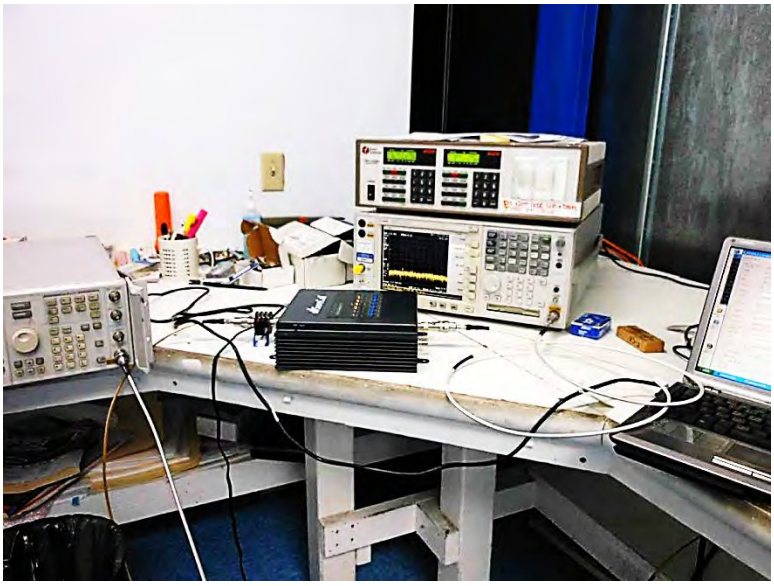
Test Setup Photo



15.247(d) Radiated Emissions & Band Edge

SC222W Antenna Test Setup / Conditions / Data

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/9/2015
Test Type:	**Radiated Scan**	Time:	13:31:26
Tested By:	Hieu Song Nguyenpham	Sequence#:	129
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

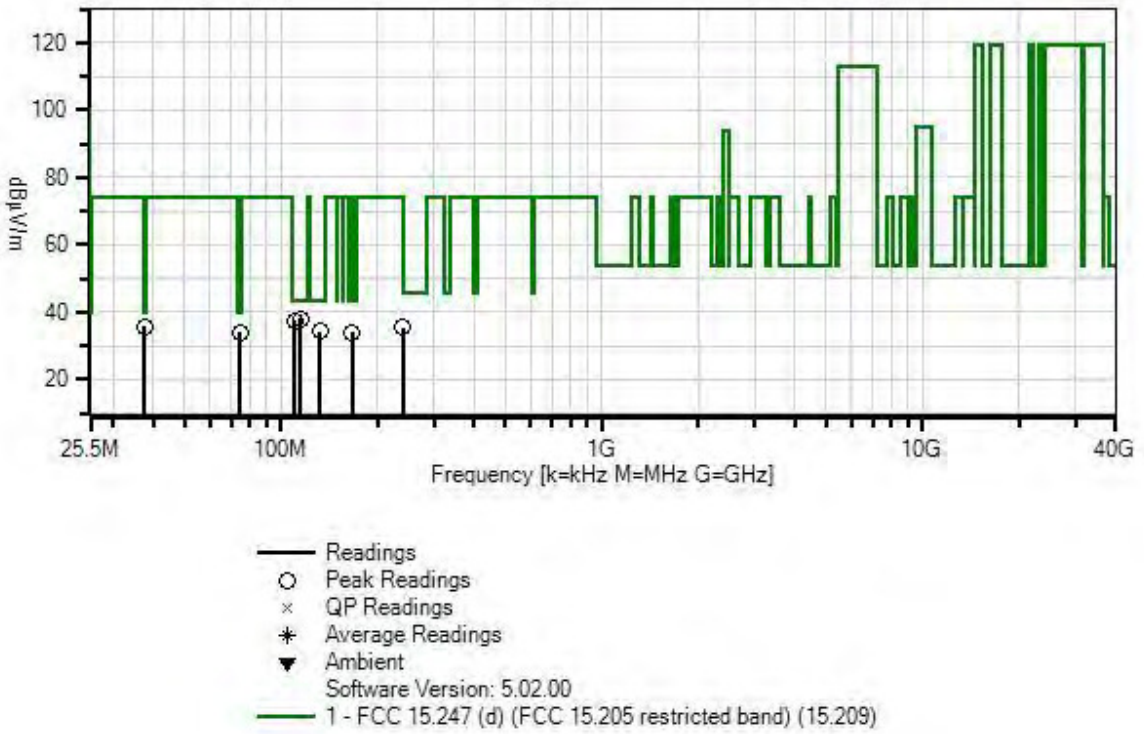
Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11b Mode
Date rate = 2Mbps
Attenuator for 802.11b Mode =32
Low Channel

CKC Laboratories, Inc Date: 10/9/2015 Time: 13:31:26 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 129



Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	37.533M	48.0	-27.9 +0.2	+15.0	+0.5	+0.1	+0.0	35.9	40.0	-4.1	Vert
2	115.465M	52.9	-27.8 +0.4	+11.5	+0.9	+0.2	+0.0	38.1	43.5	-5.4	Vert
3	74.815M	53.8	-27.8 +0.3	+6.8	+0.7	+0.2	+0.0	34.0	40.0	-6.0	Vert
4	110.207M	52.6	-27.8 +0.4	+11.1	+0.9	+0.2	+0.0	37.4	43.5	-6.1	Vert
5	132.049M	48.7	-27.8 +0.4	+11.7	+1.0	+0.2	+0.0	34.2	43.5	-9.3	Horiz
6	166.733M	50.0	-27.9 +0.5	+10.1	+1.2	+0.2	+0.0	34.1	43.5	-9.4	Horiz
7	240.266M	49.0	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	35.6	46.0	-10.4	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	14:53:45
Tested By:	Hieu Song Nguyenpham	Sequence#:	57
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz- 25GHz
9 kHz - 150kHz - RBW=200Hz VBW=200Hz
150 kHz - 30MHz - RBW=9kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1MHz VBW=1MHz

802.11b Mode
Date rate = 2Mbps
Attenuator for 802.11b Mode=32
Low Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 14:53:45 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 57

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9647.863M Ave	60.1	-57.3 +2.2	+38.7 +0.2	+2.4	+5.5	+0.0	51.8	54.0	-2.2	Vert
^	9647.863M	63.8	-57.3 +2.2	+38.7 +0.2	+2.4	+5.5	+0.0	55.5	54.0	+1.5	Vert
3	4823.947M Ave	67.3	-57.8 +1.5	+33.3 +0.2	+1.7	+3.8	+0.0	50.0	54.0	-4.0	Vert
^	4823.947M	69.8	-57.8 +1.5	+33.3 +0.2	+1.7	+3.8	+0.0	52.5	54.0	-1.5	Vert
5	7237.670M	62.2	-58.3 +1.9	+36.1 +0.2	+2.0	+5.0	+0.0	49.1	54.0	-4.9	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/9/2015
Test Type:	**Radiated Scan**	Time:	13:44:10
Tested By:	Hieu Song Nguyenpham	Sequence#:	132
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

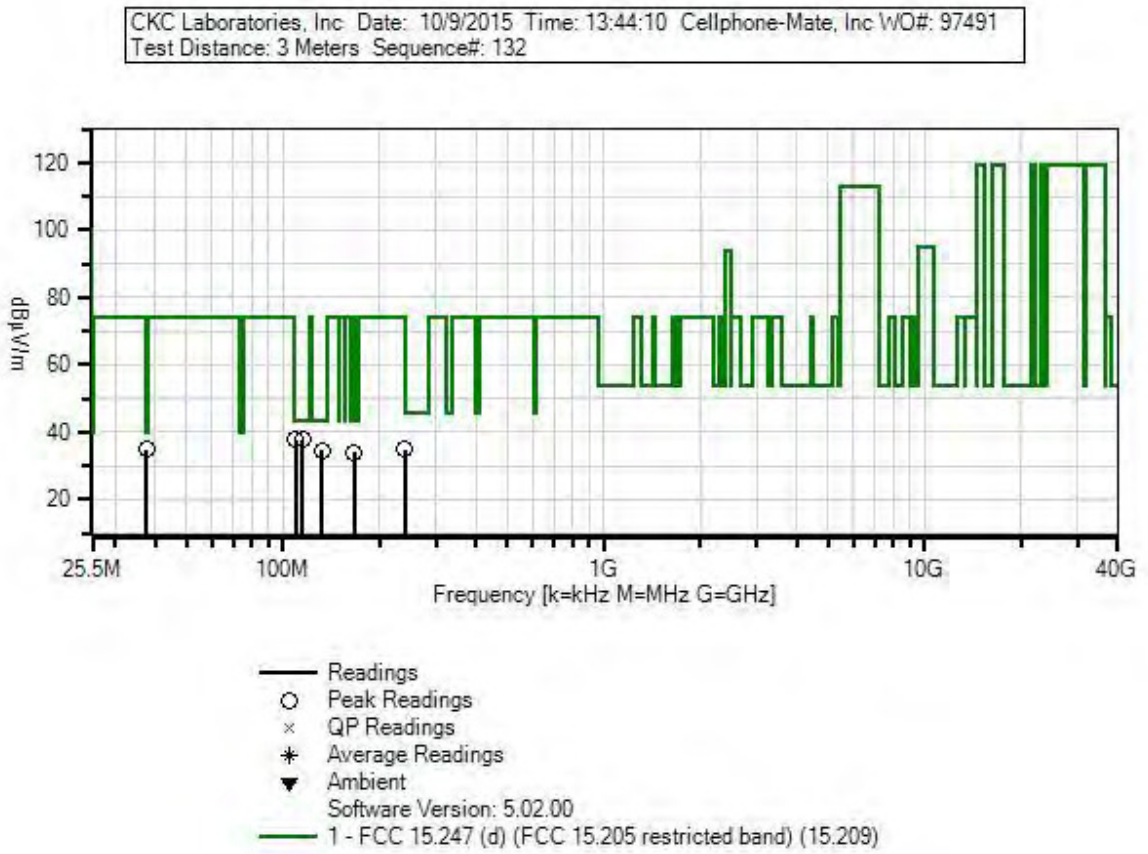
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa
Highest Generation Frequency: 2.462GHz

Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz-25000MHz - RBW=1 MHz VBW=1MHz

802.11b Mode
Date rate = 2Mbps
Attenuator for 802.11b Mode =32
Middle Channel


CKC Laboratories, Inc Date: 10/9/2015 Time: 13:44:10 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 132
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	37.533M	47.0	-27.9 +0.2	+15.0	+0.5	+0.1	+0.0	34.9	40.0	-5.1	Vert
2	109.701M	53.1	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	37.8	43.5	-5.7	Vert
3	115.263M	52.7	-27.8 +0.4	+11.4	+0.9	+0.2	+0.0	37.8	43.5	-5.7	Vert
4	132.858M	49.0	-27.8 +0.4	+11.7	+1.0	+0.2	+0.0	34.5	43.5	-9.0	Horiz
5	166.936M	49.9	-27.9 +0.5	+10.1	+1.2	+0.2	+0.0	34.0	43.5	-9.5	Horiz
6	240.023M	48.2	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	34.8	46.0	-11.2	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	15:09:53
Tested By:	Hieu Song Nguyenpham	Sequence#:	60
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz-25000MHz - RBW=1 MHz VBW=1MHz

802.11b Mode
Date rate = 2Mbps
Attenuator for 802.11b Mode=32
Middle Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 15:09:53 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 60

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	4873.913M Ave	69.3	-57.7 +1.5	+33.4 +0.2	+1.7	+3.8	+0.0	52.2	54.0	-1.8	Vert
^	4873.913M	71.3	-57.7 +1.5	+33.4 +0.2	+1.7	+3.8	+0.0	54.2	54.0	+0.2	Vert
3	9747.065M	58.6	-57.6 +2.2	+38.9 +0.2	+2.4	+5.6	+0.0	50.3	54.0	-3.7	Vert
4	7312.229M	59.8	-58.3 +1.9	+36.4 +0.2	+2.1	+5.0	+0.0	47.1	54.0	-6.9	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/9/2015
Test Type:	**Radiated Scan**	Time:	13:59:36
Tested By:	Hieu Song Nguyenpham	Sequence#:	135
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz -RBW=200 Hz VBW=200Hz
150kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11b Mode
Date rate = 2Mbps
Attenuator for 802.11b Mode =32
High Channel

CKC Laboratories, Inc Date: 10/9/2015 Time: 13:59:36 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 135

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	110.207M	53.7	-27.8 +0.4	+11.1	+0.9	+0.2	+0.0	38.5	43.5	-5.0	Vert
2	75.017M	54.5	-27.8 +0.3	+6.9	+0.7	+0.2	+0.0	34.8	40.0	-5.2	Vert
3	37.533M	46.8	-27.9 +0.2	+15.0	+0.5	+0.1	+0.0	34.7	40.0	-5.3	Vert
4	165.924M	49.9	-27.8 +0.5	+10.2	+1.2	+0.2	+0.0	34.2	43.5	-9.3	Horiz
5	132.858M	48.6	-27.8 +0.4	+11.7	+1.0	+0.2	+0.0	34.1	43.5	-9.4	Horiz
6	240.023M	48.2	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	34.8	46.0	-11.2	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	15:26:17
Tested By:	Hieu Song Nguyenpham	Sequence#:	63
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11b Mode
Date rate = 2Mbps
Attenuator for 802.11b Mode=32
High Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 15:26:17 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 63

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	4923.856M Ave	69.1	-57.5 +1.5	+33.5 +0.2	+1.7	+3.8	+0.0	52.3	54.0	-1.7	Vert
^	4923.856M	71.2	-57.5 +1.5	+33.5 +0.2	+1.7	+3.8	+0.0	54.4	54.0	+0.4	Vert
3	9817.360M	56.1	-57.6 +2.2	+39.2 +0.2	+2.4	+5.6	+0.0	48.1	54.0	-5.9	Vert
4	7829.167M	57.7	-57.8 +2.0	+36.6 +0.2	+2.2	+5.1	+0.0	46.0	54.0	-8.0	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/9/2015
Test Type:	**Radiated Scan**	Time:	14:12:29
Tested By:	Hieu Song Nguyenpham	Sequence#:	138
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

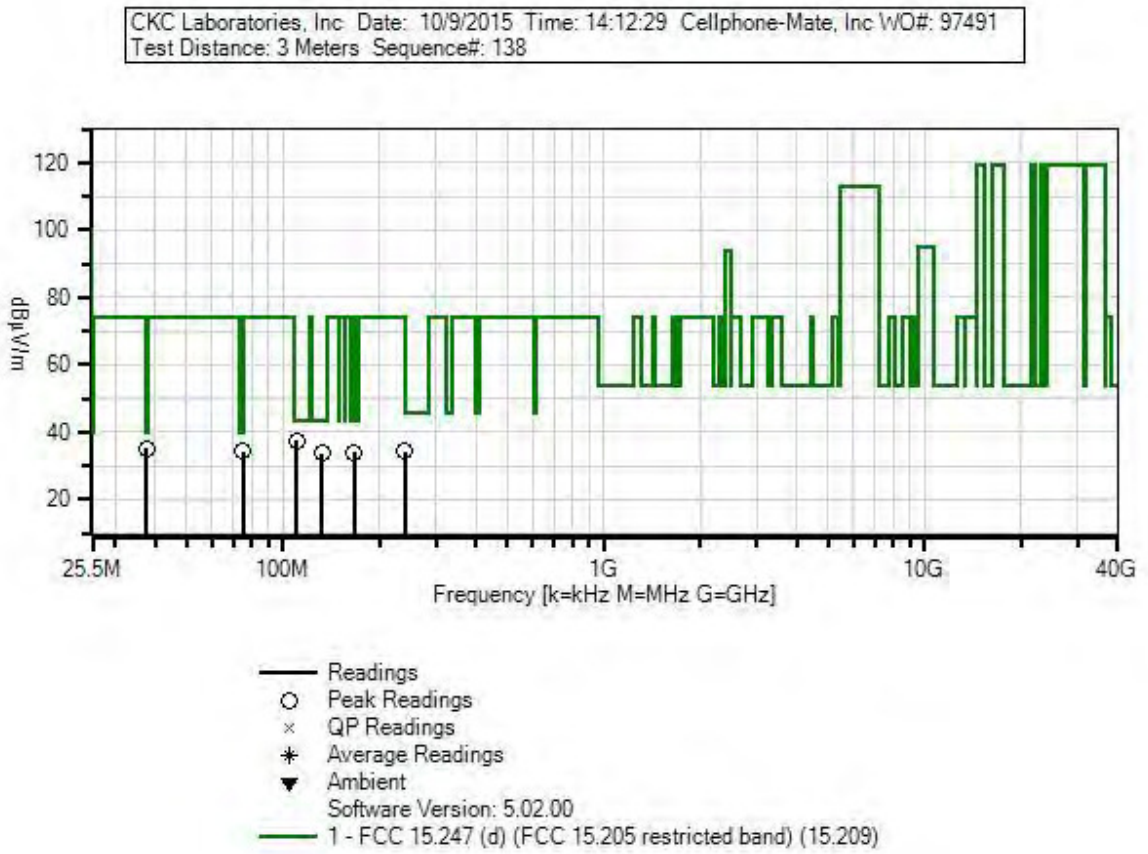
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz- 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11g Mode
Date rate = 54Mbps
Attenuator for 802.11g Mode =38
Low Channel


CKC Laboratories, Inc Date: 10/9/2015 Time: 14:12:29 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 138
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	37.533M	47.3	-27.9 +0.2	+15.0	+0.5	+0.1	+0.0	35.2	40.0	-4.8	Vert
2	75.017M	54.1	-27.8 +0.3	+6.9	+0.7	+0.2	+0.0	34.4	40.0	-5.6	Vert
3	110.005M	52.9	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	37.6	43.5	-5.9	Vert
4	166.531M	49.9	-27.9 +0.5	+10.1	+1.2	+0.2	+0.0	34.0	43.5	-9.5	Horiz
5	131.948M	48.2	-27.8 +0.4	+11.7	+1.0	+0.2	+0.0	33.7	43.5	-9.8	Horiz
6	240.509M	47.7	-27.9 +0.6	+12.2	+1.5	+0.3	+0.0	34.4	46.0	-11.6	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	15:49:14
Tested By:	Hieu Song Nguyenpham	Sequence#:	66
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150kHz - 30MHz - RBW=9 kHz VBW=9kHz
30MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11g Mode
Date rate = 54Mbps
Attenuator for 802.11g Mode=38
Low Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 15:49:14 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 66

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9641.624M	55.6	-57.3 +2.2	+38.7 +0.2	+2.4	+5.5	+0.0	47.3	54.0	-6.7	Vert
2	7844.079M	57.8	-57.8 +2.0	+36.6 +0.2	+2.2	+5.1	+0.0	46.1	54.0	-7.9	Vert
3	4826.084M	61.6	-57.8 +1.5	+33.3 +0.2	+1.7	+3.8	+0.0	44.3	54.0	-9.7	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/9/2015
Test Type:	**Radiated Scan**	Time:	14:23:41
Tested By:	Hieu Song Nguyenpham	Sequence#:	141
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz- 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150kHz - 30MHz - RBW=9 kHz VBW=9 kHz
30MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11g Mode
Date rate = 54Mbps
Attenuator for 802.11g Mode =38
Middle Channel

CKC Laboratories, Inc Date: 10/9/2015 Time: 14:23:41 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 141

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	74.916M	53.9	-27.8 +0.3	+6.9	+0.7	+0.2	+0.0	34.2	40.0	-5.8	Vert
2	37.828M	46.4	-27.9 +0.2	+14.9	+0.5	+0.1	+0.0	34.2	40.0	-5.8	Vert
3	109.802M	52.5	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	37.2	43.5	-6.3	Vert
4	167.745M	50.5	-27.9 +0.5	+10.0	+1.2	+0.2	+0.0	34.5	43.5	-9.0	Horiz
5	132.656M	48.8	-27.8 +0.4	+11.7	+1.0	+0.2	+0.0	34.3	43.5	-9.2	Horiz
6	156.722M	46.9	-27.8 +0.5	+10.9	+1.1	+0.2	+0.0	31.8	43.5	-11.7	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	16:08:51
Tested By:	Hieu Song Nguyenpham	Sequence#:	69
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200 Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11g Mode
Date rate = 54Mbps
Attenuator for 802.11g Mode=38
Middle Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 16:08:51 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 69

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	10635.628 M	57.3	-58.3 +2.3	+39.1 +0.2	+2.5	+6.3	+0.0	49.4	54.0	-4.6	Vert
2	9632.626M	56.1	-57.3 +2.2	+38.6 +0.2	+2.4	+5.5	+0.0	47.7	54.0	-6.3	Vert
3	7619.615M	59.0	-58.1 +1.9	+36.5 +0.2	+2.1	+5.1	+0.0	46.7	54.0	-7.3	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/9/2015
Test Type:	**Radiated Scan**	Time:	14:36:53
Tested By:	Hieu Song Nguyenpham	Sequence#:	144
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

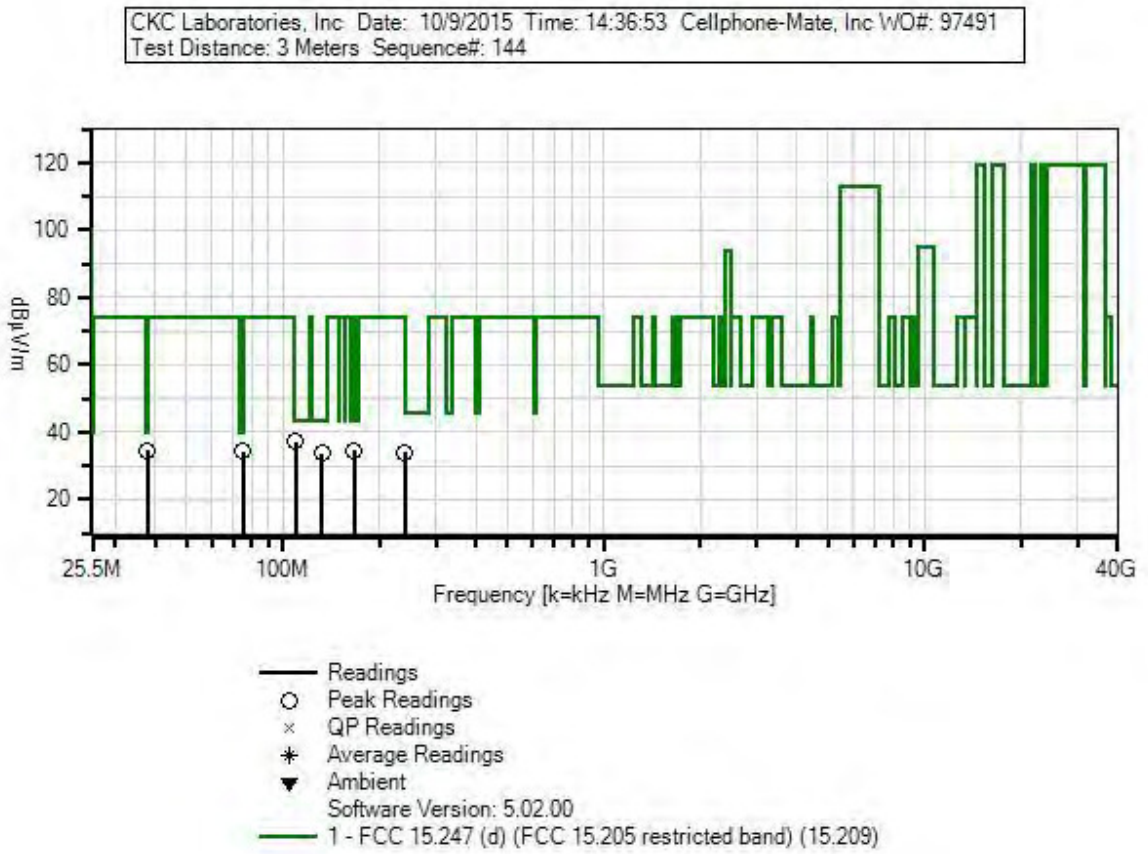
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9kHz - 150kHz - RBW=200 Hz VBW=200Hz
150kHz - 30MHz - RBW=9 kHz VBW=9kHz
30MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11g Mode
Date rate = 54Mbps
Attenuator for 802.11g Mode =38
High Channel


CKC Laboratories, Inc Date: 10/9/2015 Time: 14:36:53 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 144
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	37.786M	46.8	-27.9 +0.2	+14.9	+0.5	+0.1	+0.0	34.6	40.0	-5.4	Vert
2	74.916M	53.9	-27.8 +0.3	+6.9	+0.7	+0.2	+0.0	34.2	40.0	-5.8	Vert
3	109.701M	52.4	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	37.1	43.5	-6.4	Vert
4	166.936M	50.6	-27.9 +0.5	+10.1	+1.2	+0.2	+0.0	34.7	43.5	-8.8	Horiz
5	132.352M	48.3	-27.8 +0.4	+11.7	+1.0	+0.2	+0.0	33.8	43.5	-9.7	Horiz
6	240.509M	47.2	-27.9 +0.6	+12.2	+1.5	+0.3	+0.0	33.9	46.0	-12.1	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	16:23:23
Tested By:	Hieu Song Nguyenpham	Sequence#:	72
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9kHz - 150kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11g Mode
Date rate = 54Mbps
Attenuator for 802.11g Mode=38
High Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 16:23:23 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 72

