3	2845.20	-62.0	-58.9	6.4	-52.5	-13.0	-39.5

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Channel Bandwidth: 10MHz

MODE	Channel 23050	FREQUENCY RANGE	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	1399.00	-49.1	-48.2	4.7	-43.5	-13.0	-30.5
2	2096.30	-61.5	-59.8	6.4	-53.4	-13.0	-40.4
3	2798.00	-62.7	-59.1	6.4	-52.7	-13.0	-39.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)
1	1399.00	-51.5	-52.8	4.7	-48.1	-13.0	-35.1
2	2098.50	-61.5	-59.9	6.4	-53.5	-13.0	-40.5
3	2798.00	-62.5	-59.4	6.4	-53.0	-13.0	-40.0

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

MODE	Channel 23095	**FREQUENCY RANGE**	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1406.20	-49.5	-48.6	4.7	-43.9	-13.0	-30.9
2	2109.30	-63.5	-61.7	6.4	-55.3	-13.0	-42.3
3	2812.40	-62.0	-58.3	6.4	-51.9	-13.0	-38.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1406.20	-52.0	-53.3	4.7	-48.6	-13.0	-35.6
2	2109.30	-62.4	-60.6	6.4	-54.2	-13.0	-41.2
3	2812.40	-62.2	-59.1	6.4	-52.7	-13.0	-39.7

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

MODE	Channel 23130	**FREQUENCY RANGE**	Above 1000MHz
INPUT POWER	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	21deg. C, 67%RH
TESTED BY	Aska Huang		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1413.00	-49.7	-48.8	4.7	-44.1	-13.0	-31.1
2	2119.50	-61.8	-59.9	6.4	-53.5	-13.0	-40.5
3	2826.00	-62.2	-58.5	6.4	-52.1	-13.0	-39.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	**Freq. (MHz)**	**Reading (dBm)**	**S.G Power Value (dBm)**	**Correction Factor (dB)**	**ERP (dBm)**	**Limit (dBm)**	**Margin (dB)**
1	1413.00	-51.8	-53.1	4.7	-48.4	-13.0	-35.4
2	2119.50	-62.4	-60.5	6.4	-54.1	-13.0	-41.1
3	2826.00	-61.4	-58.3	6.4	-51.9	-13.0	-38.9

REMARKS:

1. Power Value (dBm) = S.G Power Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

5 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
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Hsin Chu EMC/RF Lab:
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Web Site: www.adt.com.tw

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

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

No any modifications are made to the EUT by the lab during the test.

---END---