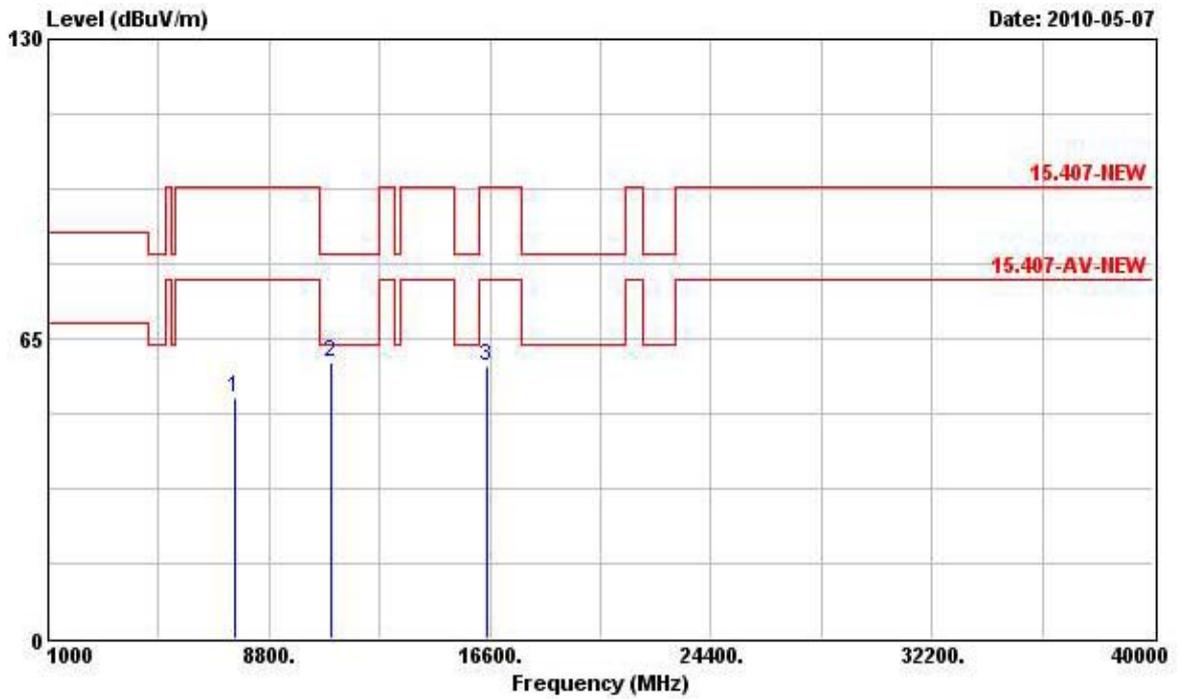


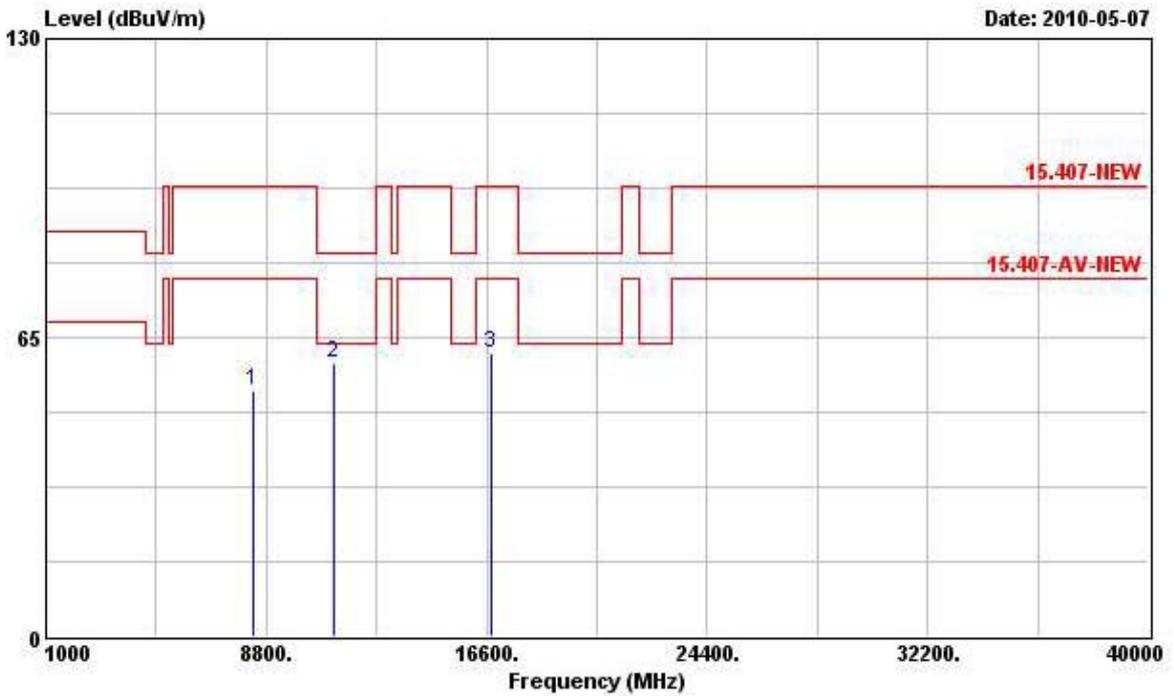
Vertical



	Freq	Level	Over Limit	Limit Line	Read Antenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7559.000	51.98	-25.86	77.84	42.09	37.37	4.54	32.02	100	361	PK
2 @	11000.000	60.05	-3.49	63.54	46.55	39.00	6.55	32.05	100	361	PK
3	16500.000	59.17	-18.67	77.84	43.88	39.00	7.52	31.23	100	361	PK

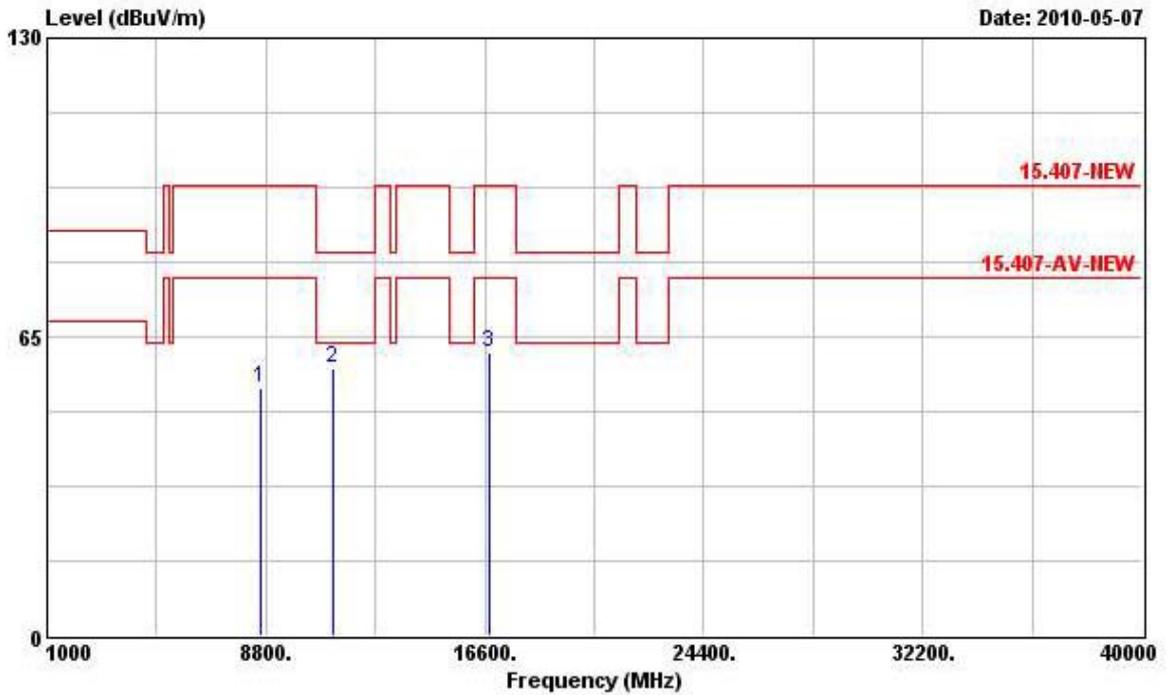
Final Test Date	May 07, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 116 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8326.000	53.36	-24.48	77.84	42.11	38.13	5.23	32.10	100	0	PK
2 @	11160.000	59.58	-3.96	63.54	45.49	39.23	6.64	31.78	100	0	PK
3	16740.000	61.38	-16.46	77.84	44.70	40.11	7.65	31.07	100	0	PK

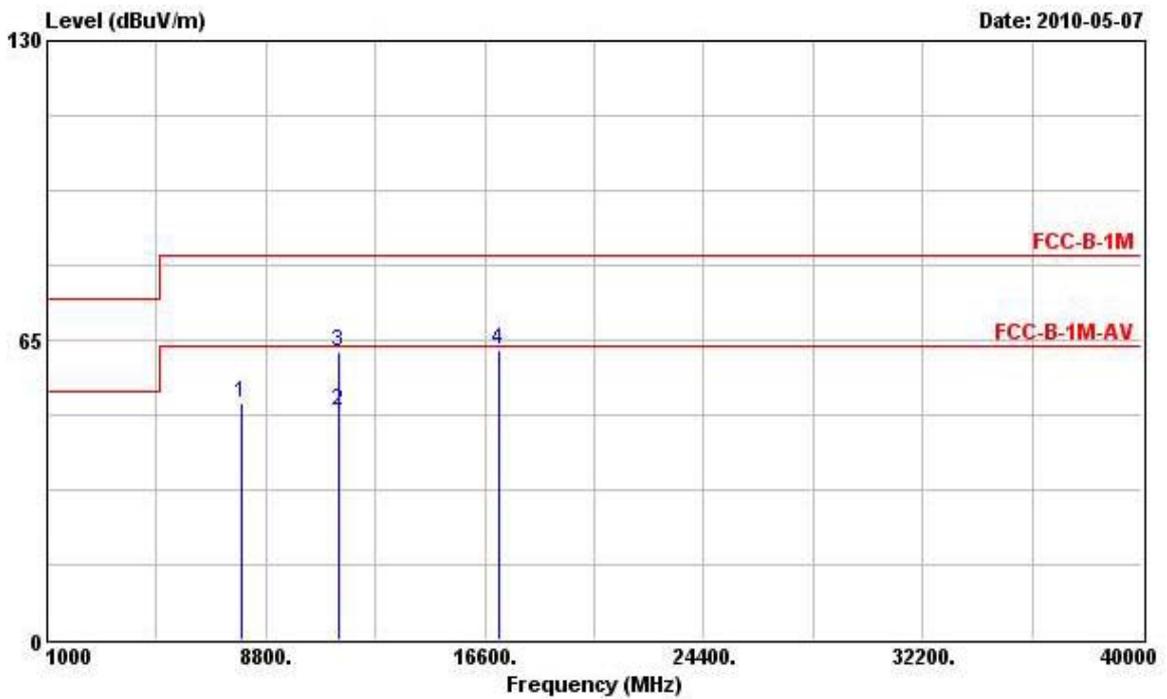
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamplifier Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8638.000	53.79	-24.05	77.84	42.30	38.38	5.21	32.10	100	359	PK
2 @	11160.000	58.24	-5.30	63.54	44.15	39.23	6.64	31.78	100	359	PK
3	16740.000	61.56	-16.28	77.84	44.88	40.11	7.65	31.07	100	359	PK

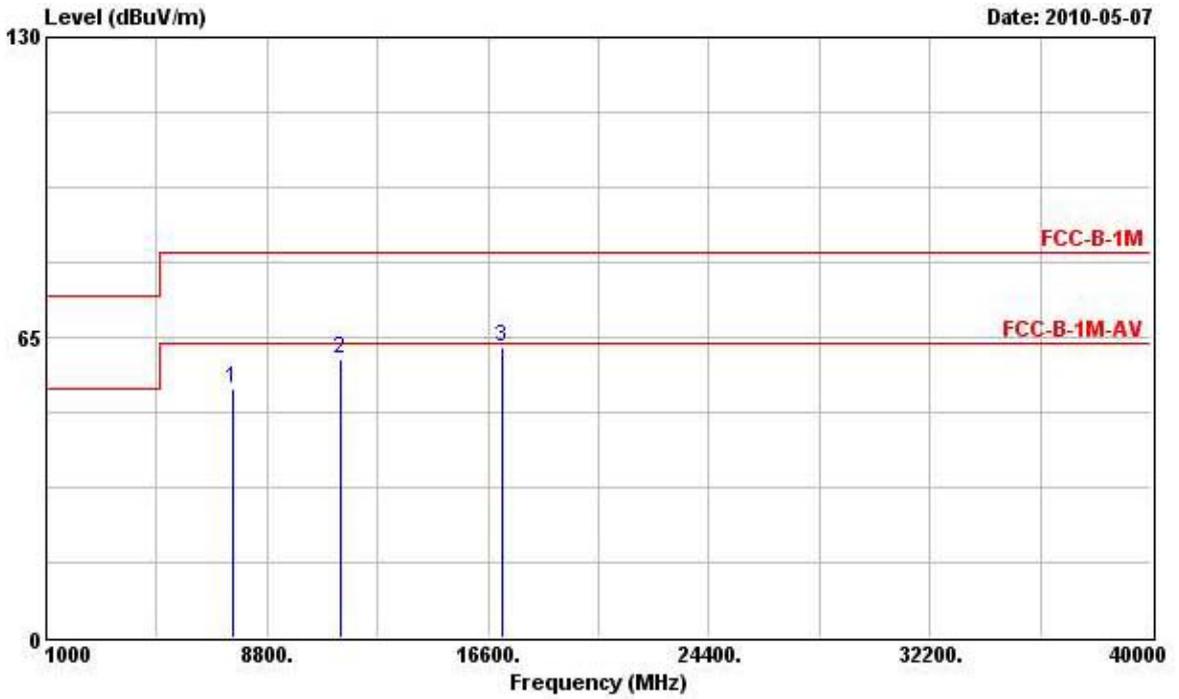
Final Test Date	May 07, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 140 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7949.000	51.16	-32.38	83.54	40.93	37.75	4.68	32.20	100	360	Peak
2	11400.000	49.75	-13.79	63.54	34.79	39.56	6.75	31.34	100	360	Average
3	11400.000	62.23	-21.31	83.54	47.27	39.56	6.75	31.34	100	360	Peak
4	17100.000	62.80	-20.74	83.54	43.77	42.14	7.79	30.90	100	360	Peak

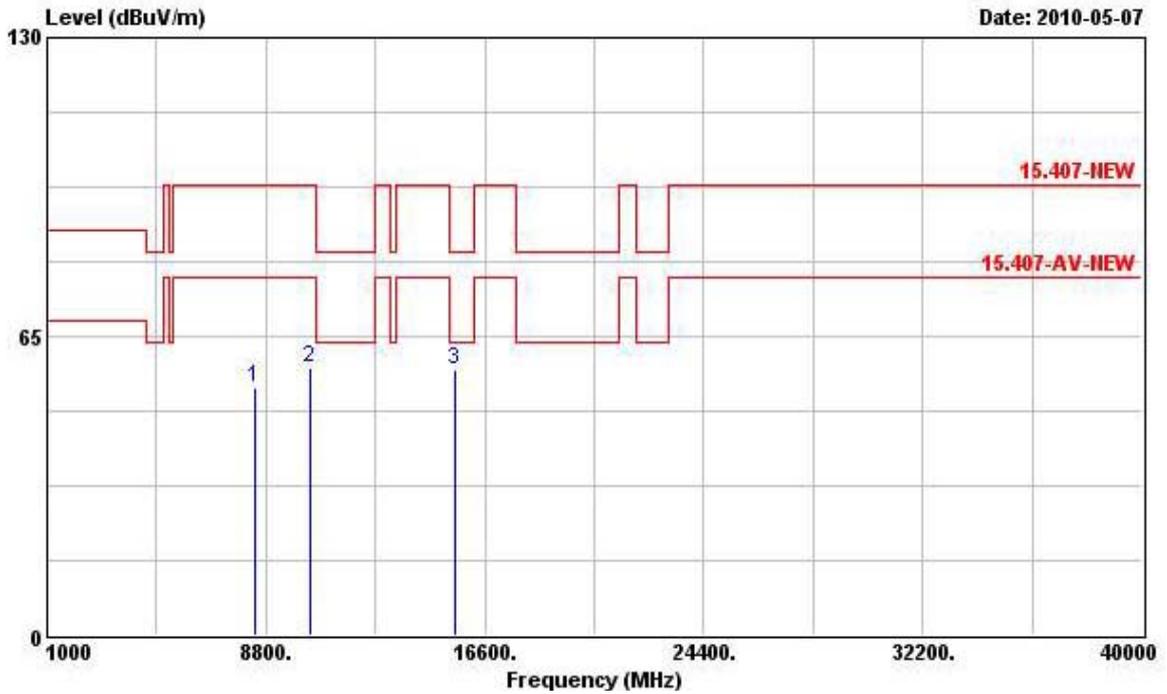
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7598.000	53.68	-9.86	63.54	43.77	37.40	4.55	32.04	100	4	PK
2	11400.000	60.41	-3.13	63.54	45.45	39.56	6.75	31.34	100	4	PK
3	17100.000	62.84	-20.70	83.54	43.81	42.14	7.79	30.90	100	4	Peak

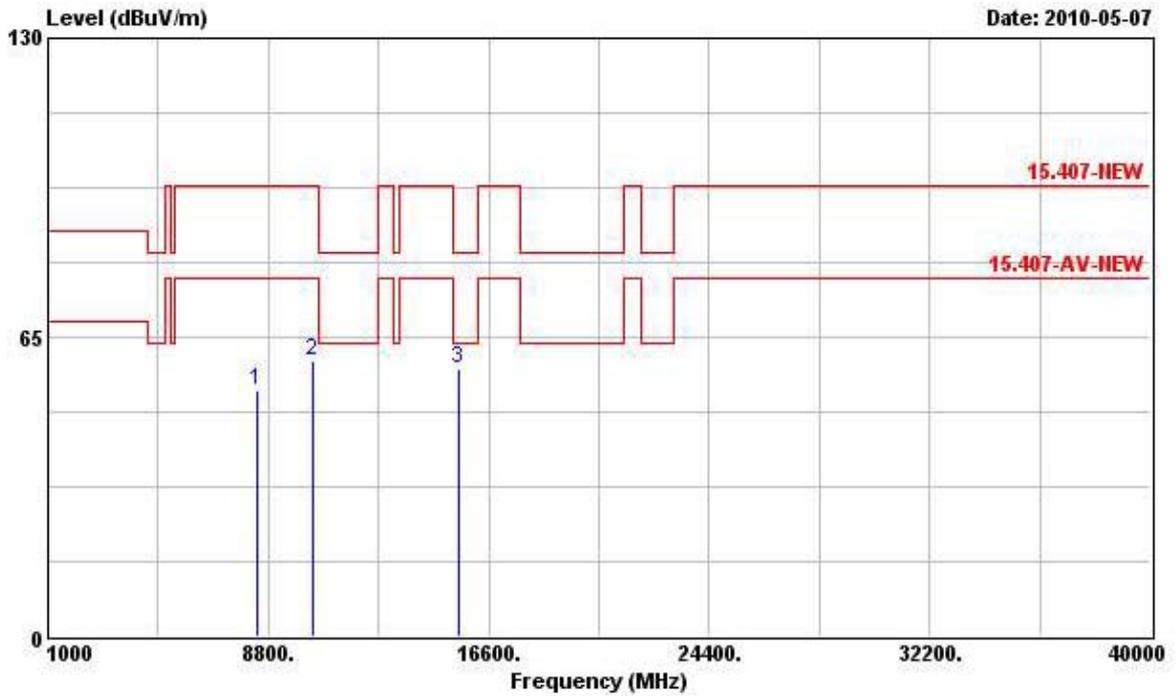
Final Test Date	May 07, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 38 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8430.000	53.73	-24.11	77.84	42.14	38.23	5.42	32.06	100	0	PK
2	10380.000	58.19	-19.65	77.84	44.51	39.32	6.14	31.78	100	0	PK
3 @	15570.000	57.66	-5.88	63.54	43.97	37.53	7.38	31.22	100	0	PK

