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FCC PART 22 AND PART 24 TEST REPORT

FCC Part 22 Subpart H / Part 24 Subpart E

Report Reference No.: **CTL1506041513-WF**

Compiled by: (position+printed name+signature)	Jacky Chen (File administrators)	Jackychen
Tested by: (position+printed name+signature)	Allen Wang (Test Engineer)	Allen Wang
Approved by: (position+printed name+signature)	Tracy Qi (Manager)	Tracy Qi

Product Name.....:	Wireless Infrared Scouting Camera
Model/Type reference.....:	Blackhawk(UM565-3GV)
List Model(s).....:	/
Trade Mark.......:	UOVISION
FCC ID.....:	**2AC8CUM565-3GV2**
Applicant's name.....:	**UOVision Technology (HONGKONG) Co., Ltd.**
Address of applicant......:	UNIT A3, 9/F SILVER INTERNATIONAL TOWER, 707-713 NATHAN ROAD, MONGKOK, KOWLOON,HONGKONG
Test Firm.....:	**Shenzhen CTL Testing Technology Co., Ltd.**
Address of Test Firm.....:	Floor 1-A, Baisha Technology Park, No.3011, Shahexi Road, Nanshan District, Shenzhen, China 518055
Test specification.....:	
Standard.....:	**FCC CFR Title 47 Part 2, Part 22H and Part 24E** **EIA/TIA 603-C: 2004**
TRF Originator……..:	Shenzhen CTL Testing Technology Co., Ltd.
Master TRF……..:	Dated 2011-01
Date of Receipt.....:	Jun. 05, 2015
Date of Test Date.....:	Jun. 06, 2015 - Jun. 11, 2015
Data of Issue.....:	Jun. 12, 2015
Result.......:	Positive

TEST REPORT

Test Report No. :	CTL1506041513-WF	Jun. 12, 2015 Date of issue

Equipment under Test	:	Wireless Infrared Scouting Camera
Model /Type	:	Blackhawk(UM565-3GV)
Listed Models	:	/
Applicant	:	**UOVision Technology (HONGKONG) Co., Ltd.**
Address	:	UNIT A3, 9/F SILVER INTERNATIONAL TOWER, 707-713 NATHAN ROAD, MONGKOK, KOWLOON,HONGKONG
Manufacturer	:	**UOVision Technology（Shenzhen）Co., Ltd.**
Address	:	3rd Floor, East Wing, the 4Th Building, ZhongGuan HongHualing Industrial Zone, 1268# Liuxian BLVD, Nanshan District, Shenzhen, CHN 518055

Test result	Pass *

* In the configuration tested, the EUT complied with the standards specified page 4.

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Contents

1 SUMMARY

1.1 TEST STANDARDS

The tests were performed according to following standards:
FCC Part 22:PRIVATE LAND MOBILE RADIO SERVICES.
FCC Part 24 :PUBLIC MOBILE SERVICES
TIA/EIA 603 D June 2010:Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.
47 CFR FCC Part 15 Subpart B: - Unintentional Radiators
FCC Part 2: FREQUENCY ALLOCA-TIONS AND RADIO TREATY MAT-TERS; GENERAL RULES AND REG-ULATIONS
KDB971168 D01: v02r02 MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS
ANSI C63.4:2009: Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

1.2 Test Description

Test Item	Section in CFR 47	Result
RF Output Power	Part 2.1046 Part 22.913 (a)(2) Part 24.232 (c)	Pass
Peak-to-Average Ratio	Part 24.232 (d)	Pass
99% & -26 dB Occupied Bandwidth	Part 2.1049 Part 22.917 Part 24.238	Pass
Spurious Emissions at Antenna Terminal	Part 2.1051 Part 22.917 (a) Part 24.238 (a)	Pass
Field Strength of Spurious Radiation	Part 2.1053 Part 22.917 (a) Part 24.238 (a)	Pass
Out of band emission, Band Edge	Part 22.917 (a) Part 24.238 (a)	Pass
Frequency stability	Part 2.1055 Part 22.355 Part 24.235	Pass

1.3 Test Facility

1.3.1 Address of the test laboratory

Shenzhen CTL Testing Technology Co., Ltd.
Floor 1-A, Baisha Technology Park, No. 3011, Shahexi Road, Nanshan, Shenzhen 518055 China

There is one 3m semi-anechoic chamber and two line conducted labs for final test. The Test Sites meet the requirements in documents ANSI C63.4 and CISPR 22/EN 55022 requirements.

1.3.2 Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

IC Registration No.: 9618B

The 3m alternate test site of Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration No.: 9618B on November 13, 2013.

FCC-Registration No.: 970318

Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 970318, December 19, 2013.

1.4 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen CTL Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for CTL laboratory is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	4.10dB	(1)
Radiated Emission	Above 1GHz	4.32dB	(1)
Conducted Disturbance	0.15~30MHz	3.20dB	(1)

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

2 GENERAL INFORMATION

2.1 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

2.2 General Description of EUT

Product Name:	Wireless Infrared Scouting Camera
Model/Type reference:	Blackhawk(UM565-3GV)
Power supply:	DC 6V from battery
Serial number:	Prototype
Hardware version:	9100V12BG
Software version:	V1.00.01.00
3G	
Operation Band:	BC0 TX: 824.70 MHz ~ 848.31 MHz BC1 TX:1851.25 MHz ~ 1908.75 MHz
	BC0 RX: 869.70 MHz ~ 893.31 MHz BC1 RX: 1931.25 MHz ~ 1988.75 MHz
Supported Type:	CDMA200 1x RTT CDMA2000 1xEv-DO - Release 0/ CDMA2000 1xEv-DO - Revision A
Modulation Type:	QPSK
Antenna Type:	External omni-antenna
Antenna Gain:	5dBi

Note: For more details, refer to the user's manual of the EUT.

2.3 Description of Test Modes and Test Frequency

The EUT has been tested under typical operating condition. The CUM200 used to control the EUT staying in continuous transmitting and receiving mode for testing. Regards to the frequency band operation: the lowest、middle and highest frequency of channel were selected to perform the test, then shown on this report.

Test Frequency:

Cellular Band		PCS Band	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
1013	824.70	25	1851.25
384	836.52	600	1880.00
777	848.31	1175	1908.75

Note:

1. For the ERP/EIRP and radiated emission test, every axis (X, Y, Z) was verified, and show the worst resulton this report.

2.4 Equipments Used during the Test

Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
Bilog Antenna	Sunol Sciences Corp.	JB1	A061713	2014/07/12	2015/07/11
EMI Test Receiver	R&S	ESCI	103710	2014/07/10	2015/07/09
Spectrum Analyzer	Agilent	E4407B	MY45108355	2014/07/06	2015/07/05
Controller	EM Electronics	Controller EM 1000	N/A	2014/07/06	2015/07/05
Horn Antenna	Sunol Sciences Corp.	DRH-118	A062013	2014/07/12	2015/07/11
Horn Antenna	SCHWARZBECK	BBHA9170	1562	2014/07/12	2015/07/11
Active Loop Antenna	SCHWARZBECK	FMZB1519	1519-037	2014/07/12	2015/07/11
LISN	R&S	ENV216	101316	2014/07/10	2015/07/09
LISN	SCHWARZBECK	NSLK8127	8127687	2014/07/10	2015/07/09
Microwave Preamplifier	HP	8349B	3155A00882	2014/07/10	2015/07/09
Amplifier	HP	8447D	3113A07663	2014/07/10	2015/07/09
Transient Limiter	Com-Power	LIT-153	532226	2014/07/10	2015/07/09
Radio Communication Tester	R&S	CMU200	3655A03522	2014/07/06	2015/07/05
Temperature/Humidity Meter	zhicheng	ZC1-2	22522	2014/07/10	2015/07/09
SIGNAL GENERATOR	HP	8647A	3200A00852	2014/07/10	2015/07/09
Wideband Peak Power Meter	Anritsu	ML2495A	220.23.35	2014/07/06	2015/07/05
Power Sensor	Anritsu	MA2411B	0738552	2014/07/06	2015/07/05
Climate Chamber	ESPEC	EL-10KA	A20120523	2014/07/06	2015/07/05
High-Pass Filter	K&L	9SH10-2700/X12750-O/O	/	2014/07/06	2015/07/05
High-Pass Filter	K&L	41H10-1375/U12750-O/O	/	2014/07/06	2015/07/05
RF Cable	HUBER+SUHNER	RG214	/	2014/07/09	2015/07/08

2.5 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID:2AC8CUM565-3GV2 filing to comply with of the FCC Part 22 and Part 24 Rules.

2.6 Modifications

No modifications were implemented to meet testing criteria.

3 TEST CONDITIONS AND RESULTS

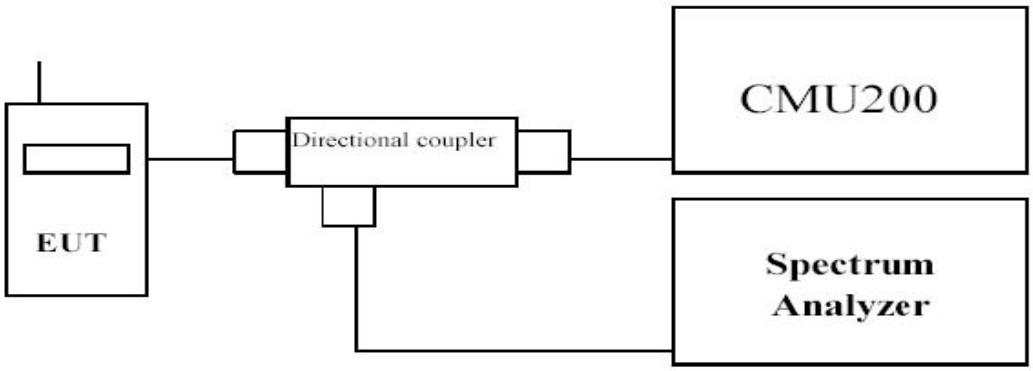
3.1 Output Power

LIMIT

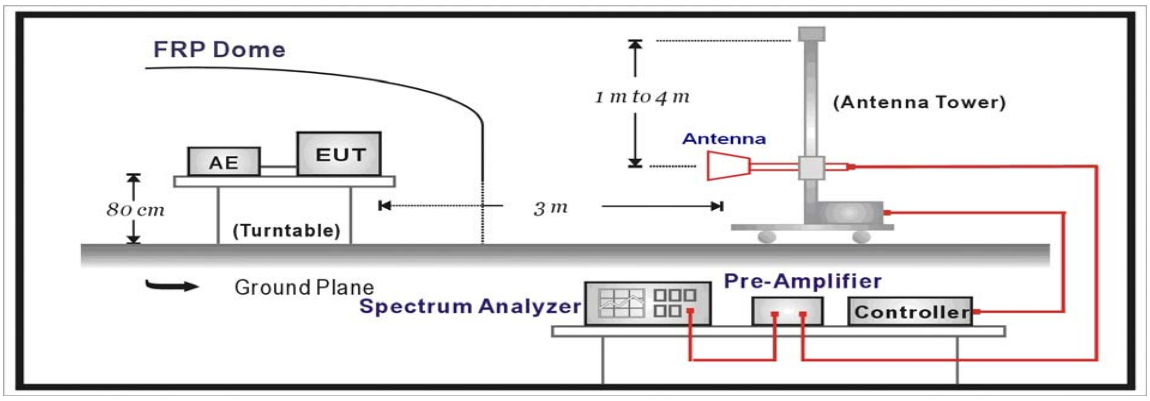
CDMA200 BC0: 7W
CDMA200 BC1: 2W

TEST CONFIGURATION

Conducted Power Measurement



Radiated Power Measurement:



TEST PROCEDURE

The EUT was setup according to EIA/TIA 603C

Conducted Power Measurement:

a) Place the EUT on a bench and set it in transmitting mode.
b) Connect a low loss RF cable from the antenna port to a spectrum analyzer and CMU200 by a Directional Couple.
c) EUT Communicate with CMU200, then select a channel for testing.
d) Add a correction factor to the display of spectrum, and then test.

Radiated Power Measurement:

a) The EUT shall be placed at the specified height on a support, and in the position closest to normal use as declared by provider.
b) The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to thefrequency of the transmitter
c) The output of the test antenna shall be connected to the measuring receiver.
d) The transmitter shall be switched on and the measuring receiver shall be tuned to the frequency of the transmitter under test.
e) e) The test antenna shall be raised and lowered through the specified range of height until a maximum signal level is detected by the measuring receiver.

f) The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.

g) The test antenna shall be raised and lowered again through the specified range of height until a maximum signal level is detected by the measuring receiver.

h) The maximum signal level detected by the measuring receiver shall be noted.

i) The transmitter shall be replaced by a substitution antenna.

j) The substitution antenna shall be orientated for vertical polarization and the length of the substitution antenna shall be adjusted to correspond to the frequency of the transmitter.

k) The substitution antenna shall be connected to a calibrated signal generator.

l) If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.

m) The test antenna shall be raised and lowered through the specified range of height to ensure that the maximum signal is received.

n) The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuator setting of the measuring receiver.

o) The measurement shall be repeated with the test antenna and the substitution antenna orientated for horizontal polarization.

p) The measure of the effective radiated power is the larger of the two levels recorded at the input to the substitution antenna, corrected for gain of the substitution antenna if necessary.

q) Test site anechoic chamber refer to ANSI C63.4:2009

TEST RESULTS

Conducted Measurement:

EUT Mode	Channel	Frequency (MHz)	Avg.Burst Power (dBm)	Peak-to-Average Ratio (dB)	Limit (dBm)	Result
CDMA 1xRTT, BC0, CELL BAND	1013	824.7	24.56	/	38.45	Pass
	384	836.52	24.65	/		
	777	848.31	24.32	/		
CDMA2000 EVDO REV. 0 850MHz BAND	1013	824.7	24.26	/	38.45	Pass
	384	836.52	24.15	/		
	777	848.31	24.36	/		
CDMA2000 EVDO REV A 850MHz BAND	1013	824.7	24.22	/	38.45	Pass
	384	836.52	24.36	/		
	777	848.31	24.15	/		
CDMA2000 1xRTT, BC1, PCS BAND	25	1851.25	24.58	3.26	33.01	Pass
	600	1880.00	24.63	2.54		
	1175	1908.75	24.62	3.26		
CDMA2000 EVDO REV. 0 1900MHz BAND	25	1851.25	24.15	3.41	33.01	Pass
	600	1880.00	24.74	3.52		
	1175	1908.75	24.26	2.98		
CDMA2000 EVDO REV A 1900MHz BAND	25	1851.25	24.33	3.12	33.01	Pass
	600	1880.00	24.54	3.15		
	1175	1908.75	24.15	3.30		

Note:

1. maximum PK burst power=maximum Avg. burst power+Peak-to-Average Ratio.
2. The Peak-to-Average Ratio (PAR) of the transmission may not exceed 13 dB.
3. This device was tested under all R.C.s and S.O.s. The worst case is reported with RC1/SO55 for 1xRTT, FTAP Rate 2Slot 307.2 kbps/RETAP Rate 9.6 kbps for EVDO Rev.0 and FTAP Rate 2Slot 307.2 kbps/RETAP Rate 2048 bits for EVDO Rev.A with 'All Up' power control bits.

Radiated Measurement:

Mode	Channel	Antenna Pol.	SA Reading (dBm)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBd)	ERP	Limit (dBm)	Result
CDMA 1xRTT, BC0, CELL BAND	1013	V	-16.78	28.33	1.77	-0.02	26.54	38.45	Pass
		H	-4.04	20.99	1.77	-0.02	19.20		
	384	V	-16.34	28.64	1.76	0.10	26.98		
		H	-4.23	20.11	1.76	0.10	18.45		
	777	V	-14.71	29.24	1.78	0.13	27.59		
		H	-3.62	20.10	1.78	0.13	18.45		
CDMA2000 EVDO REV. 0, 850MHz BAND	1013	V	-16.99	28.12	1.77	-0.02	26.33	38.45	Pass
		H	-4.06	20.97	1.77	-0.02	19.18		
	384	V	-16.32	28.66	1.76	0.10	27.00		
		H	-4.44	19.90	1.76	0.10	18.24		
	777	V	-14.65	29.30	1.78	0.13	27.65		
		H	-3.93	19.79	1.78	0.13	18.14		
CDMA2000 EVDO REV A, 850MHz BAND	1013	V	-17.06	28.05	1.77	-0.02	26.26	38.45	Pass
		H	-3.90	21.13	1.77	-0.02	19.34		
	384	V	-16.88	28.10	1.76	0.10	26.44		
		H	-4.12	20.22	1.76	0.10	18.56		
	777	V	-14.80	29.15	1.78	0.13	27.50		
		H	-3.20	20.52	1.78	0.13	18.87		

Mode	Channel	Antenna Pol.	SA Reading (dBm)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP	Limit (dBm)	Result
CDMA2000 1xRTT, BC1, PCS BAND	25	V	18.94	17.53	2.66	10.39	25.26	33.01	Pass
		H	11.35	9.75	2.66	10.39	17.48		
	600	V	20.01	18.51	2.68	10.43	26.26		
		H	12.56	10.72	2.68	10.43	18.47		
	1175	V	20.00	18.64	2.69	10.44	26.39		
		H	11.64	9.83	2.69	10.44	17.58		
CDMA2000 EVDO REV. 0, 1900MHz BAND	25	V	20.55	19.14	2.66	10.39	26.87	33.01	Pass
		H	10.71	9.11	2.66	10.39	16.84		
	600	V	21.85	20.35	2.68	10.43	28.10		
		H	12.86	11.02	2.68	10.43	18.77		
	1175	V	20.87	19.51	2.69	10.44	27.26		
		H	11.38	9.57	2.69	10.44	17.32		
CDMA2000 EVDO REV A, 1900MHz BAND	25	V	20.33	18.92	2.66	10.39	26.65	33.01	Pass
		H	10.61	9.01	2.66	10.39	16.74		
	600	V	21.87	20.37	2.68	10.43	28.12		
		H	12.81	10.97	2.68	10.43	18.72		
	1175	V	20.91	19.55	2.69	10.44	27.30		
		H	11.37	9.56	2.69	10.44	17.31		

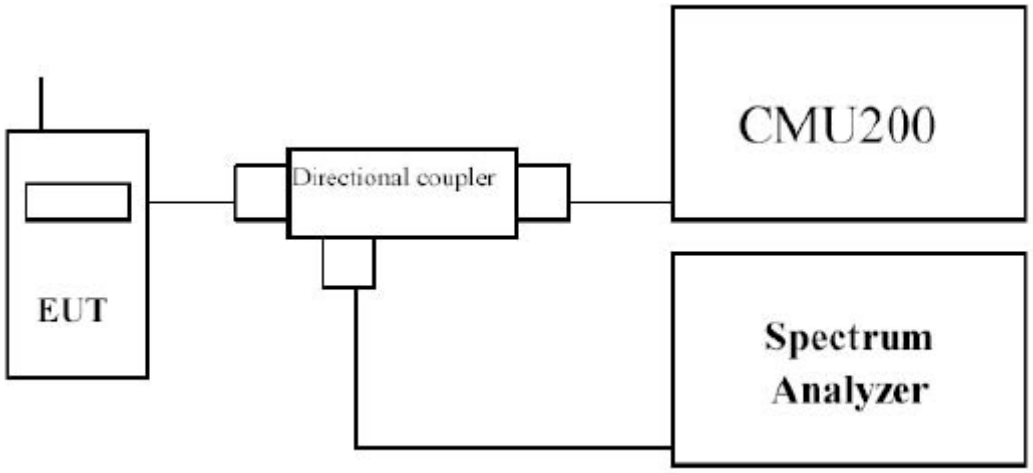
Note:
This device was tested under all R.C.s and S.O.s. The worst case is reported with RC1/SO55 for 1xRTT, FTAP Rate 2Slot 307.2 kbps/RETAP Rate 9.6 kbps for EVDO Rev.0 and FTAP Rate 2Slot 307.2 kbps/RETAP Rate 2048 bits for EVDO Rev.A with 'All Up' power control bits.

3.2 Occupied Bandwidth

LIMIT

N/A

TEST CONFIGURATION

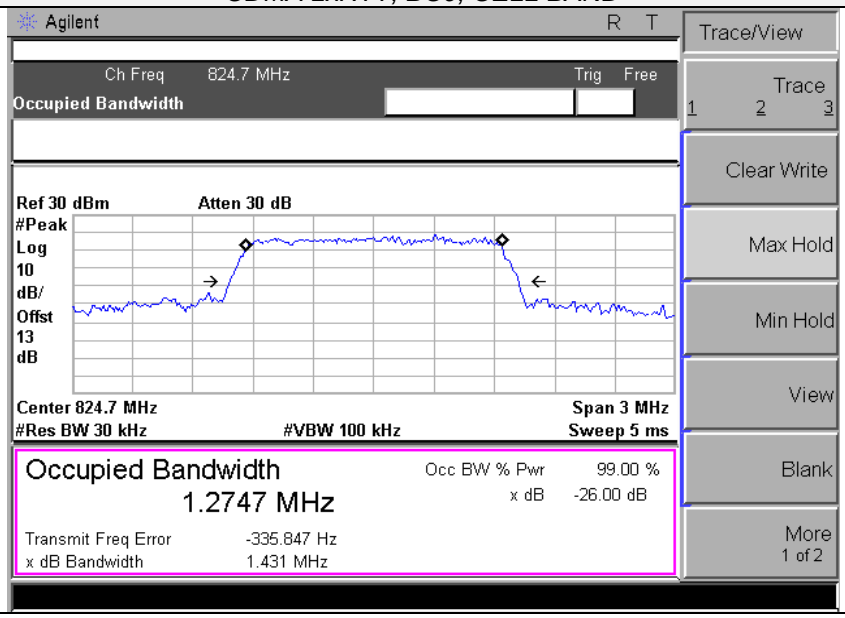


TEST PROCEDURE

1. The EUT's output RF connector was connected with a short cable to the spectrum analyzer
2. RBW was set to about 1% of emission BW, VBW≥3 times RBW.
3. -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.