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9982.552M	55.9	-58.0 +2.3	+39.6 +0.2	+2.4	+5.8	+0.0	48.2	54.0	-5.8	Vert
2	4926.253M	62.5	-57.5 +1.5	+33.5 +0.2	+1.7	+3.8	+0.0	45.7	54.0	-8.3	Vert
3	7307.258M	58.2	-58.3 +1.9	+36.4 +0.2	+2.1	+5.0	+0.0	45.5	54.0	-8.5	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/9/2015
Test Type:	**Radiated Scan**	Time:	14:49:28
Tested By:	Hieu Song Nguyenpham	Sequence#:	147
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

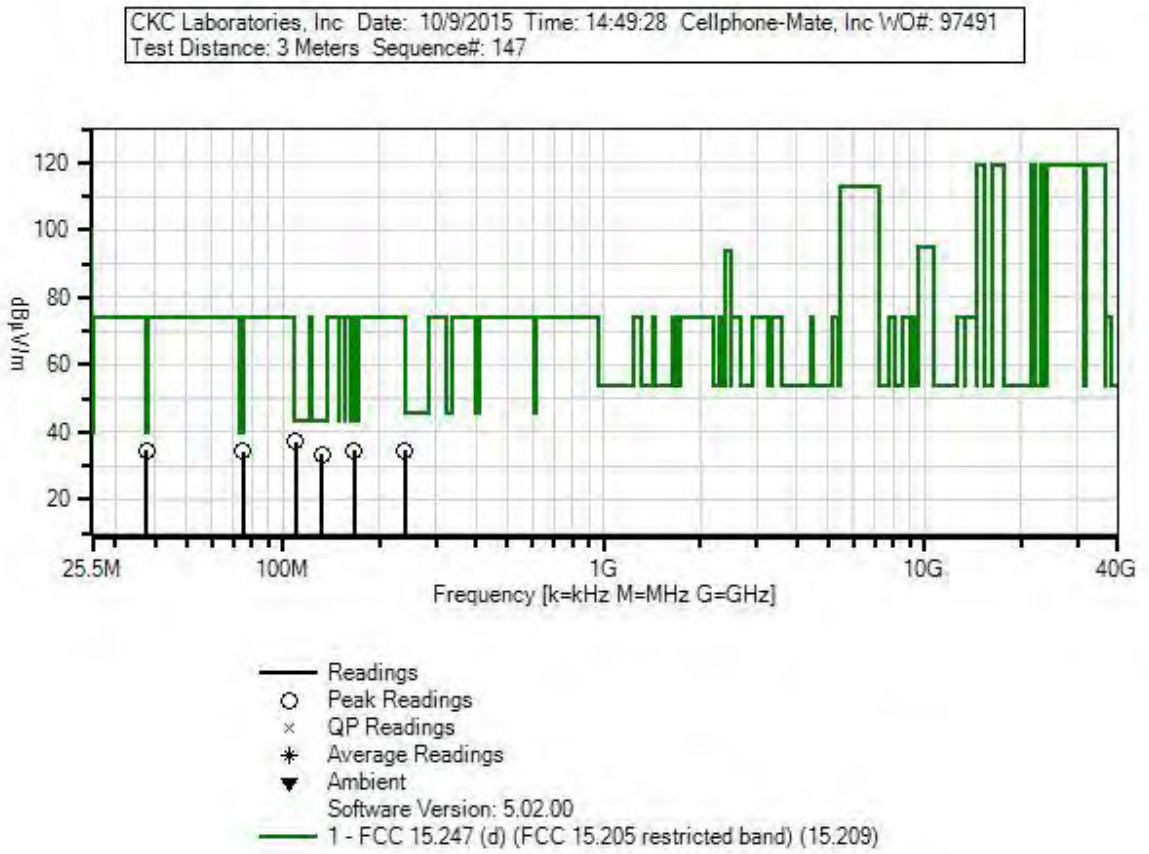
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT20 Mode
Date rate = MCS0
Attenuator for 802.11n HT20 Mode =35
Low Channel


CKC Laboratories, Inc Date: 10/9/2015 Time: 14:49:28 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 147
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	37.533M	46.7	-27.9 +0.2	+15.0	+0.5	+0.1	+0.0	34.6	40.0	-5.4	Vert
2	74.916M	54.0	-27.8 +0.3	+6.9	+0.7	+0.2	+0.0	34.3	40.0	-5.7	Vert
3	109.802M	52.4	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	37.1	43.5	-6.4	Vert
4	166.936M	50.4	-27.9 +0.5	+10.1	+1.2	+0.2	+0.0	34.5	43.5	-9.0	Horiz
5	132.352M	47.9	-27.8 +0.4	+11.7	+1.0	+0.2	+0.0	33.4	43.5	-10.1	Horiz
6	240.023M	47.9	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	34.5	46.0	-11.5	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	09:27:03
Tested By:	Hieu Song Nguyenpham	Sequence#:	75
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9kHz - 15 kHz - RBW=200 Hz VBW=200 Hz
150kHz - 30MHz - RBW=9 kHz VBW=9kHz
30MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz-25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT20 Mode
Date rate = MCS0
Attenuator for 802.11n HT20 Mode=35
Low Channel

CKC Laboratories, Inc Date: 10/8/2015 Time: 09:27:03 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 75

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9634.594M	55.9	-57.3 +2.2	+38.6 +0.2	+2.4	+5.5	+0.0	47.5	54.0	-6.5	Vert
2	7384.302M	58.2	-58.3 +1.9	+36.6 +0.2	+2.1	+5.1	+0.0	45.8	54.0	-8.2	Vert
3	4822.569M	60.8	-57.8 +1.5	+33.2 +0.2	+1.7	+3.8	+0.0	43.4	54.0	-10.6	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/9/2015
Test Type:	**Radiated Scan**	Time:	15:08:20
Tested By:	Hieu Song Nguyenpham	Sequence#:	150
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

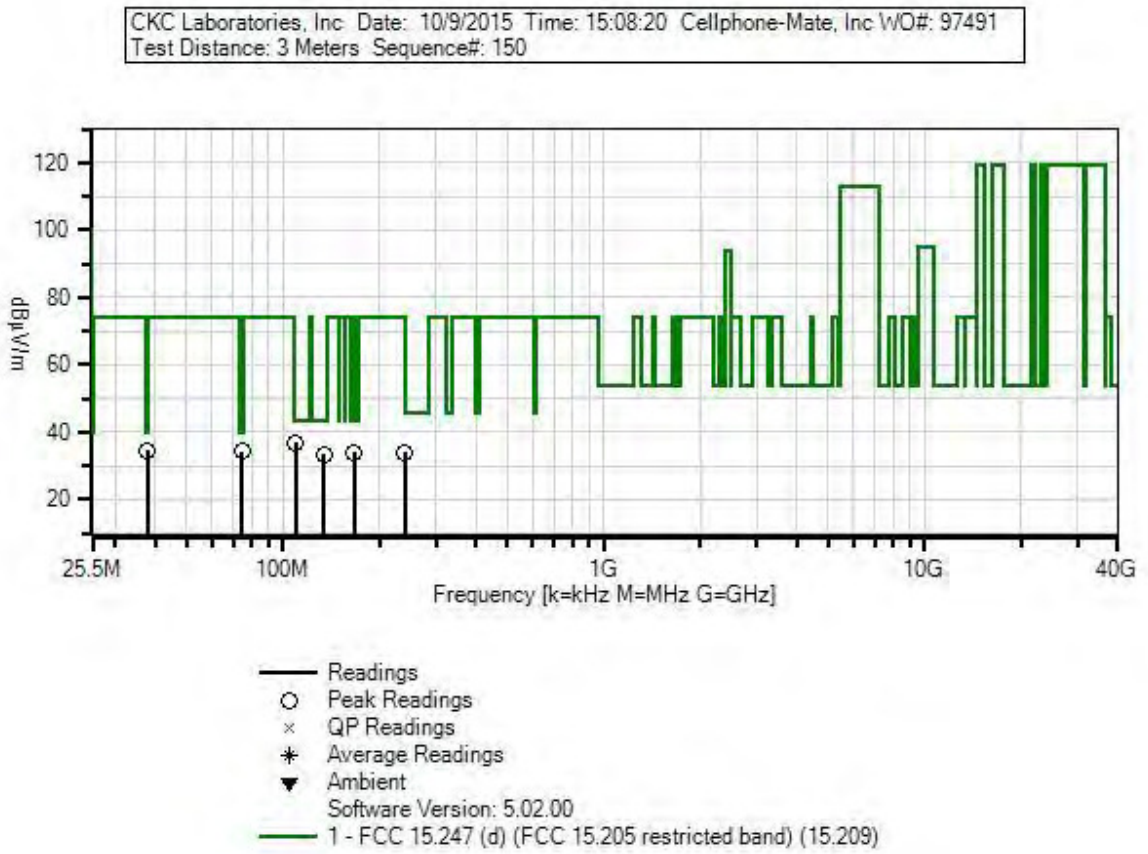
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT20 Mode
Date rate = MCS0
Attenuator for 802.11n HT20 Mode =35
Middle Channel


CKC Laboratories, Inc Date: 10/9/2015 Time: 15:08:20 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 150
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	37.828M	46.7	-27.9 +0.2	+14.9	+0.5	+0.1	+0.0	34.5	40.0	-5.5	Vert
2	74.815M	54.0	-27.8 +0.3	+6.8	+0.7	+0.2	+0.0	34.2	40.0	-5.8	Vert
3	109.903M	52.2	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	36.9	43.5	-6.6	Vert
4	166.632M	50.0	-27.9 +0.5	+10.1	+1.2	+0.2	+0.0	34.1	43.5	-9.4	Horiz
5	134.274M	47.9	-27.8 +0.4	+11.7	+1.0	+0.2	+0.0	33.4	43.5	-10.1	Horiz
6	240.023M	47.4	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	34.0	46.0	-12.0	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	09:44:42
Tested By:	Hieu Song Nguyenpham	Sequence#:	78
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120 kHz
1000MHz-25000MHz - RBW=1 MHz VBW=1 MHz

802.11n HT20 Mode
Date rate = MCS0
Attenuator for 802.11n HT20 Mode=35
Middle Channel

CKC Laboratories, Inc Date: 10/8/2015 Time: 09:44:42 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 78

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9750.580M	56.4	-57.6 +2.2	+38.9 +0.2	+2.4	+5.6	+0.0	48.1	54.0	-5.9	Vert
2	7374.361M	58.4	-58.3 +1.9	+36.5 +0.2	+2.1	+5.1	+0.0	45.9	54.0	-8.1	Vert
3	4873.533M	62.1	-57.7 +1.5	+33.4 +0.2	+1.7	+3.8	+0.0	45.0	54.0	-9.0	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/9/2015
Test Type:	**Radiated Scan**	Time:	15:21:45
Tested By:	Hieu Song Nguyenpham	Sequence#:	153
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

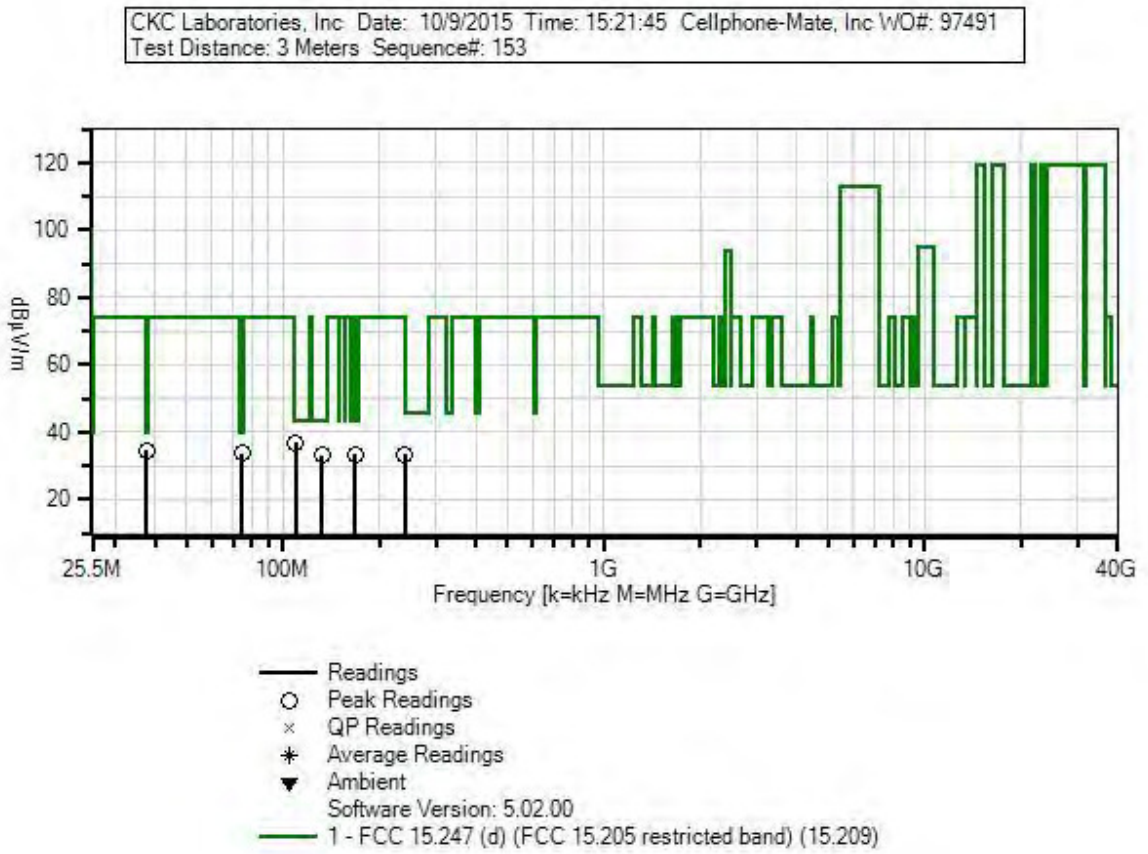
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200 Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120 kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1 MHz

802.11n HT20 Mode
Date rate = MCS0
Attenuator for 802.11n HT20 Mode =35
High Channel


CKC Laboratories, Inc Date: 10/9/2015 Time: 15:21:45 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 153
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	37.533M	46.8	-27.9 +0.2	+15.0	+0.5	+0.1	+0.0	34.7	40.0	-5.3	Vert
2	74.815M	53.6	-27.8 +0.3	+6.8	+0.7	+0.2	+0.0	33.8	40.0	-6.2	Vert
3	109.802M	52.2	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	36.9	43.5	-6.6	Vert
4	167.947M	49.6	-27.9 +0.5	+10.0	+1.2	+0.2	+0.0	33.6	43.5	-9.9	Horiz
5	132.453M	47.8	-27.8 +0.4	+11.7	+1.0	+0.2	+0.0	33.3	43.5	-10.2	Horiz
6	240.023M	47.0	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	33.6	46.0	-12.4	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	10:01:37
Tested By:	Hieu Song Nguyenpham	Sequence#:	81
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200 Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120 kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1 MHz

802.11n HT20 Mode
Date rate = MCS0
Attenuator for 802.11n HT20 Mode=35
High Channel

CKC Laboratories, Inc Date: 10/8/2015 Time: 10:01:37 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 81

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9511.579M	55.3	-57.2 +2.2	+38.5 +0.2	+2.4	+5.4	+0.0	46.8	54.0	-7.2	Vert
2	7836.623M	58.5	-57.8 +2.0	+36.6 +0.2	+2.2	+5.1	+0.0	46.8	54.0	-7.2	Vert
3	4924.496M	60.5	-57.5 +1.5	+33.5 +0.2	+1.7	+3.8	+0.0	43.7	54.0	-10.3	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/9/2015
Test Type:	**Radiated Scan**	Time:	15:38:44
Tested By:	Hieu Song Nguyenpham	Sequence#:	156
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

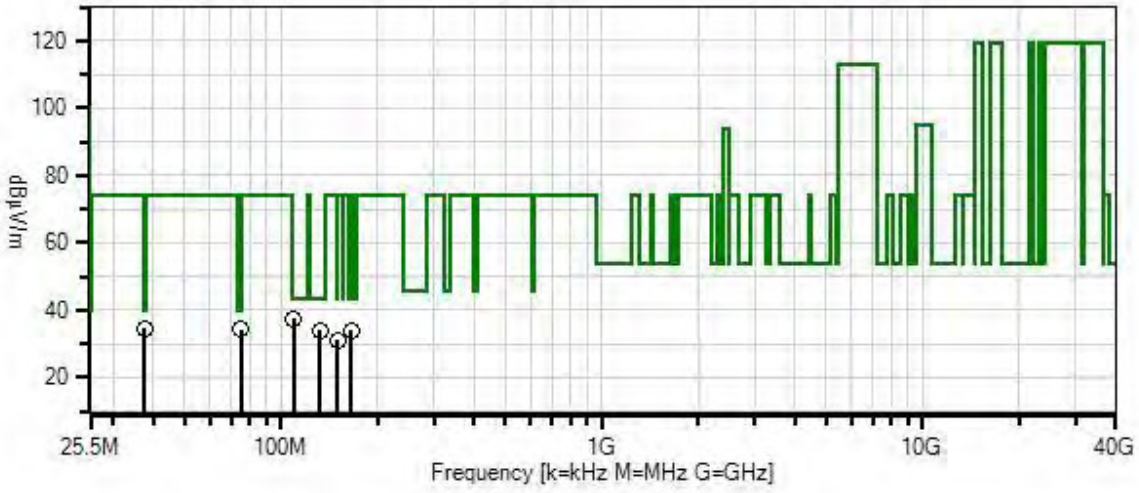
Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200 Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120 kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1 MHz

802.11n HT40 Mode
Date rate = MCS1
Attenuator for 802.11n HT40 Mode =32
Low Channel

CKC Laboratories, Inc Date: 10/9/2015 Time: 15:38:44 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 156



Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	37.533M	46.7	-27.9 +0.2	+15.0	+0.5	+0.1	+0.0	34.6	40.0	-5.4	Vert
2	75.118M	54.1	-27.8 +0.3	+6.9	+0.7	+0.2	+0.0	34.4	40.0	-5.6	Vert
3	109.903M	52.8	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	37.5	43.5	-6.0	Vert
4	165.722M	49.6	-27.8 +0.5	+10.2	+1.2	+0.2	+0.0	33.9	43.5	-9.6	Horiz
5	132.352M	48.4	-27.8 +0.4	+11.7	+1.0	+0.2	+0.0	33.9	43.5	-9.6	Horiz
6	149.947M	46.0	-27.8 +0.4	+11.2	+1.1	+0.2	+0.0	31.1	43.5	-12.4	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	10:32:40
Tested By:	Hieu Song Nguyenpham	Sequence#:	84
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120 kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1 MHz

802.11n HT40 Mode
Date rate = MCS1
Attenuator for 802.11n HT40 Mode=32
Low Channel

CKC Laboratories, Inc Date: 10/8/2015 Time: 10:32:40 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 84

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	10186.405 M	55.7	-57.9 +2.3	+39.6 +0.2	+2.5	+6.0	+0.0	48.4	54.0	-5.6	Vert
2	9856.022M	56.3	-57.6 +2.2	+39.3 +0.2	+2.4	+5.6	+0.0	48.4	54.0	-5.6	Vert
3	7379.331M	59.0	-58.3 +1.9	+36.5 +0.2	+2.1	+5.1	+0.0	46.5	54.0	-7.5	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/9/2015
Test Type:	**Radiated Scan**	Time:	15:51:08
Tested By:	Hieu Song Nguyenpham	Sequence#:	159
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

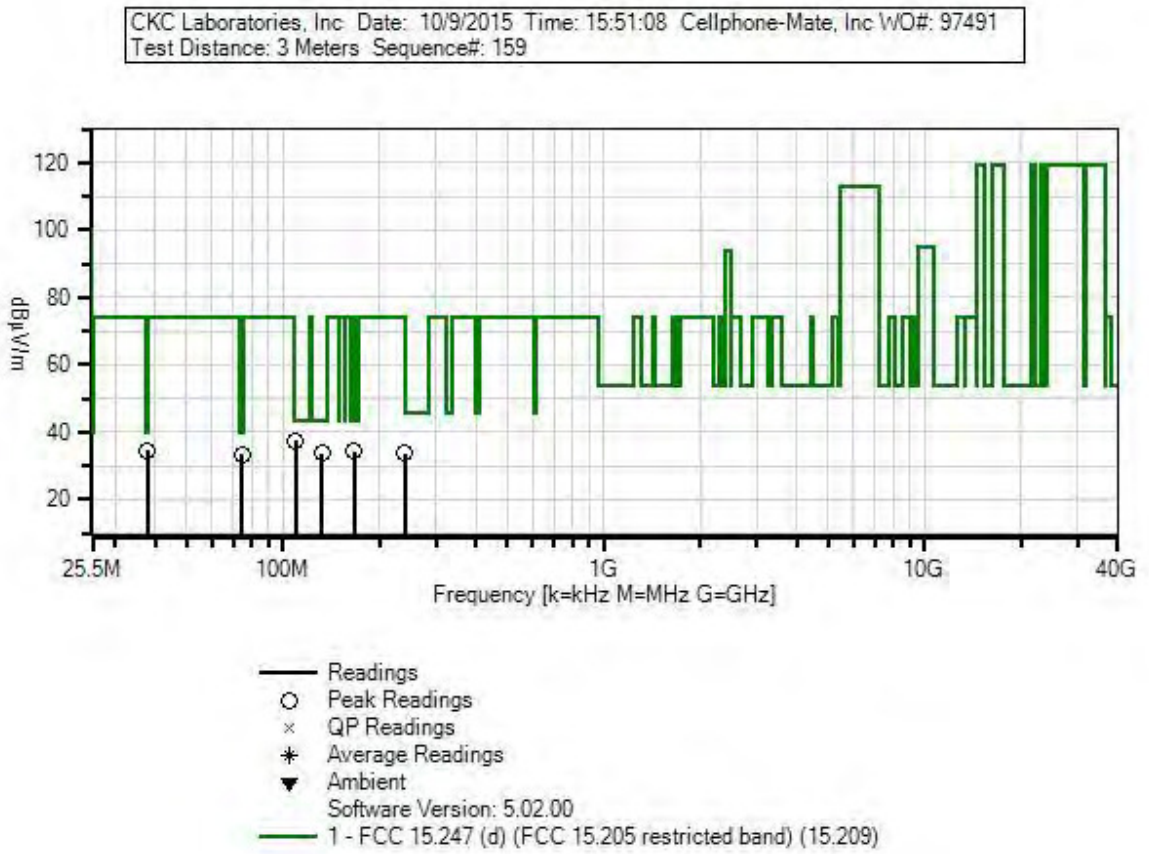
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200 Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120 kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1 MHz

802.11n HT40 Mode
Date rate = MCS1
Attenuator for 802.11n HT40 Mode =32
Middle Channel


CKC Laboratories, Inc Date: 10/9/2015 Time: 15:51:08 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 159
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	37.786M	46.8	-27.9 +0.2	+14.9	+0.5	+0.1	+0.0	34.6	40.0	-5.4	Vert
2	109.802M	52.8	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	37.5	43.5	-6.0	Vert
3	74.815M	53.3	-27.8 +0.3	+6.8	+0.7	+0.2	+0.0	33.5	40.0	-6.5	Vert
4	166.228M	50.1	-27.8 +0.5	+10.1	+1.2	+0.2	+0.0	34.3	43.5	-9.2	Horiz
5	132.453M	48.3	-27.8 +0.4	+11.7	+1.0	+0.2	+0.0	33.8	43.5	-9.7	Horiz
6	240.752M	47.1	-27.9 +0.6	+12.2	+1.5	+0.3	+0.0	33.8	46.0	-12.2	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	10:45:02
Tested By:	Hieu Song Nguyenpham	Sequence#:	87
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9kHz - 150kHz - RBW=200 Hz VBW=200Hz
150kHz - 30MHz - RBW=9 kHz VBW=9kHz
30MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT40 Mode
Date rate = MCS1
Attenuator for 802.11n HT40 Mode=32
Middle Channel

CKC Laboratories, Inc Date: 10/8/2015 Time: 10:45:02 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 87

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9402.623M	55.0	-57.1 +2.2	+38.5 +0.2	+2.4	+5.3	+0.0	46.5	54.0	-7.5	Vert
2	7381.816M	58.5	-58.3 +1.9	+36.5 +0.2	+2.1	+5.1	+0.0	46.0	54.0	-8.0	Vert
3	4880.562M	58.4	-57.6 +1.5	+33.4 +0.2	+1.7	+3.8	+0.0	41.4	54.0	-12.6	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/9/2015
Test Type:	**Radiated Scan**	Time:	16:13:25
Tested By:	Hieu Song Nguyenpham	Sequence#:	162
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