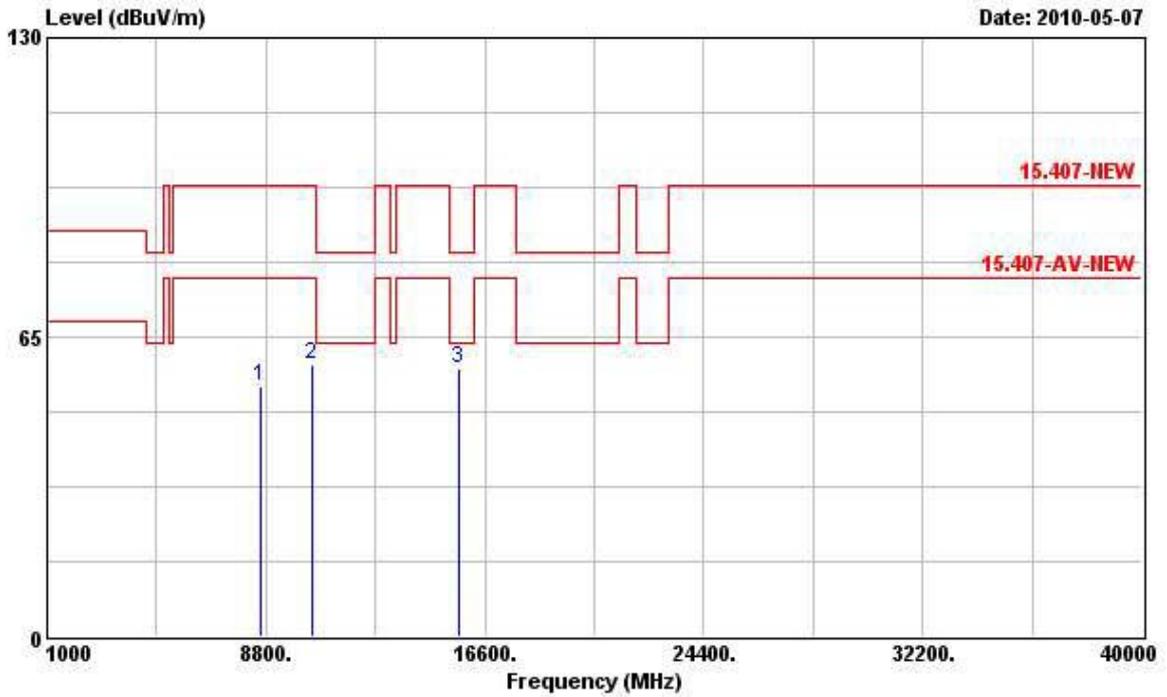
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8378.000	53.64	-24.20	77.84	42.25	38.18	5.29	32.08	100	360	PK
2	10380.000	59.86	-17.98	77.84	46.18	39.32	6.14	31.78	100	360	PK
3 @	15570.000	58.14	-5.40	63.54	44.45	37.53	7.38	31.22	100	360	PK

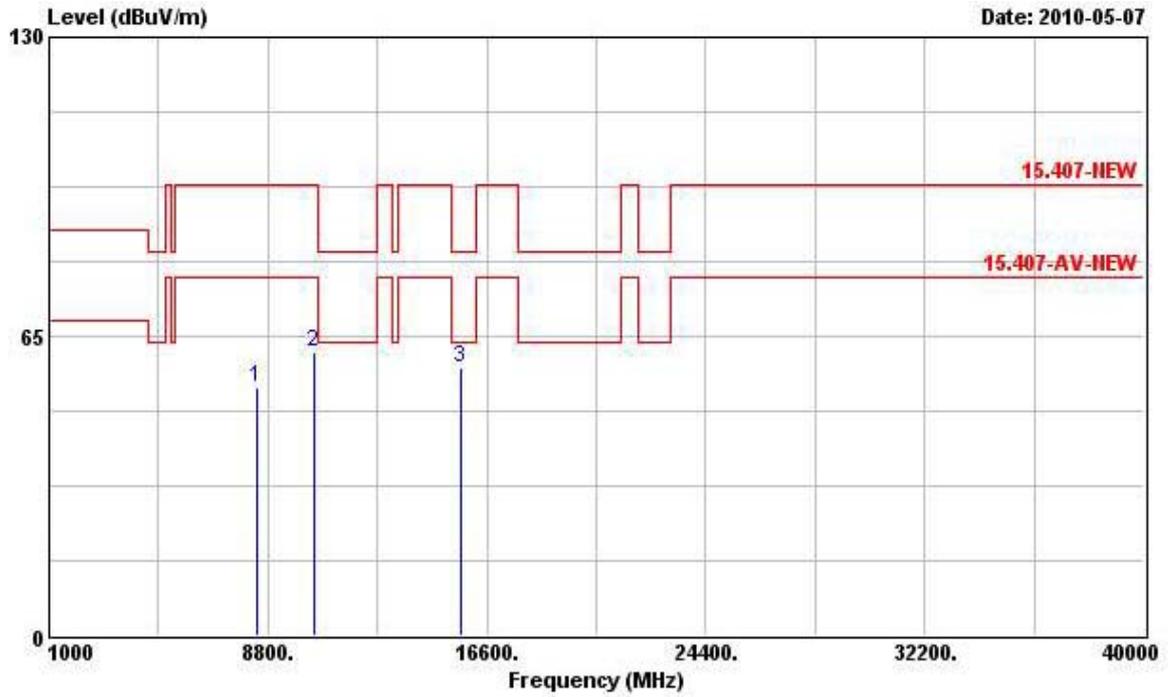
Final Test Date	May 07, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 46 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8586.000	54.25	-23.59	77.84	42.68	38.35	5.28	32.07	100	360	PK
2	10460.000	59.14	-18.70	77.84	45.24	39.31	6.23	31.64	100	360	PK
3	15690.000	58.23	-5.31	63.54	44.53	37.58	7.40	31.28	100	360	PK

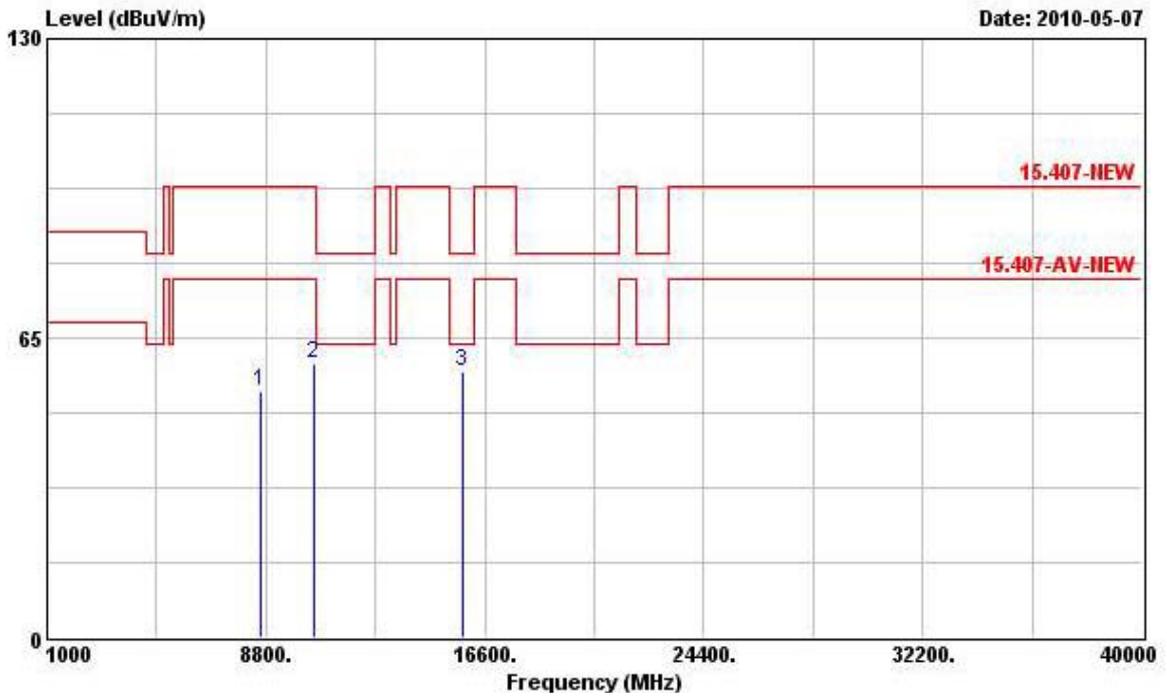
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8378.000	53.95	-23.89	77.84	42.56	38.18	5.29	32.08	100	0	PK
2	10460.000	61.71	-16.13	77.84	47.81	39.31	6.23	31.64	100	0	PK
3 @	15690.000	58.24	-5.30	63.54	44.54	37.58	7.40	31.28	100	0	PK

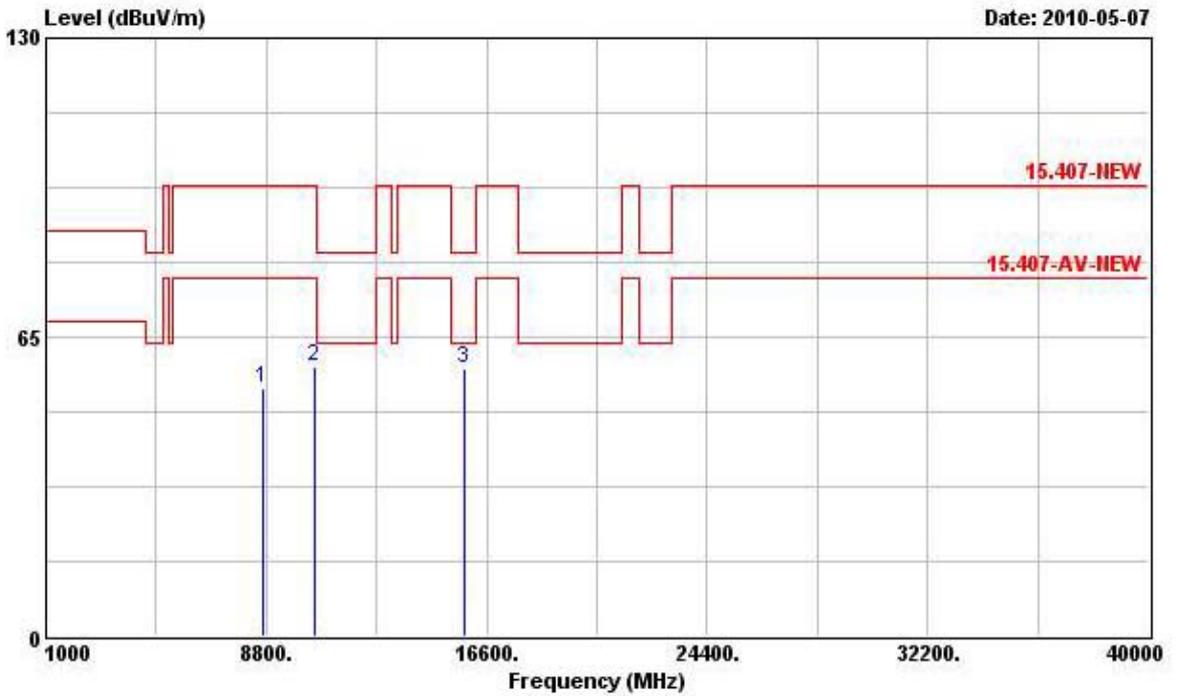
Final Test Date	May 07, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 54 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8599.000	53.60	-24.24	77.84	42.04	38.36	5.28	32.08	100	0	PK
2	10540.000	59.25	-18.59	77.84	45.25	39.28	6.30	31.58	100	0	PK
3 @	15810.000	57.73	-5.81	63.54	44.01	37.62	7.43	31.33	100	0	PK

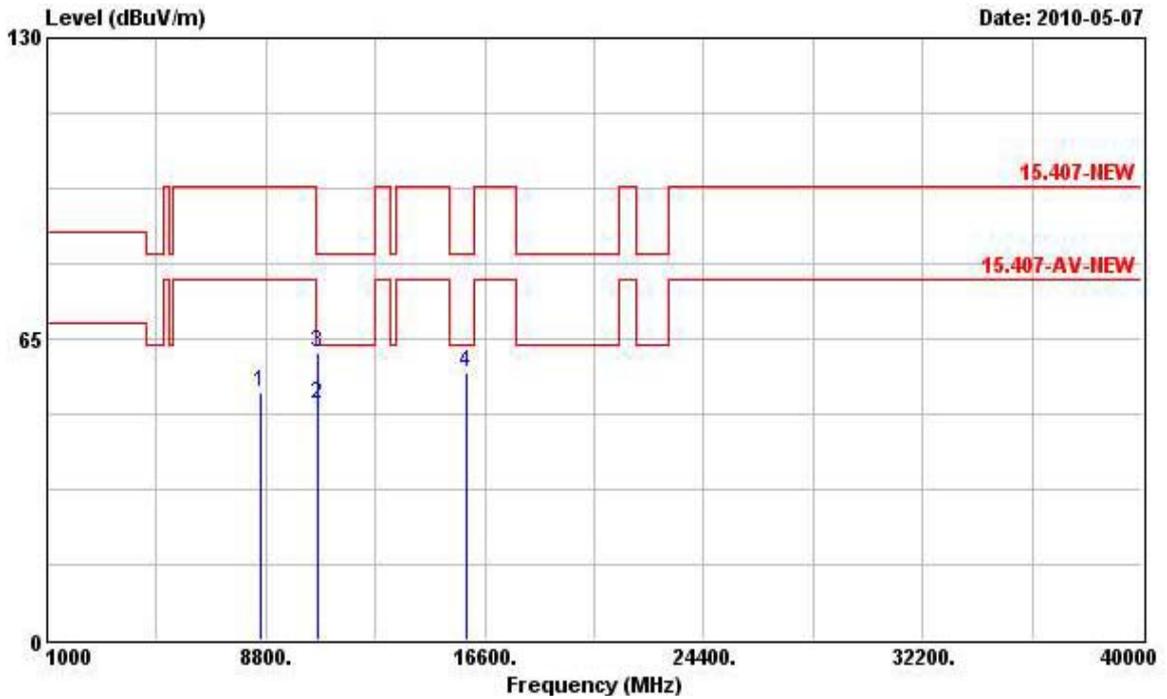
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8651.000	54.04	-23.80	77.84	42.54	38.39	5.21	32.10	100	361	PK
2	10540.000	58.66	-19.18	77.84	44.66	39.28	6.30	31.58	100	361	PK
3 @	15810.000	58.18	-5.36	63.54	44.46	37.62	7.43	31.33	100	361	PK

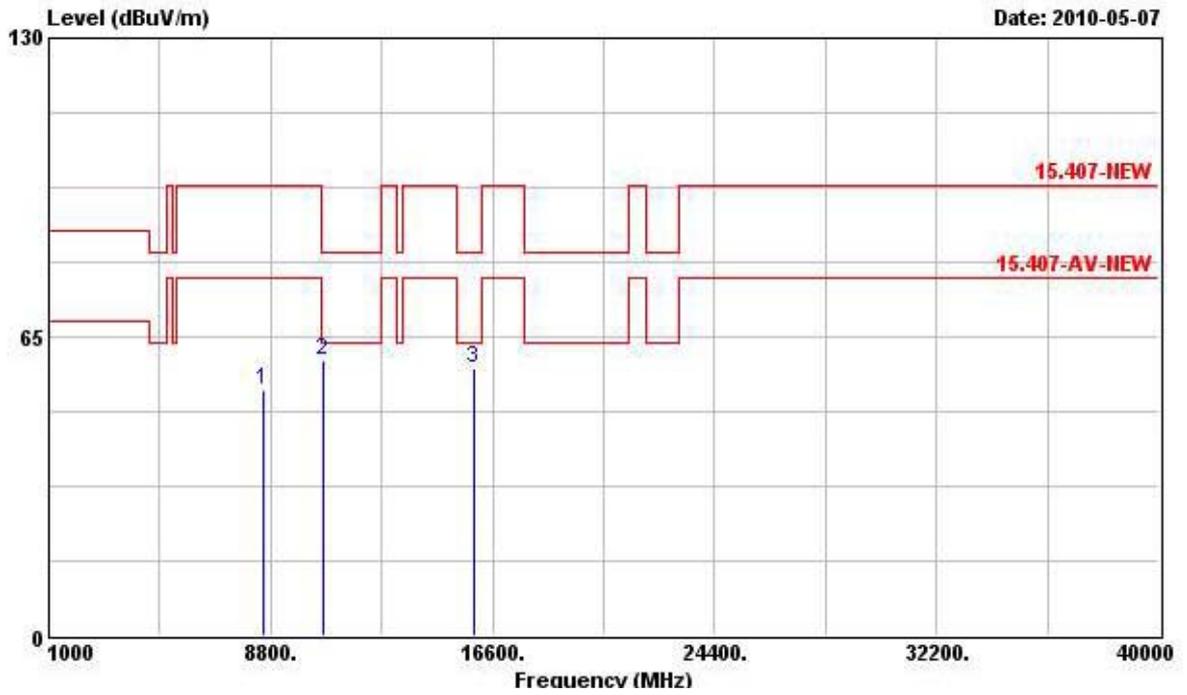
Final Test Date	May 07, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 62 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8586.000	53.51	-24.33	77.84	41.94	38.35	5.28	32.07	100	360	PK
2	10620.000	50.79	-12.75	63.54	36.87	39.23	6.34	31.65	100	360	Average
3	10620.000	61.80	-21.74	83.54	47.88	39.23	6.34	31.65	100	360	Peak
4	15930.000	57.77	-5.77	63.54	44.03	37.67	7.45	31.38	100	360	PK

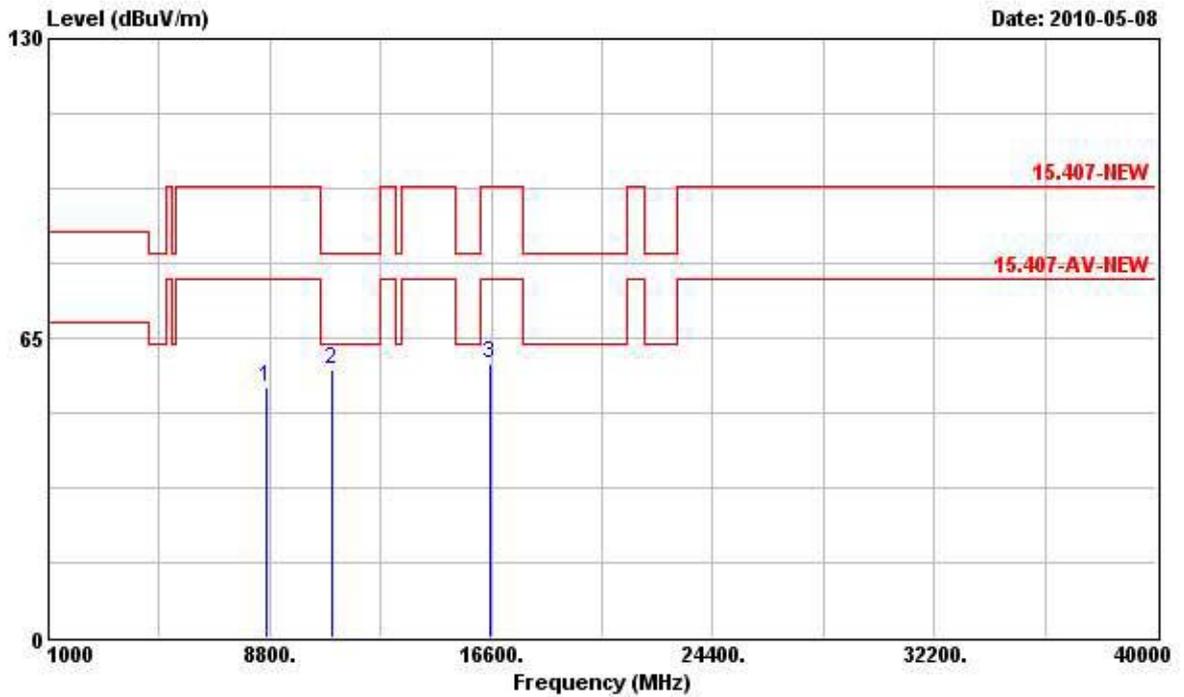
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8534.000	53.35	-24.49	77.84	41.65	38.32	5.42	32.04	100	0	PK
2 @	10620.000	59.97	-3.57	63.54	46.05	39.23	6.34	31.65	100	0	PK
3 @	15930.000	57.97	-5.57	63.54	44.23	37.67	7.45	31.38	100	0	PK

