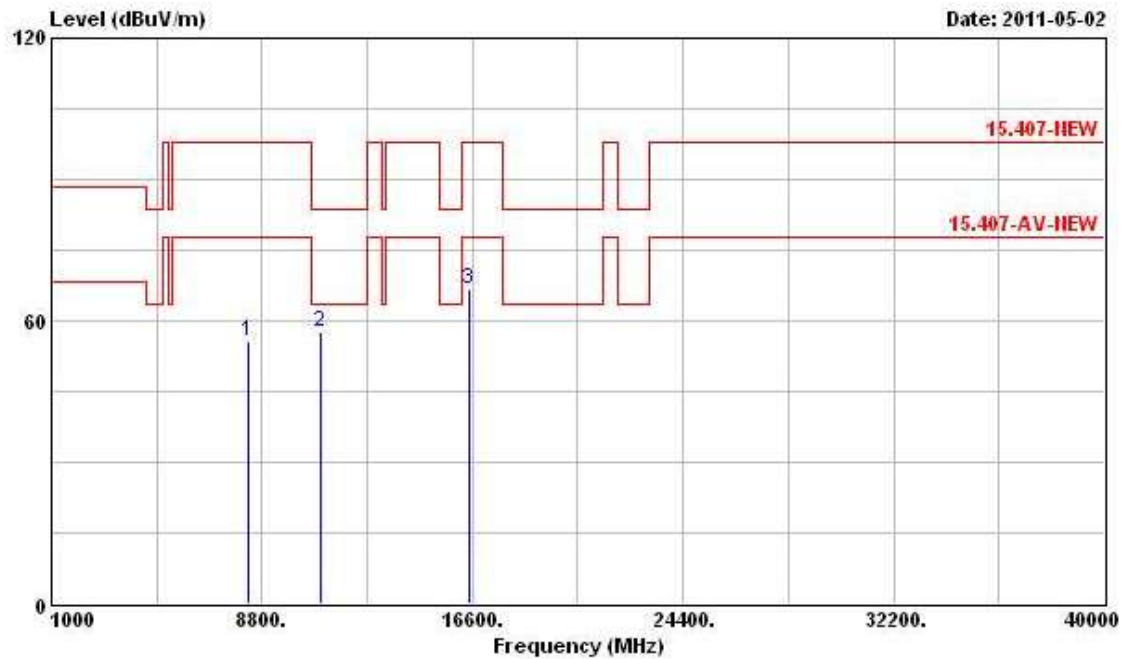
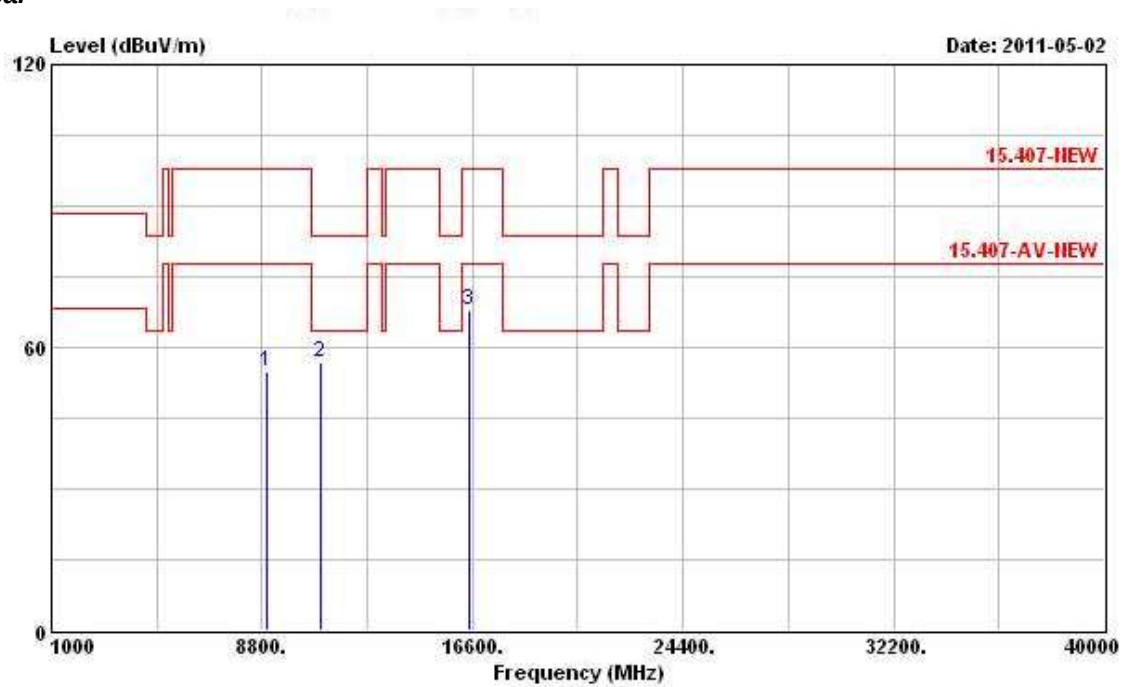


Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11a Ch. 100

Horizontal

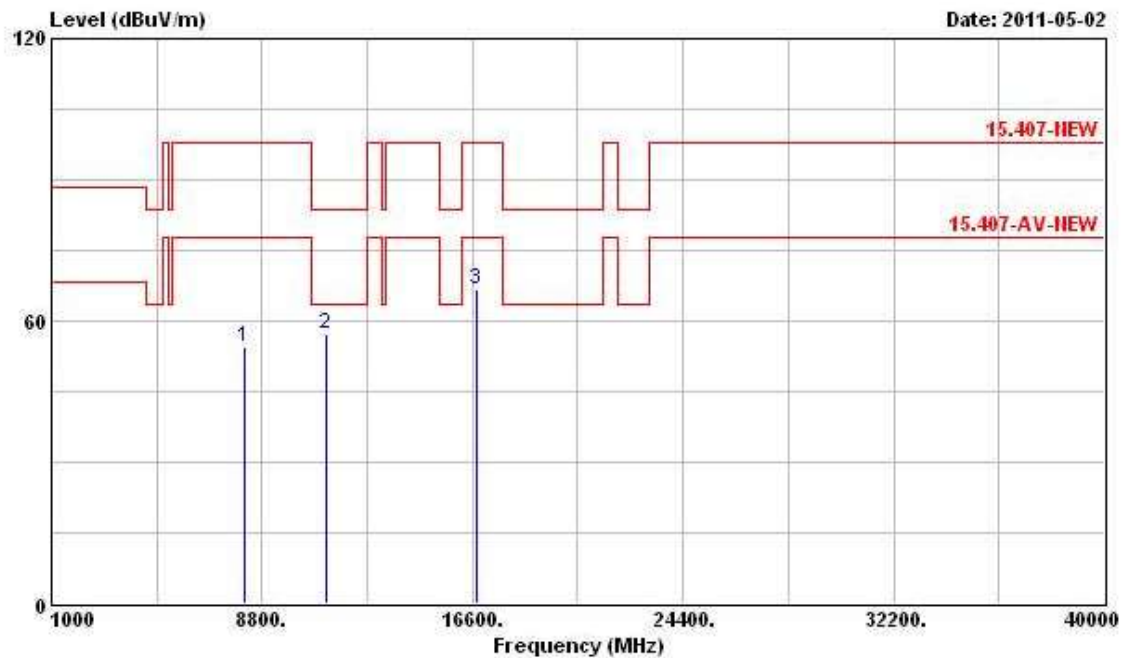
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8270.000	55.49	-22.35	77.84	45.52	38.37	5.88	34.28	PK	---	---
2	11000.000	57.53	-6.01	63.54	43.35	40.40	7.17	33.39	PK	---	---
3	16500.000	66.80	-31.04	97.84	47.84	43.50	8.24	32.78	Peak	---	---

Vertical



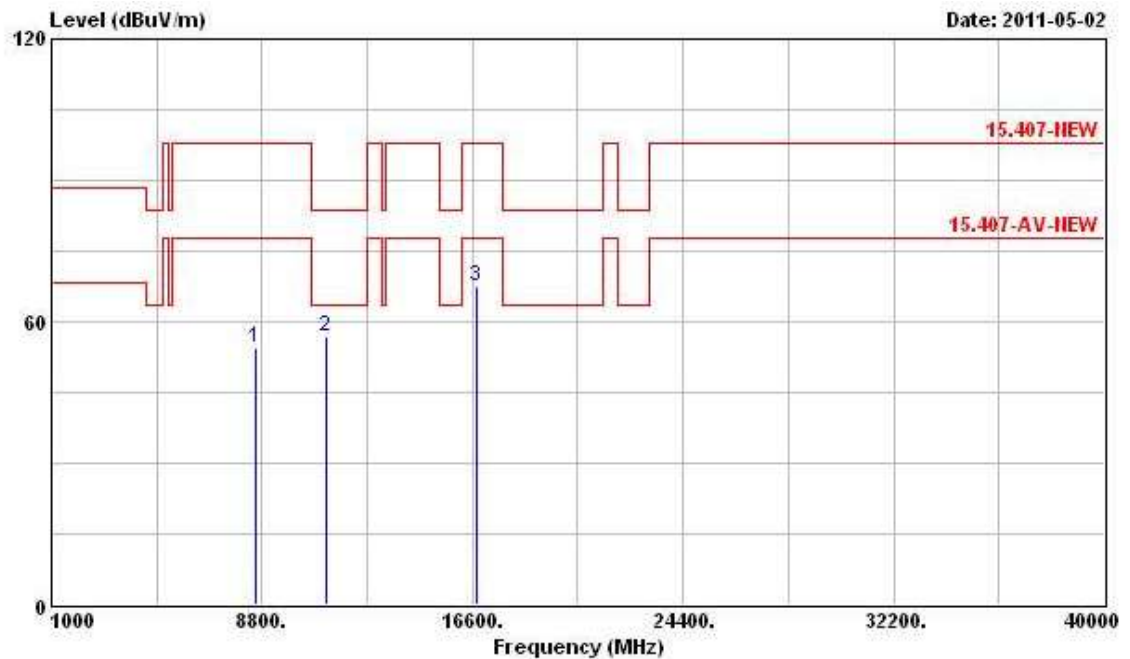
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8990.000	54.91	-42.93	97.84	45.35	38.11	6.16	34.71	Peak	---	---
2	11000.000	56.86	-6.68	63.54	42.68	40.40	7.17	33.39	PK	---	---
3	16500.000	67.80	-30.04	97.84	48.84	43.50	8.24	32.78	Peak	---	---

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11a Ch. 116

Horizontal

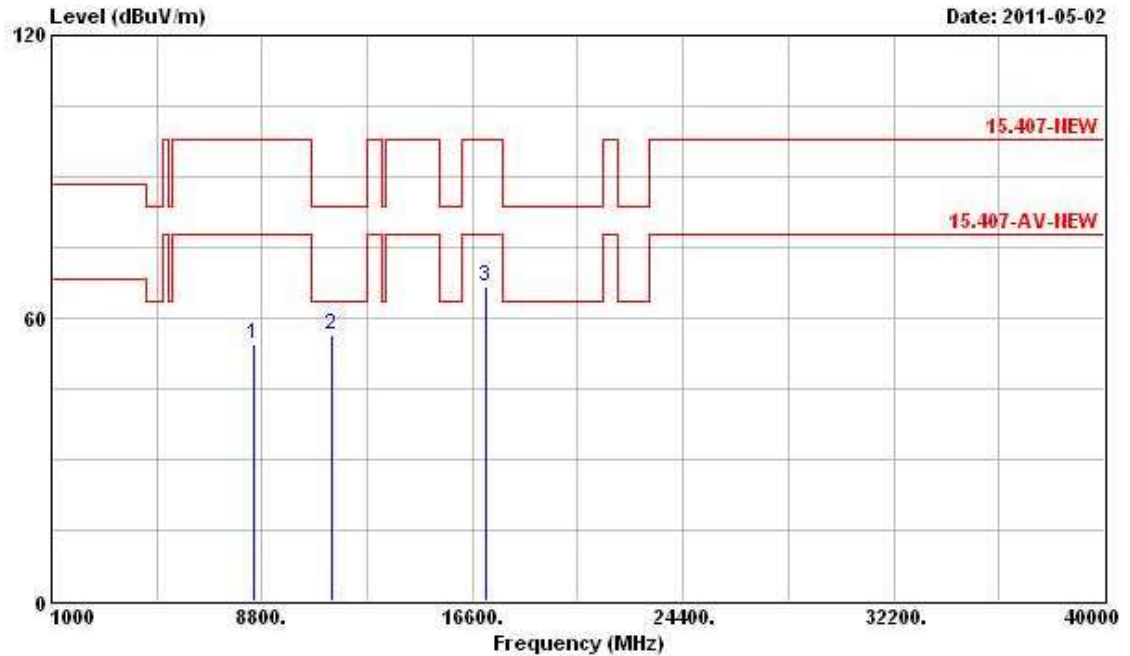
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8140.000	54.54	-23.30	77.84	44.75	38.28	5.84	34.33	PK	---	---
2	11160.000	57.18	-6.36	63.54	43.22	40.47	6.96	33.47	PK	---	---
3	16740.000	66.70	-31.14	97.84	47.19	43.60	8.47	32.56	Peak	---	---

Vertical



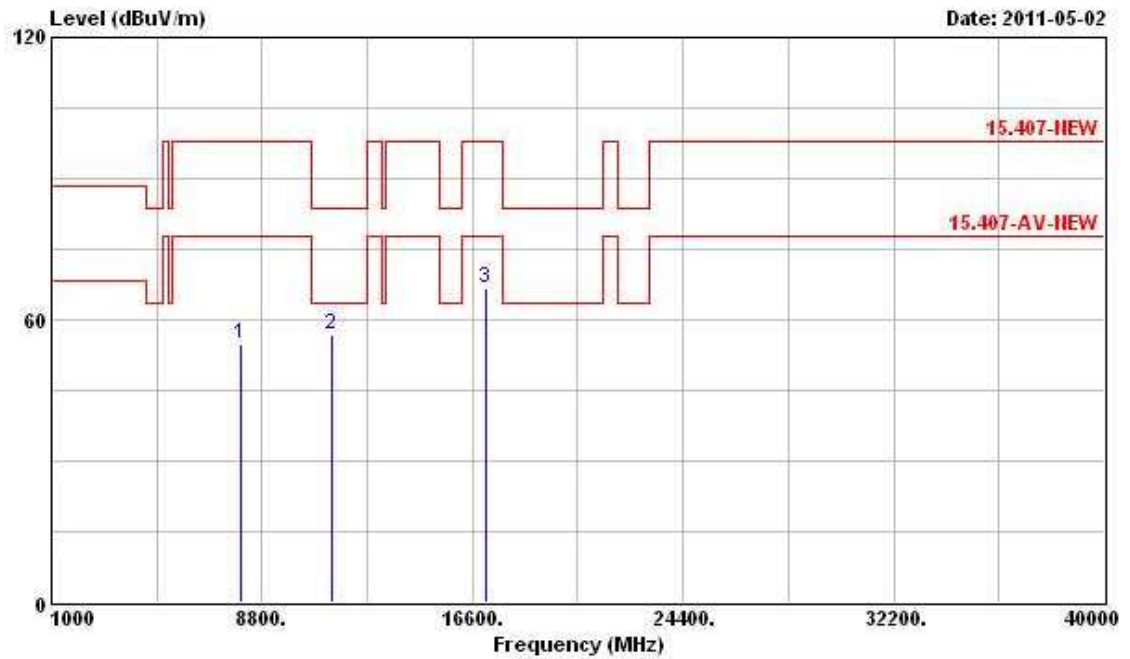
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8550.000	54.56	-43.28	97.84	44.39	38.46	5.97	34.26	Peak	---	---
2	11160.000	56.68	-6.86	63.54	42.72	40.47	6.96	33.47	PK	---	---
3	16740.000	67.50	-30.34	97.84	47.99	43.60	8.47	32.56	Peak	---	---