TEST RESULTS

EUT Mode	Channel	Frequency (MHz)	99% Occupy bandwidth (MHz)	-26dB bandwidth (MHz)
CDMA 1xRTT, BC0, CELL BAND	1013	824.70	1.275	1.431
	384	836.52	1.278	1.434
	777	848.31	1.182	1.444
CDMA2000 EVDO REV. 0, 850MHz BAND	1013	824.70	1.279	1.425
	384	836.52	1.274	1.433
	777	848.31	1.278	1.440
CDMA2000 EVDO REV A, 850MHz BAND	1013	824.70	1.282	1.432
	384	836.52	1.281	1.447
	777	848.31	1.278	1.435
CDMA2000 1xRTT, BC1, PCS BAND	25	1851.25	1.284	1.453
	600	1880.00	1.273	1.440
	1175	1908.75	1.275	1.432
CDMA2000 EVDO REV. 0, 1900MHz BAND	25	1851.25	1.276	1.448
	600	1880.00	1.270	1.422
	1175	1908.75	1.277	1.434
CDMA2000 EVDO REV A, 1900MHz BAND	25	1851.25	1.279	1.461
	600	1880.00	1.271	1.427
	1175	1908.75	1.276	1.424

CDMA 1xRTT, BC0, CELL BAND

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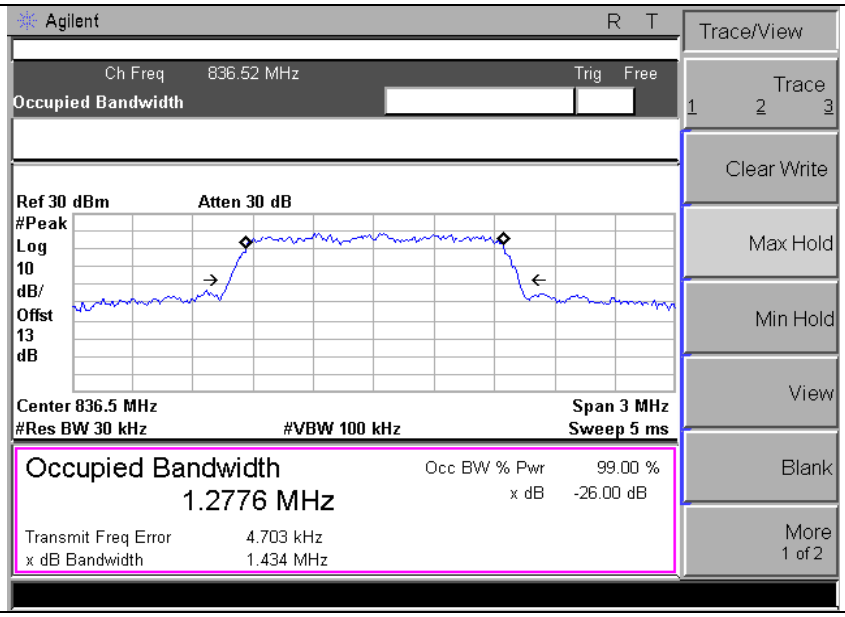
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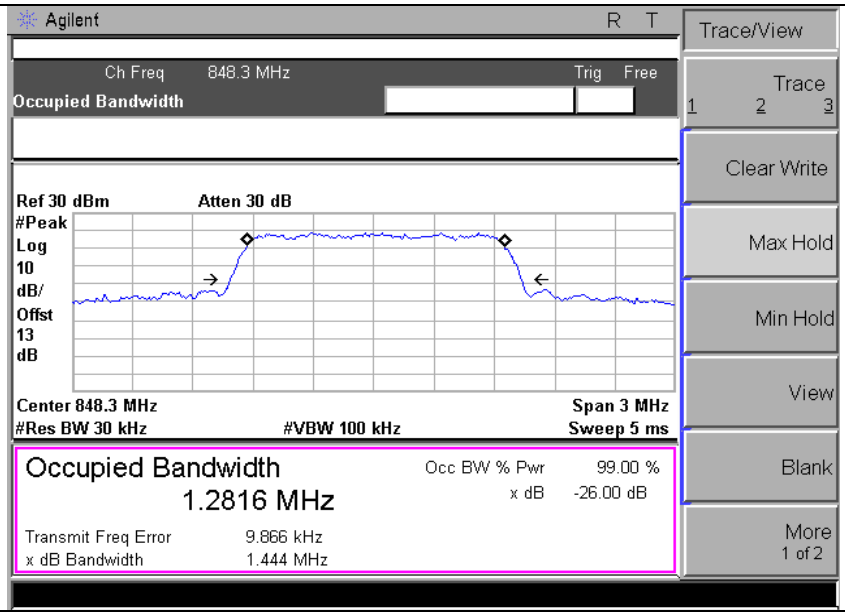
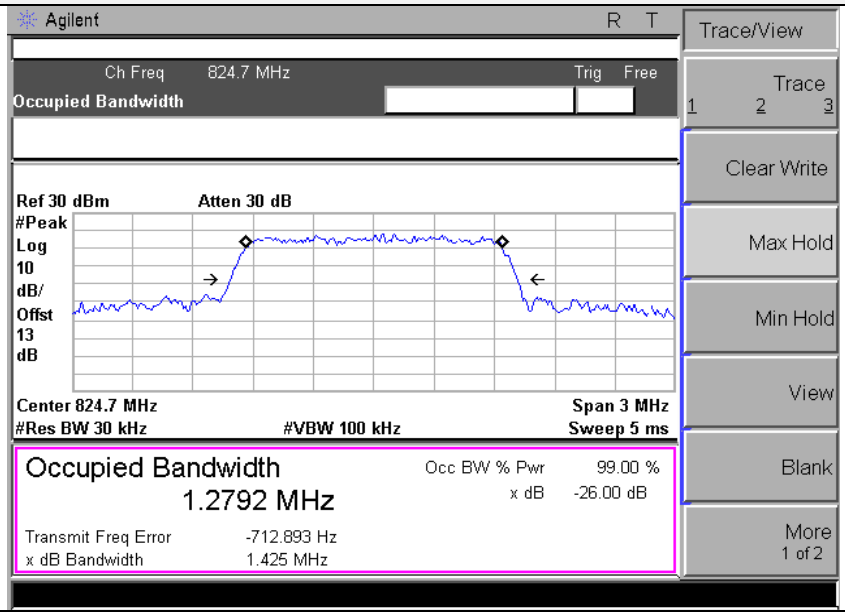

Channel 777

CDMA2000 EVDO REV. 0 850MHz BAND



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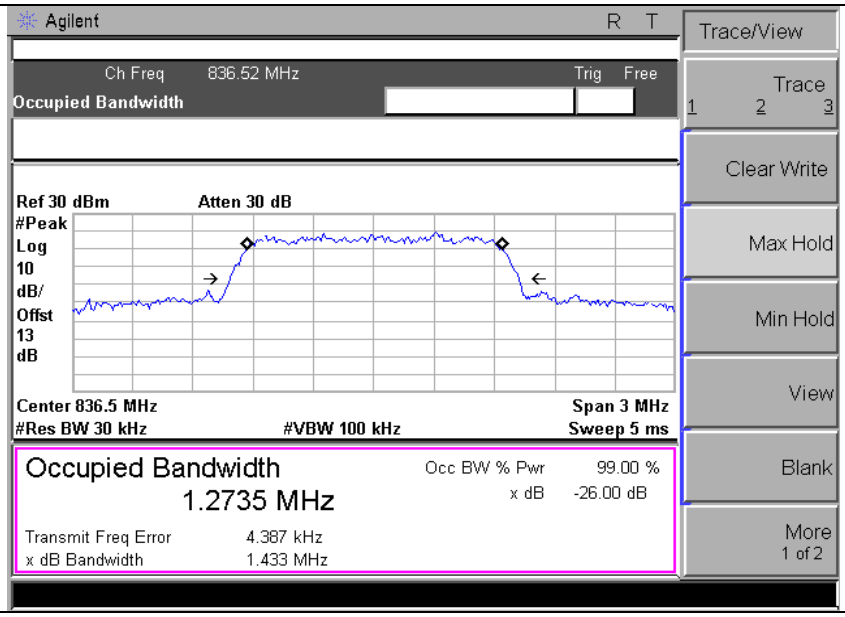

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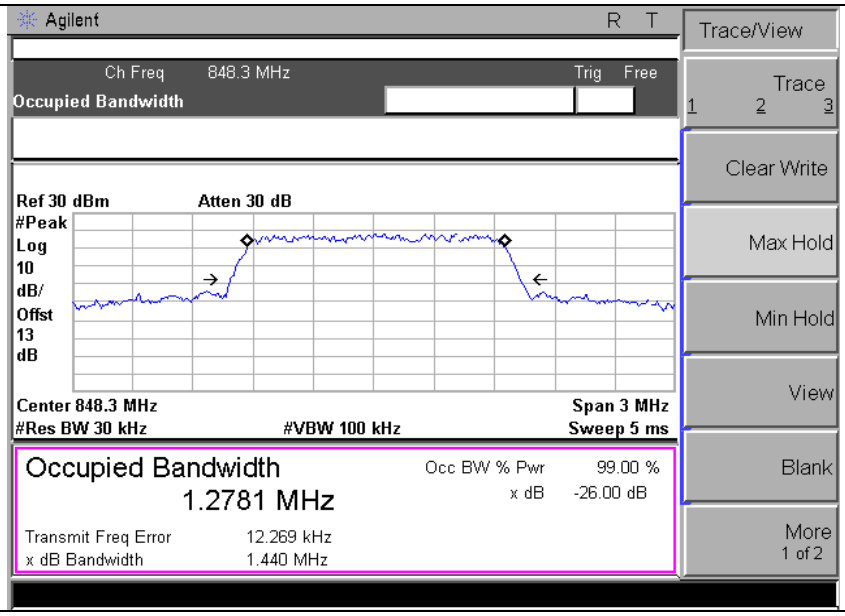
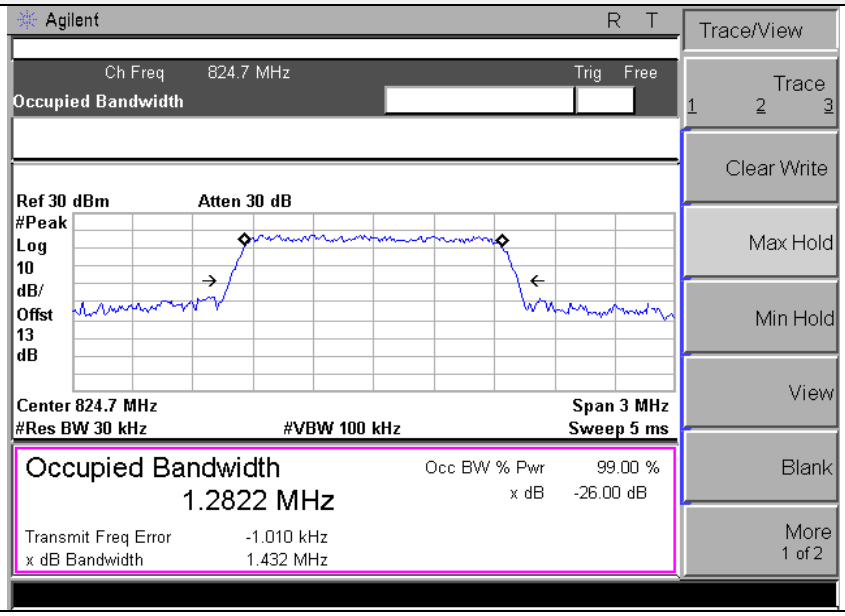


Channel 777

CDMA2000 EVDO REV A 850MHz BAND



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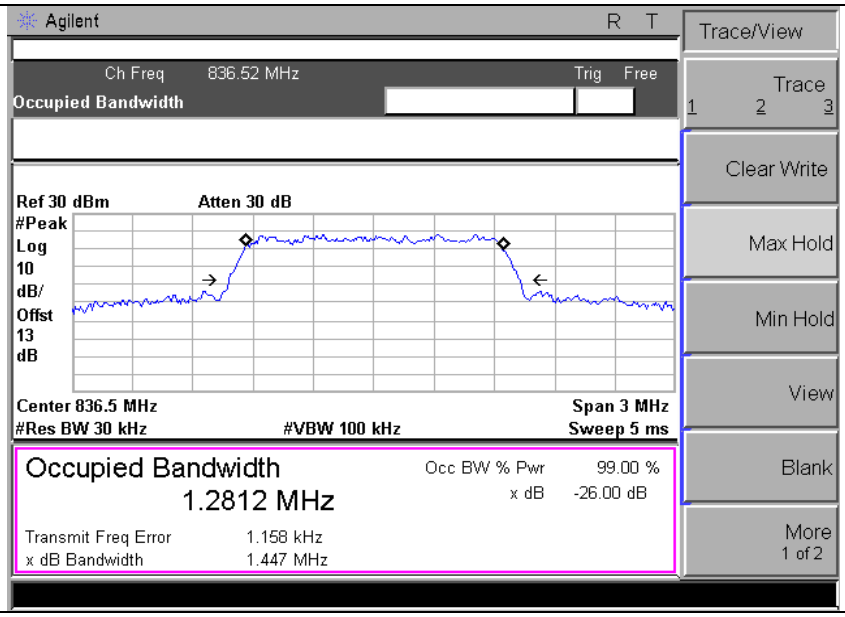

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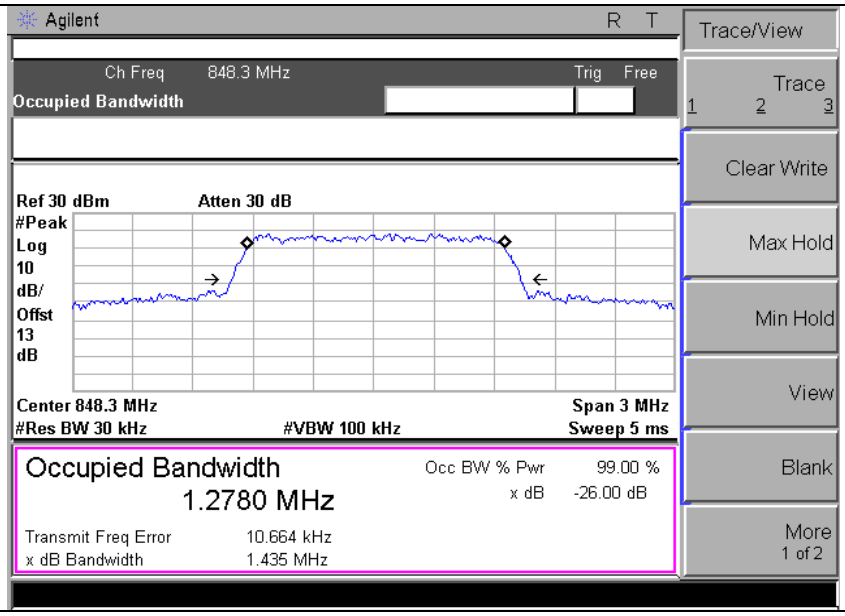
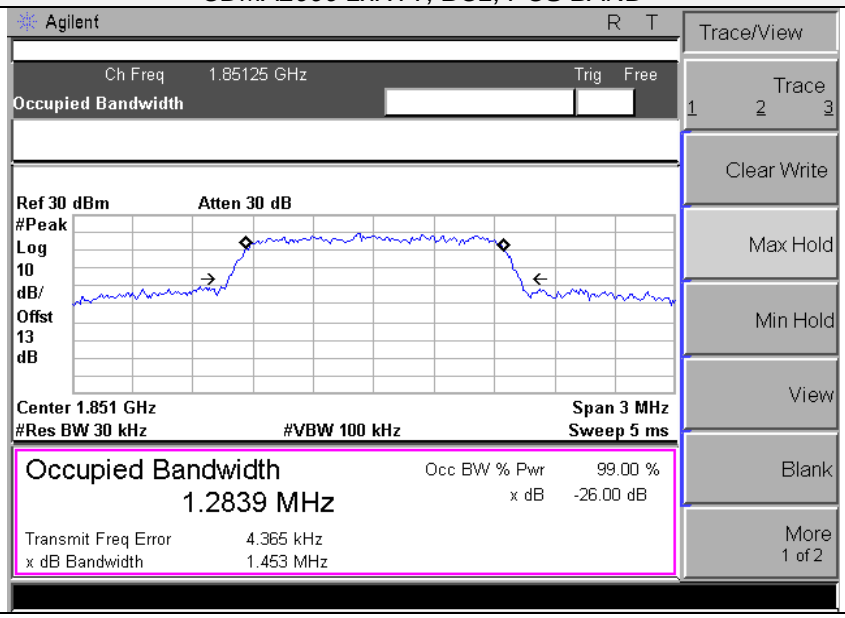


Channel 777

CDMA2000 1xRTT, BC1, PCS BAND



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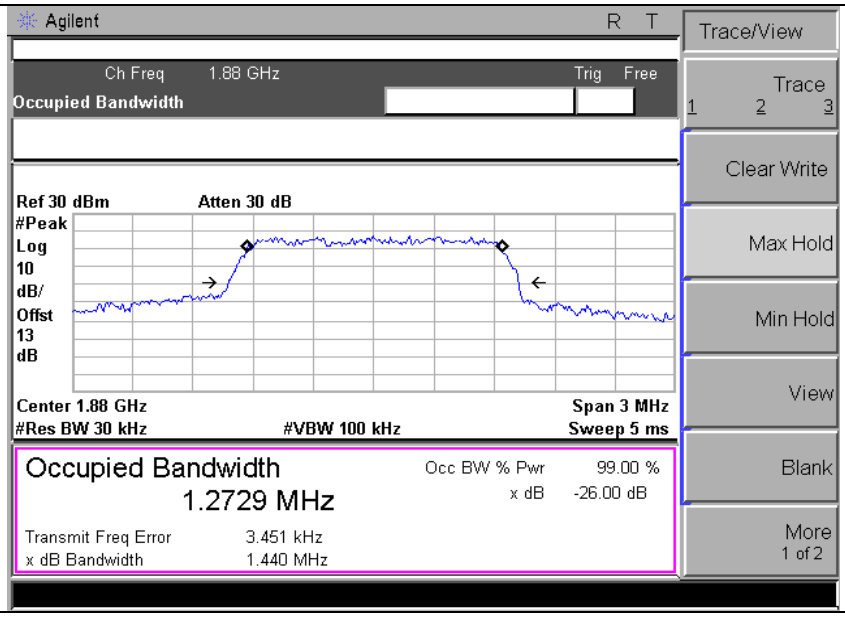
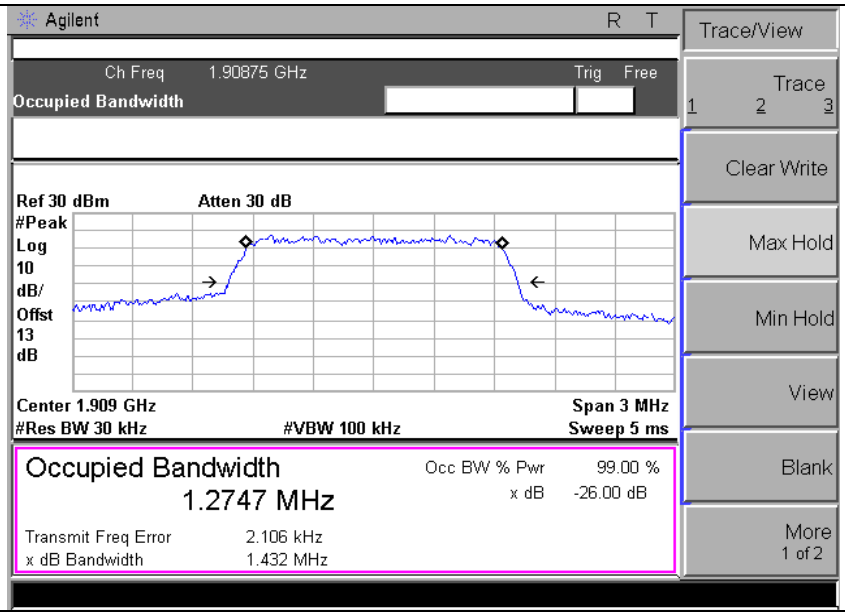
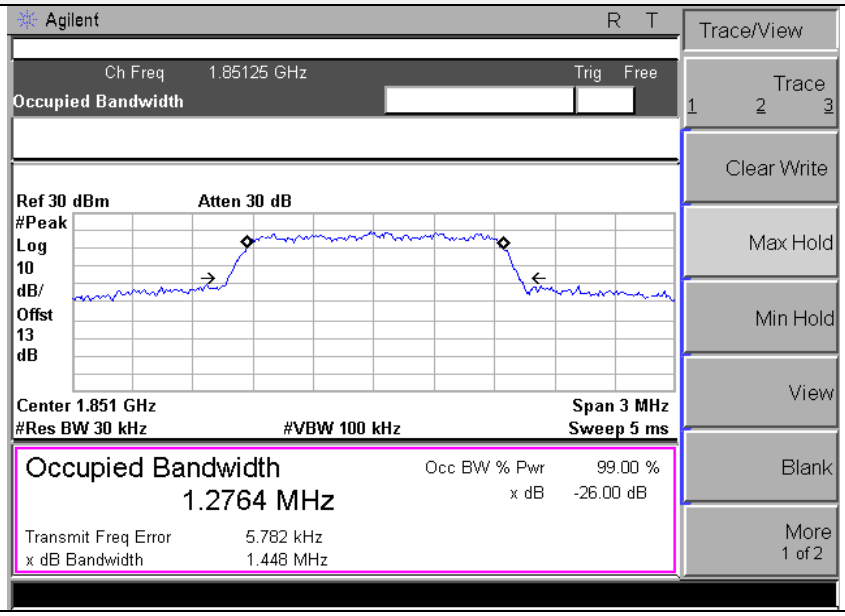
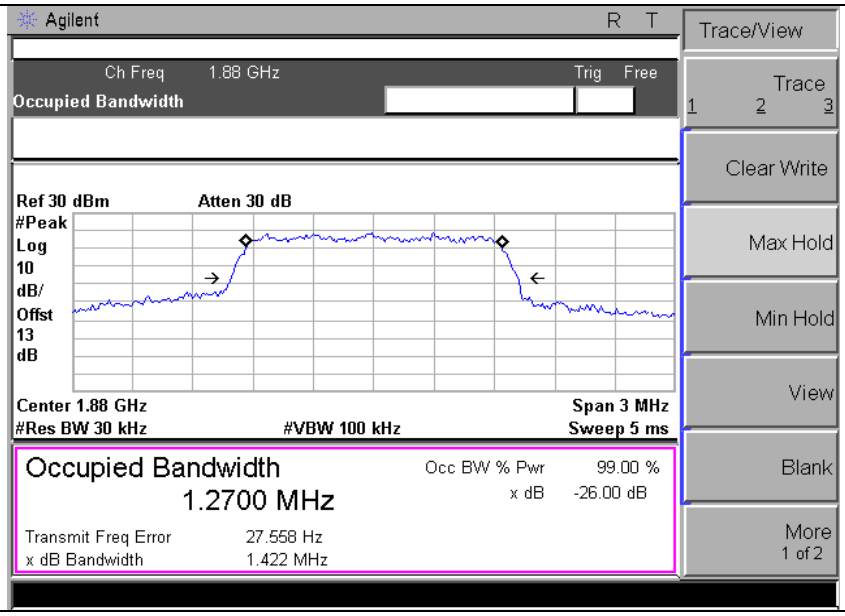
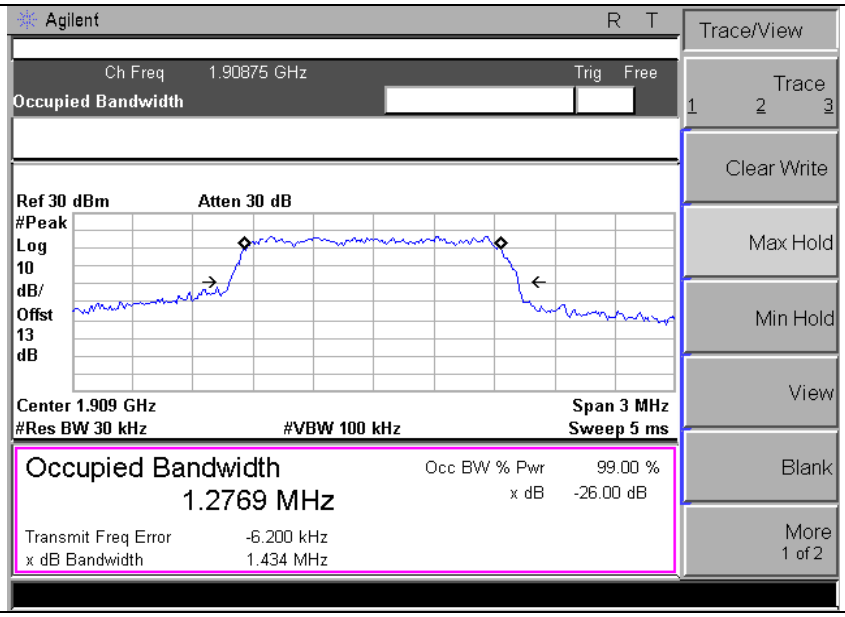