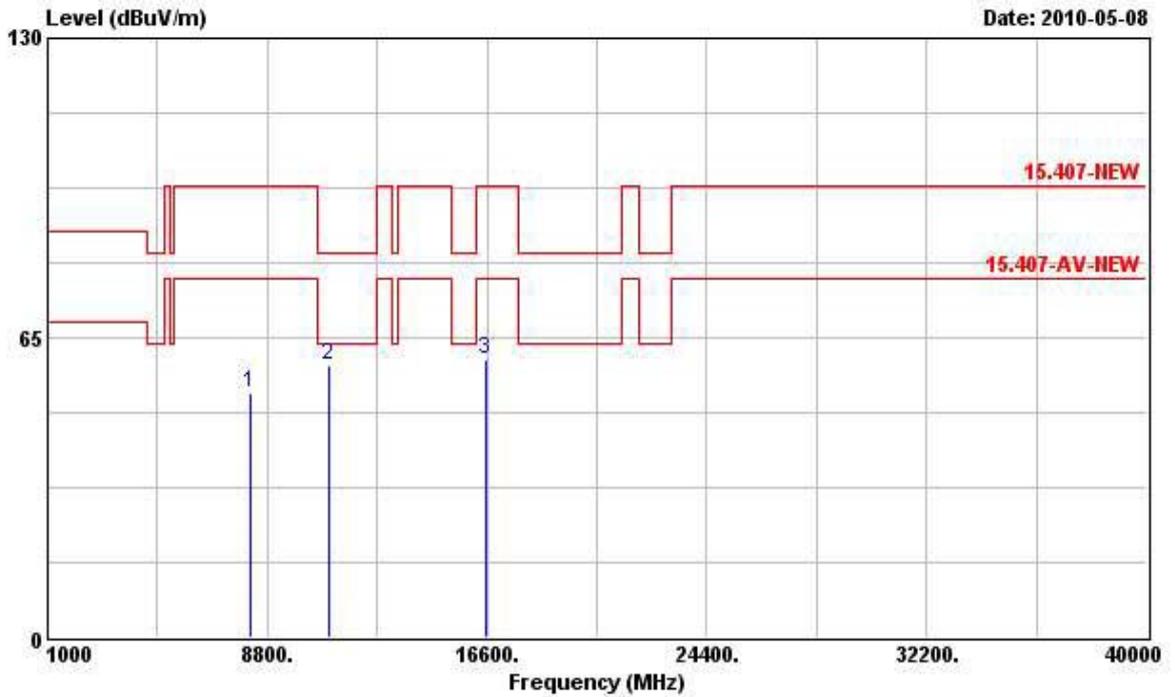
Final Test Date	May 08, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 102 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8703.000	54.15	-23.69	77.84	42.78	38.42	5.08	32.13	100	9	PK
2 @	11020.000	58.11	-5.43	63.54	44.52	39.02	6.57	32.00	100	9	PK
3	16530.000	59.38	-18.46	77.84	43.92	39.16	7.52	31.22	100	9	PK

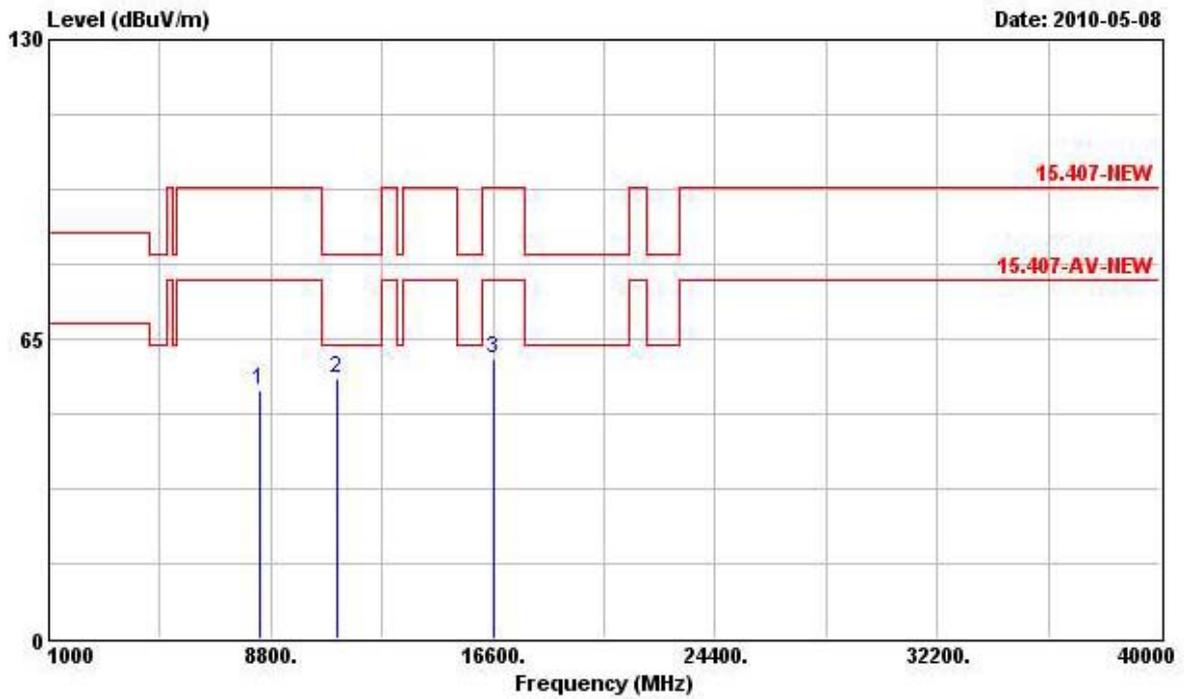
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8170.000	52.90	-24.94	77.84	42.12	37.97	4.97	32.16	100	360	PK
2 @	11020.000	59.10	-4.44	63.54	45.51	39.02	6.57	32.00	100	360	PK
3	16530.000	60.09	-17.75	77.84	44.63	39.16	7.52	31.22	100	360	PK

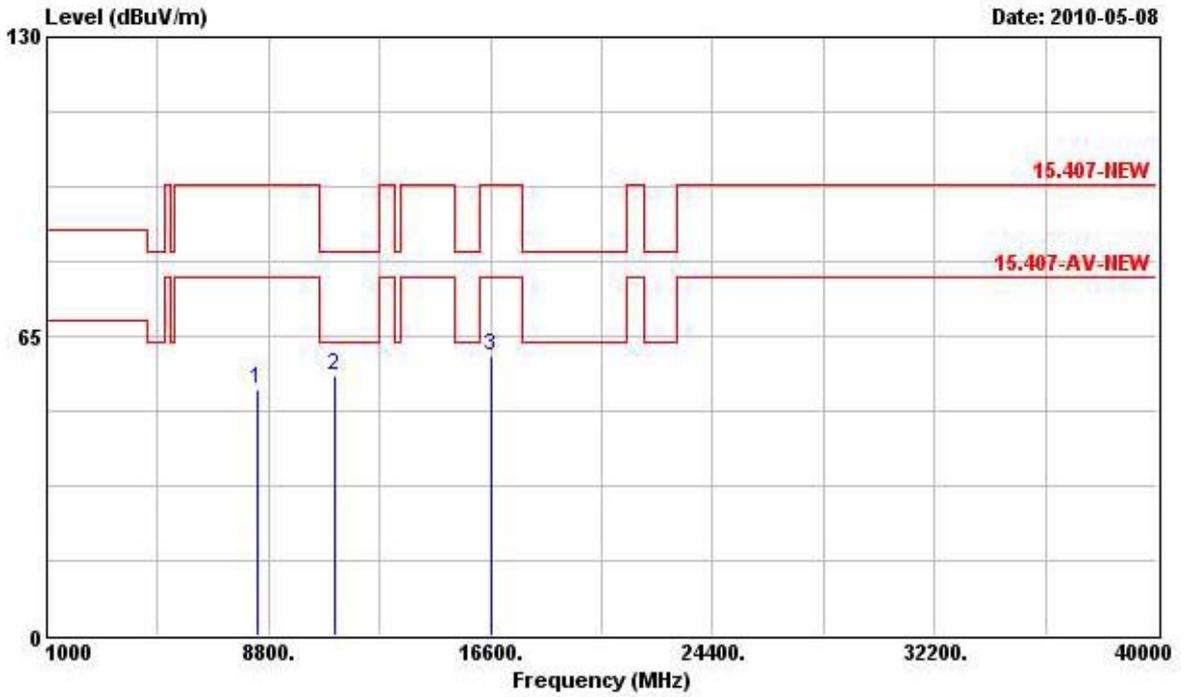
Final Test Date	May 08, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 110 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8378.000	53.91	-23.93	77.84	42.52	38.18	5.29	32.08	100	360	PK
2 @	11100.000	56.57	-6.97	63.54	42.70	39.14	6.60	31.87	100	360	PK
3	16650.000	60.91	-16.93	77.84	44.74	39.71	7.58	31.13	100	360	PK

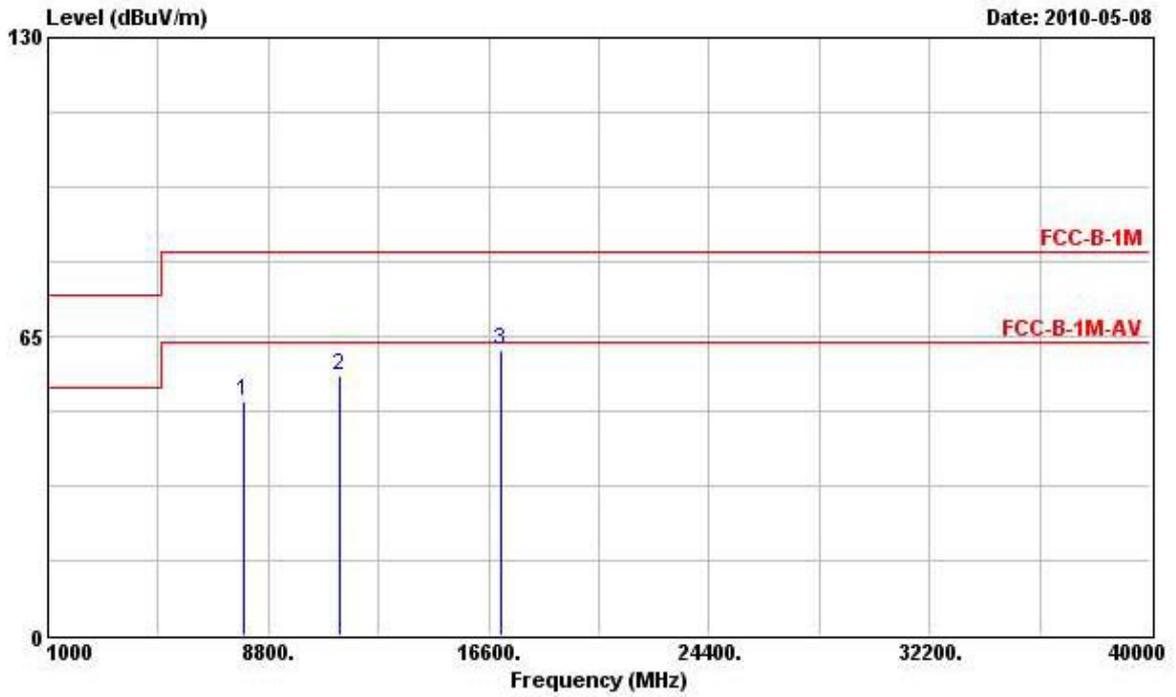
Vertical



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8391.000	53.48	-24.36	77.84	42.00	38.20	5.36	32.07	100	1	PK
2 @	11100.000	56.51	-7.03	63.54	42.64	39.14	6.60	31.87	100	1	PK
3	16650.000	60.93	-16.91	77.84	44.76	39.71	7.58	31.13	100	1	PK

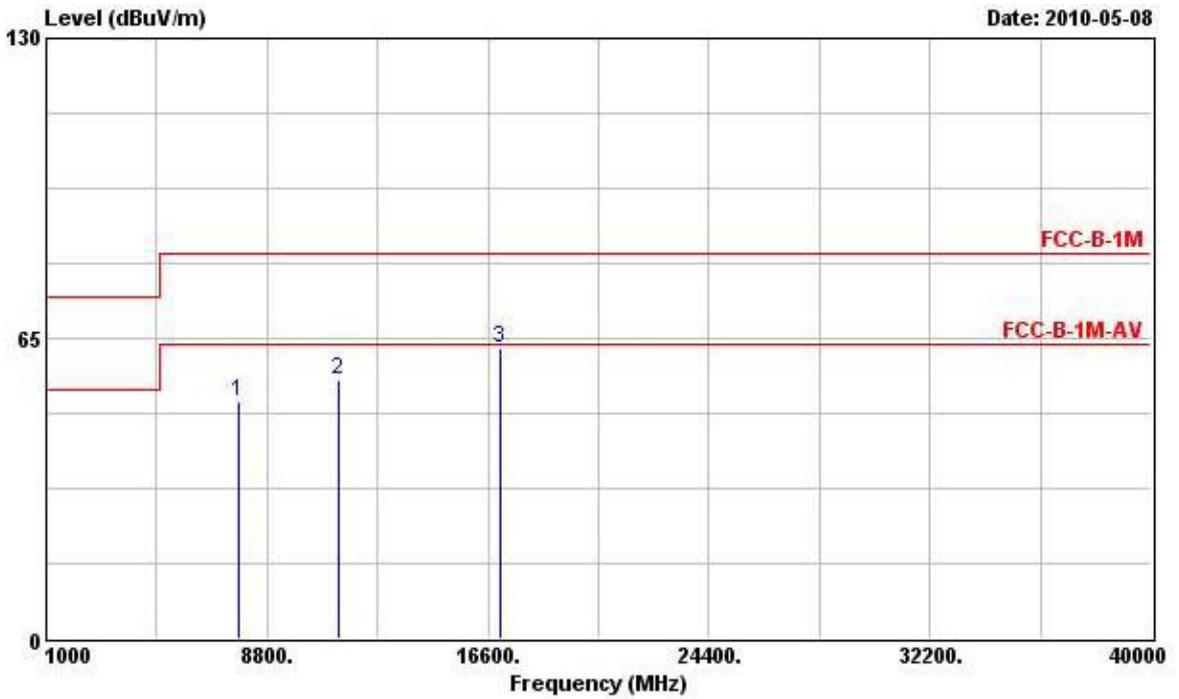
Final Test Date	May 08, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 134 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7949.000	51.08	-32.46	83.54	40.85	37.75	4.68	32.20	100	9	Peak
2	11340.000	56.35	-7.19	63.54	41.65	39.47	6.71	31.47	100	9	PK
3	17010.000	62.18	-21.36	83.54	43.86	41.44	7.78	30.89	100	9	Peak

Vertical

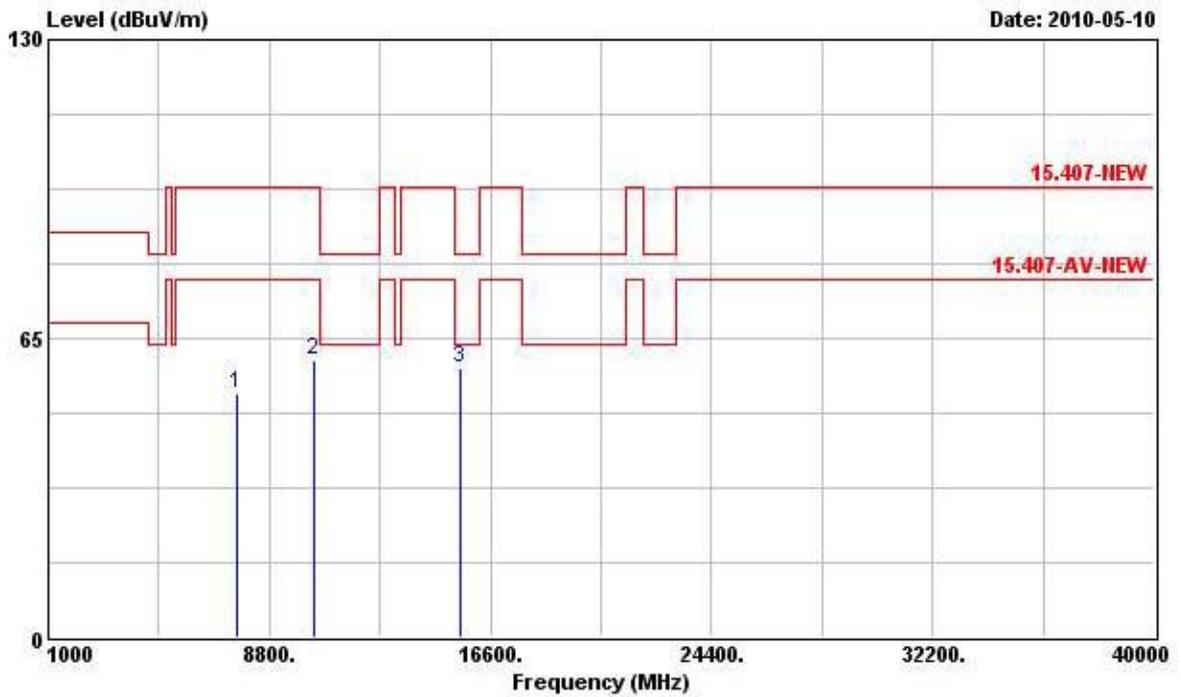


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7806.000	51.25	-32.29	83.54	41.14	37.60	4.64	32.13	100	306	Peak
2	11340.000	56.19	-7.35	63.54	41.49	39.47	6.71	31.47	100	306	PK
3	17010.000	63.05	-20.49	83.54	44.73	41.44	7.78	30.89	100	306	Peak

For Two Chain:

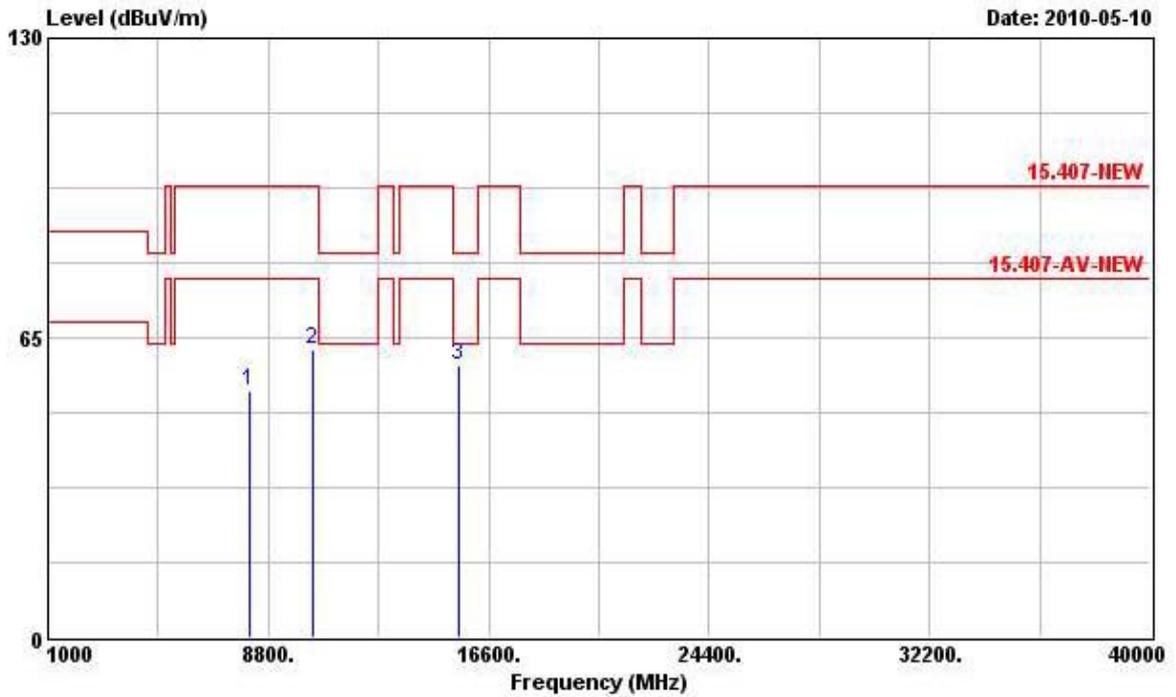
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 36 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7684.000	53.05	-24.79	77.84	43.06	37.48	4.58	32.07	---	---	PK
2	10364.000	60.14	-17.70	77.84	46.54	39.33	6.09	31.82	---	---	PK
3	15540.000	58.79	-4.75	63.54	45.11	37.51	7.37	31.21	---	---	PK