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11a Ch. 140

Horizontal

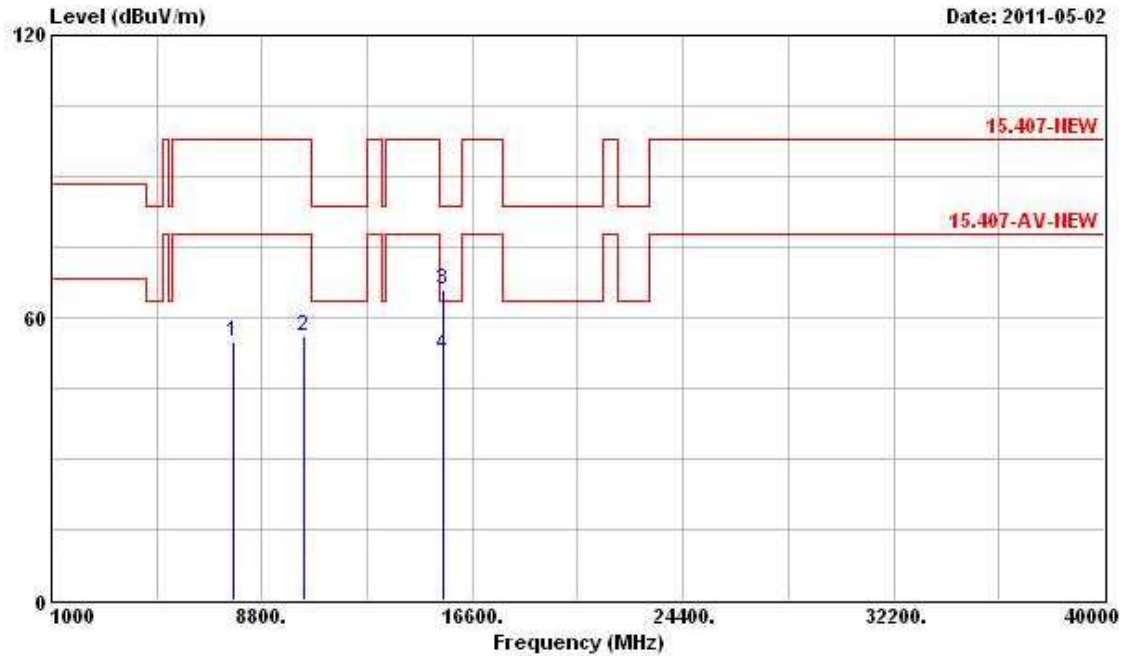
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8501.500	54.30	-43.54	97.84	44.06	38.50	5.94	34.20	Peak	---	---
2	11400.000	56.48	-7.06	63.54	42.81	40.56	6.71	33.60	PK	---	---
3	17100.000	66.83	-31.01	97.84	46.86	43.64	8.61	32.28	Peak	---	---

Vertical



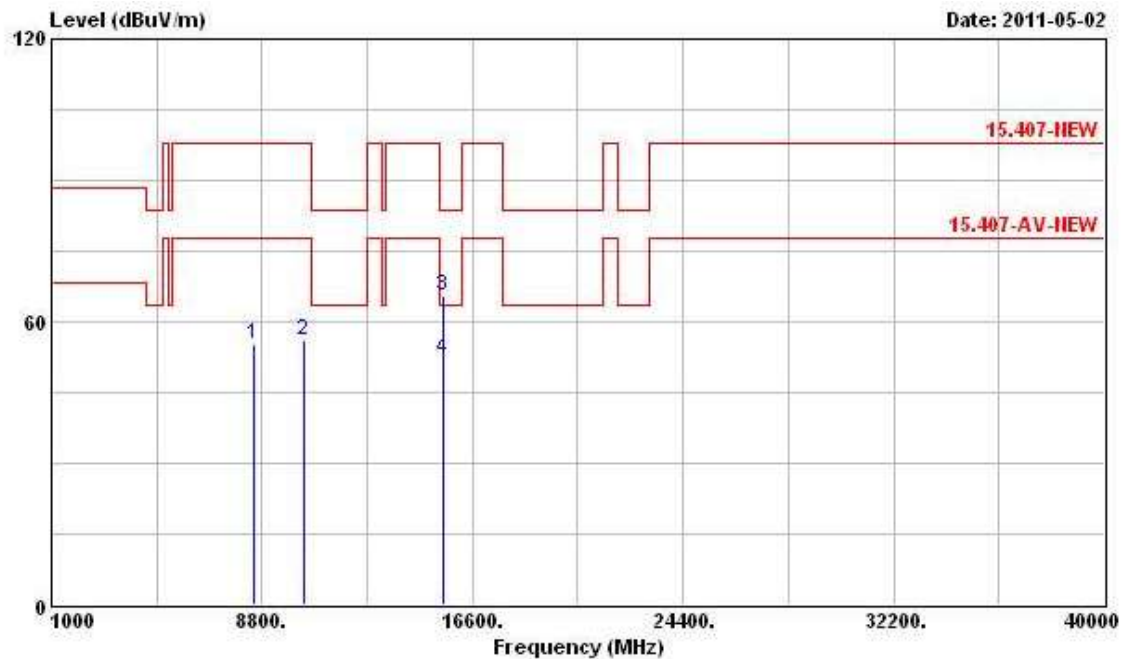
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8039.500	54.78	-23.06	77.84	45.11	38.22	5.81	34.36	PK	---	---
2	11400.000	56.77	-6.77	63.54	43.10	40.56	6.71	33.60	PK	---	---
3	17100.000	66.81	-31.03	97.84	46.84	43.64	8.61	32.28	Peak	---	---

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 36 (20MHz)

Horizontal

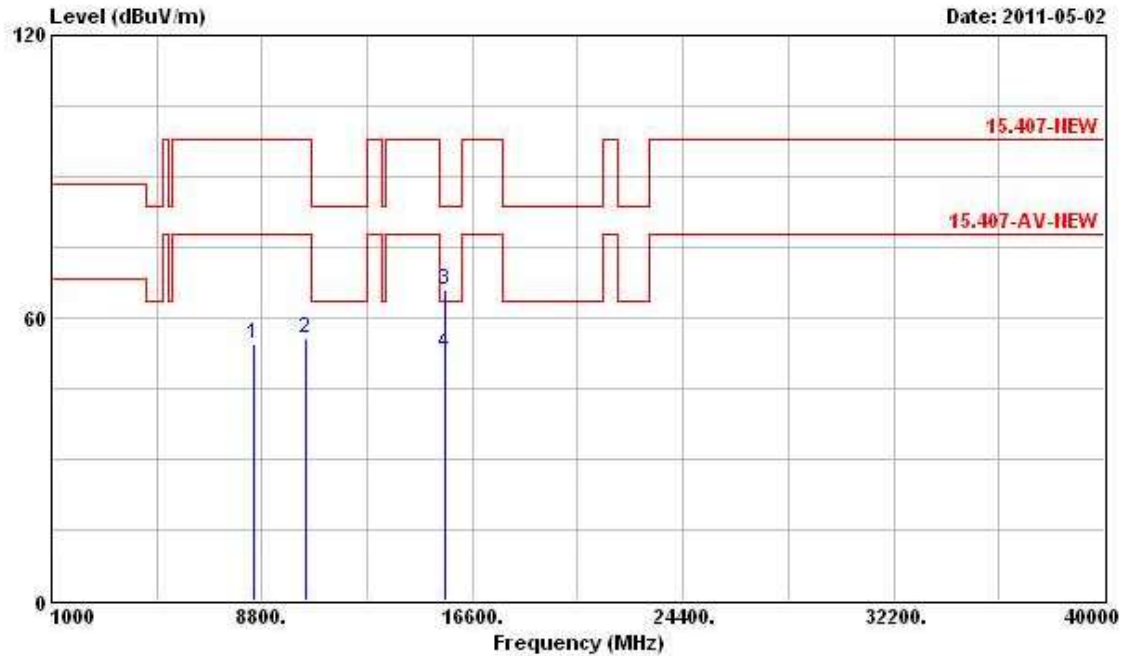
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7738.000	54.71	-23.13	77.84	45.27	38.04	5.73	34.33	PK	---	---
2	10360.000	56.10	-41.74	97.84	43.51	40.02	6.71	34.14	Peak	---	---
3	15540.000	65.83	-17.71	83.54	47.41	42.81	8.45	32.84	Peak	---	---
4	15540.000	52.11	-11.43	63.54	33.69	42.81	8.45	32.84	Average	---	---

Vertical



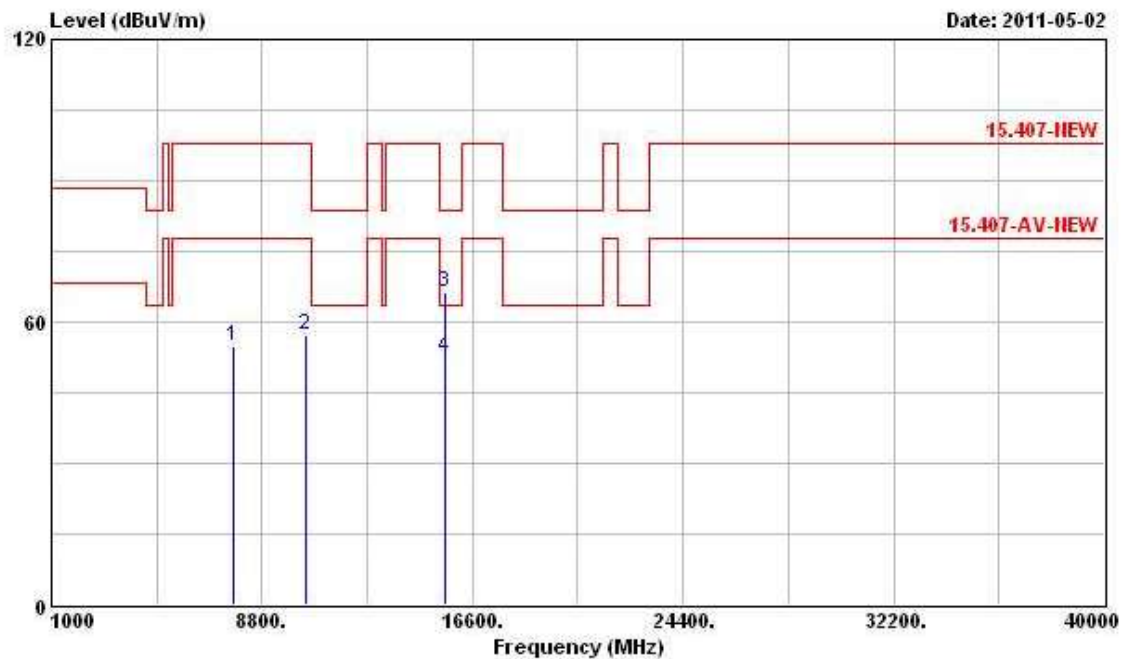
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8494.000	55.22	-22.62	77.84	44.98	38.50	5.94	34.20	PK	---	---
2	10360.000	55.92	-41.92	97.84	43.33	40.02	6.71	34.14	Peak	---	---
3	15540.000	65.40	-18.14	83.54	46.98	42.81	8.45	32.84	Peak	---	---
4	15540.000	52.14	-11.40	63.54	33.72	42.81	8.45	32.84	Average	---	---

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 40 (20 MHz)

Horizontal

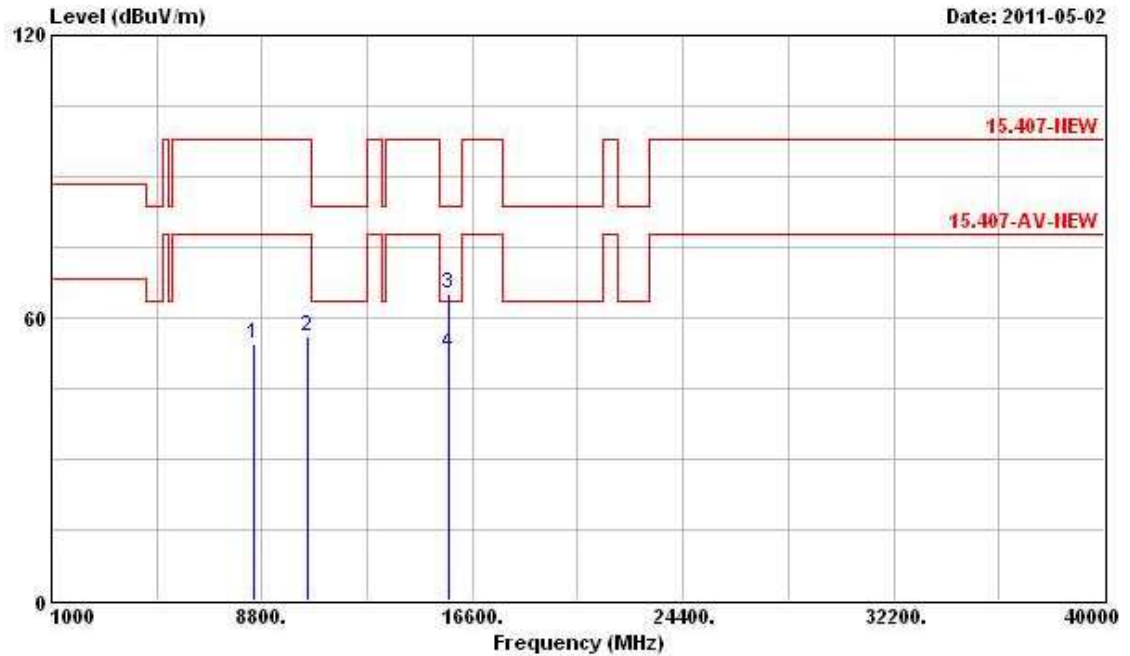
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8467.000	54.58	-23.26	77.84	44.38	38.48	5.93	34.21	PK	---	---
2	10400.000	55.62	-42.22	97.84	42.93	40.04	6.75	34.10	Peak	---	---
3	15600.000	65.87	-17.67	83.54	47.52	42.82	8.45	32.92	Peak	---	---
4	15600.000	52.55	-10.99	63.54	34.20	42.82	8.45	32.92	Average	---	---

Vertical



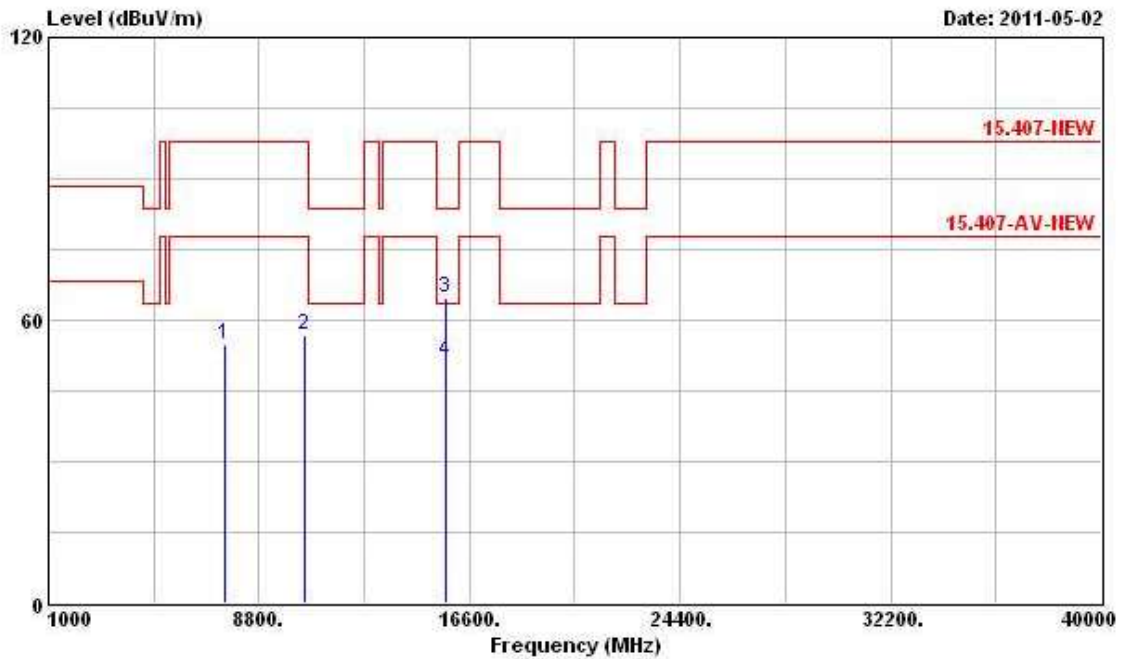
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7711.000	54.99	-22.85	77.84	45.56	38.03	5.72	34.32	PK	---	---
2	10400.000	57.08	-40.76	97.84	44.39	40.04	6.75	34.10	Peak	---	---
3	15600.000	66.14	-17.40	83.54	47.79	42.82	8.45	32.92	Peak	---	---
4	15600.000	52.49	-11.05	63.54	34.14	42.82	8.45	32.92	Average	---	---