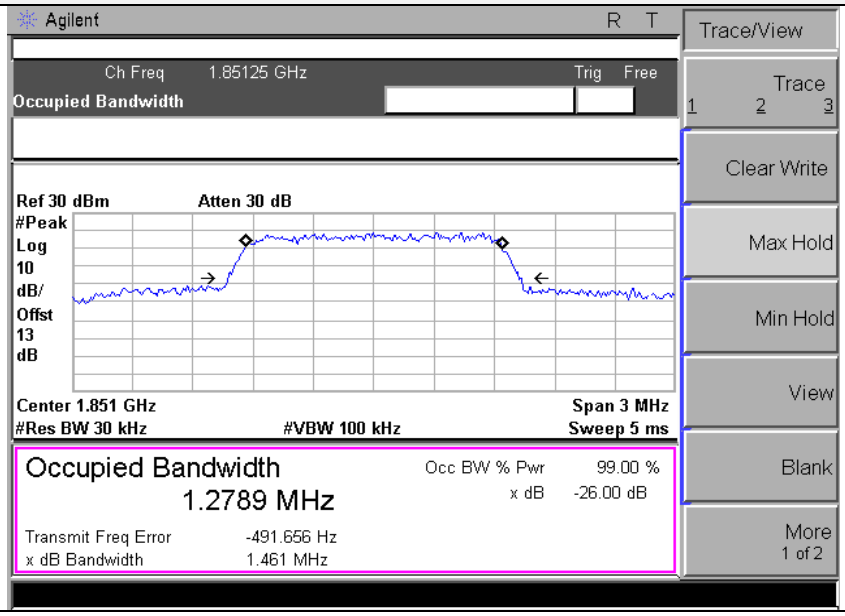
Channel 600



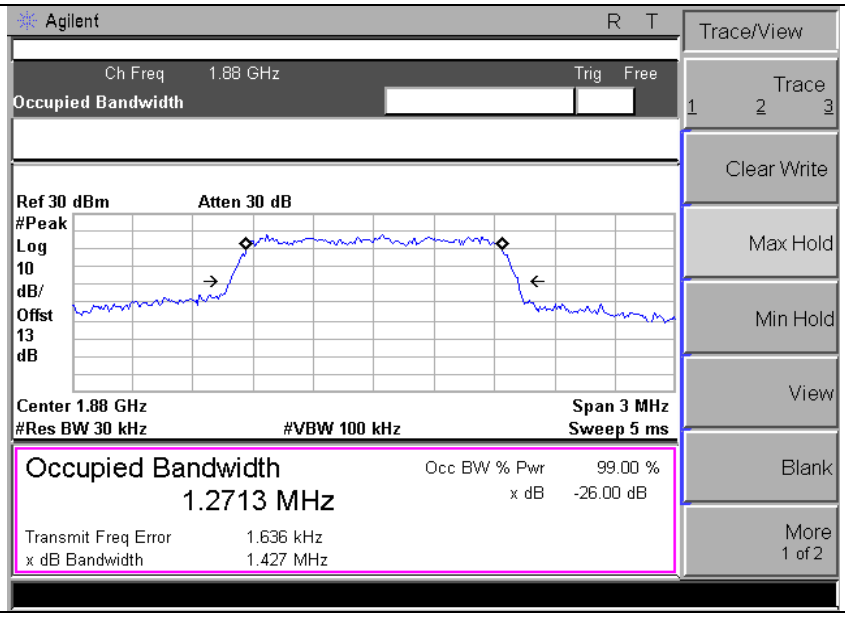
Channel 1175

CDMA2000 EVDO REV. 0 1900MHz BAND

Channel 25

Channel 600

Channel 1175

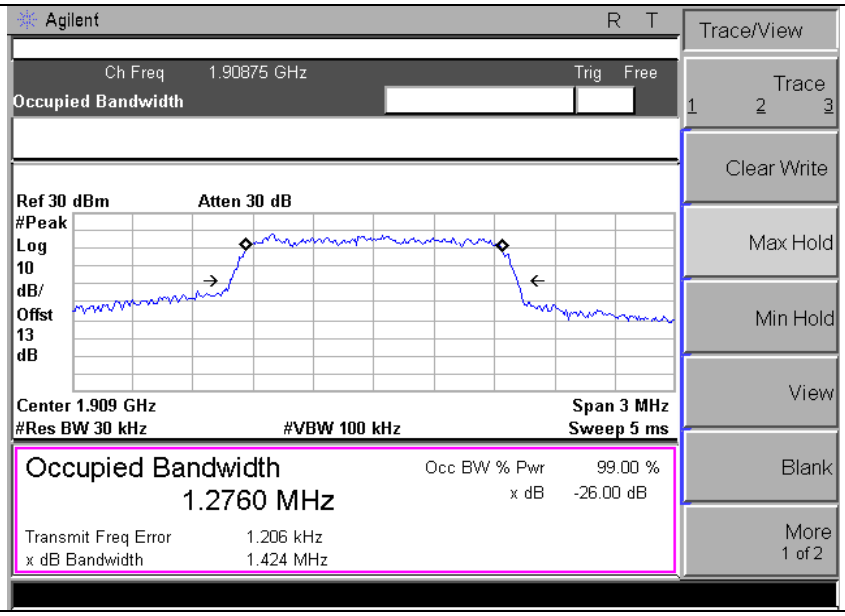
CDMA2000 EVDO REV A 1900MHz BAND



Channel 25



Channel 600



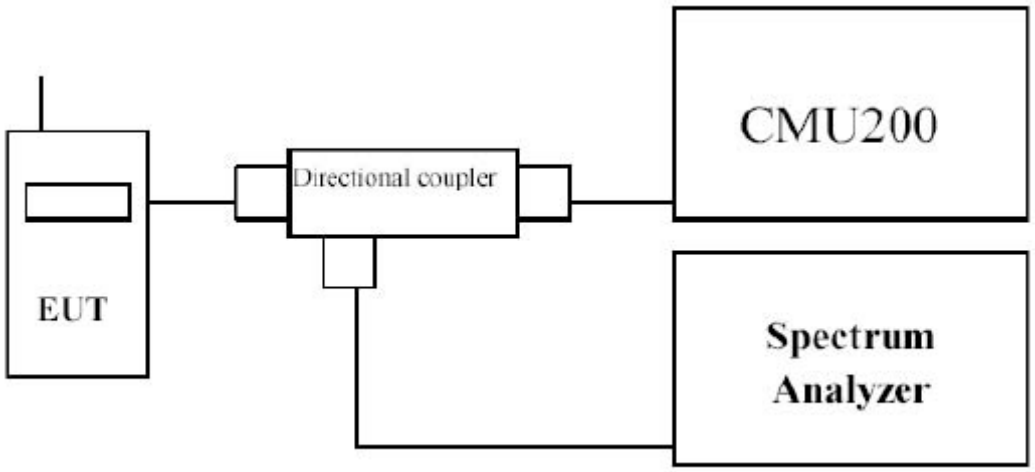
Channel 1175

3.3 Band Edge compliance

LIMIT

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 + 10log(P) dB.

TEST CONFIGURATION

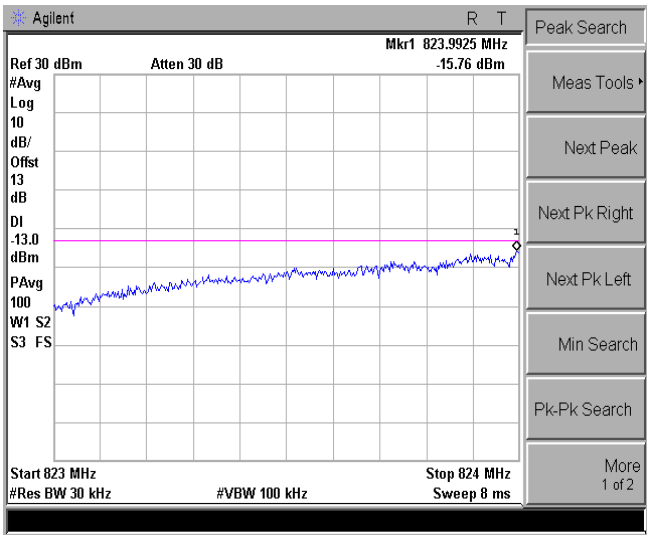


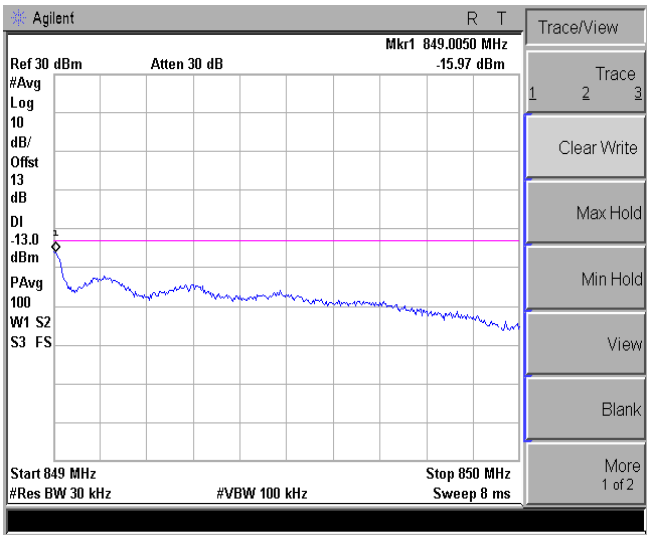
TEST PROCEDURE

In the 1MHz 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 to measure the out of band Emissions.

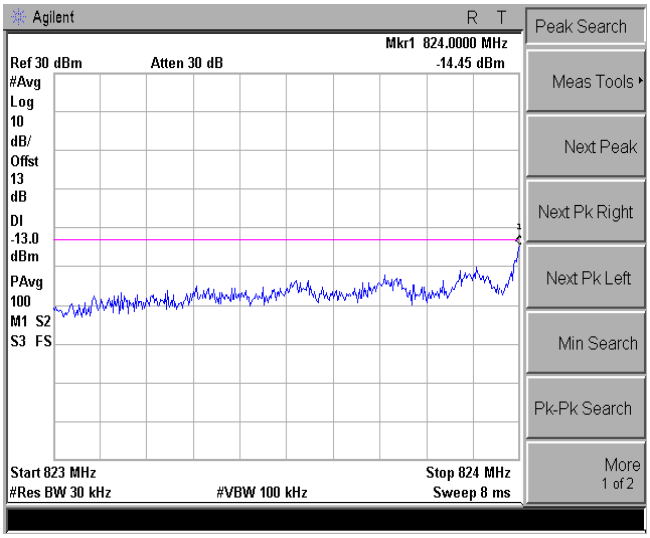
TEST RESULTS

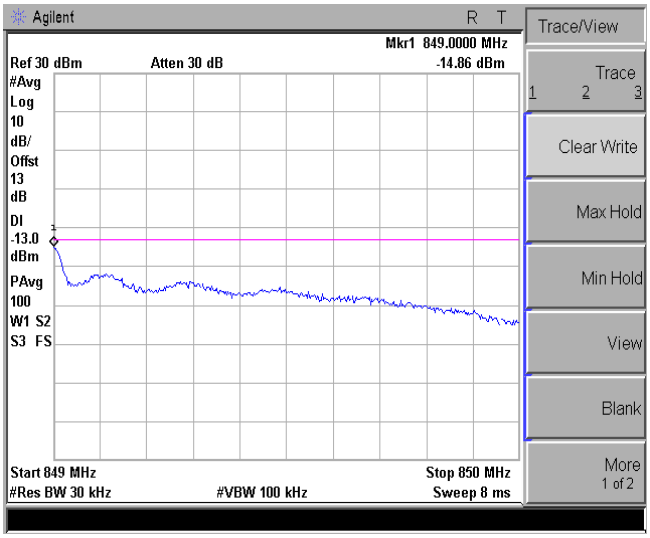
CDMA 1xRTT, BC0, CELL BAND					
Channel Number	Frequency (MHz)	Max Measurement Results		Limit (dBm)	Verdict
		Frequency (MHz)	Values (dBm)		
1013	824.70	823.9925	-15.76	-13.00	Pass
777	848.31	849.0050	-15.97	-13.00	Pass



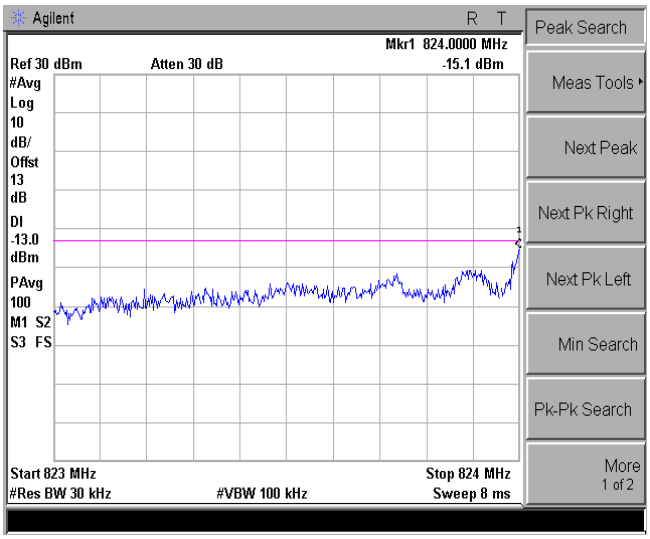


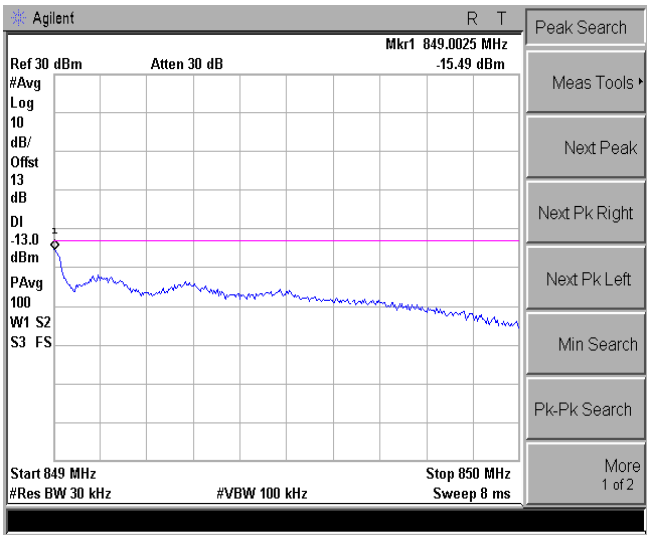
CDMA2000 EVDO REV. 0, 850MHz BAND					
Channel Number	Frequency (MHz)	Max Measurement Results		Limit (dBm)	Verdict
		Frequency (MHz)	Values (dBm)		
1013	824.70	824.0000	-14.45	-13.00	Pass
777	848.31	849.0000	-14.86	-13.00	Pass



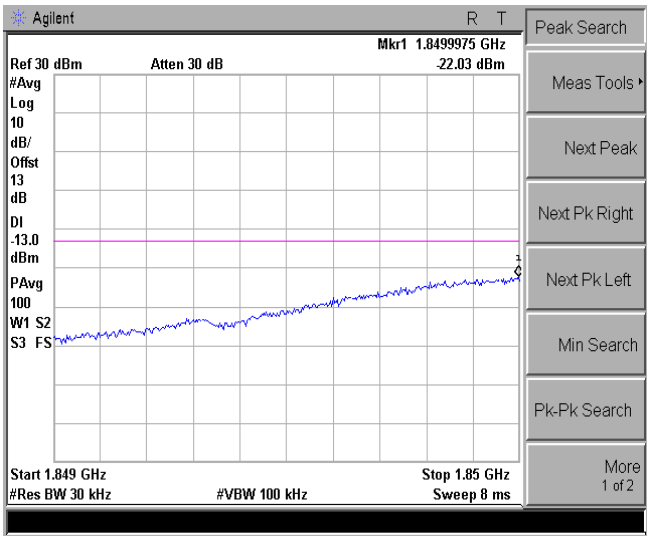


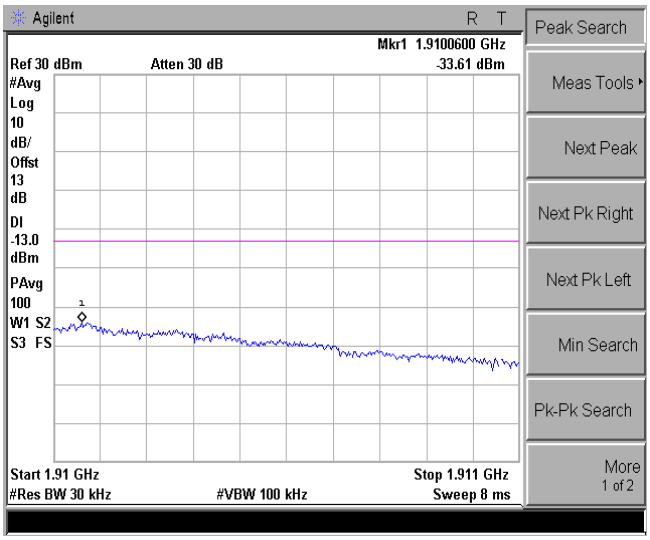
CDMA2000 EVDO REV A, 850MHz BAND					
Channel Number	Frequency (MHz)	Max Measurement Results		Limit (dBm)	Verdict
		Frequency (MHz)	Values (dBm)		
1013	824.70	824.0000	-15.10	-13.00	Pass
777	848.31	849.0025	-15.49	-13.00	Pass



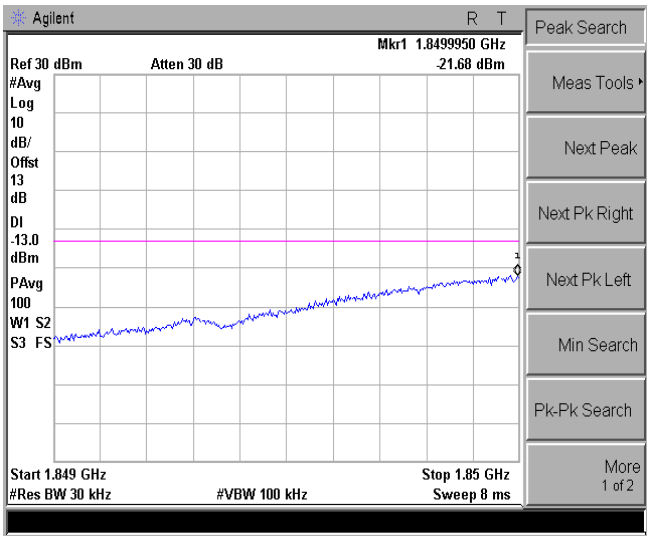


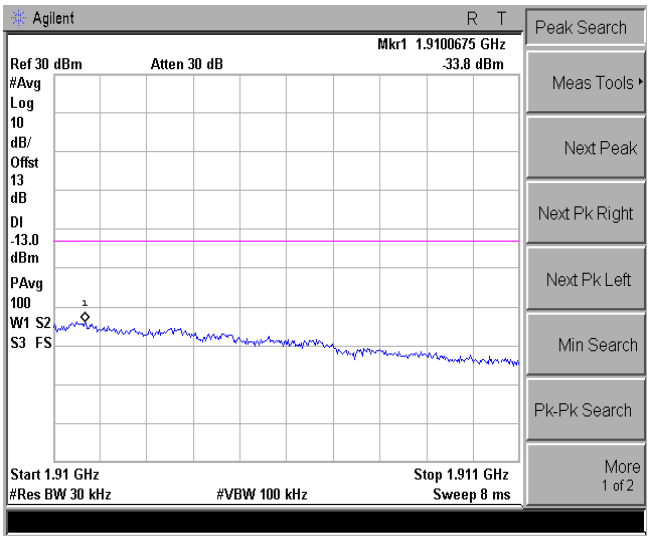
CDMA2000 1xRTT, BC1, PCS BAND					
Channel Number	Frequency (MHz)	Max Measurement Results		Limit (dBm)	Verdict
		Frequency (MHz)	Values (dBm)		
25	1851.25	1849.9975	-22.03	-13.00	Pass
1175	1909.75	1910.0600	-33.61	-13.00	Pass



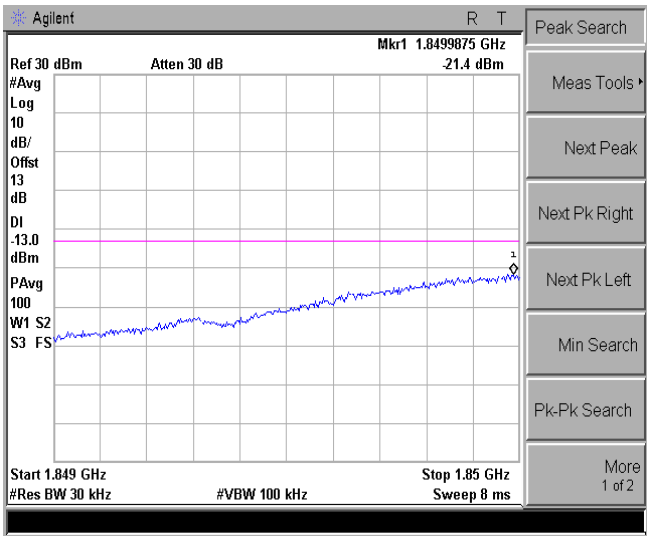


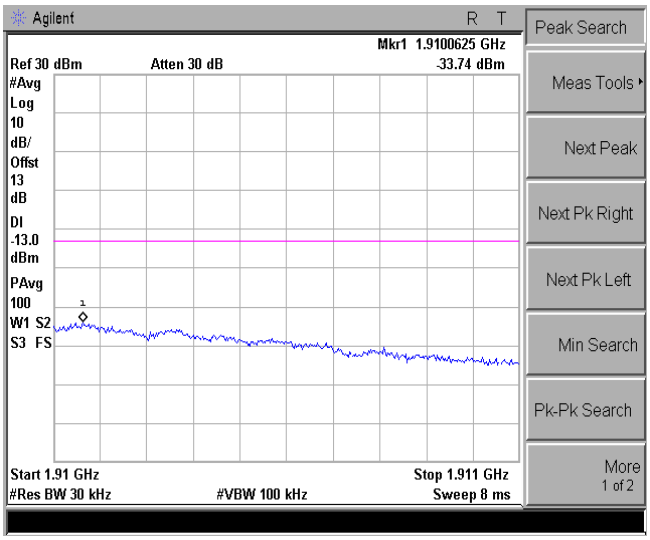
CDMA2000 EVDO REV. 0, 1900MHz BAND					
Channel Number	Frequency (MHz)	Max Measurement Results		Limit (dBm)	Verdict
		Frequency (MHz)	Values (dBm)		
25	1851.25	1849.9950	-21.68	-13.00	Pass
1175	1909.75	1910.0675	-33.80	-13.00	Pass





