

**15.247(d) Radiated Spurious Emissions**

Test Data Sheets

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Digital Path**  
 Specification: **FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**  
 Work Order #: **92682** Date: 5/31/2012  
 Test Type: **Radiated Scan** Time: 17:20:17  
 Equipment: **5GHz Panel (23 dBi)** Sequence#: 212  
 Manufacturer: Digital Path Tested By: E. Wong  
 Model: G5RL10E  
 S/N: EMI 3

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02668	Spectrum Analyzer	E4446A	2/23/2011	2/23/2013
T2	AN02157	Horn Antenna-ANSI C63.5	3115	1/17/2011	1/17/2013
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/21/2012	3/21/2014
T4	ANP01210	Cable	FSJ1P-50A-4A	3/15/2011	3/15/2013
T5	ANP05913	Cable	32022-29094K-65TC	8/30/2011	8/30/2013
T6	AN03114	Preamp	AMF-7D-00101800-30-10P	5/13/2011	5/13/2013
T7	AN01417	High Pass Filter	84300-80039	2/9/2012	2/9/2014
T8	AN02694	Active Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-18002650-20-10P	11/10/2010	11/10/2012
	AN02695	Active Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-260400-33-8P	11/10/2010	11/10/2012
T9	ANP05911	Cable	32022-29094K-65TC	8/30/2011	8/30/2013
	AN00730	Preamp		1/31/2011	1/31/2013
	AN00432	Loop Antenna	6502	3/31/2011	3/31/2013
	AN00852	Biconilog Antenna	CBL 6111C	11/16/2010	11/16/2012
	ANP05299	Cable	RG214	3/6/2011	3/6/2013
	ANP05300	Cable	RG214/U	3/7/2011	3/7/2013
	ANP05440	Cable		3/7/2011	3/7/2013

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
5GHz Panel (23 dBi)*	Digital Path	G5RL10E	EMI 3

**Support Devices:**

Function	Manufacturer	Model #	S/N
Laptop Computer	HP	ProBook 6565b	5CB13637ZF
Laptop Power Supply	HP	608428-002	F12941126327228

**Test Conditions / Notes:**

The EUT installed on a pole as intended. DC power port is connected to a DC power supply via a CAT5 cable. The Ethernet port is connected to a remote laptop via unshielded twisted pair.

The Remote laptop is running test software to exercise the intended functionalities. Receiver circuit is active.

Vertical polarity of the antenna is connected to Card 1, Ant port 2  
Horizontal polarity of the antenna is connected to Card 1, Ant port 0

Radio 0, OFF  
Radio 1, TX

Point to Point

5725-5850MHz  
Freq: 5735MHz, 5785MHz, 5840MHz.  
BW = 10 MHz  
802.11a: 24Mbps, TX power setting= 21, 21,18.5  
802.11n: 13MCS HT20 2S,TX power setting = 21,21,18.5

Freq: 5740MHz, 5785MHz, 5835MHz.  
BW= 20MHz  
802.11a: 36 Mbps, TX power setting = 22, 20.5, 20.5  
802.11n: 26MCS HT20 2S, TX power setting=22, 20.5, 20.5

Temperature: 21.9°C, Relative Humidity: 38-43%, Atmospheric Pressure: 101.5kPa

Frequency range of measurement = 9kHz-40GHz.  
9 kHz -150 kHz; RBW=200 Hz, VBW=200 Hz;150 kHz-30 MHz; RBW=9 kHz, VBW=9 kHz;30 MHz-1000 MHz; RBW=120 kHz, VBW=120 kHz,1000 MHz-40,000 MHz; RBW=1 MHz, VBW=1 MHz.

Ext Attn: 0 dB

<b>Measurement Data:</b>		Reading listed by margin.					Test Distance: 3 Meters				
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/m	dB	Ant
1	11680.000	58.2	+0.0	+38.8	+2.4	+7.0	+0.0	52.1	54.0	-1.9	Vert
	M		+2.2	-56.5	+0.0	+0.0					
	Ave		+0.0						10MHz 802.11n 13MCSHT202S		
^	11680.000	71.1	+0.0	+38.8	+2.4	+7.0	+0.0	65.0	54.0	+11.0	Vert
	M		+2.2	-56.5	+0.0	+0.0					
			+0.0						10MHz 802.11n 13MCSHT202S		

3	11570.500	55.9	+0.0	+38.8	+2.4	+6.9	+0.0	49.5	54.0	-4.5	Vert
	M		+2.2	-56.7	+0.0	+0.0					
	Ave		+0.0						10MHz 802.11n		
									13MCSHT202S		
^	11570.500	68.2	+0.0	+38.8	+2.4	+6.9	+0.0	61.8	54.0	+7.8	Vert
	M		+2.2	-56.7	+0.0	+0.0					
			+0.0						10MHz 802.11n		
									13MCSHT202S		
5	22936.000	61.3	+0.0	+0.0	+0.0	+0.0	+0.0	49.0	54.0	-5.0	Vert
	M		+0.0	+0.0	+0.0	-16.6					
	Ave		+4.3						10MHz 802.11a		
									24Mbps		
^	22936.000	76.5	+0.0	+0.0	+0.0	+0.0	+0.0	64.2	54.0	+10.2	Vert
	M		+0.0	+0.0	+0.0	-16.6					
			+4.3						10MHz 802.11a		
									24Mbps		
7	11467.600	54.6	+0.0	+38.7	+2.3	+6.9	+0.0	48.3	54.0	-5.7	Vert
	M		+2.2	-56.4	+0.0	+0.0					
	Ave		+0.0						10MHz 802.11n		
									13MCSHT202S		
^	11467.600	69.5	+0.0	+38.7	+2.3	+6.9	+0.0	63.2	54.0	+9.2	Vert
	M		+2.2	-56.4	+0.0	+0.0					
			+0.0						10MHz 802.11n		
									13MCSHT202S		
9	22936.000	58.2	+0.0	+0.0	+0.0	+0.0	+0.0	45.9	54.0	-8.1	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
	Ave		+4.3						10MHz 802.11a		
									24Mbps		
^	22936.000	72.5	+0.0	+0.0	+0.0	+0.0	+0.0	60.2	54.0	+6.2	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
			+4.3						10MHz 802.11a		
									24Mbps		
11	11669.500	52.0	+0.0	+38.8	+2.4	+7.0	+0.0	45.8	54.0	-8.2	Vert
	M		+2.2	-56.6	+0.0	+0.0					
			+0.0						20MHz 802.11n		
									26MCSHT202S		
12	11569.100	52.0	+0.0	+38.8	+2.4	+6.9	+0.0	45.6	54.0	-8.4	Horiz
	M		+2.2	-56.7	+0.0	+0.0					
	Ave		+0.0						20MHz 802.11a		
									36Mbps		
^	11569.100	65.2	+0.0	+38.8	+2.4	+6.9	+0.0	58.8	54.0	+4.8	Horiz
	M		+2.2	-56.7	+0.0	+0.0					
			+0.0						20MHz 802.11a		
									36Mbps		
14	11570.600	51.4	+0.0	+38.8	+2.4	+6.9	+0.0	45.0	54.0	-9.0	Horiz
	M		+2.2	-56.7	+0.0	+0.0					
	Ave		+0.0						10MHz 802.11n		
									24Mbps		
^	11570.600	63.6	+0.0	+38.8	+2.4	+6.9	+0.0	57.2	54.0	+3.2	Horiz
	M		+2.2	-56.7	+0.0	+0.0					
			+0.0						10MHz 802.11n		
									24Mbps		

16	11668.000	48.5	+0.0	+38.8	+2.4	+7.0	+0.0	42.3	54.0	-11.7	Vert
	M		+2.2	-56.6	+0.0	+0.0					
	Ave		+0.0						20MHz 802.11a		
									36Mbps		
^	11668.000	62.1	+0.0	+38.8	+2.4	+7.0	+0.0	55.9	54.0	+1.9	Vert
	M		+2.2	-56.6	+0.0	+0.0					
			+0.0						20MHz 802.11a		
									36Mbps		
18	11571.400	48.6	+0.0	+38.8	+2.4	+6.9	+0.0	42.2	54.0	-11.8	Horiz
	M		+2.2	-56.7	+0.0	+0.0					
	Ave		+0.0						10MHz 802.11n		
									13MCSHT202S		
^	11571.400	62.0	+0.0	+38.8	+2.4	+6.9	+0.0	55.6	54.0	+1.6	Horiz
	M		+2.2	-56.7	+0.0	+0.0					
			+0.0						10MHz 802.11n		
									13MCSHT202S		
20	11569.800	48.2	+0.0	+38.8	+2.4	+6.9	+0.0	41.8	54.0	-12.2	Horiz
	M		+2.2	-56.7	+0.0	+0.0					
	Ave		+0.0						20MHz 802.11n		
									26MCSHT202S		
^	11569.800	65.3	+0.0	+38.8	+2.4	+6.9	+0.0	58.9	54.0	+4.9	Horiz
	M		+2.2	-56.7	+0.0	+0.0					
			+0.0						20MHz 802.11n		
									26MCSHT202S		
22	11479.819	48.1	+0.0	+38.7	+2.3	+6.9	+0.0	41.7	54.0	-12.3	Horiz
	M		+2.2	-56.5	+0.0	+0.0					
	Ave		+0.0						20MHz 802.11n		
									26MCSHT202S		
^	11479.819	63.8	+0.0	+38.7	+2.3	+6.9	+0.0	57.4	54.0	+3.4	Horiz
	M		+2.2	-56.5	+0.0	+0.0					
			+0.0						20MHz 802.11n		
									26MCSHT202S		
24	11470.000	46.8	+0.0	+38.7	+2.3	+6.9	+0.0	40.5	54.0	-13.5	Horiz
	M		+2.2	-56.4	+0.0	+0.0					
	Ave		+0.0						10MHz 802.11n		
									13MCSHT202S		
^	11470.000	60.8	+0.0	+38.7	+2.3	+6.9	+0.0	54.5	54.0	+0.5	Horiz
	M		+2.2	-56.4	+0.0	+0.0					
			+0.0						10MHz 802.11n		
									13MCSHT202S		
26	11670.000	45.9	+0.0	+38.8	+2.4	+7.0	+0.0	39.7	54.0	-14.3	Horiz
	M		+2.2	-56.6	+0.0	+0.0					
	Ave		+0.0						20MHz 802.11a		
									36Mbps		
^	11670.000	59.3	+0.0	+38.8	+2.4	+7.0	+0.0	53.1	54.0	-0.9	Horiz
	M		+2.2	-56.6	+0.0	+0.0					
			+0.0						20MHz 802.11a		
									36Mbps		
28	11669.800	45.7	+0.0	+38.8	+2.4	+7.0	+0.0	39.5	54.0	-14.5	Horiz
	M		+2.2	-56.6	+0.0	+0.0					
	Ave		+0.0						20MHz 802.11n		
									26MCSHT202S		

^	11669.800 M	61.3	+0.0 +2.2 +0.0	+38.8 -56.6	+2.4 +0.0	+7.0 +0.0	+0.0	55.1	54.0	+1.1	Horiz
									20MHz 802.11n 26MCSHT202S		
30	11569.000 M Ave	45.2	+0.0 +2.2 +0.0	+38.8 -56.7	+2.4 +0.0	+6.9 +0.0	+0.0	38.8	54.0	-15.2	Vert
									20MHz 802.11a 36Mbps		
^	11569.000 M	56.9	+0.0 +2.2 +0.0	+38.8 -56.7	+2.4 +0.0	+6.9 +0.0	+0.0	50.5	54.0	-3.5	Vert
									20MHz 802.11a 36Mbps		
32	11679.000 M Ave	44.4	+0.0 +2.2 +0.0	+38.8 -56.5	+2.4 +0.0	+7.0 +0.0	+0.0	38.3	54.0	-15.7	Horiz
									10MHz 802.11n 24Mbps		
^	11679.000 M	58.7	+0.0 +2.2 +0.0	+38.8 -56.5	+2.4 +0.0	+7.0 +0.0	+0.0	52.6	54.0	-1.4	Horiz
									10MHz 802.11n 24Mbps		
34	11485.346 M Ave	44.4	+0.0 +2.2 +0.0	+38.7 -56.5	+2.4 +0.0	+6.9 +0.0	+0.0	38.1	54.0	-15.9	Vert
									20MHz 802.11n 26MCSHT202S		
^	11485.346 M	56.6	+0.0 +2.2 +0.0	+38.7 -56.5	+2.4 +0.0	+6.9 +0.0	+0.0	50.3	54.0	-3.7	Vert
									20MHz 802.11n 26MCSHT202S		
36	11467.400 M Ave	43.8	+0.0 +2.2 +0.0	+38.7 -56.4	+2.3 +0.0	+6.9 +0.0	+0.0	37.5	54.0	-16.5	Vert
									10MHz 802.11n 24Mbps		
^	11467.400 M	56.5	+0.0 +2.2 +0.0	+38.7 -56.4	+2.3 +0.0	+6.9 +0.0	+0.0	50.2	54.0	-3.8	Vert
									10MHz 802.11n 24Mbps		
38	11567.400 M Ave	43.6	+0.0 +2.2 +0.0	+38.8 -56.7	+2.4 +0.0	+6.9 +0.0	+0.0	37.2	54.0	-16.8	Vert
									10MHz 802.11n 24Mbps		
^	11567.400 M	57.0	+0.0 +2.2 +0.0	+38.8 -56.7	+2.4 +0.0	+6.9 +0.0	+0.0	50.6	54.0	-3.4	Vert
									10MHz 802.11n 24Mbps		
40	11677.500 M Ave	43.3	+0.0 +2.2 +0.0	+38.8 -56.5	+2.4 +0.0	+7.0 +0.0	+0.0	37.2	54.0	-16.8	Horiz
									10MHz 802.11n 24Mbps		
^	11677.500 M	56.0	+0.0 +2.2 +0.0	+38.8 -56.5	+2.4 +0.0	+7.0 +0.0	+0.0	49.9	54.0	-4.1	Horiz
									10MHz 802.11n 24Mbps		

42	11680.380	42.7	+0.0	+38.8	+2.4	+7.0	+0.0	36.6	54.0	-17.4	Horiz
	M		+2.2	-56.5	+0.0	+0.0					
	Ave		+0.0						10MHz 802.11n		
									13MCSHT202S		
^	11680.380	57.5	+0.0	+38.8	+2.4	+7.0	+0.0	51.4	54.0	-2.6	Horiz
	M		+2.2	-56.5	+0.0	+0.0					
			+0.0						10MHz 802.11n		
									13MCSHT202S		
44	11480.000	42.0	+0.0	+38.7	+2.3	+6.9	+0.0	35.6	54.0	-18.4	Horiz
	M		+2.2	-56.5	+0.0	+0.0					
	Ave		+0.0						20MHz 802.11a		
									36Mbps		
^	11480.000	55.5	+0.0	+38.7	+2.3	+6.9	+0.0	49.1	54.0	-4.9	Horiz
	M		+2.2	-56.5	+0.0	+0.0					
			+0.0						20MHz 802.11a		
									36Mbps		
46	11477.900	41.9	+0.0	+38.7	+2.3	+6.9	+0.0	35.5	54.0	-18.5	Vert
	M		+2.2	-56.5	+0.0	+0.0					
	Ave		+0.0						20MHz 802.11a		
									36Mbps		
^	11477.900	55.6	+0.0	+38.7	+2.3	+6.9	+0.0	49.2	54.0	-4.8	Vert
	M		+2.2	-56.5	+0.0	+0.0					
			+0.0						20MHz 802.11a		
									36Mbps		
48	11570.000	41.9	+0.0	+38.8	+2.4	+6.9	+0.0	35.5	54.0	-18.5	Vert
	M		+2.2	-56.7	+0.0	+0.0					
	Ave		+0.0						20MHz 802.11n		
									26MCSHT202S		
^	11570.000	57.6	+0.0	+38.8	+2.4	+6.9	+0.0	51.2	54.0	-2.8	Vert
	M		+2.2	-56.7	+0.0	+0.0					
			+0.0						20MHz 802.11n		
									26MCSHT202S		
50	11679.125	40.7	+0.0	+38.8	+2.4	+7.0	+0.0	34.6	54.0	-19.4	Vert
	M		+2.2	-56.5	+0.0	+0.0					
	Ave		+0.0						10MHz 802.11n		
									24Mbps		
^	11679.125	54.0	+0.0	+38.8	+2.4	+7.0	+0.0	47.9	54.0	-6.1	Vert
	M		+2.2	-56.5	+0.0	+0.0					
			+0.0						10MHz 802.11n		
									24Mbps		
52	23358.000	71.6	+0.0	+0.0	+0.0	+0.0	+0.0	59.1	113.0	-53.9	Vert
	M		+0.0	+0.0	+0.0	-16.9					
			+4.4						10MHz 802.11a		
									24Mbps		
53	17351.000	52.4	+0.0	+43.2	+3.0	+10.0	+0.0	55.4	113.0	-57.6	Vert
	M		+2.9	-56.9	+0.8	+0.0					
	Ave		+0.0						10MHz 802.11n		
									24Mbps		

54	17520.000	51.1	+0.0	+44.3	+3.0	+10.4	+0.0	55.2	113.0	-57.8	Vert
	M		+3.0	-57.4	+0.8	+0.0					
	Ave		+0.0						10MHz 802.11n		
									24Mbps		
^	17520.000	63.9	+0.0	+44.3	+3.0	+10.4	+0.0	68.0	113.0	-45.0	Vert
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0						10MHz 802.11n		
									24Mbps		
56	17501.500	48.4	+0.0	+44.2	+3.0	+10.4	+0.0	52.4	113.0	-60.6	Vert
	M		+3.0	-57.4	+0.8	+0.0					
	Ave		+0.0						20MHz 802.11a		
									36Mbps		
^	17501.500	61.2	+0.0	+44.2	+3.0	+10.4	+0.0	65.2	113.0	-47.8	Vert
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0						20MHz 802.11a		
									36Mbps		
58	17351.871	49.2	+0.0	+43.2	+3.0	+10.0	+0.0	52.2	113.0	-60.8	Vert
	M		+2.9	-56.9	+0.8	+0.0					
	Ave		+0.0						10MHz 802.11n		
									13MCSHT202S		
^	17351.871	62.4	+0.0	+43.2	+3.0	+10.0	+0.0	65.4	113.0	-47.6	Vert
	M		+2.9	-56.9	+0.8	+0.0					
			+0.0						10MHz 802.11n		
									13MCSHT202S		
60	17520.000	46.2	+0.0	+44.3	+3.0	+10.4	+0.0	50.3	113.0	-62.7	Horiz
	M		+3.0	-57.4	+0.8	+0.0					
	Ave		+0.0						10MHz 802.11n		
									24Mbps		
^	17520.000	58.8	+0.0	+44.3	+3.0	+10.4	+0.0	62.9	113.0	-50.1	Horiz
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0						10MHz 802.11n		
									24Mbps		
62	23358.000	62.6	+0.0	+0.0	+0.0	+0.0	+0.0	50.1	113.0	-62.9	Horiz
	M		+0.0	+0.0	+0.0	-16.9					
			+4.4						10MHz 802.11a		
									24Mbps		
63	17355.000	47.0	+0.0	+43.2	+3.0	+10.0	+0.0	50.0	113.0	-63.0	Horiz
	M		+2.9	-56.9	+0.8	+0.0					
	Ave		+0.0						10MHz 802.11n		
									24Mbps		
^	17355.000	59.6	+0.0	+43.2	+3.0	+10.0	+0.0	62.6	113.0	-50.4	Horiz
	M		+2.9	-56.9	+0.8	+0.0					
			+0.0						10MHz 802.11n		
									24Mbps		
65	17504.750	45.9	+0.0	+44.2	+3.0	+10.4	+0.0	49.9	113.0	-63.1	Horiz
	M		+3.0	-57.4	+0.8	+0.0					
	Ave		+0.0						20MHz 802.11n		
									26MCSHT202S		
^	17504.750	59.5	+0.0	+44.2	+3.0	+10.4	+0.0	63.5	113.0	-49.5	Horiz
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0						20MHz 802.11n		
									26MCSHT202S		

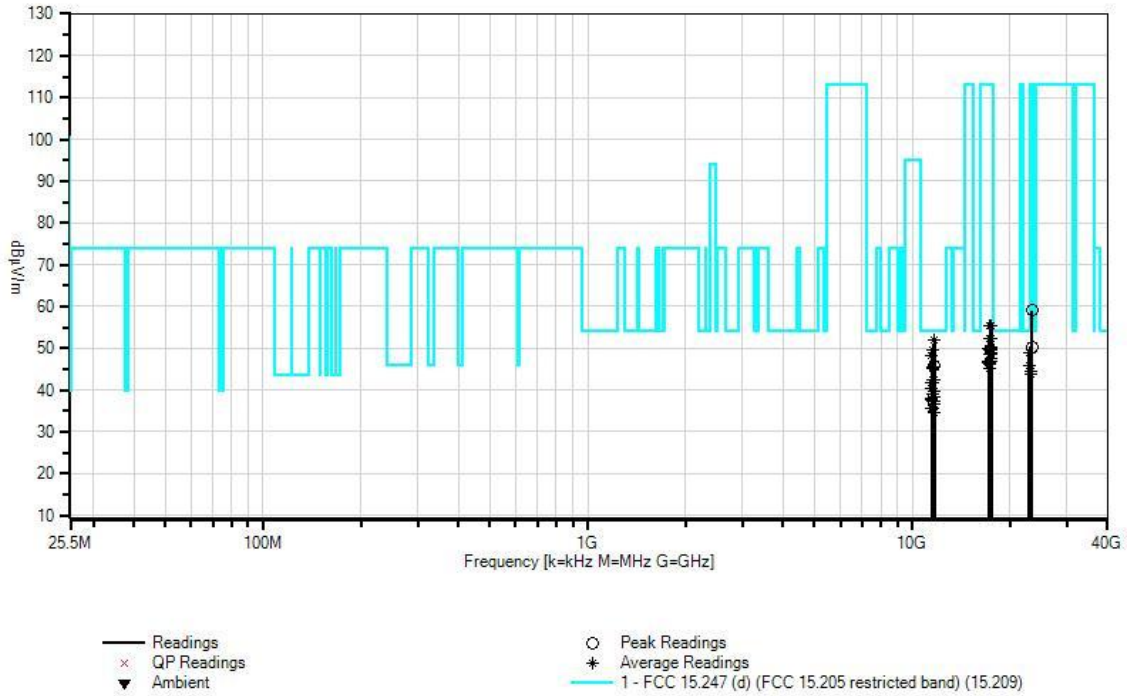
67	17348.000	46.9	+0.0	+43.1	+3.0	+10.0	+0.0	49.8	113.0	-63.2	Vert
	M		+2.9	-56.9	+0.8	+0.0					
	Ave		+0.0						20MHz 802.11n		
									26MCSHT202S		
^	17348.000	60.4	+0.0	+43.1	+3.0	+10.0	+0.0	63.3	113.0	-49.7	Vert
	M		+2.9	-56.9	+0.8	+0.0					
			+0.0						20MHz 802.11n		
									26MCSHT202S		
69	17205.000	48.5	+0.0	+42.1	+3.0	+9.8	+0.0	49.8	113.0	-63.2	Vert
	M		+2.9	-57.2	+0.7	+0.0					
	Ave		+0.0						10MHz 802.11n		
									24Mbps		
^	17205.000	61.9	+0.0	+42.1	+3.0	+9.8	+0.0	63.2	113.0	-49.8	Vert
	M		+2.9	-57.2	+0.7	+0.0					
			+0.0						10MHz 802.11n		
									24Mbps		
71	17351.040	46.6	+0.0	+43.2	+3.0	+10.0	+0.0	49.6	113.0	-63.4	Vert
	M		+2.9	-56.9	+0.8	+0.0					
	Ave		+0.0						20MHz 802.11a		
									36Mbps		
^	17351.000	64.6	+0.0	+43.2	+3.0	+10.0	+0.0	67.6	113.0	-45.4	Vert
	M		+2.9	-56.9	+0.8	+0.0					
			+0.0						10MHz 802.11n		
									24Mbps		
^	17351.040	58.8	+0.0	+43.2	+3.0	+10.0	+0.0	61.8	113.0	-51.2	Vert
	M		+2.9	-56.9	+0.8	+0.0					
			+0.0						20MHz 802.11a		
									36Mbps		
74	17519.500	45.3	+0.0	+44.3	+3.0	+10.4	+0.0	49.4	113.0	-63.6	Horiz
	M		+3.0	-57.4	+0.8	+0.0					
	Ave		+0.0						10MHz 802.11n		
									24Mbps		
^	17519.500	59.3	+0.0	+44.3	+3.0	+10.4	+0.0	63.4	113.0	-49.6	Horiz
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0						10MHz 802.11n		
									24Mbps		
76	17518.100	44.8	+0.0	+44.3	+3.0	+10.4	+0.0	48.9	113.0	-64.1	Horiz
	M		+3.0	-57.4	+0.8	+0.0					
	Ave		+0.0						10MHz 802.11n		
									13MCSHT202S		
^	17518.100	57.5	+0.0	+44.3	+3.0	+10.4	+0.0	61.6	113.0	-51.4	Horiz
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0						10MHz 802.11n		
									13MCSHT202S		
78	17517.500	44.6	+0.0	+44.3	+3.0	+10.4	+0.0	48.7	113.0	-64.3	Vert
	M		+3.0	-57.4	+0.8	+0.0					
	Ave		+0.0						10MHz 802.11n		
									13MCSHT202S		
^	17517.500	57.8	+0.0	+44.3	+3.0	+10.4	+0.0	61.9	113.0	-51.1	Vert
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0						10MHz 802.11n		
									13MCSHT202S		



80	17354.300	45.7	+0.0	+43.2	+3.0	+10.0	+0.0	48.7	113.0	-64.3	Horiz
	M		+2.9	-56.9	+0.8	+0.0					
	Ave		+0.0						10MHz 802.11n		
									13MCSHT202S		
^	17354.300	60.0	+0.0	+43.2	+3.0	+10.0	+0.0	63.0	113.0	-50.0	Horiz
	M		+2.9	-56.9	+0.8	+0.0					
			+0.0						10MHz 802.11n		
									13MCSHT202S		
82	17228.019	47.0	+0.0	+42.3	+3.0	+9.8	+0.0	48.6	113.0	-64.4	Vert
	M		+2.9	-57.2	+0.8	+0.0					
	Ave		+0.0						20MHz 802.11n		
									26MCSHT202S		
^	17228.019	58.7	+0.0	+42.3	+3.0	+9.8	+0.0	60.3	113.0	-52.7	Vert
	M		+2.9	-57.2	+0.8	+0.0					
			+0.0						20MHz 802.11n		
									26MCSHT202S		
84	17348.913	45.4	+0.0	+43.2	+3.0	+10.0	+0.0	48.4	113.0	-64.6	Horiz
	M		+2.9	-56.9	+0.8	+0.0					
	Ave		+0.0						20MHz 802.11a		
									36Mbps		
^	17348.913	57.3	+0.0	+43.2	+3.0	+10.0	+0.0	60.3	113.0	-52.7	Horiz
	M		+2.9	-56.9	+0.8	+0.0					
			+0.0						20MHz 802.11a		
									36Mbps		
86	17510.113	43.5	+0.0	+44.3	+3.0	+10.4	+0.0	47.6	113.0	-65.4	Horiz
	M		+3.0	-57.4	+0.8	+0.0					
	Ave		+0.0						20MHz 802.11a		
									36Mbps		
^	17510.113	56.8	+0.0	+44.3	+3.0	+10.4	+0.0	60.9	113.0	-52.1	Horiz
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0						20MHz 802.11a		
									36Mbps		
88	17204.200	45.6	+0.0	+42.1	+3.0	+9.8	+0.0	46.9	113.0	-66.1	Vert
	M		+2.9	-57.2	+0.7	+0.0					
	Ave		+0.0						10MHz 802.11n		
									13MCSHT202S		
^	17204.200	59.2	+0.0	+42.1	+3.0	+9.8	+0.0	60.5	113.0	-52.5	Vert
	M		+2.9	-57.2	+0.7	+0.0					
			+0.0						10MHz 802.11n		
									13MCSHT202S		
90	17511.000	42.6	+0.0	+44.3	+3.0	+10.4	+0.0	46.7	113.0	-66.3	Vert
	M		+3.0	-57.4	+0.8	+0.0					
	Ave		+0.0						20MHz 802.11n		
									26MCSHT202S		
^	17511.000	55.3	+0.0	+44.3	+3.0	+10.4	+0.0	59.4	113.0	-53.6	Vert
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0						20MHz 802.11n		
									26MCSHT202S		
92	17214.819	45.1	+0.0	+42.2	+3.0	+9.8	+0.0	46.5	113.0	-66.5	Horiz
	M		+2.9	-57.2	+0.7	+0.0					
	Ave		+0.0						20MHz 802.11n		
									26MCSHT202S		

^	17214.819	58.3	+0.0	+42.2	+3.0	+9.8	+0.0	59.7	113.0	-53.3	Horiz
	M		+2.9	-57.2	+0.7	+0.0			20MHz 802.11n		
			+0.0						26MCSHT202S		
94	17204.000	45.1	+0.0	+42.1	+3.0	+9.8	+0.0	46.4	113.0	-66.6	Horiz
	M		+2.9	-57.2	+0.7	+0.0			10MHz 802.11n		
	Ave		+0.0						13MCSHT202S		
^	17204.000	58.1	+0.0	+42.1	+3.0	+9.8	+0.0	59.4	113.0	-53.6	Horiz
	M		+2.9	-57.2	+0.7	+0.0			10MHz 802.11n		
			+0.0						13MCSHT202S		
96	17353.300	43.4	+0.0	+43.2	+3.0	+10.0	+0.0	46.4	113.0	-66.6	Horiz
	M		+2.9	-56.9	+0.8	+0.0			20MHz 802.11n		
	Ave		+0.0						26MCSHT202S		
^	17353.300	57.0	+0.0	+43.2	+3.0	+10.0	+0.0	60.0	113.0	-53.0	Horiz
	M		+2.9	-56.9	+0.8	+0.0			20MHz 802.11n		
			+0.0						26MCSHT202S		
98	17221.500	44.8	+0.0	+42.3	+3.0	+9.8	+0.0	46.3	113.0	-66.7	Horiz
	M		+2.9	-57.2	+0.7	+0.0			20MHz 802.11a		
	Ave		+0.0						36Mbps		
^	17221.500	57.5	+0.0	+42.3	+3.0	+9.8	+0.0	59.0	113.0	-54.0	Horiz
	M		+2.9	-57.2	+0.7	+0.0			20MHz 802.11a		
			+0.0						36Mbps		
100	17222.200	43.7	+0.0	+42.3	+3.0	+9.8	+0.0	45.2	113.0	-67.8	Vert
	M		+2.9	-57.2	+0.7	+0.0			20MHz 802.11a		
	Ave		+0.0						36Mbps		
^	17222.200	56.1	+0.0	+42.3	+3.0	+9.8	+0.0	57.6	113.0	-55.4	Vert
	M		+2.9	-57.2	+0.7	+0.0			20MHz 802.11a		
			+0.0						36Mbps		
102	23136.000	56.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.4	113.0	-68.6	Vert
	M		+0.0	+0.0	+0.0	-16.7			10MHz 802.11a		
	Ave		+4.3						24Mbps		
^	23136.000	69.6	+0.0	+0.0	+0.0	+0.0	+0.0	57.2	113.0	-55.8	Vert
	M		+0.0	+0.0	+0.0	-16.7			10MHz 802.11a		
			+4.3						24Mbps		
104	23136.000	56.1	+0.0	+0.0	+0.0	+0.0	+0.0	43.7	113.0	-69.3	Horiz
	M		+0.0	+0.0	+0.0	-16.7			10MHz 802.11a		
	Ave		+4.3						24Mbps		
^	23136.000	69.4	+0.0	+0.0	+0.0	+0.0	+0.0	57.0	113.0	-56.0	Horiz
	M		+0.0	+0.0	+0.0	-16.7			10MHz 802.11a		
			+4.3						24Mbps		

CKC Laboratories, Inc. Date: 5/31/2012 Time: 17:20:17 Digital Path WO#: 92682  
 FCC 15.247 (d) (FCC 15.205 restricted band) (15.209) Test Distance: 3 Meters Sequence#: 212 Vert  
 UNII Bands. 20MHz Channel width.