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 48 (20 MHz)

Horizontal

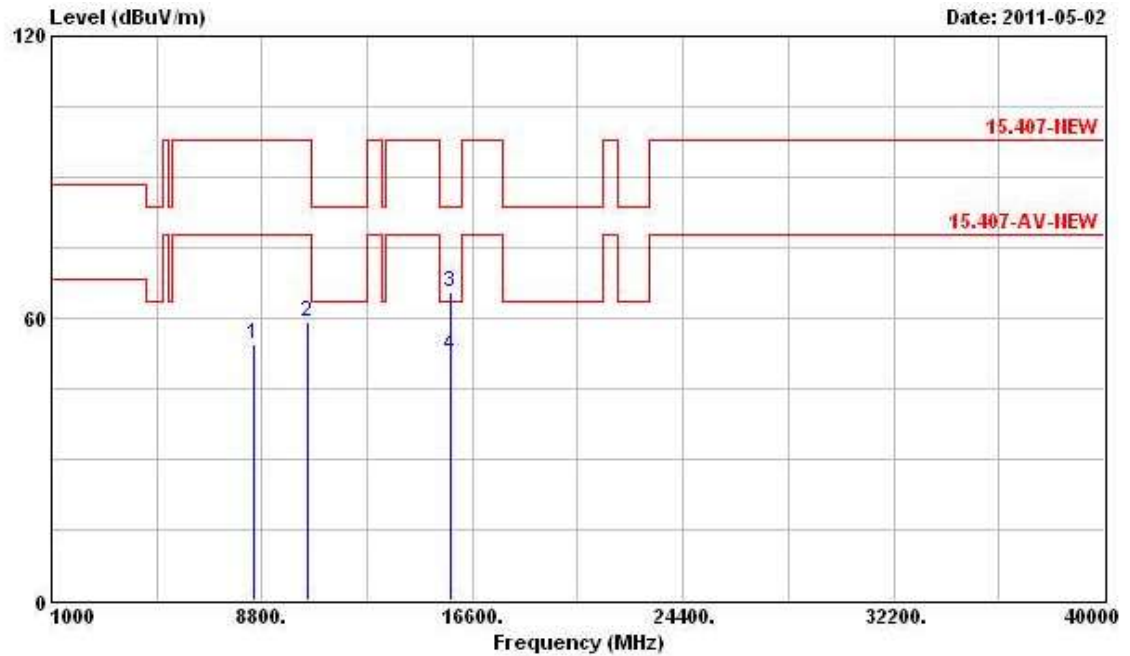
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8503.000	54.45	-43.39	97.84	44.21	38.50	5.94	34.20	Peak	---	---
2	10480.000	56.20	-41.64	97.84	43.32	40.09	6.82	34.03	Peak	---	---
3	15720.000	65.15	-18.39	83.54	46.88	42.84	8.46	33.03	Peak	---	---
4	15720.000	52.34	-11.20	63.54	34.07	42.84	8.46	33.03	Average	---	---

Vertical



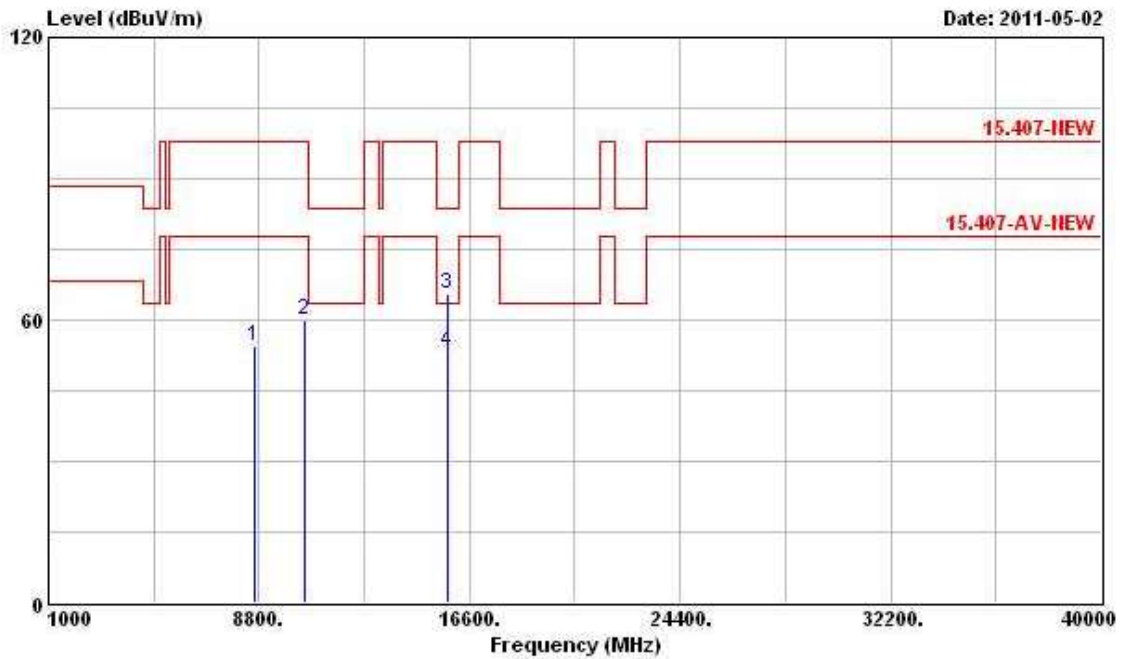
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7567.000	54.91	-22.93	77.84	45.61	37.94	5.67	34.31	PK	---	---
2	10480.000	56.93	-40.91	97.84	44.05	40.09	6.82	34.03	Peak	---	---
3	15720.000	64.89	-18.65	83.54	46.62	42.84	8.46	33.03	Peak	---	---
4	15720.000	51.43	-12.11	63.54	33.16	42.84	8.46	33.03	Average	---	---

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 52 (20 MHz)

Horizontal

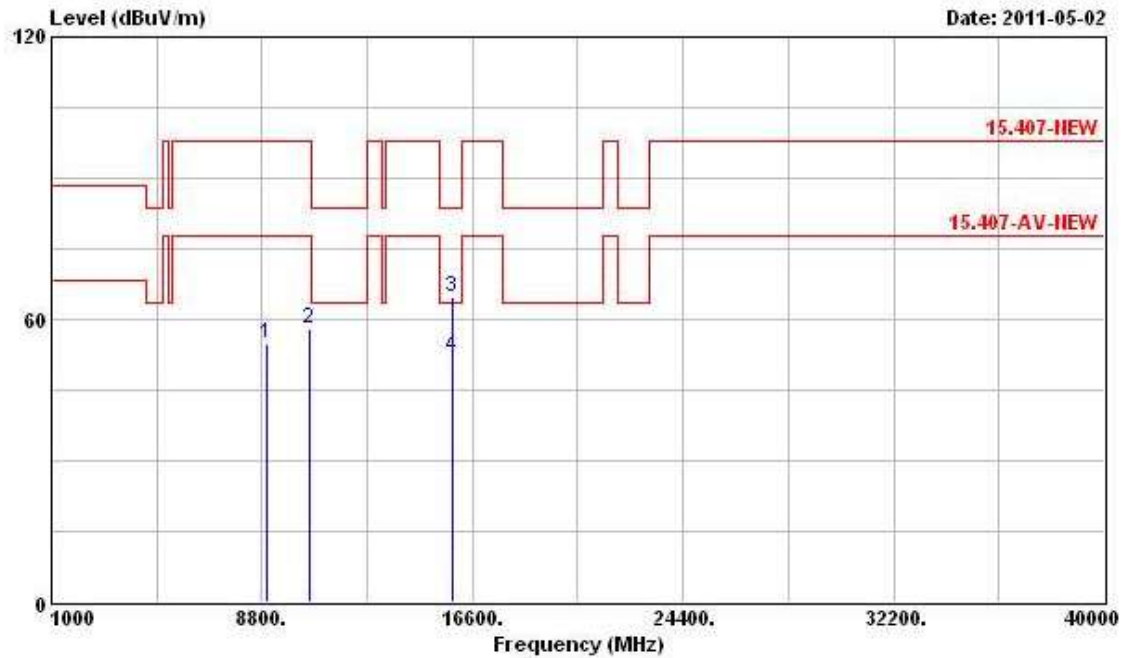
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8494.000	54.56	-23.28	77.84	44.32	38.50	5.94	34.20	PK	---	---
2	10520.000	59.08	-38.76	97.84	46.12	40.11	6.85	34.00	Peak	---	---
3	15780.000	65.71	-17.83	83.54	47.50	42.86	8.46	33.11	Peak	---	---
4	15780.000	52.26	-11.28	63.54	34.05	42.86	8.46	33.11	Average	---	---

Vertical



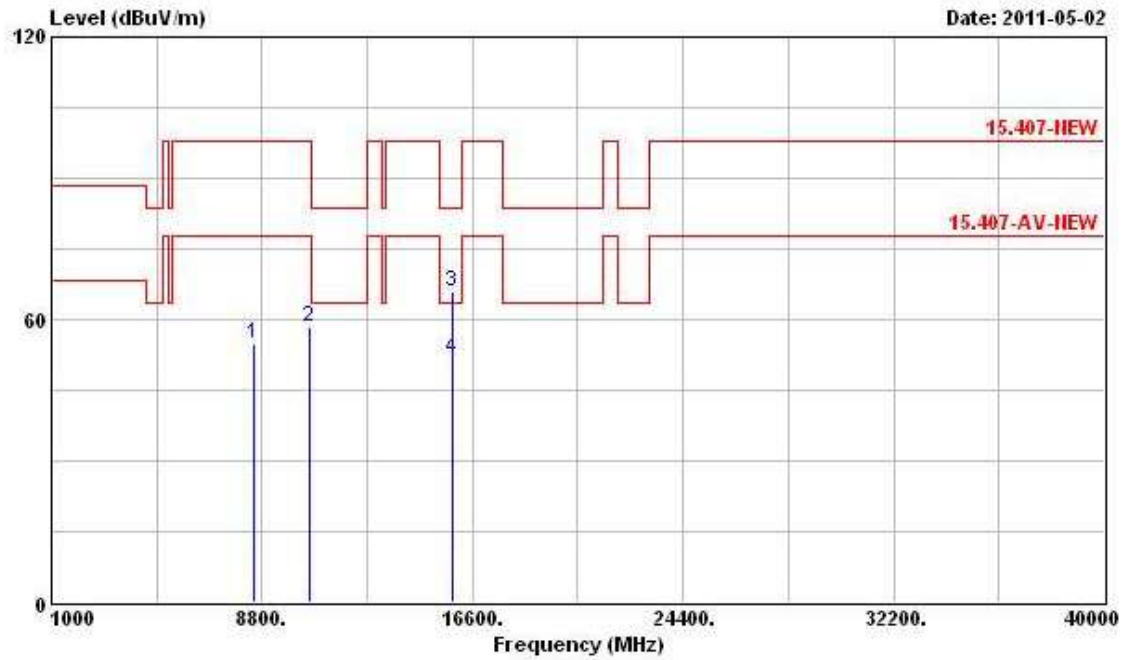
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8611.000	54.36	-43.48	97.84	44.27	38.41	5.99	34.31	Peak	---	---
2	10520.000	60.09	-37.75	97.84	47.13	40.11	6.85	34.00	Peak	---	---
3	15780.000	65.40	-18.14	83.54	47.19	42.86	8.46	33.11	Peak	---	---
4	15780.000	53.16	-10.38	63.54	34.95	42.86	8.46	33.11	Average	---	---

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 56 (20 MHz)

Horizontal

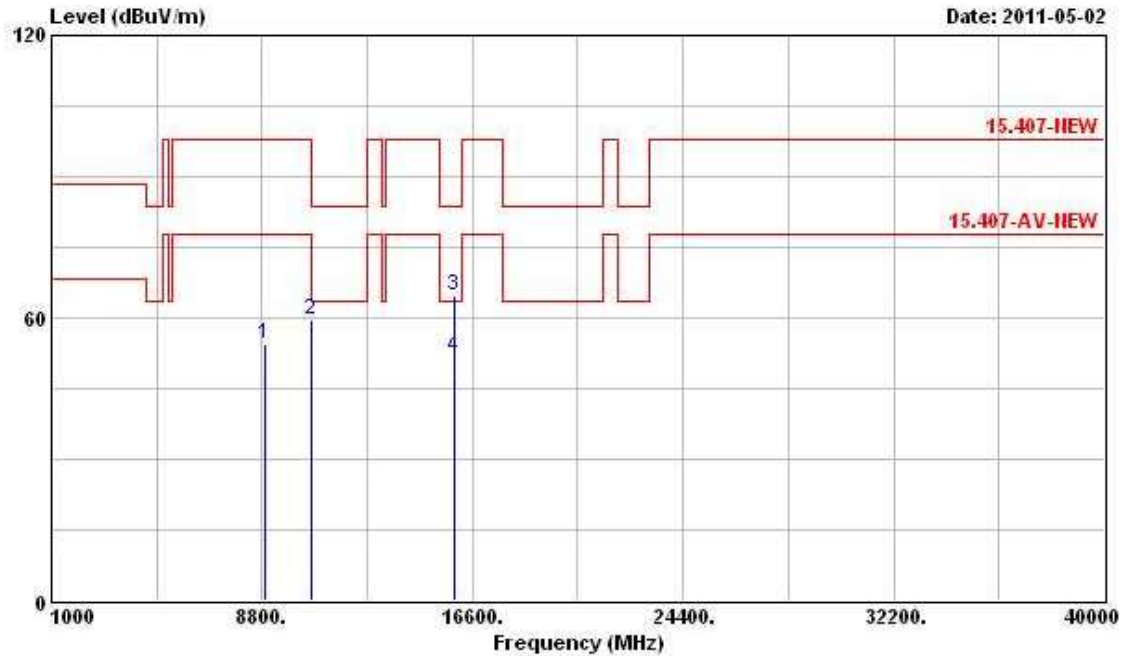
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8962.000	54.79	-43.05	97.84	45.19	38.14	6.14	34.68	Peak	---	---
2	10560.000	58.00	-39.84	97.84	44.93	40.13	6.88	33.94	Peak	---	---
3	15840.000	64.64	-18.90	83.54	46.47	42.87	8.46	33.16	Peak	---	---
4	15840.000	52.02	-11.52	63.54	33.85	42.87	8.46	33.16	Average	---	---