CDMA2000 EVDO REV A, 1900MHz BAND					
Channel Number	Frequency (MHz)	Max Measurement Results		Limit (dBm)	Verdict
		Frequency (MHz)	Values (dBm)		
25	1851.25	1849.9875	-21.40	-13.00	Pass
1175	1909.75	1910.0625	-33.74	-13.00	Pass





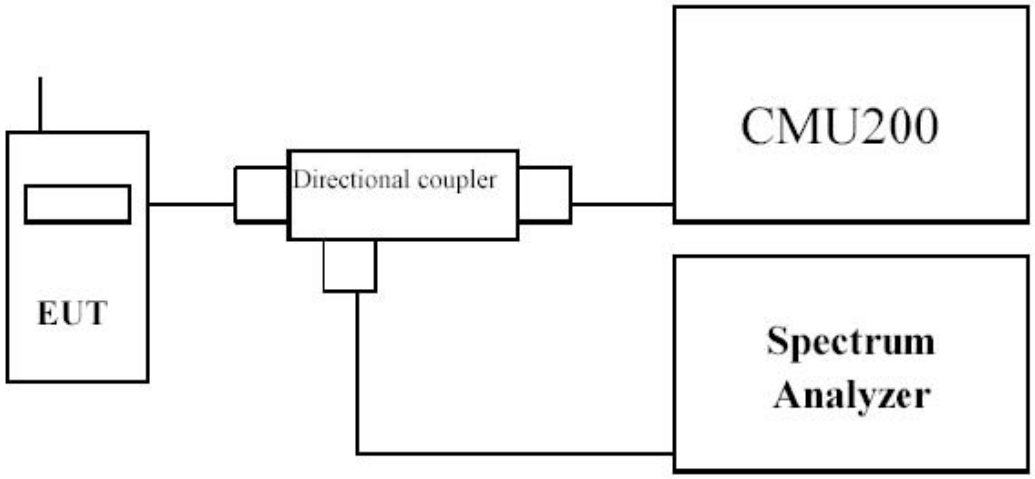
3.4 Spurious Emission

LIMIT

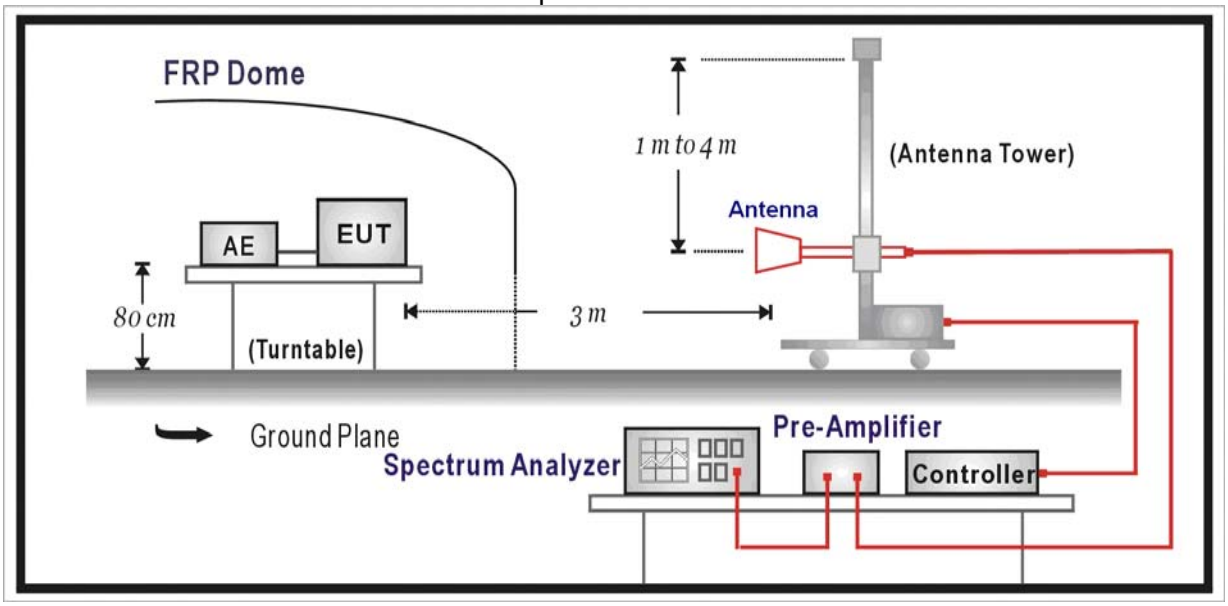
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10log(P) dB.

TEST CONFIGURATION

Conducted Spurious Measurement:



Radiated Spurious Measurement:



TEST PROCEDURE

The EUT was setup according to EIA/TIA 603C

Conducted Spurious Measurement:

a) Place the EUT on a bench and set it in transmitting mode.

b) Connect a low loss RF cable from the antenna port to a spectrum analyzer and CMU200 by a Directional Couple.

c) EUT Communicate with CMU200, then select a channel for testing.

d) Add a correction factor to the display of spectrum, and then test.

e) The resolution bandwidth of the spectrum analyzer was set at 1MHz for Part 22 and 1MHz for Part 24, sufficient scans were taken to show the out of band Emission if any up to10th harmonic.

Radiated Spurious Measurement:

a) The EUT shall be placed at the specified height on a support, and in the position closest to normal use as declared by provider.

b) The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to the frequency of the transmitter

c) The output of the test antenna shall be connected to the measuring receiver.

d) The transmitter shall be switched on and the measuring receiver shall be tuned to the frequency of the transmitter under test.

e) The test antenna shall be raised and lowered through the specified range of height until a maximum signal level is detected by the measuring receiver.

f) The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.

g) The test antenna shall be raised and lowered again through the specified range of height until a maximum signal level is detected by the measuring receiver.

h) The maximum signal level detected by the measuring receiver shall be noted.

i) The transmitter shall be replaced by a substitution antenna.

j) The substitution antenna shall be orientated for vertical polarization and the length of the substitution antenna shall be adjusted to correspond to the frequency of the transmitter.

k) The substitution antenna shall be connected to a calibrated signal generator.

l) If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.

m) The test antenna shall be raised and lowered through the specified range of height to ensure that the maximum signal is received.

n) The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuator setting of the measuring receiver.

o) The measurement shall be repeated with the test antenna and the substitution antenna orientated for horizontal polarization.

p) The measure of the effective radiated power is the larger of the two levels recorded at the input to the substitution antenna, corrected for gain of the substitution antenna if necessary.

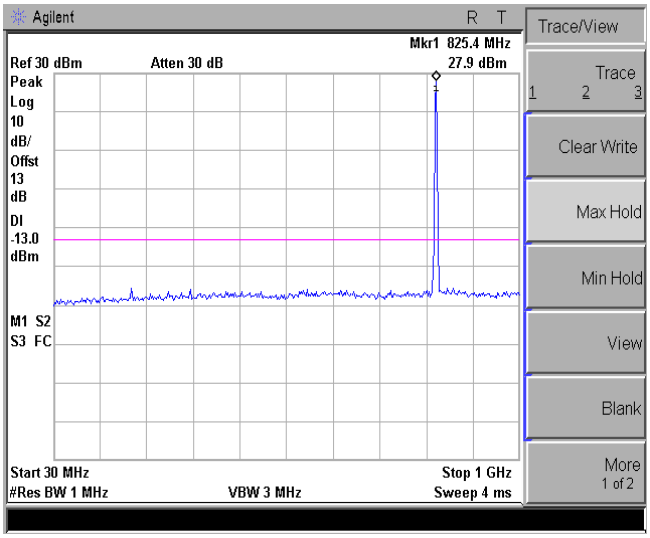
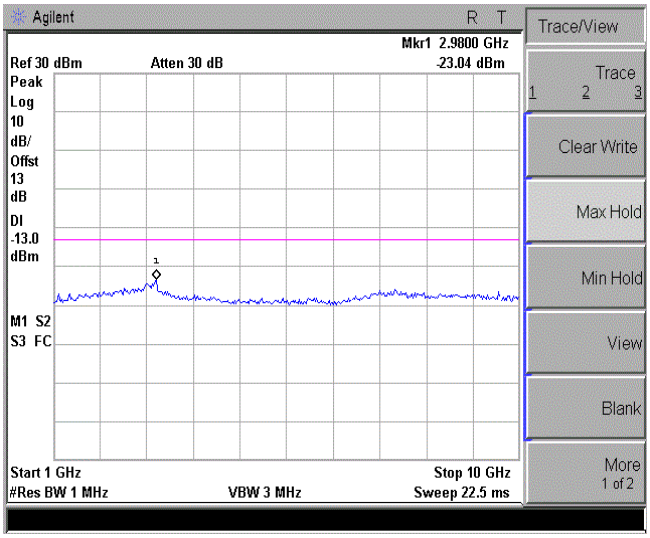
q) The resolution bandwidth of the spectrum analyzer was set at 100 kHz for Part 22 and 1MHz for Part 24. The frequency range was checked up to 10th harmonic.

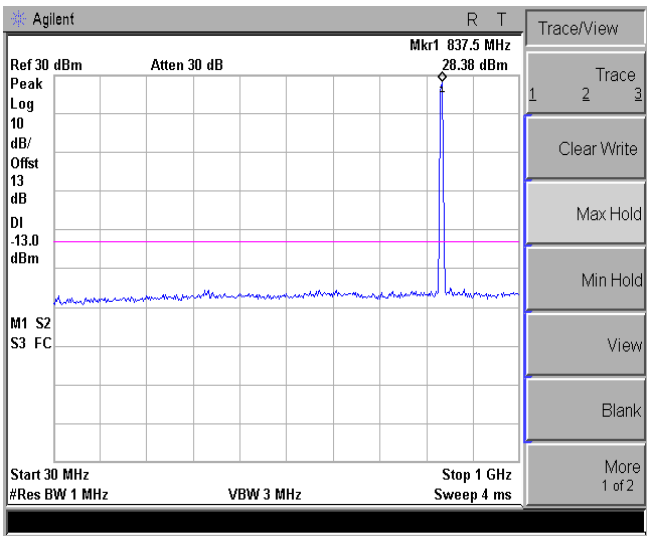
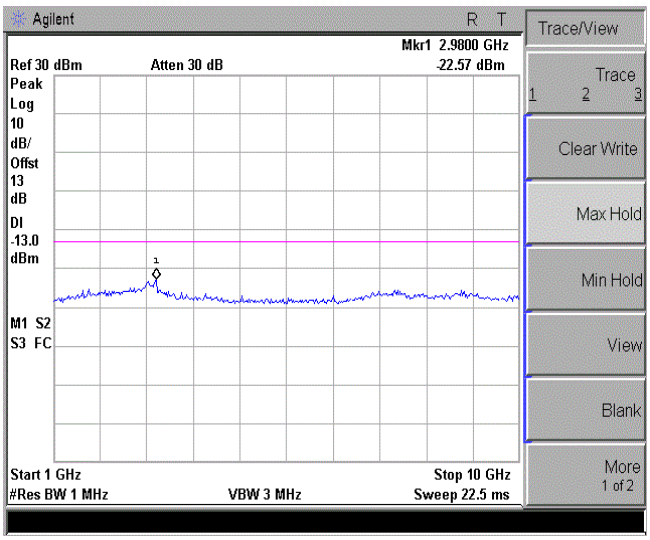
r) Test site anechoic chamber refer to ANSI C63.4: 2009

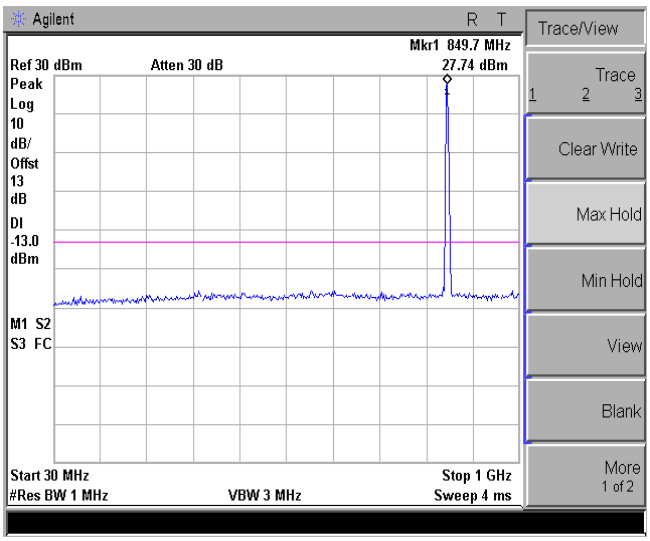
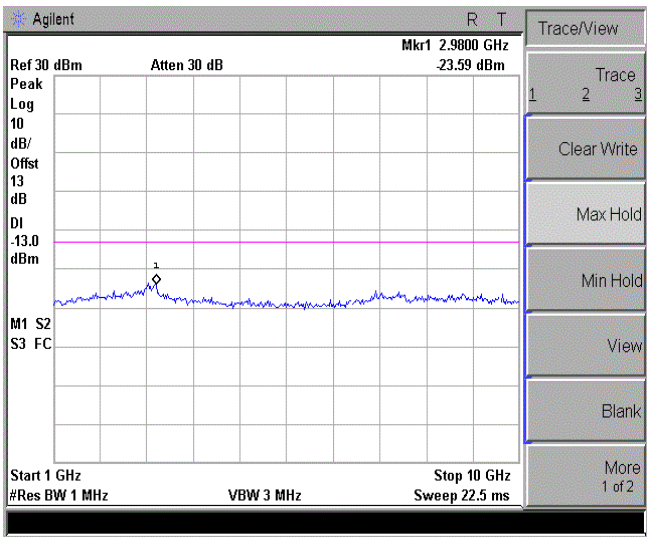
TEST RESULTS

Conducted Measurement:

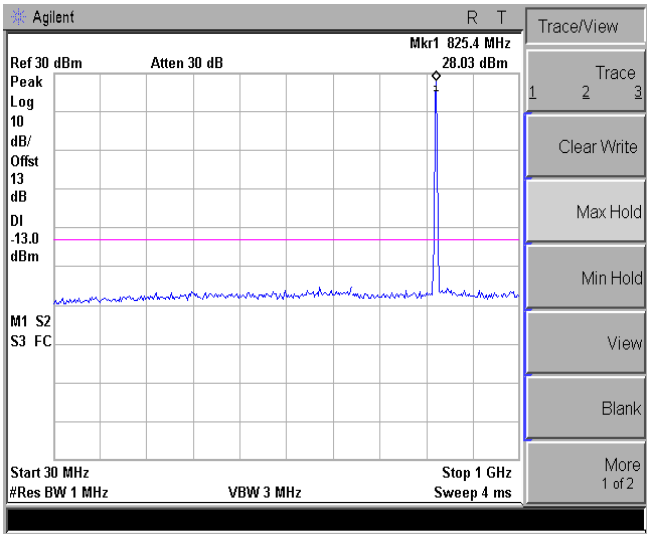
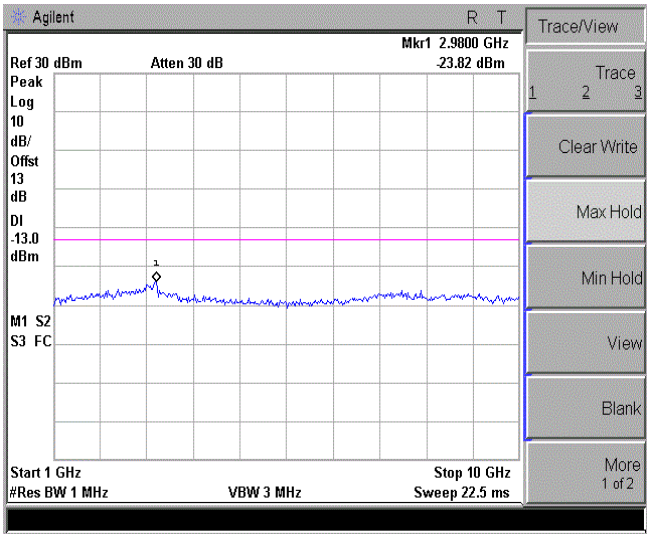
CDMA 1xRTT, BC0, CELL BAND

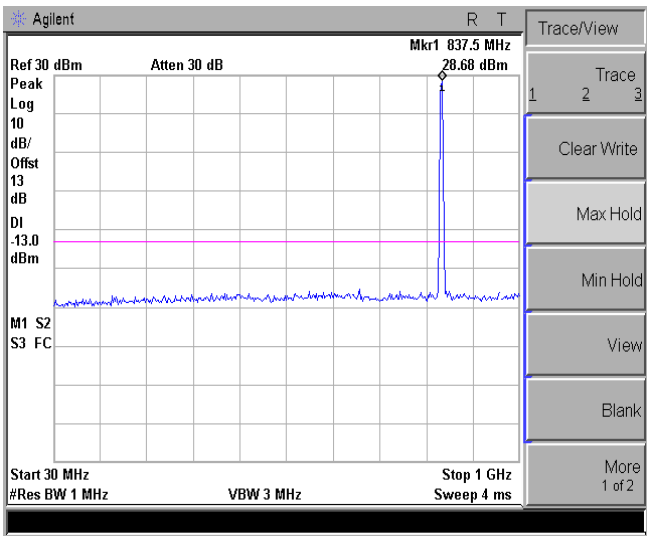
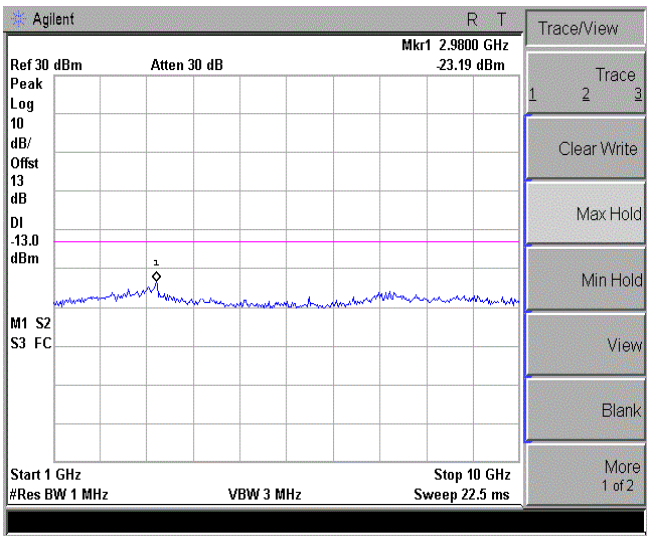
Channel:	1013
	
30MHz~1GHz	*1GHz~10GHz*

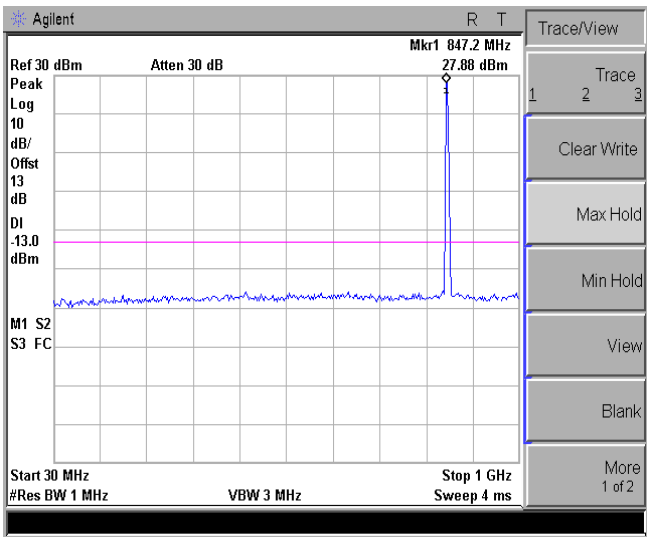
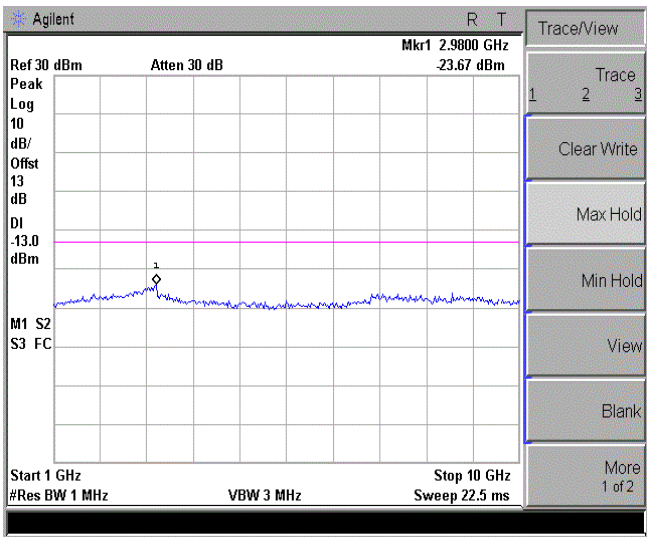
Channel:	384
	
30MHz~1GHz	*1GHz~10GHz*

Channel:	777
	
30MHz~1GHz	*1GHz~10GHz*

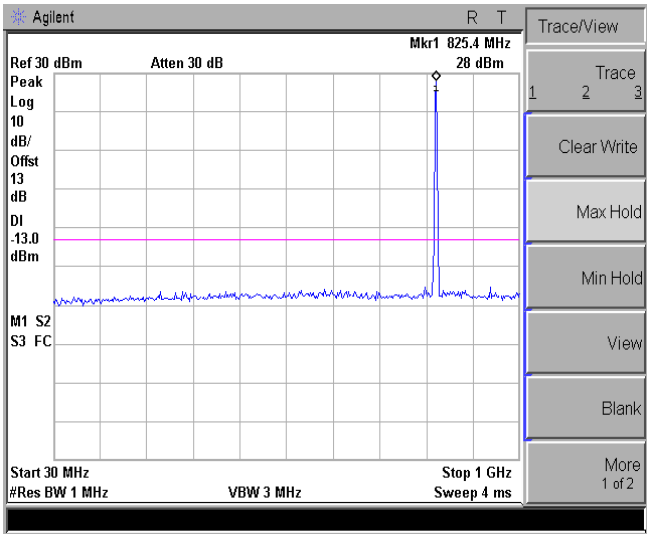
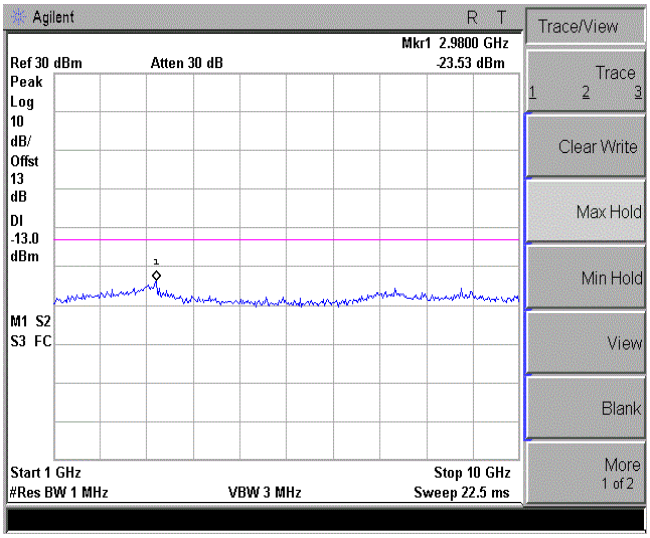
CDMA2000 EVDO REV. 0 850MHz BAND