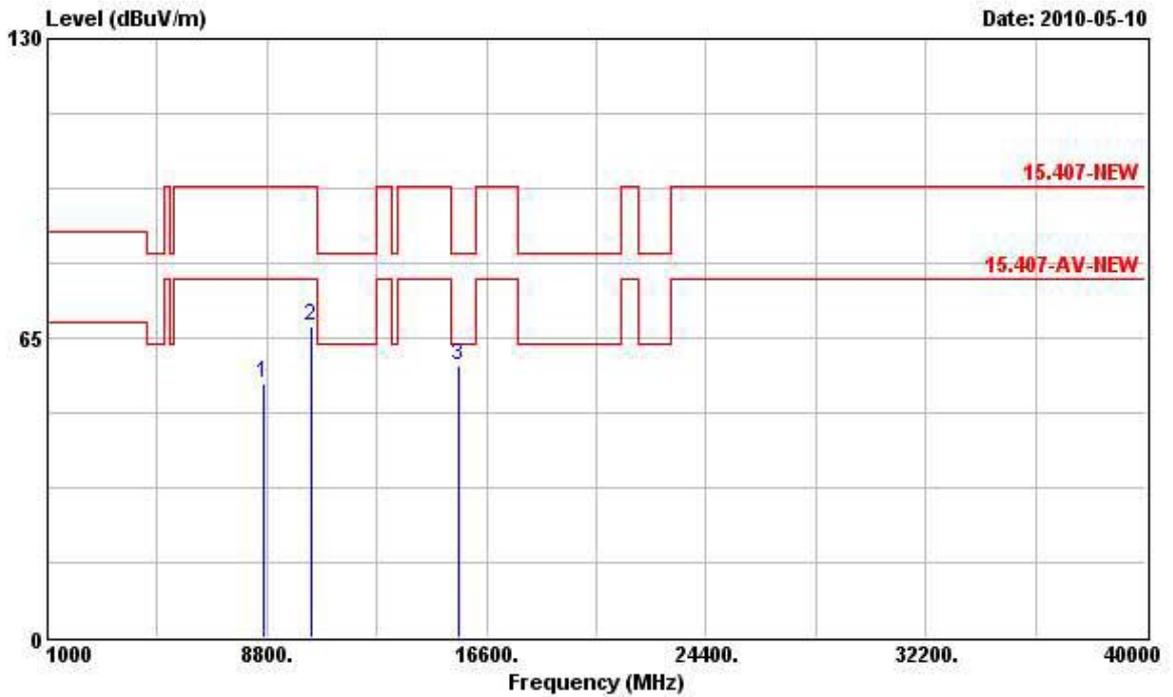
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8116.000	53.66	-24.18	77.84	43.01	37.92	4.91	32.18	---	---	PK
2	10364.000	62.62	-15.22	77.84	49.02	39.33	6.09	31.82	---	---	PK
3 @	15540.000	58.90	-4.64	63.54	45.22	37.51	7.37	31.21	---	---	PK

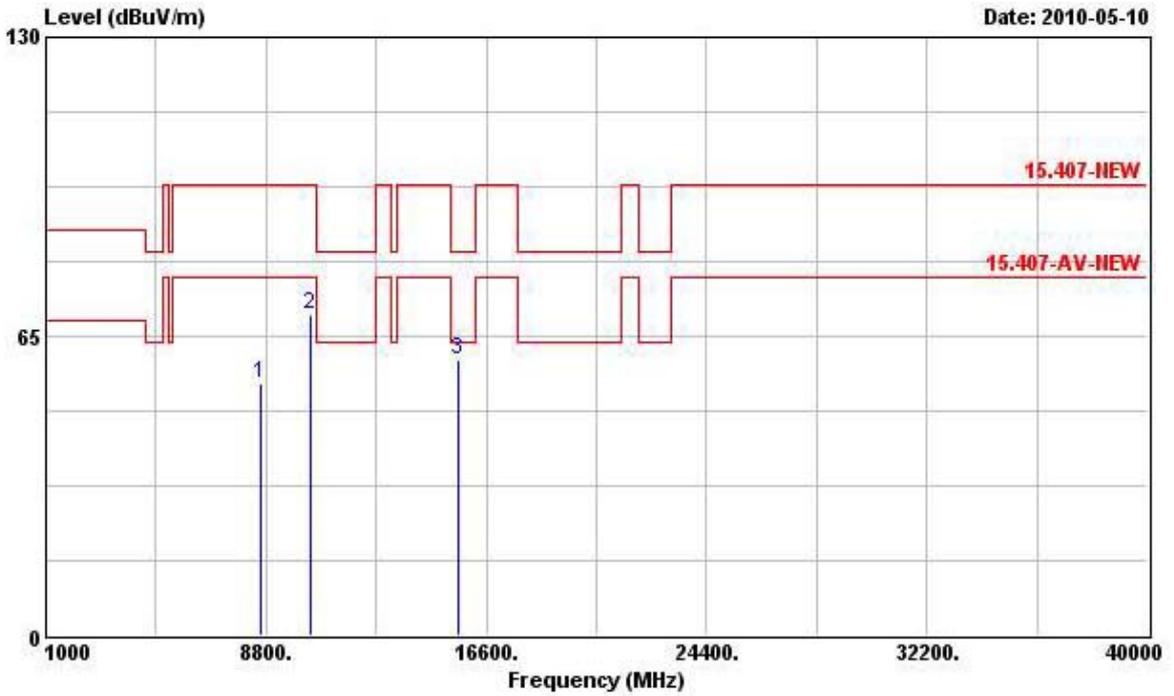
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 40 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8652.000	54.99	-22.85	77.84	43.48	38.39	5.21	32.10	---	---	PK
2	10400.000	67.55	-10.29	77.84	53.82	39.32	6.14	31.73	---	---	PK
3	15596.000	59.06	-24.48	83.54	45.37	37.54	7.38	31.23	---	---	PK

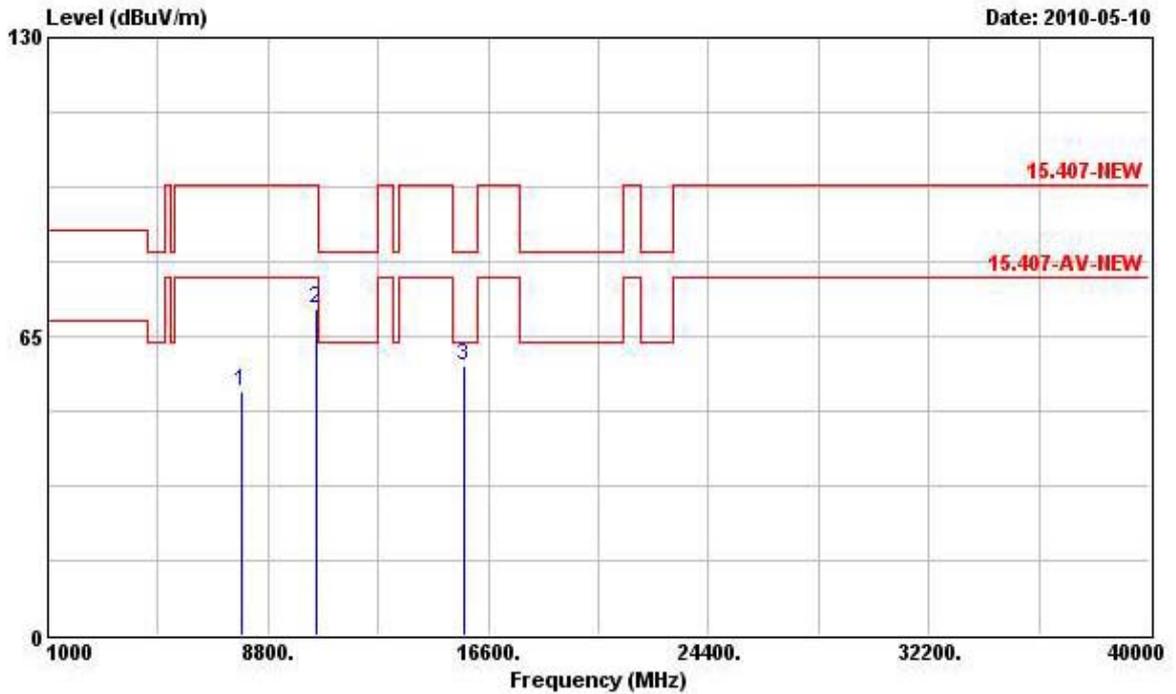
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8616.000	54.84	-23.00	77.84	43.28	38.37	5.28	32.09	---	---	PK
2	10400.000	69.72	-8.12	77.84	56.00	39.32	6.14	31.73	---	---	PK
3	15600.000	59.71	-3.83	63.54	46.03	37.54	7.38	31.24	---	---	PK

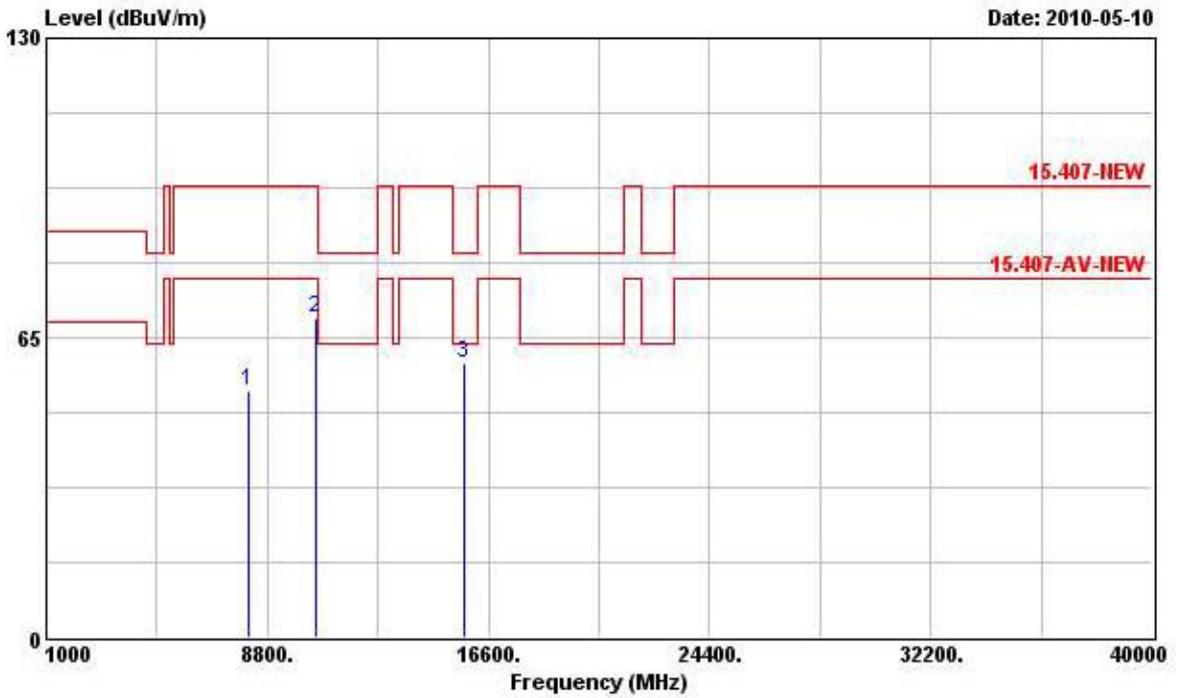
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 48 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7860.000	53.21	-24.63	77.84	43.05	37.67	4.65	32.15	---	---	PK
2 @	10480.000	71.17	-6.67	77.84	57.24	39.30	6.23	31.60	---	---	PK
3 @	15720.000	58.48	-5.06	63.54	44.77	37.59	7.41	31.29	---	---	PK

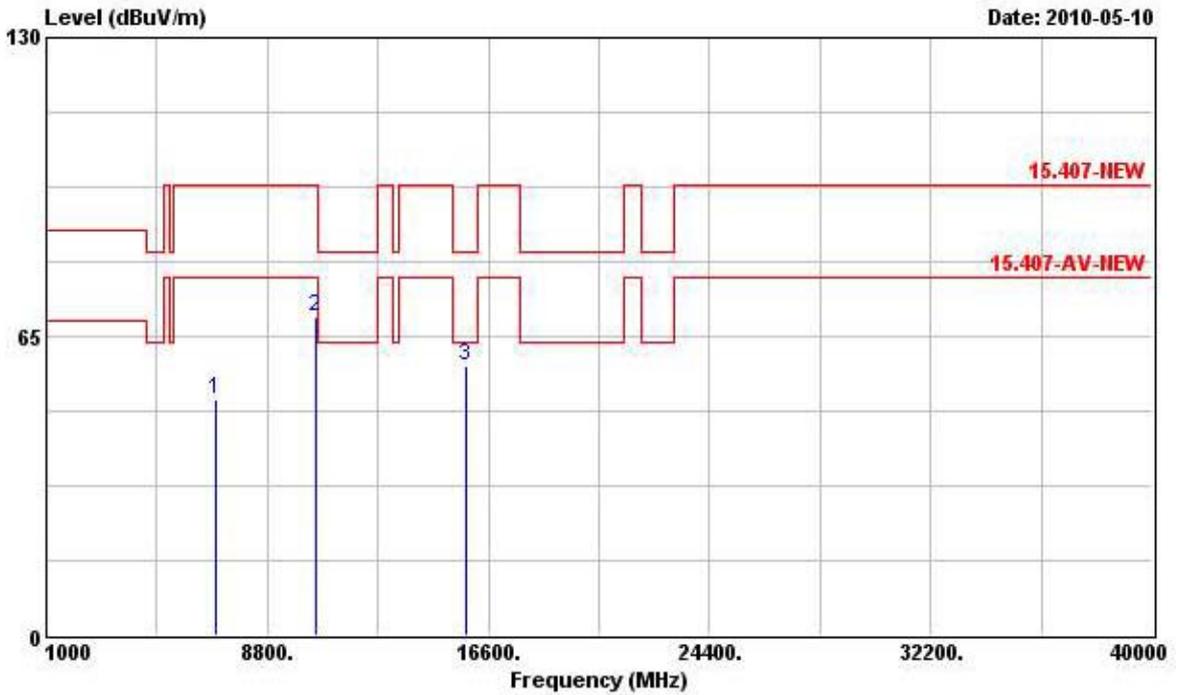
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8132.000	53.54	-24.30	77.84	42.87	37.94	4.91	32.17	---	---	PK
2	10480.000	69.35	-8.49	77.84	55.41	39.30	6.23	31.60	---	---	PK
3 @	15716.000	59.59	-3.95	63.54	45.89	37.59	7.40	31.29	---	---	PK

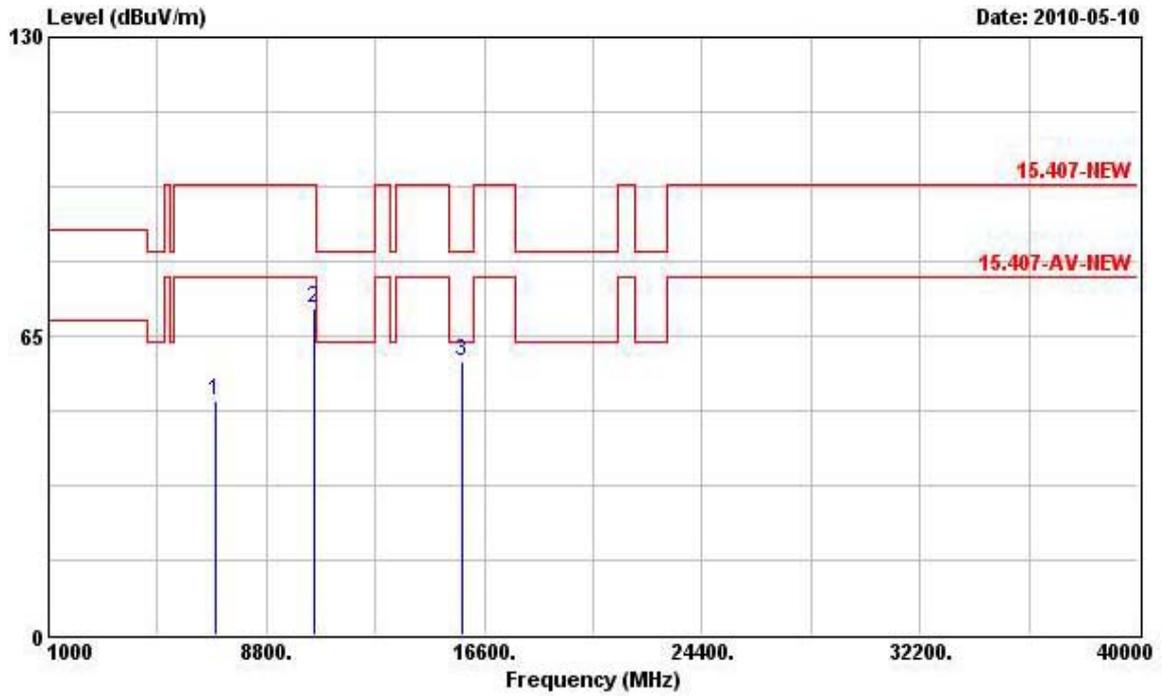
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 52 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7012.000	51.14	-26.70	77.84	45.22	36.14	2.93	33.16	---	---	PK
2	10516.000	69.21	-8.63	77.84	55.19	39.29	6.28	31.55	---	---	PK
3 @	15784.000	58.75	-4.79	63.54	45.03	37.62	7.42	31.32	---	---	PK

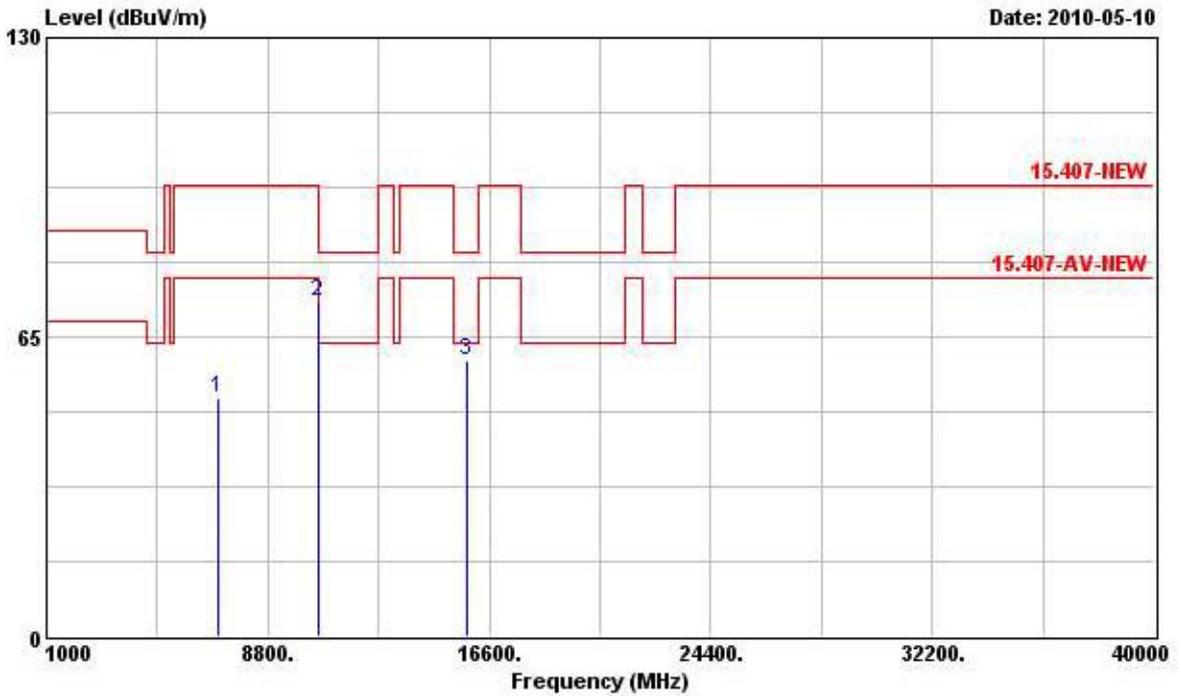
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7012.000	50.68	-27.16	77.84	44.77	36.14	2.93	33.16	---	---	PK
2 @	10520.000	70.95	-6.89	77.84	56.93	39.29	6.28	31.55	---	---	PK
3 @	15784.000	59.47	-4.07	63.54	45.76	37.62	7.42	31.32	---	---	PK