Vertical



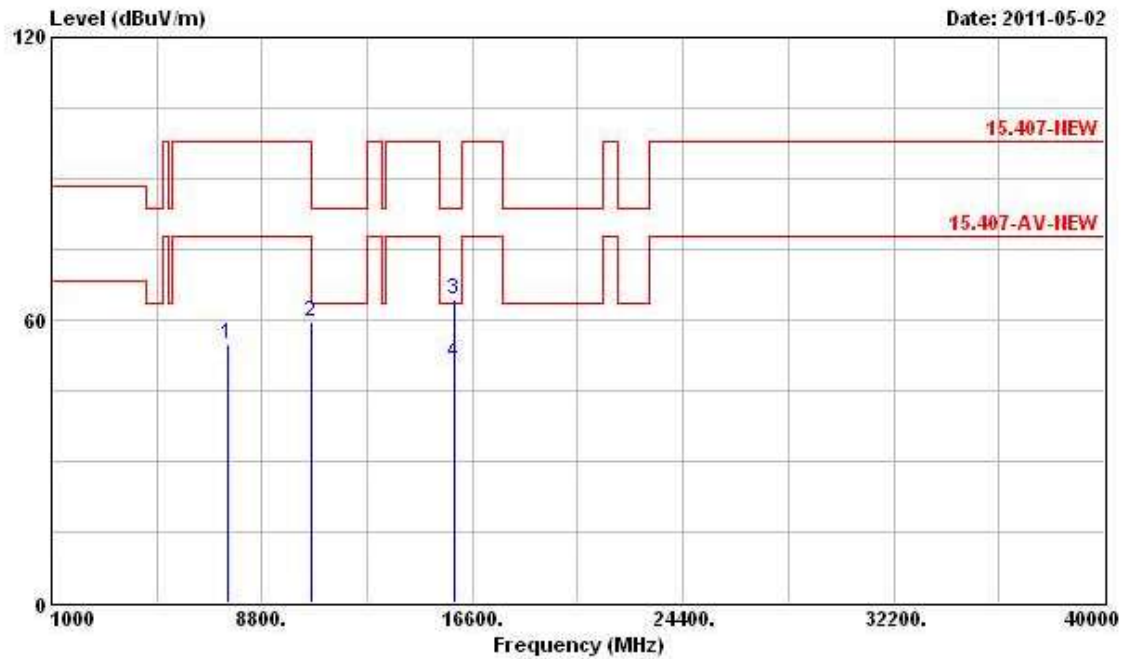
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8503.000	54.80	-43.04	97.84	44.56	38.50	5.94	34.20	Peak	---	---
2	10560.000	58.60	-39.24	97.84	45.53	40.13	6.88	33.94	Peak	---	---
3	15840.000	65.83	-17.71	83.54	47.66	42.87	8.46	33.16	Peak	---	---
4	15840.000	51.72	-11.82	63.54	33.55	42.87	8.46	33.16	Average	---	---

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 64 (20 MHz)

Horizontal

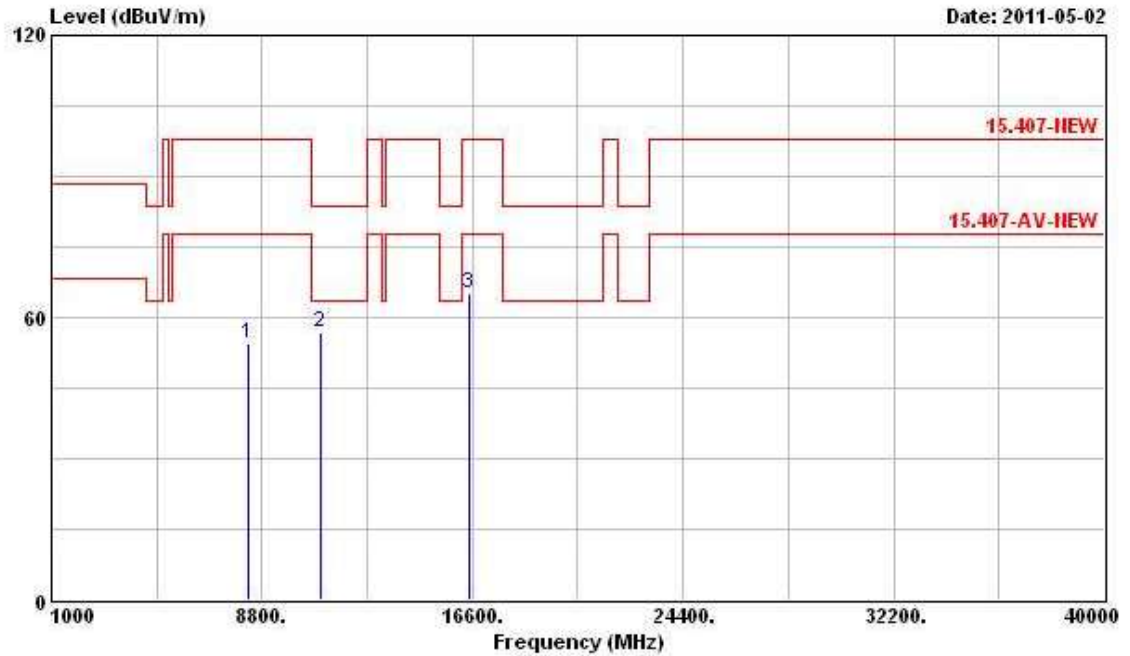
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8899.000	54.53	-43.31	97.84	44.85	38.18	6.13	34.63	Peak	0	0
2	@10640.000	59.43	-4.11	63.54	46.16	40.18	6.93	33.84	PK	0	0
3	15960.000	64.62	-18.92	83.54	46.55	42.89	8.47	33.29	Peak	0	0
4	15960.000	51.59	-11.95	63.54	33.52	42.89	8.47	33.29	Average	0	0

Vertical



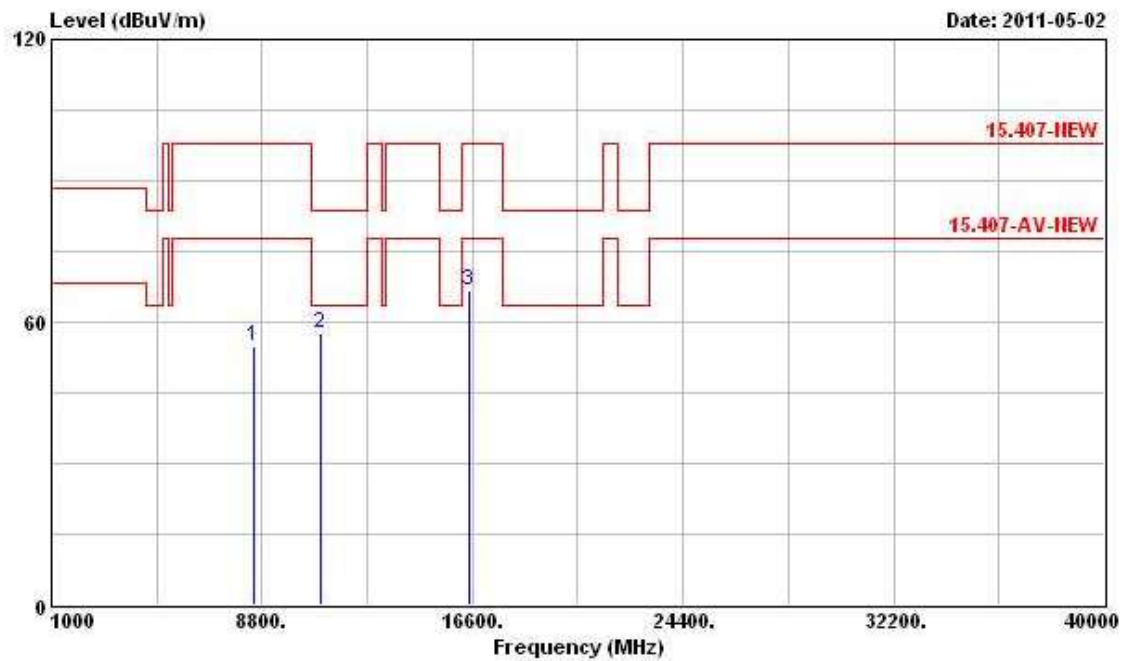
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7567.000	54.76	-23.08	77.84	45.46	37.94	5.67	34.31	PK	---	---
2	10640.000	59.75	-3.79	63.54	46.48	40.18	6.93	33.84	PK	---	---
3	15960.000	64.49	-19.05	83.54	46.42	42.89	8.47	33.29	Peak	---	---
4	15960.000	51.11	-12.43	63.54	33.04	42.89	8.47	33.29	Average	---	---

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 100 (20 MHz)

Horizontal

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8300.000	54.50	-23.34	77.84	44.50	38.38	5.89	34.27	PK	---	---
2	11000.000	56.73	-6.81	63.54	42.55	40.40	7.17	33.39	PK	---	---
3	16500.000	65.23	-32.61	97.84	46.27	43.50	8.24	32.78	Peak	---	---

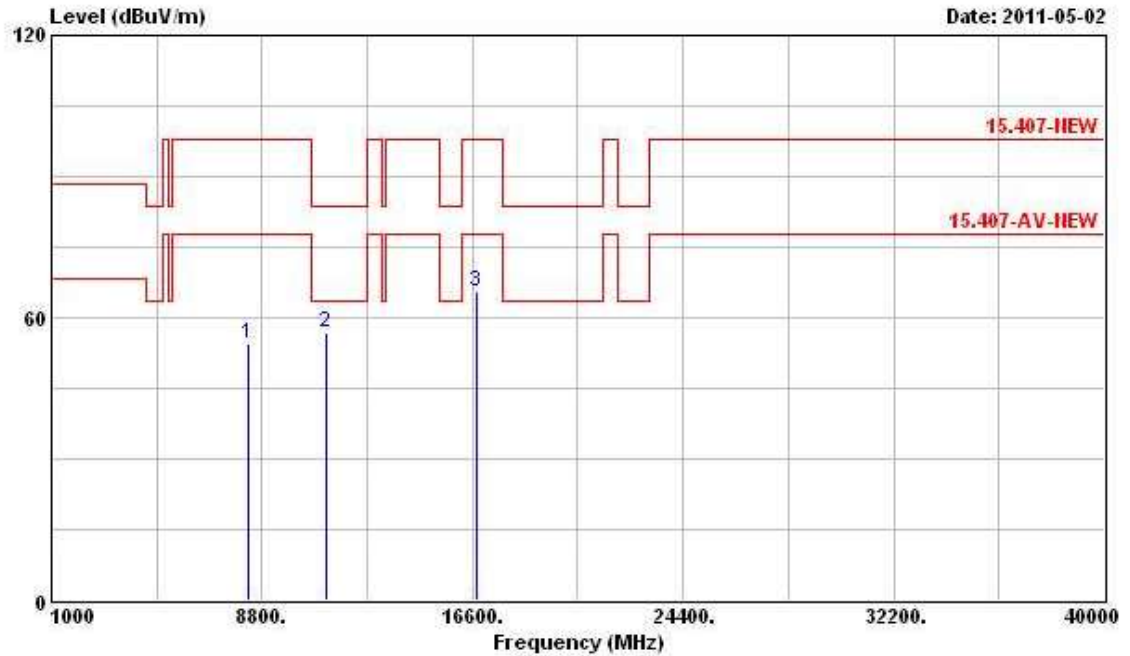
Vertical



05/02/2011 20

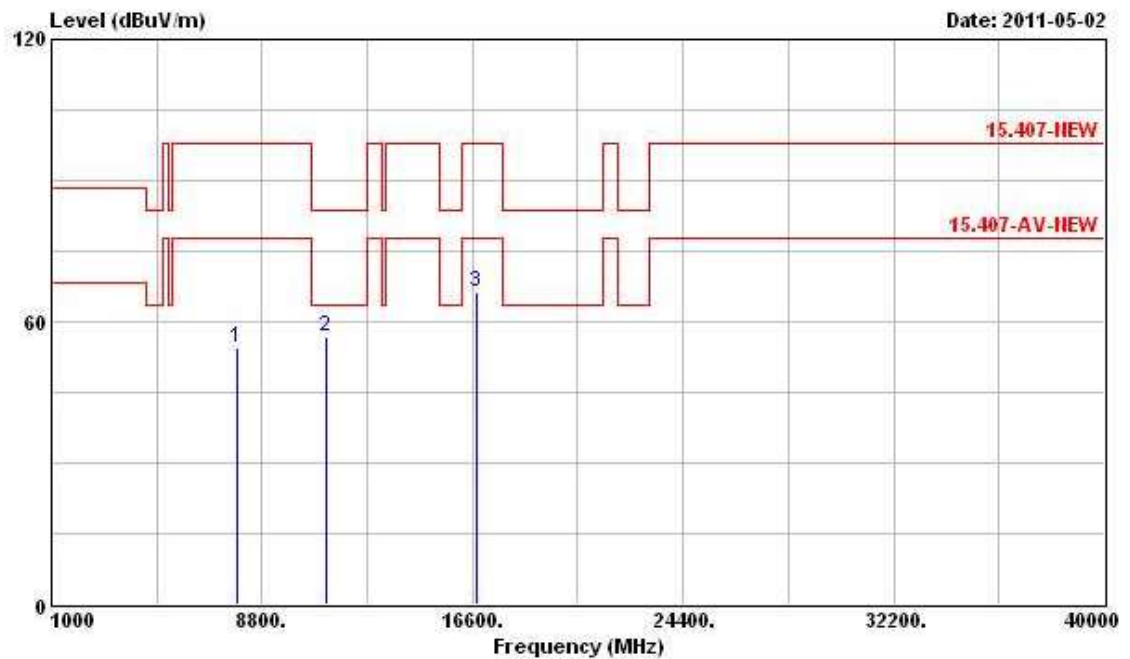
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8510.000	54.90	-42.94	97.84	44.68	38.49	5.96	34.23	Peak	---	---
2	11000.000	57.46	-6.08	63.54	43.28	40.40	7.17	33.39	PK	---	---
3	16500.000	66.77	-31.07	97.84	47.81	43.50	8.24	32.78	Peak	---	---

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 116 (20 MHz)

Horizontal

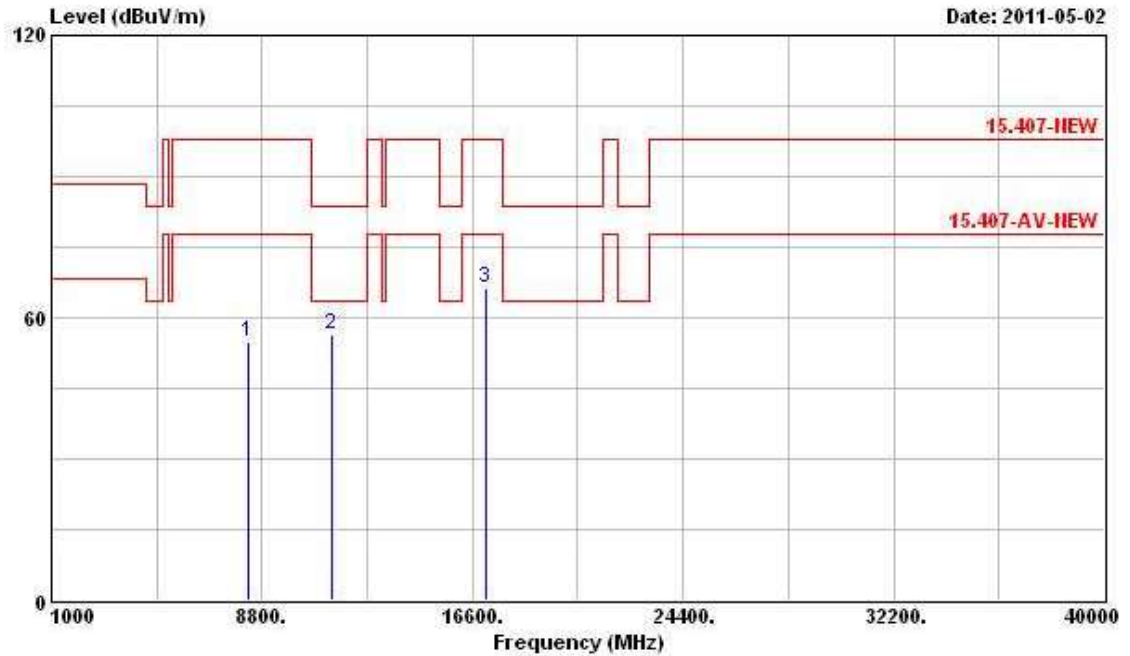
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8310.000	54.41	-23.43	77.84	44.39	38.39	5.89	34.26	PK	---	---
2	11160.000	56.86	-6.68	63.54	42.90	40.47	6.96	33.47	PK	---	---
3	16740.000	65.62	-32.22	97.84	46.11	43.60	8.47	32.56	Peak	---	---