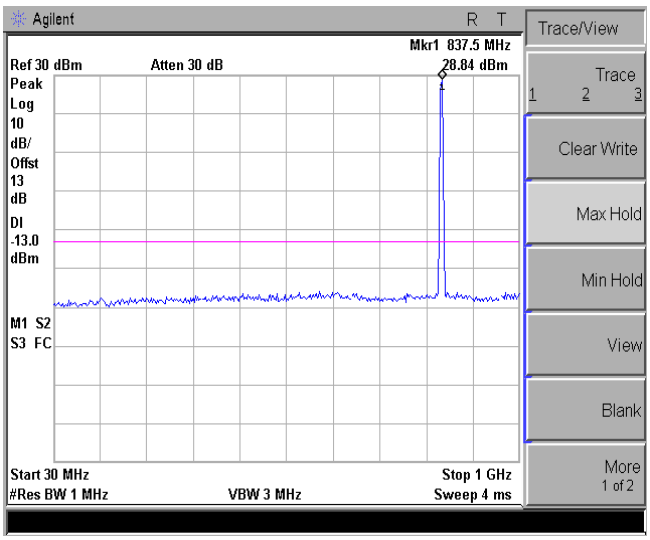
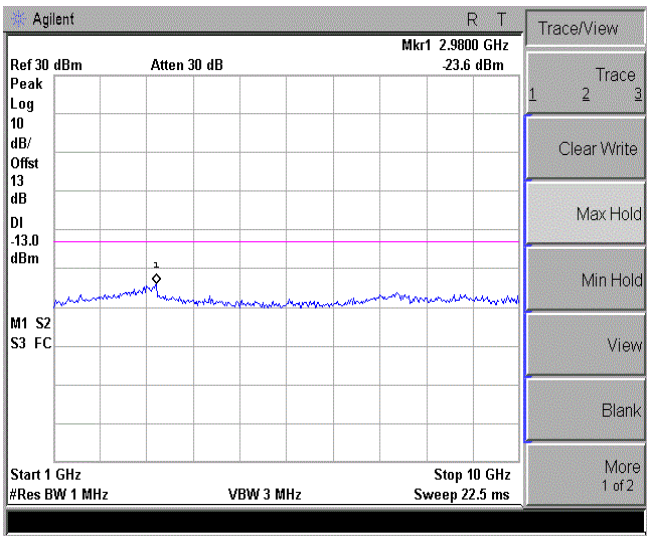
Channel:	1013
	
30MHz~1GHz	*1GHz~10GHz*

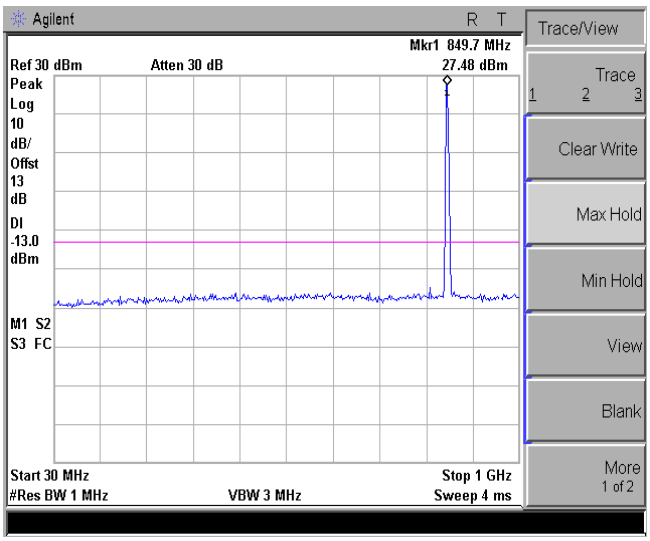
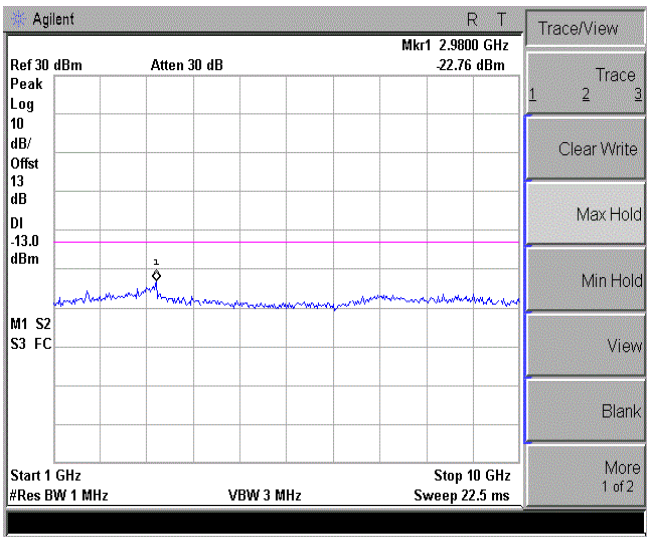
Channel:	384
	
30MHz~1GHz	*1GHz~10GHz*

Channel:	777
	
30MHz~1GHz	*1GHz~10GHz*

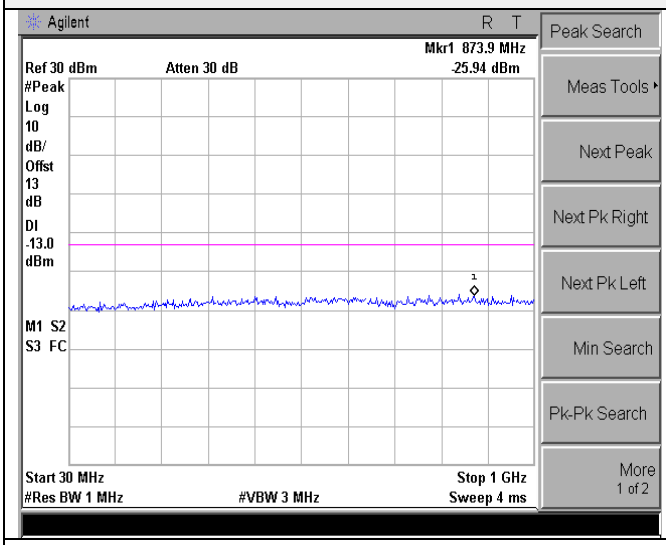
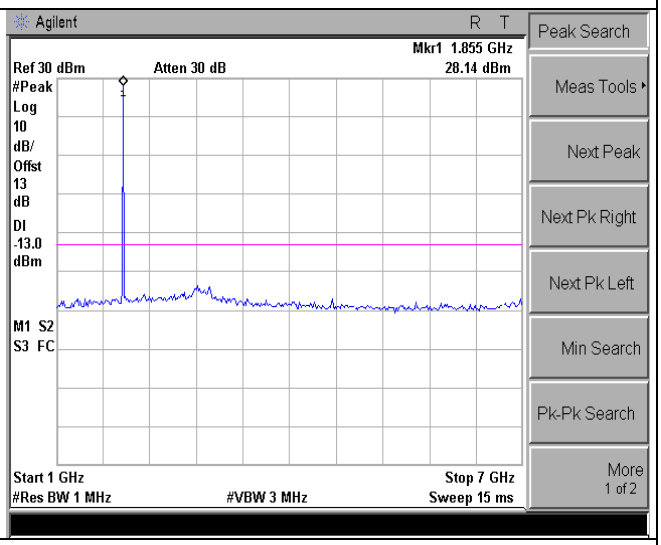
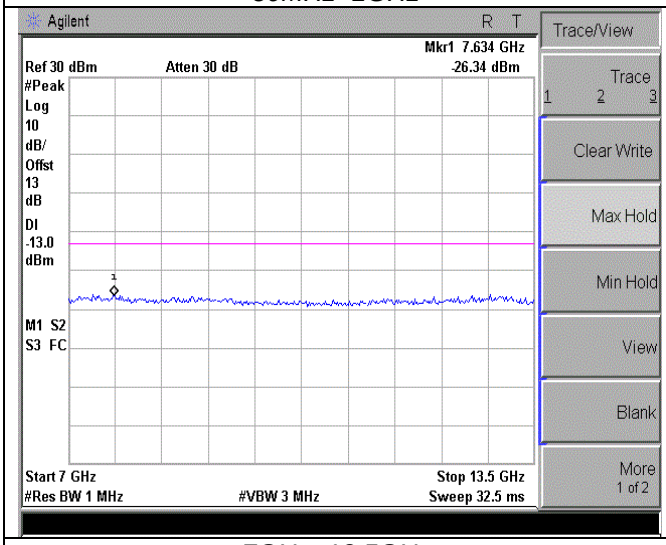
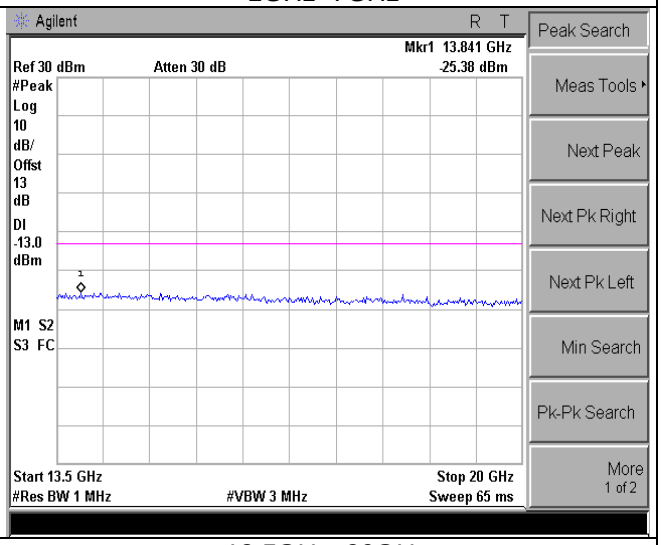
CDMA2000 EVDO REV A, 850MHz BAND

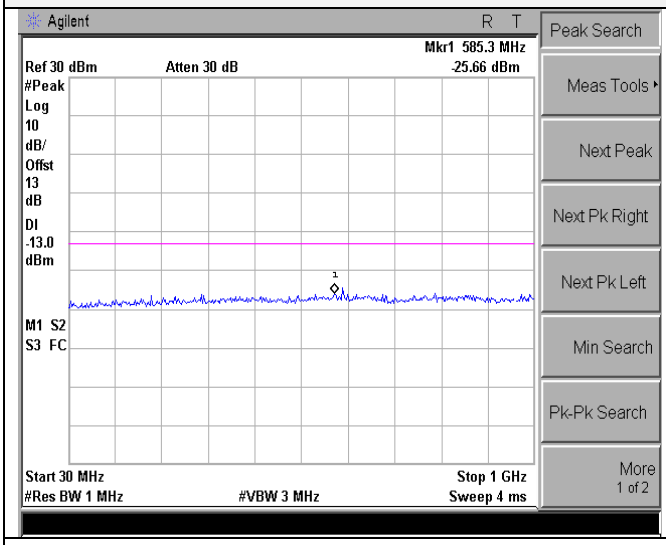
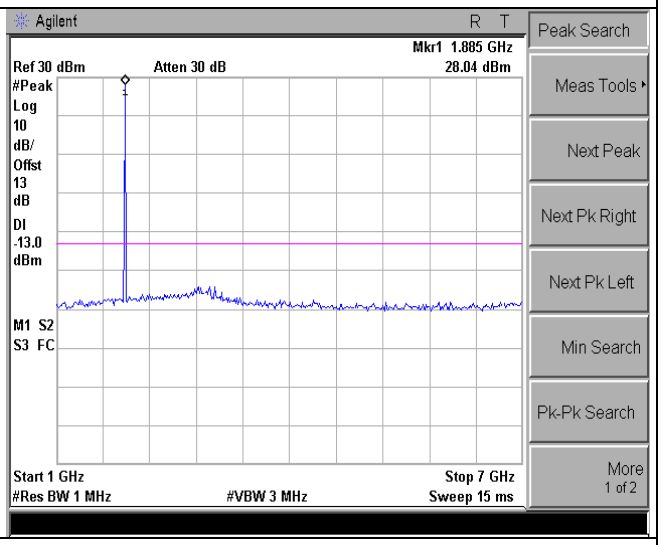
Channel:	*1013*
	
30MHz~1GHz	*1GHz~10GHz*

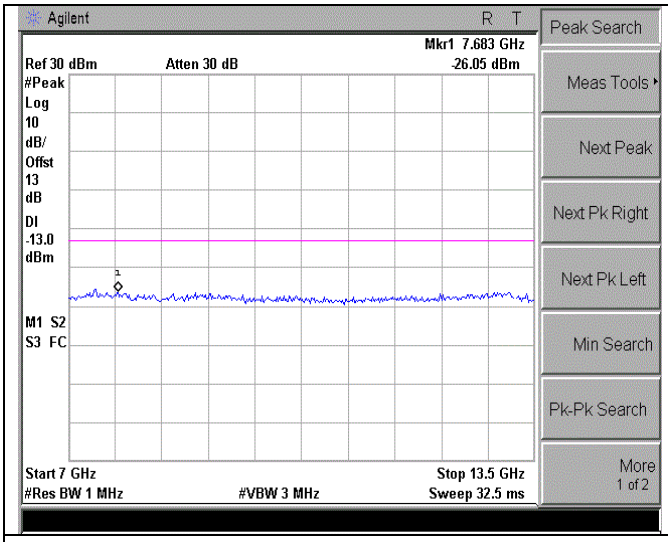
Channel:	*384*
	
30MHz~1GHz	*1GHz~10GHz*

Channel:	*777*
	
30MHz~1GHz	*1GHz~10GHz*

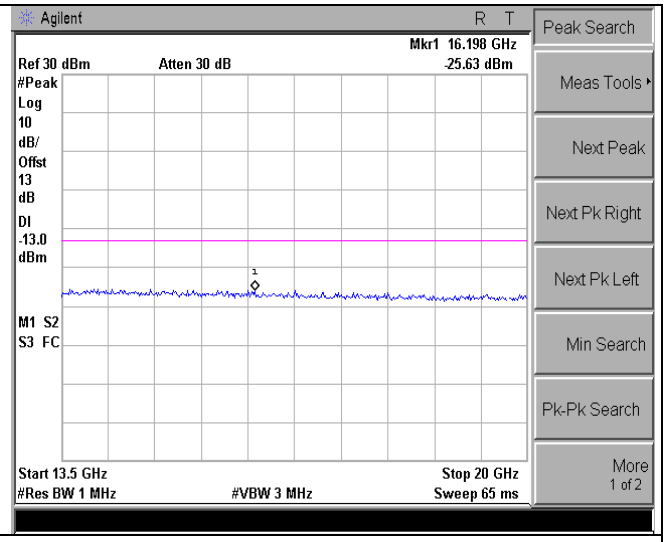
CDMA2000 1xRTT, BC1, PCS BAND

Channel:	*25*
	
30MHz~1GHz	*1GHz~7GHz*
	
7GHz~13.5GHz	*13.5GHz~20GHz*

Channel:	*600*
	
30MHz~1GHz	*1GHz~7GHz*

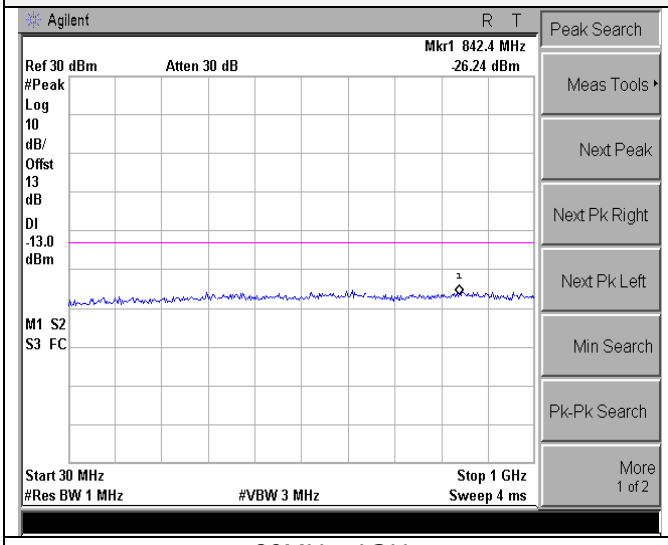


7GHz~13.5GHz

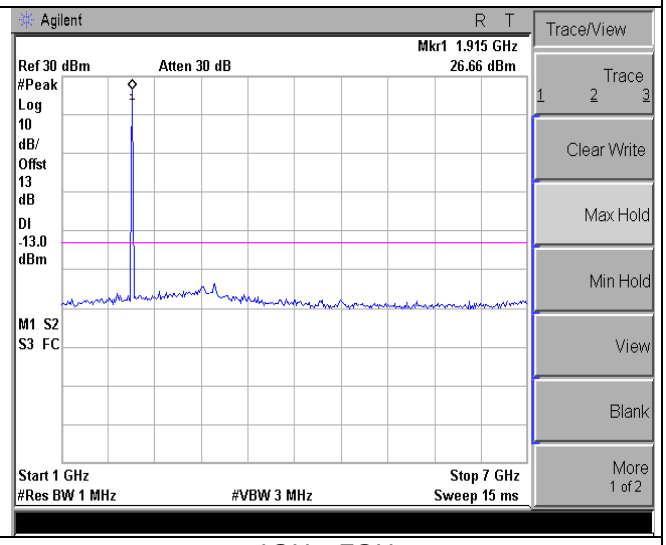


13.5GHz~20GHz

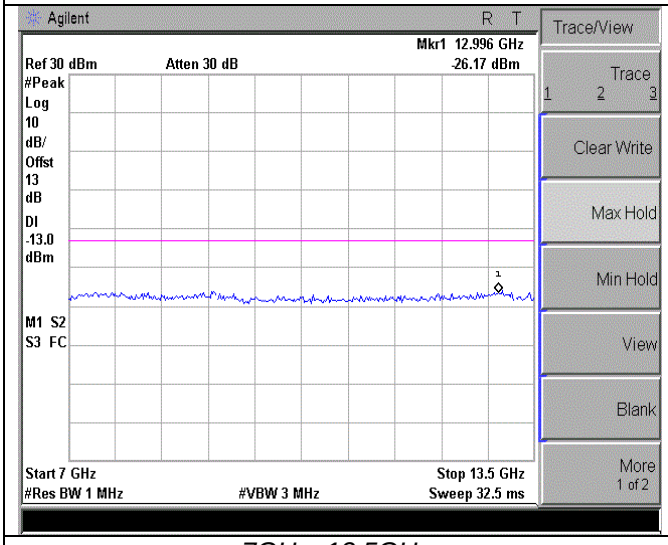
Channel:	1175



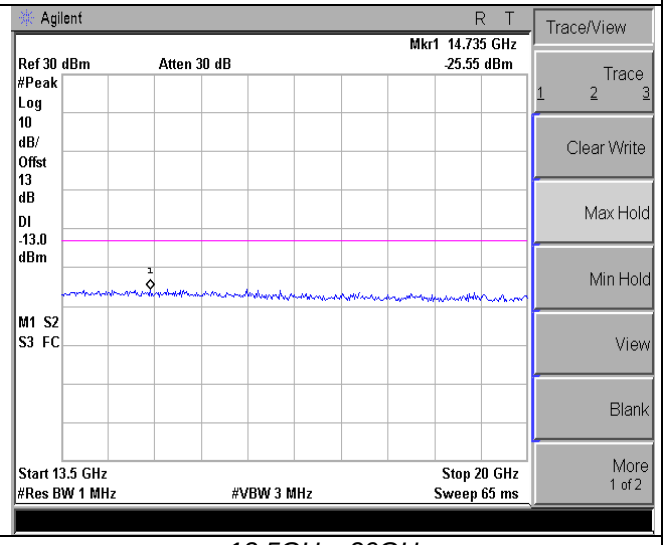
30MHz~1GHz



1GHz~7GHz

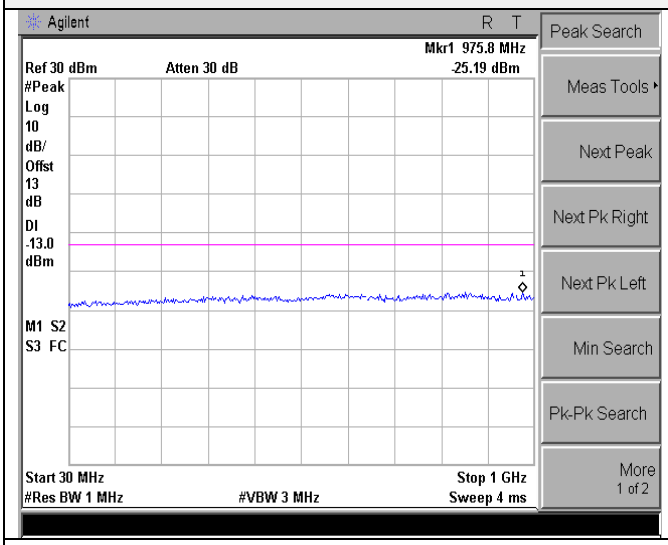
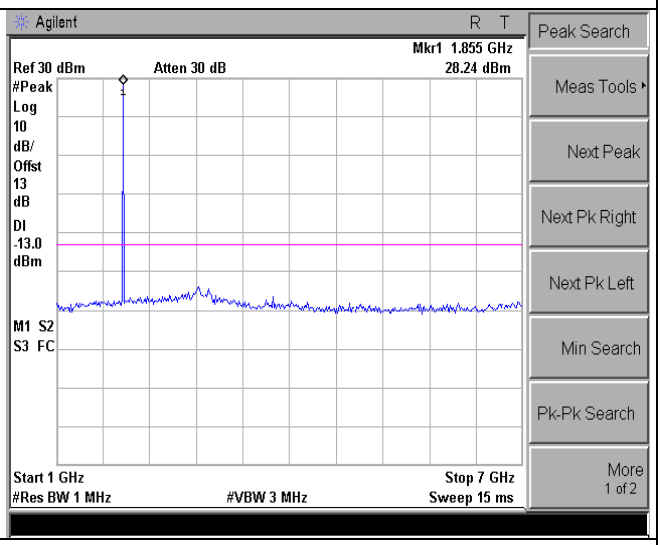
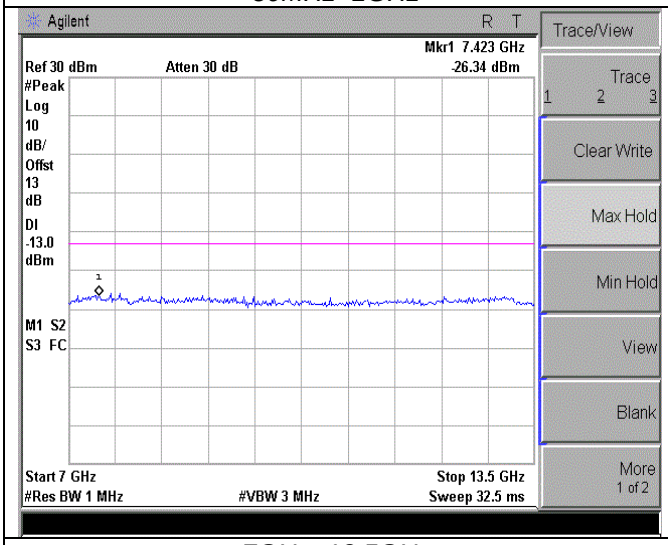
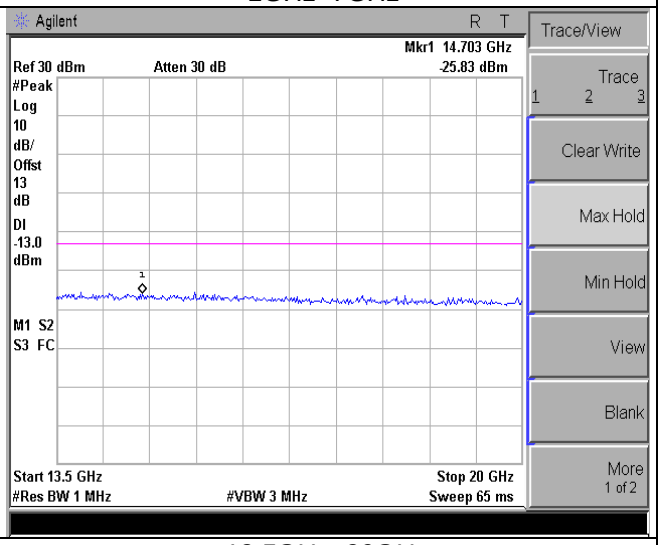