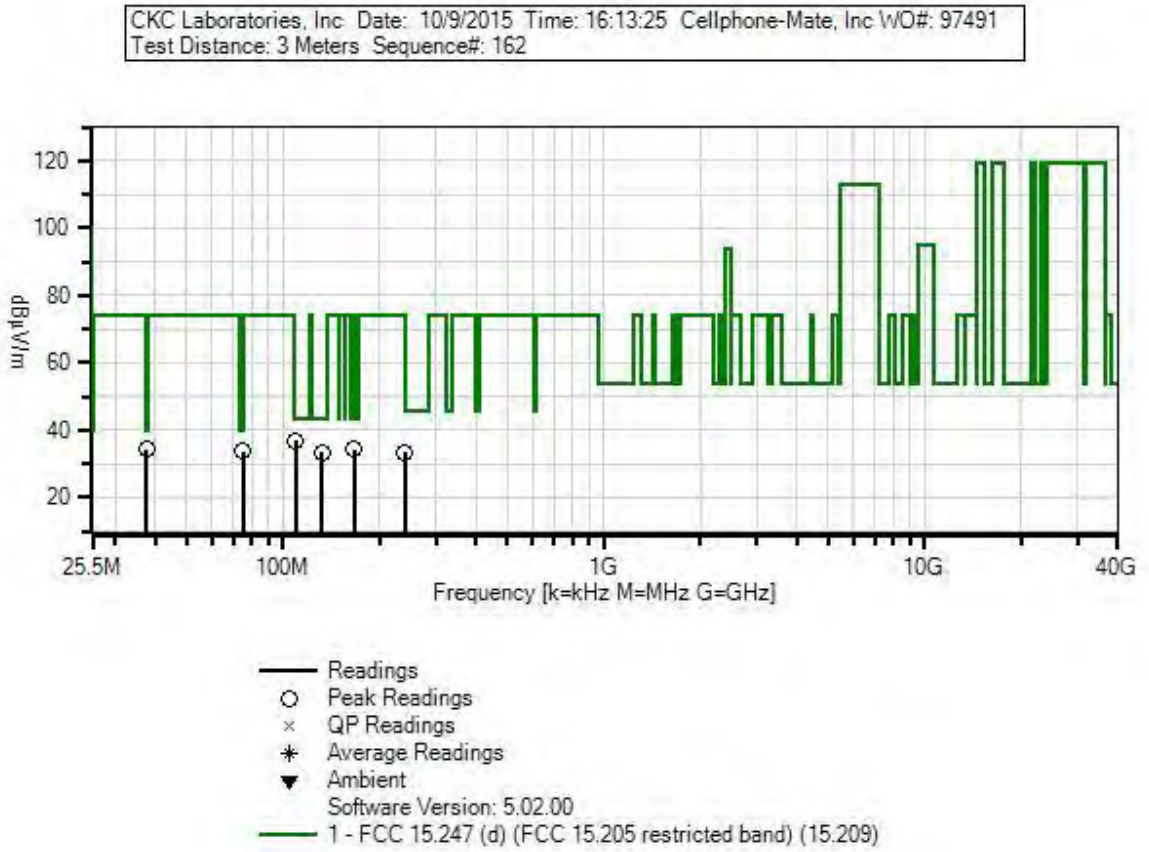
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9kHz - 150kHz - RBW=200 Hz VBW=200Hz
150kHz - 30MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT40 Mode
Date rate = MCS1
Attenuator for 802.11n HT40 Mode =32
High Channel


CKC Laboratories, Inc Date: 10/9/2015 Time: 16:13:25 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 162
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	37.533M	46.5	-27.9 +0.2	+15.0	+0.5	+0.1	+0.0	34.4	40.0	-5.6	Vert
2	75.118M	53.5	-27.8 +0.3	+6.9	+0.7	+0.2	+0.0	33.8	40.0	-6.2	Vert
3	109.701M	52.3	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	37.0	43.5	-6.5	Vert
4	167.138M	50.1	-27.9 +0.5	+10.1	+1.2	+0.2	+0.0	34.2	43.5	-9.3	Horiz
5	132.555M	48.0	-27.8 +0.4	+11.7	+1.0	+0.2	+0.0	33.5	43.5	-10.0	Horiz
6	240.023M	47.0	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	33.6	46.0	-12.4	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	10:55:56
Tested By:	Hieu Song Nguyenpham	Sequence#:	90
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200 Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120 kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1 MHz

802.11n HT40 Mode
Date rate = MCS1
Attenuator for 802.11n HT40 Mode=32
High Channel

CKC Laboratories, Inc Date: 10/8/2015 Time: 10:55:56 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 90

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9539.697M	55.0	-57.2 +2.2	+38.5 +0.2	+2.4	+5.4	+0.0	46.5	54.0	-7.5	Vert
2	7436.493M	58.4	-58.2 +1.9	+36.6 +0.2	+2.1	+5.1	+0.0	46.1	54.0	-7.9	Vert
3	4820.812M	58.6	-57.8 +1.5	+33.2 +0.2	+1.7	+3.8	+0.0	41.2	54.0	-12.8	Vert

SC222W Antenna Band Edge

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**Band edge Set up**		
Work Order #:	**97491**	Date:	10/06/2015
Test Type:	**Radiated Measurement**	Time:	
Tested By:	Hieu Song Nguyenpham	Sequence#:	
Software:	EMITest 5.02.00		

***Test Equipment*:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02157	Horn Antenna - ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
T2	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	03471	Spectrum Analyzer	E4440A	12/19/2013	12/19/2015

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 2			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 2			

Test Conditions / Notes:

Application: MP_TEST MFC version 1.3.8.0

Temperature:23.4°C
Humidity: 42%
Atmospheric Pressure:100.8kPa

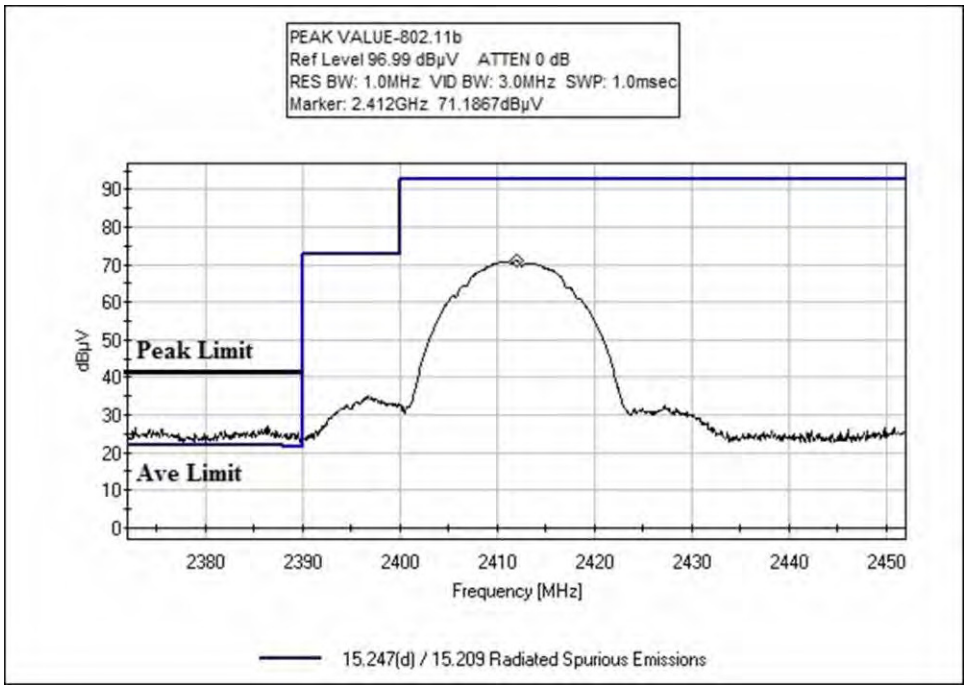
Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC222W)=6dBi
Method: KDB 558074 v03r03 section 13.2

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

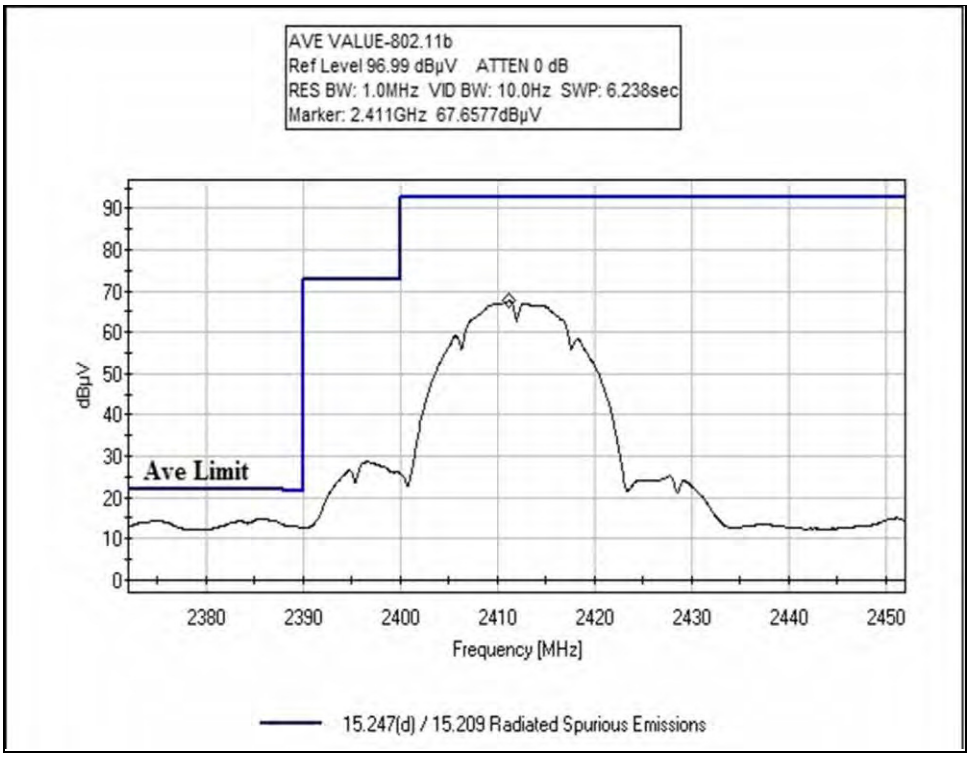
1/ Attenuator for 802.11b Mode =32, the Data Rate at 2Mbps
2/ Attenuator for 802.11g Mode =38, the Data Rate at 54Mbps
3/ Attenuator for 802.11n HT20 Mode =35, the Data Rate at MCS0
4/ Attenuator for 802.11n HT20 Mode =32, the Data Rate at MCS1