Vertical



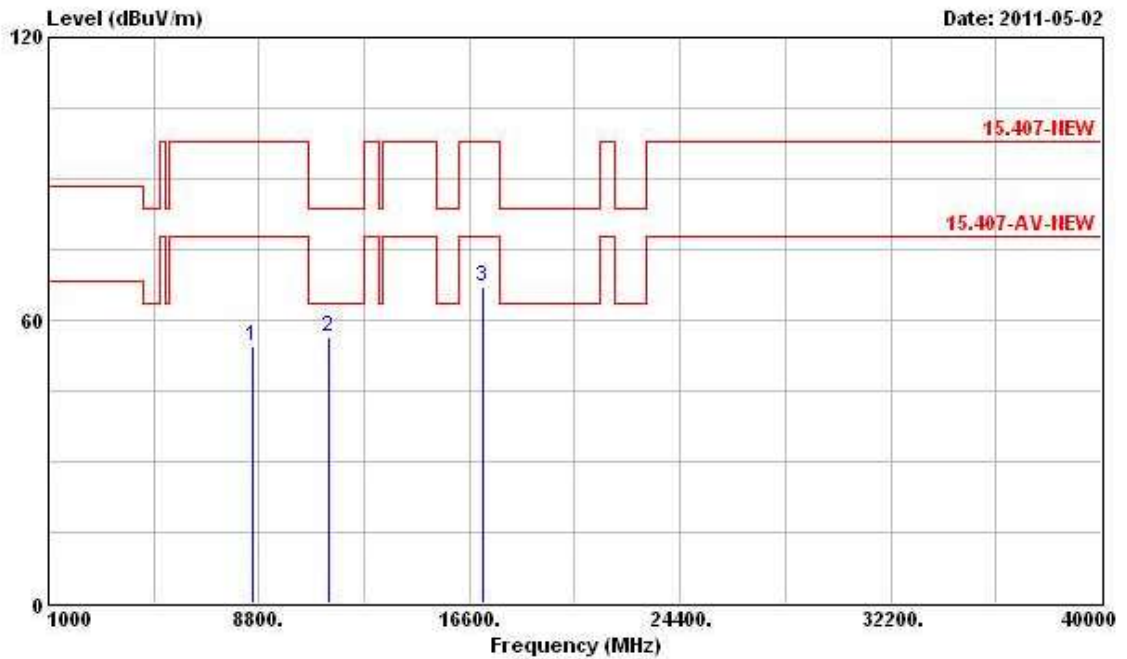
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7900.000	54.45	-43.39	97.84	44.88	38.14	5.78	34.35	Peak	---	---
2	11160.000	56.95	-6.59	63.54	42.99	40.47	6.96	33.47	PK	---	---
3	16740.000	66.44	-31.40	97.84	46.93	43.60	8.47	32.56	Peak	---	---

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 140 (20 MHz)

Horizontal

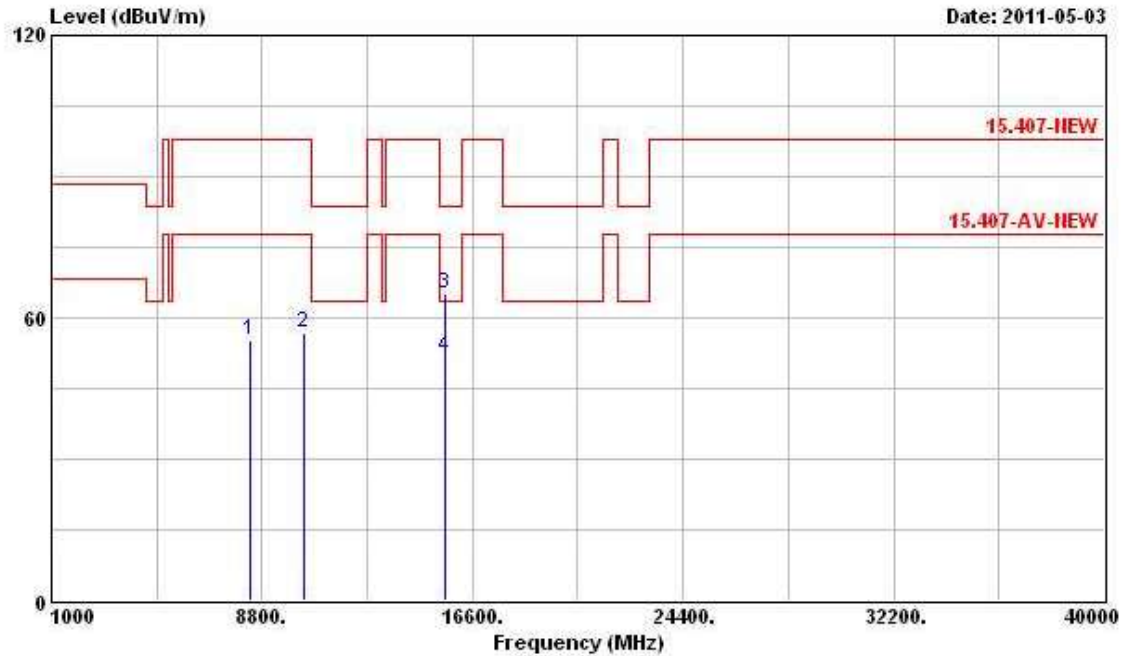
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8281.000	54.73	-23.11	77.84	44.74	38.37	5.89	34.27	PK	---	---
2	11400.000	56.39	-7.15	63.54	42.72	40.56	6.71	33.60	PK	---	---
3	17100.000	66.33	-31.51	97.84	46.36	43.64	8.61	32.28	Peak	---	---

Vertical



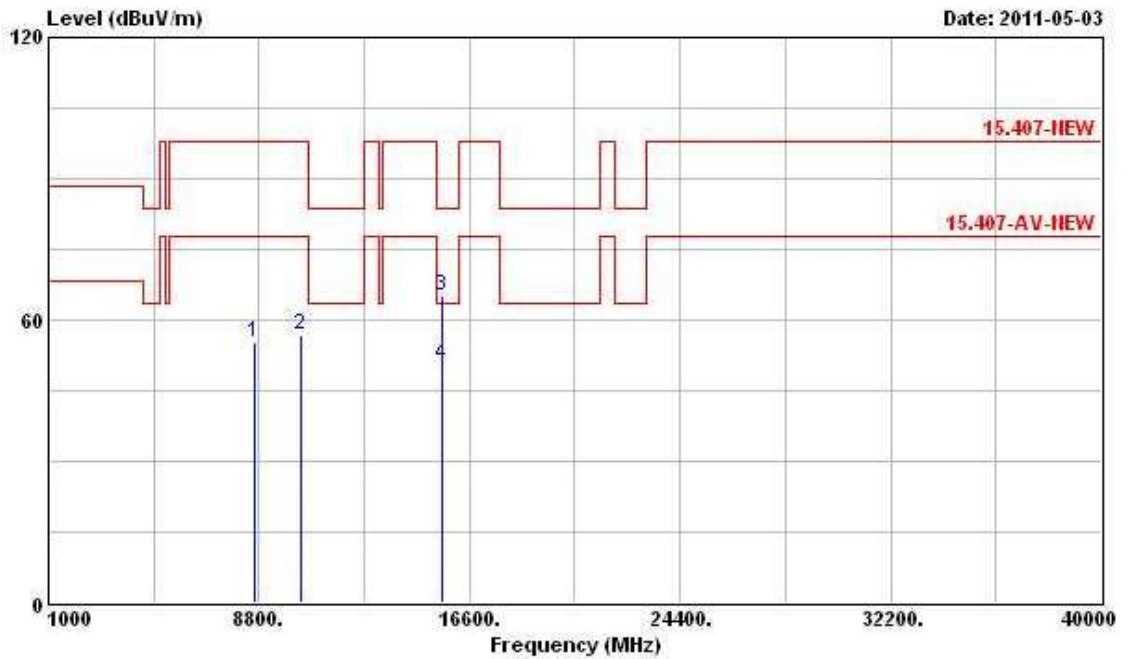
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8543.500	54.52	-43.32	97.84	44.36	38.46	5.96	34.26	Peak	---	---
2	11400.000	56.49	-7.05	63.54	42.82	40.56	6.71	33.60	PK	---	---
3	17100.000	67.11	-30.73	97.84	47.14	43.64	8.61	32.28	Peak	---	---

Final Test Date	May 03, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 38 (40MHz)

Horizontal

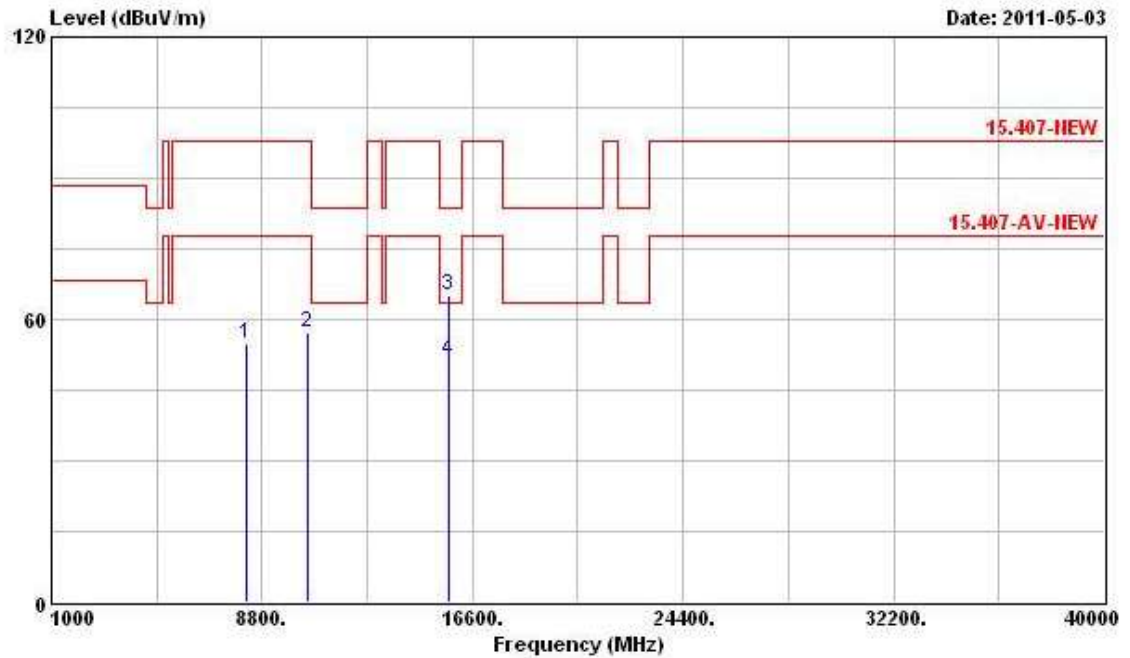
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8386.000	55.13	-22.71	77.84	45.03	38.43	5.91	34.24	PK	---	---
2	10380.000	56.80	-41.04	97.84	44.14	40.03	6.75	34.12	Peak	---	---
3	15570.000	65.28	-18.26	83.54	46.89	42.81	8.45	32.87	Peak	---	---
4	15570.000	51.68	-11.86	63.54	33.29	42.81	8.45	32.87	Average	---	---

Vertical



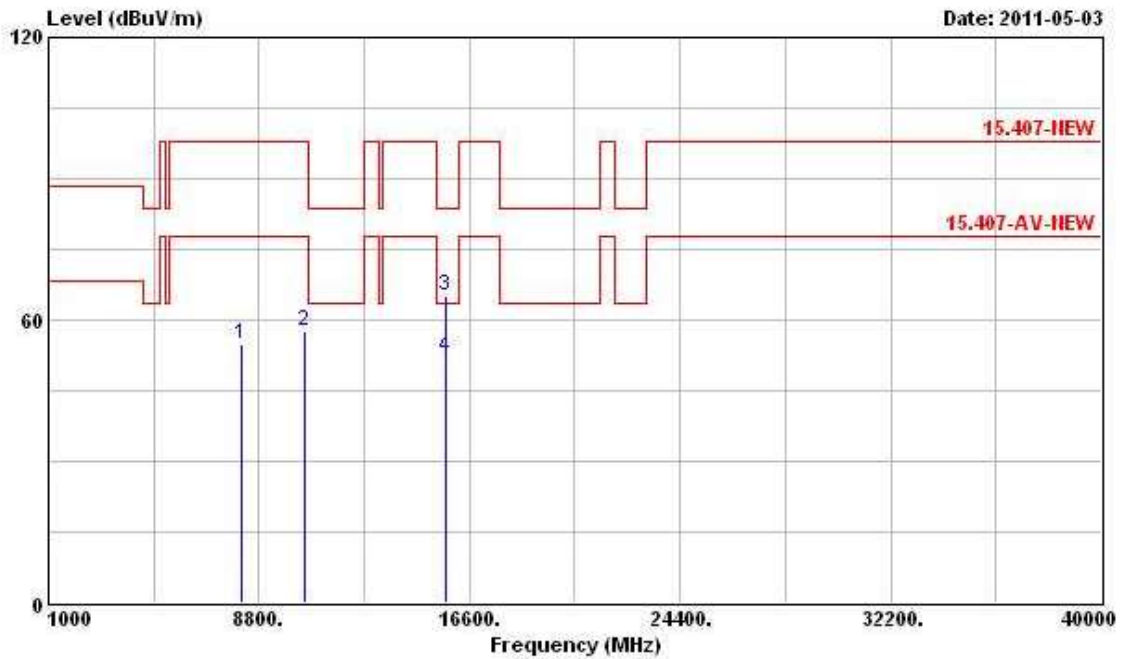
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8638.000	55.43	-42.41	97.84	45.39	38.39	6.01	34.36	Peak	---	---
2	10380.000	56.82	-41.02	97.84	44.16	40.03	6.75	34.12	Peak	---	---
3	15570.000	65.28	-18.26	83.54	46.89	42.81	8.45	32.87	Peak	---	---
4	15570.000	50.63	-12.91	63.54	32.24	42.81	8.45	32.87	Average	---	---

Final Test Date	May 03, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 46 (40MHz)

Horizontal

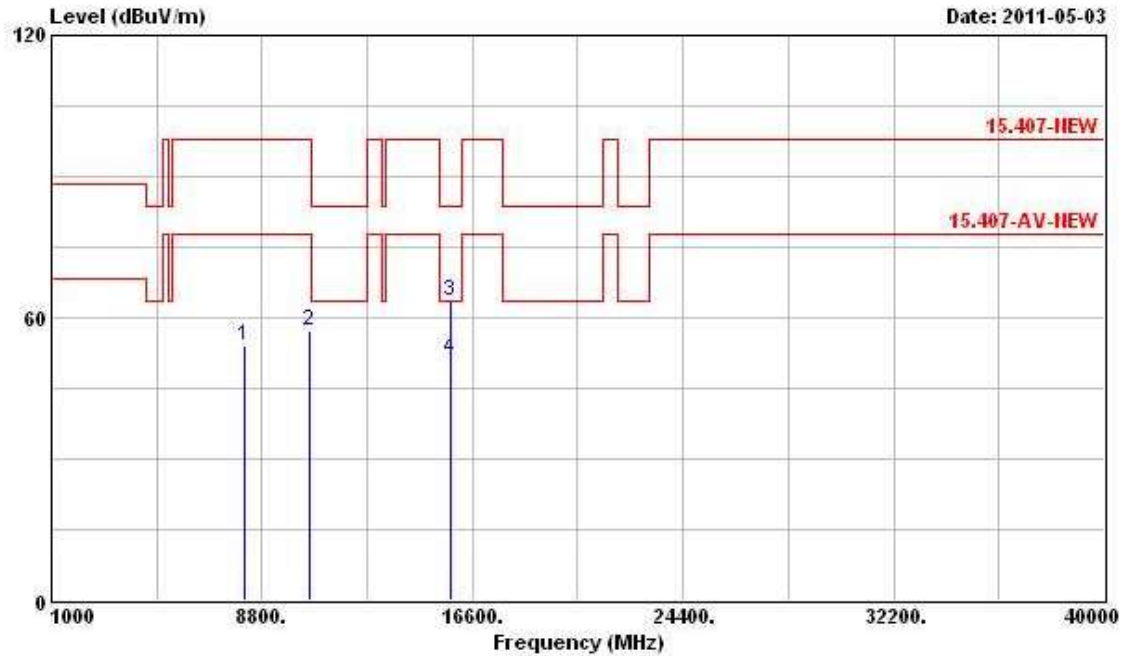
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8215.000	54.90	-22.94	77.84	45.02	38.32	5.86	34.30	PK	---	---
2	10460.000	57.22	-40.62	97.84	44.38	40.07	6.82	34.05	Peak	---	---
3	15690.000	64.97	-18.57	83.54	46.67	42.84	8.46	33.00	Peak	---	---
4	15690.000	51.50	-12.04	63.54	33.20	42.84	8.46	33.00	Average	---	---