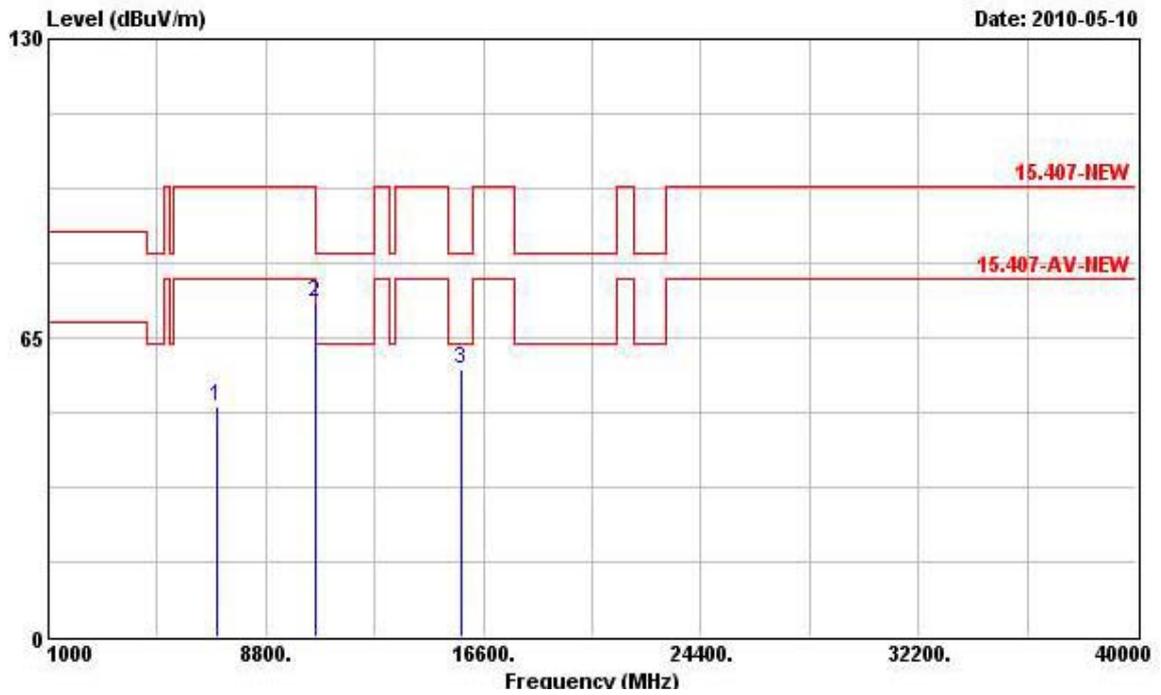
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 56 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7040.000	51.65	-26.19	77.84	45.51	36.18	3.06	33.10	---	---	PK
2 @	10560.000	72.91	-4.93	77.84	58.94	39.27	6.30	31.60	---	---	PK
3 @	15840.000	59.66	-3.88	63.54	45.94	37.64	7.43	31.35	---	---	PK

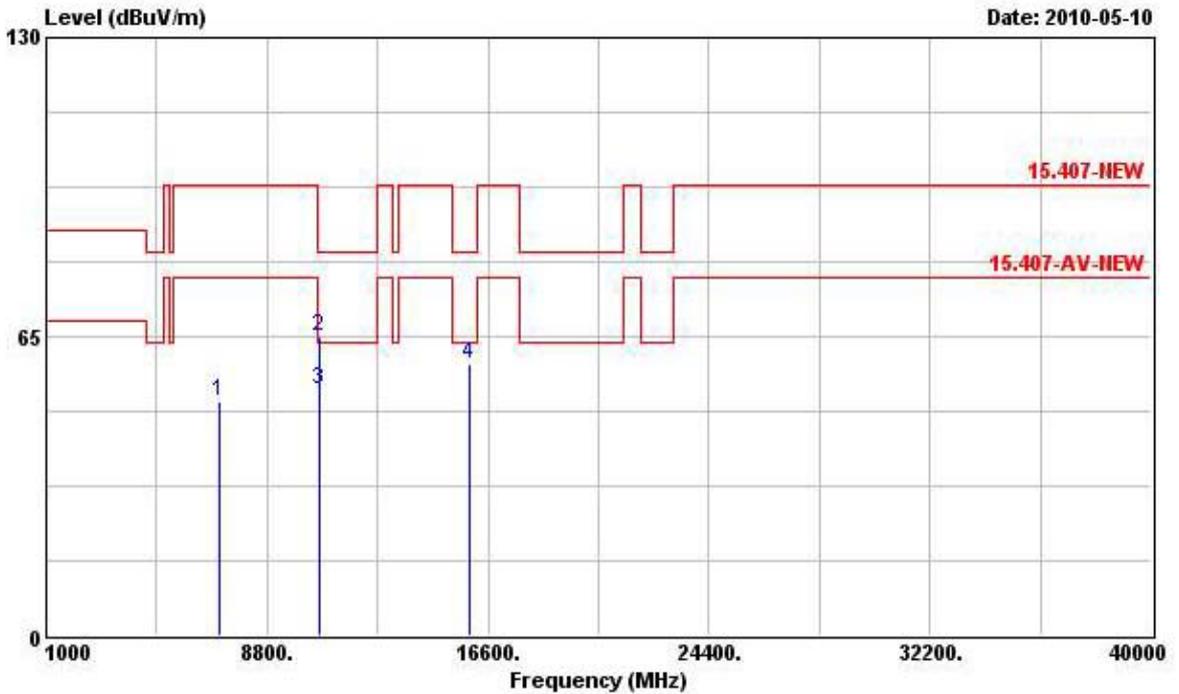
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7040.000	50.09	-27.75	77.84	43.95	36.18	3.06	33.10	---	---	PK
2	10560.000	72.58	-5.26	77.84	58.61	39.27	6.30	31.60	---	---	PK
3	15836.000	58.29	-5.25	63.54	44.56	37.64	7.43	31.35	---	---	PK

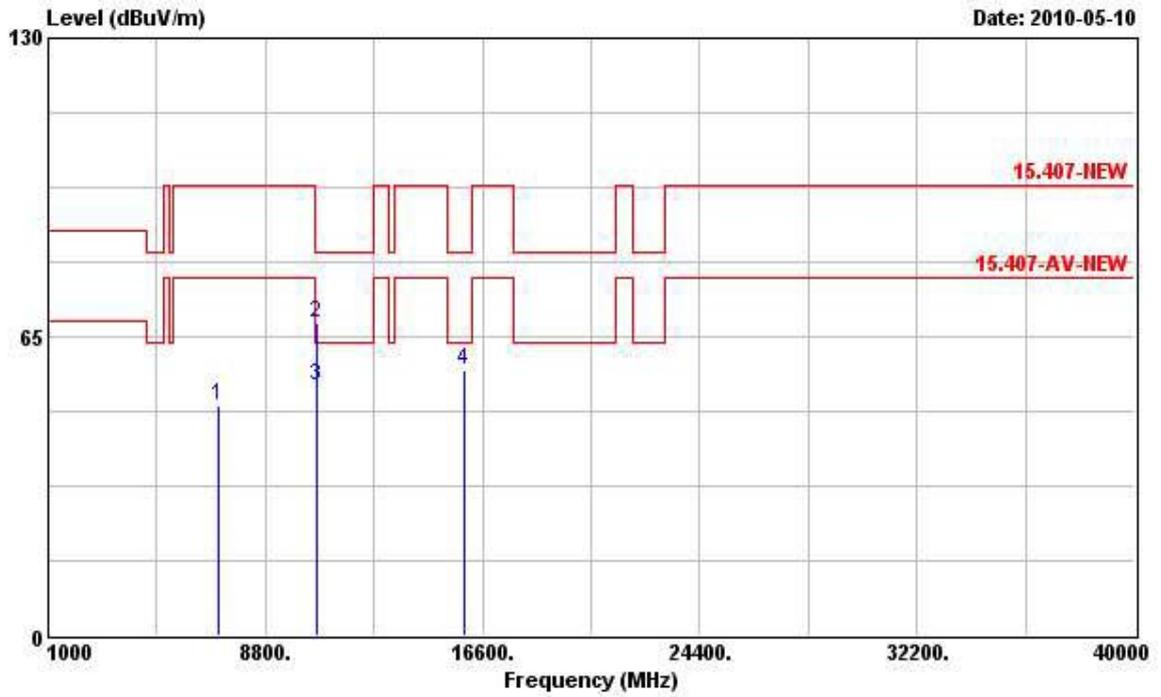
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 64 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7092.000	50.90	-26.94	77.84	44.39	36.31	3.18	32.97	---	---	PK
2	10648.000	65.12	-18.42	83.54	51.25	39.21	6.34	31.68	---	---	Peak
3	10648.000	53.59	-9.95	63.54	39.72	39.21	6.34	31.68	---	---	Average
4	15954.000	58.91	-4.63	63.54	45.16	37.69	7.46	31.39	---	---	PK

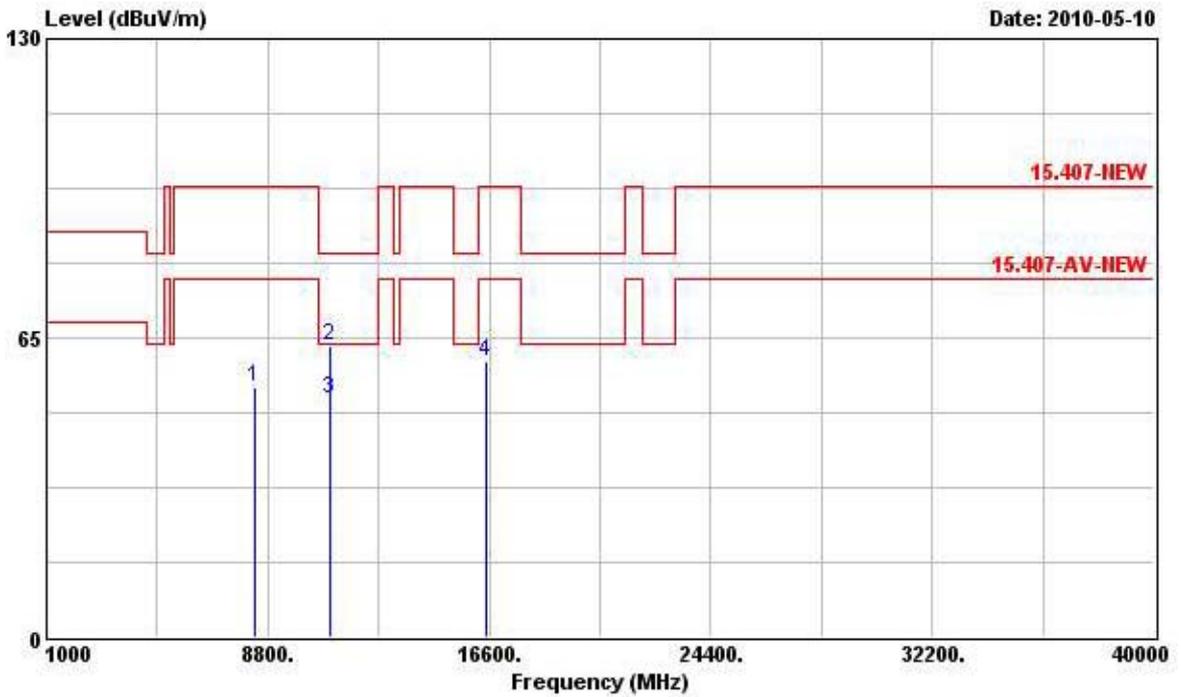
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7092.000	50.14	-27.70	77.84	43.63	36.31	3.18	32.97	---	---	PK
2	10640.000	68.04	-15.50	83.54	54.16	39.22	6.34	31.68	---	---	PERK
3	10640.000	54.22	-9.32	63.54	40.34	39.22	6.34	31.68	---	---	Average
4 @	15960.000	57.84	-5.70	63.54	44.10	37.69	7.46	31.40	---	---	PK

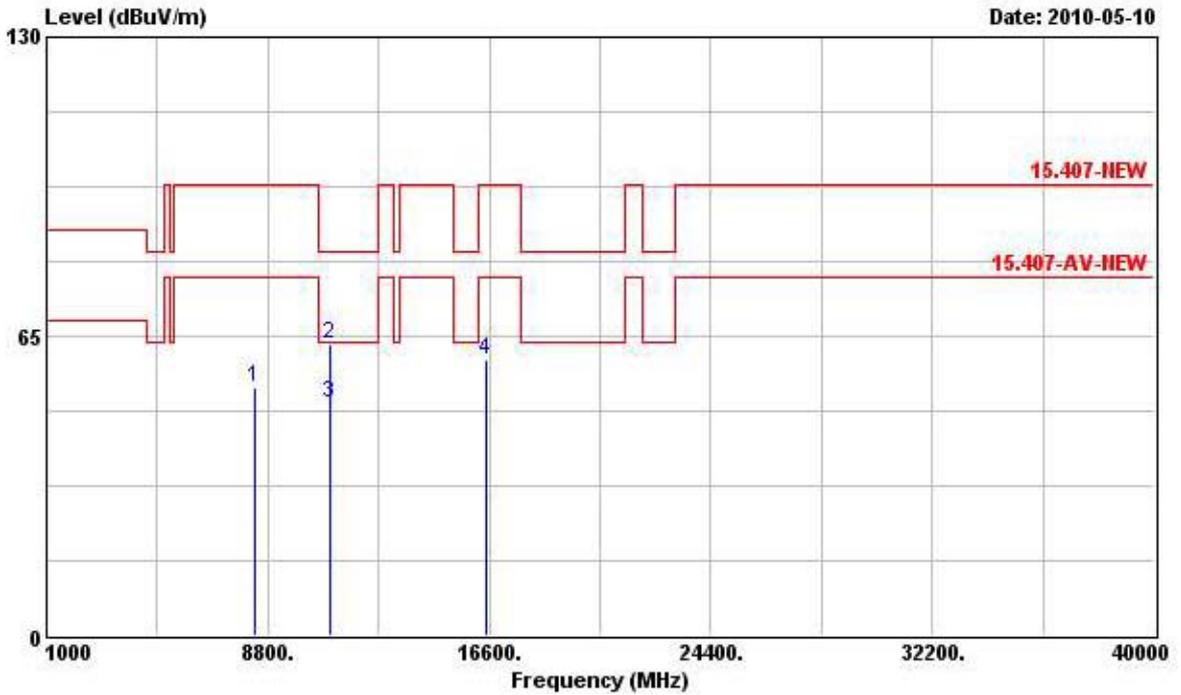
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 100 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8332.000	54.33	-23.51	77.84	43.07	38.13	5.23	32.09	---	---	PK
2	11000.000	63.17	-20.37	83.54	49.67	39.00	6.55	32.05	---	---	PEAK
3	11000.000	51.53	-12.01	63.54	38.03	39.00	6.55	32.05	---	---	Average
4	16504.000	59.86	-17.98	77.84	44.58	39.00	7.52	31.23	---	---	PK

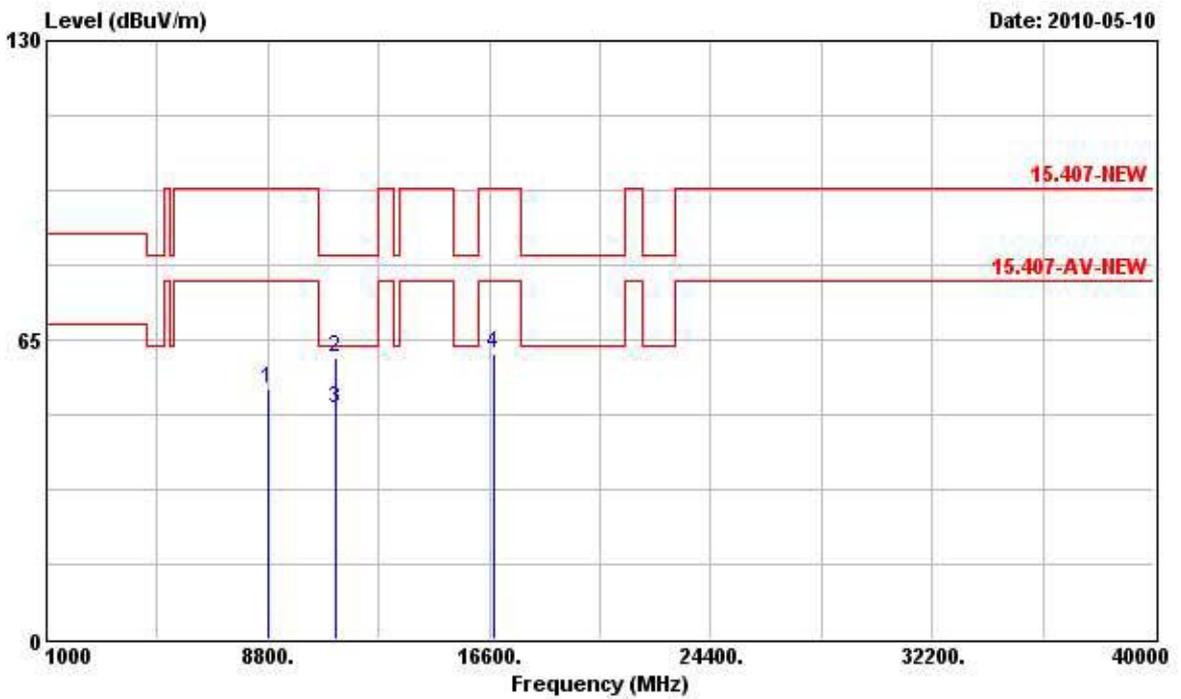
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8316.000	53.84	-24.00	77.84	42.60	38.11	5.23	32.10	---	---	PK
2	11004.000	63.08	-20.46	83.54	49.56	39.00	6.57	32.05	---	---	PEAK
3	11004.000	50.67	-12.87	63.54	37.15	39.00	6.57	32.05	---	---	Average
4	16504.000	60.00	-17.84	77.84	44.71	39.00	7.52	31.23	---	---	PK

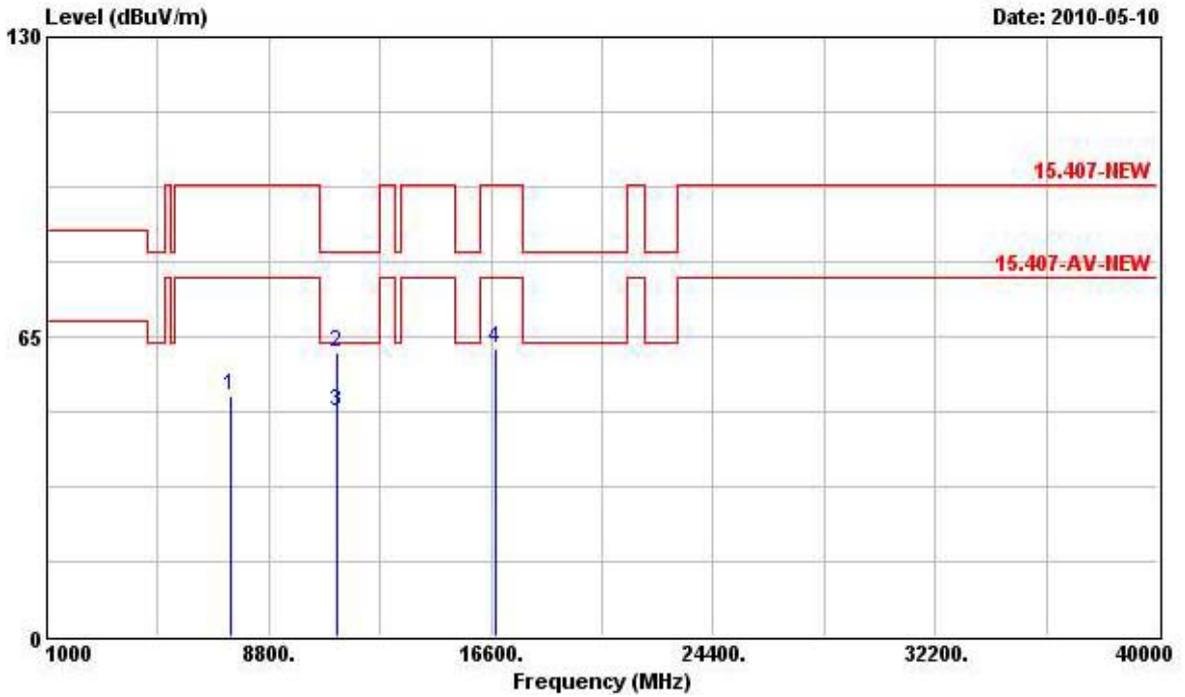
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 116 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8836.000	54.23	-23.61	77.84	43.05	38.50	4.88	32.19	---	---	PK
2	11160.000	61.27	-22.27	83.54	47.18	39.23	6.64	31.78	---	---	PEAK
3	11160.000	49.86	-13.68	63.54	35.77	39.23	6.64	31.78	---	---	Average
4	16736.000	61.85	-15.99	77.84	45.17	40.11	7.65	31.07	---	---	PK