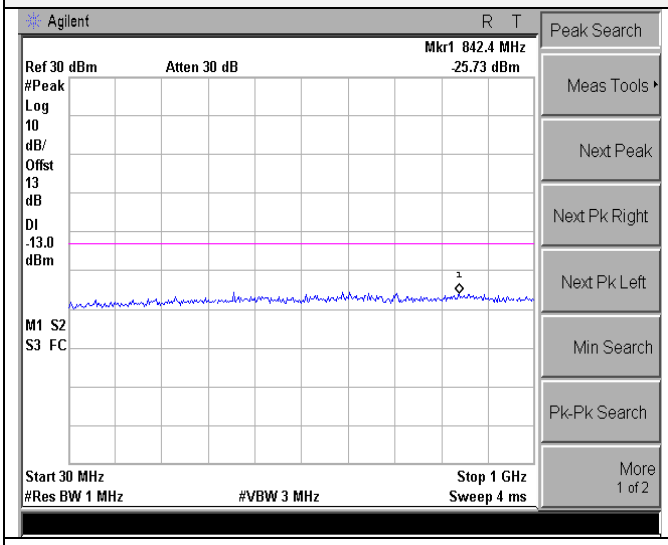
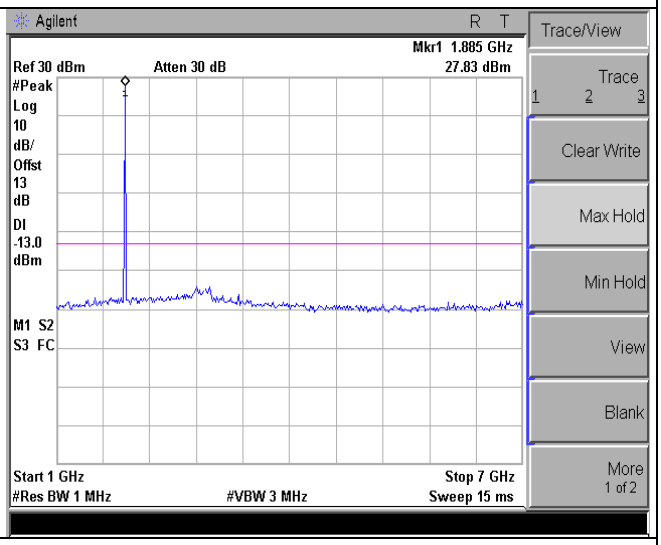
7GHz~13.5GHz

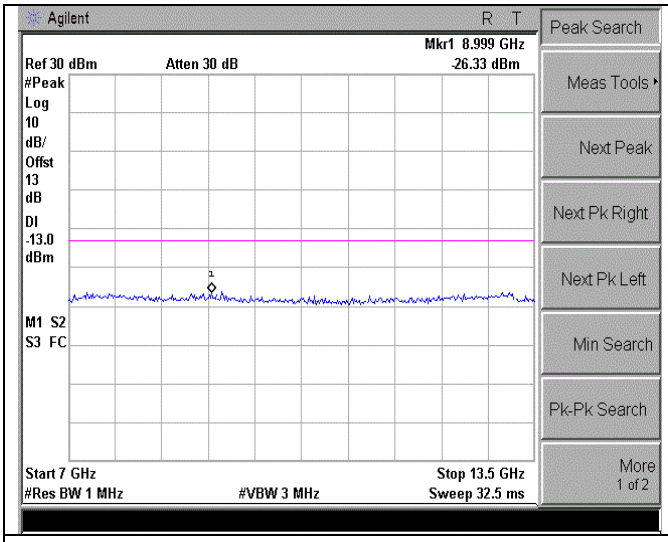


13.5GHz~20GHz

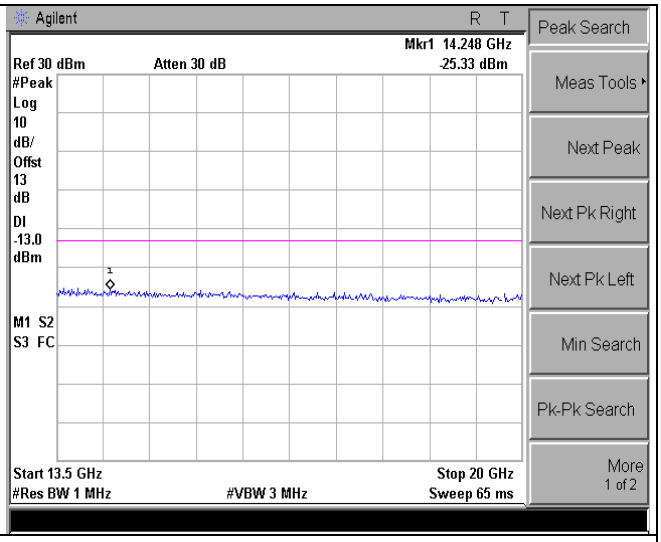
CDMA2000 EVDO REV. 0, 1900MHz BAND

Channel:	25
	
30MHz~1GHz	*1GHz~7GHz*
	
7GHz~13.5GHz	*13.5GHz~20GHz*

Channel:	600
	
30MHz~1GHz	*1GHz~7GHz*

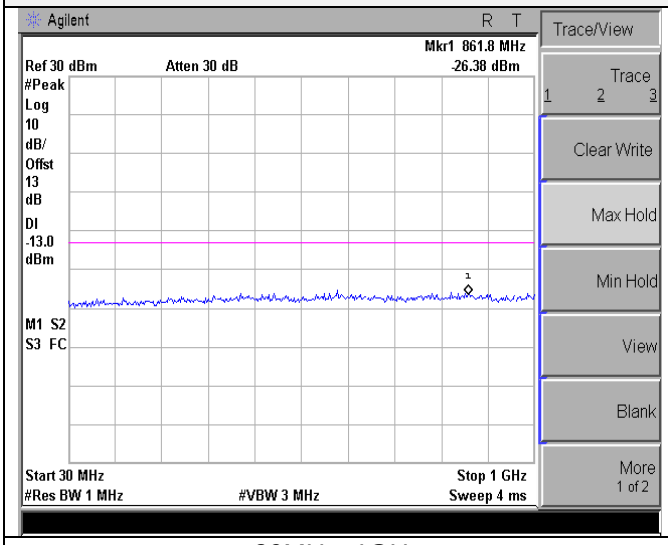


7GHz~13.5GHz

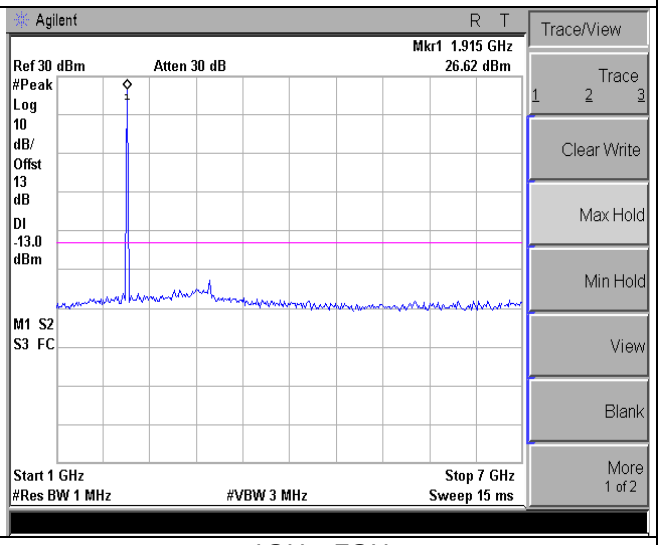


13.5GHz~20GHz

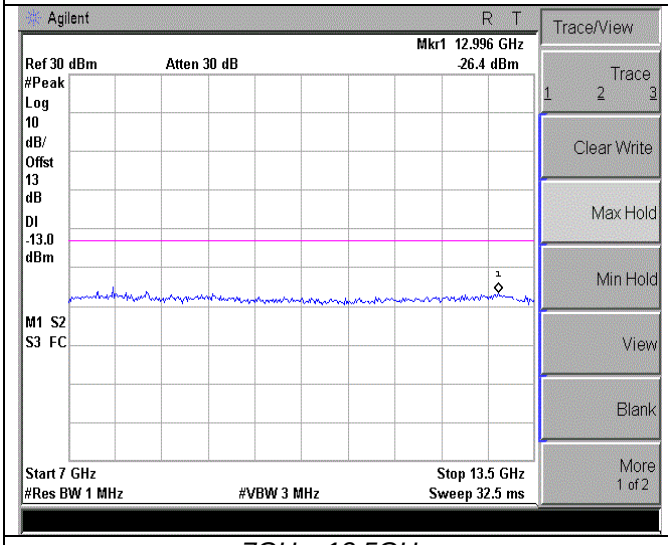
Channel:	*1175*



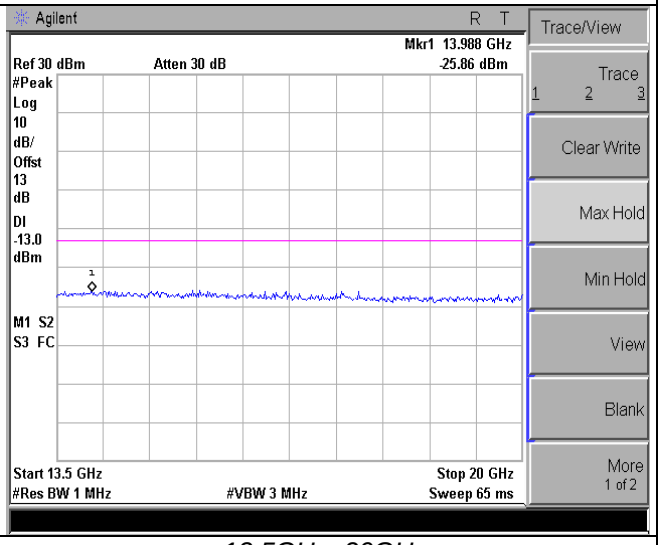
30MHz~1GHz



1GHz~7GHz

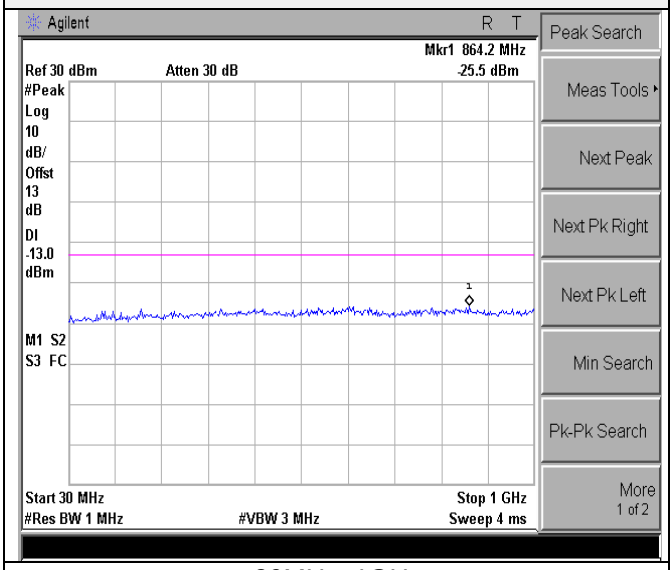
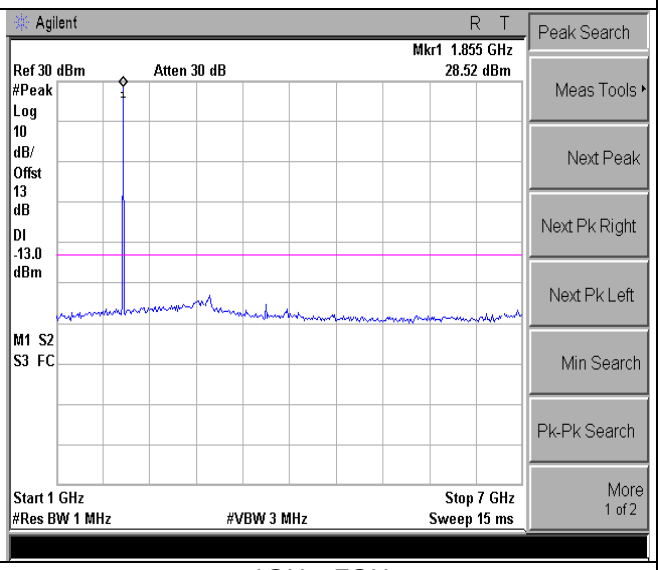
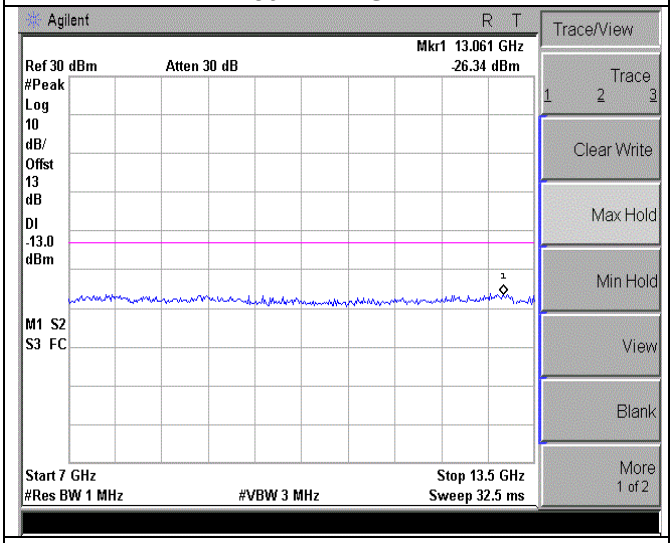
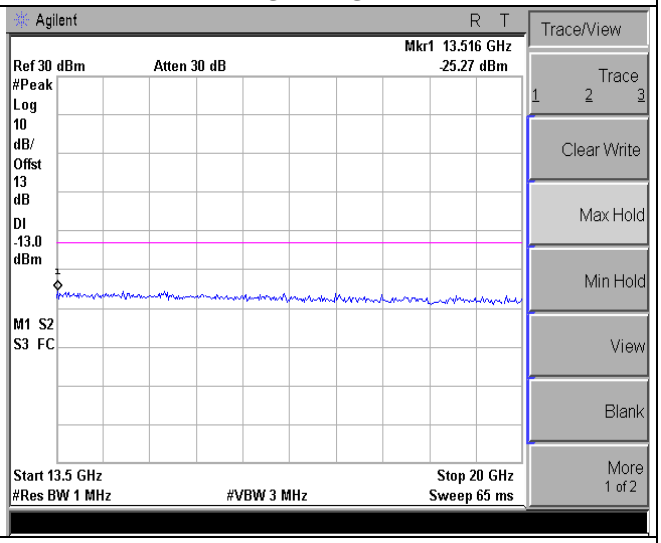


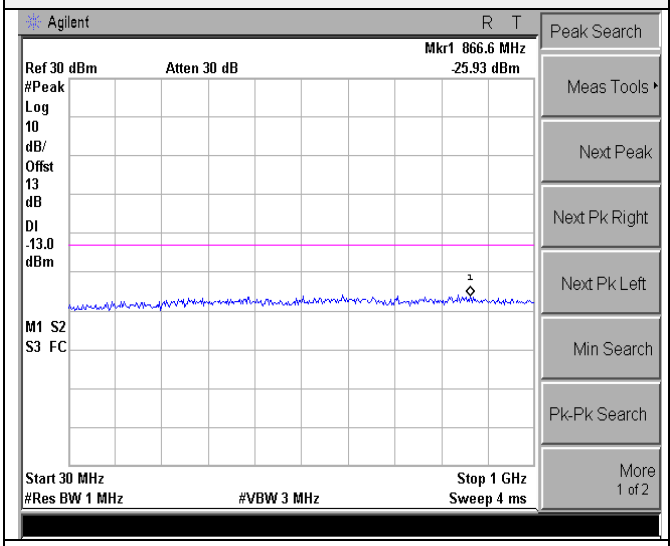
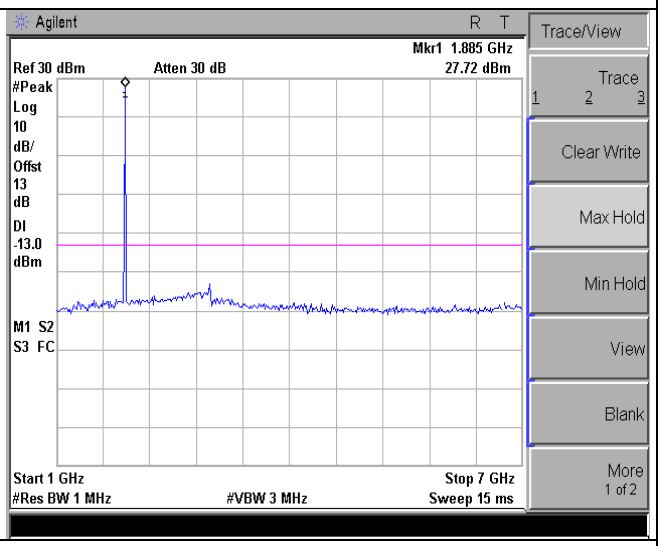
7GHz~13.5GHz