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Digital Path**  
 Specification: **FCC 15.247 (d) (FCC 15.205 restricted band) (15.209)**  
 Work Order #: **92682** Date: 6/2/2012  
 Test Type: **Radiated Scan** Time: 14:27:28  
 Equipment: **5GHz Parabolic (33 dBi)** Sequence#: 213  
 Manufacturer: Digital Path Tested By: E. Wong  
 Model: G5RL10E  
 S/N: EMI 3

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02668	Spectrum Analyzer	E4446A	2/23/2011	2/23/2013
T2	AN02157	Horn Antenna-ANSI C63.5	3115	1/17/2011	1/17/2013
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/21/2012	3/21/2014
T4	ANP01210	Cable	FSJ1P-50A-4A	3/15/2011	3/15/2013
T5	ANP05913	Cable	32022-29094K-65TC	8/30/2011	8/30/2013
T6	AN03114	Preamp	AMF-7D-00101800-30-10P	5/13/2011	5/13/2013
T7	AN01417	High Pass Filter	84300-80039	2/9/2012	2/9/2014
T8	AN02694	Active Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-18002650-20-10P	11/10/2010	11/10/2012
	AN02695	Active Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-260400-33-8P	11/10/2010	11/10/2012
T9	ANP05911	Cable	32022-29094K-65TC	8/30/2011	8/30/2013
T10	ANP05936	Attenuator	84A-6	10/19/2011	10/19/2013
	AN00730	Preamp		1/31/2011	1/31/2013
	AN00432	Loop Antenna	6502	3/31/2011	3/31/2013
	AN00852	Biconilog Antenna	CBL 6111C	11/16/2010	11/16/2012
	ANP05299	Cable	RG214	3/6/2011	3/6/2013
	ANP05300	Cable	RG214/U	3/7/2011	3/7/2013
	ANP05440	Cable		3/7/2011	3/7/2013

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
5GHz Parabolic (33 dBi)*	Digital Path	G5RL10E	EMI 3

**Support Devices:**

Function	Manufacturer	Model #	S/N
Laptop Computer	HP	ProBook 6565b	5CB13637ZF
Laptop Power Supply	HP	608428-002	F12941126327228

**Test Conditions / Notes:**

The EUT installed on a pole as intended. DC power port is connected to a DC power supply via a CAT5 cable. The Ethernet port is connected to a remote laptop via unshielded twisted pair.

The Remote laptop is running test software to exercise the intended functionalities. Receiver circuit is active.

Vertical polarity of the antenna is connected to Card 1, Ant port 2  
Horizontal polarity of the antenna is connected to Card 1, Ant port 0

Radio 0, OFF  
Radio 1, TX

Point to Point

5725-5850MHz  
Freq: 5735MHz, 5785MHz, 5840MHz.  
BW = 10 MHz  
802.11a: 24Mbps, TX power setting = 21, 21,18.5  
802.11n: 13MCS HT20 2S, TX power setting = 21,21,18.5

Freq: 5740MHz, 5785MHz, 5835MHz.  
BW= 20MHz  
802.11a: 36 Mbps, TX power setting = 22, 20.5, 20.5  
802.11n: 26MCS HT20 2S, TX power setting=22, 20.5, 20.5

Temperature: 21.9°C, Relative Humidity: 38-43%, Atmospheric Pressure: 101.5kPa

Frequency range of measurement = 9kHz-40GHz.  
9 kHz -150 kHz; RBW=200 Hz, VBW=200 Hz;150 kHz-30 MHz; RBW=9 kHz, VBW=9 kHz;30 MHz-1000 MHz; RBW=120 kHz, VBW=120 kHz,1000 MHz-40,000 MHz; RBW=1 MHz, VBW=1 MHz.

Ext Attn: 0 dB

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	11570.000	53.3	+0.0	+38.8	+2.4	+6.9	+0.0	53.0	54.0	-1.0	Vert
	M		+2.2	-56.7	+0.0	+0.0					
	Ave		+0.0	+6.1					20MHz 802.11n-26MCSHT202S		
^	11570.000	68.8	+0.0	+38.8	+2.4	+6.9	+0.0	68.5	54.0	+14.5	Vert
	M		+2.2	-56.7	+0.0	+0.0					
			+0.0	+6.1					20MHz 802.11n-26MCSHT202S		
3	11471.000	50.9	+0.0	+38.7	+2.3	+6.9	+0.0	50.7	54.0	-3.3	Vert
	M		+2.2	-56.4	+0.0	+0.0					
	Ave		+0.0	+6.1					10MHz 802.11a-24Mbps		
^	11471.000	63.0	+0.0	+38.7	+2.3	+6.9	+0.0	62.8	54.0	+8.8	Vert
	M		+2.2	-56.4	+0.0	+0.0					
			+0.0	+6.1					10MHz 802.11a-24Mbps		

5	11478.900	50.9	+0.0	+38.7	+2.3	+6.9	+0.0	50.6	54.0	-3.4	Vert
	M		+2.2	-56.5	+0.0	+0.0					
	Ave		+0.0	+6.1					20MHz 802.11a-36Mbps		
^	11478.900	63.8	+0.0	+38.7	+2.3	+6.9	+0.0	63.5	54.0	+9.5	Vert
	M		+2.2	-56.5	+0.0	+0.0					
			+0.0	+6.1					20MHz 802.11a-36Mbps		
7	11574.000	50.4	+0.0	+38.8	+2.4	+6.9	+0.0	50.1	54.0	-3.9	Vert
	M		+2.2	-56.7	+0.0	+0.0					
	Ave		+0.0	+6.1					20MHz 802.11a-36Mbps		
^	11574.000	63.3	+0.0	+38.8	+2.4	+6.9	+0.0	63.0	54.0	+9.0	Vert
	M		+2.2	-56.7	+0.0	+0.0					
			+0.0	+6.1					20MHz 802.11a-36Mbps		
9	11471.000	50.1	+0.0	+38.7	+2.3	+6.9	+0.0	49.9	54.0	-4.1	Horiz
	M		+2.2	-56.4	+0.0	+0.0					
	Ave		+0.0	+6.1					10MHz 802.11n-13MCSHT202S		
^	11471.000	63.2	+0.0	+38.7	+2.3	+6.9	+0.0	63.0	54.0	+9.0	Horiz
	M		+2.2	-56.4	+0.0	+0.0					
			+0.0	+6.1					10MHz 802.11n-13MCSHT202S		
11	11668.000	50.0	+0.0	+38.8	+2.4	+7.0	+0.0	49.9	54.0	-4.1	Vert
	M		+2.2	-56.6	+0.0	+0.0					
	Ave		+0.0	+6.1					20MHz 802.11n-26MCSHT202S		
^	11668.000	62.6	+0.0	+38.8	+2.4	+7.0	+0.0	62.5	54.0	+8.5	Vert
	M		+2.2	-56.6	+0.0	+0.0					
			+0.0	+6.1					20MHz 802.11n-26MCSHT202S		
13	11480.100	49.6	+0.0	+38.7	+2.3	+6.9	+0.0	49.3	54.0	-4.7	Vert
	M		+2.2	-56.5	+0.0	+0.0					
	Ave		+0.0	+6.1					20MHz 802.11n-26MCSHT202S		
^	11480.100	67.5	+0.0	+38.7	+2.3	+6.9	+0.0	67.2	54.0	+13.2	Vert
	M		+2.2	-56.5	+0.0	+0.0					
			+0.0	+6.1					20MHz 802.11n-26MCSHT202S		
15	11676.800	48.7	+0.0	+38.8	+2.4	+7.0	+0.0	48.7	54.0	-5.3	Horiz
	M		+2.2	-56.5	+0.0	+0.0					
	Ave		+0.0	+6.1					20MHz 802.11a-36Mbps		
^	11676.800	62.0	+0.0	+38.8	+2.4	+7.0	+0.0	62.0	54.0	+8.0	Horiz
	M		+2.2	-56.5	+0.0	+0.0					
			+0.0	+6.1					20MHz 802.11a-36Mbps		

17	11666.400	48.3	+0.0	+38.8	+2.4	+7.0	+0.0	48.2	54.0	-5.8	Horiz
	M		+2.2	-56.6	+0.0	+0.0					
	Ave		+0.0	+6.1					20MHz 802.11n- 26MCSHT202S		
^	11666.400	63.4	+0.0	+38.8	+2.4	+7.0	+0.0	63.3	54.0	+9.3	Horiz
	M		+2.2	-56.6	+0.0	+0.0					
			+0.0	+6.1					20MHz 802.11n- 26MCSHT202S		
19	11570.400	46.8	+0.0	+38.8	+2.4	+6.9	+0.0	46.5	54.0	-7.5	Horiz
	M		+2.2	-56.7	+0.0	+0.0					
	Ave		+0.0	+6.1					20MHz 802.11a- 36Mbps		
^	11570.400	59.1	+0.0	+38.8	+2.4	+6.9	+0.0	58.8	54.0	+4.8	Horiz
	M		+2.2	-56.7	+0.0	+0.0					
			+0.0	+6.1					20MHz 802.11a- 36Mbps		
21	11680.400	46.2	+0.0	+38.8	+2.4	+7.0	+0.0	46.2	54.0	-7.8	Horiz
	M		+2.2	-56.5	+0.0	+0.0					
	Ave		+0.0	+6.1					10MHz 802.11a- 24Mbps		
^	11680.400	61.1	+0.0	+38.8	+2.4	+7.0	+0.0	61.1	54.0	+7.1	Horiz
	M		+2.2	-56.5	+0.0	+0.0					
			+0.0	+6.1					10MHz 802.11a- 24Mbps		
23	11572.850	46.5	+0.0	+38.8	+2.4	+6.9	+0.0	46.2	54.0	-7.8	Horiz
	M		+2.2	-56.7	+0.0	+0.0					
	Ave		+0.0	+6.1					10MHz 802.11n- 13MCSHT202S		
^	11572.850	59.9	+0.0	+38.8	+2.4	+6.9	+0.0	59.6	54.0	+5.6	Horiz
	M		+2.2	-56.7	+0.0	+0.0					
			+0.0	+6.1					10MHz 802.11n- 13MCSHT202S		
25	11471.100	46.1	+0.0	+38.7	+2.3	+6.9	+0.0	45.9	54.0	-8.1	Vert
	M		+2.2	-56.4	+0.0	+0.0					
	Ave		+0.0	+6.1					10MHz 802.11n- 13MCSHT202S		
^	11471.100	60.2	+0.0	+38.7	+2.3	+6.9	+0.0	60.0	54.0	+6.0	Vert
	M		+2.2	-56.4	+0.0	+0.0					
			+0.0	+6.1					10MHz 802.11n- 13MCSHT202S		
27	11677.000	45.9	+0.0	+38.8	+2.4	+7.0	+0.0	45.9	54.0	-8.1	Horiz
	M		+2.2	-56.5	+0.0	+0.0					
	Ave		+0.0	+6.1					10MHz 802.11n- 13MCSHT202S		
28	22940.000	57.9	+0.0	+0.0	+0.0	+0.0	+0.0	45.6	54.0	-8.4	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
	Ave		+4.3	+0.0					10MHz 802.1a 24Mbps		
29	11679.900	45.6	+0.0	+38.8	+2.4	+7.0	+0.0	45.6	54.0	-8.4	Vert
	M		+2.2	-56.5	+0.0	+0.0					
	Ave		+0.0	+6.1					10MHz 802.11n- 13MCSHT202S		

^	11679.900	59.0	+0.0	+38.8	+2.4	+7.0	+0.0	59.0	54.0	+5.0	Vert
	M		+2.2	-56.5	+0.0	+0.0			10MHz 802.11n-13MCSHT202S		
			+0.0	+6.1							
31	11569.300	45.4	+0.0	+38.8	+2.4	+6.9	+0.0	45.1	54.0	-8.9	Vert
	M		+2.2	-56.7	+0.0	+0.0			10MHz 802.11n-13MCSHT202S		
	Ave		+0.0	+6.1							
^	11569.300	58.2	+0.0	+38.8	+2.4	+6.9	+0.0	57.9	54.0	+3.9	Vert
	M		+2.2	-56.7	+0.0	+0.0			10MHz 802.11n-13MCSHT202S		
			+0.0	+6.1							
33	11573.400	45.3	+0.0	+38.8	+2.4	+6.9	+0.0	45.0	54.0	-9.0	Horiz
	M		+2.2	-56.7	+0.0	+0.0			10MHz 802.11a-24Mbps		
	Ave		+0.0	+6.1							
^	11573.400	58.0	+0.0	+38.8	+2.4	+6.9	+0.0	57.7	54.0	+3.7	Horiz
	M		+2.2	-56.7	+0.0	+0.0			10MHz 802.11a-24Mbps		
			+0.0	+6.1							
35	22940.000	57.0	+0.0	+0.0	+0.0	+0.0	+0.0	44.7	54.0	-9.3	Horiz
	M		+0.0	+0.0	+0.0	-16.6			10MHz 802.11n-13MCSHT202S		
	Ave		+4.3	+0.0							
^	22940.000	69.3	+0.0	+0.0	+0.0	+0.0	+0.0	57.0	54.0	+3.0	Horiz
	M		+0.0	+0.0	+0.0	-16.6			10MHz 802.1a-24Mbps		
			+4.3	+0.0							
^	22940.000	65.9	+0.0	+0.0	+0.0	+0.0	+0.0	53.6	54.0	-0.4	Horiz
	M		+0.0	+0.0	+0.0	-16.6			10MHz 802.11n-13MCSHT202S		
			+4.3	+0.0							
38	11479.600	44.7	+0.0	+38.7	+2.3	+6.9	+0.0	44.4	54.0	-9.6	Horiz
	M		+2.2	-56.5	+0.0	+0.0			20MHz 802.11n-26MCSHT202S		
	Ave		+0.0	+6.1							
^	11479.600	60.4	+0.0	+38.7	+2.3	+6.9	+0.0	60.1	54.0	+6.1	Horiz
	M		+2.2	-56.5	+0.0	+0.0			20MHz 802.11n-26MCSHT202S		
			+0.0	+6.1							
40	11478.600	44.6	+0.0	+38.7	+2.3	+6.9	+0.0	44.3	54.0	-9.7	Horiz
	M		+2.2	-56.5	+0.0	+0.0			20MHz 802.11a-36Mbps		
	Ave		+0.0	+6.1							
^	11478.600	59.0	+0.0	+38.7	+2.3	+6.9	+0.0	58.7	54.0	+4.7	Horiz
	M		+2.2	-56.5	+0.0	+0.0			20MHz 802.11a-36Mbps		
			+0.0	+6.1							
42	11568.180	44.5	+0.0	+38.8	+2.4	+6.9	+0.0	44.2	54.0	-9.8	Vert
	M		+2.2	-56.7	+0.0	+0.0			10MHz 802.11a-24Mbps		
	Ave		+0.0	+6.1							

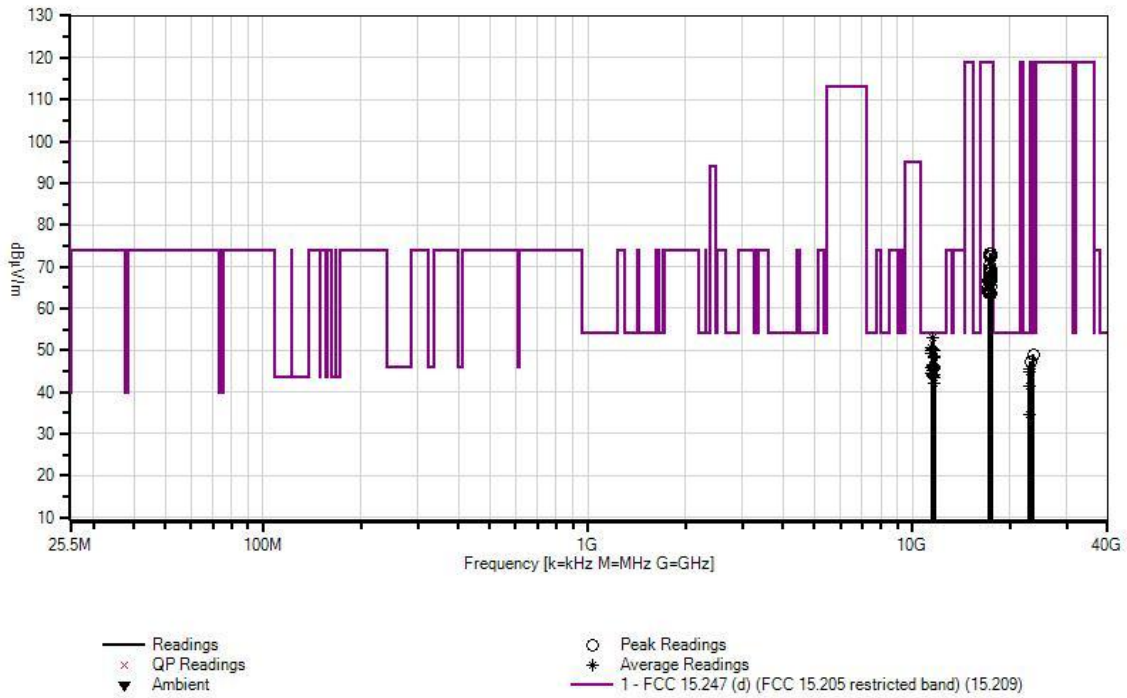


^	11568.180	58.4	+0.0	+38.8	+2.4	+6.9	+0.0	58.1	54.0	+4.1	Vert
	M		+2.2	-56.7	+0.0	+0.0			10MHz 802.11a-24Mbps		
			+0.0	+6.1							
44	11677.000	43.9	+0.0	+38.8	+2.4	+7.0	+0.0	43.9	54.0	-10.1	Horiz
	M		+2.2	-56.5	+0.0	+0.0			10MHz 802.11a-24Mbps		
	Ave		+0.0	+6.1							
^	11677.000	61.0	+0.0	+38.8	+2.4	+7.0	+0.0	61.0	54.0	+7.0	Horiz
	M		+2.2	-56.5	+0.0	+0.0			10MHz 802.11n-13MCSHT202S		
			+0.0	+6.1							
^	11677.000	59.8	+0.0	+38.8	+2.4	+7.0	+0.0	59.8	54.0	+5.8	Horiz
	M		+2.2	-56.5	+0.0	+0.0			10MHz 802.11a-24Mbps		
			+0.0	+6.1							
47	11579.000	43.9	+0.0	+38.8	+2.4	+6.9	+0.0	43.6	54.0	-10.4	Horiz
	M		+2.2	-56.7	+0.0	+0.0			20MHz 802.11n-26MCSHT202S		
	Ave		+0.0	+6.1							
^	11579.000	58.8	+0.0	+38.8	+2.4	+6.9	+0.0	58.5	54.0	+4.5	Horiz
	M		+2.2	-56.7	+0.0	+0.0			20MHz 802.11n-26MCSHT202S		
			+0.0	+6.1							
49	11677.250	43.5	+0.0	+38.8	+2.4	+7.0	+0.0	43.5	54.0	-10.5	Vert
	M		+2.2	-56.5	+0.0	+0.0			20MHz 802.11a-36Mbps		
	Ave		+0.0	+6.1							
^	11677.250	55.5	+0.0	+38.8	+2.4	+7.0	+0.0	55.5	54.0	+1.5	Vert
	M		+2.2	-56.5	+0.0	+0.0			20MHz 802.11a-36Mbps		
			+0.0	+6.1							
51	11678.180	41.9	+0.0	+38.8	+2.4	+7.0	+0.0	41.9	54.0	-12.1	Vert
	M		+2.2	-56.5	+0.0	+0.0			10MHz 802.11a-24Mbps		
	Ave		+0.0	+6.1							
^	11678.180	56.6	+0.0	+38.8	+2.4	+7.0	+0.0	56.6	54.0	+2.6	Vert
	M		+2.2	-56.5	+0.0	+0.0			10MHz 802.11a-24Mbps		
			+0.0	+6.1							
53	22960.000	53.8	+0.0	+0.0	+0.0	+0.0	+0.0	41.5	54.0	-12.5	Horiz
	M		+0.0	+0.0	+0.0	-16.6			20MHz 802.11a-24Mbps		
	Ave		+4.3	+0.0							
54	22960.000	46.7	+0.0	+0.0	+0.0	+0.0	+0.0	34.4	54.0	-19.6	Horiz
	M		+0.0	+0.0	+0.0	-16.6			20Mhz 802.11n-6.5MCSHT201S		
	Ave		+4.3	+0.0							
^	22960.000	65.8	+0.0	+0.0	+0.0	+0.0	+0.0	53.5	54.0	-0.5	Horiz
	M		+0.0	+0.0	+0.0	-16.6			20MHz 802.11a-24Mbps		
			+4.3	+0.0							

^	22960.000	62.8	+0.0	+0.0	+0.0	+0.0	+0.0	50.5	54.0	-3.5	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
			+4.3	+0.0					20Mhz 802.11n		
									6.5MCSHT201S		
57	17348.800	64.0	+0.0	+43.2	+3.0	+10.0	+0.0	73.2	119.0	-45.8	Horiz
	M		+2.9	-56.9	+0.8	+0.0					
			+0.0	+6.2					10MHz 802.11n-		
									13MCSHT202S		
58	17519.000	62.6	+0.0	+44.3	+3.0	+10.4	+0.0	72.9	119.0	-46.1	Horiz
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0	+6.2					10MHz 802.11n-		
									13MCSHT202S		
59	17349.000	63.3	+0.0	+43.2	+3.0	+10.0	+0.0	72.5	119.0	-46.5	Horiz
	M		+2.9	-56.9	+0.8	+0.0					
			+0.0	+6.2					20MHz 802.11n-		
									26MCSHT202S		
60	17519.000	62.0	+0.0	+44.3	+3.0	+10.4	+0.0	72.3	119.0	-46.7	Horiz
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0	+6.2					10MHz 802.11a-		
									24Mbps		
61	17353.680	61.2	+0.0	+43.2	+3.0	+10.0	+0.0	70.4	119.0	-48.6	Horiz
	M		+2.9	-56.9	+0.8	+0.0					
			+0.0	+6.2					10MHz 802.11a-		
									24Mbps		
62	17517.800	59.0	+0.0	+44.3	+3.0	+10.4	+0.0	69.3	119.0	-49.7	Horiz
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0	+6.2					10MHz 802.11a-		
									24Mbps		
63	17351.000	60.0	+0.0	+43.2	+3.0	+10.0	+0.0	69.2	119.0	-49.8	Horiz
	M		+2.9	-56.9	+0.8	+0.0					
			+0.0	+6.2					20MHz 802.11a-		
									36Mbps		
64	17513.500	58.5	+0.0	+44.3	+3.0	+10.4	+0.0	68.8	119.0	-50.2	Vert
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0	+6.2					20MHz 802.11a-		
									36Mbps		
65	17351.650	59.2	+0.0	+43.2	+3.0	+10.0	+0.0	68.4	119.0	-50.6	Vert
	M		+2.9	-56.9	+0.8	+0.0					
			+0.0	+6.2					10MHz 802.11a-		
									24Mbps		
66	17357.000	59.0	+0.0	+43.2	+3.0	+10.1	+0.0	68.3	119.0	-50.7	Vert
	M		+2.9	-56.9	+0.8	+0.0					
			+0.0	+6.2					20MHz 802.11a-		
									36Mbps		
67	17502.000	57.4	+0.0	+44.2	+3.0	+10.4	+0.0	67.6	119.0	-51.4	Vert
	M		+3.0	-57.4	+0.8	+0.0					
			+0.0	+6.2					20MHz 802.11n-		
									26MCSHT202S		
68	17229.600	59.0	+0.0	+42.3	+3.0	+9.8	+0.0	66.8	119.0	-52.2	Horiz
	M		+2.9	-57.2	+0.8	+0.0					
			+0.0	+6.2					20MHz 802.11a-		
									36Mbps		

69	17517.800 M	56.4	+0.0 +3.0 +0.0	+44.3 -57.4 +6.2	+3.0 +0.8	+10.4 +0.0	+0.0	66.7	119.0	-52.3	Vert	10MHz 802.11a- 24Mbps
70	17500.000 M	56.6	+0.0 +3.0 +0.0	+44.2 -57.4 +6.2	+3.0 +0.8	+10.3 +0.0	+0.0	66.7	119.0	-52.3	Horiz	20MHz 802.11n- 26MCSHT202S
71	17205.000 M	59.0	+0.0 +2.9 +0.0	+42.1 -57.2 +6.2	+3.0 +0.7	+9.8 +0.0	+0.0	66.5	119.0	-52.5	Vert	10MHz 802.11a- 24Mbps
72	17356.000 M	56.5	+0.0 +2.9 +0.0	+43.2 -56.9 +6.2	+3.0 +0.8	+10.1 +0.0	+0.0	65.8	119.0	-53.2	Vert	20MHz 802.11n- 26MCSHT202S
73	17516.400 M	55.0	+0.0 +3.0 +0.0	+44.3 -57.4 +6.2	+3.0 +0.8	+10.4 +0.0	+0.0	65.3	119.0	-53.7	Horiz	20MHz 802.11a- 36Mbps
74	17206.600 M	57.4	+0.0 +2.9 +0.0	+42.2 -57.2 +6.2	+3.0 +0.7	+9.8 +0.0	+0.0	65.0	119.0	-54.0	Vert	10MHz 802.11n- 13MCSHT202S
75	17206.600 M	57.4	+0.0 +2.9 +0.0	+42.2 -57.2 +6.2	+3.0 +0.7	+9.8 +0.0	+0.0	65.0	119.0	-54.0	Horiz	10MHz 802.11n- 13MCSHT202S
76	17353.000 M	54.9	+0.0 +2.9 +0.0	+43.2 -56.9 +6.2	+3.0 +0.8	+10.0 +0.0	+0.0	64.1	119.0	-54.9	Vert	10MHz 802.11n- 13MCSHT202S
77	17216.000 M	56.4	+0.0 +2.9 +0.0	+42.2 -57.2 +6.2	+3.0 +0.7	+9.8 +0.0	+0.0	64.0	119.0	-55.0	Horiz	20MHz 802.11n- 26MCSHT202S
78	17517.500 M	53.3	+0.0 +3.0 +0.0	+44.3 -57.4 +6.2	+3.0 +0.8	+10.4 +0.0	+0.0	63.6	119.0	-55.4	Vert	10MHz 802.11n- 13MCSHT202S
79	17224.000 M	55.6	+0.0 +2.9 +0.0	+42.3 -57.2 +6.2	+3.0 +0.8	+9.8 +0.0	+0.0	63.4	119.0	-55.6	Vert	20MHz 802.11a- 36Mbps
80	23590.000 M	61.7	+0.0 +0.0 +4.4	+0.0 +0.0 +0.0	+0.0 +0.0	+0.0 -17.1	+0.0	49.0	119.0	-70.0	Vert	10MHz 802.11a 24Mbps
81	23135.000 M	59.7	+0.0 +0.0 +4.3	+0.0 +0.0 +0.0	+0.0 +0.0	+0.0 -16.7	+0.0	47.3	119.0	-71.7	Vert	10MHz 802.11a 24Mbps

CKC Laboratories, Inc. Date: 6/2/2012 Time: 14:27:28 Digital Path WO#: 92682  
 FCC 15.247 (d) (FCC 15.205 restricted band) (15.209) Test Distance: 3 Meters Sequence#: 213 Horiz  
 UNII Bands. 20MHz Channel width.



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Digital Path**  
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**  
 Work Order #: **92682** Date: 6/16/2012  
 Test Type: **Radiated Scan** Time: 11:52:18  
 Equipment: **5GHz Panel (18dBi) + Omni (11dBi)** Sequence#: 217  
 Manufacturer: Digital Path Tested By: C. Nicklas  
 Model: G5RL10G  
 S/N: EMI 2

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02668	Spectrum Analyzer	E4446A	2/23/2011	2/23/2013
T2	AN02157	Horn Antenna-ANSI C63.5	3115	1/17/2011	1/17/2013
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/21/2012	3/21/2014
T4	ANP01210	Cable	FSJ1P-50A-4A	3/15/2011	3/15/2013
T5	ANP05843	Cable	32022-2-29094K-48TC	7/30/2010	7/30/2012
T6	AN03114	Preamp	AMF-7D-00101800-30-10P	5/13/2011	5/13/2013
	ANP05935	Attenuator	84A-10	10/19/2011	10/19/2013
	ANP01211	Attenuator	23-10-34	4/15/2011	4/15/2013
T7	AN01417	High Pass Filter	84300-80039	2/9/2012	2/9/2014
T8	AN02694	Active Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-18002650-20-10P	11/10/2010	11/10/2012
	AN02695	Active Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-260400-33-8P	11/10/2010	11/10/2012
	AN00730	Preamp		1/31/2011	1/31/2013
	AN00432	Loop Antenna	6502	3/31/2011	3/31/2013
	AN00852	Biconilog Antenna	CBL 6111C	11/16/2010	11/16/2012
	ANP05299	Cable	RG214	3/6/2011	3/6/2013
	ANP05300	Cable	RG214/U	3/7/2011	3/7/2013
	ANP05440	Cable		3/7/2011	3/7/2013
T9	AN03143	Cable	32022-29094K-144TC	8/30/2011	8/30/2013

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
5GHz Panel (18dBi) + Omni (11dBi)*	Digital Path	G5RL10G	EMI 2

**Support Devices:**

Function	Manufacturer	Model #	S/N
Laptop Computer	HP	ProBook 6565b	5CB13637ZF
Laptop Power Supply	HP	608428-002	F12941126327228

**Test Conditions / Notes:**

The EUT installed on a pole as intended. DC power port is connected to a DC power supply via a CAT5 cable. The Ethernet port is connected to a remote laptop via unshielded twisted pair. The Remote laptop is running test software to exercise the intended functionalities. Receiver circuit is active.

11dBi Omni antenna is connected to radio 0 (instance 1)  
 18 dBi panel antenna is connected to radiol (instance 2)

this data sheet is for the EUT transmitting via 11dBi Omni antenna connected to radio 0 (instance 1)

Point to Multi-Point

Freq = 5725-5850MHz

Freq: 5735MHz, 5785MHz, 5840MHz.

BW = 10 MHz

802.11a: 24Mbps, TX power setting= 16, 16, 16

802.11n: 13MCS HT20 2S, TX power setting= 16, 16, 16

Freq: 5740MHz, 5785MHz, 5835MHz.

BW= 20MHz

802.11a: 36 Mbps, TX power setting= 16, 16, 16

802.11n: 26MCS HT20 2S, TX power setting= 16, 16, 16

Temperature: 21.6-22.5°C, Relative Humidity: 37-40%, Atmospheric Pressure: 100.6-100.8kPa

Scans were performed with the RBW reduced as needed. Data all taken at the proper RBW setting. Above 18GHz, hand scan the unit at a 1/2 meter distance to determine if there are any signals. Any signals found are hand maximized at a 1/2 meter distance to ensure the maximum signal is found.

Frequency range of measurement = 9kHz-40GHz.

9 kHz -150 kHz; RBW=200 Hz, VBW=200 Hz;150 kHz-30 MHz; RBW=9 kHz, VBW=9 kHz;30 MHz-1000 MHz; RBW=120 kHz, VBW=120 kHz,1000 MHz-40,000 MHz; RBW=1 MHz, VBW=1 MHz.