Vertical



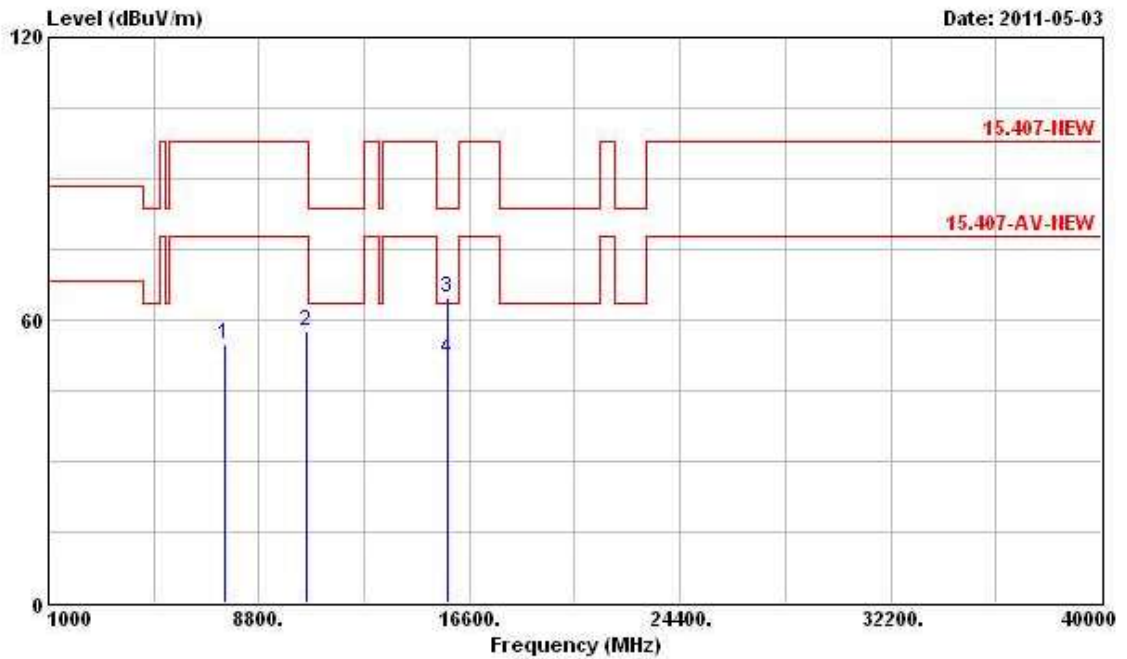
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8179.000	54.92	-22.92	77.84	45.08	38.30	5.85	34.31	PK	---	---
2	10460.000	57.56	-40.28	97.84	44.72	40.07	6.82	34.05	Peak	---	---
3	15690.000	65.08	-18.46	83.54	46.78	42.84	8.46	33.00	Peak	---	---
4	15690.000	52.11	-11.43	63.54	33.81	42.84	8.46	33.00	Average	---	---

Final Test Date	May 03, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 54 (40MHz)

Horizontal

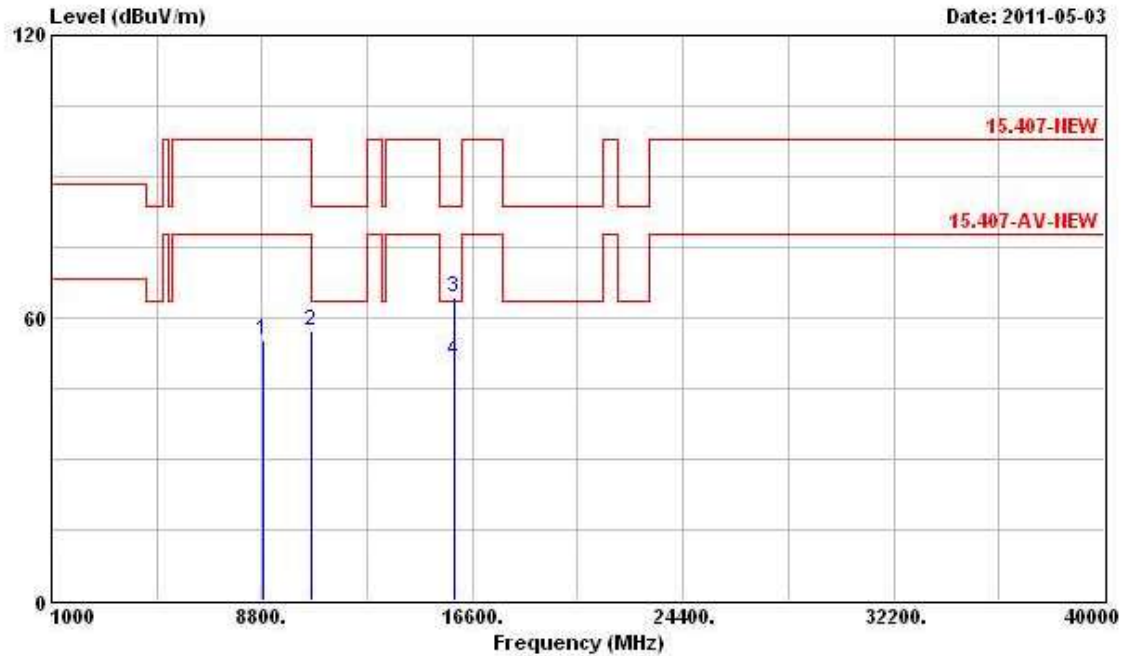
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8134.000	54.13	-23.71	77.84	44.34	38.28	5.84	34.33	PK	---	---
2	10540.000	57.40	-40.44	97.84	44.37	40.12	6.88	33.97	Peak	---	---
3	15810.000	63.68	-19.86	83.54	45.49	42.86	8.46	33.13	Peak	---	---
4	15810.000	51.15	-12.39	63.54	32.96	42.86	8.46	33.13	Average	---	---

Vertical



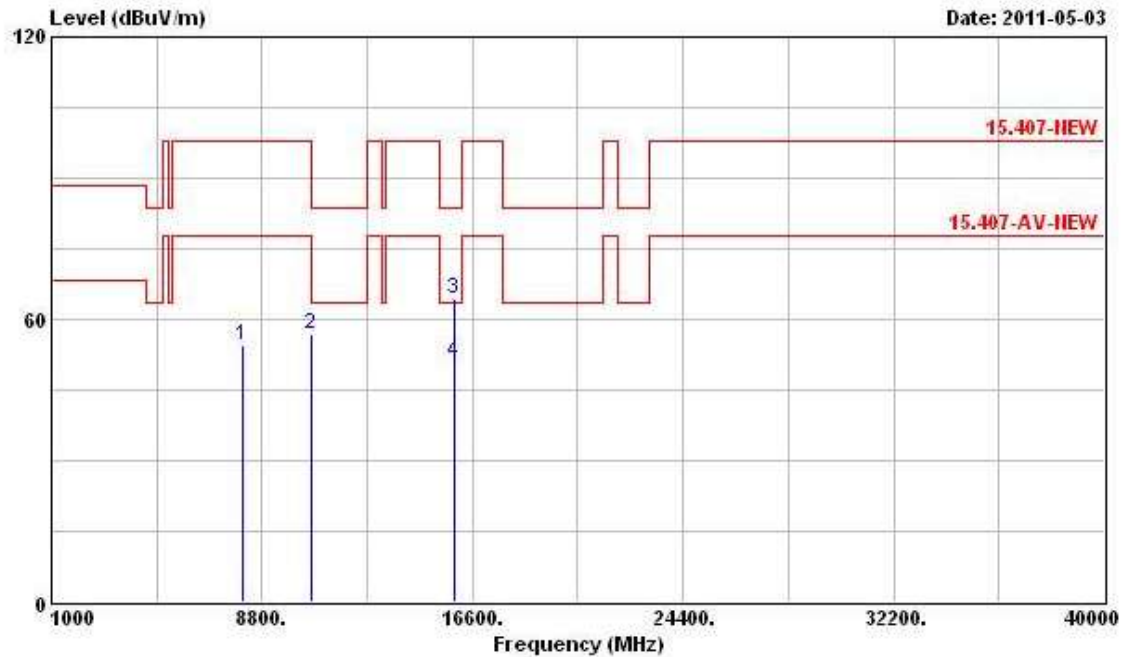
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7558.000	54.82	-23.02	77.84	45.51	37.94	5.67	34.30	PK	---	---
2	10540.000	57.55	-40.29	97.84	44.52	40.12	6.88	33.97	Peak	---	---
3	15810.000	64.84	-18.70	83.54	46.65	42.86	8.46	33.13	Peak	---	---
4	15810.000	51.61	-11.93	63.54	33.42	42.86	8.46	33.13	Average	---	---

Final Test Date	May 03, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 62 (40MHz)

Horizontal

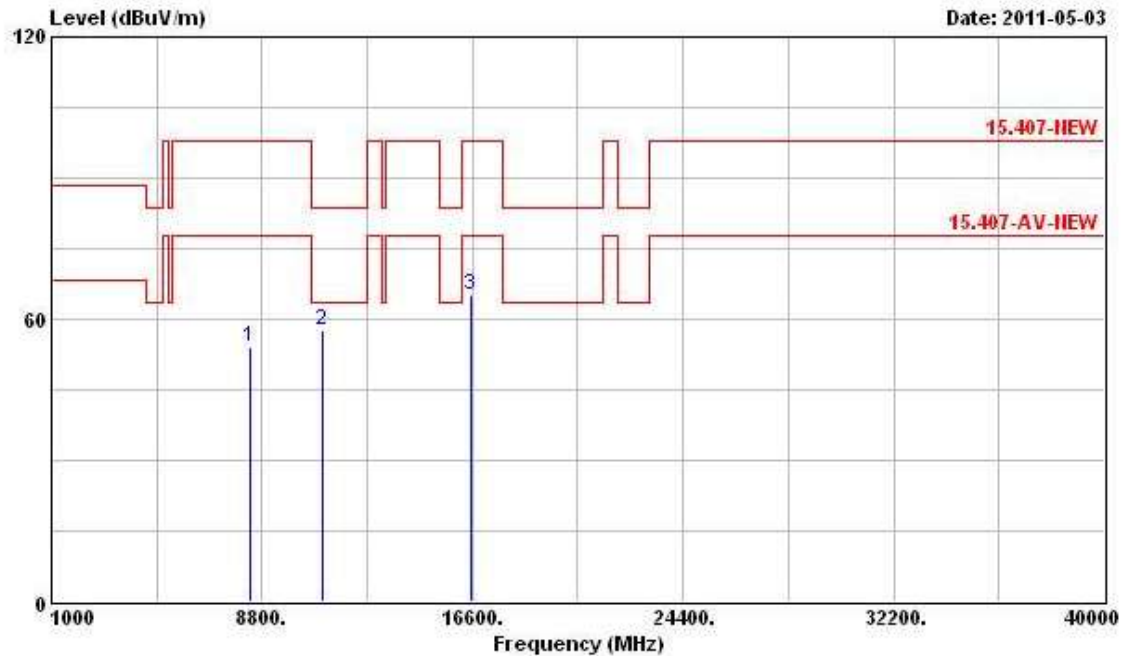
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8827.000	55.20	-42.64	97.84	45.41	38.25	6.09	34.55	Peak	---	---
2	10620.000	57.12	-6.42	63.54	43.89	40.17	6.93	33.87	PK	---	---
3	15930.000	64.22	-19.32	83.54	46.10	42.89	8.47	33.24	Peak	---	---
4	15930.000	50.97	-12.57	63.54	32.85	42.89	8.47	33.24	Average	---	---

Vertical



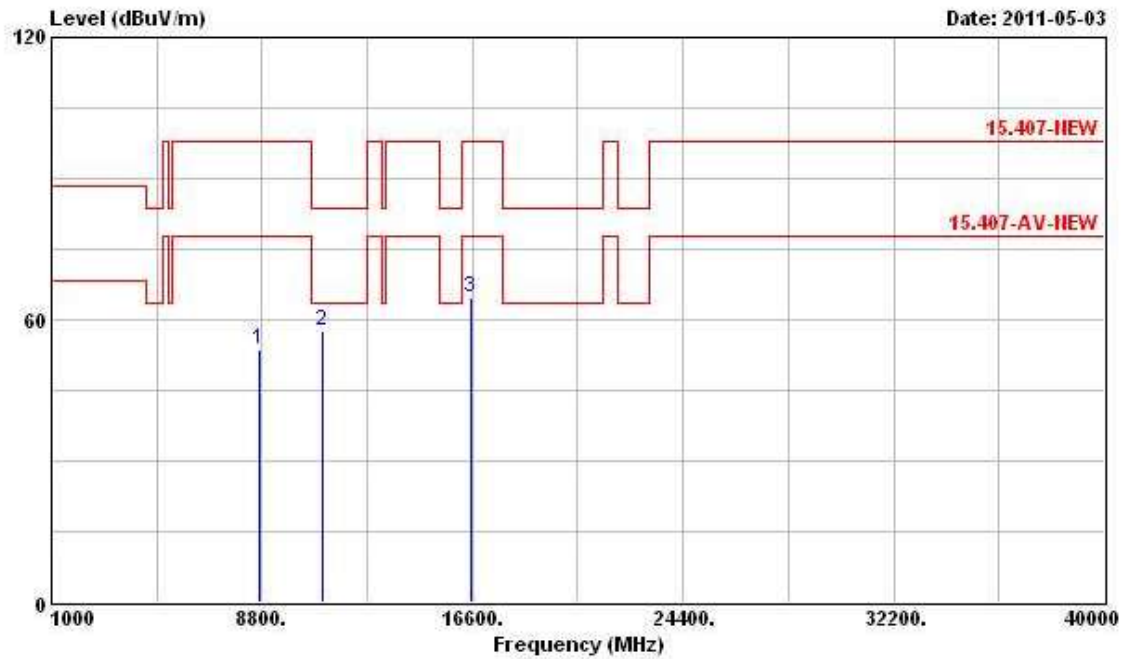
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8107.000	54.58	-23.26	77.84	44.82	38.26	5.83	34.33	PK	---	---
2	10620.000	56.85	-6.69	63.54	43.62	40.17	6.93	33.87	PK	---	---
3	15930.000	64.19	-19.35	83.54	46.07	42.89	8.47	33.24	Peak	---	---
4	15930.000	50.93	-12.61	63.54	32.81	42.89	8.47	33.24	Average	---	---

Final Test Date	May 03, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 102 (40MHz)

Horizontal

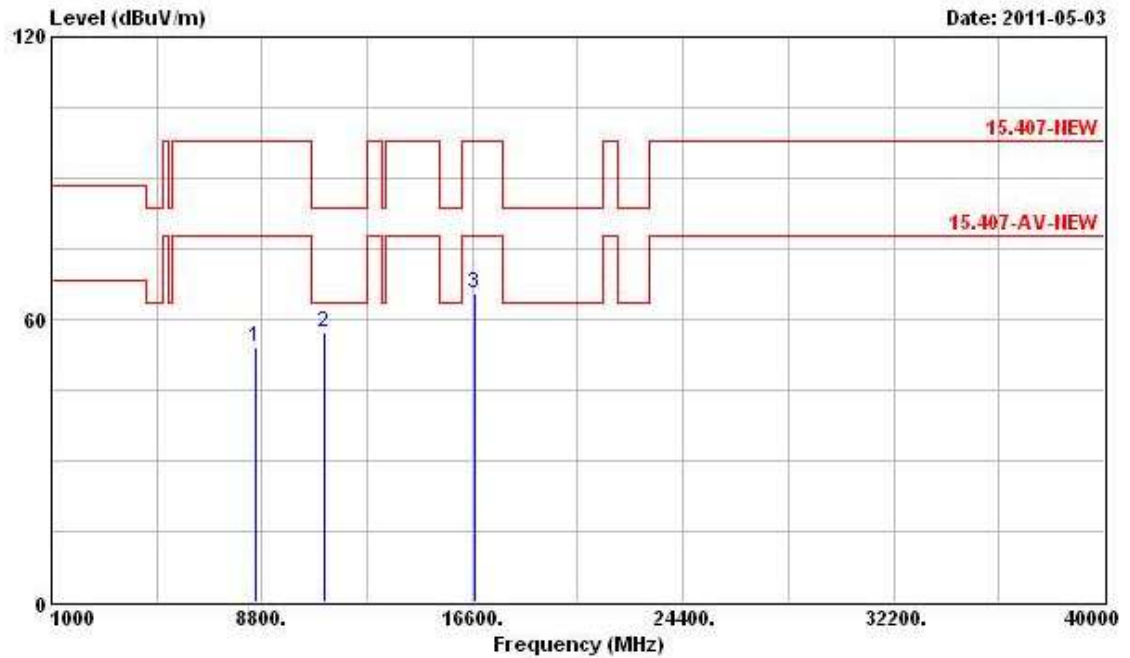
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8340.000	54.17	-23.67	77.84	44.12	38.41	5.90	34.26	PK	---	---
2	11020.000	57.59	-5.95	63.54	43.45	40.41	7.13	33.40	PK	---	---
3	16530.000	64.98	-32.86	97.84	45.96	43.51	8.27	32.76	Peak	---	---