SC222W Antenna Band Edge Plots

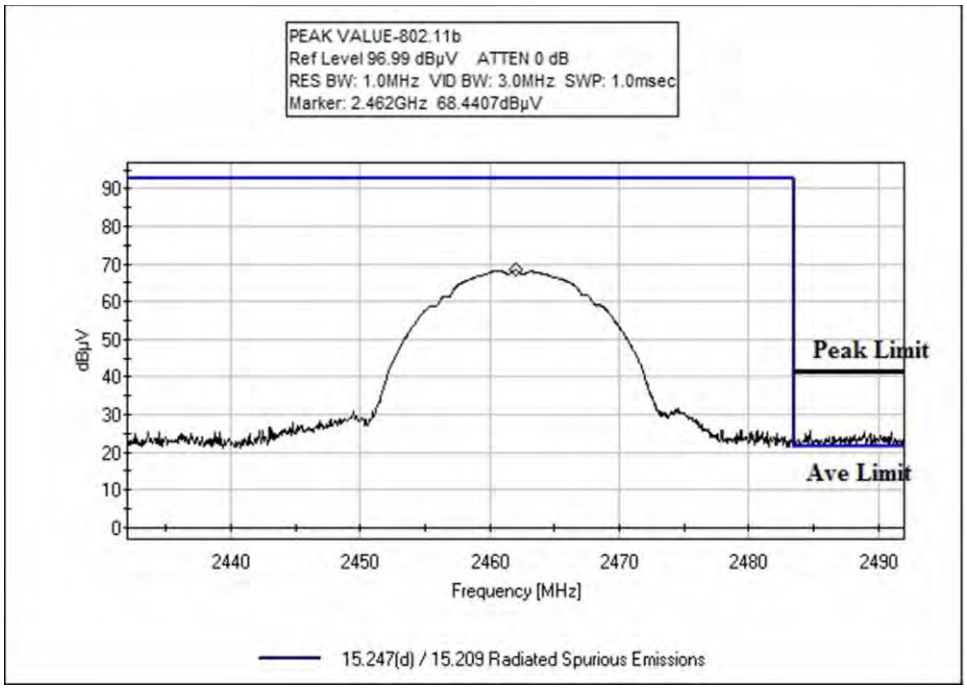
802.11b – Mode



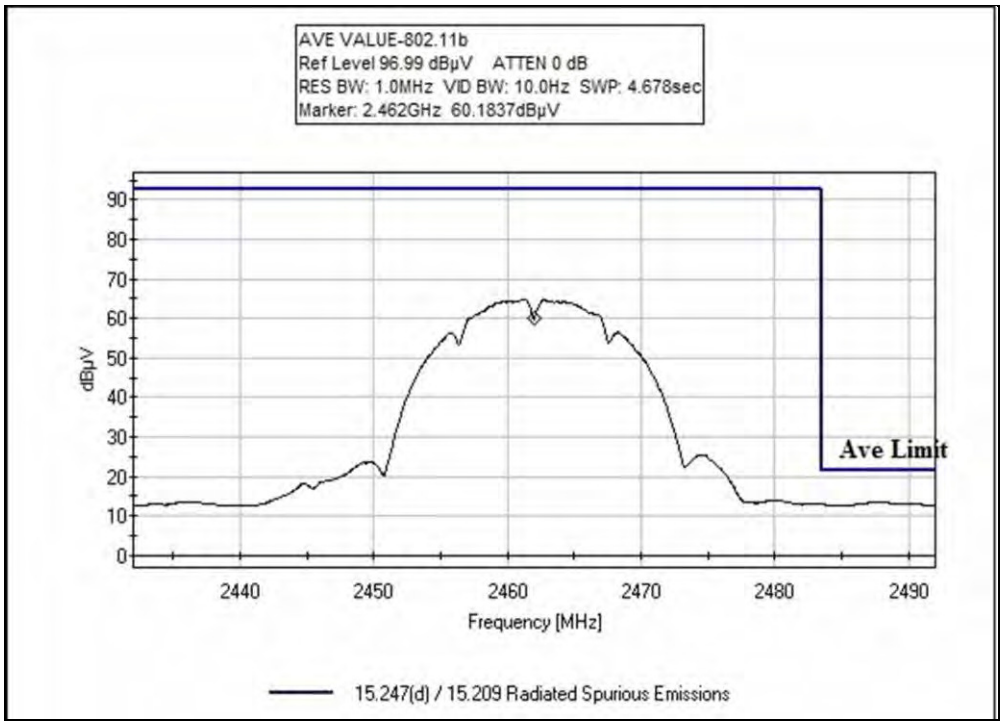
Low Channel



Low Channel

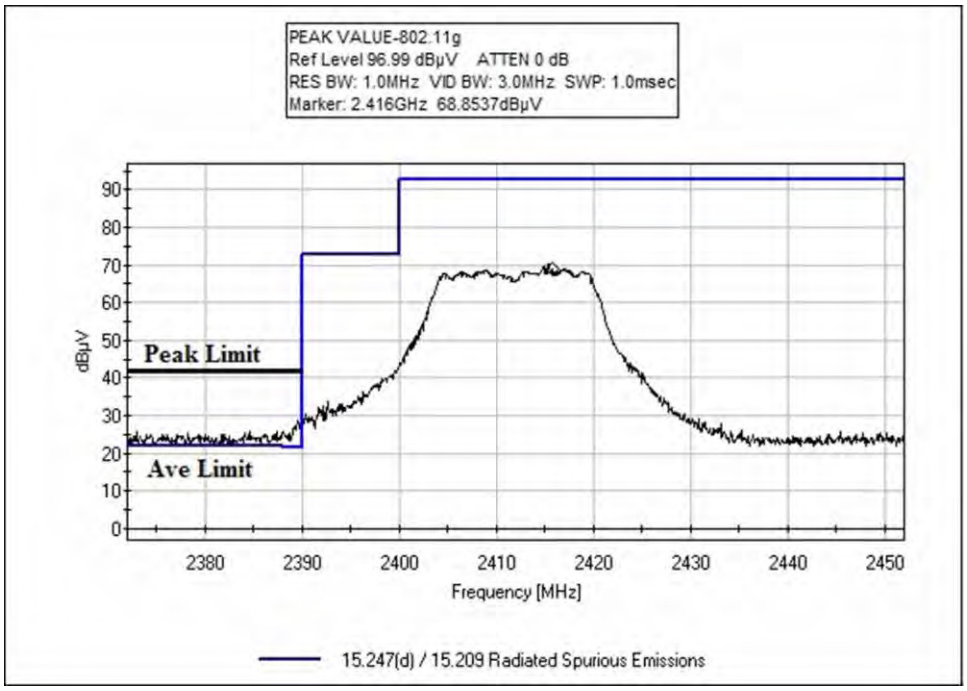


High Channel

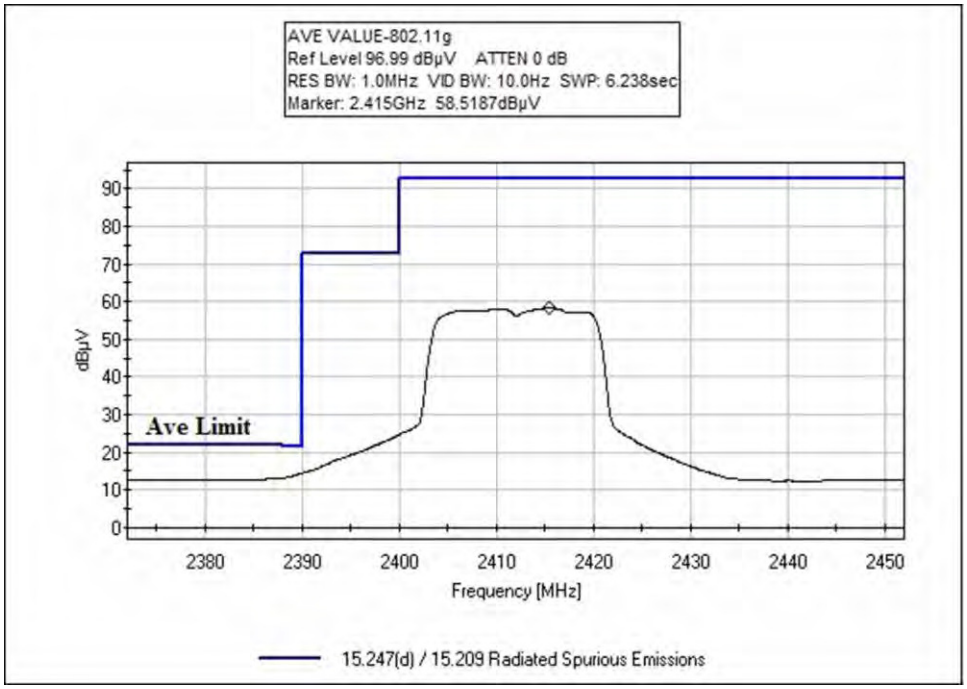


High Channel

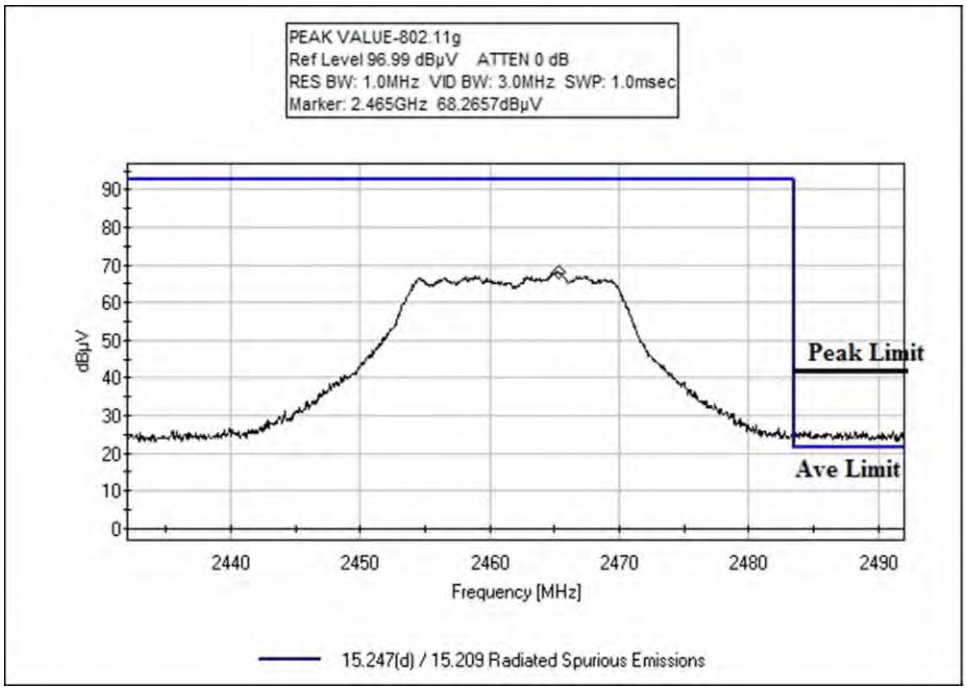
802.11g- Mode



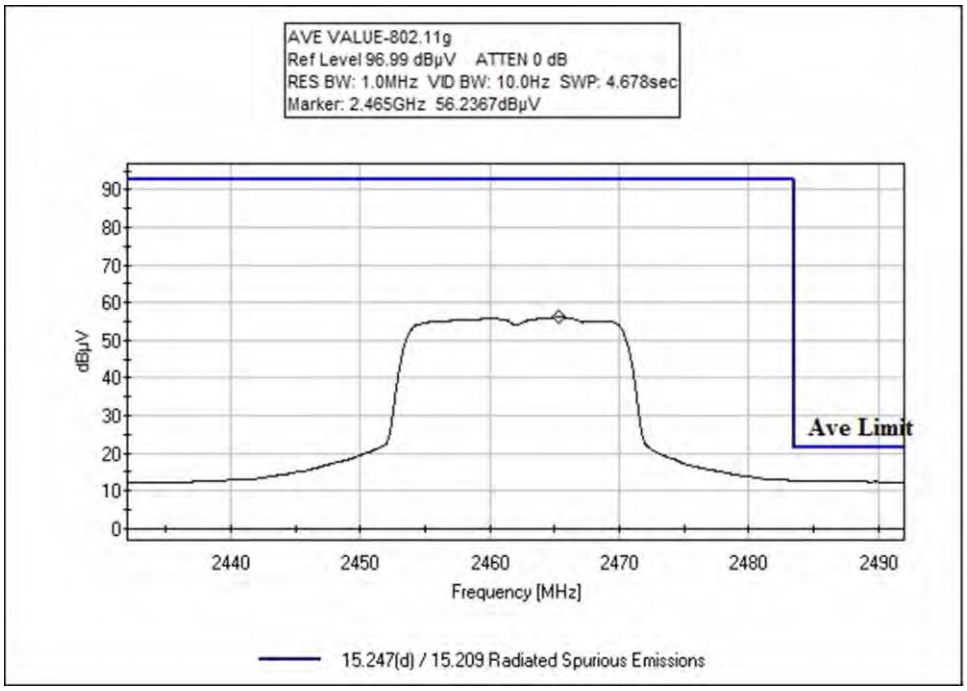
Low Channel



Low Channel

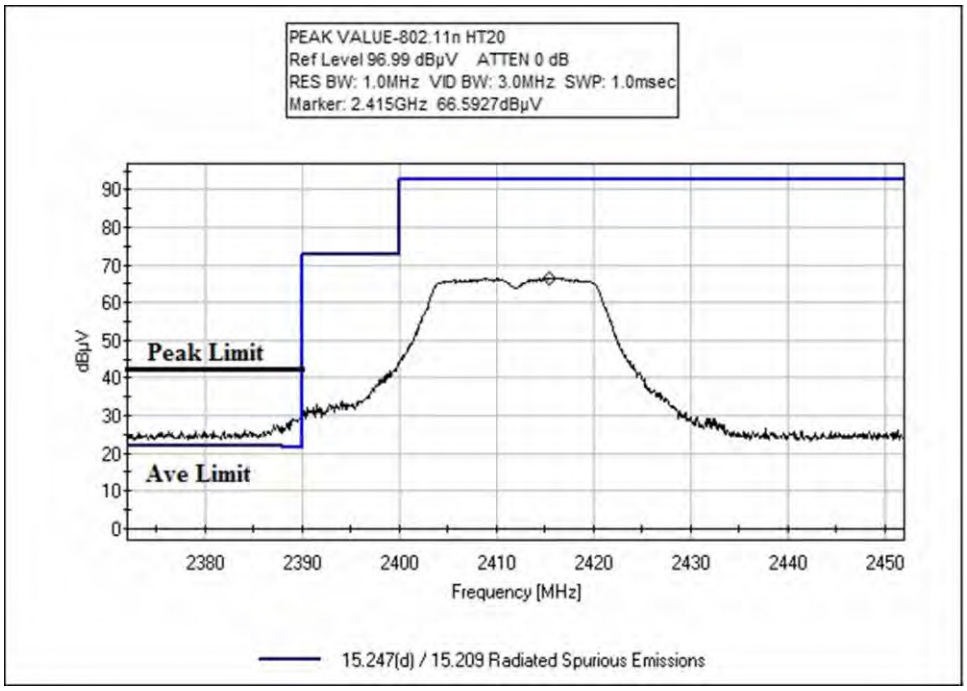


High Channel

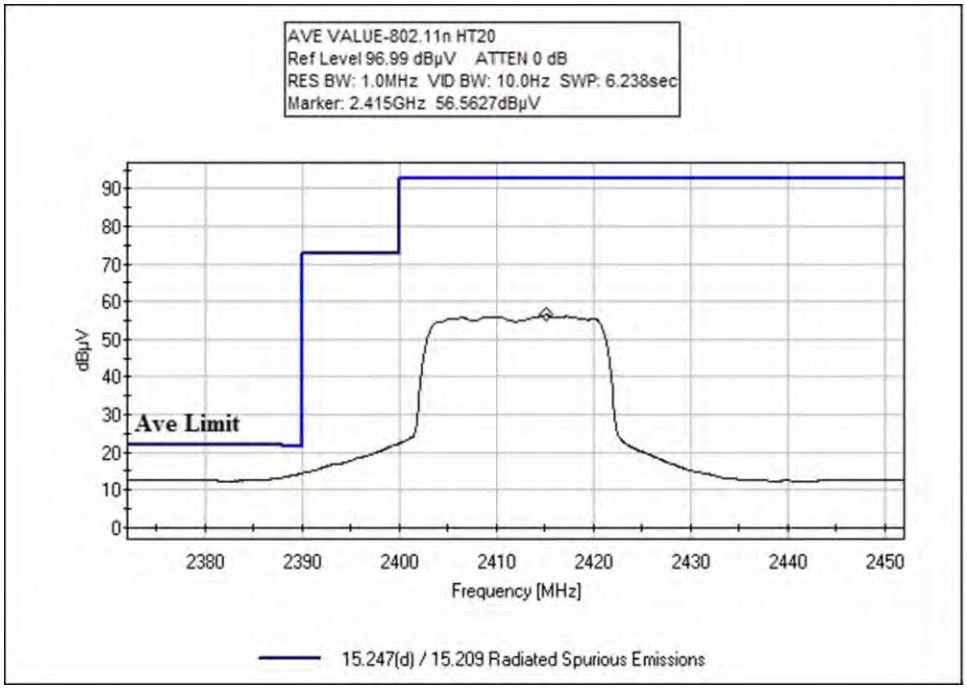


High Channel

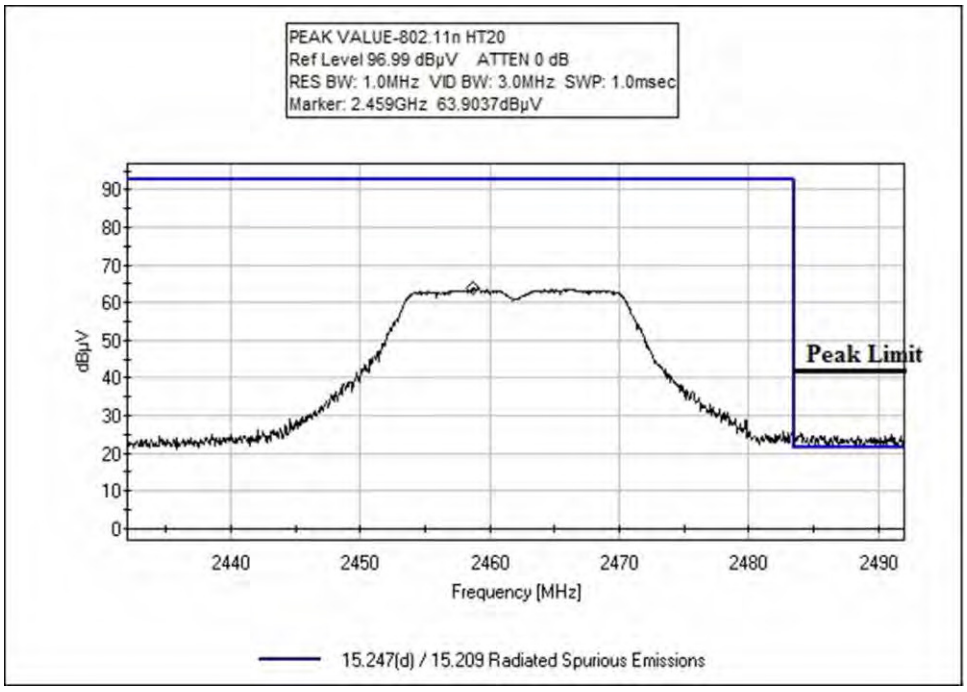
802.11n HT20- Mode



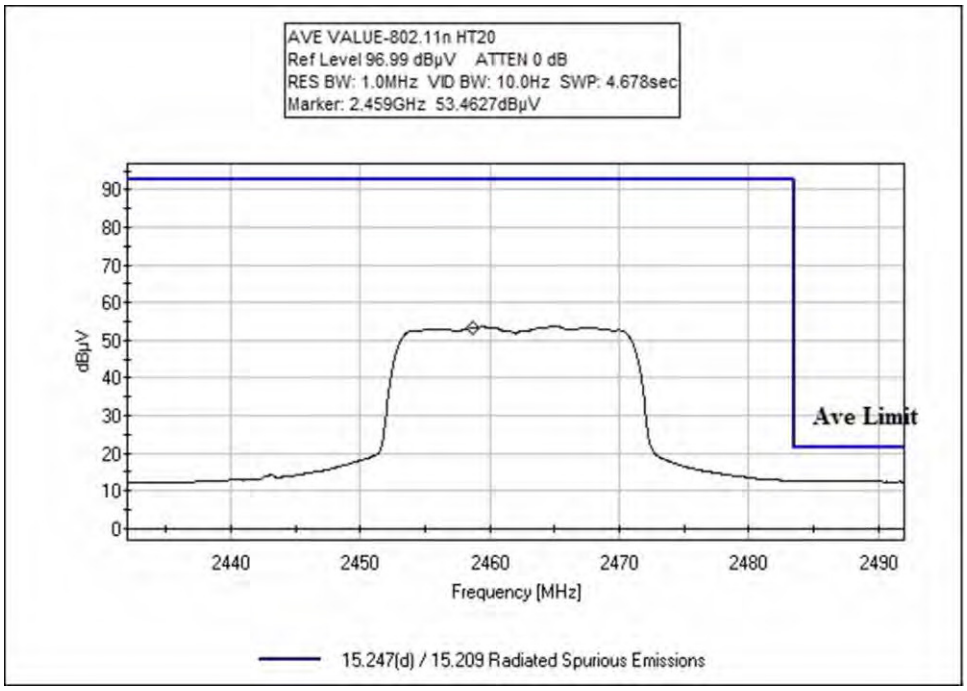
Low Channel



Low Channel

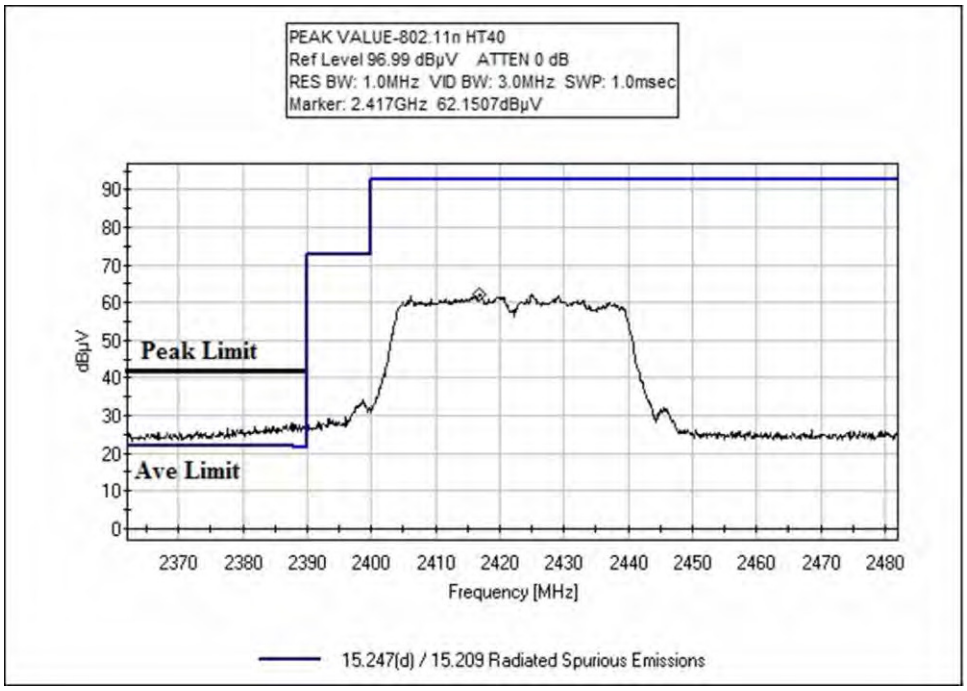


High Channel

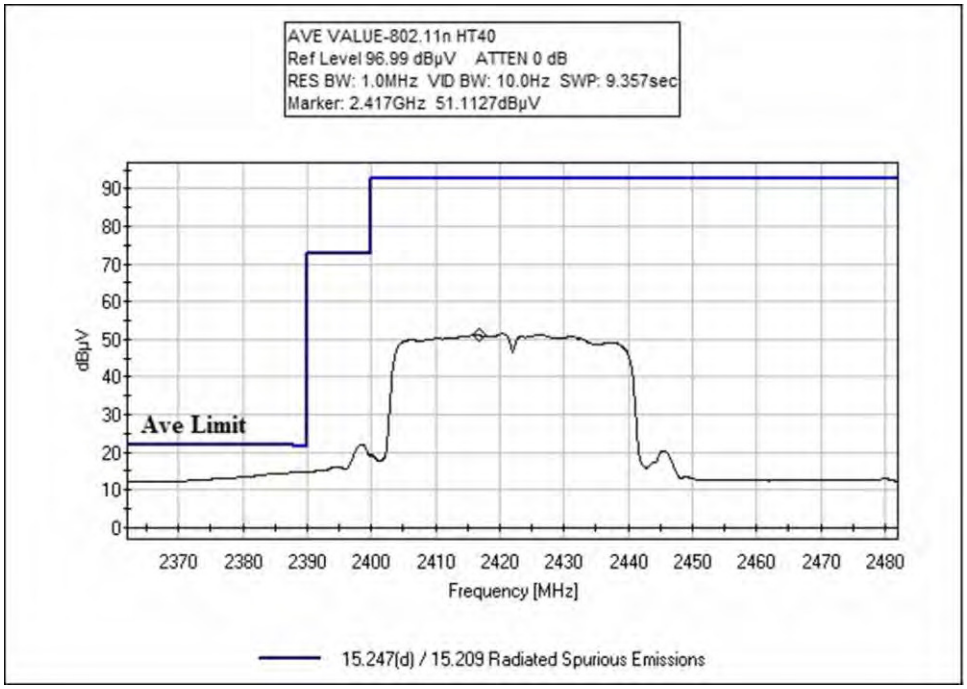


High Channel

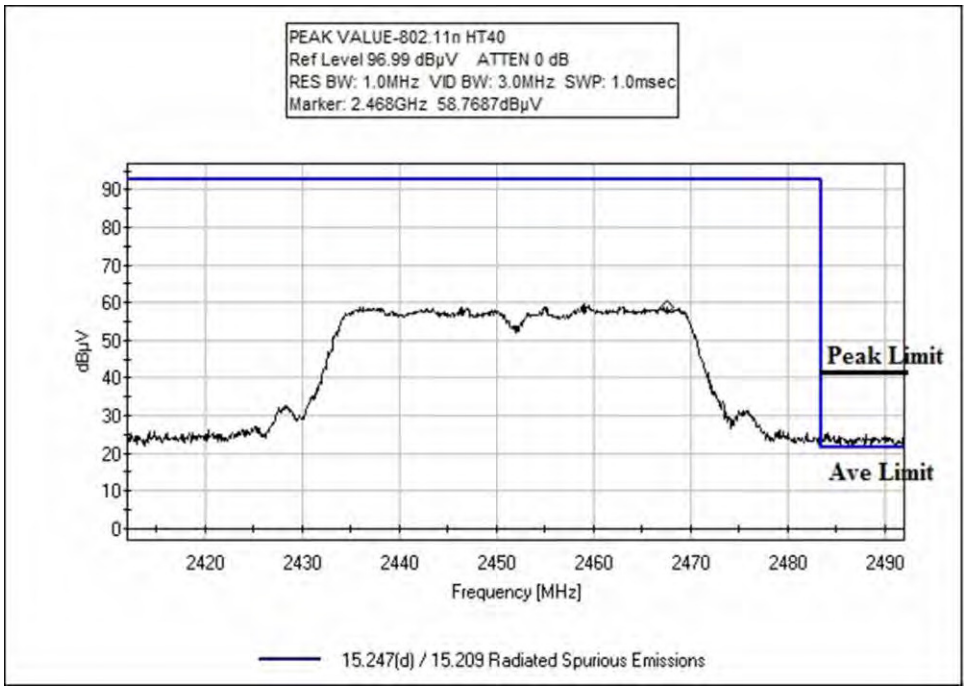
802.11n HT40 - Mode



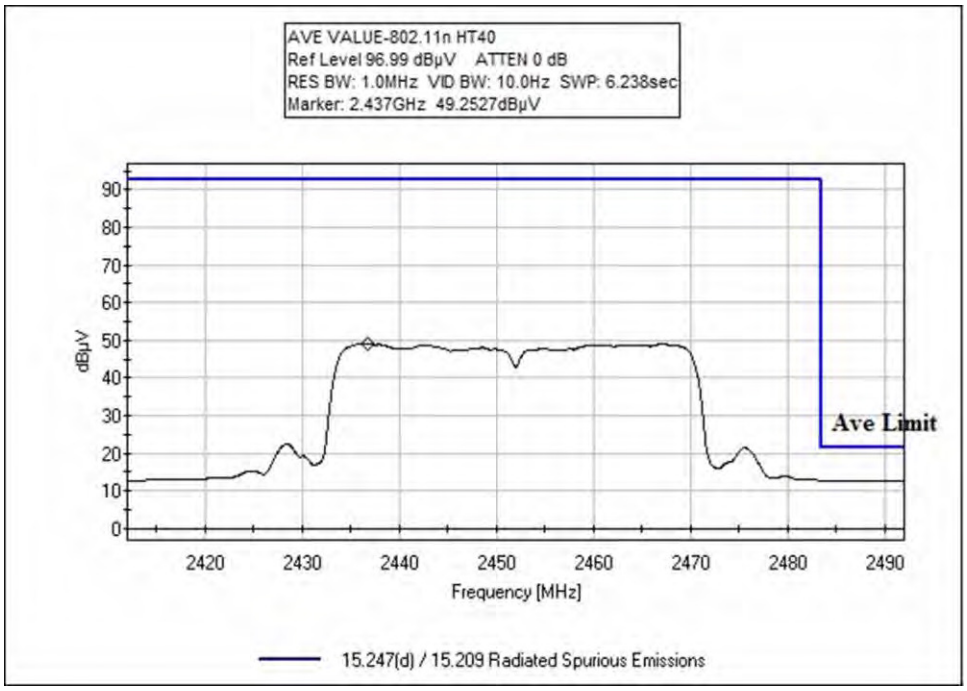
Low Channel



Low Channel



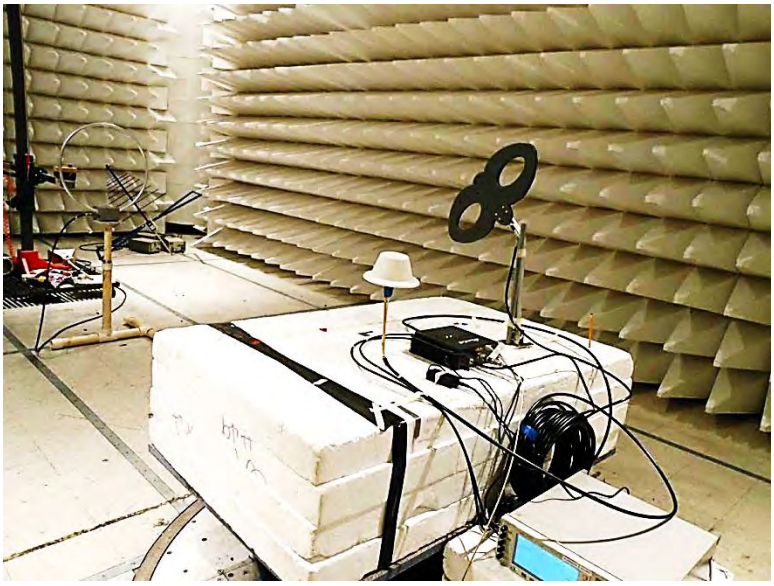
High Channel



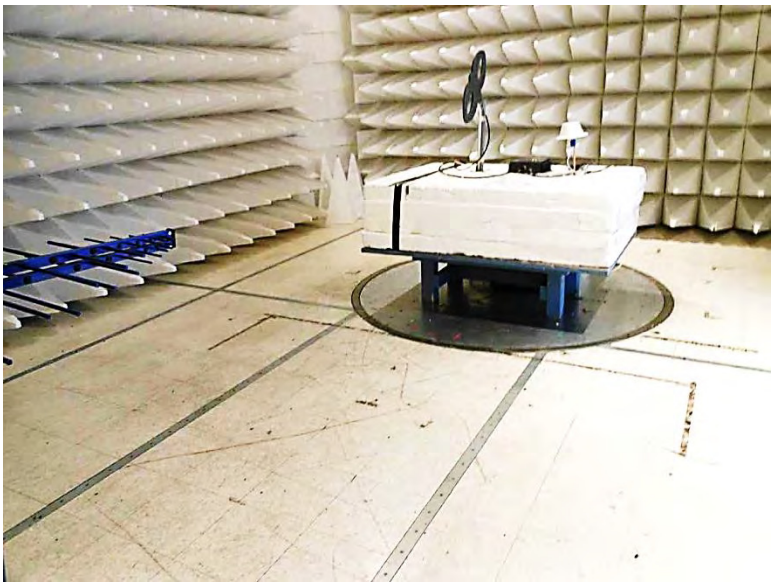
High Channel

SC222W Antenna Test Setup Photos

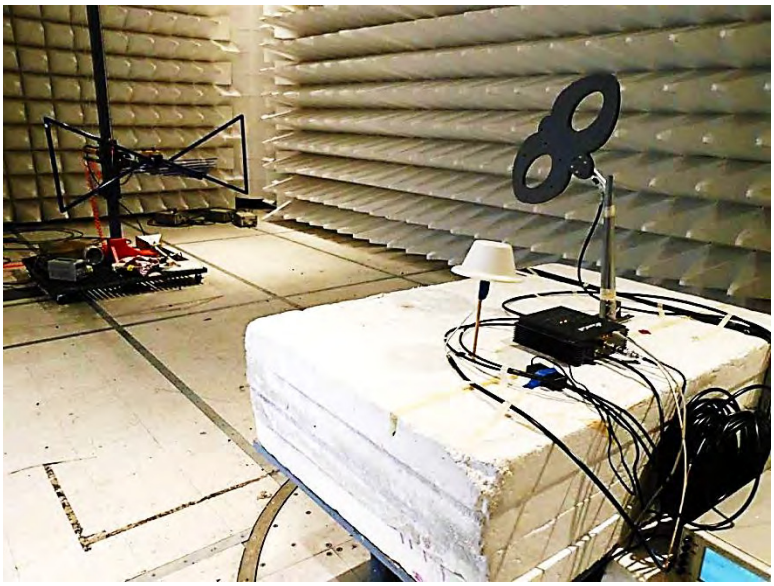
9kHz – 30MHz



9kHz – 30MHz

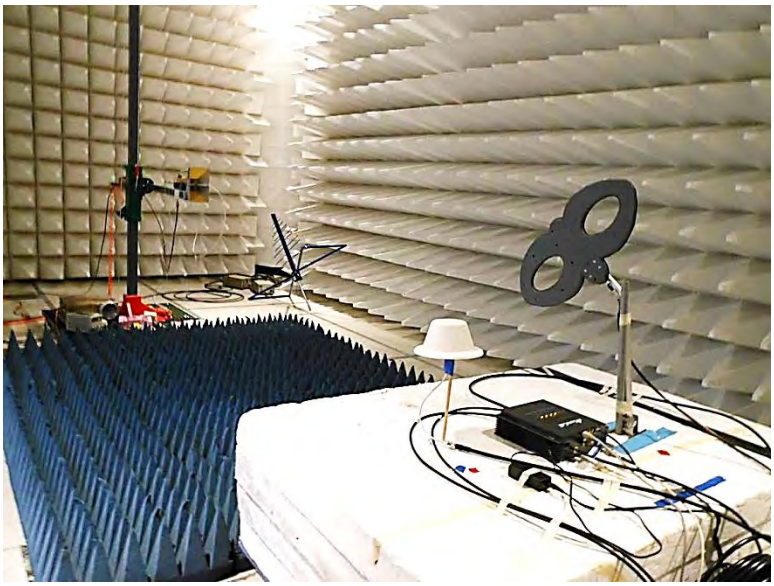


30MHz – 1GHz

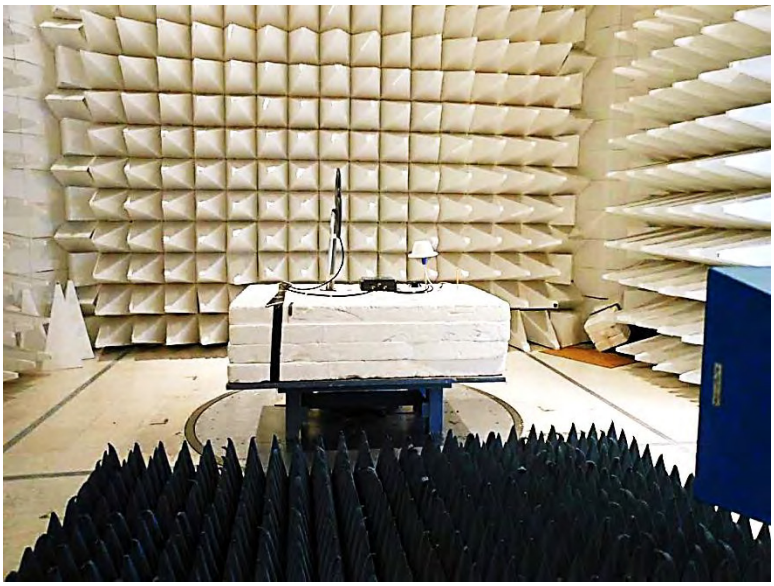


30MHz – 1GHz

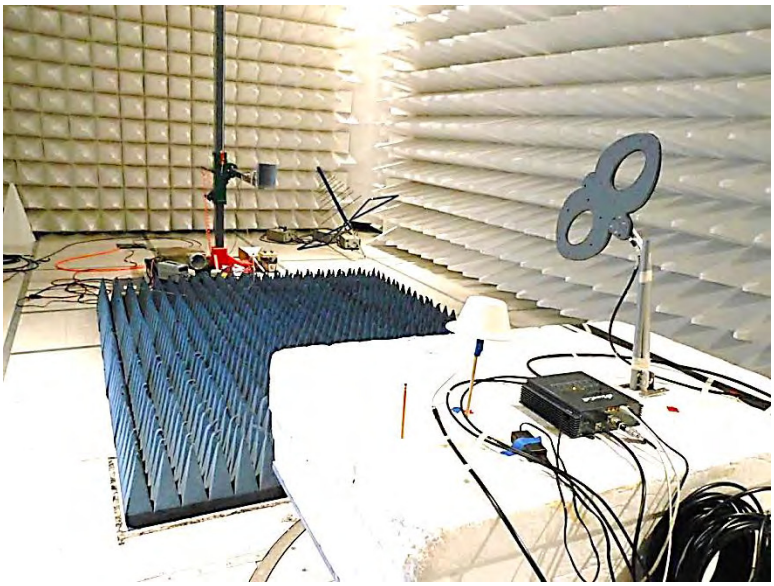
1 – 12GHz



1 – 12GHz



12 – 25GHz



12 – 25GHz

SC248W Antenna Test Setup / Conditions / Data

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	13:31:58
Tested By:	Hieu Song Nguyenpham	Sequence#:	93
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120 kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1 MHz