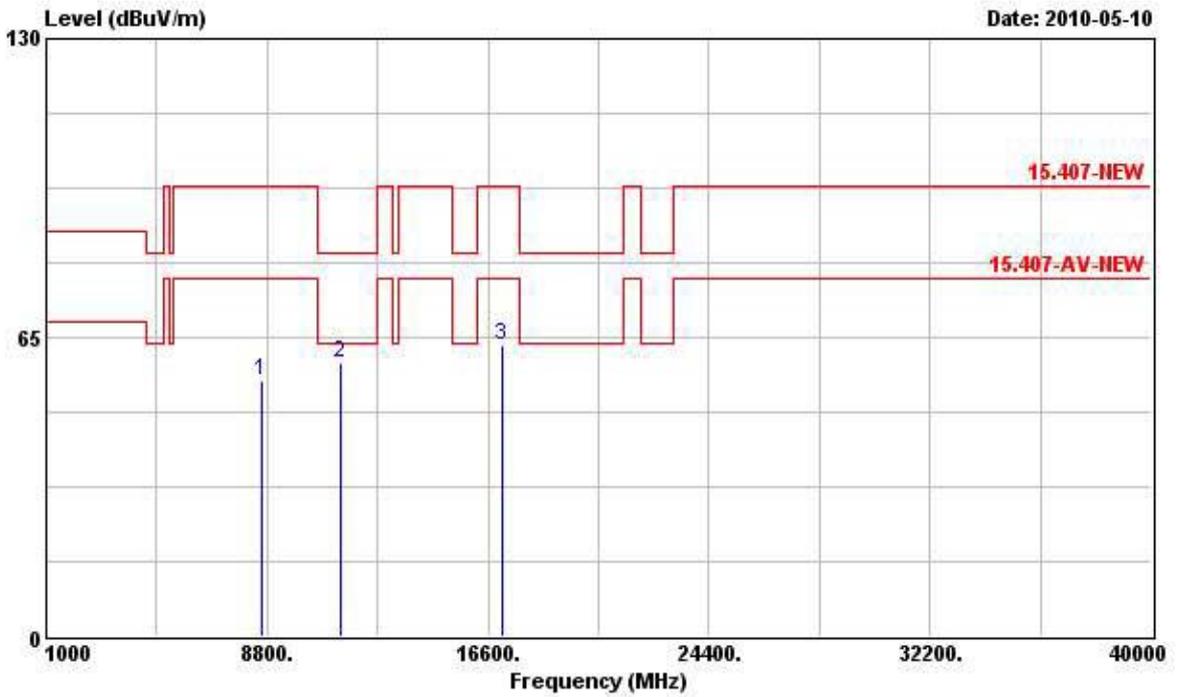
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7440.000	52.36	-25.48	77.84	43.02	37.18	4.28	32.12	---	---	PK
2	11160.000	61.61	-21.93	83.54	47.52	39.23	6.64	31.78	---	---	PEAK
3	11160.000	48.84	-14.70	63.54	34.75	39.23	6.64	31.78	---	---	Average
4	16734.000	62.36	-15.48	77.84	45.67	40.11	7.65	31.07	---	---	PK

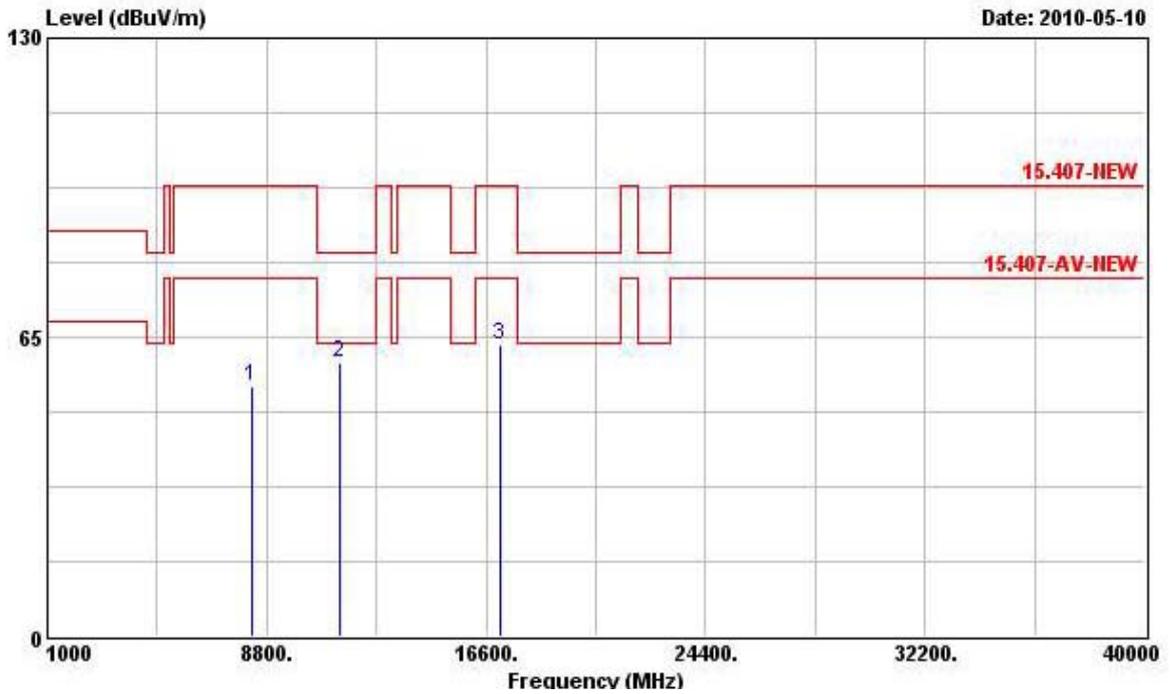
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 140 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8640.000	55.61	-22.23	77.84	44.12	38.38	5.21	32.10	---	---	PK
2 @	11400.000	59.47	-4.07	63.54	44.51	39.56	6.75	31.34	---	---	PK
3	17106.000	63.34	-14.50	77.84	44.31	42.14	7.79	30.90	---	---	PK

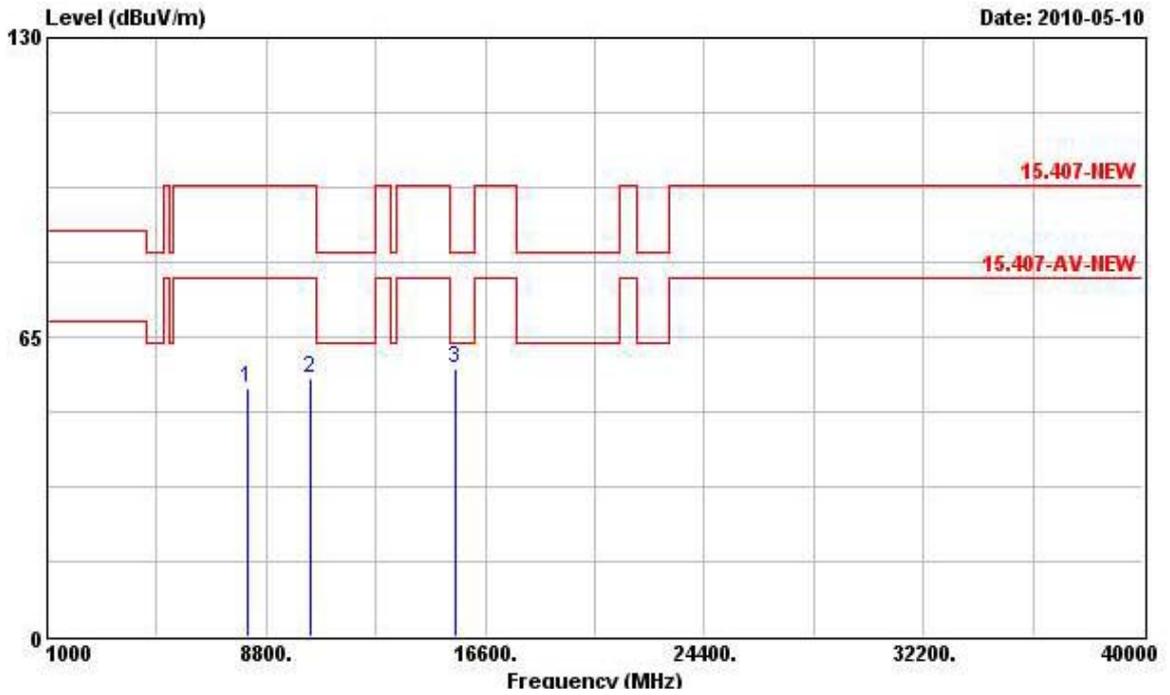
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8248.000	54.12	-23.72	77.84	43.11	38.04	5.10	32.13	---	---	PK
2 @	11400.000	59.59	-3.95	63.54	44.62	39.56	6.75	31.34	---	---	PK
3	17100.000	63.48	-14.36	77.84	44.45	42.14	7.79	30.90	---	---	PK

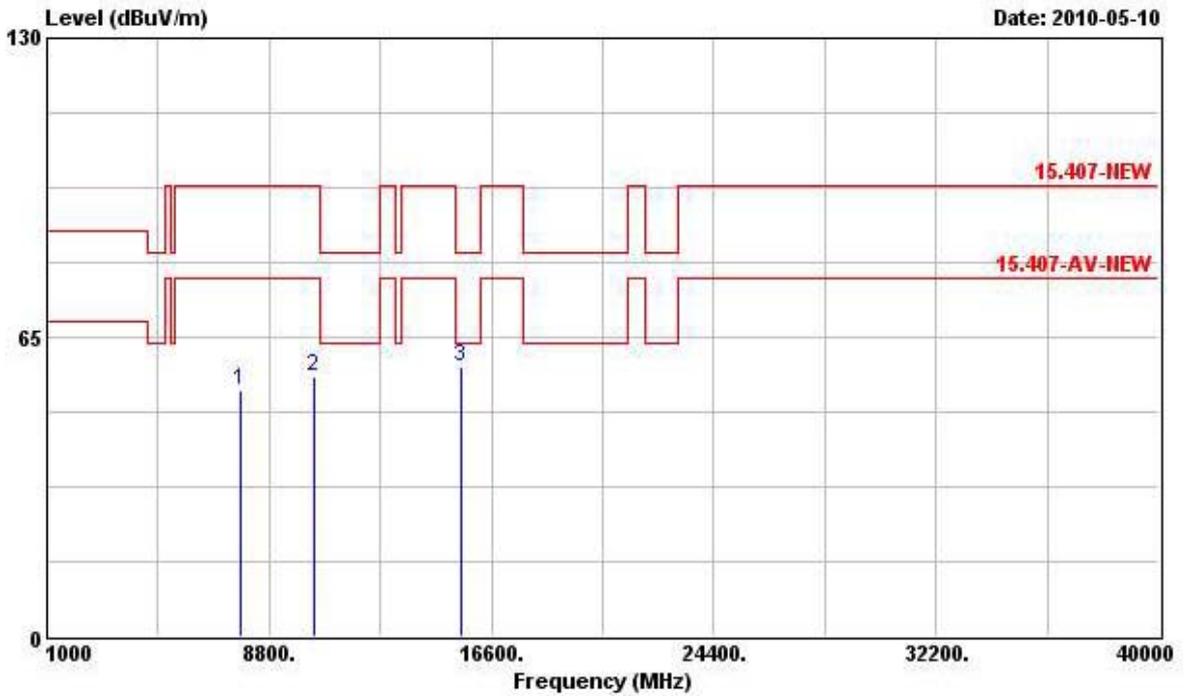
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 38 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8160.000	53.68	-24.17	77.84	42.91	37.96	4.97	32.16	---	---	PK
2	10384.000	56.02	-21.82	77.84	42.33	39.32	6.14	31.78	---	---	PK
3	15568.000	58.00	-5.54	63.54	44.31	37.53	7.38	31.22	---	---	PK

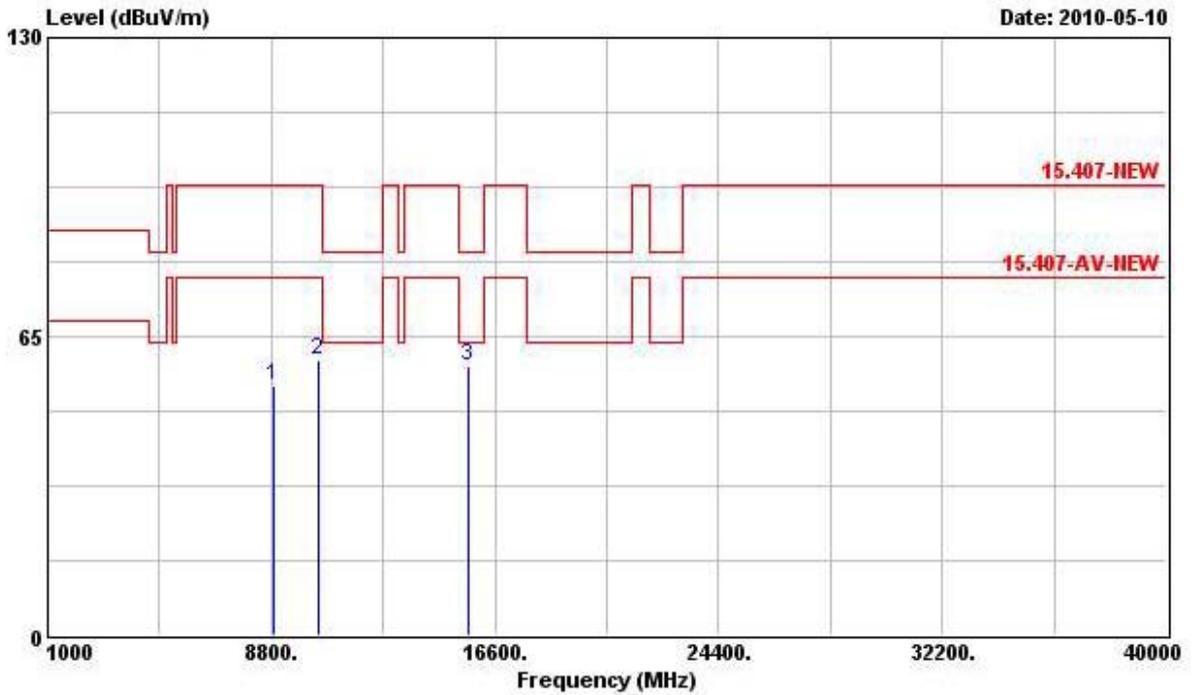
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7764.000	53.31	-24.53	77.84	43.24	37.57	4.61	32.11	---	---	PK
2	10384.000	56.24	-21.60	77.84	42.56	39.32	6.14	31.78	---	---	PK
3 @	15568.000	58.68	-4.86	63.54	44.99	37.53	7.38	31.22	---	---	PK

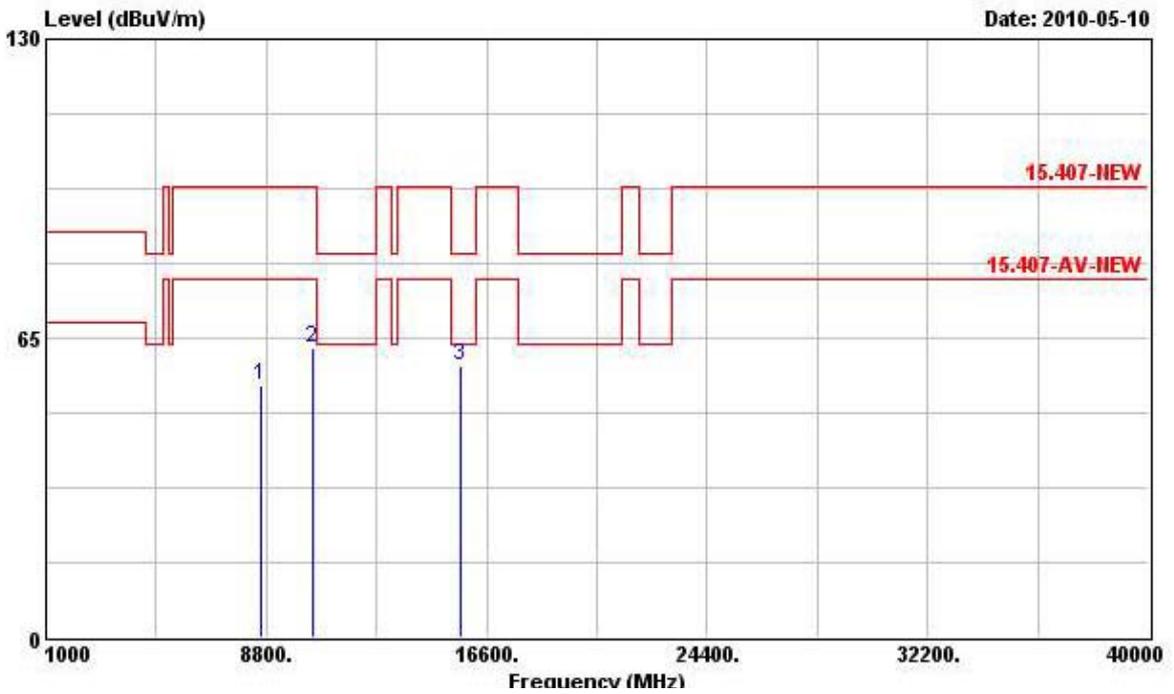
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 46 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8864.000	54.23	-23.61	77.84	43.10	38.52	4.81	32.20	---	---	PK
2	10460.000	59.76	-18.08	77.84	45.86	39.31	6.23	31.64	---	---	PK
3	15686.000	58.51	-5.03	63.54	44.81	37.58	7.40	31.28	---	---	PK

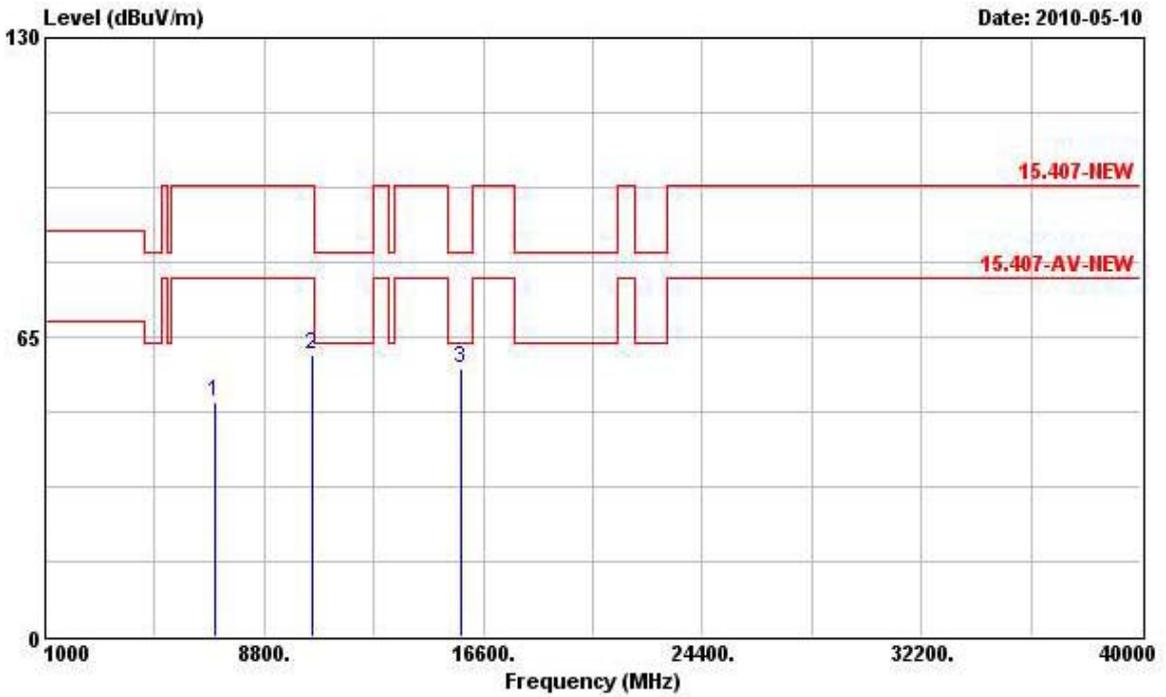
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8608.000	54.81	-23.03	77.84	43.23	38.37	5.28	32.08	---	---	PK
2	10460.000	62.71	-15.13	77.84	48.81	39.31	6.23	31.64	---	---	PK
3 @	15690.000	59.18	-4.36	63.54	45.48	37.58	7.40	31.28	---	---	PK