Vertical



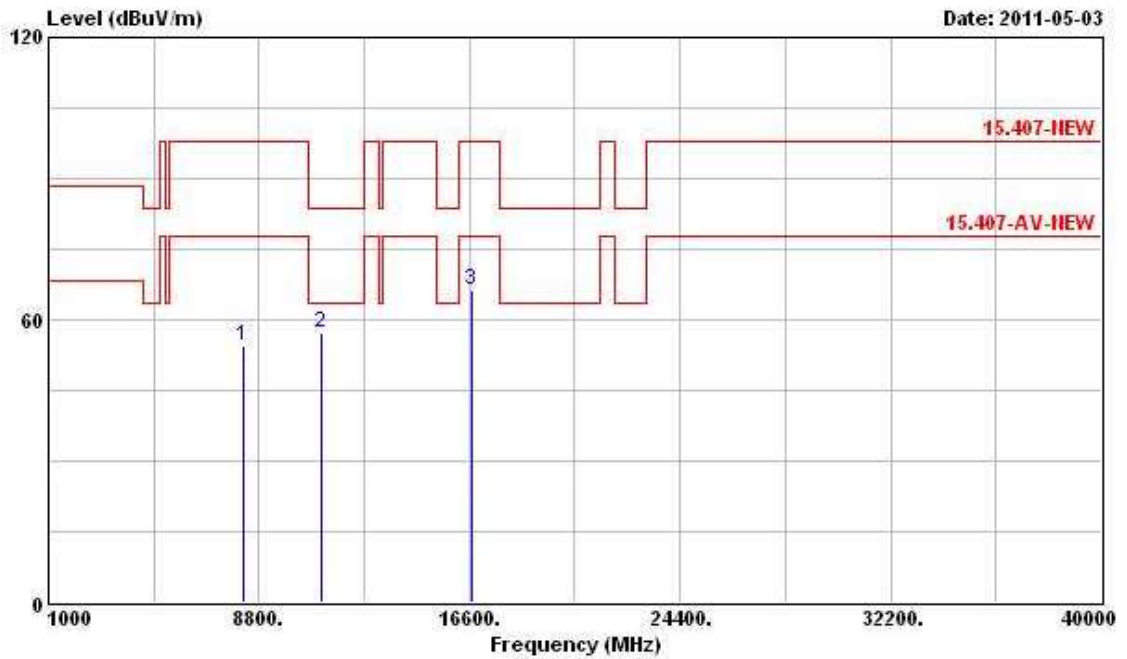
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8700.000	53.88	-43.96	97.84	43.94	38.34	6.02	34.42	Peak	---	---
2	11020.000	57.55	-5.99	63.54	43.41	40.41	7.13	33.40	PK	---	---
3	16530.000	64.54	-33.30	97.84	45.52	43.51	8.27	32.76	Peak	---	---

Final Test Date	May 03, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 110 (40MHz)

Horizontal

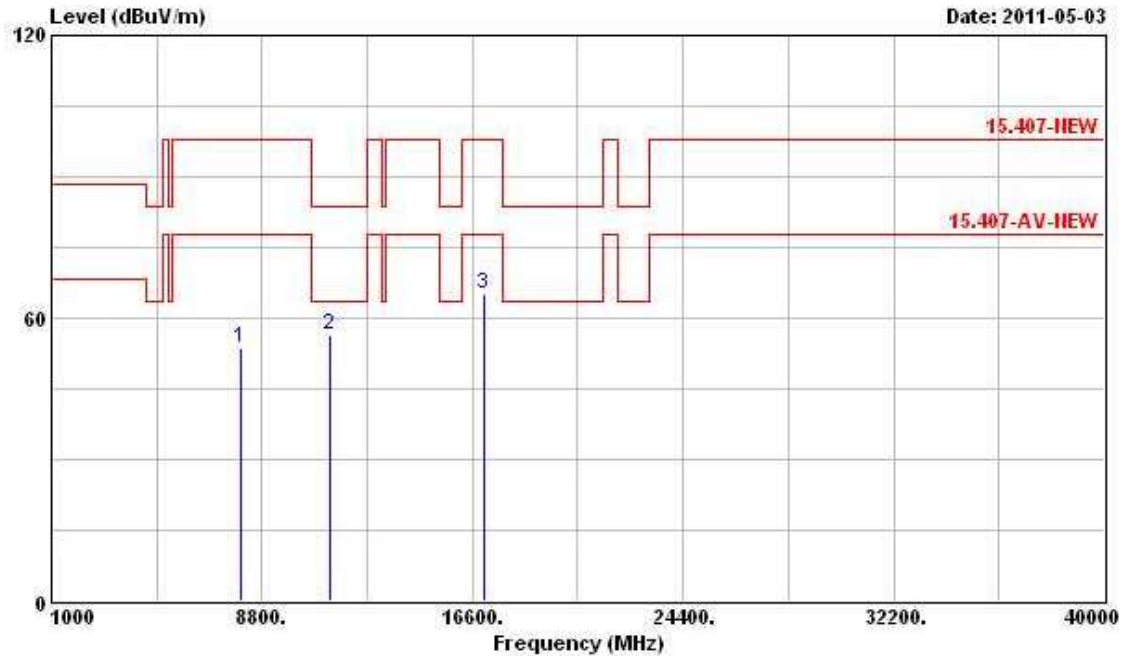
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8590.000	54.13	-43.71	97.84	44.02	38.43	5.99	34.31	Peak	---	---
2	11100.000	57.27	-6.27	63.54	43.22	40.44	7.05	33.44	PK	---	---
3	16650.000	65.58	-32.26	97.84	46.29	43.56	8.37	32.64	Peak	---	---

Vertical



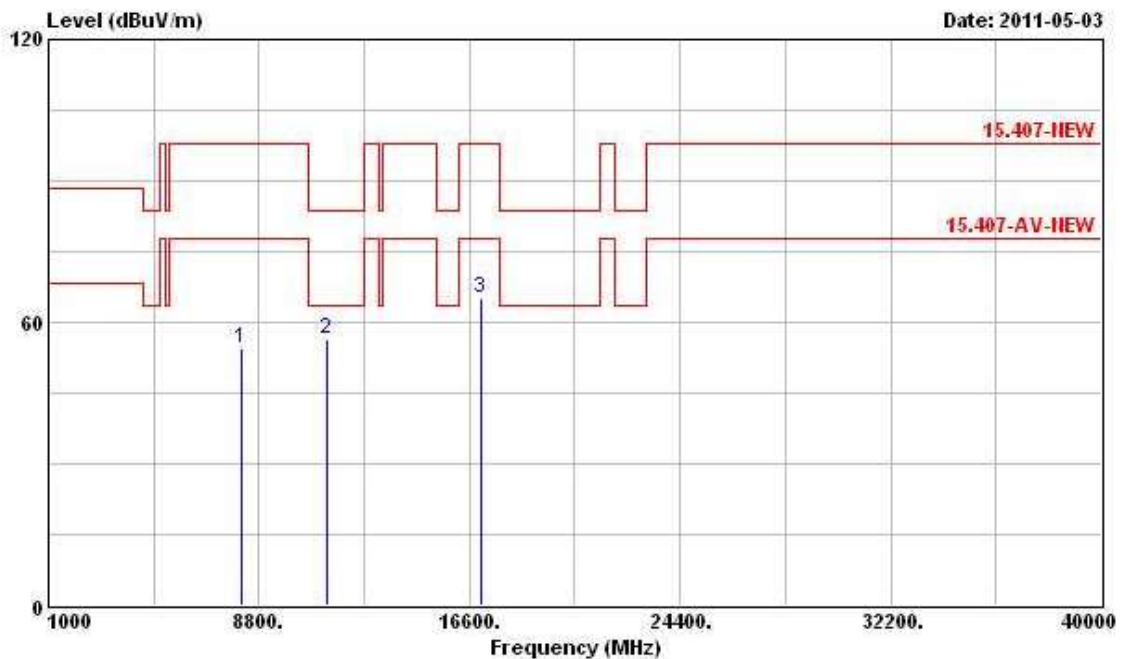
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8220.000	54.35	-23.49	77.84	44.46	38.33	5.86	34.30	PK	---	---
2	11100.000	57.40	-6.14	63.54	43.35	40.44	7.05	33.44	PK	---	---
3	16650.000	66.22	-31.62	97.84	46.93	43.56	8.37	32.64	Peak	---	---

Final Test Date	May 03, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 134 (40MHz)

Horizontal

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7987.000	53.65	-44.19	97.84	44.03	38.19	5.80	34.37	PK	---	---
2	11340.000	56.29	-7.25	63.54	42.52	40.53	6.80	33.56	Average	---	---
3	17010.000	65.03	-32.81	97.84	45.00	43.69	8.65	32.31	Peak	---	---

Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8165.500	54.58	-23.26	77.84	44.75	38.30	5.85	34.32	PK	---	---
2	11340.000	56.58	-6.96	63.54	42.81	40.53	6.80	33.56	PK	---	---
3	17010.000	65.13	-32.71	97.84	45.10	43.69	8.65	32.31	Peak	---	---

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [9.54 dB].

3.7 Band Edge and Fundamental Emissions Measurement

3.7.1 Limit

For transmitters operating in the 5.15-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz (68.3dBuV/m at 3m). For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz (68.3dBuV/m at 3m). In addition, In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

3.7.2 Measuring Instruments and Setting

Please refer to section 4 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RB / VB (Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (Emission in non-restricted band)	1 MHz /1 MHz for Peak

3.7.3 Test Procedures

1. The test procedure is the same as section 3.6.3, only the frequency range investigated is limited to 100MHz around band edges.
2. In case the emission is fail due to the used RB/VB is too wide, marker-delta method of FCC Public Notice DA00-705 will be followed.

3.7.4 Test Setup Layout

This test setup layout is the same as that shown in section 3.6.4.

3.7.5 Test Deviation

There is no deviation with the original standard.

3.7.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

3.7.7 Test Result of Band Edge and Fundamental Emissions

Final Test Date	Apr. 24, 2011	Test Site No.	03CH02-HY
Temperature	22.9℃	Humidity	53%
Test Engineer	Daniel	Configuration	802.11a Ch. 36, 40, 48

Channel 36

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	5135.900	57.59	-5.95	63.54	16.62	36.19	4.78	0.00	Average	---	---
2 @	5184.200	98.23			57.17	36.26	4.80	0.00	Average	---	---
1	5105.800	72.54	-11.00	83.54	31.61	36.16	4.77	0.00	Peak	---	---
2 @	5182.700	108.91			67.85	36.26	4.80	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 40

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	5103.000	57.55	-5.99	63.54	16.64	36.14	4.77	0.00	Average	---	---
2 @	5196.600	98.21			57.12	36.28	4.81	0.00	Average	---	---
3	5398.200	57.60	-5.94	63.54	16.16	36.56	4.88	0.00	Average	---	---
1	5135.700	71.54	-12.00	83.54	30.57	36.19	4.78	0.00	Peak	---	---
2 @	5195.700	108.90			67.81	36.28	4.81	0.00	Peak	---	---
3	5396.100	71.82	-11.72	83.54	30.38	36.56	4.88	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 48

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	5118.600	58.86	-4.68	63.54	17.92	36.16	4.78	0.00	Average	---	---
2 @	5236.500	98.75			57.60	36.33	4.82	0.00	Average	---	---
3	5393.400	58.88	-4.66	63.54	17.46	36.54	4.88	0.00	Average	---	---
1	5109.300	72.29	-11.25	83.54	31.36	36.16	4.77	0.00	Peak	---	---
2 @	5236.500	109.50			68.35	36.33	4.82	0.00	Peak	---	---
3	5368.200	72.28	-11.26	83.54	30.90	36.51	4.87	0.00	Peak	---	---

The item 2 is fundamental emissions.

Final Test Date	Apr. 25, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11a Ch. 52, 56, 64

Channel 52

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	5111.400	58.83	-4.71	63.54	17.90	36.16	4.77	0.00	Average	---	---
2 @	5277.000	100.23			58.99	36.40	4.84	0.00	Average	---	---
3	5395.800	58.95	-4.59	63.54	17.51	36.56	4.88	0.00	Average	---	---
1	5101.800	72.62	-10.92	83.54	31.71	36.14	4.77	0.00	Peak	---	---
2 @	5277.000	111.05			69.81	36.40	4.84	0.00	Peak	---	---
3	5385.300	72.76	-10.78	83.54	31.35	36.54	4.87	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 56

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5119.800	60.02	-3.52	63.54	19.08	36.16	4.78	0.00	Average	---	---
2 @	5282.100	100.76			59.52	36.40	4.84	0.00	Average	---	---
3 @	5387.700	59.92	-3.62	63.54	18.50	36.54	4.88	0.00	Average	---	---
1	5109.300	72.58	-10.96	83.54	31.65	36.16	4.77	0.00	Peak	---	---
2 @	5277.000	111.11			69.87	36.40	4.84	0.00	Peak	---	---
3	5398.500	73.46	-10.08	83.54	32.02	36.56	4.88	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 64

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5317.420	98.16			56.87	36.44	4.85	0.00	Average	---	---
2	5353.330	58.76	-4.78	63.54	17.40	36.49	4.87	0.00	Average	---	---
1 @	5316.370	109.21			67.92	36.44	4.85	0.00	Peak	---	---
2	5364.180	72.35	-11.19	83.54	30.97	36.51	4.87	0.00	Peak	---	---

The item 1 is fundamental emissions.

Final Test Date	May 01, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11a Ch. 100, 116, 140

Channel 100

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5456.800	59.54	-4.00	63.54	18.01	36.63	4.90	0.00	Average	---	---
2 @	5502.800	102.47			60.86	36.70	4.91	0.00	Average	---	---
1	5446.880	73.06	-10.48	83.54	31.53	36.63	4.90	0.00	Peak	---	---
2 @	5504.800	112.26			70.63	36.70	4.93	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 116

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5434.480	59.52	-4.02	63.54	18.01	36.61	4.90	0.00	Average	---	---
2 @	5576.880	101.58			59.85	36.78	4.95	0.00	Average	---	---
3	5740.400	61.18	-16.66	77.84	19.12	36.99	5.07	0.00	Average	---	---
1	5452.720	73.50	-10.04	83.54	31.97	36.63	4.90	0.00	Peak	---	---
2 @	5576.560	111.94			70.21	36.78	4.95	0.00	Peak	---	---
3	5745.520	73.52	-24.32	97.84	31.46	36.99	5.07	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 140

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5696.360	102.10			60.15	36.93	5.02	0.00	Average	---	---
2	5737.640	61.23	-16.61	77.84	19.20	36.99	5.04	0.00	Average	---	---
1 @	5696.660	113.12			71.17	36.93	5.02	0.00	Peak	---	---
2	5726.600	76.49	-21.35	97.84	34.48	36.97	5.04	0.00	Peak	---	---

The item 1 is fundamental emissions.