Ext Attn: 0 dB

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dBμV	T9				Table	dBμV/m	dBμV/m	dB	Ant
1	17521.230	50.0	+0.0	+44.3	+3.0	+10.4	+0.0	53.2	54.0	-0.8	Horiz
	M		+2.1	-57.4	+0.8	+0.0					
	Ave		+0.0				222		10MHz	802.11a	127
									24Mbps		
^	17521.230	62.1	+0.0	+44.3	+3.0	+10.4	+0.0	65.3	54.0	+11.3	Horiz
	M		+2.1	-57.4	+0.8	+0.0					
			+0.0				222		10MHz	802.11a	127
									24Mbps		
3	17519.910	49.9	+0.0	+44.3	+3.0	+10.4	+0.0	53.1	54.0	-0.9	Horiz
	M		+2.1	-57.4	+0.8	+0.0					
	Ave		+0.0				224		10MHz	802.11n	126
									13MCSHT202S		

^	17519.910	62.5	+0.0	+44.3	+3.0	+10.4	+0.0	65.7	54.0	+11.7	Horiz
	M		+2.1	-57.4	+0.8	+0.0					126
			+0.0				224		10MHz 802.11n		
									13MCSHT202S		
5	23357.855	62.6	+0.0	+0.0	+0.0	+0.0	+0.0	52.7	54.0	-1.3	Vert
	M		+0.0	+0.0	+0.0	-16.9					
	Ave		+7.0						10MHz 802.11a		
									24Mbps		
^	23357.855	75.5	+0.0	+0.0	+0.0	+0.0	+0.0	65.6	54.0	+11.6	Vert
	M		+0.0	+0.0	+0.0	-16.9					
			+7.0						10MHz 802.11a		
									24Mbps		
7	22940.800	61.8	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
	Ave		+7.1						10MHz 802.11a		
									24Mbps		
^	22940.800	77.8	+0.0	+0.0	+0.0	+0.0	+0.0	68.3	54.0	+14.3	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
			+7.1						10MHz 802.11a		
									24Mbps		
9	17519.260	49.0	+0.0	+44.3	+3.0	+10.4	+0.0	52.2	54.0	-1.8	Vert
	M		+2.1	-57.4	+0.8	+0.0					
	Ave		+0.0				179		10MHz 802.11a		125
									24Mbps		
^	17519.260	61.7	+0.0	+44.3	+3.0	+10.4	+0.0	64.9	54.0	+10.9	Vert
	M		+2.1	-57.4	+0.8	+0.0					
			+0.0				179		10MHz 802.11a		125
									24Mbps		
11	22940.595	61.5	+0.0	+0.0	+0.0	+0.0	+0.0	52.0	54.0	-2.0	Vert
	M		+0.0	+0.0	+0.0	-16.6					
	Ave		+7.1						10MHz 802.11a		
									24Mbps		
^	22940.595	78.9	+0.0	+0.0	+0.0	+0.0	+0.0	69.4	54.0	+15.4	Vert
	M		+0.0	+0.0	+0.0	-16.6					
			+7.1						10MHz 802.11a		
									24Mbps		
13	17353.200	49.8	+0.0	+43.2	+3.0	+10.0	+0.0	51.9	54.0	-2.1	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				255		10MHz 802.11a		130
									24Mbps		
^	17353.200	62.2	+0.0	+43.2	+3.0	+10.0	+0.0	64.3	54.0	+10.3	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				255		10MHz 802.11a		130
									24Mbps		
15	17357.100	49.4	+0.0	+43.2	+3.0	+10.1	+0.0	51.6	54.0	-2.4	Vert
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				179		10MHz 802.11a		126
									24Mbps		
^	17357.100	62.0	+0.0	+43.2	+3.0	+10.1	+0.0	64.2	54.0	+10.2	Vert
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				179		10MHz 802.11a		126
									24Mbps		

17	23359.915	61.4	+0.0	+0.0	+0.0	+0.0	+0.0	51.5	54.0	-2.5	Vert
	M		+0.0	+0.0	+0.0	-16.9					
	Ave		+7.0						10MHz 802.11n		
									13MCSHT20 2S		
^	23359.915	78.5	+0.0	+0.0	+0.0	+0.0	+0.0	68.6	54.0	+14.6	Vert
	M		+0.0	+0.0	+0.0	-16.9					
			+7.0						10MHz 802.11n		
									13MCSHT20 2S		
19	23139.170	61.2	+0.0	+0.0	+0.0	+0.0	+0.0	51.5	54.0	-2.5	Vert
	M		+0.0	+0.0	+0.0	-16.7					
	Ave		+7.0						10MHz 802.11a		
									24Mbps		
^	23139.170	77.5	+0.0	+0.0	+0.0	+0.0	+0.0	67.8	54.0	+13.8	Vert
	M		+0.0	+0.0	+0.0	-16.7					
			+7.0						10MHz 802.11a		
									24Mbps		
21	17502.620	48.4	+0.0	+44.2	+3.0	+10.4	+0.0	51.4	54.0	-2.6	Horiz
	M		+2.0	-57.4	+0.8	+0.0					
	Ave		+0.0				222		20MHz 802.11a		119
									36Mbps		
^	17502.620	60.3	+0.0	+44.2	+3.0	+10.4	+0.0	63.3	54.0	+9.3	Horiz
	M		+2.0	-57.4	+0.8	+0.0					
			+0.0				222		20MHz 802.11a		119
									36Mbps		
23	22942.050	60.8	+0.0	+0.0	+0.0	+0.0	+0.0	51.3	54.0	-2.7	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
	Ave		+7.1						10MHz 802.11n		
									13MCSHT20 2S		
^	22942.050	77.7	+0.0	+0.0	+0.0	+0.0	+0.0	68.2	54.0	+14.2	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
			+7.1						10MHz 802.11n		
									13MCSHT20 2S		
25	22941.350	60.4	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	54.0	-3.1	Vert
	M		+0.0	+0.0	+0.0	-16.6					
	Ave		+7.1						10MHz 802.11n		
									13MCSHT20 2S		
^	22941.350	76.8	+0.0	+0.0	+0.0	+0.0	+0.0	67.3	54.0	+13.3	Vert
	M		+0.0	+0.0	+0.0	-16.6					
			+7.1						10MHz 802.11n		
									13MCSHT20 2S		
27	23138.200	60.5	+0.0	+0.0	+0.0	+0.0	+0.0	50.8	54.0	-3.2	Horiz
	M		+0.0	+0.0	+0.0	-16.7					
	Ave		+7.0						10MHz 802.11a		
									24Mbps		
^	23138.200	76.3	+0.0	+0.0	+0.0	+0.0	+0.0	66.6	54.0	+12.6	Horiz
	M		+0.0	+0.0	+0.0	-16.7					
			+7.0						10MHz 802.11a		
									24Mbps		
29	17355.040	48.6	+0.0	+43.2	+3.0	+10.0	+0.0	50.7	54.0	-3.3	Vert
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				182		10MHz 802.11n		135
									13MCSHT202S		



30	11467.700	57.6	+0.0	+38.7	+2.3	+6.9	+0.0	50.7	54.0	-3.3	Horiz
	M		+1.6	-56.4	+0.0	+0.0					
	Ave		+0.0				220		10MHz 802.11a		136
									24Mbps		
^	11467.700	70.3	+0.0	+38.7	+2.3	+6.9	+0.0	63.4	54.0	+9.4	Horiz
	M		+1.6	-56.4	+0.0	+0.0					
			+0.0				220		10MHz 802.11a		136
									24Mbps		
32	23139.155	59.8	+0.0	+0.0	+0.0	+0.0	+0.0	50.1	54.0	-3.9	Horiz
	M		+0.0	+0.0	+0.0	-16.7					
	Ave		+7.0						10MHz 802.11n		
									13MCSHT20 2S		
^	23139.155	75.5	+0.0	+0.0	+0.0	+0.0	+0.0	65.8	54.0	+11.8	Horiz
	M		+0.0	+0.0	+0.0	-16.7					
			+7.0						10MHz 802.11n		
									13MCSHT20 2S		
34	23136.950	59.7	+0.0	+0.0	+0.0	+0.0	+0.0	50.0	54.0	-4.0	Horiz
	M		+0.0	+0.0	+0.0	-16.7					
	Ave		+7.0						20MHz 802.11a		
									36Mbps		
^	23136.950	73.4	+0.0	+0.0	+0.0	+0.0	+0.0	63.7	54.0	+9.7	Horiz
	M		+0.0	+0.0	+0.0	-16.7					
			+7.0						20MHz 802.11a		
									36Mbps		
36	17355.340	47.9	+0.0	+43.2	+3.0	+10.0	+0.0	50.0	54.0	-4.0	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				258		10MHz 802.11n		135
									13MCSHT202S		
^	17355.340	60.2	+0.0	+43.2	+3.0	+10.0	+0.0	62.3	54.0	+8.3	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				258		10MHz 802.11n		135
									13MCSHT202S		
38	17352.500	47.6	+0.0	+43.2	+3.0	+10.0	+0.0	49.7	54.0	-4.3	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				227		20MHz 802.11a		129
									36Mbps		
^	17352.500	59.4	+0.0	+43.2	+3.0	+10.0	+0.0	61.5	54.0	+7.5	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				227		20MHz 802.11a		129
									36Mbps		
40	17520.120	46.5	+0.0	+44.3	+3.0	+10.4	+0.0	49.7	54.0	-4.3	Vert
	M		+2.1	-57.4	+0.8	+0.0					
	Ave		+0.0				270		10MHz 802.11n		147
									13MCSHT202S		
^	17520.120	58.6	+0.0	+44.3	+3.0	+10.4	+0.0	61.8	54.0	+7.8	Vert
	M		+2.1	-57.4	+0.8	+0.0					
			+0.0				270		10MHz 802.11n		147
									13MCSHT202S		

42	23339.500	59.4	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Horiz
	M		+0.0	+0.0	+0.0	-16.9					
	Ave		+7.0						20MHz 802.11a		
									36Mbps		
^	23339.500	72.8	+0.0	+0.0	+0.0	+0.0	+0.0	62.9	54.0	+8.9	Horiz
	M		+0.0	+0.0	+0.0	-16.9					
			+7.0						20MHz 802.11a		
									36Mbps		
44	22957.160	59.0	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
	Ave		+7.1						20MHz 802.11a		
									36Mbps		
^	22957.160	74.3	+0.0	+0.0	+0.0	+0.0	+0.0	64.8	54.0	+10.8	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
			+7.1						20MHz 802.11a		
									36Mbps		
46	17204.170	48.9	+0.0	+42.1	+3.0	+9.8	+0.0	49.3	54.0	-4.7	Vert
	M		+2.0	-57.2	+0.7	+0.0					
	Ave		+0.0				180		10MHz 802.11a		132
									24Mbps		
^	17204.170	61.1	+0.0	+42.1	+3.0	+9.8	+0.0	61.5	54.0	+7.5	Vert
	M		+2.0	-57.2	+0.7	+0.0					
			+0.0				180		10MHz 802.11a		132
									24Mbps		
48	22962.290	58.1	+0.0	+0.0	+0.0	+0.0	+0.0	48.6	54.0	-5.4	Vert
	M		+0.0	+0.0	+0.0	-16.6					
	Ave		+7.1						20MHz 802.11a		
									36Mbps		
^	22962.290	73.4	+0.0	+0.0	+0.0	+0.0	+0.0	63.9	54.0	+9.9	Vert
	M		+0.0	+0.0	+0.0	-16.6					
			+7.1						20MHz 802.11a		
									36Mbps		
50	23139.930	58.1	+0.0	+0.0	+0.0	+0.0	+0.0	48.4	54.0	-5.6	Horiz
	M		+0.0	+0.0	+0.0	-16.7					
	Ave		+7.0						20MHz 802.11n		
									26MCSHT20 2S		
^	23139.930	73.1	+0.0	+0.0	+0.0	+0.0	+0.0	63.4	54.0	+9.4	Horiz
	M		+0.0	+0.0	+0.0	-16.7					
			+7.0						20MHz 802.11n		
									26MCSHT20 2S		
52	22960.260	57.8	+0.0	+0.0	+0.0	+0.0	+0.0	48.3	54.0	-5.7	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
	Ave		+7.1						20MHz 802.11n		
									26MCSHT20 2S		
^	22960.260	73.7	+0.0	+0.0	+0.0	+0.0	+0.0	64.2	54.0	+10.2	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
			+7.1						20MHz 802.11n		
									26MCSHT20 2S		

54	17206.840	47.8	+0.0	+42.2	+3.0	+9.8	+0.0	48.3	54.0	-5.7	Horiz
	M		+2.0	-57.2	+0.7	+0.0					
	Ave		+0.0				255		10MHz 802.11a		136
									24Mbps		
^	17206.840	60.2	+0.0	+42.2	+3.0	+9.8	+0.0	60.7	54.0	+6.7	Horiz
	M		+2.0	-57.2	+0.7	+0.0					
			+0.0				255		10MHz 802.11a		136
									24Mbps		
56	17502.272	45.1	+0.0	+44.2	+3.0	+10.4	+0.0	48.1	54.0	-5.9	Horiz
	M		+2.0	-57.4	+0.8	+0.0					
	Ave		+0.0				244		20MHz 802.11n		130
									26MCSHT202S		
^	17502.272	59.1	+0.0	+44.2	+3.0	+10.4	+0.0	62.1	54.0	+8.1	Horiz
	M		+2.0	-57.4	+0.8	+0.0					
			+0.0				244		20MHz 802.11n		130
									26MCSHT202S		
58	23137.600	57.7	+0.0	+0.0	+0.0	+0.0	+0.0	48.0	54.0	-6.0	Vert
	M		+0.0	+0.0	+0.0	-16.7					
	Ave		+7.0						10MHz 802.11n		
									13MCSHT20 2S		
^	23137.600	73.3	+0.0	+0.0	+0.0	+0.0	+0.0	63.6	54.0	+9.6	Vert
	M		+0.0	+0.0	+0.0	-16.7					
			+7.0						10MHz 802.11n		
									13MCSHT20 2S		
60	11470.250	54.9	+0.0	+38.7	+2.3	+6.9	+0.0	48.0	54.0	-6.0	Horiz
	M		+1.6	-56.4	+0.0	+0.0					
	Ave		+0.0				221		10MHz 802.11n		137
									13MCSHT202S		
^	11470.250	66.9	+0.0	+38.7	+2.3	+6.9	+0.0	60.0	54.0	+6.0	Horiz
	M		+1.6	-56.4	+0.0	+0.0					
			+0.0				221		10MHz 802.11n		137
									13MCSHT202S		
62	23339.965	57.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.8	54.0	-6.2	Horiz
	M		+0.0	+0.0	+0.0	-16.9					
	Ave		+7.0						20MHz 802.11n		
									26MCSHT20 2S		
^	23339.965	78.7	+0.0	+0.0	+0.0	+0.0	+0.0	68.8	54.0	+14.8	Horiz
	M		+0.0	+0.0	+0.0	-16.9					
			+7.0						20MHz 802.11n		
									26MCSHT20 2S		
64	11569.525	54.8	+0.0	+38.8	+2.4	+6.9	+0.0	47.8	54.0	-6.2	Vert
	M		+1.6	-56.7	+0.0	+0.0					
	Ave		+0.0				306		10MHz 802.11a		168
									24Mbps		
^	11569.525	66.2	+0.0	+38.8	+2.4	+6.9	+0.0	59.2	54.0	+5.2	Vert
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0				306		10MHz 802.11a		168
									24Mbps		

66	17505.620	44.4	+0.0	+44.2	+3.0	+10.4	+0.0	47.5	54.0	-6.5	Vert
	M		+2.1	-57.4	+0.8	+0.0					
	Ave		+0.0				293		20MHz 802.11a		119
									36Mbps		
^	17505.620	57.2	+0.0	+44.2	+3.0	+10.4	+0.0	60.3	54.0	+6.3	Vert
	M		+2.1	-57.4	+0.8	+0.0					
			+0.0				293		20MHz 802.11a		119
									36Mbps		
68	11469.447	54.4	+0.0	+38.7	+2.3	+6.9	+0.0	47.5	54.0	-6.5	Vert
	M		+1.6	-56.4	+0.0	+0.0					
	Ave		+0.0				300		10MHz 802.11a		169
									24Mbps		
^	11469.447	66.0	+0.0	+38.7	+2.3	+6.9	+0.0	59.1	54.0	+5.1	Vert
	M		+1.6	-56.4	+0.0	+0.0					
			+0.0				300		10MHz 802.11a		169
									24Mbps		
70	17205.000	46.9	+0.0	+42.1	+3.0	+9.8	+0.0	47.3	54.0	-6.7	Horiz
	M		+2.0	-57.2	+0.7	+0.0					
	Ave		+0.0				259		10MHz 802.11n		131
									13MCSHT202S		
^	17205.000	59.1	+0.0	+42.1	+3.0	+9.8	+0.0	59.5	54.0	+5.5	Horiz
	M		+2.0	-57.2	+0.7	+0.0					
			+0.0				259		10MHz 802.11n		131
									13MCSHT202S		
72	17354.950	45.0	+0.0	+43.2	+3.0	+10.0	+0.0	47.1	54.0	-6.9	Vert
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				303		20MHz 802.11a		134
									36Mbps		
^	17355.040	61.0	+0.0	+43.2	+3.0	+10.0	+0.0	63.1	54.0	+9.1	Vert
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				182		10MHz 802.11n		135
									13MCSHT202S		
^	17354.950	56.9	+0.0	+43.2	+3.0	+10.0	+0.0	59.0	54.0	+5.0	Vert
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				303		20MHz 802.11a		134
									36Mbps		
75	17205.000	46.5	+0.0	+42.1	+3.0	+9.8	+0.0	46.9	54.0	-7.1	Vert
	M		+2.0	-57.2	+0.7	+0.0					
	Ave		+0.0				180		10MHz 802.11n		129
									13MCSHT202S		
^	17205.000	60.9	+0.0	+42.1	+3.0	+9.8	+0.0	61.3	54.0	+7.3	Vert
	M		+2.0	-57.2	+0.7	+0.0					
			+0.0				180		10MHz 802.11n		129
									13MCSHT202S		
77	17504.942	43.9	+0.0	+44.2	+3.0	+10.4	+0.0	46.9	54.0	-7.1	Vert
	M		+2.0	-57.4	+0.8	+0.0					
	Ave		+0.0				181		20MHz 802.11n		132
									26MCSHT202S		
^	17504.942	58.3	+0.0	+44.2	+3.0	+10.4	+0.0	61.3	54.0	+7.3	Vert
	M		+2.0	-57.4	+0.8	+0.0					
			+0.0				181		20MHz 802.11n		132
									26MCSHT202S		

79	11567.500	53.8	+0.0	+38.8	+2.4	+6.9	+0.0	46.8	54.0	-7.2	Horiz
	M		+1.6	-56.7	+0.0	+0.0					
	Ave		+0.0				222		10MHz 802.11a		140
									24Mbps		
^	11567.500	66.2	+0.0	+38.8	+2.4	+6.9	+0.0	59.2	54.0	+5.2	Horiz
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0				222		10MHz 802.11a		140
									24Mbps		
81	23137.750	56.4	+0.0	+0.0	+0.0	+0.0	+0.0	46.7	54.0	-7.3	Vert
	M		+0.0	+0.0	+0.0	-16.7					
	Ave		+7.0						20MHz 802.11a		
									36Mbps		
^	23137.750	70.6	+0.0	+0.0	+0.0	+0.0	+0.0	60.9	54.0	+6.9	Vert
	M		+0.0	+0.0	+0.0	-16.7					
			+7.0						20MHz 802.11a		
									36Mbps		
83	11480.000	52.9	+0.0	+38.7	+2.3	+6.9	+0.0	45.9	54.0	-8.1	Horiz
	M		+1.6	-56.5	+0.0	+0.0					
	Ave		+0.0				204		20MHz 802.11a		101
									36Mbps		
^	11480.000	65.5	+0.0	+38.7	+2.3	+6.9	+0.0	58.5	54.0	+4.5	Horiz
	M		+1.6	-56.5	+0.0	+0.0					
			+0.0				204		20MHz 802.11a		101
									36Mbps		
85	23139.970	55.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.8	54.0	-8.2	Vert
	M		+0.0	+0.0	+0.0	-16.7					
	Ave		+7.0						20MHz 802.11n		
									26MCSHT20 2S		
^	23139.970	70.9	+0.0	+0.0	+0.0	+0.0	+0.0	61.2	54.0	+7.2	Vert
	M		+0.0	+0.0	+0.0	-16.7					
			+7.0						20MHz 802.11n		
									26MCSHT20 2S		
87	23343.000	55.7	+0.0	+0.0	+0.0	+0.0	+0.0	45.8	54.0	-8.2	Vert
	M		+0.0	+0.0	+0.0	-16.9					
	Ave		+7.0						20MHz 802.11a		
									36Mbps		
^	23343.000	69.7	+0.0	+0.0	+0.0	+0.0	+0.0	59.8	54.0	+5.8	Vert
	M		+0.0	+0.0	+0.0	-16.9					
			+7.0						20MHz 802.11a		
									36Mbps		
89	17355.175	43.7	+0.0	+43.2	+3.0	+10.0	+0.0	45.8	54.0	-8.2	Vert
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				179		20MHz 802.11n		132
									26MCSHT202S		
^	17355.175	57.3	+0.0	+43.2	+3.0	+10.0	+0.0	59.4	54.0	+5.4	Vert
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				179		20MHz 802.11n		132
									26MCSHT202S		

91	22960.750	55.0	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
	M		+0.0	+0.0	+0.0	-16.6					
	Ave		+7.1						20MHz 802.11n		
									26MCSHT20 2S		
^	22960.750	70.4	+0.0	+0.0	+0.0	+0.0	+0.0	60.9	54.0	+6.9	Vert
	M		+0.0	+0.0	+0.0	-16.6					
			+7.1						20MHz 802.11n		
									26MCSHT20 2S		
93	17223.225	44.9	+0.0	+42.3	+3.0	+9.8	+0.0	45.5	54.0	-8.5	Horiz
	M		+2.0	-57.2	+0.7	+0.0					
	Ave		+0.0				254		20MHz 802.11a		138
									36Mbps		
^	17223.225	57.8	+0.0	+42.3	+3.0	+9.8	+0.0	58.4	54.0	+4.4	Horiz
	M		+2.0	-57.2	+0.7	+0.0					
			+0.0				254		20MHz 802.11a		138
									36Mbps		
95	11569.510	52.5	+0.0	+38.8	+2.4	+6.9	+0.0	45.5	54.0	-8.5	Horiz
	M		+1.6	-56.7	+0.0	+0.0					
	Ave		+0.0				211		10MHz 802.11n		134
									13MCSHT202S		
^	11569.510	65.6	+0.0	+38.8	+2.4	+6.9	+0.0	58.6	54.0	+4.6	Horiz
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0				211		10MHz 802.11n		134
									13MCSHT202S		
97	17352.300	43.3	+0.0	+43.2	+3.0	+10.0	+0.0	45.4	54.0	-8.6	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				240		20MHz 802.11n		124
									26MCSHT202S		
^	17352.300	56.7	+0.0	+43.2	+3.0	+10.0	+0.0	58.8	54.0	+4.8	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				240		20MHz 802.11n		124
									26MCSHT202S		
99	11470.047	52.2	+0.0	+38.7	+2.3	+6.9	+0.0	45.3	54.0	-8.7	Vert
	M		+1.6	-56.4	+0.0	+0.0					
	Ave		+0.0				300		10MHz 802.11n		170
									13MCSHT202S		
^	11470.047	65.3	+0.0	+38.7	+2.3	+6.9	+0.0	58.4	54.0	+4.4	Vert
	M		+1.6	-56.4	+0.0	+0.0					
			+0.0				300		10MHz 802.11n		170
									13MCSHT202S		
101	23358.970	54.9	+0.0	+0.0	+0.0	+0.0	+0.0	45.0	54.0	-9.0	Horiz
	M		+0.0	+0.0	+0.0	-16.9					
	Ave		+7.0						10MHz 802.11a		
									24Mbps		
^	23358.970	67.5	+0.0	+0.0	+0.0	+0.0	+0.0	57.6	54.0	+3.6	Horiz
	M		+0.0	+0.0	+0.0	-16.9					
			+7.0						10MHz 802.11a		
									24Mbps		
103	17210.770	44.5	+0.0	+42.2	+3.0	+9.8	+0.0	45.0	54.0	-9.0	Horiz
	M		+2.0	-57.2	+0.7	+0.0					
	Ave		+0.0				249		20MHz 802.11n		136
									26MCSHT202S		

^	17210.770	57.4	+0.0	+42.2	+3.0	+9.8	+0.0	57.9	54.0	+3.9	Horiz
	M		+2.0	-57.2	+0.7	+0.0					136
			+0.0				249		20MHz 802.11n		
									26MCSHT202S		
105	11680.055	50.8	+0.0	+38.8	+2.4	+7.0	+0.0	44.1	54.0	-9.9	Horiz
	M		+1.6	-56.5	+0.0	+0.0					105
	Ave		+0.0				198		10MHz 802.11a		
									24Mbps		
^	11680.055	62.4	+0.0	+38.8	+2.4	+7.0	+0.0	55.7	54.0	+1.7	Horiz
	M		+1.6	-56.5	+0.0	+0.0					105
			+0.0				198		10MHz 802.11a		
									24Mbps		
107	23339.975	53.9	+0.0	+0.0	+0.0	+0.0	+0.0	44.0	54.0	-10.0	Vert
	M		+0.0	+0.0	+0.0	-16.9					
	Ave		+7.0						20MHz 802.11n		
									26MCSHT20 2S		
^	23339.975	72.7	+0.0	+0.0	+0.0	+0.0	+0.0	62.8	54.0	+8.8	Vert
	M		+0.0	+0.0	+0.0	-16.9					
			+7.0						20MHz 802.11n		
									26MCSHT20 2S		
109	17220.000	42.6	+0.0	+42.3	+3.0	+9.8	+0.0	43.2	54.0	-10.8	Vert
	M		+2.0	-57.2	+0.7	+0.0					132
	Ave		+0.0				190		20MHz 802.11n		
									26MCSHT202S		
^	17220.000	55.2	+0.0	+42.3	+3.0	+9.8	+0.0	55.8	54.0	+1.8	Vert
	M		+2.0	-57.2	+0.7	+0.0					132
			+0.0				190		20MHz 802.11n		
									26MCSHT202S		
111	11479.640	50.2	+0.0	+38.7	+2.3	+6.9	+0.0	43.2	54.0	-10.8	Horiz
	M		+1.6	-56.5	+0.0	+0.0					102
	Ave		+0.0				201		20MHz 802.11n		
									26MCSHT202S		
^	11479.640	63.2	+0.0	+38.7	+2.3	+6.9	+0.0	56.2	54.0	+2.2	Horiz
	M		+1.6	-56.5	+0.0	+0.0					102
			+0.0				201		20MHz 802.11n		
									26MCSHT202S		
113	23359.870	52.9	+0.0	+0.0	+0.0	+0.0	+0.0	43.0	54.0	-11.0	Horiz
	M		+0.0	+0.0	+0.0	-16.9					
	Ave		+7.0						10MHz 802.11n		
									13MCSHT20 2S		
^	23359.870	67.3	+0.0	+0.0	+0.0	+0.0	+0.0	57.4	54.0	+3.4	Horiz
	M		+0.0	+0.0	+0.0	-16.9					
			+7.0						10MHz 802.11n		
									13MCSHT20 2S		
115	17221.925	42.3	+0.0	+42.3	+3.0	+9.8	+0.0	42.9	54.0	-11.1	Vert
	M		+2.0	-57.2	+0.7	+0.0					134
	Ave		+0.0				193		20MHz 802.11a		
									36Mbps		
^	17221.925	54.9	+0.0	+42.3	+3.0	+9.8	+0.0	55.5	54.0	+1.5	Vert
	M		+2.0	-57.2	+0.7	+0.0					134
			+0.0				193		20MHz 802.11a		
									36Mbps		

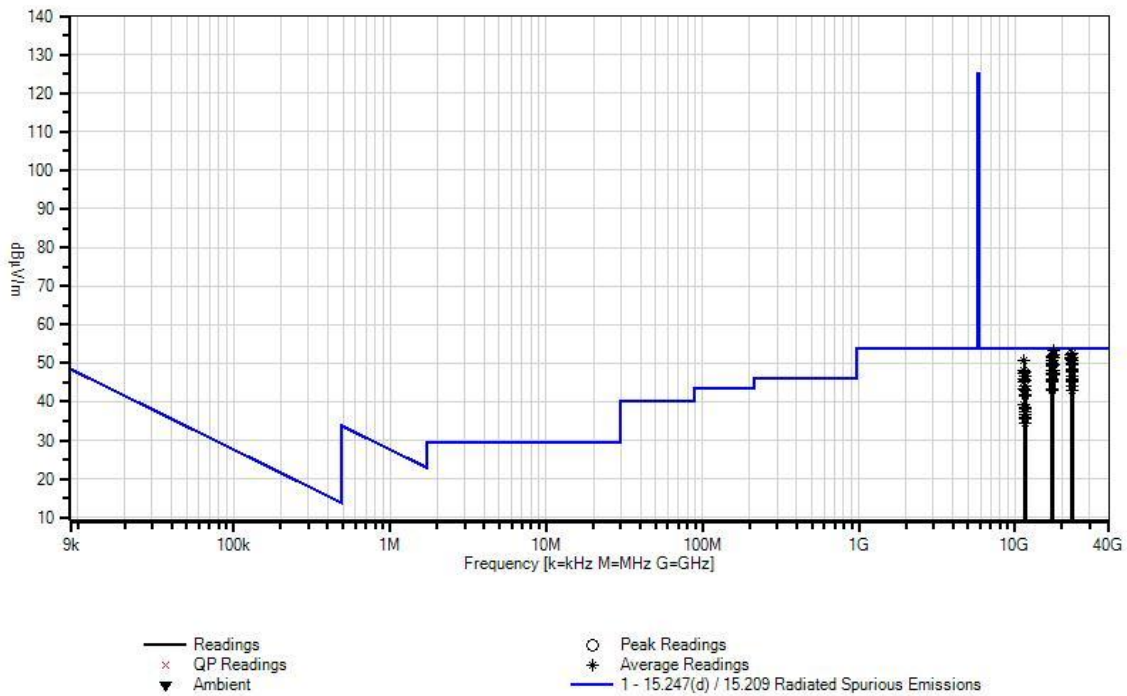
117	11570.050	49.8	+0.0	+38.8	+2.4	+6.9	+0.0	42.8	54.0	-11.2	Horiz
	M		+1.6	-56.7	+0.0	+0.0					
	Ave		+0.0				218		20MHz 802.11a		144
									36Mbps		
^	11570.050	61.9	+0.0	+38.8	+2.4	+6.9	+0.0	54.9	54.0	+0.9	Horiz
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0				218		20MHz 802.11a		144
									36Mbps		
119	11679.905	48.6	+0.0	+38.8	+2.4	+7.0	+0.0	41.9	54.0	-12.1	Horiz
	M		+1.6	-56.5	+0.0	+0.0					
	Ave		+0.0				200		10MHz 802.11n		104
									13MCSHT202S		
^	11679.905	61.3	+0.0	+38.8	+2.4	+7.0	+0.0	54.6	54.0	+0.6	Horiz
	M		+1.6	-56.5	+0.0	+0.0					
			+0.0				200		10MHz 802.11n		104
									13MCSHT202S		
121	11570.000	48.4	+0.0	+38.8	+2.4	+6.9	+0.0	41.4	54.0	-12.6	Vert
	M		+1.6	-56.7	+0.0	+0.0					
	Ave		+0.0				309		10MHz 802.11n		163
									13MCSHT202S		
^	11570.000	62.9	+0.0	+38.8	+2.4	+6.9	+0.0	55.9	54.0	+1.9	Vert
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0				309		10MHz 802.11n		163
									13MCSHT202S		
123	11569.700	48.3	+0.0	+38.8	+2.4	+6.9	+0.0	41.3	54.0	-12.7	Horiz
	M		+1.6	-56.7	+0.0	+0.0					
	Ave		+0.0				201		20MHz 802.11n		104
									26MCSHT202S		
^	11569.700	62.0	+0.0	+38.8	+2.4	+6.9	+0.0	55.0	54.0	+1.0	Horiz
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0				201		20MHz 802.11n		104
									26MCSHT202S		
125	11669.875	48.1	+0.0	+38.8	+2.4	+7.0	+0.0	41.3	54.0	-12.7	Horiz
	M		+1.6	-56.6	+0.0	+0.0					
	Ave		+0.0				275		20MHz 802.11a		141
									36Mbps		
^	11669.875	60.3	+0.0	+38.8	+2.4	+7.0	+0.0	53.5	54.0	-0.5	Horiz
	M		+1.6	-56.6	+0.0	+0.0					
			+0.0				275		20MHz 802.11a		141
									36Mbps		
127	11480.150	46.4	+0.0	+38.7	+2.3	+6.9	+0.0	39.4	54.0	-14.6	Vert
	M		+1.6	-56.5	+0.0	+0.0					
	Ave		+0.0				182		20MHz 802.11n		118
									26MCSHT202S		
^	11480.150	64.3	+0.0	+38.7	+2.3	+6.9	+0.0	57.3	54.0	+3.3	Vert
	M		+1.6	-56.5	+0.0	+0.0					
			+0.0				182		20MHz 802.11n		118
									26MCSHT202S		



129	11480.625	46.3	+0.0	+38.7	+2.3	+6.9	+0.0	39.3	54.0	-14.7	Vert
	M		+1.6	-56.5	+0.0	+0.0					
	Ave		+0.0				193		20MHz 802.11a		134
									36Mbps		
^	11480.625	58.6	+0.0	+38.7	+2.3	+6.9	+0.0	51.6	54.0	-2.4	Vert
	M		+1.6	-56.5	+0.0	+0.0					
			+0.0				193		20MHz 802.11a		134
									36Mbps		
131	11664.896	45.3	+0.0	+38.8	+2.4	+7.0	+0.0	38.5	54.0	-15.5	Horiz
	M		+1.6	-56.6	+0.0	+0.0					
	Ave		+0.0				207		20MHz 802.11n		137
									26MCSHT202S		
^	11664.896	59.3	+0.0	+38.8	+2.4	+7.0	+0.0	52.5	54.0	-1.5	Horiz
	M		+1.6	-56.6	+0.0	+0.0					
			+0.0				207		20MHz 802.11n		137
									26MCSHT202S		
133	11679.660	44.7	+0.0	+38.8	+2.4	+7.0	+0.0	38.0	54.0	-16.0	Vert
	M		+1.6	-56.5	+0.0	+0.0					
	Ave		+0.0				317		10MHz 802.11a		168
									24Mbps		
^	11679.660	57.0	+0.0	+38.8	+2.4	+7.0	+0.0	50.3	54.0	-3.7	Vert
	M		+1.6	-56.5	+0.0	+0.0					
			+0.0				317		10MHz 802.11a		168
									24Mbps		
135	11570.138	44.4	+0.0	+38.8	+2.4	+6.9	+0.0	37.4	54.0	-16.6	Vert
	M		+1.6	-56.7	+0.0	+0.0					
	Ave		+0.0				210		20MHz 802.11n		122
									26MCSHT202S		
^	11570.138	60.7	+0.0	+38.8	+2.4	+6.9	+0.0	53.7	54.0	-0.3	Vert
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0				210		20MHz 802.11n		122
									26MCSHT202S		
137	11680.000	43.4	+0.0	+38.8	+2.4	+7.0	+0.0	36.7	54.0	-17.3	Vert
	M		+1.6	-56.5	+0.0	+0.0					
	Ave		+0.0				190		10MHz 802.11n		149
									13MCSHT202S		
^	11680.000	59.4	+0.0	+38.8	+2.4	+7.0	+0.0	52.7	54.0	-1.3	Vert
	M		+1.6	-56.5	+0.0	+0.0					
			+0.0				190		10MHz 802.11n		149
									13MCSHT202S		
139	11670.050	42.6	+0.0	+38.8	+2.4	+7.0	+0.0	35.8	54.0	-18.2	Vert
	M		+1.6	-56.6	+0.0	+0.0					
	Ave		+0.0				190		20MHz 802.11a		122
									36Mbps		
140	11568.600	42.4	+0.0	+38.8	+2.4	+6.9	+0.0	35.4	54.0	-18.6	Vert
	M		+1.6	-56.7	+0.0	+0.0					
	Ave		+0.0				208		20MHz 802.11a		212
									36Mbps		
^	11568.600	54.5	+0.0	+38.8	+2.4	+6.9	+0.0	47.5	54.0	-6.5	Vert
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0				208		20MHz 802.11a		212
									36Mbps		

142	11670.093	41.3	+0.0	+38.8	+2.4	+7.0	+0.0	34.5	54.0	-19.5	Vert
	M		+1.6	-56.6	+0.0	+0.0					
	Ave		+0.0				185		20MHz 802.11n		174
									26MCSHT202S		
^	11670.093	57.3	+0.0	+38.8	+2.4	+7.0	+0.0	50.5	54.0	-3.5	Vert
	M		+1.6	-56.6	+0.0	+0.0					
			+0.0				185		20MHz 802.11n		174
									26MCSHT202S		
^	11670.050	55.1	+0.0	+38.8	+2.4	+7.0	+0.0	48.3	54.0	-5.7	Vert
	M		+1.6	-56.6	+0.0	+0.0					
			+0.0				190		20MHz 802.11a		122
									36Mbps		

CKC Laboratories, Inc. Date: 6/16/2012 Time: 11:52:18 Digital Path WO#: 92682  
 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 217 Vert  
 UNII Bands. 20MHz Channel width.