802.11b Mode
Date rate = 2Mbps
Attenuator for 802.11b Mode =32
Low Channel

CKC Laboratories, Inc Date: 10/8/2015 Time: 13:31:58 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 93

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	116.375M	54.2	-27.8 +0.4	+11.5	+1.0	+0.2	+0.0	39.5	43.5	-4.0	Vert
2	110.510M	54.1	-27.8 +0.4	+11.1	+0.9	+0.2	+0.0	38.9	43.5	-4.6	Vert
3	108.083M	54.0	-27.8 +0.4	+10.9	+0.9	+0.2	+0.0	38.6	43.5	-4.9	Vert
4	120.117M	48.5	-27.8 +0.4	+11.8	+1.0	+0.2	+0.0	34.1	43.5	-9.4	Horiz
5	163.801M	49.3	-27.8 +0.5	+10.4	+1.2	+0.2	+0.0	33.8	43.5	-9.7	Horiz
6	166.531M	49.2	-27.9 +0.5	+10.1	+1.2	+0.2	+0.0	33.3	43.5	-10.2	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	09:37:41
Tested By:	Hieu Song Nguyenpham	Sequence#:	21
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0° C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11b Mode
Date rate = 2Mbps
Attenuator for 802.11b Mode=32
Low Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 09:37:41 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 21

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9648.653M	60.9	-57.3 +2.2	+38.7 +0.2	+2.4	+5.5	+0.0	52.6	54.0	-1.4	Horiz
2	4823.957M Ave	69.4	-57.8 +1.5	+33.3 +0.2	+1.7	+3.8	+0.0	52.1	54.0	-1.9	Vert
^	4823.957M	71.5	-57.8 +1.5	+33.3 +0.2	+1.7	+3.8	+0.0	54.2	54.0	+0.2	Vert
4	7235.185M	63.4	-58.3 +1.9	+36.0 +0.2	+2.0	+5.0	+0.0	50.2	54.0	-3.8	Horiz
5	9647.873M Ave	57.8	-57.3 +2.2	+38.7 +0.2	+2.4	+5.5	+0.0	49.5	54.0	-4.5	Horiz
^	9647.873M	62.2	-57.3 +2.2	+38.7 +0.2	+2.4	+5.5	+0.0	53.9	54.0	-0.1	Horiz
7	10140.714 M	56.6	-57.9 +2.3	+39.6 +0.2	+2.4	+6.0	+0.0	49.2	54.0	-4.8	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	13:49:43
Tested By:	Hieu Song Nguyenpham	Sequence#:	96
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0° C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa
Highest Generation Frequency: 2.462GHz

Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11b Mode
Date rate = 2Mbps
Attenuator for 802.11b Mode =32
Middle Channel

CKC Laboratories, Inc Date: 10/8/2015 Time: 13:49:43 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 96

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	116.982M	54.1	-27.8 +0.4	+11.6	+1.0	+0.2	+0.0	39.5	43.5	-4.0	Vert
2	111.623M	53.8	-27.8 +0.4	+11.2	+0.9	+0.2	+0.0	38.7	43.5	-4.8	Vert
3	38.206M	45.6	-27.9 +0.2	+14.7	+0.5	+0.1	+0.0	33.2	40.0	-6.8	Vert
4	75.017M	51.9	-27.8 +0.3	+6.9	+0.7	+0.2	+0.0	32.2	40.0	-7.8	Horiz
5	114.858M	50.0	-27.8 +0.4	+11.4	+0.9	+0.2	+0.0	35.1	43.5	-8.4	Horiz
6	73.803M	51.4	-27.8 +0.3	+6.7	+0.7	+0.2	+0.0	31.5	40.0	-8.5	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	09:59:10
Tested By:	Hieu Song Nguyenpham	Sequence#:	24
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11b Mode
Date rate = 2Mbps
Attenuator for 802.11b Mode=32
Middle Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 09:59:10 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 24

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	4874.115M Ave	70.0	-57.7 +1.5	+33.4 +0.2	+1.7	+3.8	+0.0	52.9	54.0	-1.1	Vert
^	4874.115M	71.9	-57.7 +1.5	+33.4 +0.2	+1.7	+3.8	+0.0	54.8	54.0	+0.8	Vert
3	9747.065M	58.7	-57.6 +2.2	+38.9 +0.2	+2.4	+5.6	+0.0	50.4	54.0	-3.6	Vert
4	7312.229M	59.2	-58.3 +1.9	+36.4 +0.2	+2.1	+5.0	+0.0	46.5	54.0	-7.5	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	14:07:47
Tested By:	Hieu Song Nguyenpham	Sequence#:	99
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

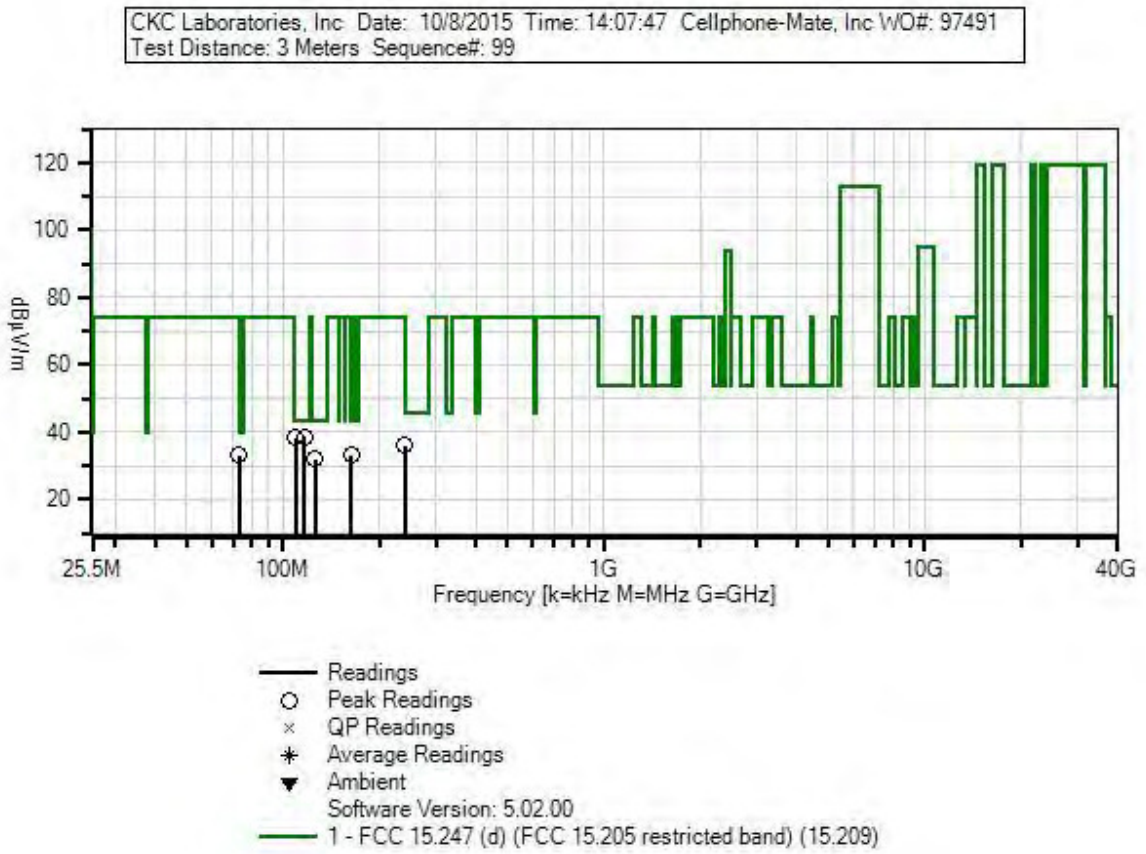
Temperature:22.0° C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz- 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11b Mode
Date rate = 2Mbps
Attenuator for 802.11b Mode =32
High Channel


CKC Laboratories, Inc Date: 10/8/2015 Time: 14:07:47 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 99
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	117.083M	53.3	-27.8 +0.4	+11.6	+1.0	+0.2	+0.0	38.7	43.5	-4.8	Vert
2	109.297M	53.6	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	38.3	43.5	-5.2	Vert
3	73.096M	53.3	-27.8 +0.3	+6.6	+0.7	+0.2	+0.0	33.3	40.0	-6.7	Vert
4	240.023M	49.4	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	36.0	46.0	-10.0	Horiz
5	163.295M	48.7	-27.8 +0.5	+10.4	+1.2	+0.2	+0.0	33.2	43.5	-10.3	Horiz
6	126.083M	46.5	-27.8 +0.4	+11.8	+1.0	+0.2	+0.0	32.1	43.5	-11.4	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	10:20:52
Tested By:	Hieu Song Nguyenpham	Sequence#:	27
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz- 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11b Mode
Date rate = 2Mbps
Attenuator for 802.11b Mode=32
High Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 10:20:52 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 27

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	4923.939M Ave	70.1	-57.5 +1.5	+33.5 +0.2	+1.7	+3.8	+0.0	53.3	54.0	-0.7	Vert
^	4923.939M	72.2	-57.5 +1.5	+33.5 +0.2	+1.7	+3.8	+0.0	55.4	54.0	+1.4	Vert
3	10506.245 M	56.8	-58.1 +2.3	+39.2 +0.2	+2.5	+6.2	+0.0	49.1	54.0	-4.9	Vert
4	7384.302M	58.1	-58.3 +1.9	+36.6 +0.2	+2.1	+5.1	+0.0	45.7	54.0	-8.3	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	14:21:17
Tested By:	Hieu Song Nguyenpham	Sequence#:	102
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

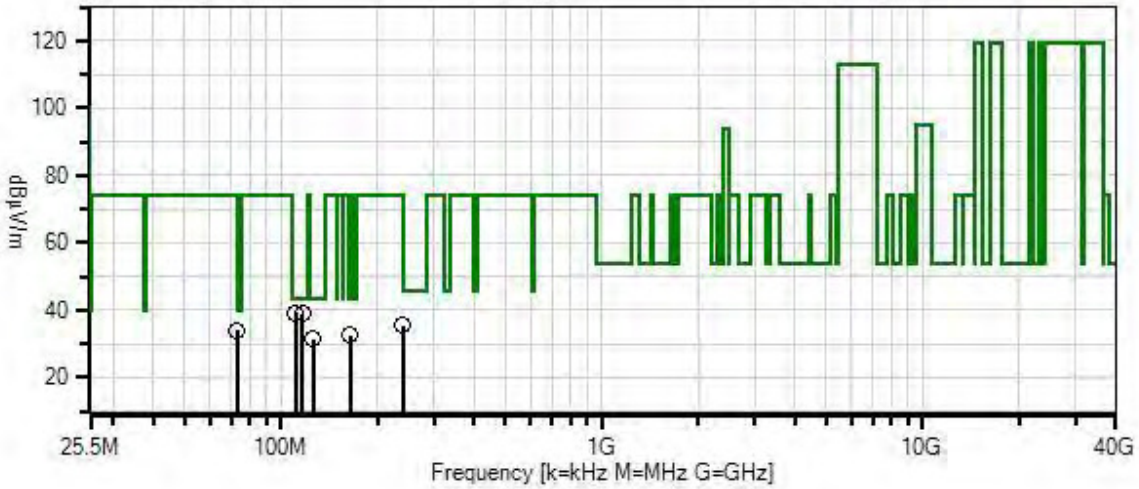
Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200 Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120 kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1 MHz

802.11g Mode
Date rate = 54Mbps
Attenuator for 802.11g Mode =38
Low Channel

CKC Laboratories, Inc Date: 10/8/2015 Time: 14:21:17 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 102



Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	111.016M	54.4	-27.8 +0.4	+11.1	+0.9	+0.2	+0.0	39.2	43.5	-4.3	Vert
2	117.083M	53.7	-27.8 +0.4	+11.6	+1.0	+0.2	+0.0	39.1	43.5	-4.4	Vert
3	73.197M	54.0	-27.8 +0.3	+6.6	+0.7	+0.2	+0.0	34.0	40.0	-6.0	Vert
4	240.509M	48.9	-27.9 +0.6	+12.2	+1.5	+0.3	+0.0	35.6	46.0	-10.4	Horiz
5	164.104M	48.3	-27.8 +0.5	+10.3	+1.2	+0.2	+0.0	32.7	43.5	-10.8	Horiz
6	126.285M	45.9	-27.8 +0.4	+11.8	+1.0	+0.2	+0.0	31.5	43.5	-12.0	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	10:53:29
Tested By:	Hieu Song Nguyenpham	Sequence#:	30
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200 Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11g Mode
Date rate = 54Mbps
Attenuator for 802.11g Mode=38
Low Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 10:53:29 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 30

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9870.081M	55.7	-57.7 +2.2	+39.3 +0.2	+2.4	+5.7	+0.0	47.8	54.0	-6.2	Vert
2	7240.155M	57.9	-58.3 +1.9	+36.1 +0.2	+2.1	+5.0	+0.0	44.9	54.0	-9.1	Vert
3	4826.084M	62.1	-57.8 +1.5	+33.3 +0.2	+1.7	+3.8	+0.0	44.8	54.0	-9.2	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	14:33:10
Tested By:	Hieu Song Nguyenpham	Sequence#:	105
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

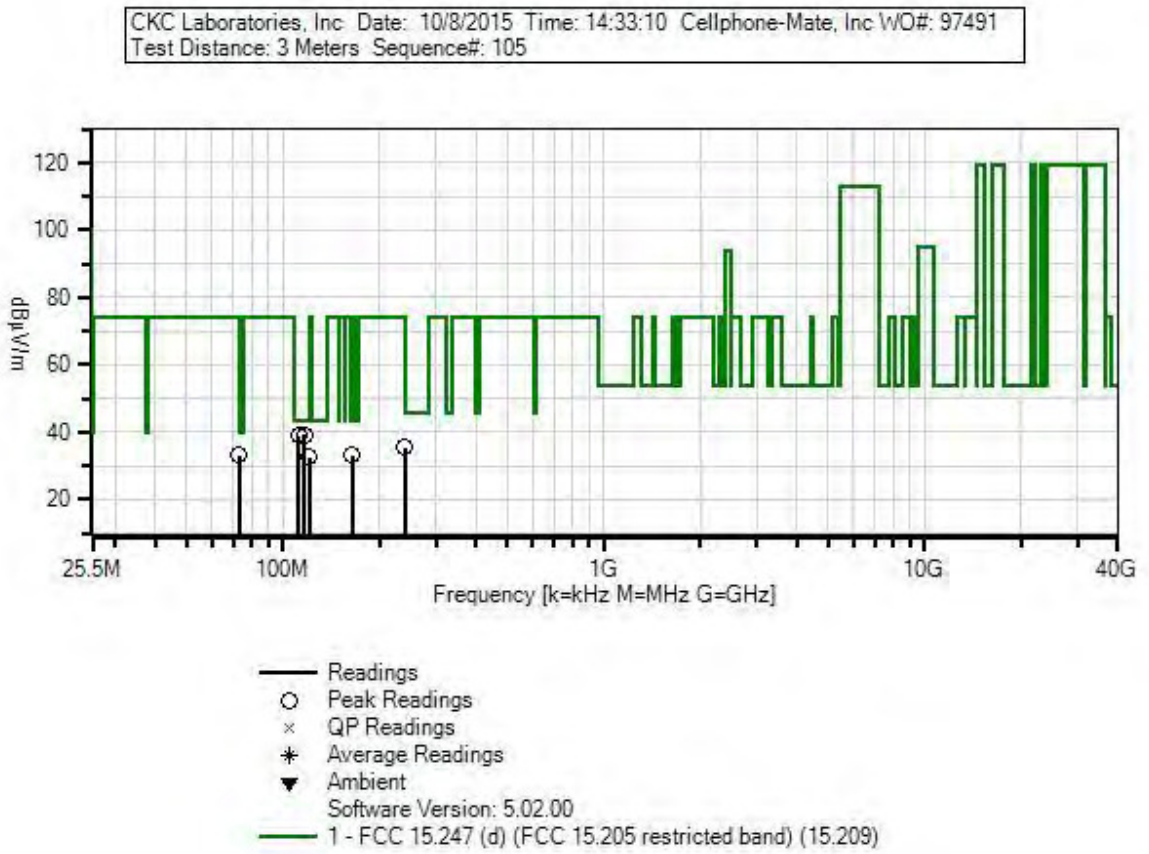
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11g Mode
Date rate = 54Mbps
Attenuator for 802.11g Mode =38
Middle Channel


CKC Laboratories, Inc Date: 10/8/2015 Time: 14:33:10 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 105
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	116.881M	53.8	-27.8 +0.4	+11.6	+1.0	+0.2	+0.0	39.2	43.5	-4.3	Vert
2	111.623M	54.2	-27.8 +0.4	+11.2	+0.9	+0.2	+0.0	39.1	43.5	-4.4	Vert
3	73.197M	53.2	-27.8 +0.3	+6.6	+0.7	+0.2	+0.0	33.2	40.0	-6.8	Vert
4	164.509M	48.8	-27.8 +0.5	+10.3	+1.2	+0.2	+0.0	33.2	43.5	-10.3	Horiz
5	240.023M	48.9	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	35.5	46.0	-10.5	Horiz
6	120.622M	46.9	-27.8 +0.4	+11.8	+1.0	+0.2	+0.0	32.5	43.5	-11.0	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	11:17:14
Tested By:	Hieu Song Nguyenpham	Sequence#:	33
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11g Mode
Date rate = 54Mbps
Attenuator for 802.11g Mode=38
Middle Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 11:17:14 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 33

Readings
× QP Readings
▼ Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
○ Peak Readings
✳ Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9743.551M	56.0	-57.6 +2.2	+38.9 +0.2	+2.4	+5.6	+0.0	47.7	54.0	-6.3	Vert
2	7883.843M	57.6	-57.7 +2.0	+36.6 +0.2	+2.2	+5.1	+0.0	46.0	54.0	-8.0	Vert
3	4875.290M	62.1	-57.7 +1.5	+33.4 +0.2	+1.7	+3.8	+0.0	45.0	54.0	-9.0	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	14:45:26
Tested By:	Hieu Song Nguyenpham	Sequence#:	108
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

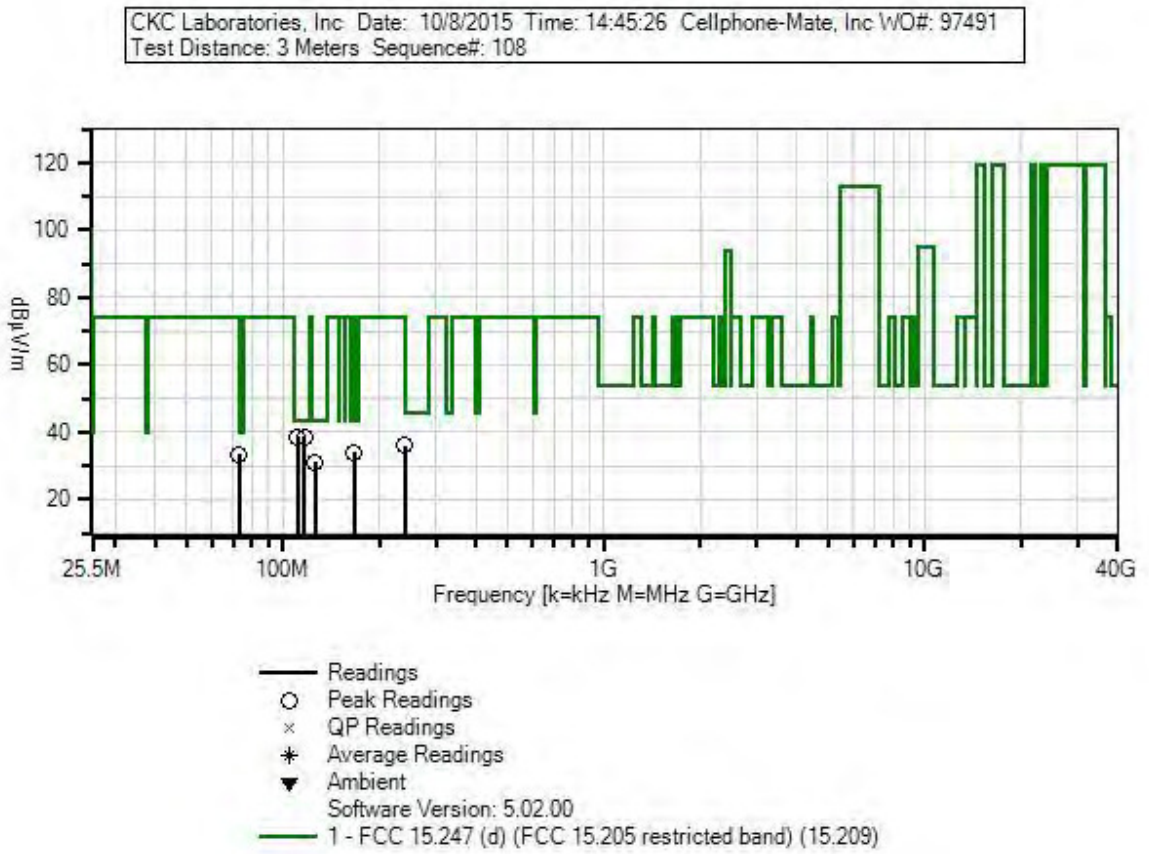
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz-25000MHz - RBW=1 MHz VBW=1MHz

802.11g Mode
Date rate = 54Mbps
Attenuator for 802.11g Mode =38
High Channel


CKC Laboratories, Inc Date: 10/8/2015 Time: 14:45:26 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 108
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	116.982M	53.4	-27.8 +0.4	+11.6	+1.0	+0.2	+0.0	38.8	43.5	-4.7	Vert
2	111.016M	53.9	-27.8 +0.4	+11.1	+0.9	+0.2	+0.0	38.7	43.5	-4.8	Vert
3	73.197M	53.4	-27.8 +0.3	+6.6	+0.7	+0.2	+0.0	33.4	40.0	-6.6	Vert
4	166.632M	49.9	-27.9 +0.5	+10.1	+1.2	+0.2	+0.0	34.0	43.5	-9.5	Horiz
5	240.266M	49.4	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	36.0	46.0	-10.0	Horiz
6	125.779M	45.6	-27.8 +0.4	+11.8	+1.0	+0.2	+0.0	31.2	43.5	-12.3	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	11:36:28
Tested By:	Hieu Song Nguyenpham	Sequence#:	36
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150kHz - 30 MHz - RBW=9 kHz VBW=9 kHz
30MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11g Mode
Date rate = 54Mbps
Attenuator for 802.11g Mode=38
High Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 11:36:28 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 36

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9638.109M	55.4	-57.3 +2.2	+38.7 +0.2	+2.4	+5.5	+0.0	47.1	54.0	-6.9	Vert
2	7379.331M	58.3	-58.3 +1.9	+36.5 +0.2	+2.1	+5.1	+0.0	45.8	54.0	-8.2	Vert
3	4922.739M	62.1	-57.5 +1.5	+33.5 +0.2	+1.7	+3.8	+0.0	45.3	54.0	-8.7	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	15:04:07
Tested By:	Hieu Song Nguyenpham	Sequence#:	111
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