Final Test Date	May 01, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 36, 40, 48 (20MHz)

Channel 36

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5135.500	60.76	-2.78	63.54	19.79	36.19	4.78	0.00	Average	---	---
2 @	5176.300	105.49			64.43	36.26	4.80	0.00	Average	---	---
1	5135.500	73.99	-9.55	83.54	33.02	36.19	4.78	0.00	Peak	---	---
2 @	5185.000	117.23			76.17	36.26	4.80	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 40

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5110.500	60.15	-3.39	63.54	19.22	36.16	4.77	0.00	Average	---	---
2 @	5204.100	104.59			63.50	36.28	4.81	0.00	Average	---	---
3 @	5362.200	60.01	-3.53	63.54	18.63	36.51	4.87	0.00	Average	---	---
1	5118.900	73.16	-10.38	83.54	32.22	36.16	4.78	0.00	Peak	---	---
2 @	5203.800	116.96			75.87	36.28	4.81	0.00	Peak	---	---
3	5386.200	74.32	-9.22	83.54	32.91	36.54	4.87	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 48

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5113.800	60.05	-3.49	63.54	19.12	36.16	4.77	0.00	Average	---	---
2 @	5236.500	103.71			62.56	36.33	4.82	0.00	Average	---	---
3 @	5393.400	59.97	-3.57	63.54	18.55	36.54	4.88	0.00	Average	---	---
1	5117.400	73.09	-10.45	83.54	32.15	36.16	4.78	0.00	Peak	---	---
2 @	5236.200	115.97			74.82	36.33	4.82	0.00	Peak	---	---
3	5357.700	73.32	-10.22	83.54	31.96	36.49	4.87	0.00	Peak	---	---

The item 2 is fundamental emissions.

Final Test Date	May 01, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 52, 56, 64 (20MHz)

Channel 52

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5104.200	61.63	-1.91	63.54	20.72	36.14	4.77	0.00	Average	---	---
2 @	5264.100	109.57			68.38	36.37	4.82	0.00	Average	---	---
3 @	5383.800	60.02	-3.52	63.54	18.61	36.54	4.87	0.00	Average	---	---
1 @	5103.300	74.09	-9.45	83.54	33.18	36.14	4.77	0.00	Peak	---	---
2 @	5263.800	121.72			80.53	36.37	4.82	0.00	Peak	---	---
3 @	5384.100	73.70	-9.84	83.54	32.29	36.54	4.87	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 56

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5124.600	61.88	-1.66	63.54	20.91	36.19	4.78	0.00	Average	---	---
2 @	5276.100	109.42			68.18	36.40	4.84	0.00	Average	---	---
3 @	5363.400	60.16	-3.38	63.54	18.78	36.51	4.87	0.00	Average	---	---
1 @	5119.800	74.71	-8.83	83.54	33.77	36.16	4.78	0.00	Peak	---	---
2 @	5276.100	121.32			80.08	36.40	4.84	0.00	Peak	---	---
3 @	5362.200	73.98	-9.56	83.54	32.60	36.51	4.87	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 64

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5322.810	108.69			67.40	36.44	4.85	0.00	Average	---	---
2 @	5351.930	61.93	-1.61	63.54	20.57	36.49	4.87	0.00	Average	---	---
1 @	5323.090	121.17			79.88	36.44	4.85	0.00	Peak	---	---
2 @	5351.370	76.84	-6.70	83.54	35.48	36.49	4.87	0.00	Peak	---	---

The item 1 is fundamental emissions.

Final Test Date	May 01, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 100, 116, 140 (20MHz)

Channel 100

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5456.720	61.08	-2.46	63.54	19.55	36.63	4.90	0.00	Average	---	---
2 @	5504.720	107.63			66.00	36.70	4.93	0.00	Average	---	---
1 @	5458.720	74.00	-9.54	83.54	32.47	36.63	4.90	0.00	Peak	---	---
2 @	5503.520	119.46			77.85	36.70	4.91	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 116

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5457.520	60.03	-3.51	63.54	18.50	36.63	4.90	0.00	Average	---	---
2 @	5584.240	107.82			66.04	36.80	4.98	0.00	Average	---	---
3 @	5736.560	61.39	-16.45	77.84	19.36	36.99	5.04	0.00	Average	---	---
1 @	5452.720	72.40	-11.14	83.54	30.87	36.63	4.90	0.00	Peak	---	---
2 @	5581.680	118.98			77.23	36.80	4.95	0.00	Peak	---	---
3 @	5734.000	73.09	-24.75	97.84	31.08	36.97	5.04	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 140

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5695.220	109.50			67.55	36.93	5.02	0.00	Average	---	---
2 @	5732.900	63.62	-14.22	77.84	21.61	36.97	5.04	0.00	Average	---	---
1 @	5694.440	121.88			79.93	36.93	5.02	0.00	Peak	---	---
2 @	5728.520	81.10	-16.74	97.84	39.09	36.97	5.04	0.00	Peak	---	---

The item 1 is fundamental emissions.

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 38, 46, 54 (40MHz)

Channel 38

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5150.000	61.63	-1.91	63.54	20.64	36.21	4.78	0.00	Average	---	---
2 @	5195.100	100.44			59.35	36.28	4.81	0.00	Average	---	---
1	5145.400	76.81	-6.73	83.54	35.82	36.21	4.78	0.00	Peak	---	---
2 @	5197.100	114.41			73.32	36.28	4.81	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 46

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5149.500	59.92	-3.62	63.54	18.93	36.21	4.78	0.00	Average	---	---
2 @	5235.500	99.59			58.44	36.33	4.82	0.00	Average	---	---
3 @	5350.750	59.95	-3.59	63.54	18.59	36.49	4.87	0.00	Average	---	---
1	5131.500	73.43	-10.11	83.54	32.46	36.19	4.78	0.00	Peak	---	---
2 @	5235.750	113.64			72.49	36.33	4.82	0.00	Peak	---	---
3	5350.500	73.19	-10.35	83.54	31.83	36.49	4.87	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 54

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5148.500	59.83	-3.71	63.54	18.84	36.21	4.78	0.00	Average	---	---
2 @	5275.500	102.76			61.52	36.40	4.84	0.00	Average	---	---
3 @	5362.750	60.28	-3.26	63.54	18.90	36.51	4.87	0.00	Average	---	---
1	5149.500	72.76	-10.78	83.54	31.77	36.21	4.78	0.00	Peak	---	---
2 @	5264.500	117.10			75.91	36.37	4.82	0.00	Peak	---	---
3	5356.750	73.12	-10.42	83.54	31.76	36.49	4.87	0.00	Peak	---	---

The item 2 is fundamental emissions.

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 62, 102 (40MHz)

Channel 62

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5322.300	102.30			61.01	36.44	4.85	0.00	Average	---	---
2 @	5350.000	62.42	-1.12	63.54	21.06	36.49	4.87	0.00	Average	---	---
1 @	5324.200	116.49			75.20	36.44	4.85	0.00	Peak	---	---
2	5352.700	76.55	-6.99	83.54	35.19	36.49	4.87	0.00	Peak	---	---

The item 1 is fundamental emissions.

Channel 102

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5460.000	60.65	-2.89	63.54	19.12	36.63	4.90	0.00	Average	---	---
2 @	5514.700	103.24			61.59	36.72	4.93	0.00	Average	---	---
1	5459.800	76.67	-6.87	83.54	35.14	36.63	4.90	0.00	Peak	---	---
2 @	5516.300	117.56			75.91	36.72	4.93	0.00	Peak	---	---

The item 2 is fundamental emissions.

Final Test Date	May 02, 2011	Test Site No.	03CH02-HY
Temperature	22.9°C	Humidity	53%
Test Engineer	Daniel	Configuration	802.11n Ch. 110, 134 (40MHz)

Channel 110

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5456.500	60.00	-3.54	63.54	18.47	36.63	4.90	0.00	Average	---	---
2 @	5563.000	102.78			61.07	36.76	4.95	0.00	Average	---	---
3	5728.600	60.51	-17.33	77.84	18.50	36.97	5.04	0.00	Average	---	---
1 @	5459.800	73.16	-10.38	83.54	31.63	36.63	4.90	0.00	Peak	---	---
2 @	5555.800	117.14			75.43	36.76	4.95	0.00	Peak	---	---
3	5739.400	73.57	-24.27	97.84	31.51	36.99	5.07	0.00	Peak	---	---

The item 2 is fundamental emissions.

Channel 134

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	5683.000	102.18			60.25	36.91	5.02	0.00	Average	---	---
2	5736.600	61.32	-16.52	77.84	19.29	36.99	5.04	0.00	Average	---	---
1 @	5682.200	116.60			74.67	36.91	5.02	0.00	Peak	---	---
2	5736.600	75.15	-22.69	97.84	33.12	36.99	5.04	0.00	Peak	---	---

The item 1 is fundamental emissions.

3.8 Frequency Stability Measurement

3.8.1 Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emissions is maintained within the band of operation under all conditions of normal operation as specified in the user's manual or $\pm 20\text{ppm}$ (IEEE 802.11a specification).

3.8.2 Measuring Instruments and Setting

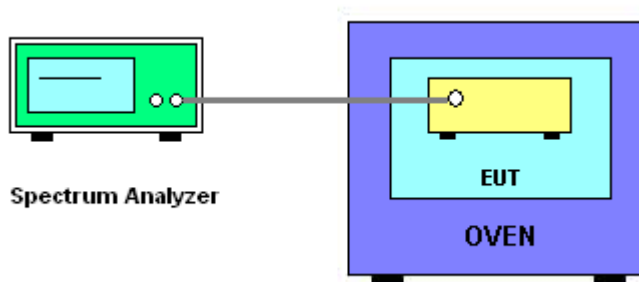
Please refer to section 4 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RB	10 kHz
VB	10 kHz
Sweep Time	Auto

3.8.3 Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5. f_c is declaring of channel frequency. Then the frequency error formula is $(f_c - f)/f_c \times 10^6$ ppm and the limit is less than $\pm 20\text{ppm}$ (IEEE 802.11a specification).
6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
7. Extreme temperature rule is $-30^\circ\text{C} \sim 50^\circ\text{C}$.
8. Measuring multiple antennas, the connectors are required to link with Spectrum Analyzer through a combiner.

3.8.4 Test Setup Layout



3.8.5 Test Deviation

There is no deviation with the original standard.

3.8.6 EUT Operation during Test

The EUT was programmed to be in continuously un-modulation transmitting mode.

3.8.7 Test Result of Frequency Stability

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	IEEE 802.11a/n (20MHz) 5320 MHz
12.77	5319.960000
11.1	5319.960000
9.44	5319.960000
Max. Deviation (MHz)	0.040000
Max. Deviation (ppm)	7.52

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)
(°C)	IEEE 802.11a/n (20MHz) 5320 MHz
-30	5319.960000
-20	5319.960000
-10	5319.960000
0	5319.960000
10	5319.960000
20	5319.960000
30	5319.960000
40	5319.960000
50	5319.960000
Max. Deviation (MHz)	0.040000
Max. Deviation (ppm)	7.52

Voltage	Measurement Frequency (MHz)
(V)	IEEE 802.11n (40MHz) 5510 MHz
12.77	5510.000000
11.1	5510.000000
9.44	5510.000000
Max. Deviation (MHz)	0.000000
Max. Deviation (ppm)	0.00

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)
(°C)	IEEE 802.11n (40MHz) 5510 MHz
-25	5510.000000
-20	5510.000000
-10	5510.000000
0	5510.000000
10	5510.000000
20	5510.000000
30	5510.000000
40	5510.000000
50	5510.000000
Max. Deviation (MHz)	0.000000
Max. Deviation (ppm)	0.00

3.9 Antenna Requirements

3.9.1 Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited.

3.9.2 Antenna Connector Construction

Please refer to section 2.3 in this test report; antenna connector complied with the requirements.

4 LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9kHz – 2.75GHz	Apr. 20, 2011	Conduction (CO04-HY)
LISN	MessTec	NNB-2/16Z	99041	9kHz – 30MHz	Mar. 10, 2011	Conduction (CO04-HY)
LISN (Support Unit)	EMCO	3810/2NM	9703-1839	9kHz – 30MHz	Apr. 29, 2010	Conduction (CO04-HY)
RF Cable-CON	HUBER+SUHNER	RG213/U	CB049	9kHz – 30MHz	Apr. 21, 2011	Conduction (CO04-HY)

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	R&S	FSU26.5	100015	20Hz ~ 26.5GHz	Jan. 06, 2011	Conducted (TH01-HY)
DC Power Source	G.W.	GPC-6030D	C671845	DC 1V ~ 60V	Apr. 15, 2011	Conducted (TH01-HY)
Temp. and Humidity Chamber	Giant Force	GTH-225-20-S	MAB0103-001	N/A	Oct. 22, 2010	Conducted (TH01-HY)
RF CABLE-1m	Jye Bao	RG142	CB034-1m	20MHz ~ 7GHz	Dec. 02, 2010	Conducted (TH01-HY)
RF CABLE-2m	Jye Bao	RG142	CB035-2m	20MHz ~ 1GHz	Dec. 02, 2010	Conducted (TH01-HY)
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	Mar. 29, 2011	Conducted (TH01-HY)
Power Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	Jan. 06, 2011	Conducted (TH01-HY)
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	Jan. 06, 2011	Conducted (TH01-HY)

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
AC Power Source	HPC	HPA-500W	HPA-9100024	AC 0 ~ 300V	Jul. 26, 2010*	Conducted (TH01-HY)

Note: Calibration Interval of instruments listed above is two year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	R&S	FSP40	100305/040	9 kHz - 40GHz	Feb. 11, 2011	Radiation (03CH02-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30 MHz - 1 GHz 3m	Jun. 18, 2010	Radiation (03CH02-HY)
Amplifier	Agilent	8447D	2944A11146	100 kHz – 1.3 GHz	Jul. 23, 2010	Radiation (03CH02-HY)
Amplifier	Agilent	8449B	3008A02373	1GHz – 26.5 GHz	Jul. 23, 2010	Radiation (03CH02-HY)
Horn Antenna	ETS-LINDGREN	3117	00091920	1GHz~18GHz	Nov. 11, 2010	Radiation (03CH02-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30MHz ~ 1GHz	Mar. 07, 2011	Radiation (03CH02-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX106	03CH02-HY	1GHz~40GHz	Mar. 07, 2011	Radiation (03CH02-HY)
Bilog Antenna	SCHAFFNER	CBL61128	2723	30 MHz - 2 GHz	Oct. 16, 2010	Radiation (03CH02-HY)
Turn Table	HD	DS 420	420/649/00	0 - 360 degree	N/A	Radiation (03CH02-HY)
Antenna Mast	HD	MA 240	240/559/00	1 m - 4 m	N/A	Radiation (03CH02-HY)

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	Jul. 29, 2010*	Radiation (03CH02-HY)

Note: Calibration Interval of instruments listed above is two year.

5 TEST LOCATION

SHIJR	ADD : 6Fl., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C. TEL : 886-2-2696-2468 FAX : 886-2-2696-2255
HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-318-0055
LINKOU	ADD : No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C TEL : 886-2-2601-1640 FAX : 886-2-2601-1695
DUNGHU	ADD : No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C. TEL : 886-2-2631-4739 FAX : 886-2-2631-9740
JUNGHE	ADD : 7Fl., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C. TEL : 886-2-8227-2020 FAX : 886-2-8227-2626
NEIHU	ADD : 4Fl., No. 339, Hsin Hu 2 nd Rd., Taipei 114, Taiwan, R.O.C. TEL : 886-2-2794-8886 FAX : 886-2-2794-9777
JHUBEI	ADD : No.8, Lane 728, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

6 TAF CERTIFICATE OF ACCREDITATION


財團法人全國認證基金會
Taiwan Accreditation Foundation

Certificate No. : L1190-110111

Certificate of Accreditation

This is to certify that

Sporton International Inc.
EMC & Wireless Communications Laboratory
No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien,
Taiwan, R.O.C.

is accredited in respect of laboratory

Accreditation Criteria	: ISO/IEC 17025:2005
Accreditation Number	: 1190
Originally Accredited	: December 15, 2003
Effective Period	: January 10, 2010 to January 09, 2013
Accredited Scope	: Testing Field, see described in the Appendix
Specific Accreditation Program	: Accreditation Program for Designated Testing Laboratory for Commodities Inspection Accreditation Program for Telecommunication Equipment Testing Laboratory Accreditation Program for BSMI Mutual Recognition Arrangement with Foreign Authorities


Jay-San Chen
President, Taiwan Accreditation Foundation
Date : January 11, 2011

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