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Digital Path**  
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**  
 Work Order #: **92682** Date: 6/16/2012  
 Test Type: **Radiated Scan** Time: 10:45:22  
 Equipment: **5GHz Panel (18dBi) + Omni (11dBi)** Sequence#: 218  
 Manufacturer: Digital Path Tested By: C. Nicklas  
 Model: G5RL10G  
 S/N: EMI 2

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02668	Spectrum Analyzer	E4446A	2/23/2011	2/23/2013
T1	AN02157	Horn Antenna-ANSI C63.5	3115	1/17/2011	1/17/2013
T2	AN03302	Cable	32026-29094K-29094K-72TC	3/21/2012	3/21/2014
T3	ANP01210	Cable	FSJ1P-50A-4A	3/15/2011	3/15/2013
T4	ANP05843	Cable	32022-2-29094K-48TC	7/30/2010	7/30/2012
T5	AN03114	Preamp	AMF-7D-00101800-30-10P	5/13/2011	5/13/2013
	ANP05935	Attenuator	84A-10	10/19/2011	10/19/2013
	ANP01211	Attenuator	23-10-34	4/15/2011	4/15/2013
T6	AN01417	High Pass Filter	84300-80039	2/9/2012	2/9/2014
T7	AN02694	Active Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-18002650-20-10P	11/10/2010	11/10/2012
	AN02695	Active Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-260400-33-8P	11/10/2010	11/10/2012
	AN00730	Preamp		1/31/2011	1/31/2013
	AN00432	Loop Antenna	6502	3/31/2011	3/31/2013
	AN00852	Biconilog Antenna	CBL 6111C	11/16/2010	11/16/2012
	ANP05299	Cable	RG214	3/6/2011	3/6/2013
	ANP05300	Cable	RG214/U	3/7/2011	3/7/2013
	ANP05440	Cable		3/7/2011	3/7/2013
T8	AN03143	Cable	32022-29094K-144TC	8/30/2011	8/30/2013

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
5GHz Panel (18dBi) + Omni (11dBi)*	Digital Path	G5RL10G	EMI 2

**Support Devices:**

Function	Manufacturer	Model #	S/N
Laptop Computer	HP	ProBook 6565b	5CB13637ZF
Laptop Power Supply	HP	608428-002	F12941126327228

**Test Conditions / Notes:**

The EUT installed on a pole as intended. DC power port is connected to a DC power supply via a CAT5 cable. The Ethernet port is connected to a remote laptop via unshielded twisted pair.

The Remote laptop is running test software to exercise the intended functionalities. Receiver circuit is active.

11dBi Omni antenna is connected to radio 0 (instance 1)  
 18 dBi panel antenna is connected to radio1 (instance 2)

this data sheet is for the EUT transmitting via 18dBi panel antenna connected to radio 1 (instance 2)

Point to Multi-Point

Freq = 5725-5850MHz

Freq: 5735MHz, 5785MHz, 5840MHz.  
 BW = 10 MHz

802.11a: 24Mbps, TX power setting = 14.5, 14.5, 14.5  
 802.11n: 13MCS HT20 2S, TX power setting = 14.5, 14.5, 14.5

Freq: 5740MHz, 5785MHz, 5835MHz.  
 BW= 20MHz

802.11a: 36 Mbps, TX power setting = 14.5, 14.5, 14.5  
 802.11n: 26MCS HT20 2S, TX power setting = 14.5, 14.5, 14.5

Temperature: 21.5-23.6°C, Relative Humidity: 36-40%, Atmospheric Pressure: 100.6-100.8kPa

Scans were performed with the RBW reduced as needed. Data all taken at the proper RBW setting. Above 18GHz, hand scan the unit at a 1/2 meter distance to determine if there are any signals. Any signals found are hand maximized at a 1/2 meter distance to ensure the maximum signal is found.

Frequency range of measurement = 9kHz-40GHz.

9 kHz -150 kHz; RBW=200 Hz, VBW=200 Hz;150 kHz-30 MHz; RBW=9 kHz, VBW=9 kHz;30 MHz-1000 MHz; RBW=120 kHz, VBW=120 kHz,1000 MHz-40,000 MHz; RBW=1 MHz, VBW=1 MHz.

Ext Attn: 0 dB

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	T5 dB	T6 dB	T7 dB	T8 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	11470.004 M	54.4	+38.7 -56.4	+2.3 +0.0	+6.9 +0.0	+1.6 +0.0	+0.0	+0.0	+0.0	+0.0	+0.0	47.5	54.0	-6.5	Horiz
													Noise Floor		97
2	23360.060 M Ave	56.3	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	+0.0	+0.0	+0.0	+0.0	+0.0	46.4	54.0	-7.6	Vert
													10MHz 802.11a 24Mbps		
3	11469.998 M	52.9	+38.7 -56.4	+2.3 +0.0	+6.9 +0.0	+1.6 +0.0	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	54.0	-8.0	Vert
													Noise Floor		97
4	11679.998 M	52.1	+38.8 -56.5	+2.4 +0.0	+7.0 +0.0	+1.6 +0.0	+0.0	+0.0	+0.0	+0.0	+0.0	45.4	54.0	-8.6	Horiz
													Noise Floor		97

5	11570.001 M	52.3	+38.8 -56.7	+2.4 +0.0	+6.9 +0.0	+1.6 +0.0	+0.0	45.3	54.0	-8.7	Horiz
									Noise Floor		97
6	23340.000 M Ave	54.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	+0.0	44.1	54.0	-9.9	Vert
									20MHz 802.11a 36Mbps		
7	23360.005 M Ave	54.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	+0.0	44.1	54.0	-9.9	Vert
									10MHz 802.11n 13MCSHT20 2S		
^	23360.060 M	70.3	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	+0.0	60.4	54.0	+6.4	Vert
									10MHz 802.11a 24Mbps		
^	23360.005 M	68.7	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	+0.0	58.8	54.0	+4.8	Vert
									10MHz 802.11n 13MCSHT20 2S		
10	22937.030 M Ave	53.5	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	+0.0 +7.1	+0.0	44.0	54.0	-10.0	Vert
									10MHz 802.11a 24Mbps		
^	22937.030 M	68.1	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	+0.0 +7.1	+0.0	58.6	54.0	+4.6	Vert
									10MHz 802.11a 24Mbps		
12	23339.920 M Ave	53.4	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	+0.0	43.5	54.0	-10.5	Vert
									20MHz 802.11n 26MCSHT20 2S		
^	23339.920 M	70.2	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	+0.0	60.3	54.0	+6.3	Vert
									20MHz 802.11n 26MCSHT20 2S		
^	23340.000 M	64.4	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	+0.0	54.5	54.0	+0.5	Vert
									20MHz 802.11a 36Mbps		
15	23357.540 M Ave	53.2	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	+0.0	43.3	54.0	-10.7	Horiz
									10MHz 802.11a 24Mbps		
^	23357.540 M	67.2	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	+0.0	57.3	54.0	+3.3	Horiz
									10MHz 802.11a 24Mbps		
17	11679.998 M	50.0	+38.8 -56.5	+2.4 +0.0	+7.0 +0.0	+1.6 +0.0	+0.0	43.3	54.0	-10.7	Vert
									Noise Floor		97

18	11570.001 M	49.9	+38.8 -56.7	+2.4 +0.0	+6.9 +0.0	+1.6 +0.0	+0.0	42.9	54.0	-11.1	Vert
									Noise Floor		97
19	17519.995 M Ave	39.3	+44.3 -57.4	+3.0 +0.8	+10.4 +0.0	+2.1 +0.0	+0.0	42.5	54.0	-11.5	Horiz
									Noise Floor		97
^	17520.002 M	51.9	+44.3 -57.4	+3.0 +0.8	+10.4 +0.0	+2.1 +0.0	+0.0	55.1	54.0	+1.1	Horiz
									Noise Floor		97
21	22936.730 M Ave	51.9	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	+0.0 +7.1	+0.0	42.4	54.0	-11.6	Horiz
									10MHz 802.11a 24Mbps		
^	22936.730 M	67.5	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	+0.0 +7.1	+0.0	58.0	54.0	+4.0	Horiz
									10MHz 802.11a 24Mbps		
23	17520.003 M Ave	39.1	+44.3 -57.4	+3.0 +0.8	+10.4 +0.0	+2.1 +0.0	+0.0	42.3	54.0	-11.7	Vert
									Noise Floor		97
^	17519.996 M	51.2	+44.3 -57.4	+3.0 +0.8	+10.4 +0.0	+2.1 +0.0	+0.0	54.4	54.0	+0.4	Vert
									Noise Floor		97
25	22959.960 M Ave	51.7	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	+0.0 +7.1	+0.0	42.2	54.0	-11.8	Vert
									20MHz 802.11n 26MCSHT20 2S		
^	22959.960 M	65.2	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	+0.0 +7.1	+0.0	55.7	54.0	+1.7	Vert
									20MHz 802.11n 26MCSHT20 2S		
27	17354.995 M Ave	40.0	+43.2 -56.9	+3.0 +0.8	+10.0 +0.0	+2.0 +0.0	+0.0	42.1	54.0	-11.9	Horiz
									Noise Floor		97
^	17355.000 M	52.2	+43.2 -56.9	+3.0 +0.8	+10.0 +0.0	+2.0 +0.0	+0.0	54.3	54.0	+0.3	Horiz
									Noise Floor		97
29	23359.910 M Ave	51.9	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	+0.0	42.0	54.0	-12.0	Horiz
									10MHz 802.11n 13MCSHT20 2S		
^	23359.910 M	66.3	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	+0.0	56.4	54.0	+2.4	Horiz
									10MHz 802.11n 13MCSHT20 2S		
31	17355.001 M Ave	39.9	+43.2 -56.9	+3.0 +0.8	+10.0 +0.0	+2.0 +0.0	+0.0	42.0	54.0	-12.0	Vert
									Noise Floor		97
^	17354.996 M	52.4	+43.2 -56.9	+3.0 +0.8	+10.0 +0.0	+2.0 +0.0	+0.0	54.5	54.0	+0.5	Vert
									Noise Floor		97

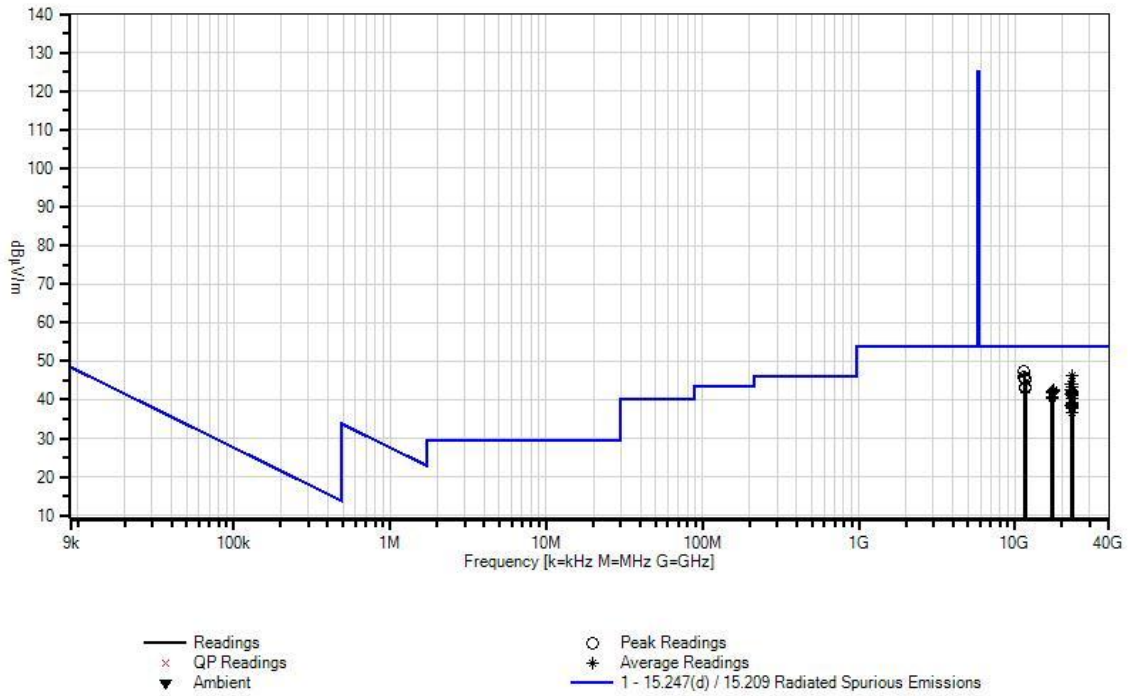
33	23140.860	51.6	+0.0	+0.0	+0.0	+0.0	+0.0	41.9	54.0	-12.1	Vert
	M		+0.0	+0.0	-16.7	+7.0					
	Ave								10MHz 802.11a		
									24Mbps		
^	23140.860	67.2	+0.0	+0.0	+0.0	+0.0	+0.0	57.5	54.0	+3.5	Vert
	M		+0.0	+0.0	-16.7	+7.0					
									10MHz 802.11a		
									24Mbps		
35	23340.775	51.8	+0.0	+0.0	+0.0	+0.0	+0.0	41.9	54.0	-12.1	Horiz
	M		+0.0	+0.0	-16.9	+7.0					
	Ave								20MHz 802.11a		
									36Mbps		
^	23340.775	64.9	+0.0	+0.0	+0.0	+0.0	+0.0	55.0	54.0	+1.0	Horiz
	M		+0.0	+0.0	-16.9	+7.0					
									20MHz 802.11a		
									36Mbps		
37	22954.150	51.1	+0.0	+0.0	+0.0	+0.0	+0.0	41.6	54.0	-12.4	Vert
	M		+0.0	+0.0	-16.6	+7.1					
	Ave								20MHz 802.11a		
									36Mbps		
^	22954.150	65.7	+0.0	+0.0	+0.0	+0.0	+0.0	56.2	54.0	+2.2	Vert
	M		+0.0	+0.0	-16.6	+7.1					
									20MHz 802.11a		
									36Mbps		
39	22938.225	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	41.3	54.0	-12.7	Vert
	M		+0.0	+0.0	-16.6	+7.1					
	Ave								10MHz 802.11n		
									13MCSHT20 2S		
^	22938.225	67.9	+0.0	+0.0	+0.0	+0.0	+0.0	58.4	54.0	+4.4	Vert
	M		+0.0	+0.0	-16.6	+7.1					
									10MHz 802.11n		
									13MCSHT20 2S		
41	23139.910	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	41.1	54.0	-12.9	Vert
	M		+0.0	+0.0	-16.7	+7.0					
	Ave								10MHz 802.11n		
									13MCSHT20 2S		
42	17204.997	40.5	+42.1	+3.0	+9.8	+2.0	+0.0	40.9	54.0	-13.1	Horiz
	M		-57.2	+0.7	+0.0	+0.0					
	Ave								Noise Floor		97
^	17205.004	52.5	+42.1	+3.0	+9.8	+2.0	+0.0	52.9	54.0	-1.1	Horiz
	M		-57.2	+0.7	+0.0	+0.0					
									Noise Floor		97
44	23339.995	50.4	+0.0	+0.0	+0.0	+0.0	+0.0	40.5	54.0	-13.5	Horiz
	M		+0.0	+0.0	-16.9	+7.0					
	Ave								20MHz 802.11n		
									26MCSHT20 2S		
^	23339.995	66.1	+0.0	+0.0	+0.0	+0.0	+0.0	56.2	54.0	+2.2	Horiz
	M		+0.0	+0.0	-16.9	+7.0					
									20MHz 802.11n		
									26MCSHT20 2S		

46	17204.997	40.1	+42.1	+3.0	+9.8	+2.0	+0.0	40.5	54.0	-13.5	Vert
	M		-57.2	+0.7	+0.0	+0.0					
	Ave								Noise Floor		97
^	17205.001	52.8	+42.1	+3.0	+9.8	+2.0	+0.0	53.2	54.0	-0.8	Vert
	M		-57.2	+0.7	+0.0	+0.0					
									Noise Floor		97
48	23139.880	50.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.4	54.0	-13.6	Vert
	M		+0.0	+0.0	-16.7	+7.0					
	Ave								20MHz 802.11n		
									26MCSHT20 2S		
^	23139.910	65.6	+0.0	+0.0	+0.0	+0.0	+0.0	55.9	54.0	+1.9	Vert
	M		+0.0	+0.0	-16.7	+7.0					
									10MHz 802.11n		
									13MCSHT20 2S		
^	23139.880	62.3	+0.0	+0.0	+0.0	+0.0	+0.0	52.6	54.0	-1.4	Vert
	M		+0.0	+0.0	-16.7	+7.0					
									20MHz 802.11n		
									26MCSHT20 2S		
51	23140.125	49.1	+0.0	+0.0	+0.0	+0.0	+0.0	39.4	54.0	-14.6	Vert
	M		+0.0	+0.0	-16.7	+7.0					
	Ave								20MHz 802.11a		
									36Mbps		
^	23140.125	62.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.4	54.0	-1.6	Vert
	M		+0.0	+0.0	-16.7	+7.0					
									20MHz 802.11a		
									36Mbps		
53	23140.000	48.8	+0.0	+0.0	+0.0	+0.0	+0.0	39.1	54.0	-14.9	Horiz
	M		+0.0	+0.0	-16.7	+7.0					
	Ave								10MHz 802.11a		
									24Mbps		
54	22958.500	48.3	+0.0	+0.0	+0.0	+0.0	+0.0	38.8	54.0	-15.2	Horiz
	M		+0.0	+0.0	-16.6	+7.1					
	Ave								20MHz 802.11a		
									36Mbps		
^	22958.500	62.7	+0.0	+0.0	+0.0	+0.0	+0.0	53.2	54.0	-0.8	Horiz
	M		+0.0	+0.0	-16.6	+7.1					
									20MHz 802.11a		
									36Mbps		
56	23139.960	48.2	+0.0	+0.0	+0.0	+0.0	+0.0	38.5	54.0	-15.5	Horiz
	M		+0.0	+0.0	-16.7	+7.0					
	Ave								10MHz 802.11n		
									13MCSHT20 2S		
57	22940.450	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	38.4	54.0	-15.6	Horiz
	M		+0.0	+0.0	-16.6	+7.1					
	Ave								10MHz 802.11n		
									13MCSHT20 2S		
^	22940.450	64.1	+0.0	+0.0	+0.0	+0.0	+0.0	54.6	54.0	+0.6	Horiz
	M		+0.0	+0.0	-16.6	+7.1					
									10MHz 802.11n		
									13MCSHT20 2S		



59	22959.925	47.7	+0.0	+0.0	+0.0	+0.0	+0.0	38.2	54.0	-15.8	Horiz
	M		+0.0	+0.0	-16.6	+7.1			20MHz 802.11n		
	Ave								26MCSHT20 2S		
^	22959.925	61.8	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz
	M		+0.0	+0.0	-16.6	+7.1			20MHz 802.11n		
									26MCSHT20 2S		
61	23140.250	47.3	+0.0	+0.0	+0.0	+0.0	+0.0	37.6	54.0	-16.4	Horiz
	M		+0.0	+0.0	-16.7	+7.0			20MHz 802.11a		
	Ave								36Mbps		
^	23140.250	60.1	+0.0	+0.0	+0.0	+0.0	+0.0	50.4	54.0	-3.6	Horiz
	M		+0.0	+0.0	-16.7	+7.0			20MHz 802.11a		
									36Mbps		
63	23140.000	46.4	+0.0	+0.0	+0.0	+0.0	+0.0	36.7	54.0	-17.3	Horiz
	M		+0.0	+0.0	-16.7	+7.0			20MHz 802.11n		
	Ave								26MCSHT20 2S		
^	23140.000	62.4	+0.0	+0.0	+0.0	+0.0	+0.0	52.7	54.0	-1.3	Horiz
	M		+0.0	+0.0	-16.7	+7.0			10MHz 802.11a		
									24Mbps		
^	23140.000	62.3	+0.0	+0.0	+0.0	+0.0	+0.0	52.6	54.0	-1.4	Horiz
	M		+0.0	+0.0	-16.7	+7.0			20MHz 802.11n		
									26MCSHT20 2S		
^	23139.960	61.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.0	54.0	-2.0	Horiz
	M		+0.0	+0.0	-16.7	+7.0			10MHz 802.11n		
									13MCSHT20 2S		

CKC Laboratories, Inc. Date: 6/16/2012 Time: 10:45:22 Digital Path WO#: 92682  
 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 218 Vert  
 UNII Bands. 20MHz Channel width.



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Digital Path**  
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**  
 Work Order #: **92682** Date: 6/15/2012  
 Test Type: **Radiated Scan** Time: 17:53:51  
 Equipment: **5GHz Sector (20 dBi)** Sequence#: 219  
 Manufacturer: Digital Path Tested By: C. Nicklas  
 Model: G5RL10E  
 S/N: EMI 5

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02668	Spectrum Analyzer	E4446A	2/23/2011	2/23/2013
T2	AN02157	Horn Antenna-ANSI C63.5	3115	1/17/2011	1/17/2013
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/21/2012	3/21/2014
T4	ANP01210	Cable	FSJ1P-50A-4A	3/15/2011	3/15/2013
T5	ANP05843	Cable	32022-2-29094K-48TC	7/30/2010	7/30/2012
T6	AN03114	Preamp	AMF-7D-00101800-30-10P	5/13/2011	5/13/2013
	ANP05935	Attenuator	84A-10	10/19/2011	10/19/2013
	ANP01211	Attenuator	23-10-34	4/15/2011	4/15/2013
T7	AN01417	High Pass Filter	84300-80039	2/9/2012	2/9/2014
T8	AN02694	Active Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-18002650-20-10P	11/10/2010	11/10/2012
	AN02695	Active Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-260400-33-8P	11/10/2010	11/10/2012
	AN00730	Preamp		1/31/2011	1/31/2013
	AN00432	Loop Antenna	6502	3/31/2011	3/31/2013
	AN00852	Biconilog Antenna	CBL 6111C	11/16/2010	11/16/2012
	ANP05299	Cable	RG214	3/6/2011	3/6/2013
	ANP05300	Cable	RG214/U	3/7/2011	3/7/2013
	ANP05440	Cable		3/7/2011	3/7/2013
T9	AN03143	Cable	32022-29094K-144TC	8/30/2011	8/30/2013

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
5GHz Sector (20 dBi)*	Digital Path	G5RL10E	EMI 5

**Support Devices:**

Function	Manufacturer	Model #	S/N
Laptop Computer	HP	ProBook 6565b	5CB13637ZF
Laptop Power Supply	HP	608428-002	F12941126327228

**Test Conditions / Notes:**

The EUT installed on a metal pole as intended. DC power port is connected to a DC power supply via a CAT5 cable. The Ethernet port is connected to a remote laptop via unshielded twisted pair.

The Remote laptop is running test software to exercise the intended functionalities. Receiver circuit is active.  
 Vertical polarity of the antenna is connected to Card 1, Ant port 2  
 Horizontal polarity of the antenna is connected to Card 1, Ant port 0

Radio 0, OFF  
 Radio 1, TX

5725-5850MHz, Point to Multi-Point

Freq: 5735MHz, 5785MHz, 5840MHz.  
 BW = 10 MHz  
 802.11a: 24Mbps, TX power = 15, 15, 15  
 802.11n: 13MCS HT20 2S, TX power = 15, 15, 15

Freq: 5740MHz, 5785MHz, 5835MHz.  
 BW= 20MHz  
 802.11a: 36 Mbps, TX power= 15, 15, 15  
 802.11n: 26MCS HT20 2S, TX power= 15, 15, 15

Temperature: 21.8-22.5°C, Relative Humidity: 37-39%, Atmospheric Pressure: 100.7kPa

Scans were performed with the RBW reduced as needed. Data all taken at the proper RBW setting. Above 18GHz, hand scan the unit at a 1/2 meter distance to determine if there are any signals. Any signals found are hand maximized at a 1/2 meter distance to ensure the maximum signal is found.

Frequency range of measurement = 9kHz-40GHz.  
 9 kHz -150 kHz; RBW=200 Hz, VBW=200 Hz;150 kHz-30 MHz; RBW=9 kHz, VBW=9 kHz;30 MHz-1000 MHz; RBW=120 kHz, VBW=120 kHz,1000 MHz-40,000 MHz; RBW=1 MHz, VBW=1 MHz.