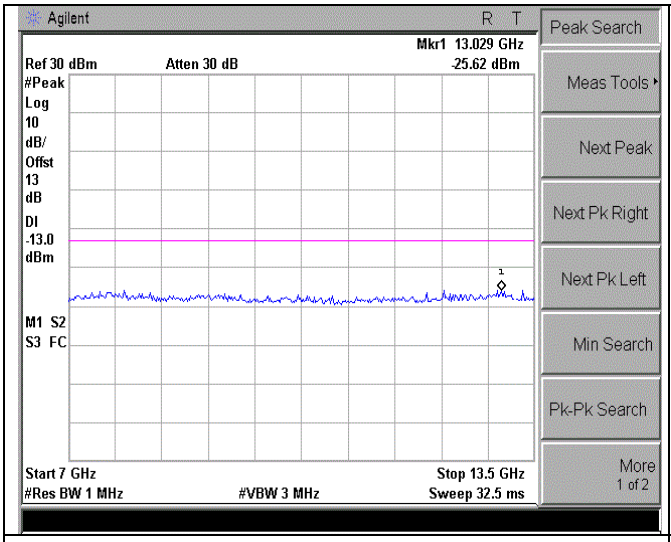


13.5GHz~20GHz

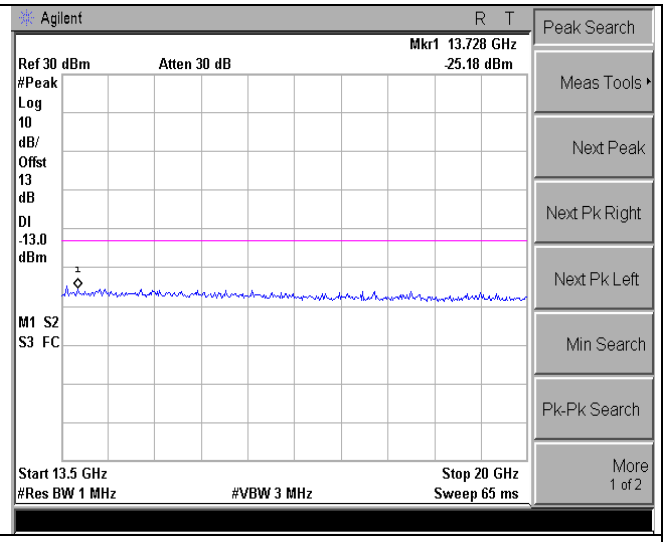
CDMA2000 EVDO REV A, 1900MHz BAND

Channel:	*25*
	
30MHz~1GHz	*1GHz~7GHz*
	
7GHz~13.5GHz	*13.5GHz~20GHz*

Channel:	*600*
	
30MHz~1GHz	*1GHz~7GHz*

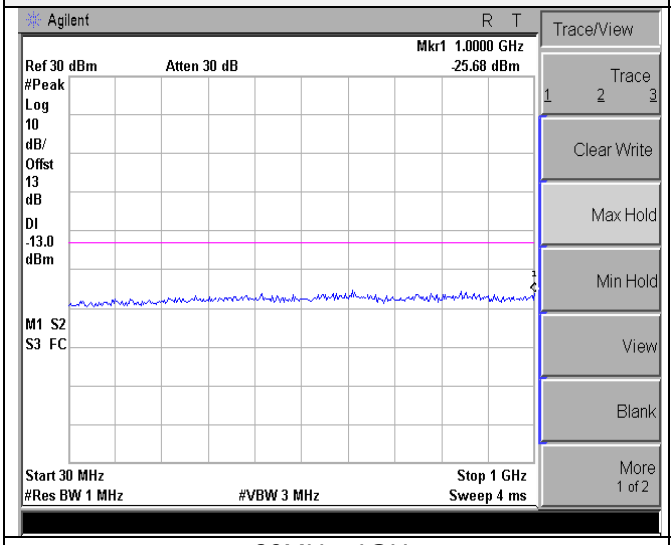


7GHz~13.5GHz

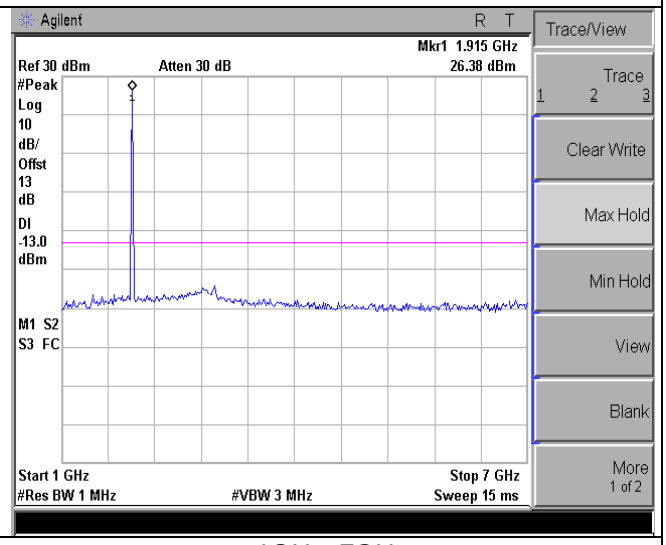


13.5GHz~20GHz

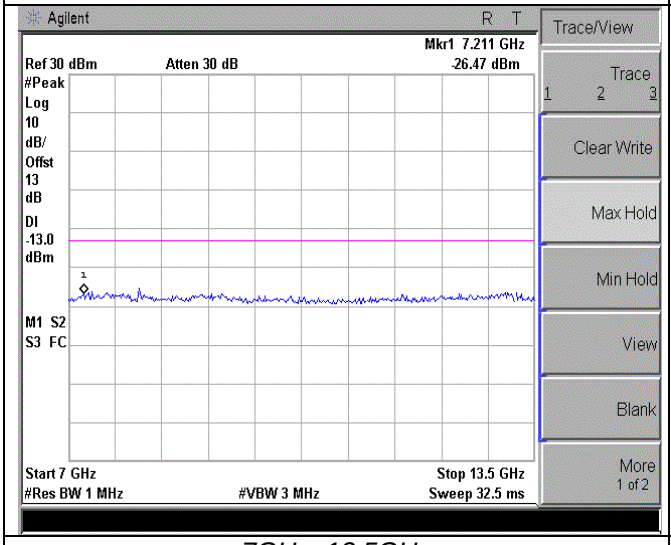
Channel:	*1175*



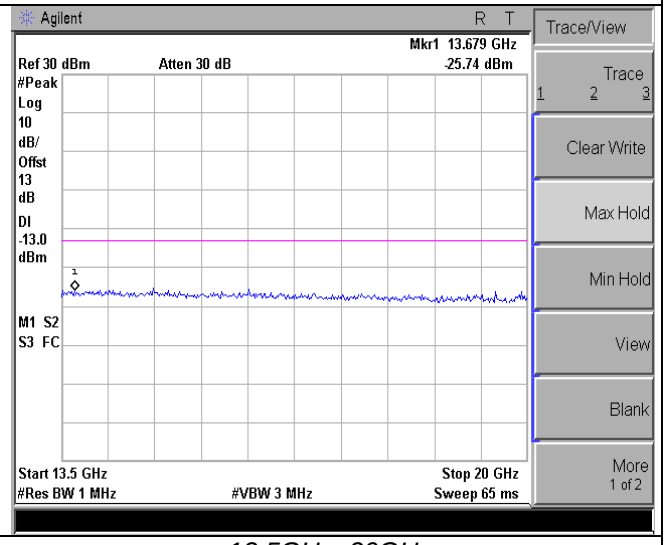
30MHz~1GHz



1GHz~7GHz



7GHz~13.5GHz



13.5GHz~20GHz

Radiated Measurement:

CDMA 1xRTT, BC0, CELL BAND									
Channel	Frequency (MHz)	Antenna Pol.	SA Reading (dBm)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	Spurious Emission Level (dBm)	Limit (dBm)	Result
1013	1649.40	Vertical	-28.93	-31.50	2.51	9.76	-24.25	-13.00	Pass
	2474.10	Vertical	-42.87	-41.91	3.15	10.50	-34.56		
	3298.80	Vertical	-56.71	-55.37	3.56	12.48	-46.45		
	4123.50	Vertical	-60.92	-57.07	3.89	13.60	-47.36		
	4948.20	Vertical	---	---	4.29	15.42	---		
	1649.40	Horizontal	-31.18	-33.84	2.51	9.76	-26.59	-13.00	Pass
	2474.10	Horizontal	-45.24	-44.13	3.15	10.50	-36.78		
	3298.80	Horizontal	-53.85	-52.39	3.56	12.48	-43.47		
	4123.50	Horizontal	-62.20	-58.65	3.89	13.60	-48.94		
	4948.20	Horizontal	---	---	4.29	15.42	---		
384	1673.04	Vertical	-29.79	-32.22	2.57	9.77	-25.02	-13.00	Pass
	2509.56	Vertical	-42.49	-41.58	3.14	10.58	-34.14		
	3346.08	Vertical	-55.98	-54.69	3.76	12.86	-45.59		
	4182.60	Vertical	-61.56	-57.88	3.95	13.96	-47.87		
	5019.12	Vertical	---	---	4.67	15.57	---		
	1673.04	Horizontal	-31.87	-34.45	2.57	9.77	-27.25	-13.00	Pass
	2509.56	Horizontal	-46.15	-44.91	3.14	10.58	-37.47		
	3346.08	Horizontal	-54.28	-52.79	3.76	12.86	-43.69		
	4182.60	Horizontal	-61.54	-57.90	3.95	13.96	-47.89		
	5019.12	Horizontal	---	---	4.67	15.57	---		
777	1696.62	Vertical	-30.03	-32.49	2.60	9.95	-25.14	-13.00	Pass
	2544.93	Vertical	-45.05	-43.37	3.54	10.55	-36.36		
	3393.24	Vertical	-57.41	-55.73	3.87	12.86	-46.74		
	4241.55	Vertical	-61.65	-57.75	4.09	13.97	-47.87		
	5089.86	Vertical	---	---	5.13	16.02	---		
	1696.62	Horizontal	-31.18	-33.61	2.60	9.95	-26.26	-13.00	Pass
	2544.93	Horizontal	-44.34	-42.48	3.54	10.55	-35.47		
	3393.24	Horizontal	-57.23	-55.35	3.87	12.86	-46.36		
	4241.55	Horizontal	-62.22	-58.33	4.09	13.97	-48.45		
	5089.86	Horizontal	---	---	5.13	16.02	---		

Remark：

1. Spurious Emission Level =SG Reading+ Antenna Gain- Cable Loss
2. Factor= Spurious Emission Level - SA Reading
3. Remark"---" means that the emission level is too low to be measured
4. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

CDMA2000 EVDO REV. 0, 850MHz BAND									
Channel	Frequency (MHz)	Antenna Pol.	SA Reading (dBm)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	Spurious Emission Level (dBm)	Limit (dBm)	Result
1013	1648.40	Vertical	-29.94	-32.51	2.51	9.76	-25.26	-13.00	Pass
	2472.60	Vertical	-43.78	-42.82	3.15	10.50	-35.47		
	3296.80	Vertical	-57.24	-55.90	3.56	12.48	-46.98		
	4121.00	Vertical	-61.43	-57.58	3.89	13.60	-47.87		
	4945.20	Vertical	---	---	4.29	15.42	---		
	1648.40	Horizontal	-31.13	-33.79	2.51	9.76	-26.54	-13.00	Pass
	2472.60	Horizontal	-45.44	-44.33	3.15	10.50	-36.98		
	3296.80	Horizontal	-53.94	-52.48	3.56	12.48	-43.56		
	4121.00	Horizontal	-61.14	-57.59	3.89	13.60	-47.88		
	4945.20	Horizontal	---	---	4.29	15.42	---		
384	1673.20	Vertical	-31.03	-33.46	2.57	9.77	-26.26	-13.00	Pass
	2509.80	Vertical	-42.82	-41.91	3.14	10.58	-34.47		
	3346.40	Vertical	-55.78	-54.49	3.76	12.86	-45.39		
	4183.00	Vertical	-61.68	-58.00	3.95	13.96	-47.99		
	5019.60	Vertical	---	---	4.67	15.57	---		
	1673.20	Horizontal	-32.12	-34.70	2.57	9.77	-27.50	-13.00	Pass
	2509.80	Horizontal	-46.55	-45.31	3.14	10.58	-37.87		
	3346.40	Horizontal	-54.48	-52.99	3.76	12.86	-43.89		
	4183.00	Horizontal	-61.55	-57.91	3.95	13.96	-47.90		
	5019.60	Horizontal	---	---	4.67	15.57	---		
777	1697.60	Vertical	-30.15	-32.61	2.60	9.95	-25.26	-13.00	Pass
	2546.40	Vertical	-45.17	-43.49	3.54	10.55	-36.48		
	3395.20	Vertical	-57.56	-55.88	3.87	12.86	-46.89		
	4244.00	Vertical	-61.68	-57.78	4.09	13.97	-47.90		
	5092.80	Vertical	---	---	5.13	16.02	---		
	1697.60	Horizontal	-30.55	-32.98	2.60	9.95	-25.63	-13.00	Pass
	2546.40	Horizontal	-44.38	-42.52	3.54	10.55	-35.51		
	3395.20	Horizontal	-57.32	-55.44	3.87	12.86	-46.45		
	4244.00	Horizontal	-62.29	-58.40	4.09	13.97	-48.52		
	5092.80	Horizontal	---	---	5.13	16.02	---		

Remark：
1. Spurious Emission Level =SG Reading+ Antenna Gain- Cable Loss
2. Factor= Spurious Emission Level - SA Reading
3. Remark"---" means that the emission level is too low to be measured
4. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

CDMA2000 EVDO REV A, 850MHz BAND									
Channel	Frequency (MHz)	Antenna Pol.	SA Reading (dBm)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	Spurious Emission Level (dBm)	Limit (dBm)	Result
1013	1648.40	Vertical	-30.25	-32.82	2.51	9.76	-25.57	-13.00	Pass
	2472.60	Vertical	-43.79	-42.83	3.15	10.50	-35.48		
	3296.80	Vertical	-57.13	-55.79	3.56	12.48	-46.87		
	4121.00	Vertical	-60.82	-56.97	3.89	13.60	-47.26		
	4945.20	Vertical	---	---	4.29	15.42	---		
	1648.40	Horizontal	-31.07	-33.73	2.51	9.76	-26.48	-13.00	Pass
	2472.60	Horizontal	-46.15	-45.04	3.15	10.50	-37.69		
	3296.80	Horizontal	-55.12	-53.66	3.56	12.48	-44.74		
	4121.00	Horizontal	-61.01	-57.46	3.89	13.60	-47.75		
	4945.20	Horizontal	---	---	4.29	15.42	---		
384	1673.20	Vertical	-30.59	-33.02	2.57	9.77	-25.82	-13.00	Pass
	2509.80	Vertical	-42.91	-42.00	3.14	10.58	-34.56		
	3346.40	Vertical	-55.86	-54.57	3.76	12.86	-45.47		
	4183.00	Vertical	-61.56	-57.88	3.95	13.96	-47.87		
	5019.60	Vertical	---	---	4.67	15.57	---		
	1673.20	Horizontal	-32.06	-34.64	2.57	9.77	-27.44	-13.00	Pass
	2509.80	Horizontal	-46.46	-45.22	3.14	10.58	-37.78		
	3346.40	Horizontal	-54.49	-53.00	3.76	12.86	-43.90		
	4183.00	Horizontal	-61.50	-57.86	3.95	13.96	-47.85		
	5019.60	Horizontal	---	---	4.67	15.57	---		
777	1697.60	Vertical	-30.23	-32.69	2.60	9.95	-25.34	-13.00	Pass
	2546.40	Vertical	-45.19	-43.51	3.54	10.55	-36.50		
	3395.20	Vertical	-57.57	-55.89	3.87	12.86	-46.90		
	4244.00	Vertical	-61.69	-57.79	4.09	13.97	-47.91		
	5092.80	Vertical	---	---	5.13	16.02	---		
	1697.60	Horizontal	-30.57	-33.00	2.60	9.95	-25.65	-13.00	Pass
	2546.40	Horizontal	-44.29	-42.43	3.54	10.55	-35.42		
	3395.20	Horizontal	-57.37	-55.49	3.87	12.86	-46.50		
	4244.00	Horizontal	-62.32	-58.43	4.09	13.97	-48.55		
	5092.80	Horizontal	---	---	5.13	16.02	---		

Remark：

1. Spurious Emission Level =SG Reading+ Antenna Gain- Cable Loss
2. Factor= Spurious Emission Level - SA Reading
3. Remark"---" means that the emission level is too low to be measured
4. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

CDMA2000 1xRTT, BC1, PCS BAND									
Channel	Frequency (MHz)	Antenna Pol.	SA Reading (dBm)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	Spurious Emission Level (dBm)	Limit (dBm)	Result
25	3702.50	Vertical	-39.39	-36.52	4.07	13.07	-27.52	-13.00	Pass
	5553.75	Vertical	-54.83	-49.84	5.23	16.23	-38.84		
	7405.00	Vertical	-63.18	-56.10	6.29	16.89	-45.50		
	9256.25	Vertical	-66.10	-58.77	7.00	17.99	-47.78		
	11107.50	Vertical	---	---	7.70	19.62	---		
	3702.50	Horizontal	-41.18	-38.30	4.07	13.07	-29.30	-13.00	Pass
	5553.75	Horizontal	-55.69	-50.45	5.23	16.23	-39.45		
	7405.00	Horizontal	-64.57	-57.47	6.29	16.89	-46.87		
	9256.25	Horizontal	-67.03	-59.25	7.00	17.99	-48.26		
	11107.50	Horizontal	---	---	7.70	19.62	---		
600	3760.00	Vertical	-39.53	-36.52	4.15	13.12	-27.55	-13.00	Pass
	5640.00	Vertical	-54.95	-49.89	5.36	16.35	-38.90		
	7520.00	Vertical	-63.45	-56.18	6.38	16.98	-45.58		
	9400.00	Vertical	-66.74	-58.87	7.10	18.09	-47.88		
	11280.00	Vertical	---	---	7.89	15.66	---		
	3760.00	Horizontal	-41.14	-38.32	4.15	13.12	-29.35	-13.00	Pass
	5640.00	Horizontal	-55.56	-50.45	5.36	16.35	-39.46		
	7520.00	Horizontal	-64.55	-57.47	6.38	16.98	-46.87		
	9400.00	Horizontal	-66.99	-59.29	7.10	18.09	-48.30		
	11280.00	Horizontal	---	---	7.89	15.66	---		
1175	3817.50	Vertical	-41.13	-34.33	4.19	9.96	-28.56	-13.00	Pass
	5726.25	Vertical	-55.10	-43.96	5.35	10.53	-38.78		
	7635.00	Vertical	-64.42	-52.96	6.42	12.85	-46.53		
	9543.75	Vertical	-66.90	-54.71	7.14	13.96	-47.89		
	11452.50	Vertical	---	---	8.01	16.03	---		
	3817.50	Horizontal	-41.91	-35.06	4.19	9.96	-29.29	-13.00	Pass
	5726.25	Horizontal	-55.98	-44.68	5.35	10.53	-39.50		
	7635.00	Horizontal	-64.76	-53.21	6.42	12.85	-46.78		
	9543.75	Horizontal	-67.41	-55.11	7.14	13.96	-48.29		
	11452.50	Horizontal	---	---	8.01	16.03	---		

Remark：

1. Spurious Emission Level =SG Reading+ Antenna Gain- Cable Loss
2. Factor= Spurious Emission Level - SA Reading
3. Remark"---" means that the emission level is too low to be measured
4. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

CDMA2000 EVDO REV. 0, 1900MHz BAND									
Channel	Frequency (MHz)	Antenna Pol.	SA Reading (dBm)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	Spurious Emission Level (dBm)	Limit (dBm)	Result
25	3700.40	Vertical	-39.42	-36.55	4.07	13.07	-27.55	-13.00	Pass
	5550.60	Vertical	-54.86	-49.87	5.23	16.23	-38.87		
	7400.80	Vertical	-63.17	-56.09	6.29	16.89	-45.49		
	9251.00	Vertical	-66.19	-58.86	7.00	17.99	-47.87		
	11101.20	Vertical	---	---	7.70	19.62	---		
	3700.40	Horizontal	-41.17	-38.29	4.07	13.07	-29.29	-13.00	Pass
	5550.60	Horizontal	-55.69	-50.45	5.23	16.23	-39.45		
	7400.80	Horizontal	-64.68	-57.58	6.29	16.89	-46.98		
	9251.00	Horizontal	-67.13	-59.35	7.00	17.99	-48.36		
	11101.20	Horizontal	---	---	7.70	19.62	---		
600	3760.00	Vertical	-39.63	-36.62	4.15	13.12	-27.65	-13.00	Pass
	5640.00	Vertical	-54.96	-49.90	5.36	16.35	-38.91		
	7520.00	Vertical	-63.47	-56.20	6.38	16.98	-45.60		
	9400.00	Vertical	-66.84	-58.97	7.10	18.09	-47.98		
	11280.00	Vertical	---	---	7.89	15.66	---		
	3760.00	Horizontal	-41.12	-38.30	4.15	13.12	-29.33	-13.00	Pass
	5640.00	Horizontal	-55.58	-50.47	5.36	16.35	-39.48		
	7520.00	Horizontal	-64.57	-57.49	6.38	16.98	-46.89		
	9400.00	Horizontal	-67.02	-59.32	7.10	18.09	-48.33		
	11280.00	Horizontal	---	---	7.89	15.66	---		
1175	3819.60	Vertical	-41.25	-34.45	4.19	9.96	-28.68	-13.00	Pass
	5729.40	Vertical	-55.09	-43.95	5.35	10.53	-38.77		
	7639.20	Vertical	-64.45	-52.99	6.42	12.85	-46.56		
	9549.00	Vertical	-66.59	-54.40	7.14	13.96	-47.58		
	11458.80	Vertical	---	---	8.01	16.03	---		
	3819.60	Horizontal	-41.77	-34.92	4.19	9.96	-29.15	-13.00	Pass
	5729.40	Horizontal	-56.04	-44.74	5.35	10.53	-39.56		
	7639.20	Horizontal	-64.77	-53.22	6.42	12.85	-46.79		
	9549.00	Horizontal	-67.51	-55.21	7.14	13.96	-48.39		
	11458.80	Horizontal	---	---	8.01	16.03	---		

Remark：

1. Spurious Emission Level =SG Reading+ Antenna Gain- Cable Loss
2. Factor= Spurious Emission Level - SA Reading
3. Remark"---" means that the emission level is too low to be measured
4. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

CDMA2000 EVDO REV A, 1900MHz BAND									
Channel	Frequency (MHz)	Antenna Pol.	SA Reading (dBm)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	Spurious Emission Level (dBm)	Limit (dBm)	Result
25	3700.40	Vertical	-39.47	-36.60	4.07	13.07	-27.60	-13.00	Pass
	5550.60	Vertical	-54.24	-49.25	5.23	16.23	-38.25		
	7400.80	Vertical	-63.46	-56.38	6.29	16.89	-45.78		
	9251.00	Vertical	-65.88	-58.55	7.00	17.99	-47.56		
	11101.20	Vertical	---	---	7.70	19.62	---		
	3700.40	Horizontal	-39.48	-36.60	4.07	13.07	-27.60	-13.00	Pass
	5550.60	Horizontal	-54.75	-49.51	5.23	16.23	-38.51		
	7400.80	Horizontal	-63.00	-55.90	6.29	16.89	-45.30		
	9251.00	Horizontal	-67.22	-59.44	7.00	17.99	-48.45		
	11101.20	Horizontal	---	---	7.70	19.62	---		
600	3760.00	Vertical	-37.63	-34.62	4.15	13.12	-25.65	-13.00	Pass
	5640.00	Vertical	-50.53	-45.47	5.36	16.35	-34.48		
	7520.00	Vertical	-64.74	-57.47	6.38	16.98	-46.87		
	9400.00	Vertical	-66.46	-58.59	7.10	18.09	-47.60		
	11280.00	Vertical	---	---	7.89	15.66	---		
	3760.00	Horizontal	-39.01	-36.19	4.15	13.12	-27.22	-13.00	Pass
	5640.00	Horizontal	-53.46	-48.35	5.36	16.35	-37.36		
	7520.00	Horizontal	-61.43	-54.35	6.38	16.98	-43.75		
	9400.00	Horizontal	-66.84	-59.14	7.10	18.09	-48.15		
	11280.00	Horizontal	---	---	7.89	15.66	---		
1175	3819.60	Vertical	-38.05	-31.25	4.19	9.96	-25.48	-13.00	Pass
	5729.40	Vertical	-54.06	-42.92	5.35	10.53	-37.74		
	7639.20	Vertical	-63.54	-52.08	6.42	12.85	-45.65		
	9549.00	Vertical	-68.27	-56.08	7.14	13.96	-49.26		
	11458.80	Vertical	---	---	8.01	16.03	---		
	3819.60	Horizontal	-39.20	-32.35	4.19	9.96	-26.58	-13.00	Pass
	5729.40	Horizontal	-52.84	-41.54	5.35	10.53	-36.36		
	7639.20	Horizontal	-64.34	-52.79	6.42	12.85	-46.36		
	9549.00	Horizontal	-66.59	-54.29	7.14	13.96	-47.47		
	11458.80	Horizontal	---	---	8.01	16.03	---		

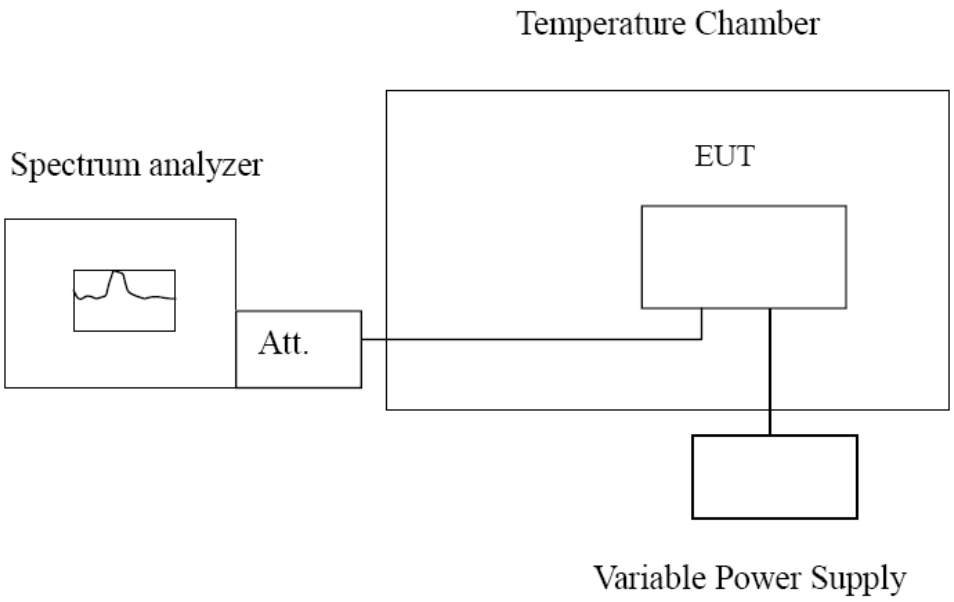
Remark：
1. Spurious Emission Level =SG Reading+ Antenna Gain- Cable Loss
2. Factor= Spurious Emission Level - SA Reading
3. Remark"---" means that the emission level is too low to be measured
4. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

3.5 Frequency Stability under Temperature & Voltage Variations

LIMIT

Cellular Band: ±2.5ppm PCS Band: Within the authorized frequency block

TEST CONFIGURATION



TEST PROCEDURE

The EUT was setup according to EIA/TIA 603C

Frequency Stability Under Temperature Variations:
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20℃ operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached.