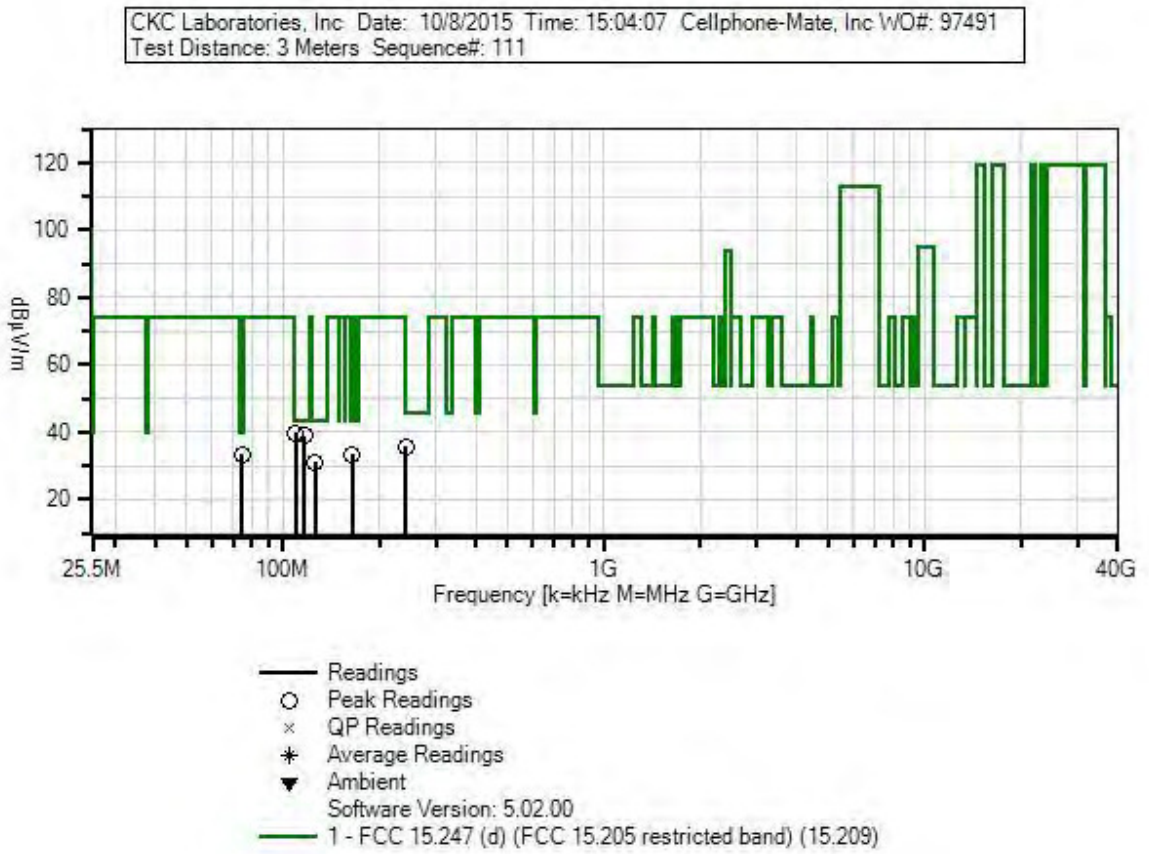
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz- 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT20 Mode
Date rate = MCS0
Attenuator for 802.11n HT20 Mode =35
Low Channel


CKC Laboratories, Inc Date: 10/8/2015 Time: 15:04:07 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 111
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	109.802M	55.0	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	39.7	43.5	-3.8	Vert
2	116.375M	53.6	-27.8 +0.4	+11.5	+1.0	+0.2	+0.0	38.9	43.5	-4.6	Vert
3	74.511M	53.3	-27.8 +0.3	+6.8	+0.7	+0.2	+0.0	33.5	40.0	-6.5	Vert
4	164.417M	49.1	-27.8 +0.5	+10.3	+1.2	+0.2	+0.0	33.5	43.5	-10.0	Horiz
5	240.813M	49.1	-27.9 +0.6	+12.2	+1.5	+0.3	+0.0	35.8	46.0	-10.2	Horiz
6	125.858M	45.5	-27.8 +0.4	+11.8	+1.0	+0.2	+0.0	31.1	43.5	-12.4	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	11:54:41
Tested By:	Hieu Song Nguyenpham	Sequence#:	39
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9kHz - 150kHz - RBW=200 Hz VBW=200Hz
150kHz - 30MHz - RBW=9 kHz VBW=9kHz
30MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT20 Mode
Date rate = MCS0
Attenuator for n HT20 Mode=35
Low Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 11:54:41 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 39

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9645.139M	56.2	-57.3 +2.2	+38.7 +0.2	+2.4	+5.5	+0.0	47.9	54.0	-6.1	Vert
2	7829.167M	59.1	-57.8 +2.0	+36.6 +0.2	+2.2	+5.1	+0.0	47.4	54.0	-6.6	Vert
3	4824.327M	59.8	-57.8 +1.5	+33.3 +0.2	+1.7	+3.8	+0.0	42.5	54.0	-11.5	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	15:19:45
Tested By:	Hieu Song Nguyenpham	Sequence#:	114
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

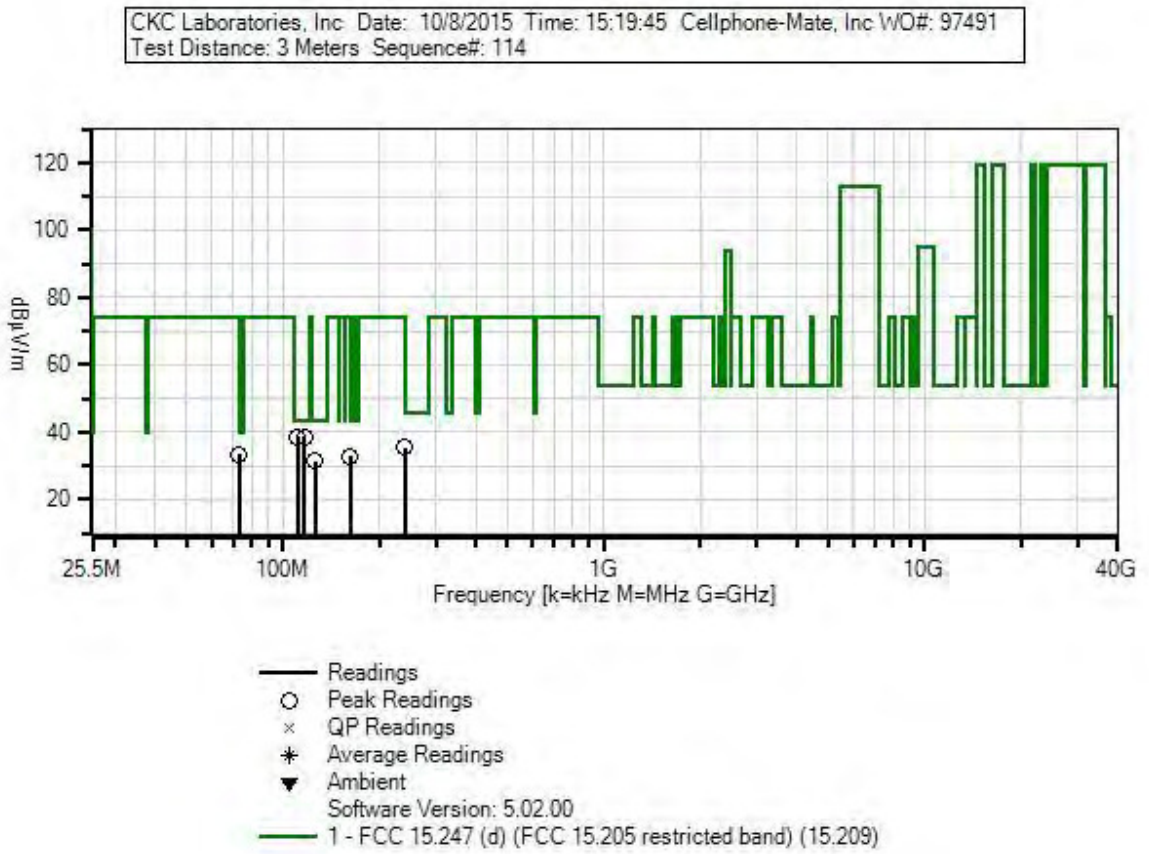
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT20 Mode
Date rate = MCS0
Attenuator for 802.11n HT20 Mode =35
Middle Channel


CKC Laboratories, Inc Date: 10/8/2015 Time: 15:19:45 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 114
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	116.982M	53.4	-27.8 +0.4	+11.6	+1.0	+0.2	+0.0	38.8	43.5	-4.7	Vert
2	111.016M	53.9	-27.8 +0.4	+11.1	+0.9	+0.2	+0.0	38.7	43.5	-4.8	Vert
3	73.197M	53.4	-27.8 +0.3	+6.6	+0.7	+0.2	+0.0	33.4	40.0	-6.6	Vert
4	240.023M	48.8	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	35.4	46.0	-10.6	Horiz
5	162.689M	48.3	-27.8 +0.5	+10.5	+1.2	+0.2	+0.0	32.9	43.5	-10.6	Horiz
6	125.779M	45.7	-27.8 +0.4	+11.8	+1.0	+0.2	+0.0	31.3	43.5	-12.2	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	13:33:35
Tested By:	Hieu Song Nguyenpham	Sequence#:	42
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT20 Mode
Date rate = MCS0
Attenuator for n HT20 Mode=35
Middle Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 13:33:35 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 42

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9627.565M	56.0	-57.3 +2.2	+38.6 +0.2	+2.4	+5.5	+0.0	47.6	54.0	-6.4	Vert
2	4873.533M	63.3	-57.7 +1.5	+33.4 +0.2	+1.7	+3.8	+0.0	46.2	54.0	-7.8	Vert
3	7265.008M	58.8	-58.3 +1.9	+36.2 +0.2	+2.1	+5.0	+0.0	45.9	54.0	-8.1	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	15:43:09
Tested By:	Hieu Song Nguyenpham	Sequence#:	117
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT20 Mode
Date rate = MCS0
Attenuator for 802.11n HT20 Mode =35
High Channel

CKC Laboratories, Inc Date: 10/8/2015 Time: 15:43:09 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 117

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	111.016M	54.1	-27.8 +0.4	+11.1	+0.9	+0.2	+0.0	38.9	43.5	-4.6	Vert
2	117.083M	53.1	-27.8 +0.4	+11.6	+1.0	+0.2	+0.0	38.5	43.5	-5.0	Vert
3	73.298M	53.4	-27.8 +0.3	+6.6	+0.7	+0.2	+0.0	33.4	40.0	-6.6	Vert
4	240.266M	49.0	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	35.6	46.0	-10.4	Horiz
5	165.419M	48.7	-27.8 +0.5	+10.2	+1.2	+0.2	+0.0	33.0	43.5	-10.5	Horiz
6	125.881M	45.0	-27.8 +0.4	+11.8	+1.0	+0.2	+0.0	30.6	43.5	-12.9	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	13:47:59
Tested By:	Hieu Song Nguyenpham	Sequence#:	45
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz-25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT20 Mode
Date rate = MCS0
Attenuator for n HT20 Mode=35
High Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 13:47:59 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 45

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9634.594M	55.6	-57.3 +2.2	+38.6 +0.2	+2.4	+5.5	+0.0	47.2	54.0	-6.8	Vert
2	7384.302M	57.9	-58.3 +1.9	+36.6 +0.2	+2.1	+5.1	+0.0	45.5	54.0	-8.5	Vert
3	4924.496M	60.8	-57.5 +1.5	+33.5 +0.2	+1.7	+3.8	+0.0	44.0	54.0	-10.0	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	16:13:03
Tested By:	Hieu Song Nguyenpham	Sequence#:	120
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200 Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120 kHz
1000MHz-25000MHz - RBW=1 MHz VBW=1 MHz

802.11n HT40 Mode
Date rate = MCS1
Attenuator for 802.11n HT40 Mode =32
Low Channel

CKC Laboratories, Inc Date: 10/8/2015 Time: 16:13:03 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 120

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	109.297M	54.6	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	39.3	43.5	-4.2	Vert
2	117.083M	53.6	-27.8 +0.4	+11.6	+1.0	+0.2	+0.0	39.0	43.5	-4.5	Vert
3	74.511M	53.4	-27.8 +0.3	+6.8	+0.7	+0.2	+0.0	33.6	40.0	-6.4	Vert
4	164.610M	49.1	-27.8 +0.5	+10.3	+1.2	+0.2	+0.0	33.5	43.5	-10.0	Horiz
5	240.023M	49.0	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	35.6	46.0	-10.4	Horiz
6	125.274M	46.1	-27.8 +0.4	+11.8	+1.0	+0.2	+0.0	31.7	43.5	-11.8	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	14:02:08
Tested By:	Hieu Song Nguyenpham	Sequence#:	48
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz.
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT40 Mode
Date rate = MCS1
Attenuator for n HT40 Mode=32
Low Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 14:02:08 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 48

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	10147.743 M	57.0	-57.9 +2.3	+39.6 +0.2	+2.4	+6.0	+0.0	49.6	54.0	-4.4	Vert
2	9529.153M	55.0	-57.2 +2.2	+38.5 +0.2	+2.4	+5.4	+0.0	46.5	54.0	-7.5	Vert
3	7831.652M	57.5	-57.8 +2.0	+36.6 +0.2	+2.2	+5.1	+0.0	45.8	54.0	-8.2	Vert
4	4920.981M	58.7	-57.5 +1.5	+33.4 +0.2	+1.7	+3.8	+0.0	41.8	54.0	-12.2	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	16:23:33
Tested By:	Hieu Song Nguyenpham	Sequence#:	123
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

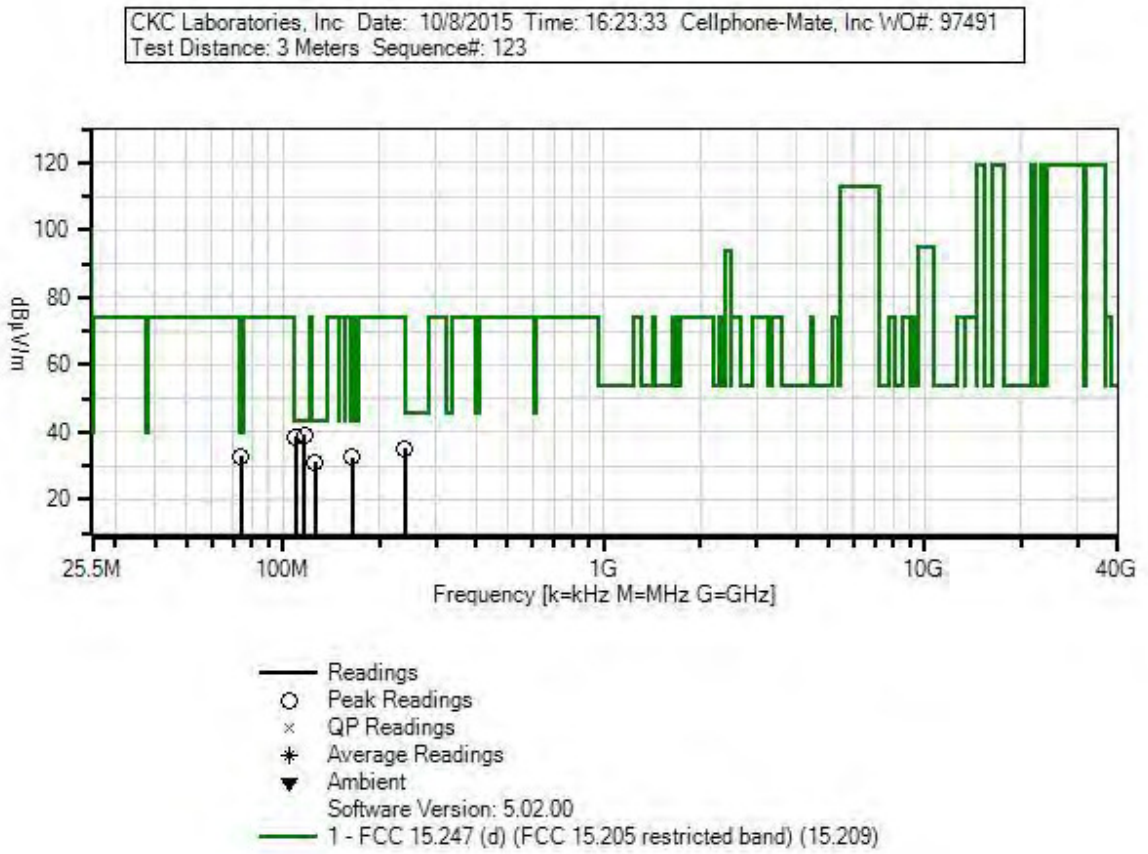
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz -RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120 kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1 MHz

802.11n HT40 Mode
Date rate = MCS1
Attenuator for 802.11n HT40 Mode =32
Middle Channel


CKC Laboratories, Inc Date: 10/8/2015 Time: 16:23:33 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 123
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	116.982M	53.9	-27.8 +0.4	+11.6	+1.0	+0.2	+0.0	39.3	43.5	-4.2	Vert
2	109.802M	54.0	-27.8 +0.4	+11.0	+0.9	+0.2	+0.0	38.7	43.5	-4.8	Vert
3	73.905M	52.8	-27.8 +0.3	+6.7	+0.7	+0.2	+0.0	32.9	40.0	-7.1	Vert
4	240.266M	48.7	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	35.3	46.0	-10.7	Horiz
5	164.913M	48.2	-27.8 +0.5	+10.3	+1.2	+0.2	+0.0	32.6	43.5	-10.9	Horiz
6	125.881M	45.6	-27.8 +0.4	+11.8	+1.0	+0.2	+0.0	31.2	43.5	-12.3	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	14:16:30
Tested By:	Hieu Song Nguyenpham	Sequence#:	51
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT40 Mode
Date rate = MCS1
Attenuator for n HT40 Mode=32
Middle Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 14:16:30 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 51

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9578.359M	55.2	-57.2 +2.2	+38.6 +0.2	+2.4	+5.4	+0.0	46.8	54.0	-7.2	Vert
2	7831.652M	57.7	-57.8 +2.0	+36.6 +0.2	+2.2	+5.1	+0.0	46.0	54.0	-8.0	Vert
3	4878.805M	58.6	-57.6 +1.5	+33.4 +0.2	+1.7	+3.8	+0.0	41.6	54.0	-12.4	Vert

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**		
Work Order #:	**97491**	Date:	10/8/2015
Test Type:	**Radiated Scan**	Time:	16:34:21
Tested By:	Hieu Song Nguyenpham	Sequence#:	126
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 1000MHz

Application: MP_TEST MFC version 1.3.8.0

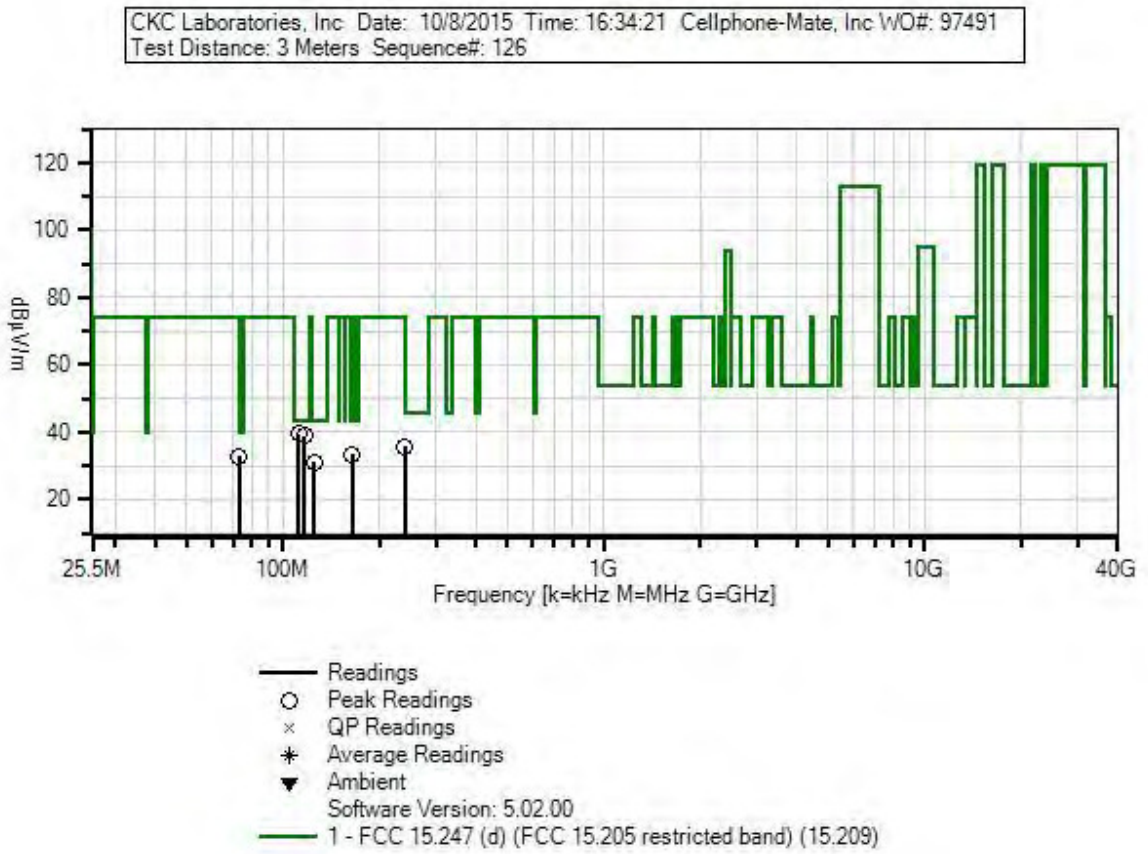
Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200 Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120 kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1 MHz

802.11n HT40 Mode
Date rate = MCS1
Attenuator for 802.11n HT40 Mode =32
High Channel


CKC Laboratories, Inc Date: 10/8/2015 Time: 16:34:21 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 126
120
100
80
60
40
20
dBµV/m
25.5M
100M
1G
10G
40G
Frequency [k=kHz M=MHz G=GHz]
Readings
Peak Readings
QP Readings
Average Readings
Ambient
Software Version: 5.02.00
1 - FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN00567	Preamp	8447D	1/2/2015	1/2/2017
	AN00432	Loop Antenna	6502	5/8/2015	5/8/2017
T2	AN00852	Biconilog Antenna	CBL 6111C	11/24/2014	11/24/2016
T3	ANP00880	Cable	RG214U	6/13/2014	6/13/2016
T4	ANP01187	Cable	CNT-195	12/30/2014	12/30/2016
T5	ANP06691	Cable	PE3062-180	8/8/2014	8/8/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	111.623M	54.5	-27.8 +0.4	+11.2	+0.9	+0.2	+0.0	39.4	43.5	-4.1	Vert
2	116.476M	53.8	-27.8 +0.4	+11.5	+1.0	+0.2	+0.0	39.1	43.5	-4.4	Vert
3	73.197M	52.8	-27.8 +0.3	+6.6	+0.7	+0.2	+0.0	32.8	40.0	-7.2	Vert
4	164.306M	49.1	-27.8 +0.5	+10.3	+1.2	+0.2	+0.0	33.5	43.5	-10.0	Horiz
5	240.266M	49.3	-27.9 +0.6	+12.1	+1.5	+0.3	+0.0	35.9	46.0	-10.1	Horiz
6	125.274M	45.5	-27.8 +0.4	+11.8	+1.0	+0.2	+0.0	31.1	43.5	-12.4	Horiz

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions**		
Work Order #:	**97491**	Date:	10/7/2015
Test Type:	**Radiated Scan**	Time:	14:28:44
Tested By:	Hieu Song Nguyenpham	Sequence#:	54
Software:	EMITest 5.02.00		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 25000MHz

Application: MP_TEST MFC version 1.3.8.0

Temperature:22.0°C
Humidity: 39.6 %
Atmospheric Pressure:100.5kPa

Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for WiFi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 12.1 and ANSI C63.4 2009

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

Frequency range of measurement = 9 kHz - 25GHz
9 kHz - 150 kHz - RBW=200 Hz VBW=200 Hz
150 kHz - 30 MHz - RBW=9 kHz VBW=9kHz
30 MHz - 1000MHz - RBW=120 kHz VBW=120kHz
1000MHz - 25000MHz - RBW=1 MHz VBW=1MHz

802.11n HT40 Mode
Date rate = MCS1
Attenuator for n HT40 Mode=32
High Channel

CKC Laboratories, Inc Date: 10/7/2015 Time: 14:28:44 Cellphone-Mate, Inc WO#: 97491
Test Distance: 3 Meters Sequence#: 54

Readings
QP Readings
Ambient
1 - 15.247(d) / 15.209 Radiated Spurious Emissions
Peak Readings
Average Readings
Software Version: 5.02.00

Test Equipment:

ID	Asset #/Serial #	Description	Model	Calibration Date	Cal Due Date
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/22/2015	4/22/2017
T2	AN02157	Horn Antenna-ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
	AN02694	Horn Antenna-ANSI C63.5 3m	AMFW-5F-18002650-20-10P	5/7/2015	5/7/2017
	AN03143	Cable	32022-29094K-144TC	3/18/2015	3/18/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	ANP00928	Cable	various	1/23/2014	1/23/2016
	ANP00929	Cable	various	1/23/2014	1/23/2016
T4	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T5	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	RF Characteristics Analyzer	E4440A	12/19/2013	12/19/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016
	AN02693	Active Horn Antenna-ANSI C63.5 3m	AMFW-5F-12001800-20-10P	5/6/2015	5/6/2017

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	9979.037M	56.2	-58.0 +2.3	+39.6 +0.2	+2.4	+5.8	+0.0	48.5	54.0	-5.5	Vert
2	7856.505M	57.7	-57.8 +2.0	+36.6 +0.2	+2.2	+5.1	+0.0	46.0	54.0	-8.0	Vert
3	4935.040M	57.6	-57.4 +1.5	+33.5 +0.2	+1.7	+3.8	+0.0	40.9	54.0	-13.1	Vert