Ext Attn: 0 dB

<b>Measurement Data:</b>		Reading listed by margin.					Test Distance: 0.5 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/m	dB	Ant	
1	17203.290	48.1	+0.0	+42.1	+3.0	+9.8	+0.0	48.5	54.0	-5.5	Horiz	
	M		+2.0	-57.2	+0.7	+0.0						
	Ave		+0.0				59		10MHz 802.11a		122	
									24Mbps			
^	17203.290	63.6	+0.0	+42.1	+3.0	+9.8	+0.0	64.0	54.0	+10.0	Horiz	
	M		+2.0	-57.2	+0.7	+0.0						
			+0.0				59		10MHz 802.11a		122	
									24Mbps			
3	11670.000	54.8	+0.0	+38.8	+2.4	+7.0	+0.0	48.0	54.0	-6.0	Vert	
	M		+1.6	-56.6	+0.0	+0.0						
			+0.0				359		Noise Floor,		131	
									20MHz 802.11a			
									36Mbps			

4	17203.120	47.5	+0.0	+42.1	+3.0	+9.8	+0.0	47.9	54.0	-6.1	Horiz
	M		+2.0	-57.2	+0.7	+0.0					116
	Ave		+0.0				49		10MHz 802.11n		116
									13MCS HT20 2S		
^	17203.120	64.0	+0.0	+42.1	+3.0	+9.8	+0.0	64.4	54.0	+10.4	Horiz
	M		+2.0	-57.2	+0.7	+0.0					116
			+0.0				49		10MHz 802.11n		116
									13MCS HT20 2S		
6	11480.000	54.8	+0.0	+38.7	+2.3	+6.9	+0.0	47.8	54.0	-6.2	Vert
	M		+1.6	-56.5	+0.0	+0.0					135
			+0.0				360		Noise Floor,		135
									20MHz 802.11n		
									26MCS HT20 2S		
7	17205.405	46.6	+0.0	+42.2	+3.0	+9.8	+0.0	47.1	54.0	-6.9	Vert
	M		+2.0	-57.2	+0.7	+0.0					122
	Ave		+0.0				35		10MHz 802.11a		122
									24Mbps		
^	17205.405	61.0	+0.0	+42.2	+3.0	+9.8	+0.0	61.5	54.0	+7.5	Vert
	M		+2.0	-57.2	+0.7	+0.0					122
			+0.0				35		10MHz 802.11a		122
									24Mbps		
9	11680.000	53.7	+0.0	+38.8	+2.4	+7.0	+0.0	47.0	54.0	-7.0	Horiz
	M		+1.6	-56.5	+0.0	+0.0					115
			+0.0						Noise floor, 10MHz		115
									802.11n 13MCS		
									HT20 2S		
10	11570.000	54.0	+0.0	+38.8	+2.4	+6.9	+0.0	47.0	54.0	-7.0	Vert
	M		+1.6	-56.7	+0.0	+0.0					118
			+0.0						Noise floor, 10MHz		118
									802.11n 13MCS		
									HT20 2S		
11	17216.500	46.4	+0.0	+42.2	+3.0	+9.8	+0.0	46.9	54.0	-7.1	Horiz
	M		+2.0	-57.2	+0.7	+0.0					136
	Ave		+0.0				14		20MHz 802.11a		136
									36Mbps		
^	17216.500	59.6	+0.0	+42.2	+3.0	+9.8	+0.0	60.1	54.0	+6.1	Horiz
	M		+2.0	-57.2	+0.7	+0.0					136
			+0.0				14		20MHz 802.11a		136
									36Mbps		
13	11470.000	53.7	+0.0	+38.7	+2.3	+6.9	+0.0	46.8	54.0	-7.2	Vert
	M		+1.6	-56.4	+0.0	+0.0					132
			+0.0				360		Noise floor, 10MHz		132
									802.11a 24Mbps		
14	11670.150	53.5	+0.0	+38.8	+2.4	+7.0	+0.0	46.7	54.0	-7.3	Horiz
	M		+1.6	-56.6	+0.0	+0.0					133
			+0.0				359		Noise Floor,		133
									20MHz 802.11n		
									26MCS HT20 2S		

15	17353.875	44.6	+0.0	+43.2	+3.0	+10.0	+0.0	46.7	54.0	-7.3	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				360		10MHz 802.11n		113
									13MCS HT20 2S		
^	17353.875	60.5	+0.0	+43.2	+3.0	+10.0	+0.0	62.6	54.0	+8.6	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				360		10MHz 802.11n		113
									13MCS HT20 2S		
17	11570.000	53.7	+0.0	+38.8	+2.4	+6.9	+0.0	46.7	54.0	-7.3	Horiz
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0						Noise floor, 10MHz		123
									802.11a 24Mbps		
18	17203.950	46.3	+0.0	+42.1	+3.0	+9.8	+0.0	46.7	54.0	-7.3	Vert
	M		+2.0	-57.2	+0.7	+0.0					
	Ave		+0.0				55		10MHz 802.11n		140
									13MCS HT20 2S		
^	17203.950	61.3	+0.0	+42.1	+3.0	+9.8	+0.0	61.7	54.0	+7.7	Vert
	M		+2.0	-57.2	+0.7	+0.0					
			+0.0				55		10MHz 802.11n		140
									13MCS HT20 2S		
20	17354.675	44.5	+0.0	+43.2	+3.0	+10.0	+0.0	46.6	54.0	-7.4	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				17		10MHz 802.11a		126
									24Mbps		
^	17354.675	59.4	+0.0	+43.2	+3.0	+10.0	+0.0	61.5	54.0	+7.5	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				17		10MHz 802.11a		126
									24Mbps		
22	11470.000	53.5	+0.0	+38.7	+2.3	+6.9	+0.0	46.6	54.0	-7.4	Vert
	M		+1.6	-56.4	+0.0	+0.0					
			+0.0				360		Noise floor, 10MHz		113
									802.11n 13MCS		
									HT20 2S		
23	11480.000	53.5	+0.0	+38.7	+2.3	+6.9	+0.0	46.5	54.0	-7.5	Horiz
	M		+1.6	-56.5	+0.0	+0.0					
			+0.0						Noise Floor,		131
									20MHz 802.11n		
									26MCS HT20 2S		
24	11470.000	53.4	+0.0	+38.7	+2.3	+6.9	+0.0	46.5	54.0	-7.5	Horiz
	M		+1.6	-56.4	+0.0	+0.0					
			+0.0						Noise floor, 10MHz		116
									802.11n 13MCS		
									HT20 2S		
25	11570.000	53.5	+0.0	+38.8	+2.4	+6.9	+0.0	46.5	54.0	-7.5	Vert
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0						Noise Floor,		135
									20MHz 802.11n		
									26MCS HT20 2S		

26	17518.735	43.3	+0.0	+44.3	+3.0	+10.4	+0.0	46.5	54.0	-7.5	Horiz
	M		+2.1	-57.4	+0.8	+0.0					
	Ave		+0.0				307		10MHz 802.11n 13MCS HT20 2S		113
^	17518.735	58.4	+0.0	+44.3	+3.0	+10.4	+0.0	61.6	54.0	+7.6	Horiz
	M		+2.1	-57.4	+0.8	+0.0					
			+0.0				307		10MHz 802.11n 13MCS HT20 2S		113
28	11570.000	53.4	+0.0	+38.8	+2.4	+6.9	+0.0	46.4	54.0	-7.6	Horiz
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0				359		Noise Floor, 20MHz 802.11n 26MCS HT20 2S		133
29	11570.000	53.2	+0.0	+38.8	+2.4	+6.9	+0.0	46.2	54.0	-7.8	Horiz
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0				360		Noise floor, 10MHz 802.11n 13MCS HT20 2S		126
30	17520.150	42.9	+0.0	+44.3	+3.0	+10.4	+0.0	46.1	54.0	-7.9	Horiz
	M		+2.1	-57.4	+0.8	+0.0					
	Ave		+0.0				49		10MHz 802.11a 24Mbps		116
^	17520.150	58.4	+0.0	+44.3	+3.0	+10.4	+0.0	61.6	54.0	+7.6	Horiz
	M		+2.1	-57.4	+0.8	+0.0					
			+0.0				49		10MHz 802.11a 24Mbps		116
32	11680.000	52.8	+0.0	+38.8	+2.4	+7.0	+0.0	46.1	54.0	-7.9	Horiz
	M		+1.6	-56.5	+0.0	+0.0					
			+0.0				105		Noise floor, 10MHz 802.11a 24Mbps		116
33	17518.500	42.8	+0.0	+44.3	+3.0	+10.4	+0.0	46.0	54.0	-8.0	Vert
	M		+2.1	-57.4	+0.8	+0.0					
	Ave		+0.0						10MHz 802.11n 13MCS HT20 2S		124
^	17518.500	57.4	+0.0	+44.3	+3.0	+10.4	+0.0	60.6	54.0	+6.6	Vert
	M		+2.1	-57.4	+0.8	+0.0					
			+0.0						10MHz 802.11n 13MCS HT20 2S		124
35	11470.000	52.9	+0.0	+38.7	+2.3	+6.9	+0.0	46.0	54.0	-8.0	Horiz
	M		+1.6	-56.4	+0.0	+0.0					
			+0.0						Noise floor, 10MHz 802.11a 24Mbps		123
36	11670.000	52.8	+0.0	+38.8	+2.4	+7.0	+0.0	46.0	54.0	-8.0	Horiz
	M		+1.6	-56.6	+0.0	+0.0					
			+0.0				159		Noise Floor, 20MHz 802.11a 36Mbps		128

37	17353.450	43.4	+0.0	+43.2	+3.0	+10.0	+0.0	45.5	54.0	-8.5	Vert
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				306		10MHz 802.11n		133
									13MCS HT20 2S		
^	17353.450	59.2	+0.0	+43.2	+3.0	+10.0	+0.0	61.3	54.0	+7.3	Vert
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				306		10MHz 802.11n		133
									13MCS HT20 2S		
39	17354.375	43.3	+0.0	+43.2	+3.0	+10.0	+0.0	45.4	54.0	-8.6	Vert
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				359		10MHz 802.11a		128
									24Mbps		
^	17354.375	57.2	+0.0	+43.2	+3.0	+10.0	+0.0	59.3	54.0	+5.3	Vert
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				359		10MHz 802.11a		128
									24Mbps		
41	17517.900	41.6	+0.0	+44.3	+3.0	+10.4	+0.0	44.8	54.0	-9.2	Vert
	M		+2.1	-57.4	+0.8	+0.0					
	Ave		+0.0				360		10MHz 802.11a		130
									24Mbps		
^	17517.900	56.6	+0.0	+44.3	+3.0	+10.4	+0.0	59.8	54.0	+5.8	Vert
	M		+2.1	-57.4	+0.8	+0.0					
			+0.0				360		10MHz 802.11a		130
									24Mbps		
43	17353.200	42.1	+0.0	+43.2	+3.0	+10.0	+0.0	44.2	54.0	-9.8	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				271		20MHz 802.11n		130
									26MCS HT20 2S		
^	17353.200	55.3	+0.0	+43.2	+3.0	+10.0	+0.0	57.4	54.0	+3.4	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				271		20MHz 802.11n		130
									26MCS HT20 2S		
45	17500.600	41.2	+0.0	+44.2	+3.0	+10.3	+0.0	44.1	54.0	-9.9	Horiz
	M		+2.0	-57.4	+0.8	+0.0					
	Ave		+0.0				253		20MHz 802.11a		141
									36Mbps		
^	17500.600	53.9	+0.0	+44.2	+3.0	+10.3	+0.0	56.8	54.0	+2.8	Horiz
	M		+2.0	-57.4	+0.8	+0.0					
			+0.0				253		20MHz 802.11a		141
									36Mbps		
47	17221.475	43.4	+0.0	+42.3	+3.0	+9.8	+0.0	44.0	54.0	-10.0	Vert
	M		+2.0	-57.2	+0.7	+0.0					
	Ave		+0.0				57		20MHz 802.11a		140
									36Mbps		
^	17221.475	57.1	+0.0	+42.3	+3.0	+9.8	+0.0	57.7	54.0	+3.7	Vert
	M		+2.0	-57.2	+0.7	+0.0					
			+0.0				57		20MHz 802.11a		140
									36Mbps		



49	17353.750	41.8	+0.0	+43.2	+3.0	+10.0	+0.0	43.9	54.0	-10.1	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0					255	20MHz 802.11a		134
									36Mbps		
^	17353.750	54.0	+0.0	+43.2	+3.0	+10.0	+0.0	56.1	54.0	+2.1	Horiz
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0					255	20MHz 802.11a		134
									36Mbps		
51	17356.250	41.5	+0.0	+43.2	+3.0	+10.1	+0.0	43.7	54.0	-10.3	Vert
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0					306	20MHz 802.11a		134
									36Mbps		
^	17356.250	55.0	+0.0	+43.2	+3.0	+10.1	+0.0	57.2	54.0	+3.2	Vert
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0					306	20MHz 802.11a		134
									36Mbps		
53	17505.000	40.5	+0.0	+44.2	+3.0	+10.4	+0.0	43.5	54.0	-10.5	Horiz
	M		+2.0	-57.4	+0.8	+0.0					
	Ave		+0.0						Noise Floor,		133
									20MHz 802.11n		
									26MCS HT20 2S		
^	17505.000	53.7	+0.0	+44.2	+3.0	+10.4	+0.0	56.7	54.0	+2.7	Horiz
	M		+2.0	-57.4	+0.8	+0.0					
			+0.0						Noise Floor,		133
									20MHz 802.11n		
									26MCS HT20 2S		
55	17505.000	40.4	+0.0	+44.2	+3.0	+10.4	+0.0	43.4	54.0	-10.6	Vert
	M		+2.0	-57.4	+0.8	+0.0					
	Ave		+0.0					368	Noise Floor,		140
									20MHz 802.11n		
									26MCS HT20 2S		
56	22941.200	68.4	+0.0	+0.0	+0.0	+0.0	-15.6	43.3	54.0	-10.7	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
			+7.1						10MHz 802.11n		
									13MCS HT20 2S		
57	22937.600	68.3	+0.0	+0.0	+0.0	+0.0	-15.6	43.2	54.0	-10.8	Horiz
	M		+0.0	+0.0	+0.0	-16.6					
			+7.1						10MHz 802.11a		
									24Mbps		
58	17219.400	42.6	+0.0	+42.2	+3.0	+9.8	+0.0	43.1	54.0	-10.9	Horiz
	M		+2.0	-57.2	+0.7	+0.0					
	Ave		+0.0					14	20MHz 802.11n		110
									26MCS HT20 2S		
^	17219.400	56.1	+0.0	+42.2	+3.0	+9.8	+0.0	56.6	54.0	+2.6	Horiz
	M		+2.0	-57.2	+0.7	+0.0					
			+0.0					14	20MHz 802.11n		110
									26MCS HT20 2S		
60	23145.300	67.9	+0.0	+0.0	+0.0	+0.0	-15.6	42.6	54.0	-11.4	Horiz
	M		+0.0	+0.0	+0.0	-16.7					
			+7.0						10MHz 802.11n		
									13MCS HT20 2S		

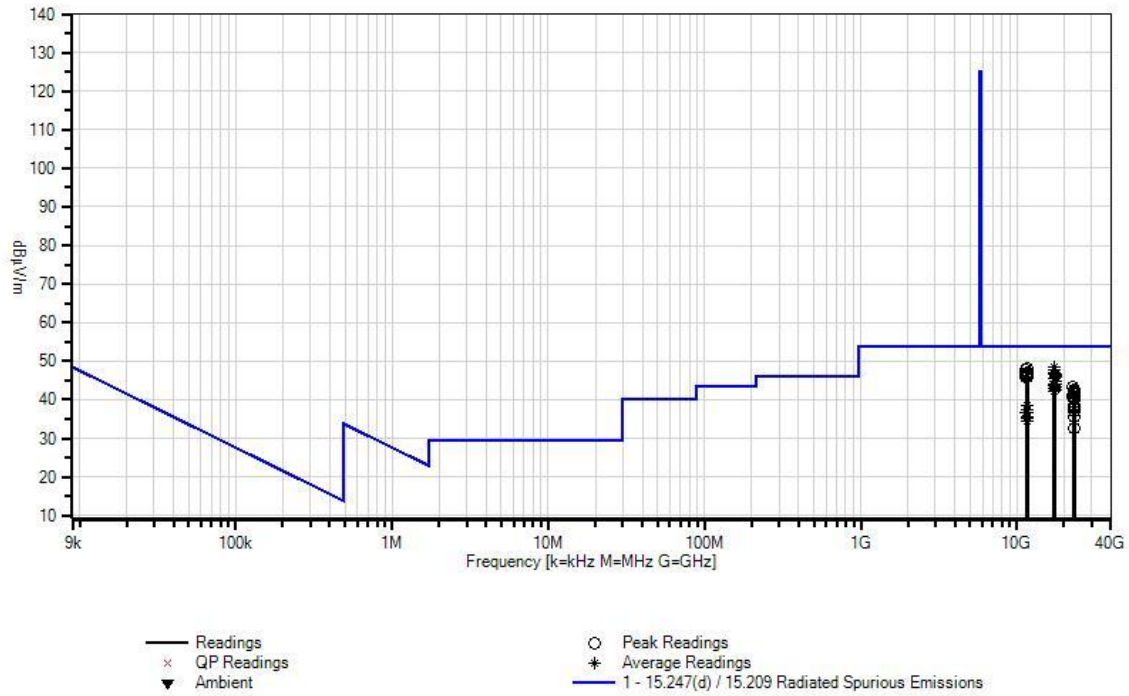
61	17505.000	39.5	+0.0	+44.2	+3.0	+10.4	+0.0	42.5	54.0	-11.5	Vert
	M		+2.0	-57.4	+0.8	+0.0					
	Ave		+0.0				321		Noise Floor, 20MHz 802.11a 36Mbps		140
^	17505.000	53.7	+0.0	+44.2	+3.0	+10.4	+0.0	56.7	54.0	+2.7	Vert
	M		+2.0	-57.4	+0.8	+0.0					
			+0.0						Noise Floor, 20MHz 802.11n 26MCS HT20 2S		140
^	17505.000	52.6	+0.0	+44.2	+3.0	+10.4	+0.0	55.6	54.0	+1.6	Vert
	M		+2.0	-57.4	+0.8	+0.0					
			+0.0				321		Noise Floor, 20MHz 802.11a 36Mbps		140
64	23145.800	67.6	+0.0	+0.0	+0.0	+0.0	-15.6	42.3	54.0	-11.7	Horiz
	M		+0.0	+0.0	+0.0	-16.7					
			+7.0						10MHz 802.11a 24Mbps		
65	17219.500	41.8	+0.0	+42.2	+3.0	+9.8	+0.0	42.3	54.0	-11.7	Vert
	M		+2.0	-57.2	+0.7	+0.0					
	Ave		+0.0				50		20MHz 802.11n 26MCS HT20 2S		134
^	17219.500	55.0	+0.0	+42.2	+3.0	+9.8	+0.0	55.5	54.0	+1.5	Vert
	M		+2.0	-57.2	+0.7	+0.0					
			+0.0				50		20MHz 802.11n 26MCS HT20 2S		134
67	17355.000	40.1	+0.0	+43.2	+3.0	+10.0	+0.0	42.2	54.0	-11.8	Vert
	M		+2.0	-56.9	+0.8	+0.0					
	Ave		+0.0				193		Noise Floor, 20MHz 802.11n 26MCS HT20 2S		135
^	17355.000	52.7	+0.0	+43.2	+3.0	+10.0	+0.0	54.8	54.0	+0.8	Vert
	M		+2.0	-56.9	+0.8	+0.0					
			+0.0				193		Noise Floor, 20MHz 802.11n 26MCS HT20 2S		135
69	23360.500	67.5	+0.0	+0.0	+0.0	+0.0	-15.6	42.0	54.0	-12.0	Horiz
	M		+0.0	+0.0	+0.0	-16.9					
			+7.0						10MHz 802.11a 24Mbps		
70	23339.900	67.0	+0.0	+0.0	+0.0	+0.0	-15.6	41.5	54.0	-12.5	Vert
	M		+0.0	+0.0	+0.0	-16.9					
			+7.0						20MHz 802.11n 26MCS HT20 2S		
71	23337.100	66.8	+0.0	+0.0	+0.0	+0.0	-15.6	41.3	54.0	-12.7	Horiz
	M		+0.0	+0.0	+0.0	-16.9					
			+7.0						20MHz 802.11a 36Mbps		
72	22940.000	66.1	+0.0	+0.0	+0.0	+0.0	-15.6	41.0	54.0	-13.0	Vert
	M		+0.0	+0.0	+0.0	-16.6					
			+7.1						10MHz 802.11n 13MCS HT20 2S		

73	23361.000 M	66.4	+0.0 +0.0 +7.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	-15.6	40.9	54.0	-13.1	Horiz	10MHz 802.11n 13MCS HT20 2S
74	22967.400 M	65.7	+0.0 +0.0 +7.1	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	-15.6	40.6	54.0	-13.4	Horiz	20MHz 802.11a 36Mbps
75	22938.900 M	65.7	+0.0 +0.0 +7.1	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	-15.6	40.6	54.0	-13.4	Vert	10MHz 802.11a 24Mbps
76	22964.000 M	65.3	+0.0 +0.0 +7.1	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	-15.6	40.2	54.0	-13.8	Horiz	20MHz 802.11n 26MCS HT20 2S
77	23339.800 M	65.7	+0.0 +0.0 +7.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	-15.6	40.2	54.0	-13.8	Horiz	20MHz 802.11n 26MCS HT20 2S
78	23145.900 M	65.3	+0.0 +0.0 +7.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.7	-15.6	40.0	54.0	-14.0	Horiz	20MHz 802.11a 36Mbps
79	23359.900 M	65.5	+0.0 +0.0 +7.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	-15.6	40.0	54.0	-14.0	Vert	10MHz 802.11n 13MCS HT20 2S
80	23360.000 M	64.1	+0.0 +0.0 +7.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	-15.6	38.6	54.0	-15.4	Vert	10MHz 802.11a 24Mbps
81	11571.750 M Ave	45.5	+0.0 +1.6 +0.0	+38.8 -56.7	+2.4 +0.0	+6.9 +0.0	+0.0 360	38.5	54.0	-15.5	Vert	20MHz 802.11a 36Mbps
^	11571.750 M	58.5	+0.0 +1.6 +0.0	+38.8 -56.7	+2.4 +0.0	+6.9 +0.0	+0.0 360	51.5	54.0	-2.5	Vert	20MHz 802.11a 36Mbps
83	23143.800 M	63.6	+0.0 +0.0 +7.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.7	-15.6	38.3	54.0	-15.7	Vert	10MHz 802.11a 24Mbps
84	23141.600 M	63.4	+0.0 +0.0 +7.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.7	-15.6	38.1	54.0	-15.9	Vert	10MHz 802.11n 13MCS HT20 2S
85	23136.600 M	63.0	+0.0 +0.0 +7.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.7	-15.6	37.7	54.0	-16.3	Vert	20MHz 802.11a 36Mbps

86	23332.100	63.2	+0.0	+0.0	+0.0	+0.0	-15.6	37.7	54.0	-16.3	Vert
	M		+0.0	+0.0	+0.0	-16.9			20MHz 802.11a		
			+7.0						36Mbps		
87	11679.800	44.0	+0.0	+38.8	+2.4	+7.0	+0.0	37.3	54.0	-16.7	Vert
	M		+1.6	-56.5	+0.0	+0.0			10MHz 802.11n		112
	Ave		+0.0				359		13MCS HT20 2S		
^	11679.800	57.4	+0.0	+38.8	+2.4	+7.0	+0.0	50.7	54.0	-3.3	Vert
	M		+1.6	-56.5	+0.0	+0.0			10MHz 802.11n		112
			+0.0				359		13MCS HT20 2S		
89	22955.700	62.1	+0.0	+0.0	+0.0	+0.0	-15.6	37.0	54.0	-17.0	Vert
	M		+0.0	+0.0	+0.0	-16.6			20MHz 802.11n		
			+7.1						26MCS HT20 2S		
90	22966.100	62.0	+0.0	+0.0	+0.0	+0.0	-15.6	36.9	54.0	-17.1	Vert
	M		+0.0	+0.0	+0.0	-16.6			20MHz 802.11a		
			+7.1						36Mbps		
91	11477.630	43.8	+0.0	+38.7	+2.3	+6.9	+0.0	36.8	54.0	-17.2	Vert
	M		+1.6	-56.5	+0.0	+0.0			20MHz 802.11a		139
	Ave		+0.0				359		36Mbps		
^	11477.630	56.9	+0.0	+38.7	+2.3	+6.9	+0.0	49.9	54.0	-4.1	Vert
	M		+1.6	-56.5	+0.0	+0.0			20MHz 802.11a		139
			+0.0				359		36Mbps		
93	11483.800	43.5	+0.0	+38.7	+2.4	+6.9	+0.0	36.6	54.0	-17.4	Horiz
	M		+1.6	-56.5	+0.0	+0.0			20MHz 802.11a		136
	Ave		+0.0				170		36Mbps		
^	11483.800	56.4	+0.0	+38.7	+2.4	+6.9	+0.0	49.5	54.0	-4.5	Horiz
	M		+1.6	-56.5	+0.0	+0.0			20MHz 802.11a		136
			+0.0				170		36Mbps		
95	11679.500	43.3	+0.0	+38.8	+2.4	+7.0	+0.0	36.6	54.0	-17.4	Vert
	M		+1.6	-56.5	+0.0	+0.0			10MHz 802.11a		130
	Ave		+0.0						24Mbps		
^	11679.500	56.8	+0.0	+38.8	+2.4	+7.0	+0.0	50.1	54.0	-3.9	Vert
	M		+1.6	-56.5	+0.0	+0.0			10MHz 802.11a		130
			+0.0						24Mbps		
97	23135.900	61.0	+0.0	+0.0	+0.0	+0.0	-15.6	35.7	54.0	-18.3	Horiz
	M		+0.0	+0.0	+0.0	-16.7			20MHz 802.11n		
			+7.0						26MCS HT20 2S		

98	11572.075	42.6	+0.0	+38.8	+2.4	+6.9	+0.0	35.6	54.0	-18.4	Horiz
	M		+1.6	-56.7	+0.0	+0.0					
	Ave		+0.0				78		20MHz 802.11a		149
									36Mbps		
^	11572.075	55.9	+0.0	+38.8	+2.4	+6.9	+0.0	48.9	54.0	-5.1	Horiz
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0				78		20MHz 802.11a		149
									36Mbps		
100	11569.600	42.2	+0.0	+38.8	+2.4	+6.9	+0.0	35.2	54.0	-18.8	Vert
	M		+1.6	-56.7	+0.0	+0.0					
	Ave		+0.0						10MHz 802.11a		125
									24Mbps		
^	11569.600	55.7	+0.0	+38.8	+2.4	+6.9	+0.0	48.7	54.0	-5.3	Vert
	M		+1.6	-56.7	+0.0	+0.0					
			+0.0						10MHz 802.11a		125
									24Mbps		
102	11670.149	41.3	+0.0	+38.8	+2.4	+7.0	+0.0	34.5	54.0	-19.5	Vert
	M		+1.6	-56.6	+0.0	+0.0					
	Ave		+0.0				365		Noise Floor,		133
									20MHz 802.11n		
									26MCS HT20 2S		
^	11670.149	55.6	+0.0	+38.8	+2.4	+7.0	+0.0	48.8	54.0	-5.2	Vert
	M		+1.6	-56.6	+0.0	+0.0					
			+0.0						Noise Floor,		133
									20MHz 802.11n		
									26MCS HT20 2S		
104	23139.600	57.9	+0.0	+0.0	+0.0	+0.0	-15.6	32.6	54.0	-21.4	Vert
	M		+0.0	+0.0	+0.0	-16.7					
			+7.0						20MHz 802.11n		
									26MCS HT20 2S		

CKC Laboratories, Inc. Date: 6/15/2012 Time: 17:53:51 Digital Path WO#: 92682  
 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 0.5 Meters Sequence#: 219 Horiz  
 UNII Bands. 20MHz Channel width.



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Digital Path**  
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**  
 Work Order #: **92682** Date: 6/16/2012  
 Test Type: **Radiated Scan** Time: 15:54:19  
 Equipment: **5GHz Tri-Sector (17dBi)** Sequence#: 220  
 Manufacturer: Digital Path Tested By: C. Nicklas  
 Model: G5RL10T  
 S/N: EMI 1

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02668	Spectrum Analyzer	E4446A	2/23/2011	2/23/2013
T1	AN02157	Horn Antenna-ANSI C63.5	3115	1/17/2011	1/17/2013
T2	AN03302	Cable	32026-29094K-29094K-72TC	3/21/2012	3/21/2014
T3	ANP01210	Cable	FSJ1P-50A-4A	3/15/2011	3/15/2013
T4	ANP05843	Cable	32022-2-29094K-48TC	7/30/2010	7/30/2012
T5	AN03114	Preamp	AMF-7D-00101800-30-10P	5/13/2011	5/13/2013
	ANP05935	Attenuator	84A-10	10/19/2011	10/19/2013
	ANP01211	Attenuator	23-10-34	4/15/2011	4/15/2013
T6	AN01417	High Pass Filter	84300-80039	2/9/2012	2/9/2014
T7	AN02694	Active Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-18002650-20-10P	11/10/2010	11/10/2012
	AN02695	Active Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-260400-33-8P	11/10/2010	11/10/2012
	AN00730	Preamp		1/31/2011	1/31/2013
	AN00432	Loop Antenna	6502	3/31/2011	3/31/2013
	AN00852	Biconilog Antenna	CBL 6111C	11/16/2010	11/16/2012
	ANP05299	Cable	RG214	3/6/2011	3/6/2013
	ANP05300	Cable	RG214/U	3/7/2011	3/7/2013
	ANP05440	Cable		3/7/2011	3/7/2013
T8	AN03143	Cable	32022-29094K-144TC	8/30/2011	8/30/2013

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
5GHz Tri-Sector (17dBi)*	Digital Path	G5RL10T	EMI 1

**Support Devices:**

Function	Manufacturer	Model #	S/N
Laptop Computer	HP	ProBook 6565b	5CB13637ZF
Laptop Power Supply	HP	608428-002	F12941126327228

**Test Conditions / Notes:**

The EUT installed on a metal pole as intended. DC power port is connected to a DC power supply via a CAT5 cable. The Ethernet port is connected to a remote laptop via unshielded twisted pair.

The Remote laptop is running test software to exercise the intended functionalities. Receiver circuit is active.  
 Vertical polarity of the antenna is connected to Card 1, Ant port 2  
 Horizontal polarity of the antenna is connected to Card 1, Ant port 0

Radio 0, TX  
 Radio 1, OFF

5725-5850MHz, Point to Multi-Point

Freq: 5735MHz, 5785MHz, 5840MHz.  
 BW = 10 MHz  
 802.11a: 24Mbps, TX power setting = 15.5, 15.5, 15.5  
 802.11n: 13MCS HT20 2S, TX power setting = 15.5, 15.5, 15.5

Freq: 5740MHz, 5785MHz, 5835MHz.  
 BW= 20MHz  
 802.11a: 36 Mbps, TX power setting = 15.5, 15.5, 15.5  
 802.11n: 26MCS HT20 2S, TX power setting = 15.5, 15.5, 15.5

Temperature: 22.2-23.5°C, Relative Humidity: 37%, Atmospheric Pressure: 100.7kPa

Scans were performed with the RBW reduced as needed. Data all taken at the proper RBW setting. Above 18GHz, hand scan the unit at a 1/2 meter distance to determine if there are any signals. Any signals found are hand maximized at a 1/2 meter distance to ensure the maximum signal is found.

Frequency range of measurement = 9kHz-40GHz.  
 9 kHz -150 kHz; RBW=200 Hz, VBW=200 Hz;150 kHz-30 MHz; RBW=9 kHz, VBW=9 kHz;30 MHz-1000 MHz; RBW=120 kHz, VBW=120 kHz,1000 MHz-40,000 MHz; RBW=1 MHz, VBW=1 MHz.