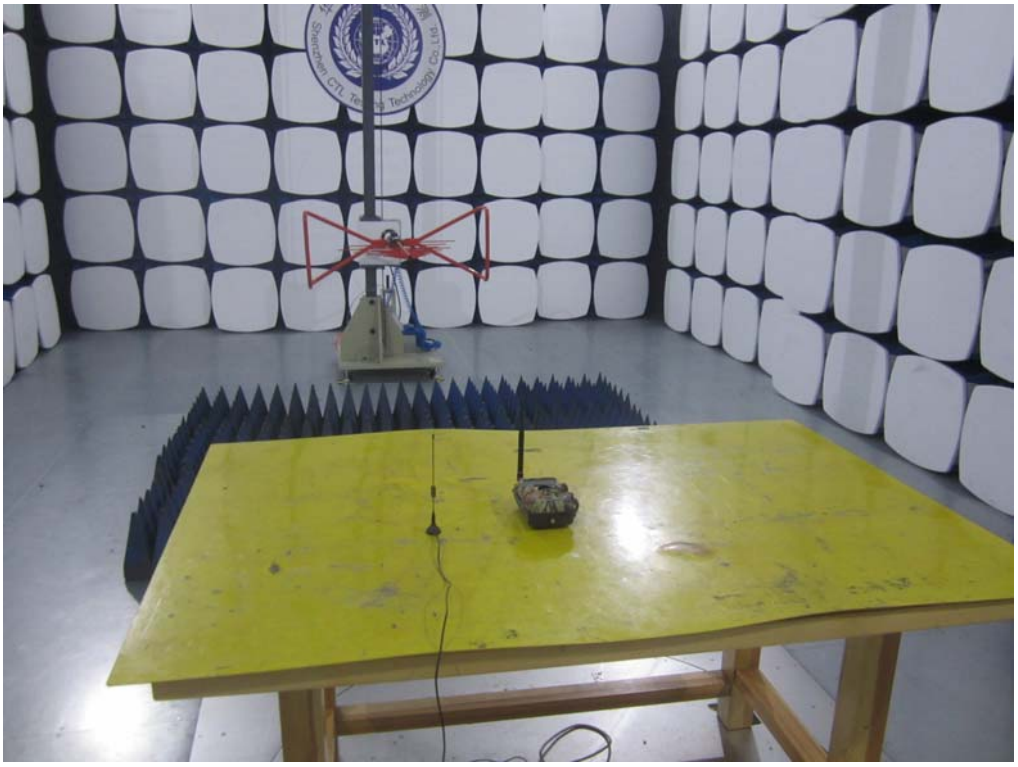
Frequency Stability Under Voltage Variations:
Set chamber temperature to 20℃. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.
Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, record the maximum frequency change.

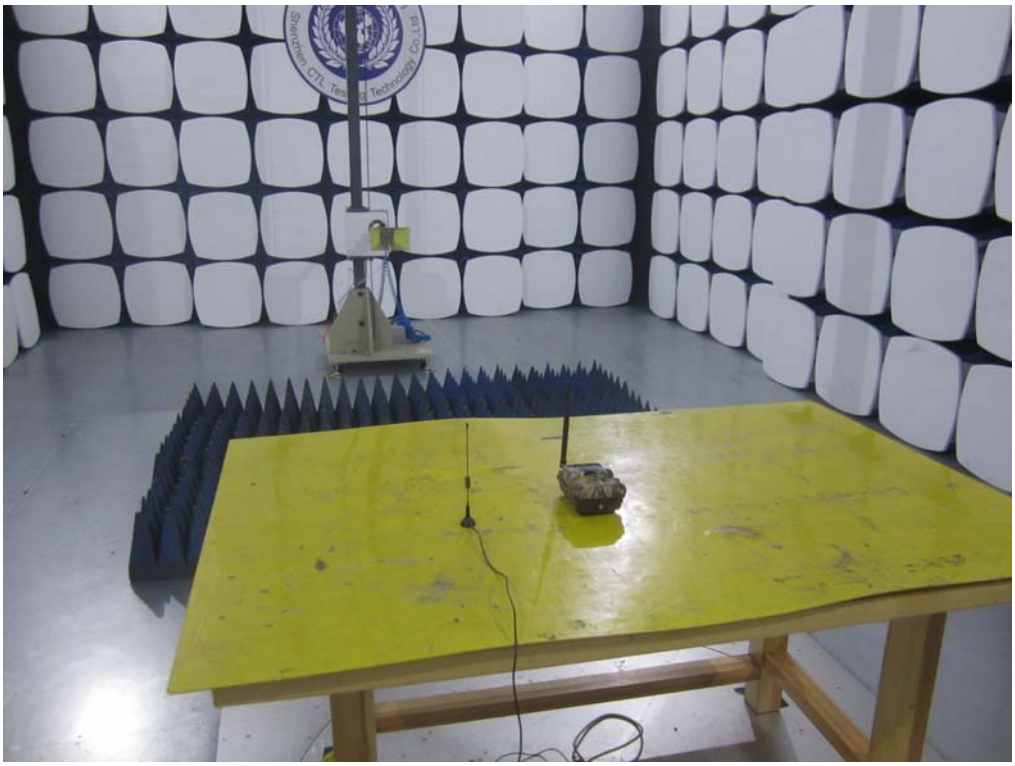
TEST RESULTS

Remark: we test all modulation type and record worst case at 1xRTT mode.

Reference Frequency:Cell Band Middle channel=384 frequency=836.52MHz					
Voltage (V)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
6.00	-30	67	0.080	2.5	Pass
	-20	72	0.086		
	-10	76	0.091		
	0	59	0.071		
	10	48	0.057		
	20	62	0.074		
	30	75	0.090		
	40	71	0.085		
	50	60	0.072		
6.90	25	55	0.066		
5.10	25	72	0.086		
End point 4.50	25	77	0.092		
Reference Frequency: PCS Band Middle channel=600 frequency=1880MHz					
Voltage (V)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
6.00	-30	65	0.035	Within the authorized frequency block	Pass
	-20	54	0.029		
	-10	66	0.035		
	0	59	0.031		
	10	70	0.037		
	20	74	0.039		
	30	62	0.033		
	40	65	0.035		
	50	71	0.038		
6.90	25	52	0.028		
5.10	25	55	0.029		
End point 4.50	25	80	0.043		

4 Test Setup Photos of the EUT



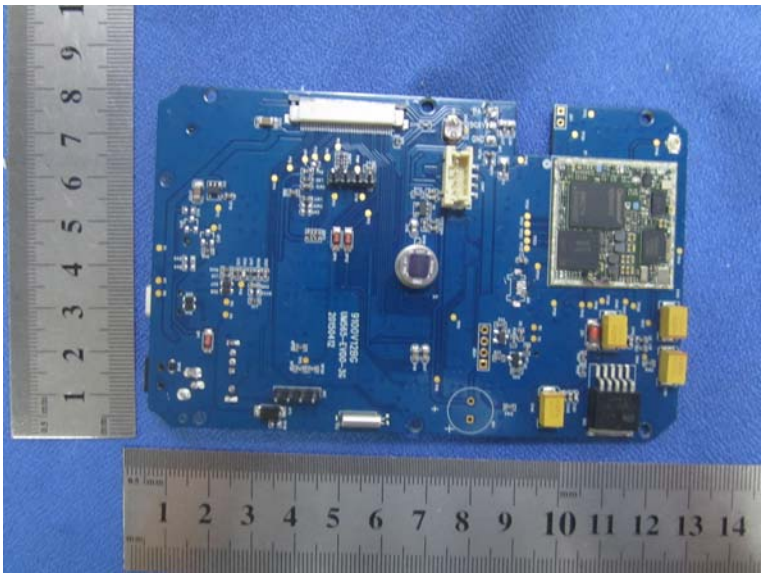


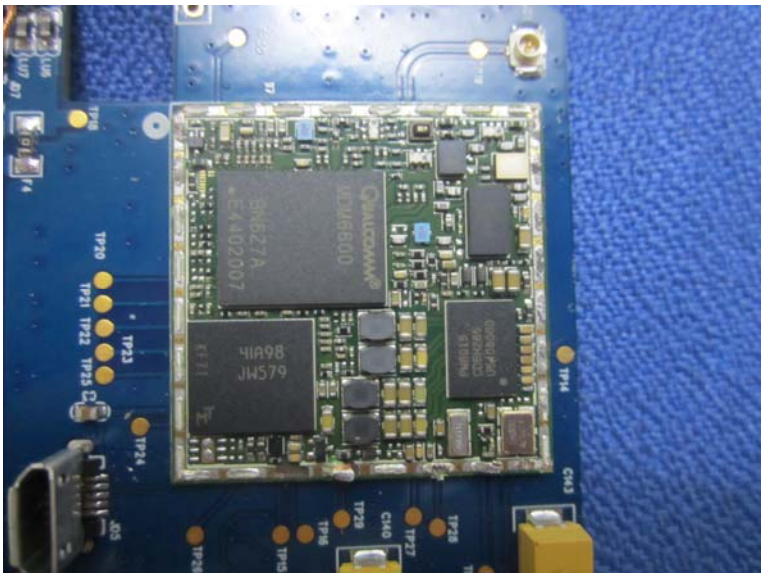
5 External and Internal Photos of the EUT

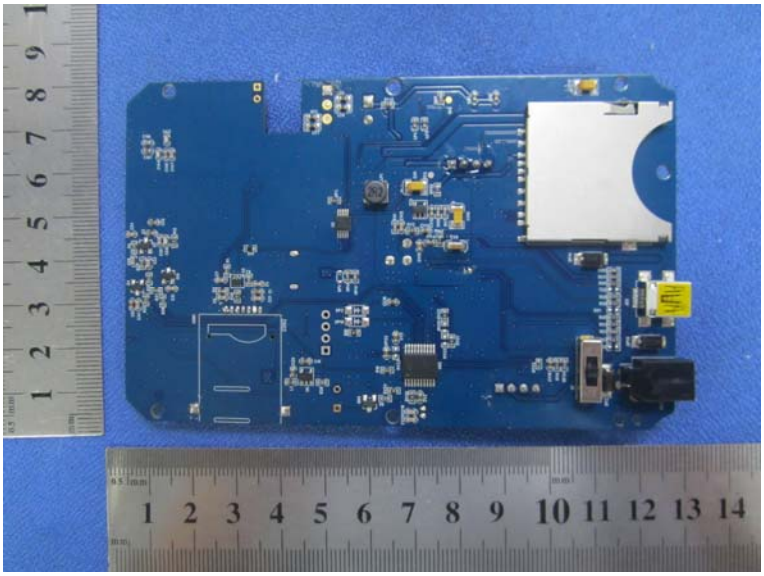
External Photos of EUT

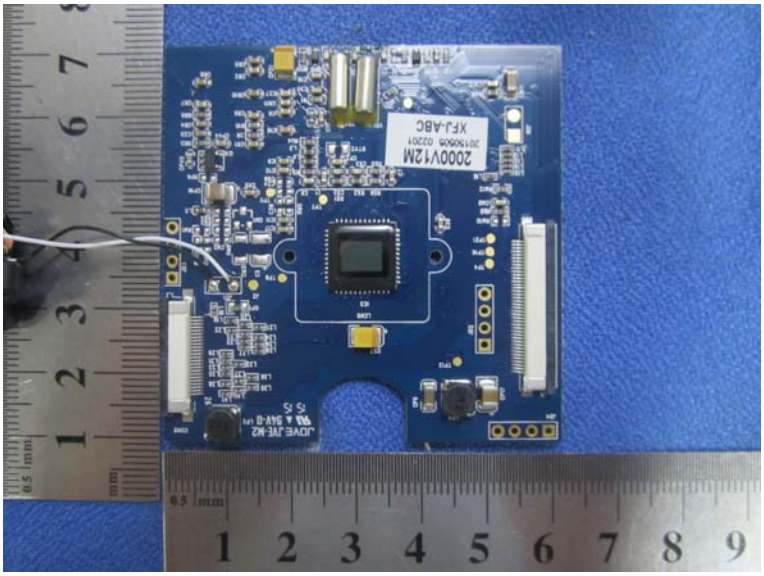

WARNING
MENU
DEL
OK
ON
SETUP
OFF

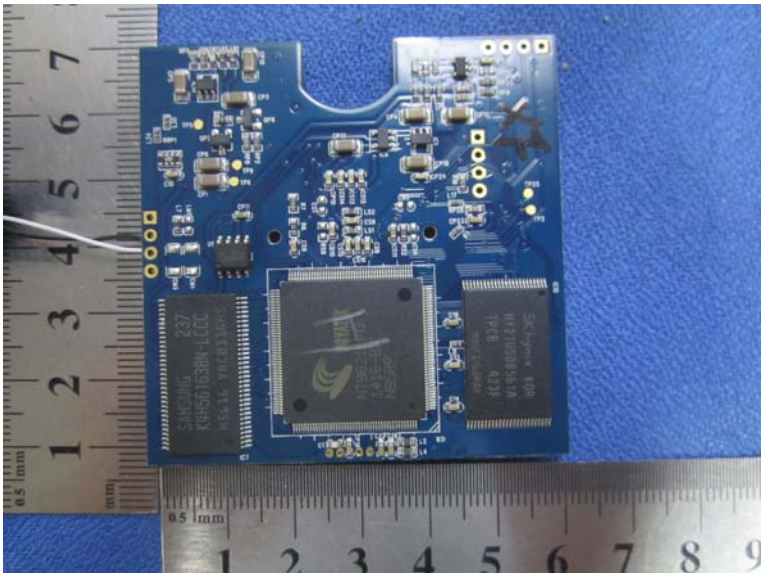
Internal Photos of EUT

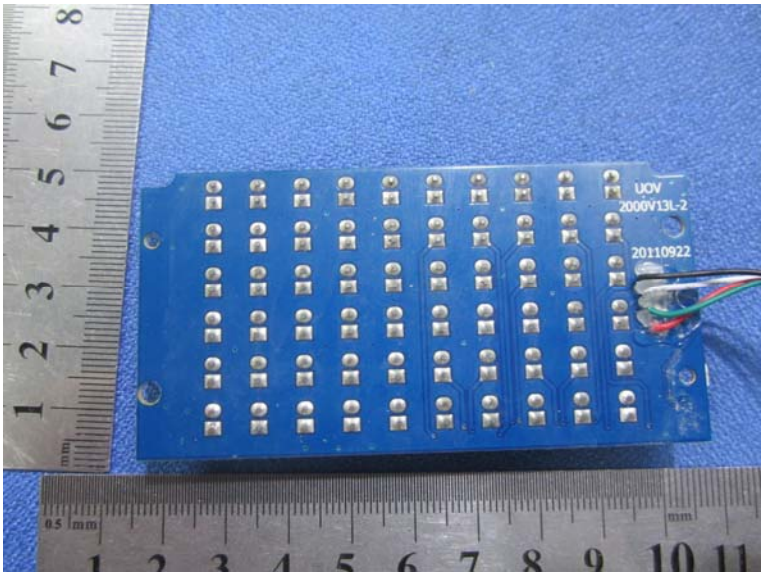








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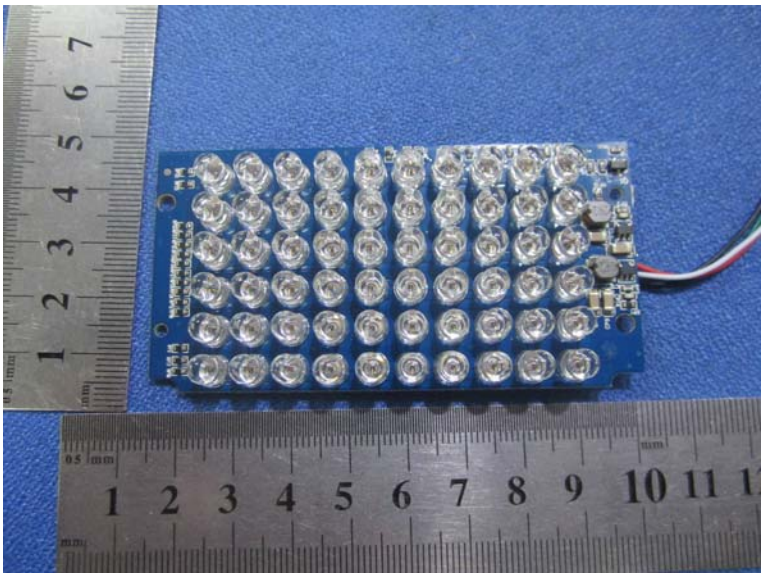

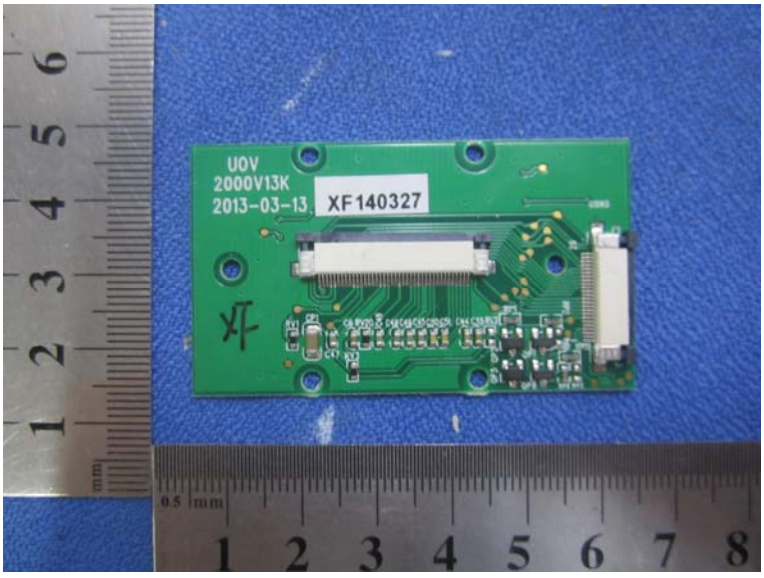
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2013-03-13
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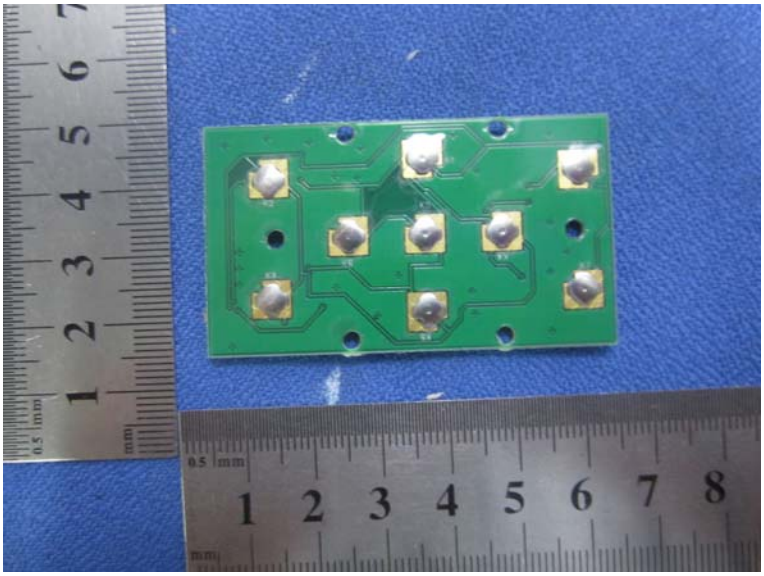

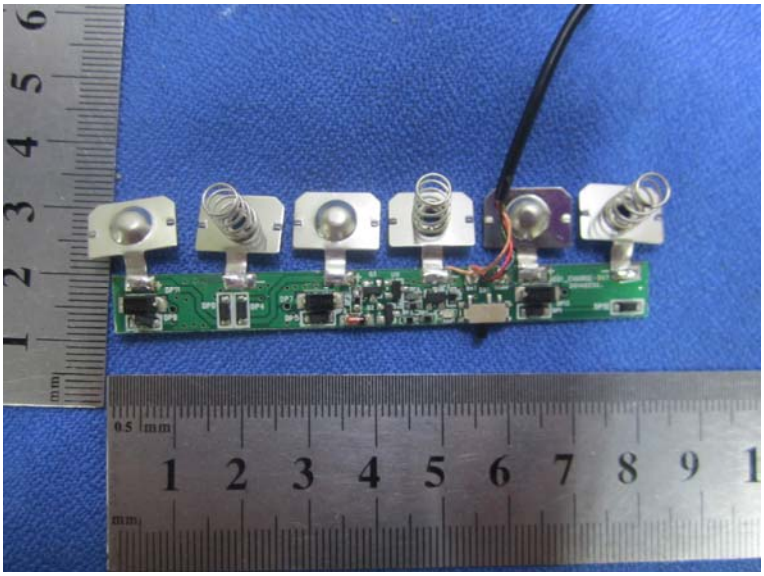

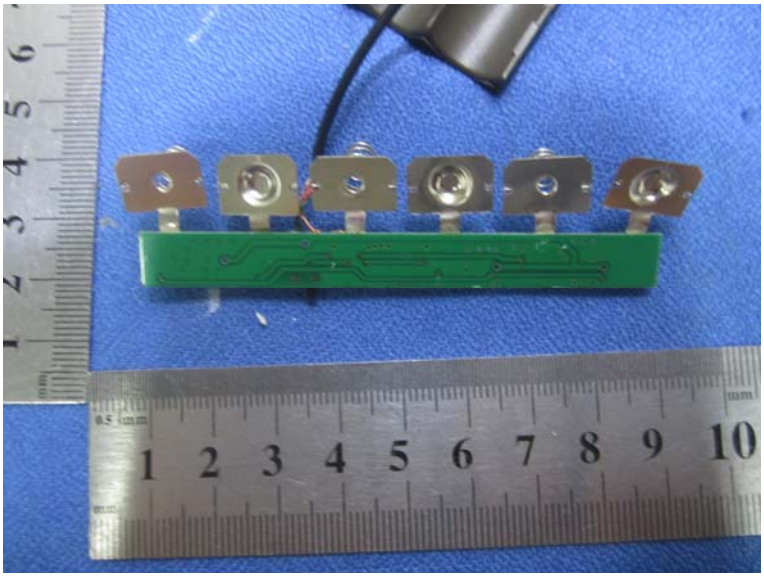

********** End of Report **********