SC248W Antenna Band Edge

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	**Cellphone-Mate, Inc.**		
Specification:	**Band edge Set up**		
Work Order #:	**97491**	Date:	10/06/2015
Test Type:	**Radiated Measurement**	Time:	
Tested By:	Hieu Song Nguyenpham	Sequence#:	
Software:	EMITest 5.02.00		

***Test Equipment*:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02157	Horn Antenna - ANSI C63.5 Calibration	3115	12/2/2014	12/2/2016
T2	ANP01210	Cable	FSJ1P-50A-4A	1/15/2015	1/15/2017
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
	03471	Spectrum Analyzer	E4440A	12/19/2013	12/19/2015

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 3			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 3			

Test Conditions / Notes:

Application: MP_TEST MFC version 1.3.8.0

Temperature:23.4° C
Humidity: 42%
Atmospheric Pressure:100.8kPa

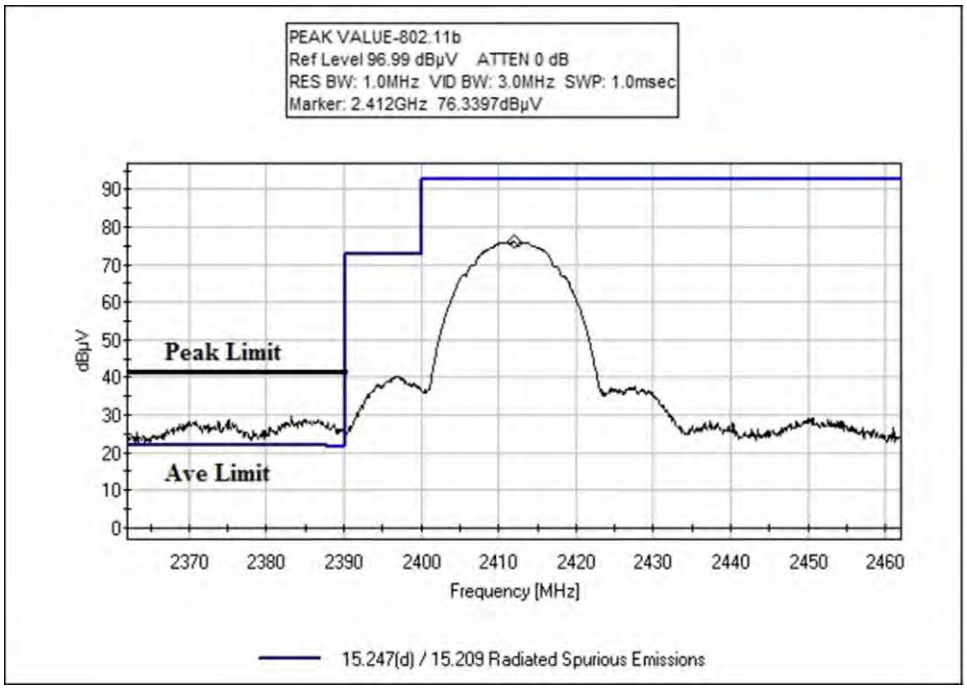
Highest Generation Frequency: 2.462GHz
Attenuator = 63 at MAX Level
Antenna Gain for Wifi Antenna (SC248W)=10dBi
Method: KDB 558074 v03r03 section 13.2

The equipment under test (EUT) is placed on the Styrofoam table top. The EUT is set at maximum gain. A remotely located signal generator is connected to input port of EUT. The DL power input signal 2132.5MHz, 4.1MHz AWGN at the outdoor antenna port is set at 3dB above AGC level. HDTV input is connected to the antenna which is sat next to the EUT. The HDTV output ports are connected to F-type cables and terminated by 75Ohm terminator on another end. The EUT is connected to the laptop through RJ45 on LAN Port which is outside of the chamber to adjust the channel frequency for testing purpose and remove the port of RJ45 from the laptop after due to the LAN port is used for service only. Another RJ45 is hanging on WAN port.

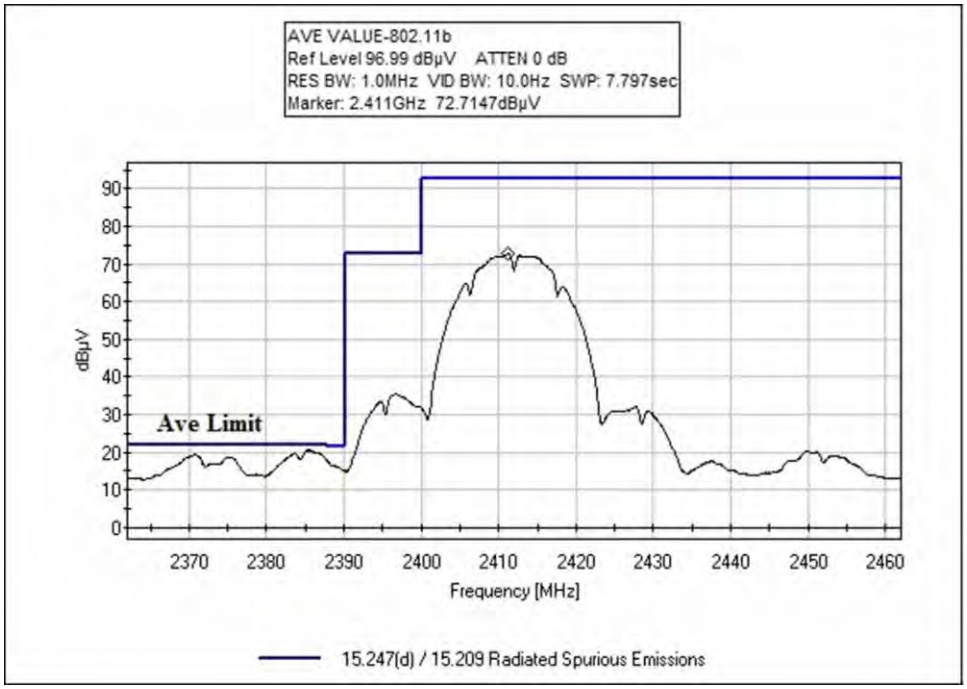
1/ Attenuator for 802.11b Mode =32, the Data Rate at 2Mbps
2/ Attenuator for 802.11g Mode =38, the Data Rate at 54Mbps
3/ Attenuator for 802.11n HT20 Mode =35, the Data Rate at MCS0
4/ Attenuator for 802.11n HT20 Mode =32, the Data Rate at MCS1