Ext Attn: 0 dB

<b>Measurement Data:</b>		Reading listed by margin.						Test Distance: 3 Meters				
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/m	dB	Ant	
			dB	dB	dB	dB						
1	11470.000	54.8	+38.7	+2.3	+6.9	+1.6	+0.0	47.9	54.0	-6.1	Horiz	
	M		-56.4	+0.0	+0.0	+0.0	360		Noise Floor		134	
2	11680.000	53.8	+38.8	+2.4	+7.0	+1.6	+0.0	47.1	54.0	-6.9	Horiz	
	M		-56.5	+0.0	+0.0	+0.0	4		Noise Floor		134	
3	11480.000	54.0	+38.7	+2.3	+6.9	+1.6	+0.0	47.0	54.0	-7.0	Vert	
	M		-56.5	+0.0	+0.0	+0.0	359		Noise Floor		134	
4	11680.000	53.6	+38.8	+2.4	+7.0	+1.6	+0.0	46.9	54.0	-7.1	Vert	
	M		-56.5	+0.0	+0.0	+0.0	359		Noise Floor		134	
5	11680.000	53.6	+38.8	+2.4	+7.0	+1.6	+0.0	46.9	54.0	-7.1	Vert	
	M		-56.5	+0.0	+0.0	+0.0	360		Noise Floor		134	



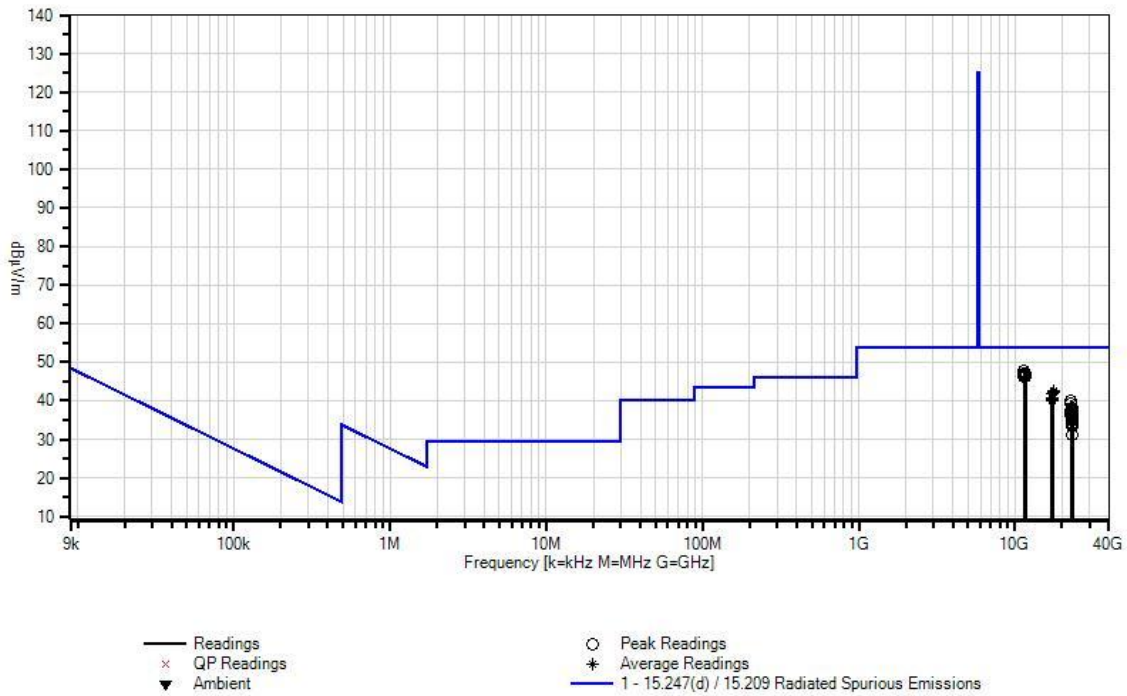
6	11680.000 M	53.3	+38.8 -56.5	+2.4 +0.0	+7.0 +0.0	+1.6 +0.0	+0.0	46.6	54.0	-7.4	Horiz
								360	Noise Floor		134
7	11470.000 M	53.3	+38.7 -56.4	+2.3 +0.0	+6.9 +0.0	+1.6 +0.0	+0.0	46.4	54.0	-7.6	Vert
								360	Noise Floor		134
8	11480.000 M	53.3	+38.7 -56.5	+2.3 +0.0	+6.9 +0.0	+1.6 +0.0	+0.0	46.3	54.0	-7.7	Horiz
									Noise Floor		134
9	11570.000 M	53.2	+38.8 -56.7	+2.4 +0.0	+6.9 +0.0	+1.6 +0.0	+0.0	46.2	54.0	-7.8	Vert
								360	Noise Floor		134
10	11570.000 M	53.2	+38.8 -56.7	+2.4 +0.0	+6.9 +0.0	+1.6 +0.0	+0.0	46.2	54.0	-7.8	Horiz
								360	Noise Floor		134
11	17505.000 M Ave	39.4	+44.2 -57.4	+3.0 +0.8	+10.4 +0.0	+2.0 +0.0	+0.0	42.4	54.0	-11.6	Vert
									Noise Floor		134
^	17505.000 M	51.4	+44.2 -57.4	+3.0 +0.8	+10.4 +0.0	+2.0 +0.0	+0.0	54.4	54.0	+0.4	Vert
									Noise Floor		134
13	17505.000 M Ave	39.4	+44.2 -57.4	+3.0 +0.8	+10.4 +0.0	+2.0 +0.0	+0.0	42.4	54.0	-11.6	Horiz
									Noise Floor		134
^	17505.000 M	52.9	+44.2 -57.4	+3.0 +0.8	+10.4 +0.0	+2.0 +0.0	+0.0	55.9	54.0	+1.9	Horiz
									Noise Floor		134
15	17520.000 M Ave	39.0	+44.3 -57.4	+3.0 +0.8	+10.4 +0.0	+2.1 +0.0	+0.0	42.2	54.0	-11.8	Horiz
								360	Noise Floor		134
^	17520.000 M	52.7	+44.3 -57.4	+3.0 +0.8	+10.4 +0.0	+2.1 +0.0	+0.0	55.9	54.0	+1.9	Horiz
								360	Noise Floor		134
17	17520.000 M Ave	39.0	+44.3 -57.4	+3.0 +0.8	+10.4 +0.0	+2.1 +0.0	+0.0	42.2	54.0	-11.8	Vert
									Noise Floor		134
^	17520.000 M	52.8	+44.3 -57.4	+3.0 +0.8	+10.4 +0.0	+2.1 +0.0	+0.0	56.0	54.0	+2.0	Vert
									Noise Floor		134
19	17355.000 M Ave	39.9	+43.2 -56.9	+3.0 +0.8	+10.0 +0.0	+2.0 +0.0	+0.0	42.0	54.0	-12.0	Horiz
								359	Noise Floor		134
^	17355.000 M	53.1	+43.2 -56.9	+3.0 +0.8	+10.0 +0.0	+2.0 +0.0	+0.0	55.2	54.0	+1.2	Horiz
								359	Noise Floor		134
21	17355.000 M Ave	39.7	+43.2 -56.9	+3.0 +0.8	+10.0 +0.0	+2.0 +0.0	+0.0	41.8	54.0	-12.2	Vert
									Noise Floor		134
^	17355.000 M	53.2	+43.2 -56.9	+3.0 +0.8	+10.0 +0.0	+2.0 +0.0	+0.0	55.3	54.0	+1.3	Vert
									Noise Floor		134

23	17220.000	40.2	+42.3	+3.0	+9.8	+2.0	+0.0	40.8	54.0	-13.2	Horiz
	M		-57.2	+0.7	+0.0	+0.0					
	Ave								Noise Floor		134
^	17220.000	52.0	+42.3	+3.0	+9.8	+2.0	+0.0	52.6	54.0	-1.4	Horiz
	M		-57.2	+0.7	+0.0	+0.0					
									Noise Floor		134
25	17220.000	40.1	+42.3	+3.0	+9.8	+2.0	+0.0	40.7	54.0	-13.3	Vert
	M		-57.2	+0.7	+0.0	+0.0					
	Ave								Noise Floor		134
^	17220.000	53.5	+42.3	+3.0	+9.8	+2.0	+0.0	54.1	54.0	+0.1	Vert
	M		-57.2	+0.7	+0.0	+0.0					
									Noise Floor		134
27	17205.000	39.8	+42.1	+3.0	+9.8	+2.0	+0.0	40.2	54.0	-13.8	Horiz
	M		-57.2	+0.7	+0.0	+0.0					
	Ave						360		Noise Floor		134
^	17205.000	51.4	+42.1	+3.0	+9.8	+2.0	+0.0	51.8	54.0	-2.2	Horiz
	M		-57.2	+0.7	+0.0	+0.0					
							360		Noise Floor		134
29	22945.100	65.1	+0.0	+0.0	+0.0	+0.0	-15.6	40.0	54.0	-14.0	Horiz
	M		+0.0	+0.0	-16.6	+7.1					
									10MHz 802.11a		
									24Mbps		
30	17205.000	39.6	+42.1	+3.0	+9.8	+2.0	+0.0	40.0	54.0	-14.0	Vert
	M		-57.2	+0.7	+0.0	+0.0					
	Ave						360		Noise Floor		134
^	17205.000	52.0	+42.1	+3.0	+9.8	+2.0	+0.0	52.4	54.0	-1.6	Vert
	M		-57.2	+0.7	+0.0	+0.0					
							360		Noise Floor		134
32	22944.950	64.4	+0.0	+0.0	+0.0	+0.0	-15.6	39.3	54.0	-14.7	Vert
	M		+0.0	+0.0	-16.6	+7.1					
									10MHz 802.11a		
									24Mbps		
33	23140.150	63.5	+0.0	+0.0	+0.0	+0.0	-15.6	38.2	54.0	-15.8	Horiz
	M		+0.0	+0.0	-16.7	+7.0					
									10MHz 802.11a		
									24Mbps		
34	23355.260	63.5	+0.0	+0.0	+0.0	+0.0	-15.6	38.0	54.0	-16.0	Horiz
	M		+0.0	+0.0	-16.9	+7.0					
									10MHz 802.11a		
									24Mbps		
35	23138.230	62.9	+0.0	+0.0	+0.0	+0.0	-15.6	37.6	54.0	-16.4	Horiz
	M		+0.0	+0.0	-16.7	+7.0					
									10MHz 802.11n		
									13MCSHT20 2S		
36	22940.990	62.4	+0.0	+0.0	+0.0	+0.0	-15.6	37.3	54.0	-16.7	Horiz
	M		+0.0	+0.0	-16.6	+7.1					
									10MHz 802.11n		
									13MCSHT20 2S		
37	23359.550	62.6	+0.0	+0.0	+0.0	+0.0	-15.6	37.1	54.0	-16.9	Horiz
	M		+0.0	+0.0	-16.9	+7.0					
									10MHz 802.11n		
									13MCSHT20 2S		

38	23140.720 M	62.3	+0.0 +0.0	+0.0 +0.0	+0.0 -16.7	+0.0 +7.0	-15.6	37.0	54.0	-17.0	Vert	10MHz 802.11a 24Mbps
39	23140.100 M	62.2	+0.0 +0.0	+0.0 +0.0	+0.0 -16.7	+0.0 +7.0	-15.6	36.9	54.0	-17.1	Horiz	20MHz 802.11n 26MCSHT20 2S
40	23357.750 M	62.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	-15.6	36.5	54.0	-17.5	Vert	10MHz 802.11n 13MCSHT20 2S
41	22941.140 M	61.4	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	+0.0 +7.1	-15.6	36.3	54.0	-17.7	Vert	10MHz 802.11n 13MCSHT20 2S
42	23136.050 M	61.6	+0.0 +0.0	+0.0 +0.0	+0.0 -16.7	+0.0 +7.0	-15.6	36.3	54.0	-17.7	Horiz	20MHz 802.11a 36Mbps
43	22960.050 M	61.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	+0.0 +7.1	-15.6	35.9	54.0	-18.1	Horiz	20MHz 802.11n 26MCSHT20 2S
44	22959.700 M	60.7	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	+0.0 +7.1	-15.6	35.6	54.0	-18.4	Vert	20MHz 802.11n 26MCSHT20 2S
45	23340.650 M	61.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	-15.6	35.5	54.0	-18.5	Horiz	20MHz 802.11a 36Mbps
46	23340.050 M	60.7	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	-15.6	35.2	54.0	-18.8	Horiz	20MHz 802.11n 26MCSHT20 2S
47	23140.570 M	60.4	+0.0 +0.0	+0.0 +0.0	+0.0 -16.7	+0.0 +7.0	-15.6	35.1	54.0	-18.9	Vert	10MHz 802.11n 13MCSHT20 2S
48	23142.200 M	60.2	+0.0 +0.0	+0.0 +0.0	+0.0 -16.7	+0.0 +7.0	-15.6	34.9	54.0	-19.1	Vert	20MHz 802.11a 36Mbps
49	23362.820 M	60.2	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	-15.6	34.7	54.0	-19.3	Vert	10MHz 802.11a 24Mbps
50	22965.950 M	59.3	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	+0.0 +7.1	-15.6	34.2	54.0	-19.8	Vert	20MHz 802.11a 36Mbps

51	23139.900 M	59.0	+0.0 +0.0	+0.0 +0.0	+0.0 -16.7	+0.0 +7.0	-15.6	33.7	54.0	-20.3	Vert
20MHz 802.11n 26MCSHT20 2S											
52	22961.150 M	58.7	+0.0 +0.0	+0.0 +0.0	+0.0 -16.6	+0.0 +7.1	-15.6	33.6	54.0	-20.4	Horiz
20MHz 802.11a 36Mbps											
53	23340.050 M	58.8	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	-15.6	33.3	54.0	-20.7	Vert
20MHz 802.11a 36Mbps											
54	23339.650 M	56.6	+0.0 +0.0	+0.0 +0.0	+0.0 -16.9	+0.0 +7.0	-15.6	31.1	54.0	-22.9	Vert
20MHz 802.11n 26MCSHT20 2S											

CKC Laboratories, Inc. Date: 6/16/2012 Time: 15:54:19 Digital Path WO#: 92682  
 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 220 Vert  
 UNII Bands. 20MHz Channel width.



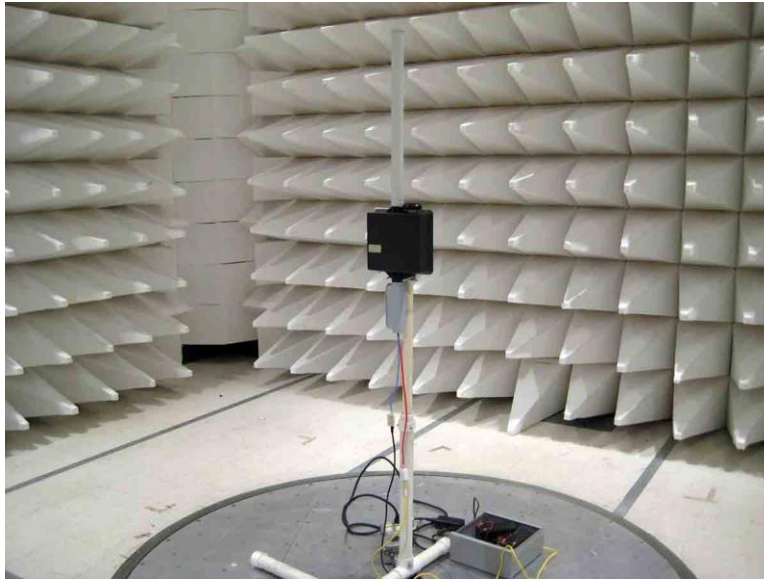
**Test Setup Photos**



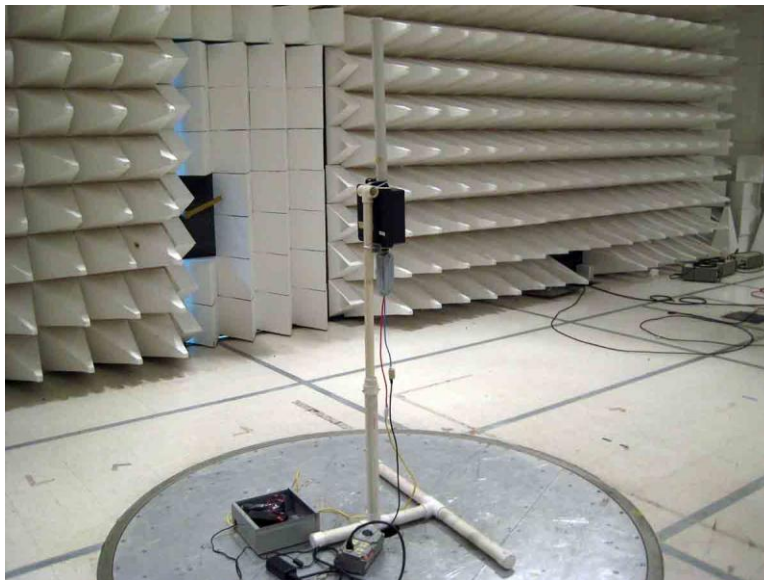
17dBi Sector



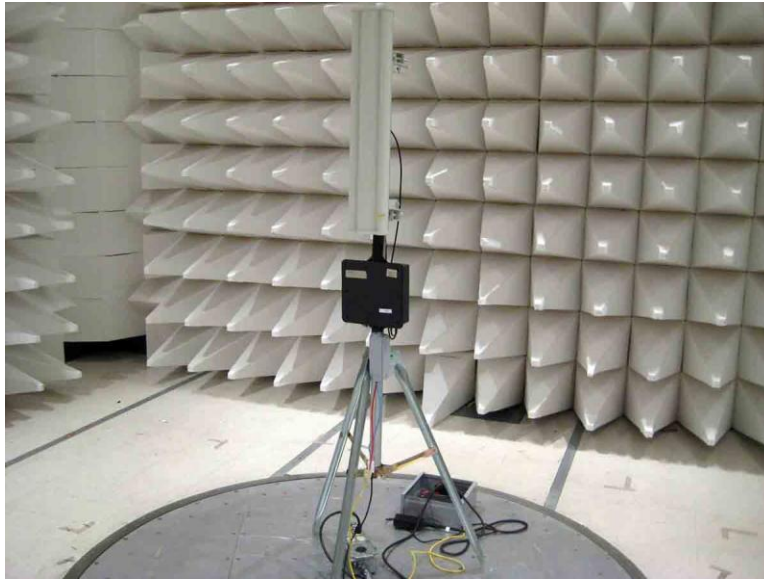
17dBi Sector



18dBi, 11dBi



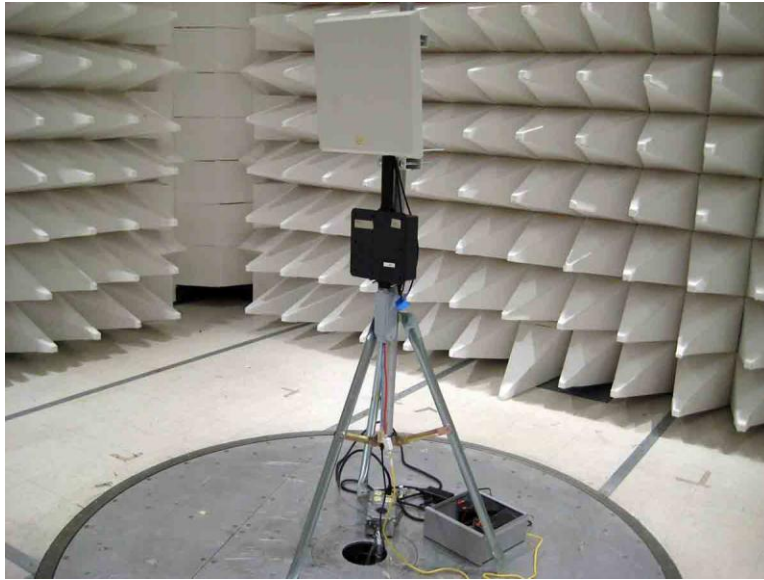
18dBi, 11dBi



20dBi Sector

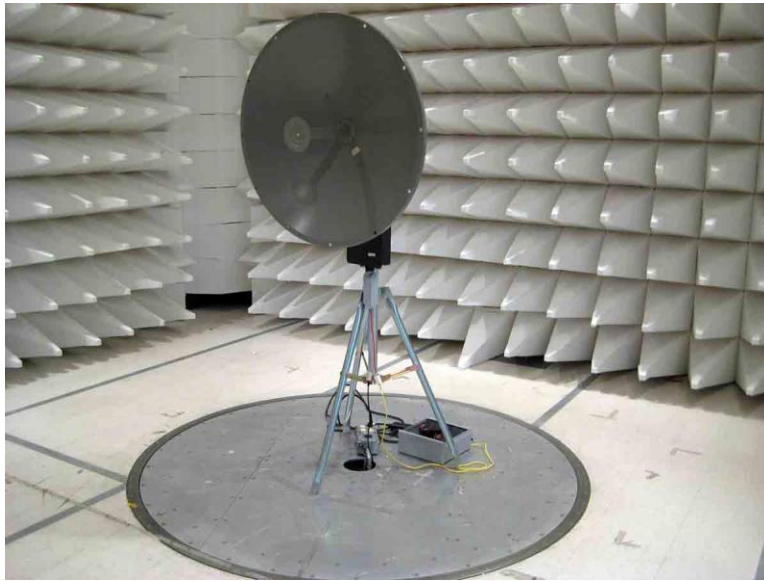


20dBi Sector



23dBi Panel





33 dBi Parabolic



33 dBi Parabolic

**15.247(e) Power Spectral Density**

**Test Conditions / Setup**

The Power Spectral Density measurements were made using the methods set out in KDB "558704 D01 DTS Meas Guidance v01", Section 5.3.1 Measurement Procedure PKPSD. The Power Spectral Density Plots are already corrected for both the cable and attenuator loss and the -15.2dB correction factor to correct from the 100kHz of the measurement to the 3kHz bandwidth of the requirement. The correction was made by setting the reference level offset in the spectrum analyzer. The correction factor of -4.3 was determined by the following equation Cable Loss + Attenuator + Correction Factor 100kHz to 3kHz with

Cable Loss: 1.1dB  
 Attenuator: 9.8dB  
 Correction Factor 100kHz to 3kHz: -15.2

The units are in dBm. The limit is 8dBm.

Engineer Name:

<b>Test Equipment</b>					
<b>Asset/Serial #</b>	<b>Description</b>	<b>Model</b>	<b>Manufacturer</b>	<b>Cal Date</b>	<b>Cal Due</b>
02668	Spectrum Analyzer	E4446A	Agilent	2/23/2011	2/23/2013
P05843	Cable	32022-2-29094K-48TC	AstroLab	7/30/2010	7/30/2012
P05935	Attenuator	84A-10	Weinschel	10/19/2011	10/19/2013

**Plot Name Key**

- C1 – Chain 0
- C2 – Chain 2
- LO – LO Channel
- MID – MID Channel
- HI – HI Channel
- a – 802.11a
- n – 802.11n
- 10M – System 10MHz Channel Width
- 20 M– System 20MHz Channel Width

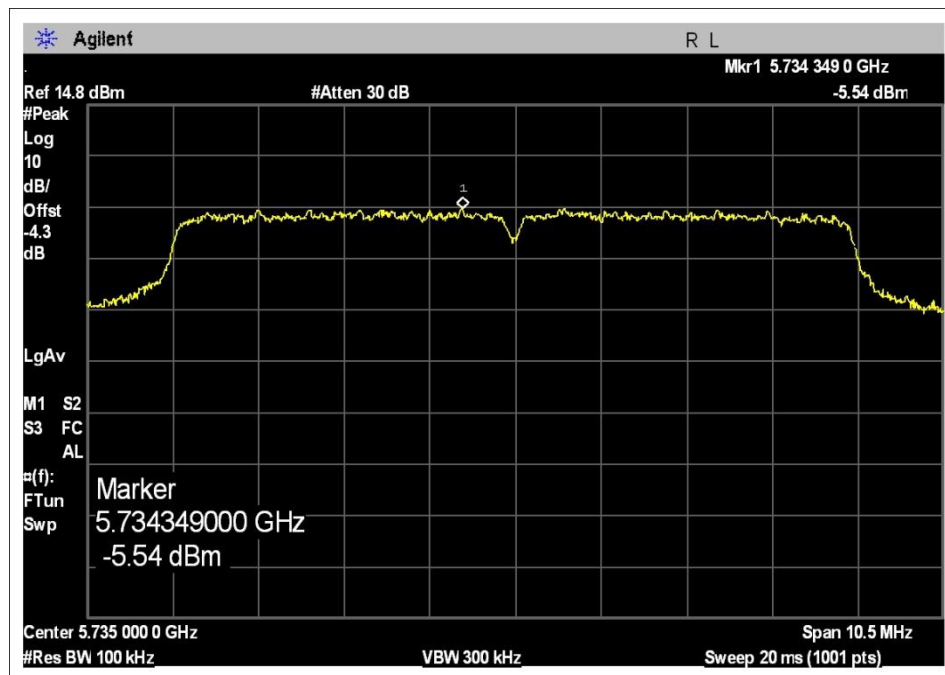
### Test Data

Power Spectral Density: 15.247, 10MHz				
Channel	802.11a (dBm)		802.11n (dBm)	
	Chain 0	Chain 2	Chain 0	Chain 2
LO	-5.54	-6.20	-3.84	-4.52
MID	-5.91	-6.16	-4.8	-4.63
HI	-8.56	-10.19	-6.59	-9.48

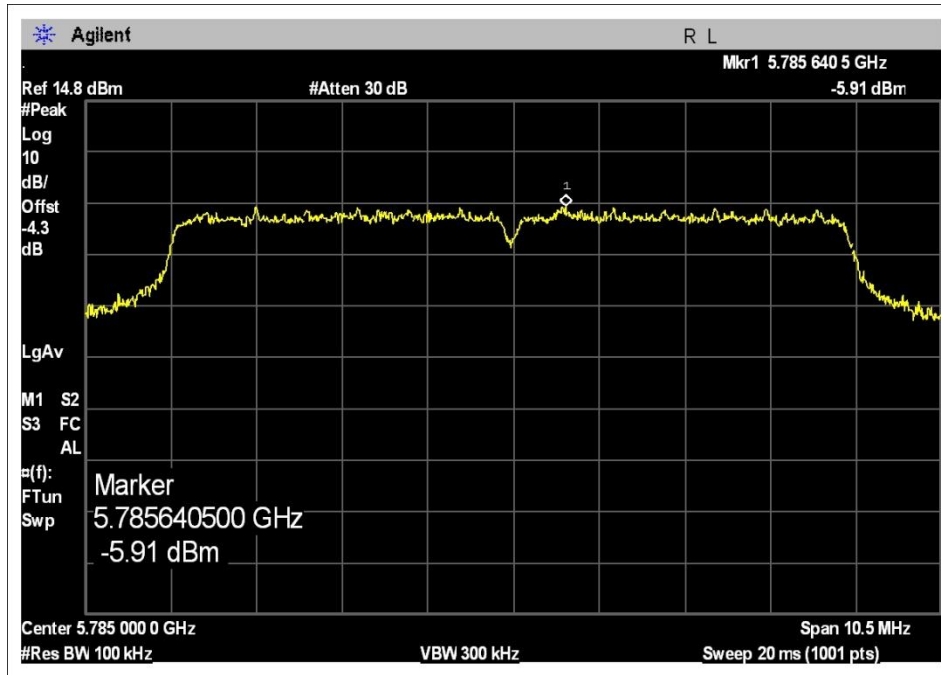
Maximum Power Input 20.5 dBm for LO and MID channels and 18dBm for HI Channel. Worst Case 802.11a data rate is 24 Mbps, worst case 802.11n data rate is 13MCS HT20 2S.

Power Spectral Density: 15.247, 20MHz				
Channel	802.11a (dBm)		802.11n (dBm)	
	Chain 0	Chain 2	Chain 0	Chain 2
LO	-10.46	-11.96	-8.53	-11.81
MID	-7.70	-7.38	-6.93	-7.31
HI	-9.90	-11.90	-9.17	-11.47

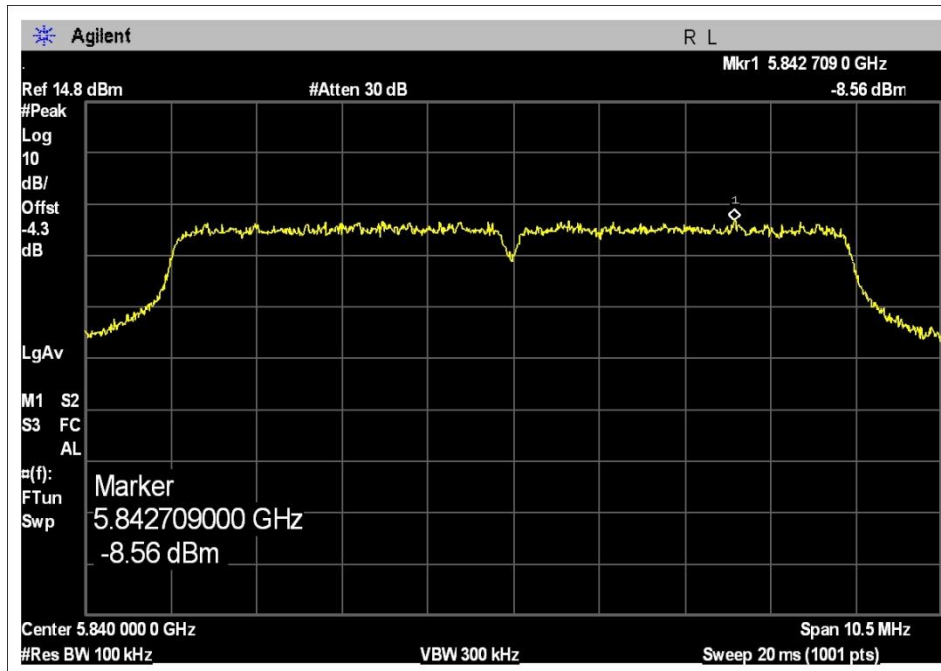
Maximum Power Input 20.5 dBm for MID channels and 18dBm for LO and HI Channels. Worst Case 802.11a data rate is 36 Mbps, worst case 802.11n data rate is 26MCS HT20 2S.