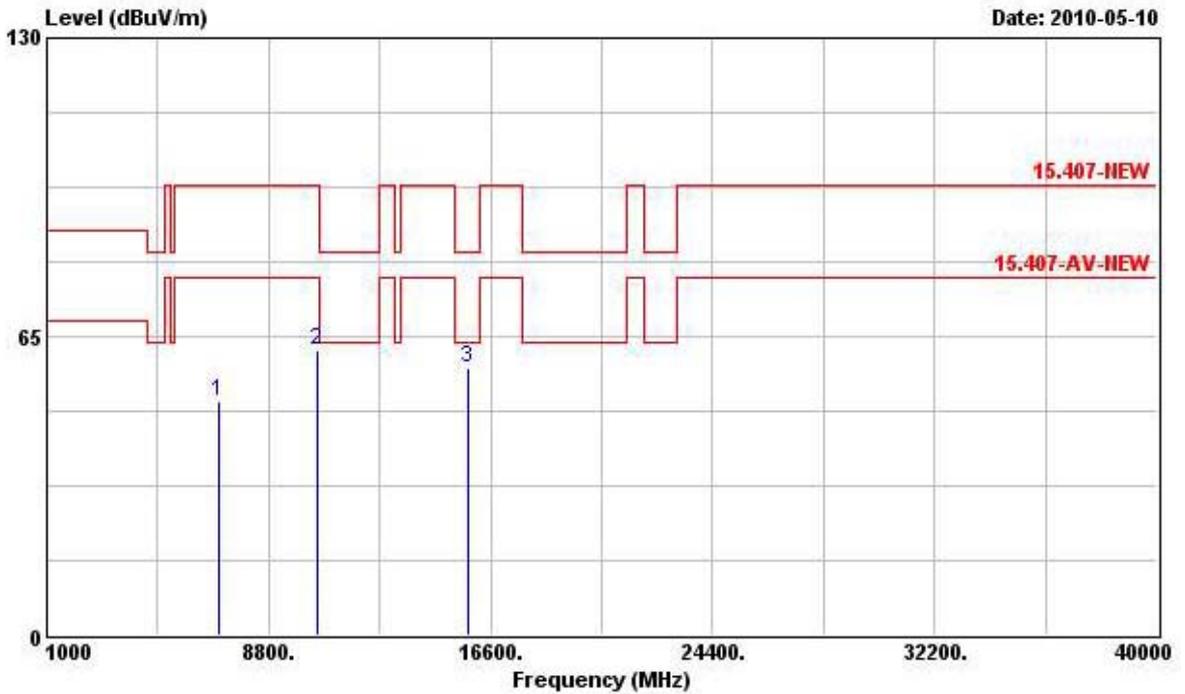
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 54 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7024.000	50.93	-26.91	77.84	44.89	36.14	3.06	33.16	---	---	PK
2	10540.000	60.94	-16.90	77.84	46.94	39.28	6.30	31.58	---	---	PK
3	15808.000	57.96	-5.58	63.54	44.24	37.62	7.43	31.33	---	---	PK

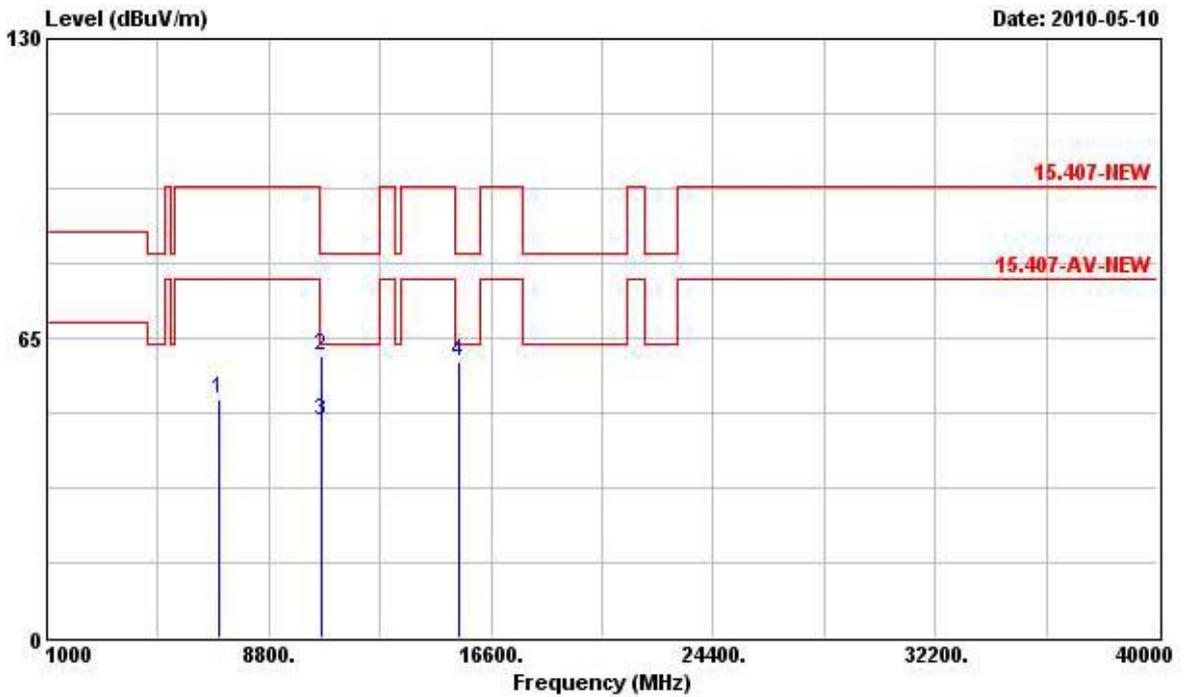
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7024.000	50.76	-27.08	77.84	44.72	36.14	3.06	33.16	---	---	PK
2	10540.000	61.96	-15.88	77.84	47.96	39.28	6.30	31.58	---	---	PK
3 @	15812.000	58.14	-5.40	63.54	44.42	37.62	7.43	31.33	---	---	PK

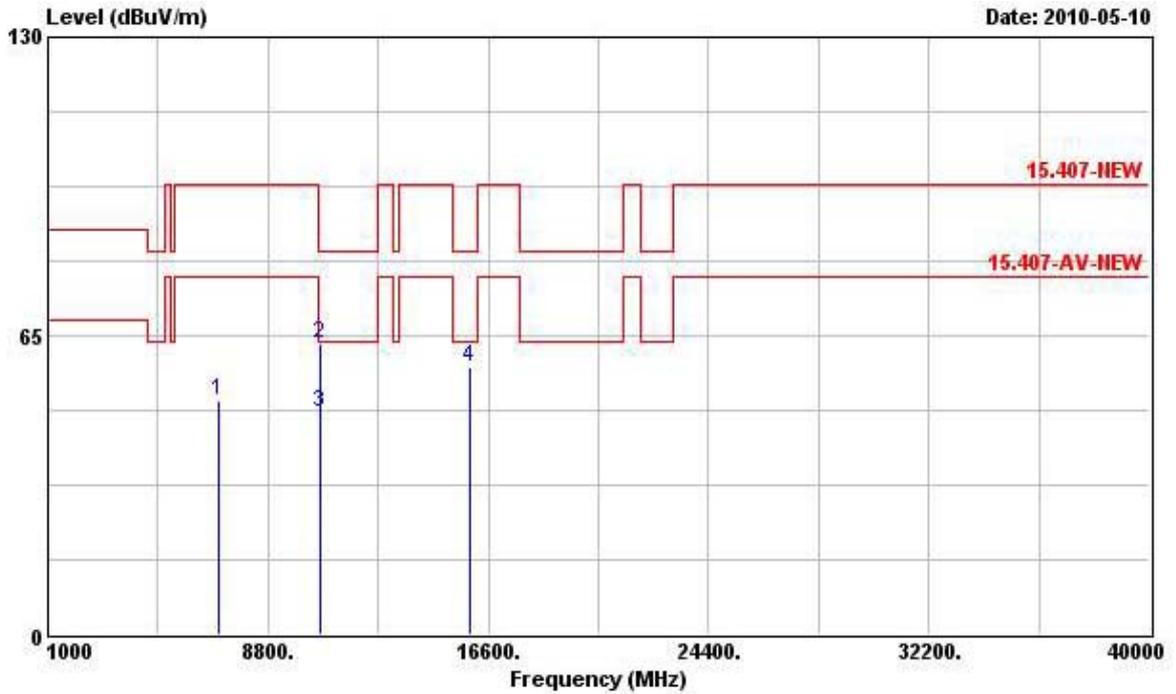
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 62 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7076.000	51.64	-26.20	77.84	45.23	36.27	3.18	33.04	---	---	PK
2	10620.000	60.94	-22.60	83.54	47.02	39.23	6.34	31.65	---	---	Peak
3	10620.000	47.20	-16.34	63.54	33.28	39.23	6.34	31.65	---	---	Average
4 @	15462.000	60.03	-3.51	63.54	46.14	37.63	7.40	31.13	---	---	PK

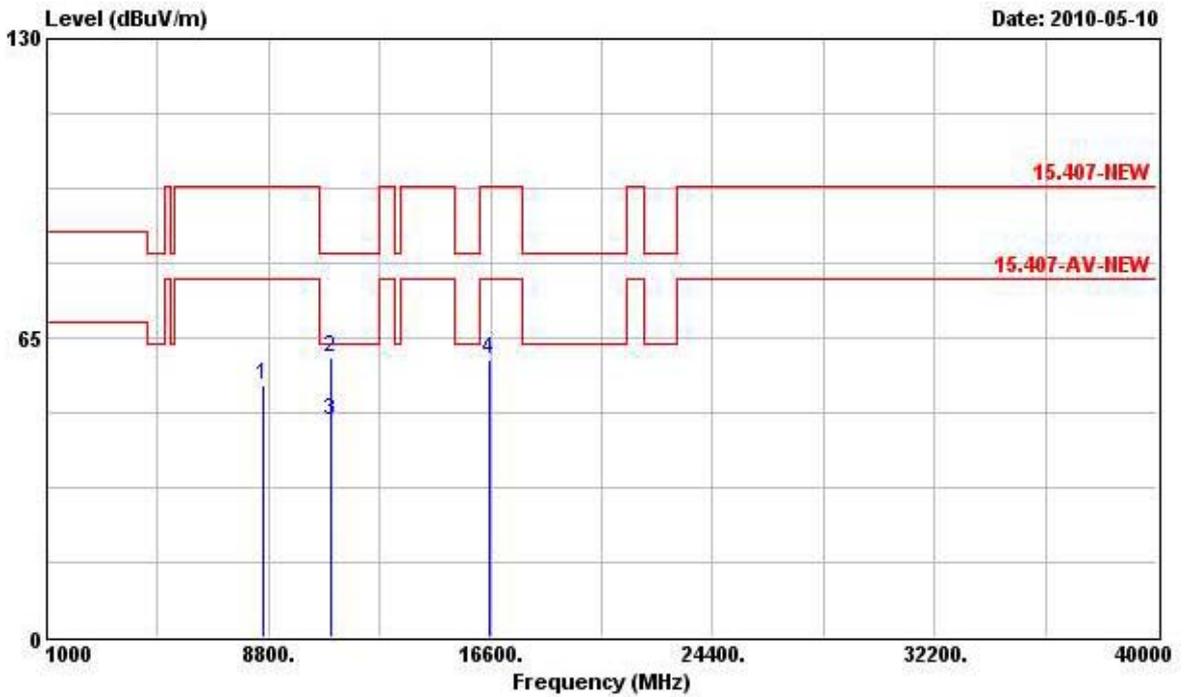
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7076.000	50.88	-26.96	77.84	44.47	36.27	3.18	33.04	---	---	PK
2	10620.000	63.47	-20.07	83.54	49.55	39.23	6.34	31.65	---	---	Peak
3	10620.000	48.50	-15.04	63.54	34.58	39.23	6.34	31.65	---	---	Average
4 @	15932.000	57.99	-5.55	63.54	44.26	37.67	7.45	31.39	---	---	PK

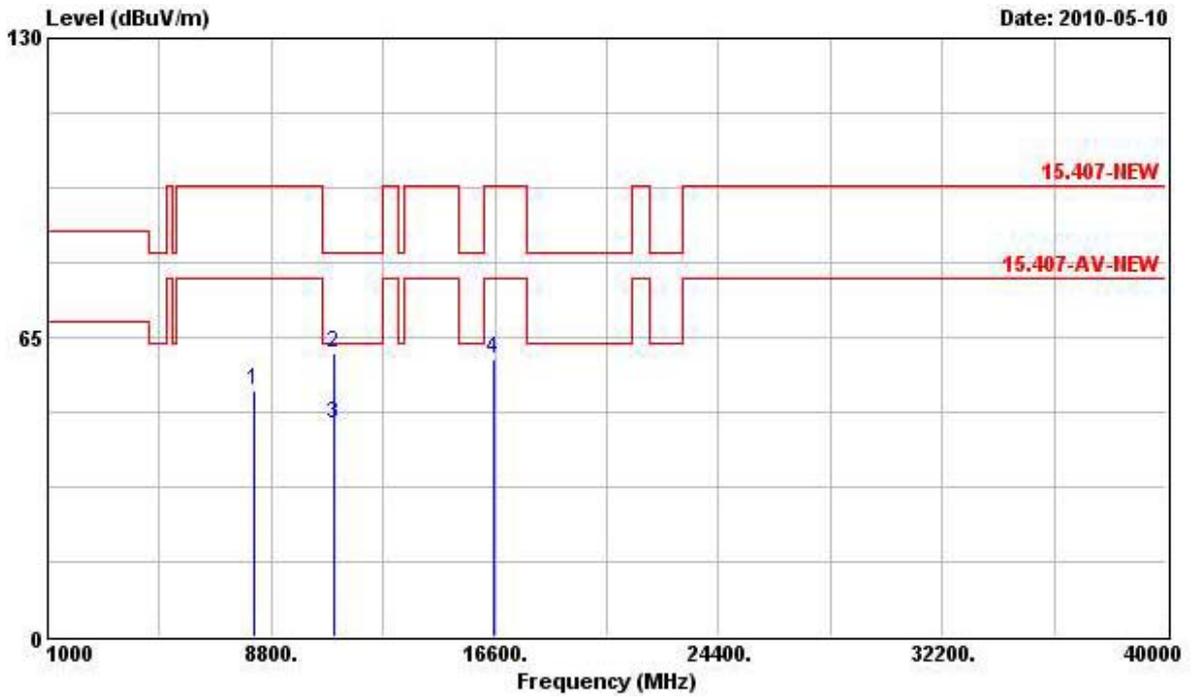
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 102 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8620.000	54.55	-23.29	77.84	42.99	38.37	5.28	32.09	---	---	PK
2	11020.000	60.85	-22.69	83.54	47.26	39.02	6.57	32.00	---	---	PEAK
3	11020.000	46.95	-16.59	63.54	33.36	39.02	6.57	32.00	---	---	Average
4	16534.000	60.26	-17.58	77.84	44.79	39.16	7.52	31.22	---	---	PK

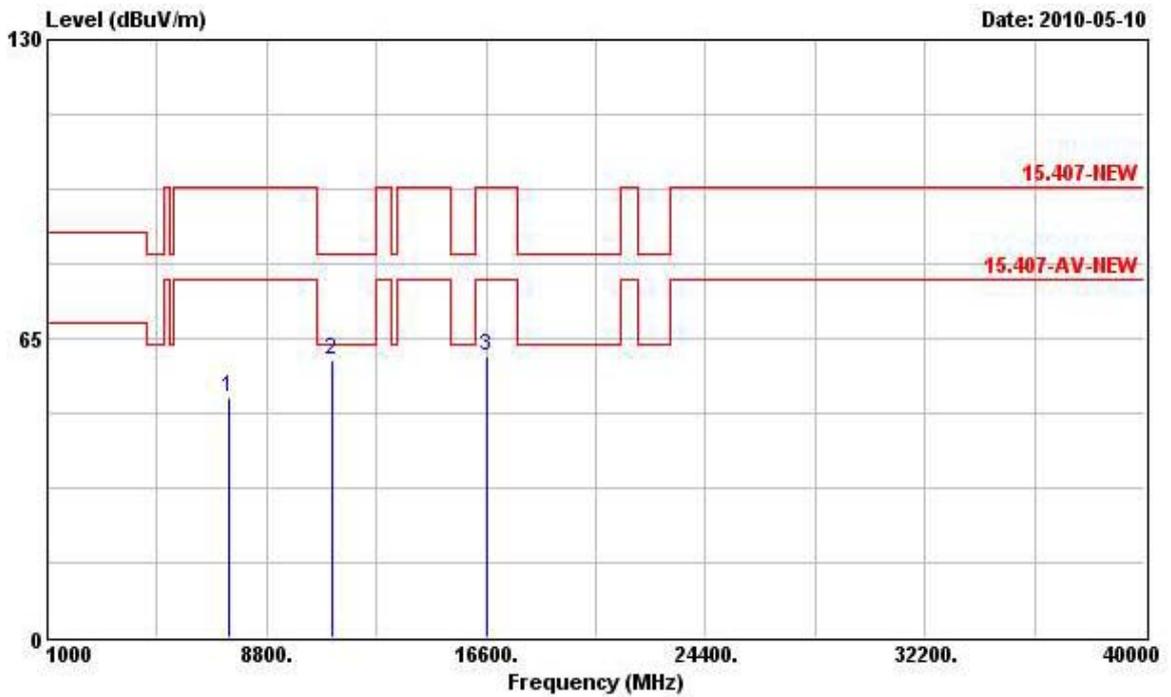
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8212.000	53.63	-24.21	77.84	42.73	38.01	5.03	32.14	---	---	PK
2	11020.000	61.57	-21.97	83.54	47.98	39.02	6.57	32.00	---	---	PERK
3	11020.000	46.26	-17.28	63.54	32.67	39.02	6.57	32.00	---	---	Average
4	16526.000	60.20	-17.64	77.84	44.82	39.08	7.52	31.22	---	---	PK

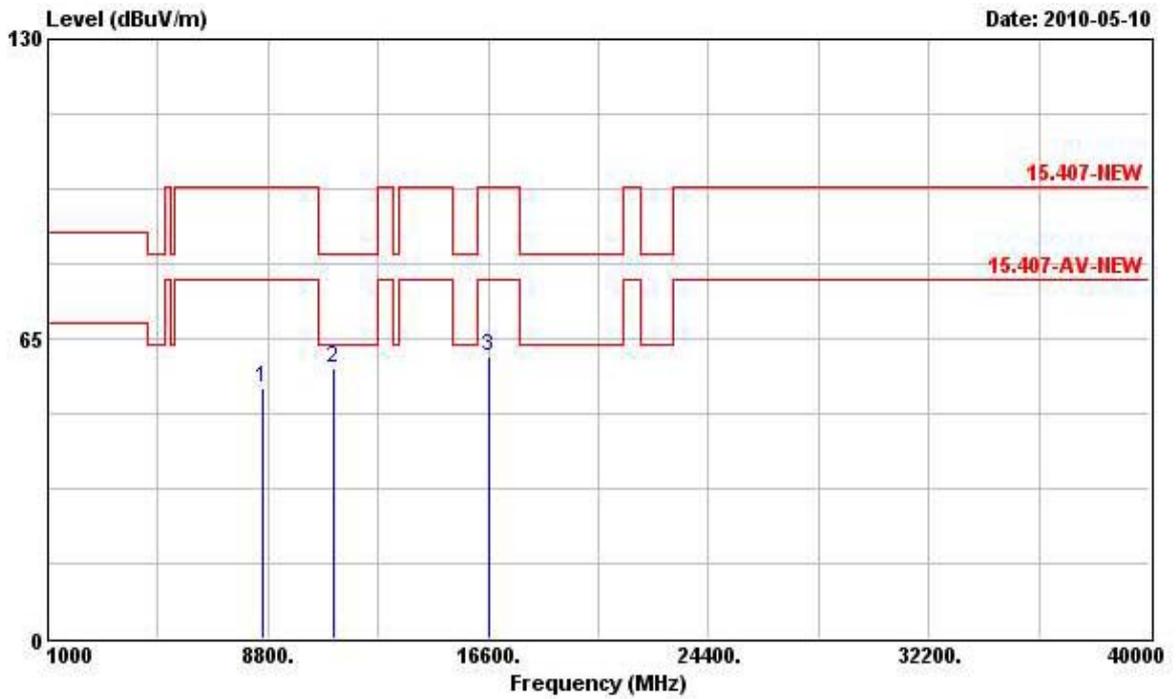
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 110 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7436.000	52.21	-25.63	77.84	42.93	37.18	4.28	32.18	---	---	PK
2 @	11100.000	60.21	-3.33	63.54	46.34	39.14	6.60	31.87	---	---	PK
3	16650.000	61.06	-16.78	77.84	44.89	39.71	7.58	31.13	---	---	PK