SC248W Antenna Band Edge Plots

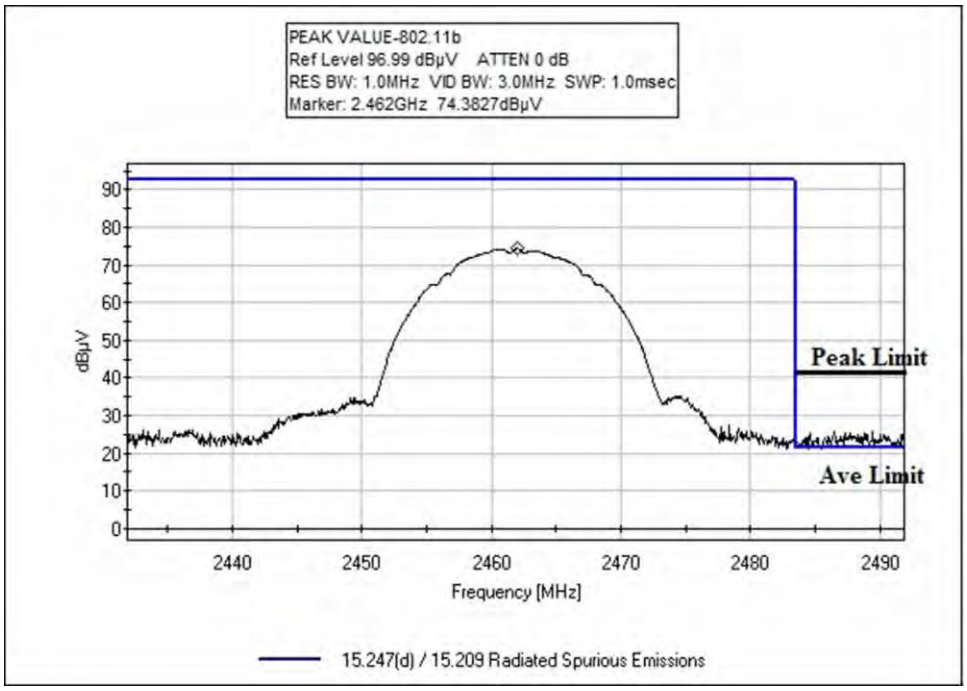
802.11b – Mode



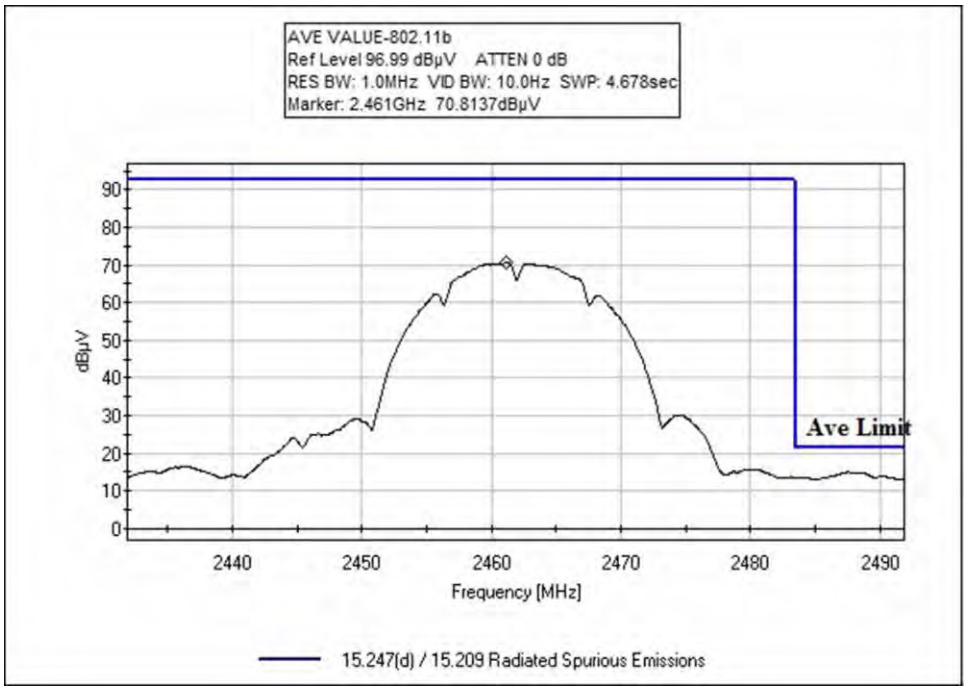
Low Channel



Low Channel

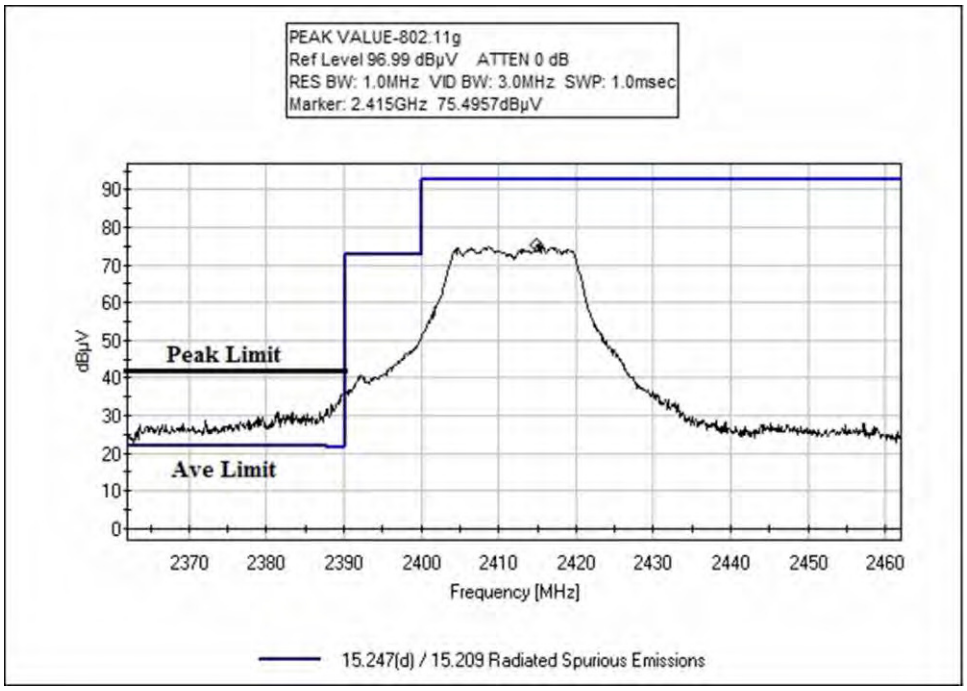


High Channel

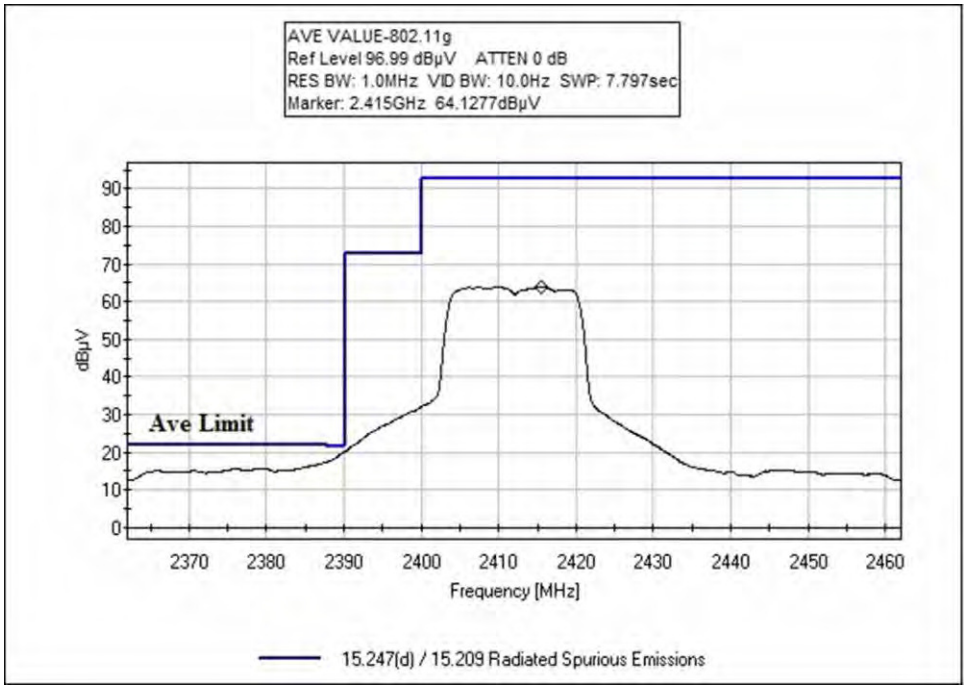


High Channel

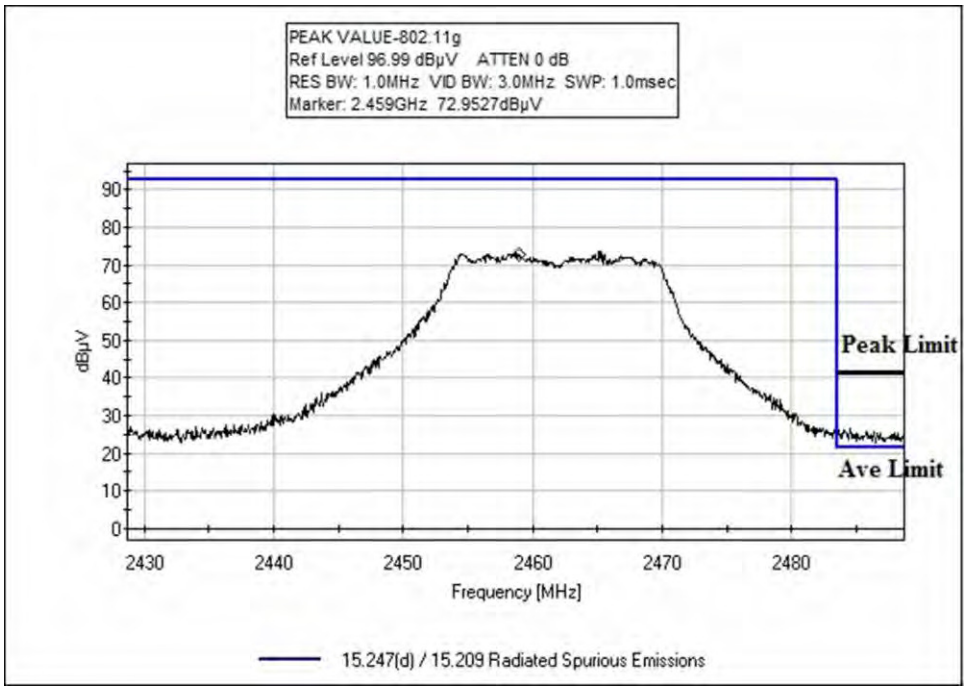
802.11g- Mode



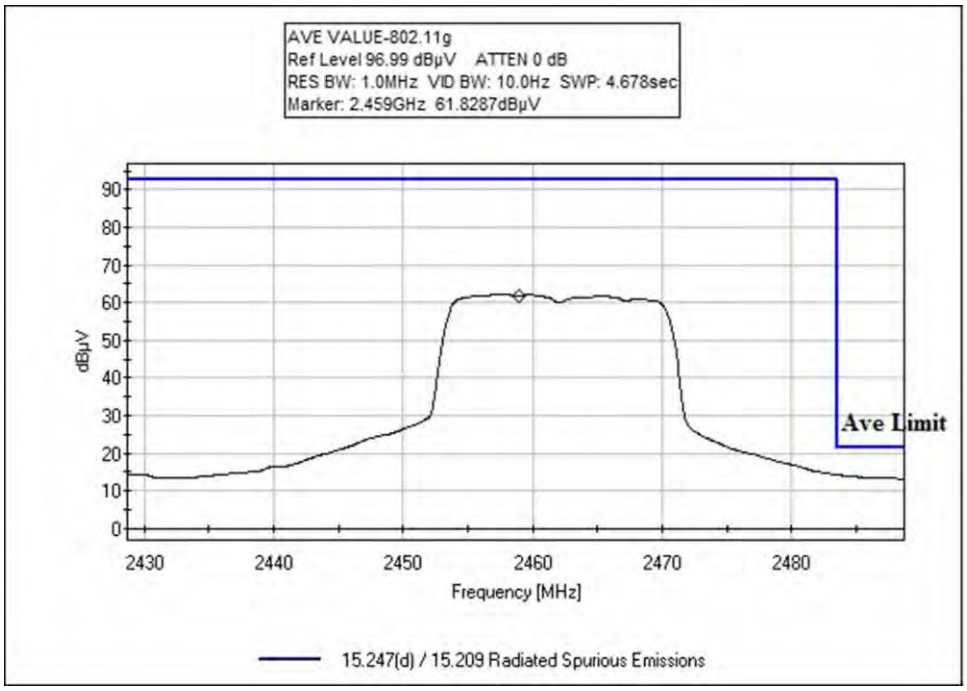
Low Channel



Low Channel

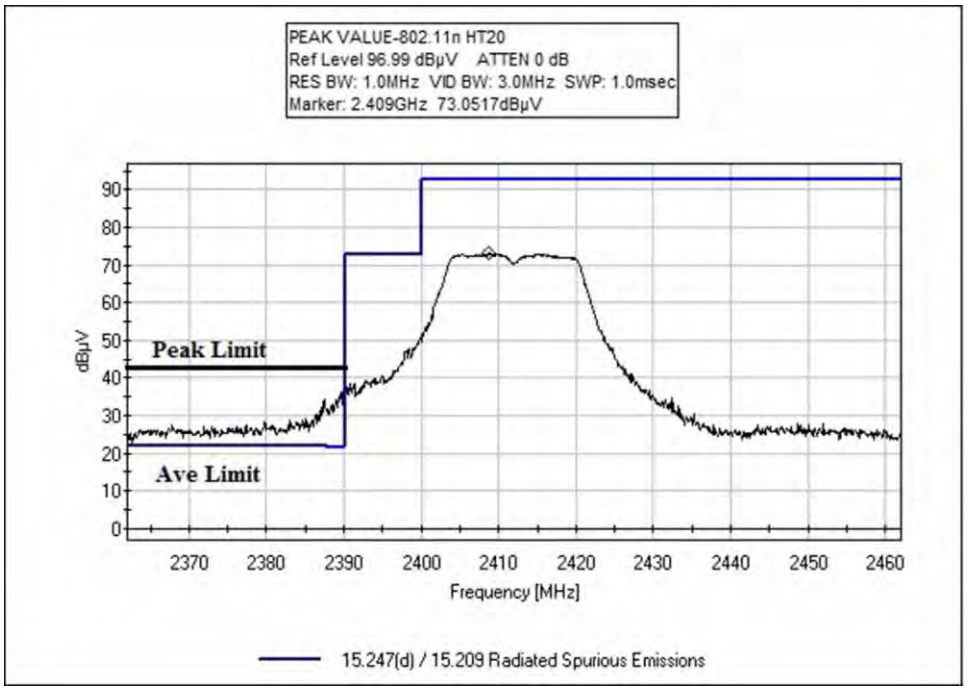


High Channel

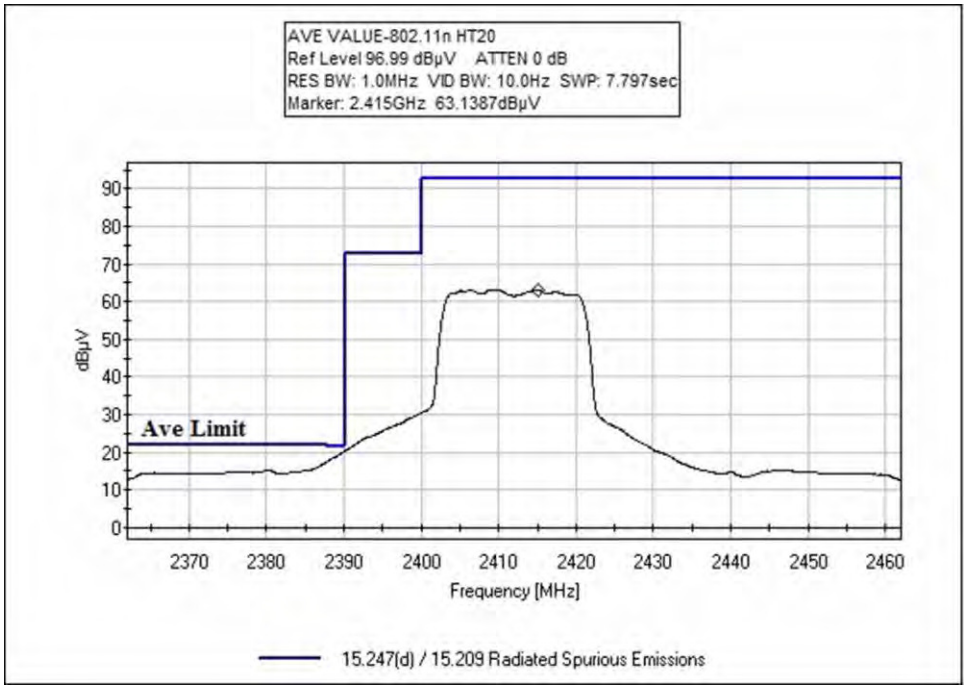


High Channel

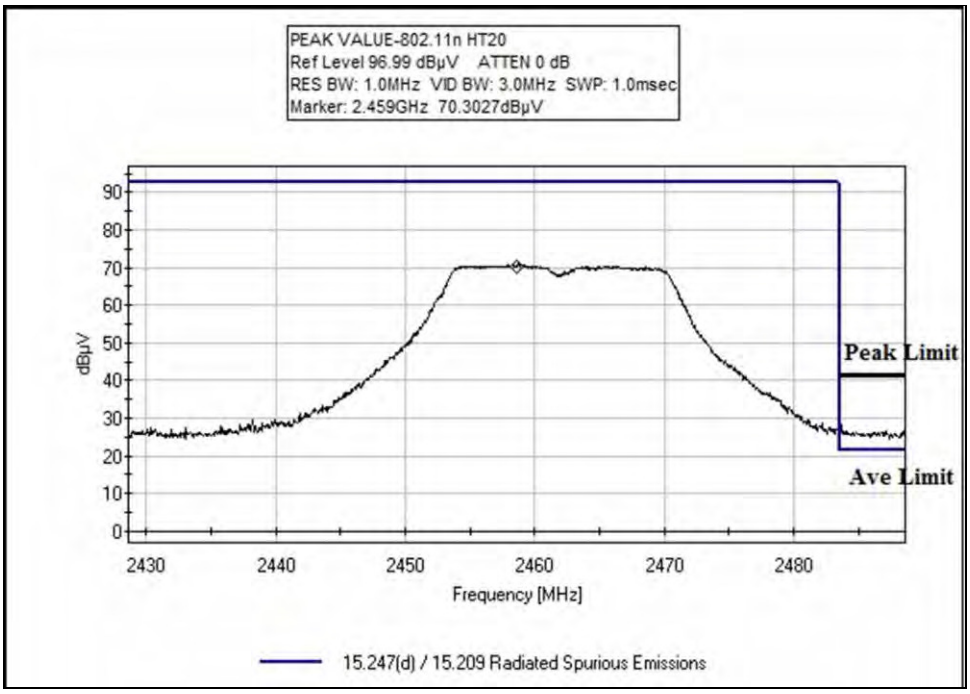
802.11n HT20- Mode



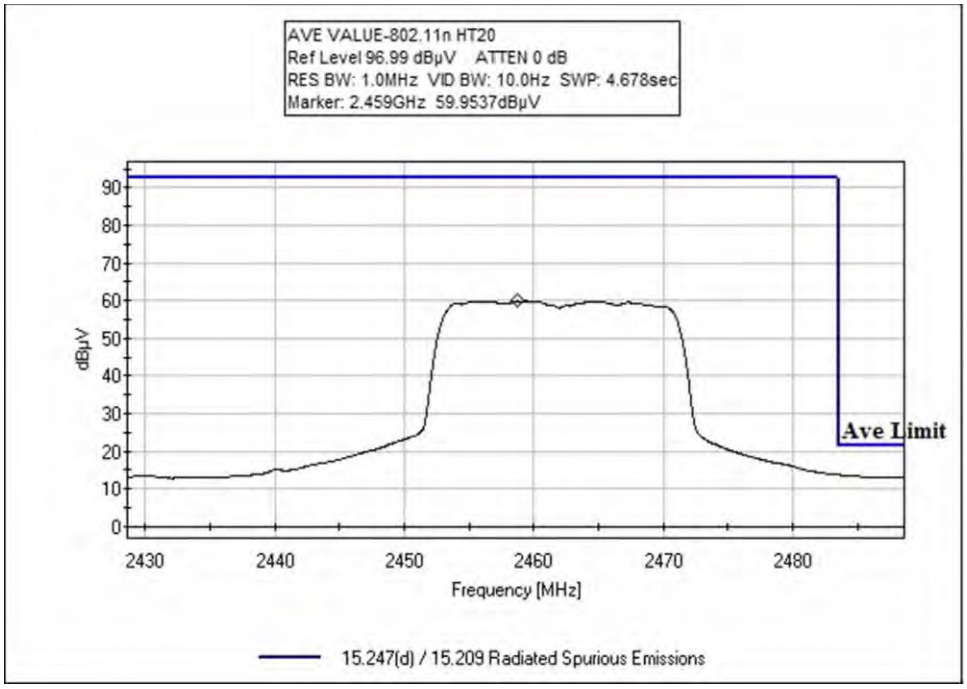
Low Channel



Low Channel

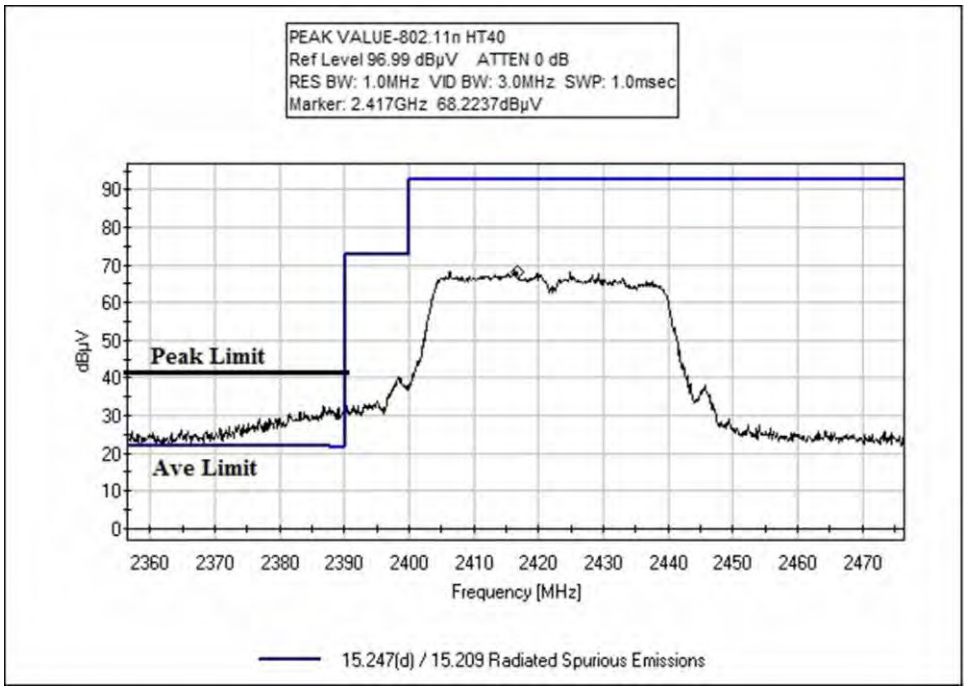


High Channel

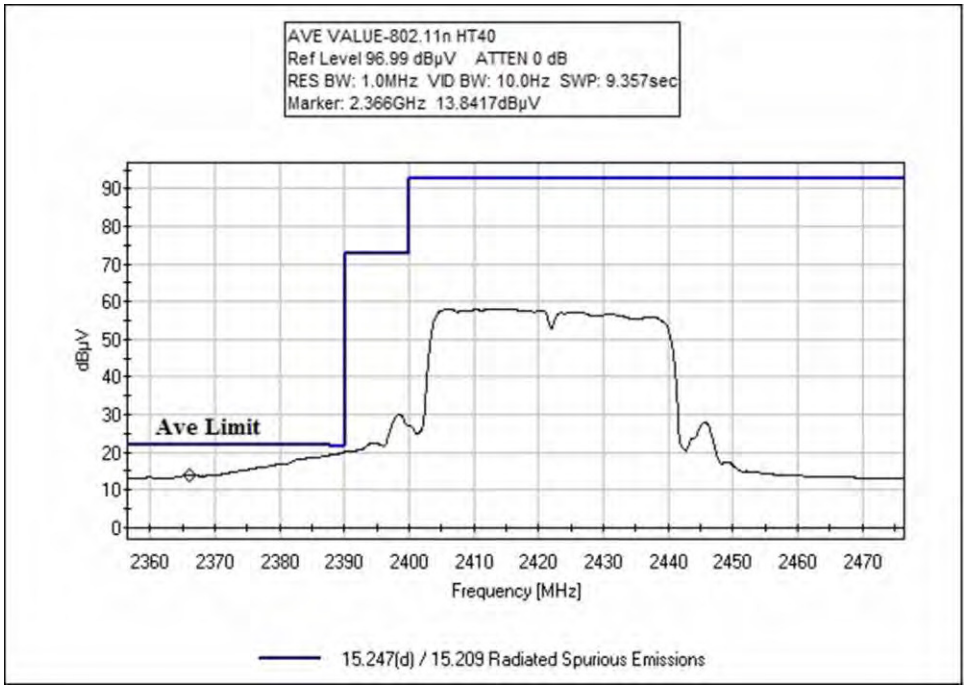


High Channel

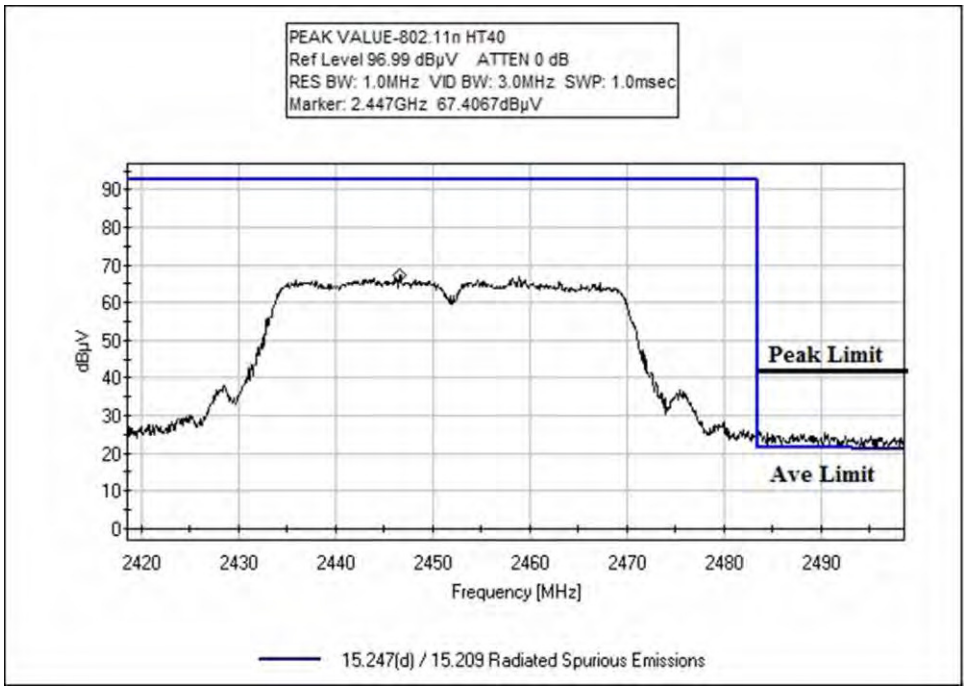
802.11n HT40 - Mode



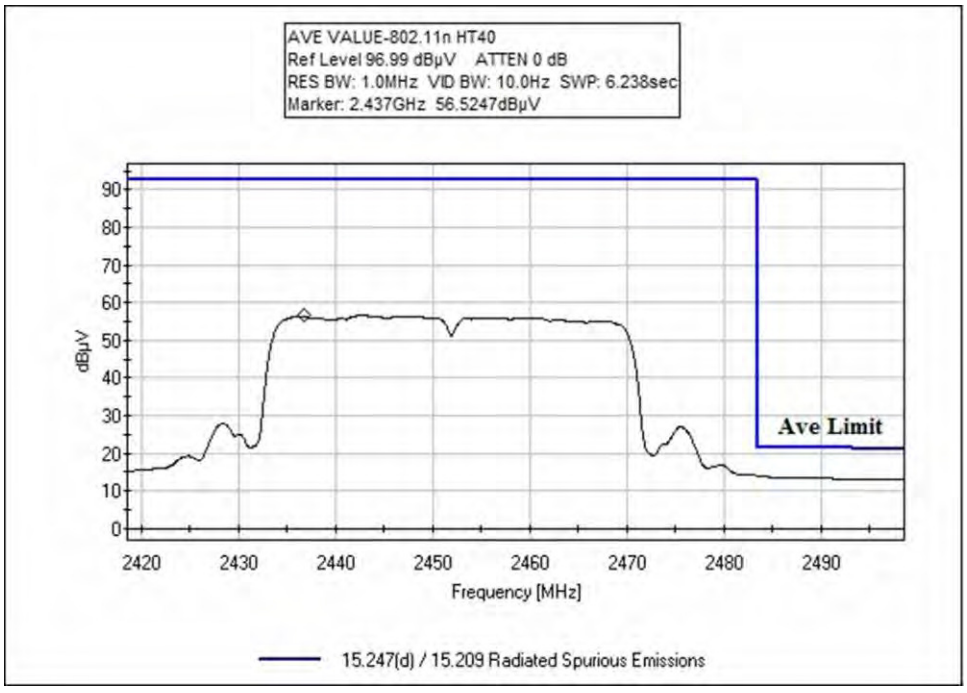
Low Channel



Low Channel

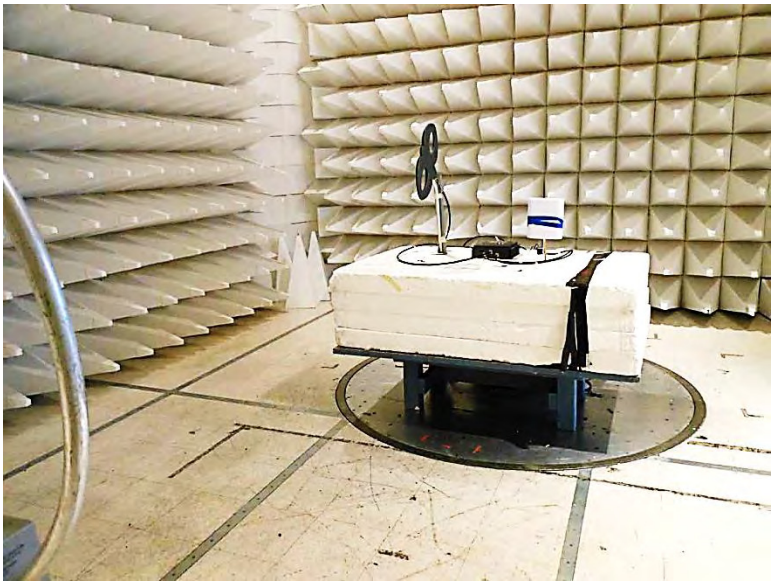


High Channel

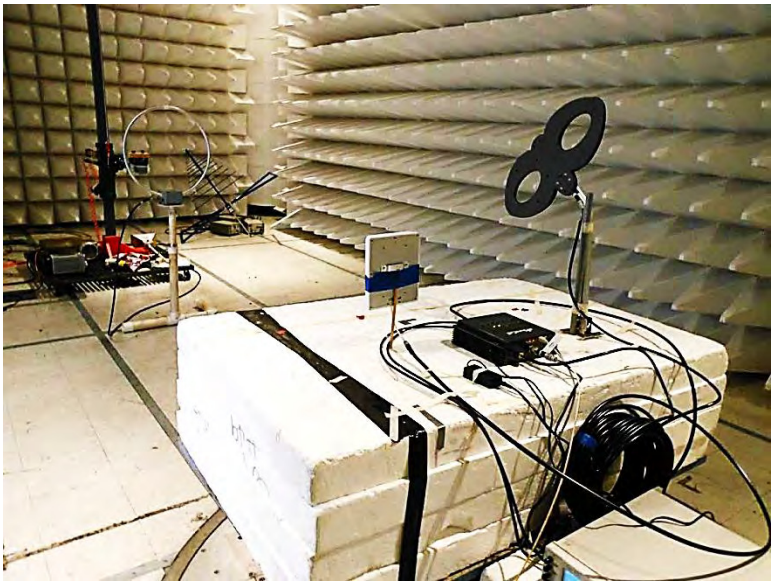


High Channel

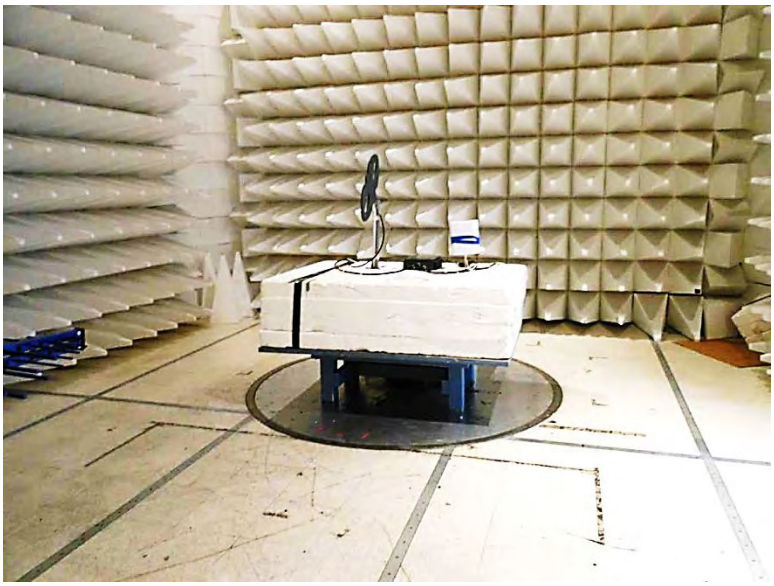
SC248W Antenna Test Setup Photos



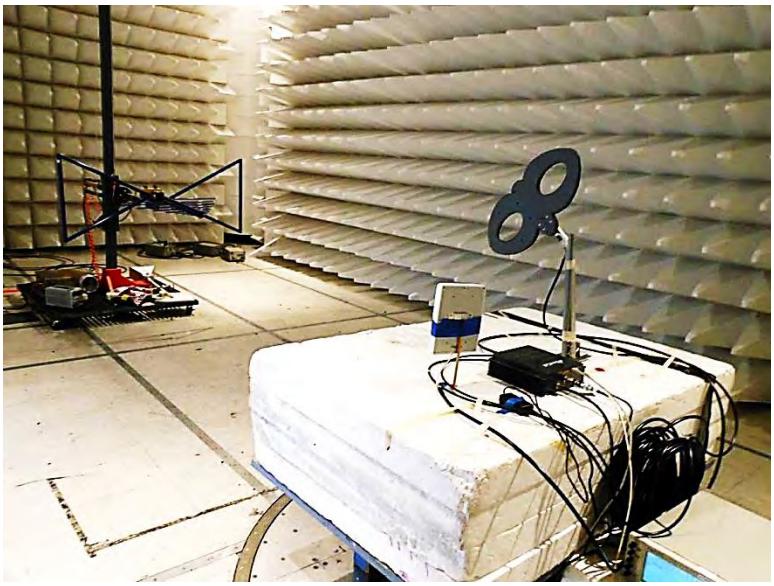
9kHz – 30MHz



9kHz – 30MHz

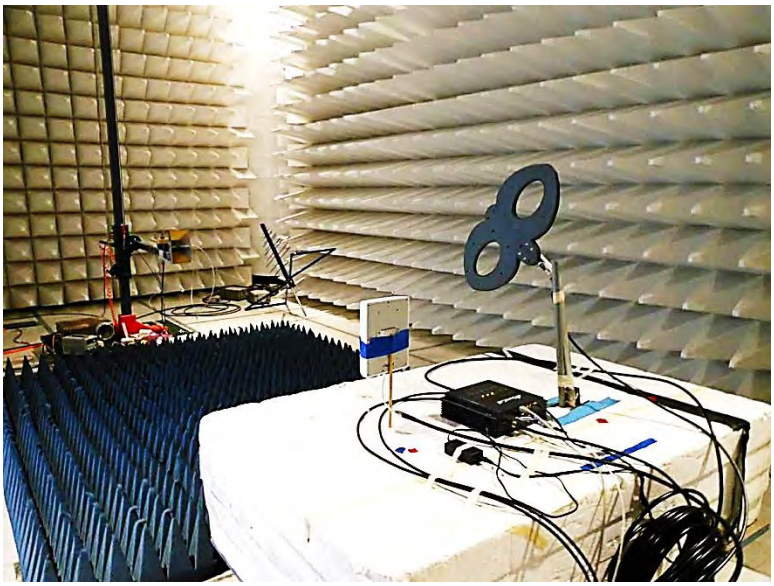


30MHz – 1GHz

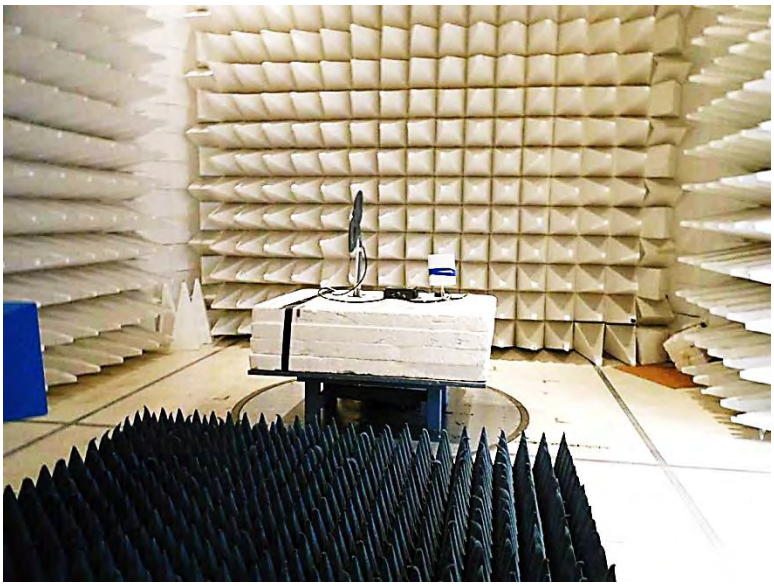


30MHz – 1GHz

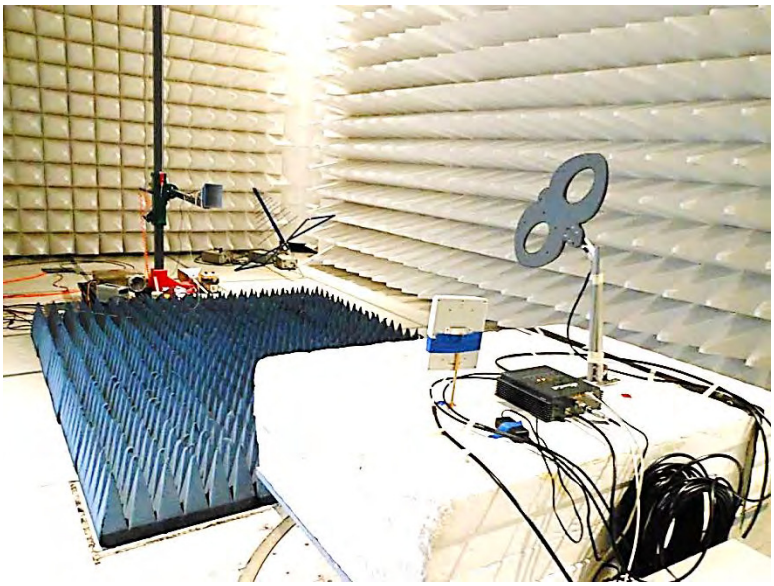
1 – 12GHz



1 – 12GHz



12 – 25GHz



12 – 25GHz

SUPPLEMENTAL INFORMATION

Emissions Test Details

TESTING PARAMETERS

Unless otherwise indicated, the following configuration parameters are used for equipment setup: The cables were routed consistent with the typical application by varying the configuration of the test sample. Interface cables were connected to the available ports of the test unit. The effect of varying the position of the cables was investigated to find the configuration that produced maximum emissions. Cables were of the type and length specified in the individual requirements. The length of cable that produced maximum emissions was selected.

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the setup photographs. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables.

The emissions data was taken with a spectrum analyzer or receiver. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in the table below. The corrected data was then compared to the applicable emission limits. Preliminary and final measurements were taken in order to ensure that all emissions from the EUT were found and maximized.

CORRECTION FACTORS

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in the tables. For radiated emissions in dBµV/m, the spectrum analyzer reading in dBµV was corrected by using the following formula. This reading was then compared to the applicable specification limit. Individual measurements were compared with the displayed limit value in the margin column. The margin was calculated based on the limit value subtracting the corrected measured value; a negative margin represents a measurement exceeding the limit while a positive margin represents a measurement less than the limit.

SAMPLE CALCULATIONS		
	Meter reading	(dBµV)
+	Antenna Factor	(dB/m)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	(dBµV/m)

TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed were used to collect the emissions data. A spectrum analyzer or receiver was used for all measurements. Unless otherwise specified, the following table shows the measuring equipment bandwidth settings that were used in designated frequency bands. For testing emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used.

MEASURING EQUIPMENT BANDWIDTH SETTINGS PER FREQUENCY RANGE			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	9 kHz	150 kHz	200 Hz
RADIATED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	>1 GHz	1 MHz

SPECTRUM ANALYZER/RECEIVER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the emissions tables indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "positive peak" detector mode. Whenever a "quasi-peak" or "average" reading was recorded, the measurement was annotated with a "QP" or an "Ave" on the appropriate rows of the data sheets. In cases where quasi-peak or average limits were employed and data exists for multiple measurement types for the same frequency then the peak measurement was retained in the report for reference, however the numbering for the affected row was removed and an arrow or carrot ("^") was placed in the far left-hand column indicating that the row above takes precedence for comparison to the limit. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data.

Peak

In this mode, the spectrum analyzer or receiver recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature called "peak hold," the measurement device had the ability to measure intermittent or low duty cycle transient emission peak levels. In this mode the measuring device made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

Quasi-Peak

Quasi-peak measurements were taken using the quasi-peak detector when the true peak values exceeded or were within 2 dB of a quasi-peak specification limit. Additional QP measurements may have been taken at the discretion of the operator.

Average

Average measurements were taken using the average detector when the true peak values exceeded or were within 2 dB of an average specification limit. Additional average measurements may have been taken at the discretion of the operator. If the specification or test procedure requires trace averaging, then the averaging was performed using 100 samples or as required by the specification. All other average measurements are performed using video bandwidth averaging. To make these measurements, the test engineer reduces the video bandwidth on the measuring device until the modulation of the signal is filtered out. At this point the measuring device is set into the linear mode and the scan time is reduced.