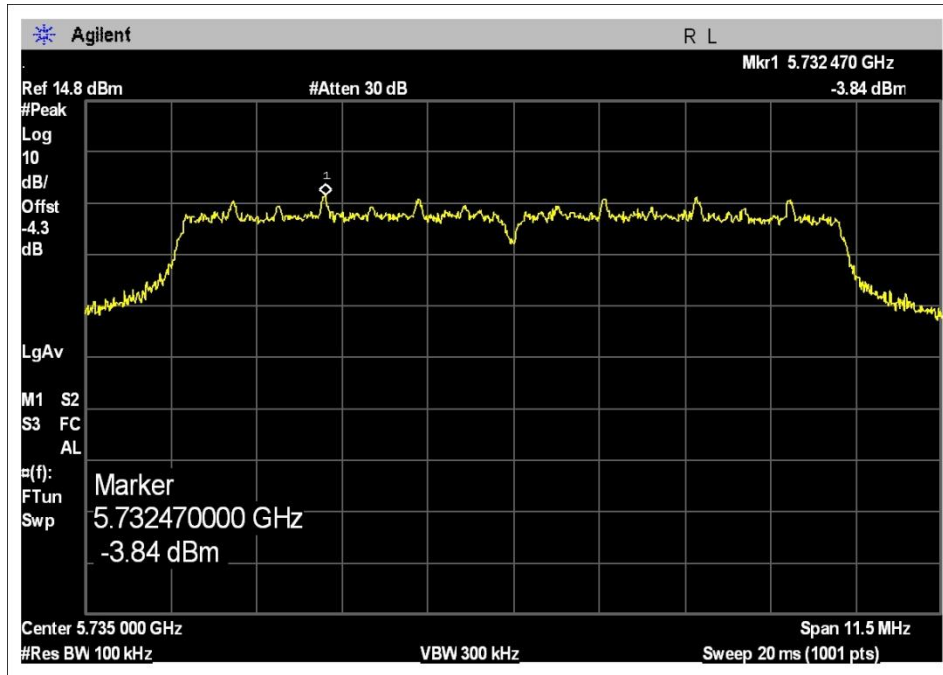
CO 10MHz, LOW CHANNEL, 802.11a



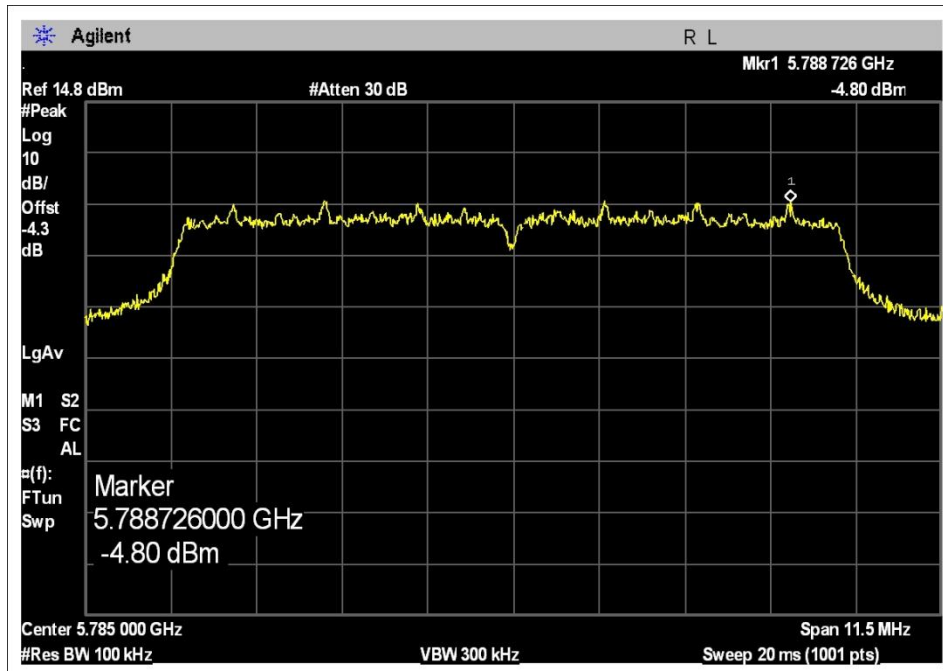
C0 10MHz, MID CHANNEL, 802.11a



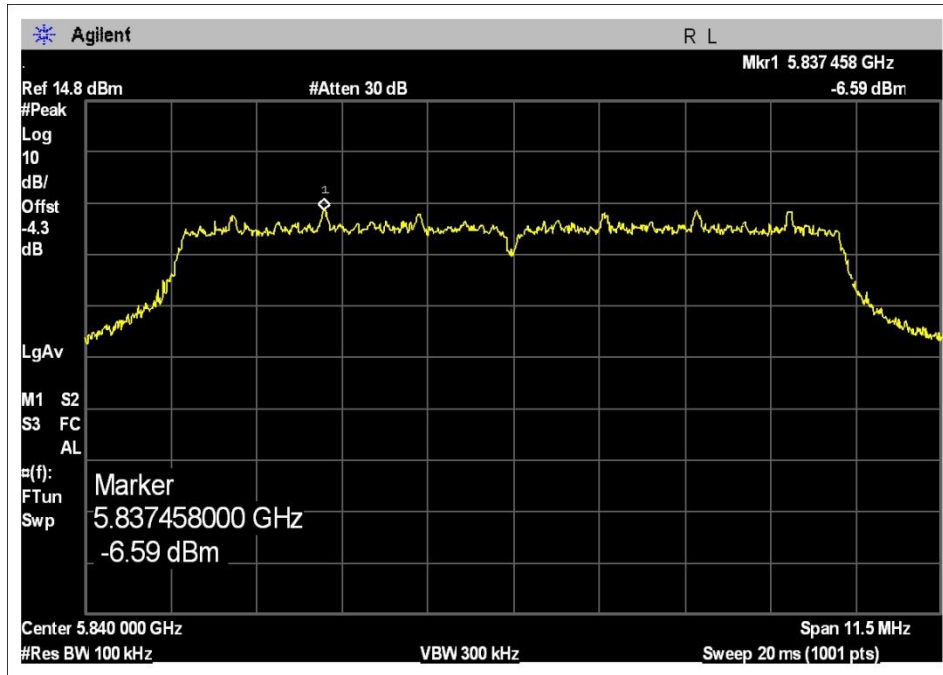
C0 10MHz, HIGH CHANNEL, 802.11a



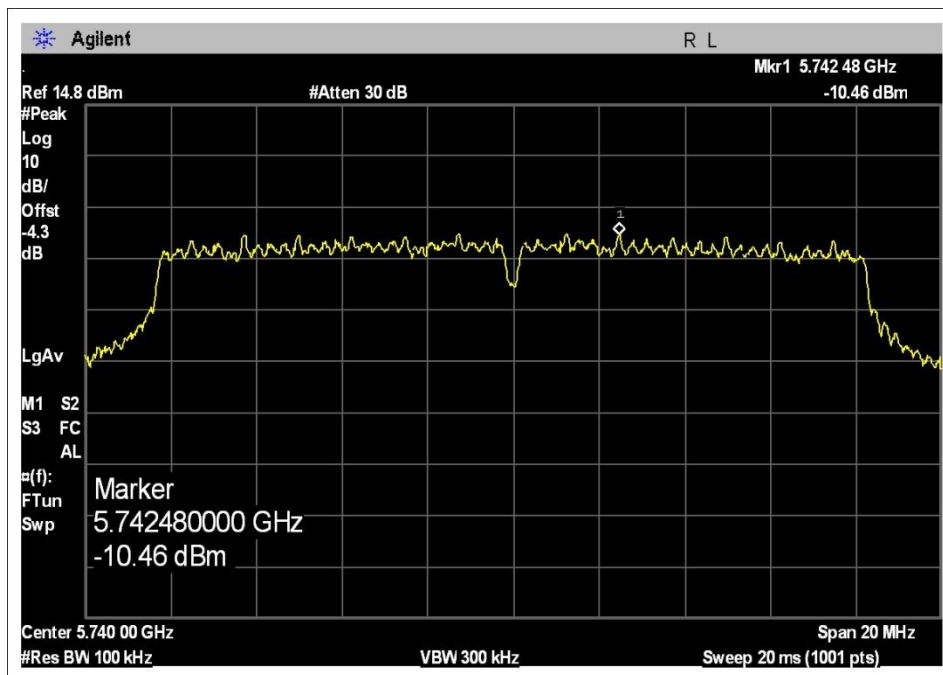
CO 10MHz, LOW CHANNEL, 802.11n



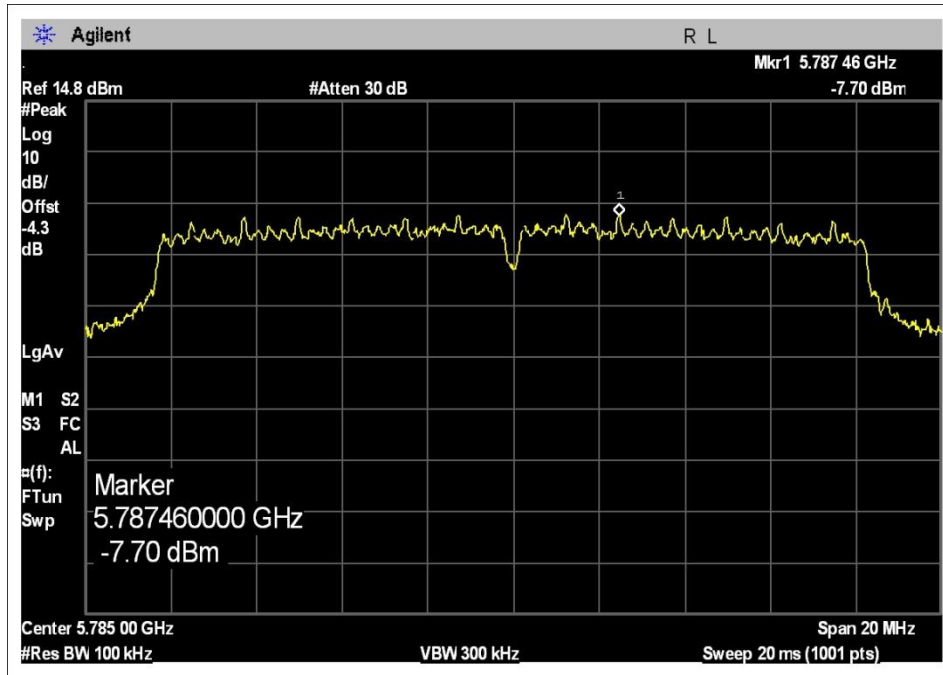
CO 10MHz, MID CHANNEL, 802.11n



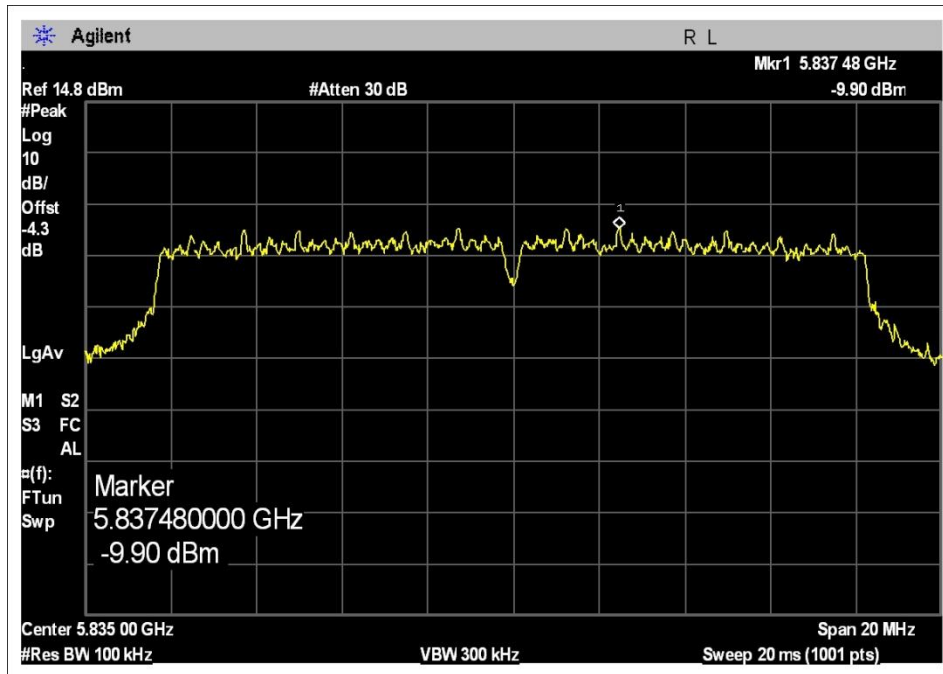
C0 10MHz, HIGH CHANNEL, 802.11n



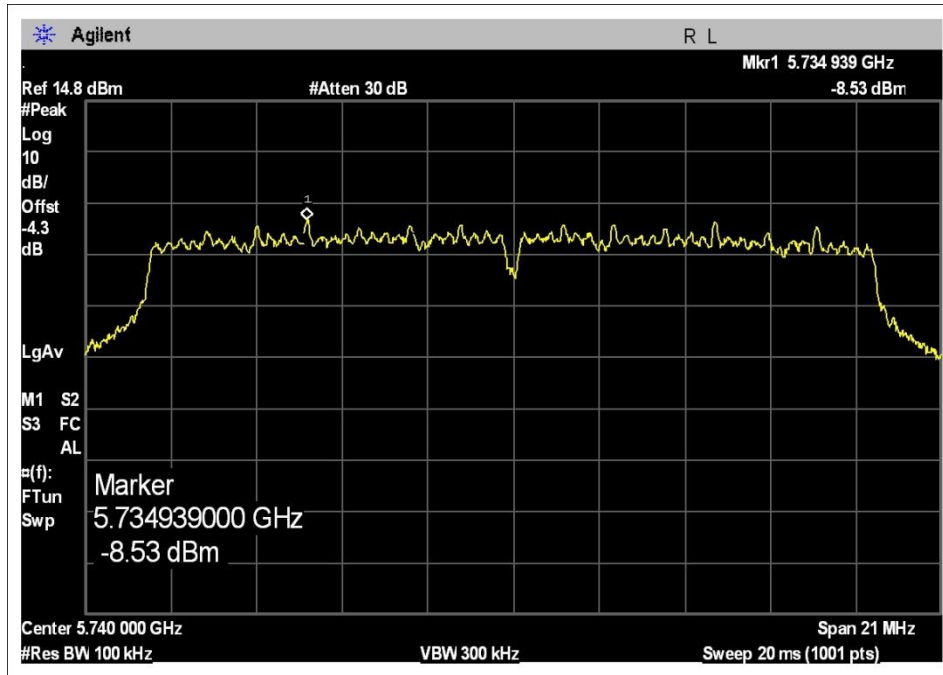
C0 20MHz, LOW CHANNEL, 802.11a



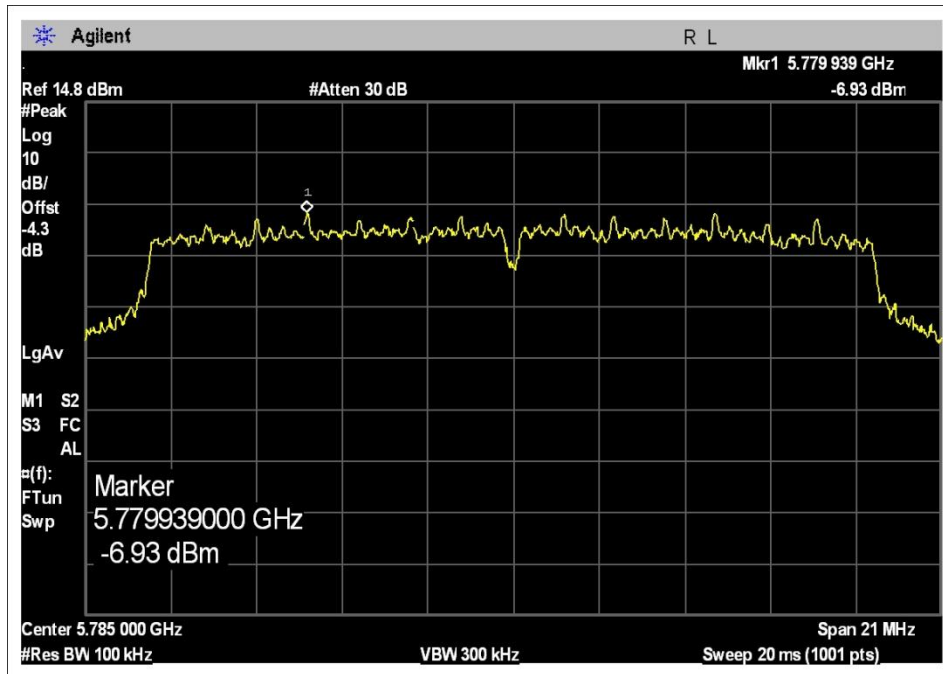
CO 20MHz, MID CHANNEL, 802.11a



CO 20MHz, HIGH CHANNEL, 802.11a

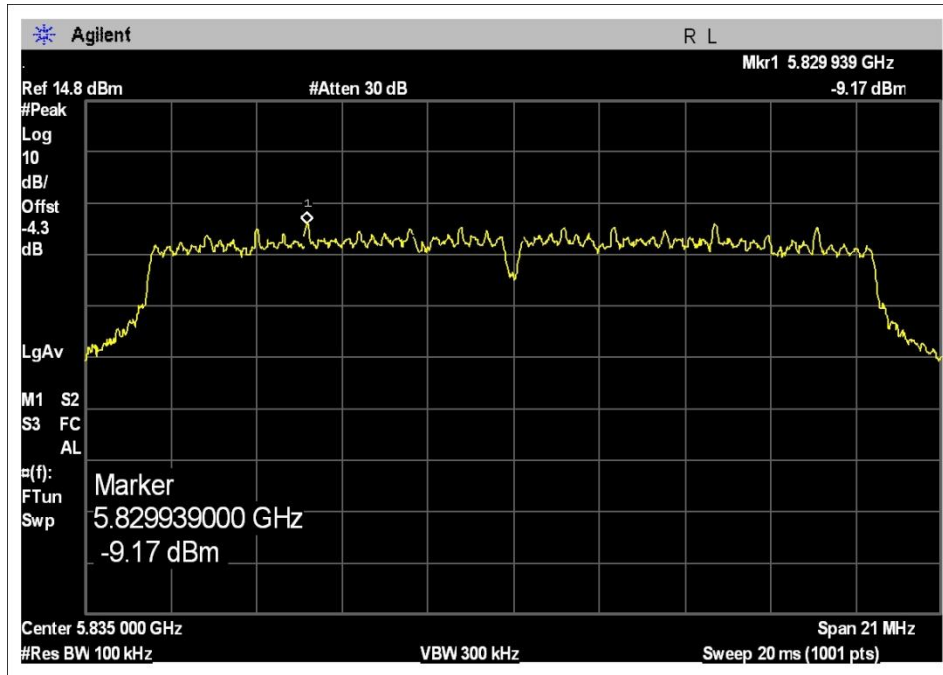


CO 20MHz, LOW CHANNEL, 802.11n

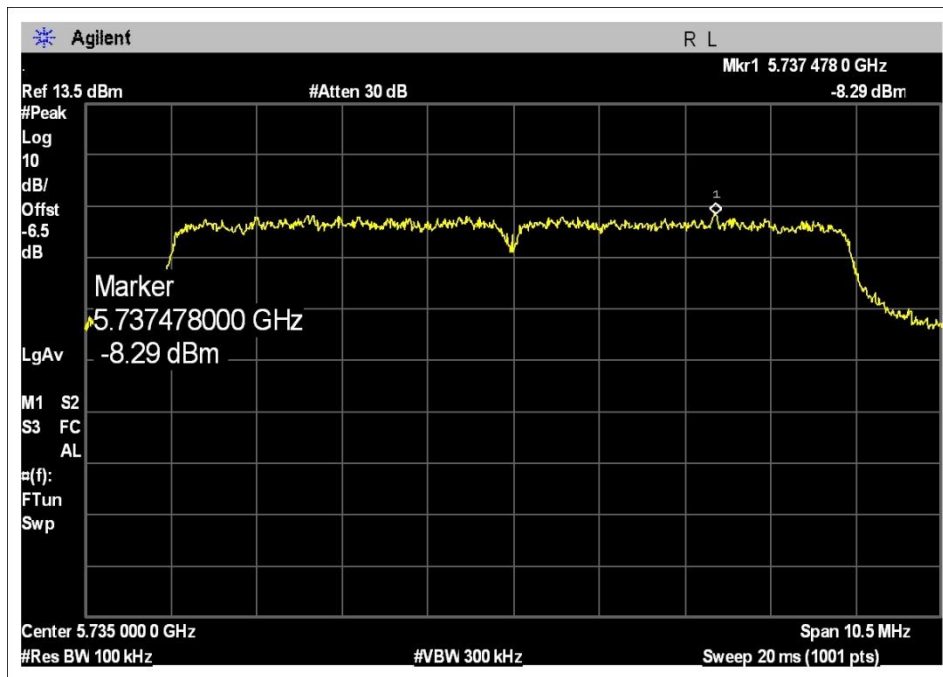


CO 20MHz, MID CHANNEL, 802.11n

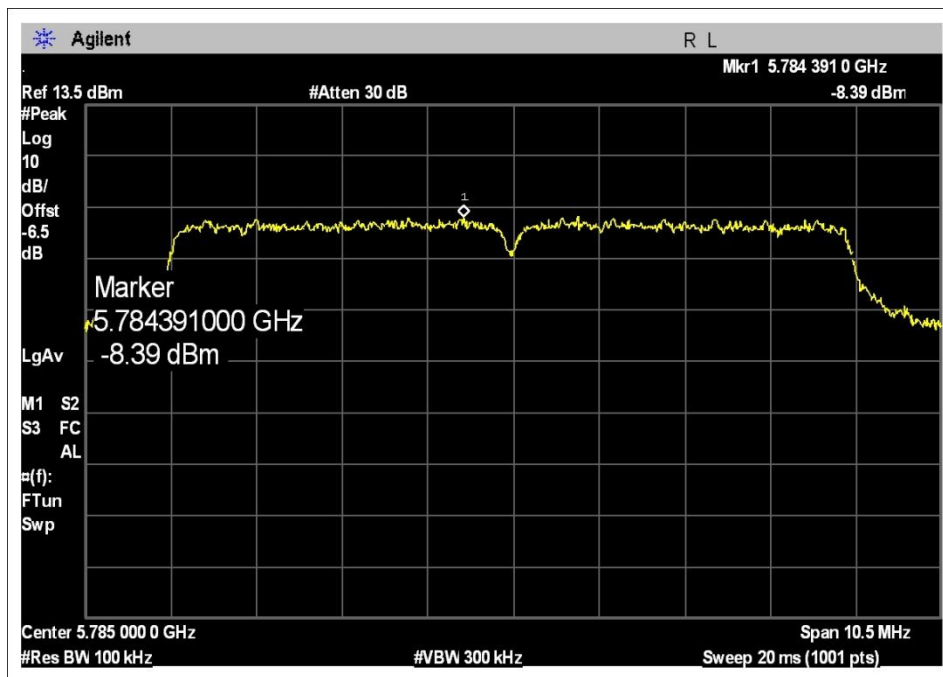




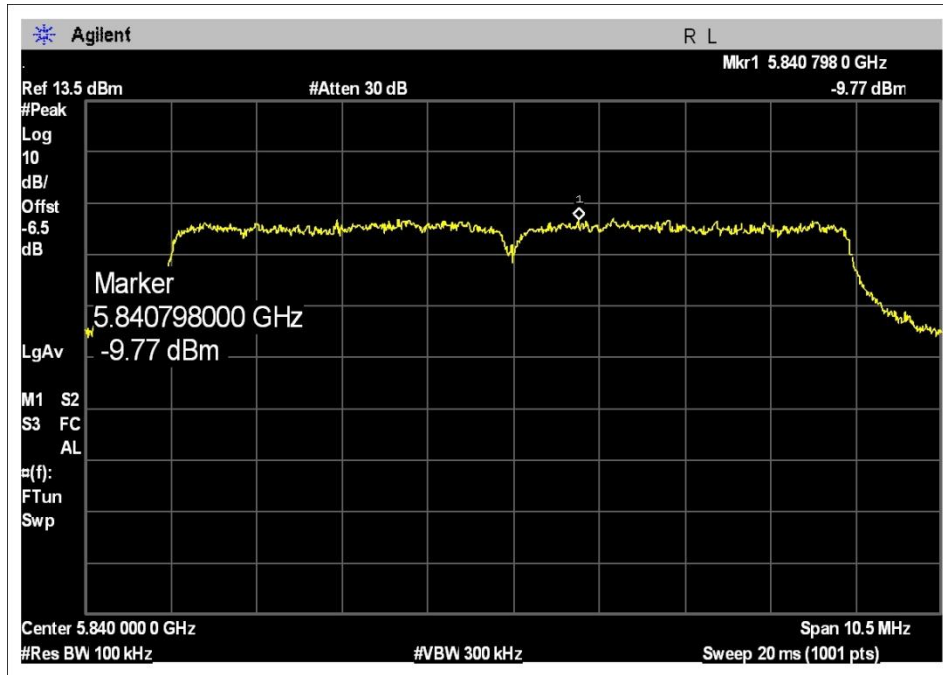
CO 20MHz, HIGH CHANNEL, 802.11n



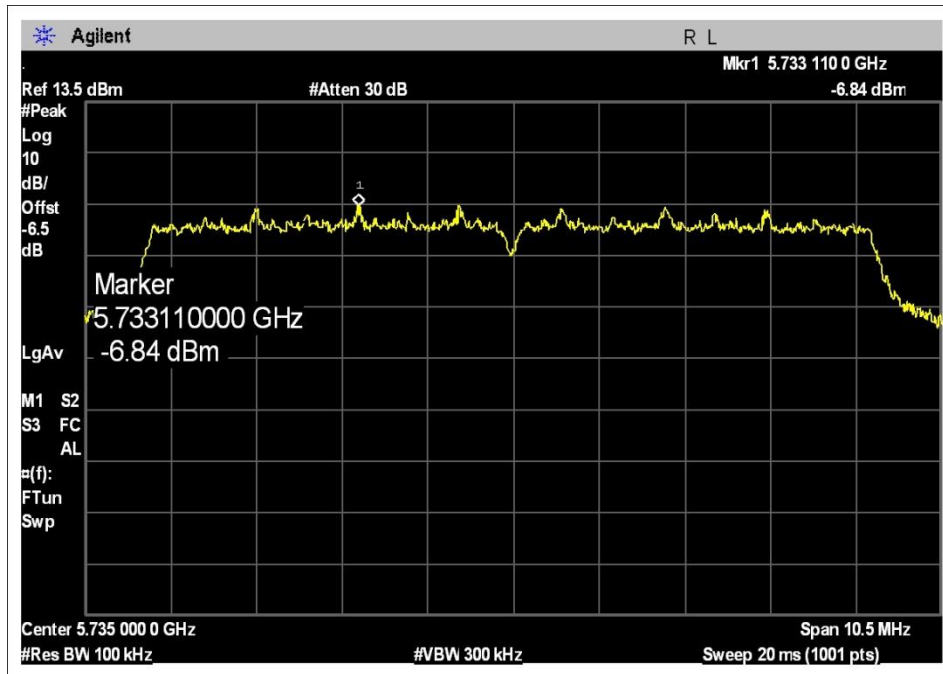
C2 10MHz, LOW CHANNEL, 802.11a



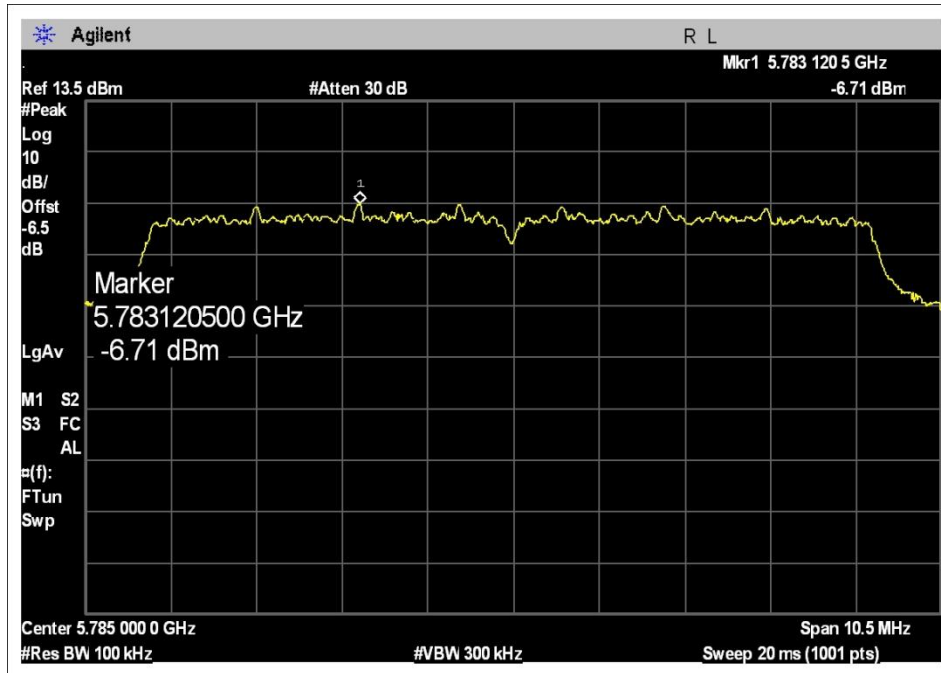
C2 10MHz, MID CHANNEL, 802.11a



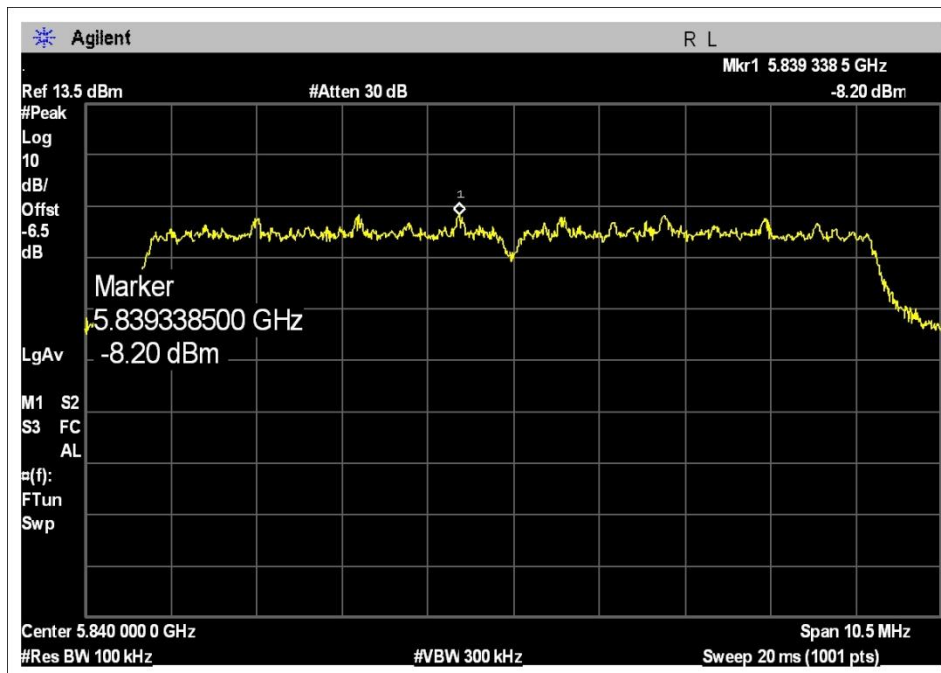
C2 10MHz, HIGH CHANNEL, 802.11a



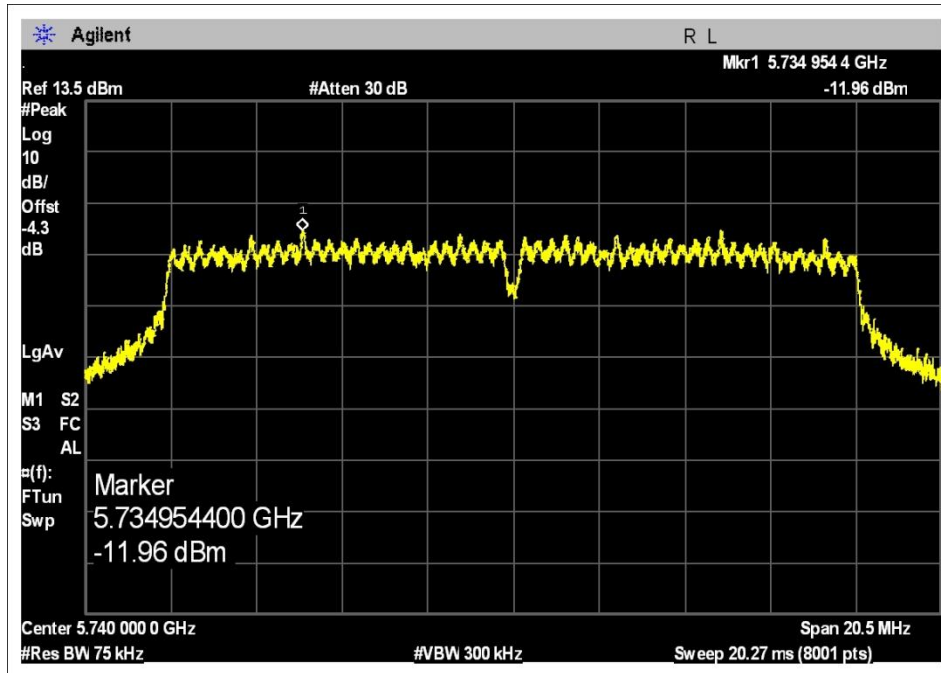
C2 10MHz, LOW CHANNEL, 802.11n



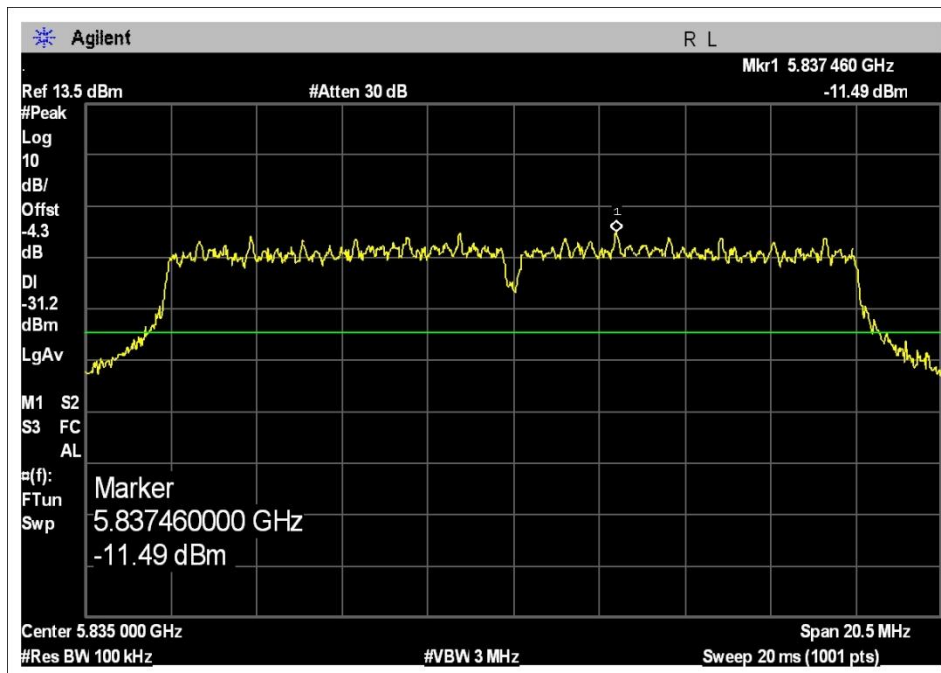
C2 10MHz, MID CHANNEL, 802.11n



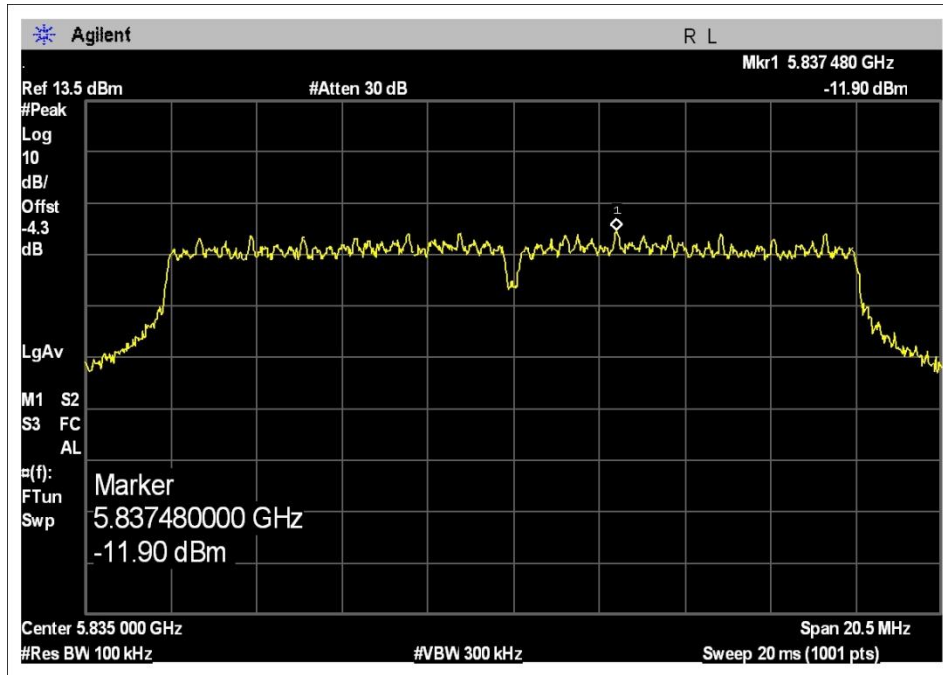
C2 10MHz, HIGH CHANNEL, 802.11n



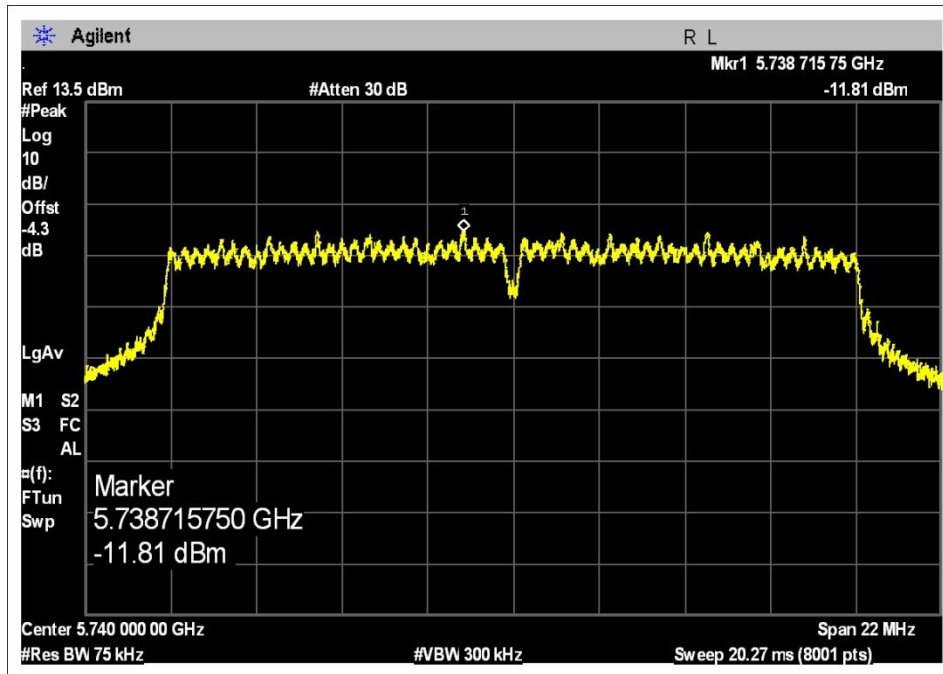
C2 20MHz, LOW CHANNEL, 802.11a



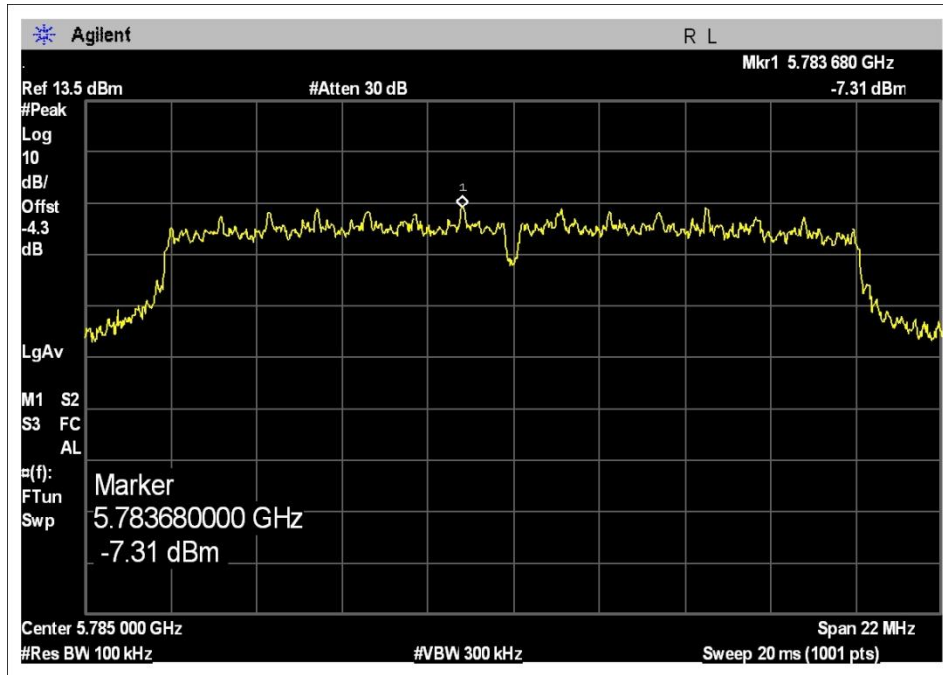
C2 20MHz, MID CHANNEL, 802.11a



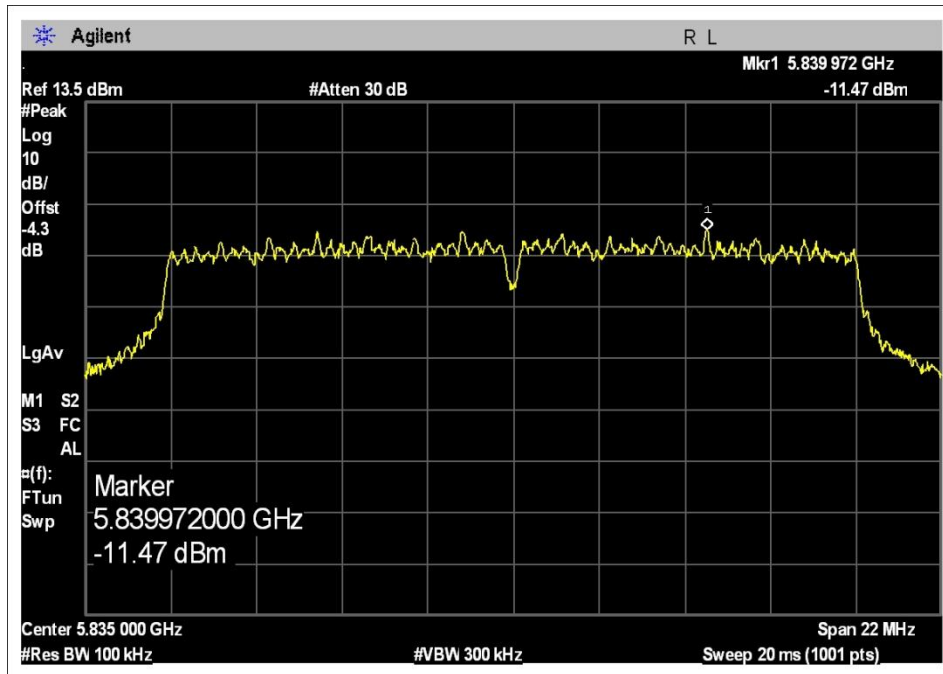
C2 20MHz, HIGH CHANNEL, 802.11a



C2 20MHz, LOW CHANNEL, 802.11n

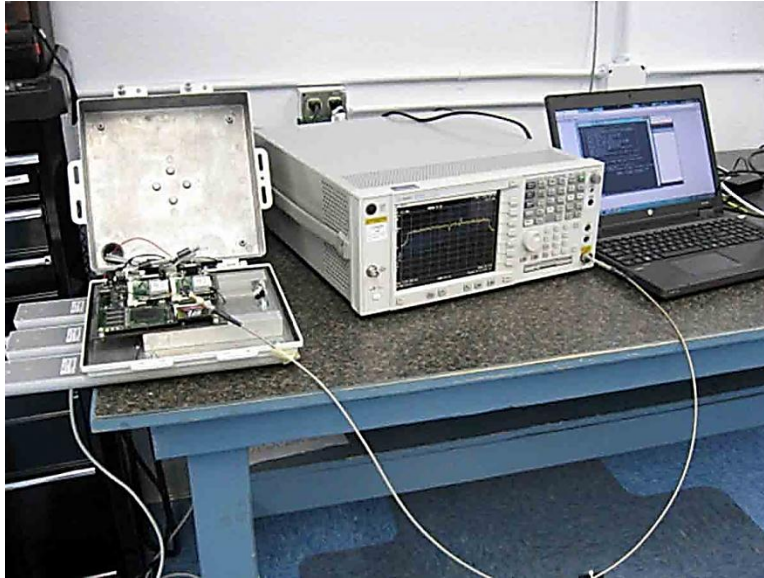


C2 20MHz, MID CHANNEL, 802.11n



C2 20MHz, HIGH CHANNEL, 802.11n

**Test Setup Photos**





## **APPENDIX A CUSTOMER PROVIDED INFORMATION**

## EUT Software Settings During Testing

Final Power Settings, LO, MID HI Channels and worst case data rates/modulations to comply with Radiated Spurious , Conducted Power, Conducted Spurious and bandedge compliance. The TX power settings are the power level entered in the ART Software to set the output power of the radio.

### **FCC15.247**

#### **5GHz Omni (11 dBi)**

Point to Multi-Point

Freq = 5725-5850MHz

Freq: 5735MHz, 5785MHz, 5840MHz.

BW = 10 MHz

802.11a: 24Mbps, TX power setting = 16, 16, 16

802.11n: 13MCS HT20 2S, TX power setting = 16, 16, 16

Freq: 5740MHz, 5785MHz, 5835MHz.

BW= 20MHz

802.11a: 36 Mbps, TX power setting = 16, 16, 16

802.11n: 26MCS HT20 2S, TX power setting = 16, 16, 16

#### **5GHz Panel (18 dBi)**

Point to Multipoint

5725-5850MHz

Freq: 5735MHz, 5785MHz, 5840MHz.

BW = 10 MHz

802.11a: 24Mbps, TX power setting= 12, 12.5, 14.5

802.11n: 13MCS HT20 2S, TX power setting= 12, 12, 14.5

Freq: 5740MHz, 5785MHz, 5835MHz.

BW= 20MHz

802.11a: 36 Mbps, TX power setting= 14.5, 12.5, 14.5

802.11n: 26MCS HT20 2S, TX power setting= 14, 12.5, 14.5

#### **5GHz Sector (20 dBi)**

Point to Multi-Point

5725-5850MHz,

Freq: 5735MHz, 5785MHz, 5840MHz.

BW = 10 MHz

802.11a: 24Mbps, TX power= 10,10.5,12.5

802.11n: 13MCS HT20 2S,TX power= 10,10,12.5

Freq: 5740MHz, 5785MHz, 5835MHz.

BW= 20MHz

802.11a: 36 Mbps, TX power= 13,10.5, 13

802.11n: 26MCS HT20 2S, TX power= 12,10.5, 12.5

**5GHz Tri-Sector (17dBi)**

Point to Multi-Point

5725-5850MHz,

Freq: 5735MHz, 5785MHz, 5840MHz.

BW = 10 MHz

802.11a: 24Mbps, TX power setting= 13, 13.5, 15.5

802.11n: 13MCS HT20 2S, TX power setting= 13, 13, 15.5

Freq: 5740MHz, 5785MHz, 5835MHz.

BW= 20MHz

802.11a: 36 Mbps, TX power setting= 15.5, 13.5, 15.5

802.11n: 26MCS HT20 2S, TX power setting= 15, 13.5, 15.5

**5GHz Panel (23 dBi)**

Point to Point

5725-5850MHz

Freq: 5735MHz, 5785MHz, 5840MHz.

BW = 10 MHz

802.11a: 24Mbps, TX power setting= 20.5, 20.5, 18

802.11n: 13MCS HT20 2S, TX power setting = 20.5, 20.5, 18

Freq: 5740MHz, 5785MHz, 5835MHz.

BW= 20MHz

802.11a: 36 Mbps, TX power setting = 18, 20.5, 18

802.11n: 26MCS HT20 2S, TX power setting=18, 20.5, 18

**5GHz Parabolic (33 dBi)**

Point to Point

5725-5850MHz

Freq: 5735MHz, 5785MHz, 5840MHz.

BW = 10 MHz

802.11a: 24Mbps, TX power setting= 20.5, 20.5, 18

802.11n: 13MCS HT20 2S, TX power setting = 20.5, 20.5, 18

Freq: 5740MHz, 5785MHz, 5835MHz.

BW= 20MHz

802.11a: 36 Mbps, TX power setting= 18, 20.5, 18

802.11n: 26MCS HT20 2S, TX power setting=18, 20.5, 18

## **APPENDIX B**

DATE(S) OF TESTING: April 24, 2013

**Standard / Specification: FCC Part 15 Subpart C Sections 15.247**

Description	Test Procedure/Method	Results
Radiated Spurious Emissions	FCC Part 15 Subpart C Section 15.247(d) KDB 558074 V01	Pass

**Conditions During Testing**

This list is a summary of the conditions noted for or modifications made to the equipment during testing.

Summary of Conditions
<p>Purpose of new testing 4/24/2013:</p> <ol style="list-style-type: none"> <li>1). To show the new case design of the EUT performs as well as the original case design.</li> <li>2). The second purpose of the appendix is to show the new 17dB Sector antenna designed for Digital Path does not have worst antenna performance than the original 17dB Sector antenna the full testing was completed with.</li> </ol> <p>Verifying the antenna design was done by looking at the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> harmonics of the worst case spurious emissions of the original 17dBi Sector antenna. The worst case spurious emissions of the original 17dB Sector antenna were found at the following frequency and settings.</p> <p style="padding-left: 40px;">Transmitting Operation Frequency= 5785MHz  Channel Width=10MHz  ART setting = 15.5  Modulation= 24Mbps</p>
<p>For the original antenna, the 4th harmonic was the only spurious signal seen. The 2<sup>nd</sup> and 3<sup>rd</sup> harmonics for the original antenna were system noise floor. The 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> harmonics were all looked at with the new antenna design to ensure the antenna does not radiate these harmonics. The <u>Modifications to Unit</u> required for the FCC 15.109 testing were still installed. For the new antenna, the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> harmonic were all noise floor. The 2<sup>nd</sup> and 3<sup>rd</sup> harmonics peak noise floor readings were similar to those initially taken with the original antenna. The 4<sup>th</sup> harmonic peak noise floor readings are at least 6dB lower than the reading from the original antenna. These results validate the new 17dB Sector antenna.</p>
<p><u>Modifications to Unit</u>: Add 2 ferrites (Steward 28A 2024-0A0), one on the RJ45 power cable with one pass through and another on the RJ45 power and data cables together at the EUT with one pass through.</p>

## EQUIPMENT UNDER TEST (EUT)

### EQUIPMENT UNDER TEST

#### 5GHz Sector (17dBi)

Manuf: Digital Path  
Model: G5RL102X  
Serial: ENG1

### PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

#### Laptop Power Supply

Manuf: HP  
Model: 608428-002  
Serial: F12941126327228

#### Laptop

Manuf: HP  
Model: ProBook 6565b  
Serial: 5CB13637ZF

#### Power Supply

Manuf: Condor  
Model: STD-2427P  
Serial: None

**15.247(d) Radiated Spurious Emissions**

**Test Data Sheets**

Test Location: CKC Laboratories, Inc. • 1120 Fulton Places • Fremont, CA 94539 • (510) 249-1170

Customer: **Digital Path**  
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**  
 Work Order #: **92682** Date: 4/24/2013  
 Test Type: **Radiated Scan** Time: 16:11:02  
 Equipment: **5GHz Sector (17dBi)** Sequence#: 6  
 Manufacturer: Digital Path Tested By: Hieu Song Nguyenpham  
 Model: G5RL102X  
 S/N: ENG1

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
T1	AN03114	Preamp	AMF-7D-00101800-30-10P	4/11/2013	4/11/2015
T2	AN02157	Horn Antenna-ANSI C63.5	3115	1/23/2013	1/23/2015
T3	AN03302	Cable	32026-29094K-29094K-72TC	3/21/2012	3/21/2014
T4	ANP01210	Cable	FSJ1P-50A-4A	2/19/2013	2/19/2015
T5	ANP05843	Cable	32022-2-29094K-48TC	8/7/2012	8/7/2014
T6	AN01417	High Pass Filter	84300-80039	2/9/2012	2/9/2014

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
5GHz Sector (17dBi)*	Digital Path	G5RL102X	ENG1

**Support Devices:**

Function	Manufacturer	Model #	S/N
Laptop Power Supply	HP	608428-002	F12941126327228
Laptop	HP	ProBook 6565b	5CB13637ZF
Power Supply	Condor	STD-2427P	None

**Test Conditions / Notes:**

Radiated Spurious Emission

Temperature: 20. 8°C  
 Humidity: 40 %  
 Atmospheric Pressure: 100.9 kPa  
 High Clock: 500MHz  
 Software: ART software

Mode: TX

Transmitting Operation Frequency= 5785MHz

Channel Width=10MHz  
 ART setting = 15.5  
 Modulation= 24Mbps

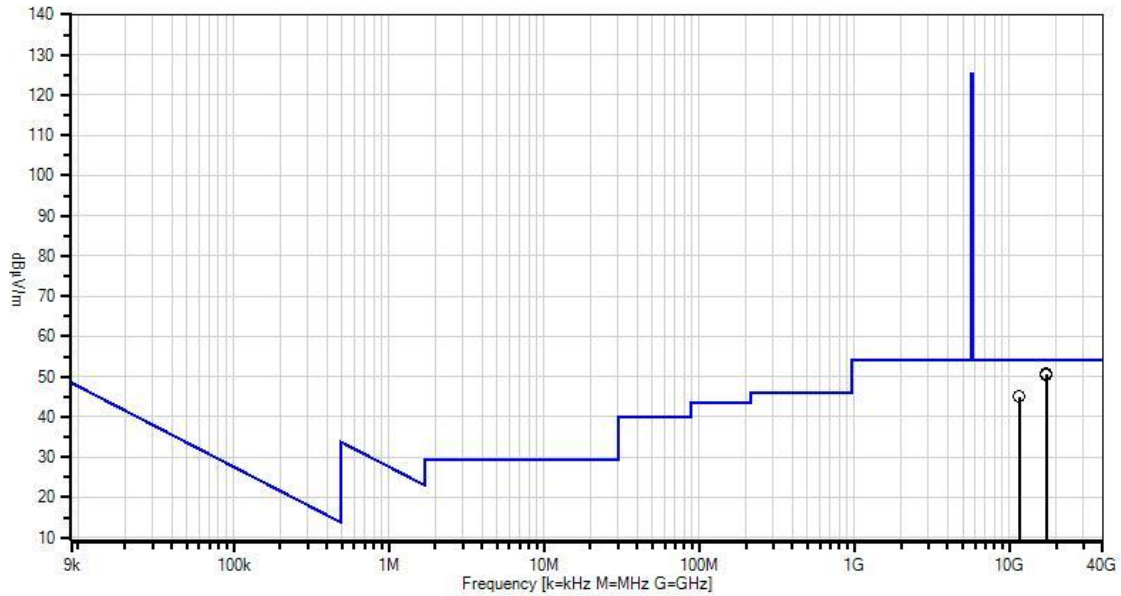
Note: ar9160 chip w/ 17db sectors & aluminum case model # G5RL102X takes off the plastic in the front and put 2 ferrite ( Steward 28A 2024-0A0): one is on the RJ 45 power cable with one pass through at around one foot from the EUT and another one is on RJ 45 power and data cables with one pass through at the EUT.

Ext Attn: 0 dB

<b>Measurement Data:</b>		Reading listed by margin.					Test Distance: 3 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
	MHz	dBμV	T5	T6	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant	
1	17355.000 M	50.1	-57.7 +2.6	+43.2 +0.8	+3.0	+8.7	+0.0	50.7	54.0	-3.3	Vert	
											Third Harmonic. Noise Floor only	
2	17355.000 M	49.7	-57.7 +2.6	+43.2 +0.8	+3.0	+8.7	+0.0	50.3	54.0	-3.7	Horiz	
											Third Harmonic. Nothing shows up. Noise Floor	
3	11569.500 M	51.5	-56.2 +2.1	+39.1 +0.0	+2.4	+6.2	+0.0	45.1	54.0	-8.9	Vert	
											Second Harmonic. Noise floor	
4	11569.500 M	51.5	-56.2 +2.1	+39.1 +0.0	+2.4	+6.2	+0.0	45.1	54.0	-8.9	Horiz	
											Second Harmonic. Noise floor	



CKC Laboratories, Inc Date: 4/24/2013 Time: 16:11:02 Digital Path WO#: 92682  
Test Distance: 3 Meters Sequence#: 6



— Readings  
 × QP Readings  
 ▼ Ambient  
 ○ Peak Readings  
 \* Average Readings  
 — 1 - 15.247(d) / 15.209 Radiated Spurious Emissions

Test Location: CKC Laboratories, Inc. • 1120 Fulton Places • Fremont, CA 94539 • (510) 249-1170

Customer: **Digital Path**  
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**  
 Work Order #: **92682** Date: 4/24/2013  
 Test Type: **Radiated Scan** Time: 16:52:09  
 Equipment: **5GHz Sector (17dBi)** Sequence#: 7  
 Manufacturer: Digital Path Tested By: Hieu Song Nguyenpham  
 Model: G5RL102X  
 S/N: ENG1

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
T1	AN02694	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-18002650-20-10P	2/4/2013	2/4/2015
T2	ANP00929	Cable	various	2/16/2012	2/16/2014
T3	ANP05843	Cable	32022-2-29094K-48TC	8/7/2012	8/7/2014
T4	ANP06127	Cable	32022-29094K-29094K-132TC	9/7/2011	9/7/2013

**Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
5GHz Sector (17dBi)*	Digital Path	G5RL102X	ENG1

**Support Devices:**

Function	Manufacturer	Model #	S/N
Laptop Power Supply	HP	608428-002	F12941126327228
Laptop	HP	ProBook 6565b	5CB13637ZF
Power Supply	Condor	STD-2427P	None

**Test Conditions / Notes:**

Radiated Spurious Emission

Temperature: 20.8°C  
 Humidity: 40 %  
 Atmospheric Pressure: 100.9 kPa  
 High Clock: 500MHz  
 Software: ART software

Mode: TX

Transmitting Operation Frequency= 5785MHz

Channel Width=10MHz  
 ART setting = 15.5  
 Modulation= 24Mbps

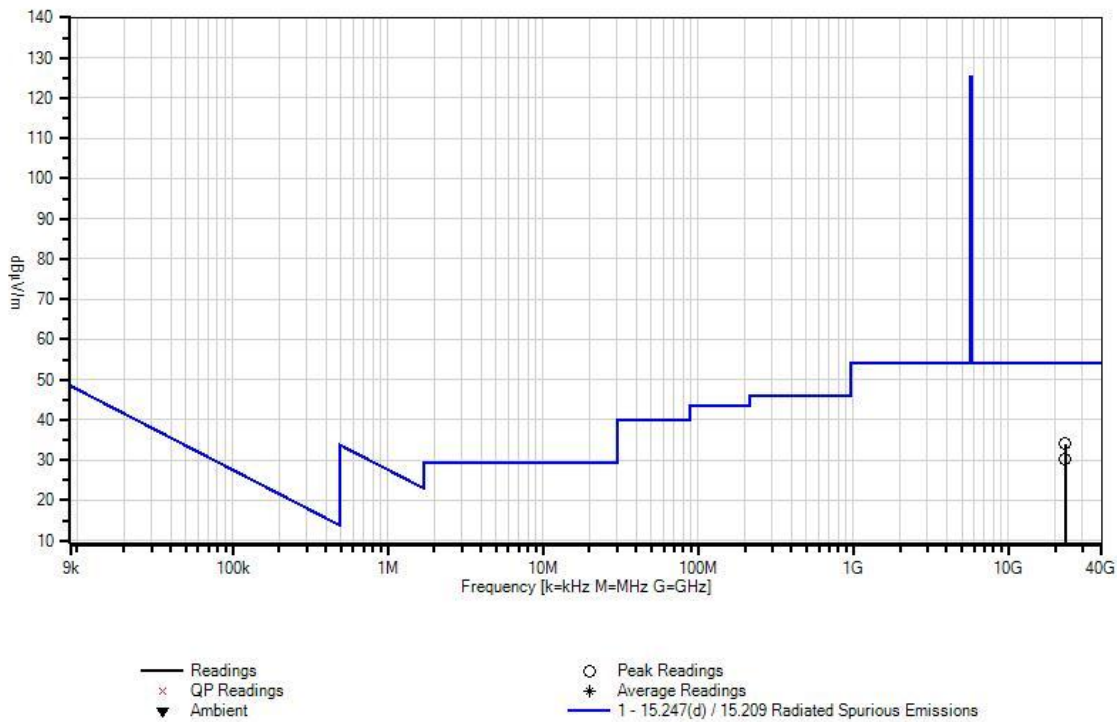
Note: ar9160 chip w/ 17db sectors & aluminum case model # G5RL102X takes off the plastic in the front and put 2 ferrite (Steward 28A 2024-0A0): one is on the RJ 45 power cable with one pass through at around one foot from the EUT and another one is on RJ 45 power and data cables with one pass through at the EUT.

Ext Attn: 0 dB

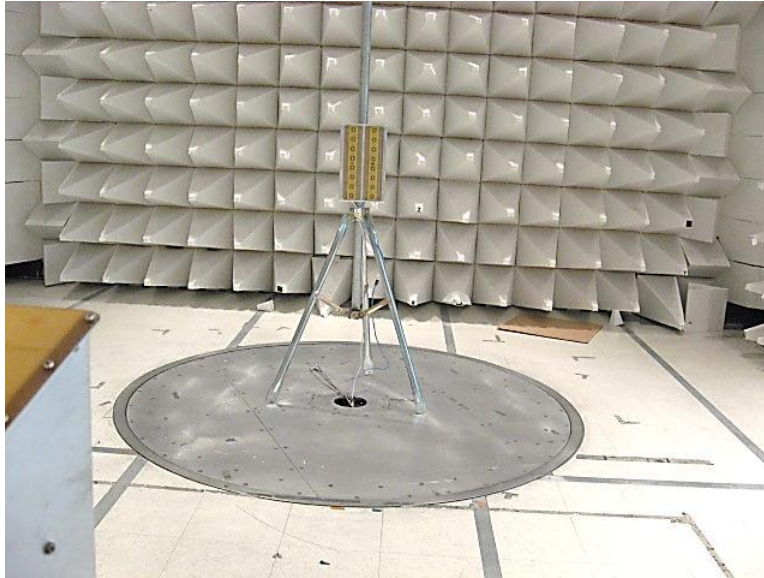
**Measurement Data:** Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dB $\mu$ V	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB $\mu$ V/m	Spec dB $\mu$ V/m	Margin dB	Polar Ant
1	23140.000 M	41.7	-17.8	+2.9	+2.9	+4.3	+0.0	34.0	54.0	-20.0	Vert
The Fourth Harmonic. Noise Floor only											
2	23140.000 M	37.8	-17.8	+2.9	+2.9	+4.3	+0.0	30.1	54.0	-23.9	Horiz
The Fourth Harmonic. Noise Floor only											

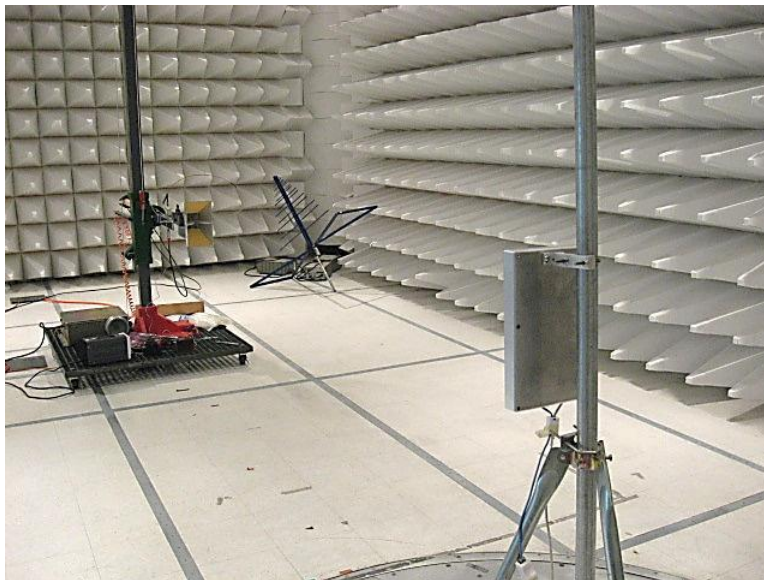
CKC Laboratories, Inc Date: 4/24/2013 Time: 16:52:09 Digital Path WO#: 92682  
Test Distance: 3 Meters Sequence#: 7



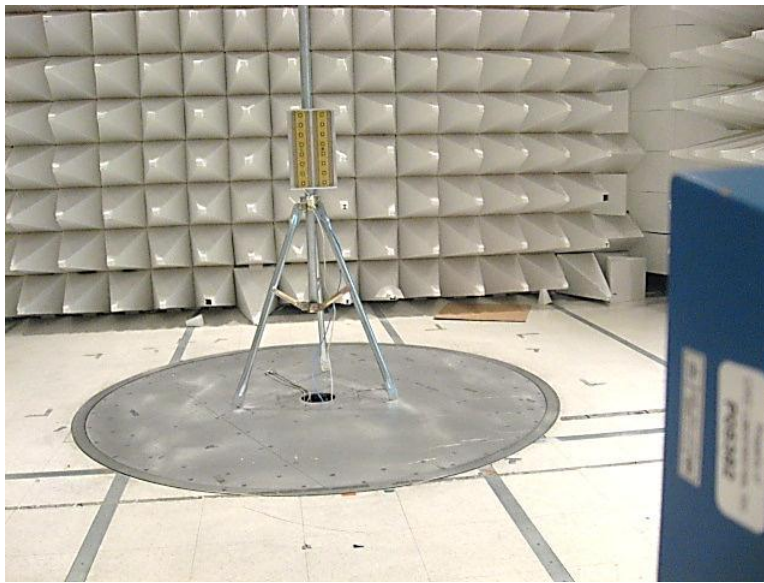
**Test Setup Photos**



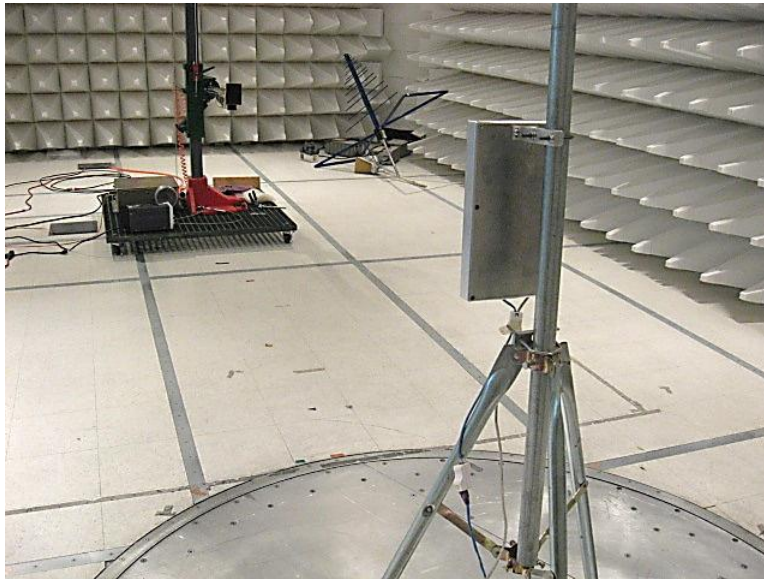
Radiated Spurious, Second and Third Harmonic



Radiated Spurious, Second and Third Harmonic



Radiated Spurious, Fourth Harmonic



Radiated Spurious, Fourth Harmonic

## SUPPLEMENTAL INFORMATION

### Measurement Uncertainty

Uncertainty Value	Parameter
4.73 dB	Radiated Emissions
3.34 dB	Mains Conducted Emissions
3.30 dB	Disturbance Power

The reported measurement uncertainties are calculated based on the worst case of all laboratory environments from CKC Laboratories, Inc. test sites. Only those parameters which require estimation of measurement uncertainty are reported. The reported worst case measurement uncertainty is less than the maximum values derived in CISPR 16-4-2. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k=2. Compliance is deemed to occur provided measurements are below the specified limits.

### 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.

SAMPLE CALCULATIONS		
	Meter reading	(dB $\mu$ V)
+	Antenna Factor	(dB)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	(dB $\mu$ V/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.