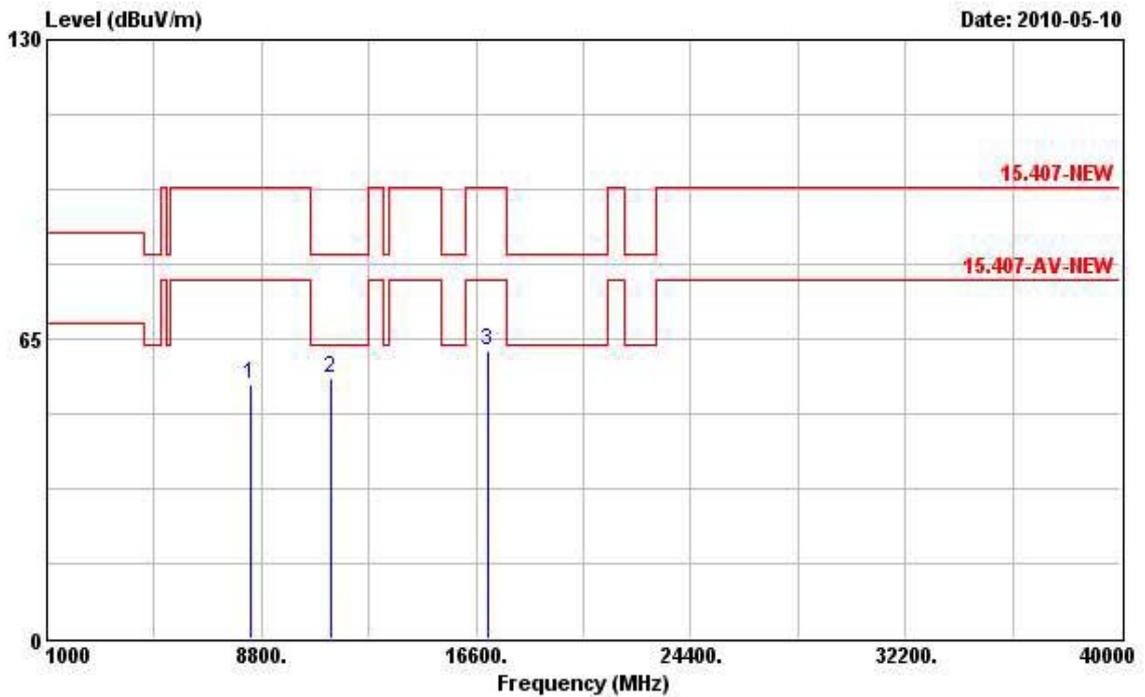
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8616.000	54.23	-23.61	77.84	42.67	38.37	5.28	32.09	---	---	PK
2 @	11100.000	58.72	-4.82	63.54	44.84	39.14	6.60	31.87	---	---	PK
3	16646.000	61.30	-16.54	77.84	45.20	39.63	7.58	31.13	---	---	PK

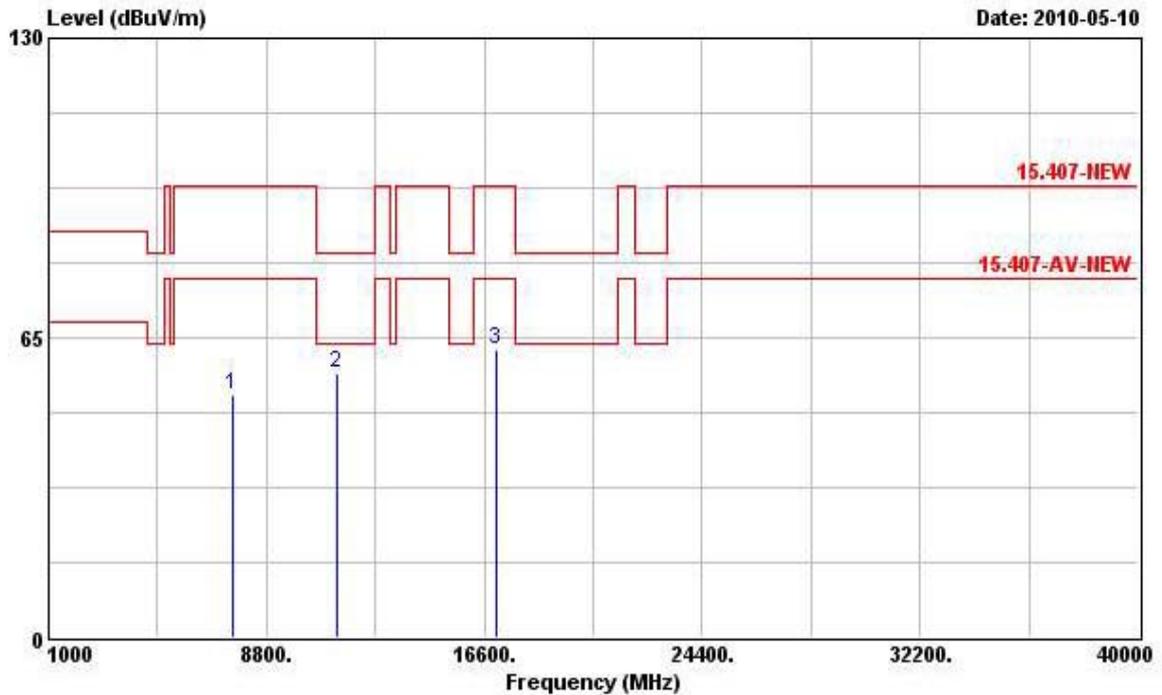
Final Test Date	May 10, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 134 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	8384.000	55.35	-22.49	77.84	43.94	38.18	5.29	32.07	---	---	PK
2 @	11340.000	56.64	-6.90	63.54	41.94	39.47	6.71	31.47	---	---	PK
3	17010.000	62.60	-15.24	77.84	44.28	41.44	7.78	30.89	---	---	PK

Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	7560.000	52.55	-25.29	77.84	42.67	37.37	4.54	32.02	---	---	PK
2	11340.000	57.34	-6.20	63.54	42.64	39.47	6.71	31.47	---	---	PK
3	17010.000	62.48	-15.36	77.84	44.16	41.44	7.78	30.89	---	---	PK

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 form 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). For transmitters operating in the 5.725-5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz (78.3dBuV/m at 3m); for frequencies 10 MHz or greater above or below the band edge, emissions 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

For Single Chain:

Final Test Date	May 05, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11a Ch. 36, 40, 48

Channel 36

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5149.000	82.21	-1.33	83.54	43.92	34.35	3.94	0.00	102	177	Peak
2 @	5184.200	120.99			82.68	34.38	3.92	0.00	102	177	Peak
1 @	5150.000	61.42	-2.12	63.54	23.13	34.35	3.94	0.00	102	177	Average
2 @	5183.500	109.73			71.42	34.38	3.92	0.00	102	177	Average

The item 2 is Fundamental Emissions.

Channel 40

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5105.400	71.03	-12.51	83.54	32.77	34.30	3.96	0.00	100	108	Peak
2 @	5204.100	119.60			81.30	34.40	3.90	0.00	100	108	Peak
3	5389.800	70.47	-13.07	83.54	32.09	34.58	3.80	0.00	100	108	Peak
1 @	5125.800	57.75	-5.79	63.54	19.47	34.33	3.94	0.00	100	108	Average
2 @	5206.200	108.79			70.49	34.40	3.90	0.00	100	108	Average
3 @	5387.400	57.28	-6.26	63.54	18.90	34.58	3.80	0.00	100	108	Average

The item 2 is Fundamental Emissions.

Channel 48

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5110.200	71.64	-11.90	83.54	33.36	34.32	3.96	0.00	100	177	Peak
2 @	5239.800	121.68			83.37	34.43	3.88	0.00	100	177	Peak
3	5352.600	72.10	-11.44	83.54	33.73	34.55	3.82	0.00	100	177	Peak
1 @	5111.400	58.39	-5.15	63.54	20.11	34.32	3.96	0.00	100	177	Average
2 @	5245.800	110.61			72.28	34.45	3.88	0.00	100	177	Average
3 @	5350.100	58.93	-4.61	63.54	20.56	34.55	3.82	0.00	100	177	Average

The item 2 is Fundamental Emissions.

Final Test Date	May 05, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11a Ch. 52, 56, 64

Channel 52

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5121.300	71.66	-11.88	83.54	33.40	34.32	3.94	0.00	100	178	Peak
2 @	5265.300	121.10			82.75	34.47	3.88	0.00	100	178	Peak
3	5351.400	72.07	-11.47	83.54	33.70	34.55	3.82	0.00	100	178	Peak
1 @	5125.800	58.29	-5.25	63.54	20.01	34.33	3.94	0.00	100	178	Average
2 @	5266.200	110.59			72.24	34.47	3.88	0.00	100	178	Average
3 @	5351.400	59.10	-4.44	63.54	20.73	34.55	3.82	0.00	100	178	Average

The item 2 is Fundamental Emissions.

Channel 56

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5132.100	71.65	-11.89	83.54	33.37	34.33	3.94	0.00	100	177	Peak
2 @	5279.700	121.26			82.92	34.48	3.86	0.00	100	177	Peak
3	5350.500	71.68	-11.86	83.54	33.31	34.55	3.82	0.00	100	177	Peak
1 @	5112.600	58.37	-5.17	63.54	20.09	34.32	3.96	0.00	100	177	Average
2 @	5273.700	110.24			71.91	34.47	3.86	0.00	100	177	Average
3 @	5350.100	59.03	-4.51	63.54	20.66	34.55	3.82	0.00	100	177	Average

The item 2 is Fundamental Emissions

Channel 64

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5322.810	119.76			81.41	34.52	3.84	0.00	100	178	Peak
2 @	5352.420	81.40	-2.14	83.54	43.03	34.55	3.82	0.00	100	178	Peak
1 @	5314.130	108.36			70.01	34.52	3.84	0.00	100	178	Average
2 @	5350.100	61.21	-2.33	63.54	22.84	34.55	3.82	0.00	100	178	Average

The item 1 is Fundamental Emissions.

Final Test Date	May 05, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11a Ch. 100, 116, 140

Channel 100

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5459.680	80.62	-2.92	83.54	42.19	34.65	3.78	0.00	100	185	Peak
2 @	5500.000	120.37			81.92	34.70	3.75	0.00	100	185	Peak
1 @	5459.280	60.55	-2.99	63.54	22.12	34.65	3.78	0.00	100	185	Average
2 @	5504.800	109.13			70.71	34.70	3.72	0.00	100	185	Average

The item 2 is Fundamental Emissions.

Channel 116

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5444.720	70.53	-13.01	83.54	32.12	34.63	3.78	0.00	100	143	Peak
2 @	5584.240	120.41			82.06	34.72	3.64	0.00	100	143	Peak
3	5747.120	70.33	-27.51	97.84	32.10	34.75	3.48	0.00	100	143	Peak
1 @	5457.520	57.85	-5.69	63.54	19.42	34.65	3.78	0.00	100	143	Average
2 @	5582.960	109.17			70.82	34.72	3.64	0.00	100	143	Average
3	5737.840	57.50	-20.34	77.84	19.27	34.75	3.48	0.00	100	143	Average

The item 2 is Fundamental Emissions.

Channel 140

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5693.540	116.97			78.67	34.74	3.56	0.00	100	143	Peak
2	5725.220	86.69	-11.15	97.84	48.43	34.74	3.52	0.00	100	143	Peak
1 @	5693.060	106.02			67.72	34.74	3.56	0.00	100	143	Average
2	5725.000	66.27	-11.57	77.84	28.01	34.74	3.52	0.00	100	143	Average

The item 1 is Fundamental Emissions.

Final Test Date	May 05, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 36, 40, 48 (20MHz)

Channel 36

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5148.700	82.45	-1.09	83.54	44.16	34.35	3.94	0.00	100	158	Peak
2 @	5179.900	118.88			80.57	34.38	3.92	0.00	100	158	Peak
1 @	5150.000	61.92	-1.62	63.54	23.63	34.35	3.94	0.00	100	158	Average
2 @	5172.700	107.20			68.91	34.37	3.92	0.00	100	158	Average

The item 2 is Fundamental Emissions.

Channel 40

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5118.900	71.38	-12.16	83.54	33.12	34.32	3.94	0.00	103	62	Peak
2 @	5207.400	120.62			82.32	34.40	3.90	0.00	103	62	Peak
3	5357.400	70.96	-12.58	83.54	32.59	34.55	3.82	0.00	103	62	Peak
1 @	5148.900	58.11	-5.43	63.54	19.82	34.35	3.94	0.00	103	62	Average
2 @	5207.400	109.91			71.61	34.40	3.90	0.00	103	62	Average
3 @	5350.010	57.59	-5.95	63.54	19.22	34.55	3.82	0.00	103	62	Average

The item 2 is Fundamental Emissions.

Channel 48

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5149.800	70.94	-12.60	83.54	32.65	34.35	3.94	0.00	103	60	Peak
2 @	5243.400	121.45			83.12	34.45	3.88	0.00	103	60	Peak
3	5351.400	70.87	-12.67	83.54	32.50	34.55	3.82	0.00	103	60	Peak
1 @	5140.500	57.80	-5.74	63.54	19.51	34.35	3.94	0.00	103	60	Average
2 @	5247.300	110.02			71.69	34.45	3.88	0.00	103	60	Average
3 @	5350.500	57.77	-5.77	63.54	19.40	34.55	3.82	0.00	103	60	Average

The item 2 is Fundamental Emissions.

Final Test Date	May 05, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 52, 56, 64 (20MHz)

Channel 52

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5146.200	70.84	-12.70	83.54	32.55	34.35	3.94	0.00	100	176	Peak
2 @	5267.400	118.22			79.87	34.47	3.88	0.00	100	176	Peak
3	5362.500	70.39	-13.15	83.54	32.01	34.57	3.82	0.00	100	176	Peak
1 @	5111.400	57.76	-5.78	63.54	19.48	34.32	3.96	0.00	100	176	Average
2 @	5266.200	106.97			68.62	34.47	3.88	0.00	100	176	Average
3 @	5350.500	57.59	-5.95	63.54	19.22	34.55	3.82	0.00	100	176	Average

The item 2 is Fundamental Emissions.

Channel 56

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5106.600	70.91	-12.63	83.54	32.63	34.32	3.96	0.00	100	177	Peak
2 @	5279.400	118.77			80.43	34.48	3.86	0.00	100	177	Peak
3	5382.600	70.78	-12.76	83.54	32.38	34.58	3.82	0.00	100	177	Peak
1 @	5105.400	57.71	-5.83	63.54	19.45	34.30	3.96	0.00	100	177	Average
2 @	5274.600	107.20			68.87	34.47	3.86	0.00	100	177	Average
3 @	5350.000	57.66	-5.88	63.54	19.29	34.55	3.82	0.00	100	177	Average

The item 2 is Fundamental Emissions.

Channel 64

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5319.660	118.58			80.23	34.52	3.84	0.00	100	177	Peak
2 @	5350.100	81.76	-1.78	83.54	43.39	34.55	3.82	0.00	100	177	Peak
1 @	5313.010	106.19			67.84	34.52	3.84	0.00	100	177	Average
2 @	5350.100	59.80	-3.74	63.54	21.43	34.55	3.82	0.00	100	177	Average

The item 1 is Fundamental Emissions.

Final Test Date	May 05, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 100, 116, 140 (20MHz)

Channel 100

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5459.360	81.57	-1.97	83.54	43.14	34.65	3.78	0.00	100	184	Peak
2 @	5500.000	120.07			81.62	34.70	3.75	0.00	100	184	Peak
1 @	5460.000	61.44	-2.10	63.54	23.01	34.65	3.78	0.00	100	184	Average
2 @	5505.760	108.16			69.74	34.70	3.72	0.00	100	184	Average

The item 2 is Fundamental Emissions.

Channel 116

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5458.800	71.09	-12.45	83.54	32.66	34.65	3.78	0.00	100	144	Peak
2 @	5582.000	118.95			80.60	34.72	3.64	0.00	100	144	Peak
1 @	5457.840	58.02	-5.52	63.54	19.59	34.65	3.78	0.00	100	144	Average
2 @	5584.240	108.03			69.68	34.72	3.64	0.00	100	144	Average

The item 2 is Fundamental Emissions.

Channel 140

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5694.980	120.48			82.18	34.74	3.56	0.00	100	354	Peak
2	5725.000	90.71	-7.13	97.84	52.45	34.74	3.52	0.00	100	354	Peak
1 @	5693.300	108.95			70.65	34.74	3.56	0.00	100	354	Average
2	5725.000	70.46	-7.38	77.84	32.20	34.74	3.52	0.00	100	354	Average

The item 1 is Fundamental Emissions.

Final Test Date	May 07, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 38, 46, 54 (40MHz)

Channel 38

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.000	79.68	-3.86	83.54	41.39	34.35	3.94	0.00	103	177	Peak
2 @	5179.500	114.66			76.35	34.38	3.92	0.00	103	177	Peak
1 @	5150.000	62.28	-1.26	63.54	23.99	34.35	3.94	0.00	103	177	Average
2 @	5183.100	102.71			64.40	34.38	3.92	0.00	103	177	Average

The item 2 is Fundamental Emissions.

Channel 46

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5129.750	71.01	-12.53	83.54	32.73	34.33	3.94	0.00	100	178	Peak
2 @	5235.750	115.07			76.76	34.43	3.88	0.00	100	178	Peak
3	5362.500	71.63	-11.91	83.54	33.25	34.57	3.82	0.00	100	178	Peak
1 @	5140.500	57.94	-5.60	63.54	19.65	34.35	3.94	0.00	100	178	Average
2 @	5235.750	104.05			65.74	34.43	3.88	0.00	100	178	Average
3 @	5359.750	58.20	-5.34	63.54	19.83	34.55	3.82	0.00	100	178	Average

The item 2 is Fundamental Emissions.

Channel 54

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5138.750	71.77	-11.77	83.54	33.49	34.33	3.94	0.00	101	178	Peak
2 @	5259.500	114.27			75.92	34.47	3.88	0.00	101	178	Peak
3	5353.750	73.39	-10.15	83.54	35.02	34.55	3.82	0.00	101	178	Peak
1 @	5125.750	57.85	-5.69	63.54	19.57	34.33	3.94	0.00	101	178	Average
2 @	5277.500	103.52			65.18	34.48	3.86	0.00	101	178	Average
3 @	5359.500	58.26	-5.28	63.54	19.89	34.55	3.82	0.00	101	178	Average

The item 2 is Fundamental Emissions.

Final Test Date	May 05, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 62, 102, 110 (40MHz)

Channel 62

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5305.800	114.14			75.78	34.50	3.86	0.00	100	177	Peak
2 @	5350.100	80.17	-3.37	83.54	41.80	34.55	3.82	0.00	100	177	Peak
1 @	5307.400	102.07			63.71	34.50	3.86	0.00	100	177	Average
2 @	5350.100	62.53	-1.01	63.54	24.16	34.55	3.82	0.00	100	177	Average

The item 1 is Fundamental Emissions.

Channel 102

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5459.500	78.60	-4.94	83.54	40.17	34.65	3.78	0.00	100	184	Peak
2 @	5496.600	114.01			75.56	34.70	3.75	0.00	100	184	Peak
1 @	5460.000	61.23	-2.31	63.54	22.80	34.65	3.78	0.00	100	184	Average
2 @	5501.100	102.29			63.84	34.70	3.75	0.00	100	184	Average

The item 2 is Fundamental Emissions.

Channel 110

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5459.800	71.74			33.31	34.65	3.78	0.00	100	184	Peak
1 @	5459.800	57.79			19.36	34.65	3.78	0.00	100	184	Average

The item 1 is Fundamental Emissions.

Final Test Date	May 05, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ch. 134 (40MHz)

Channel 134

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5653.800	115.09			76.76	34.73	3.60	0.00	100	148	Peak
1 @	5655.000	103.78			65.45	34.73	3.60	0.00	100	148	Average

The item 1 is Fundamental Emissions.

For Two Chain:

Final Test Date	May 07, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ant. A+ Ant. B Ch. 36, 40, 48 (20MHz)

Channel 36

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5150.000	80.23	-3.31	83.54	41.94	34.35	3.94	0.00	100	121	Peak
2 @	5174.700	124.11			85.80	34.38	3.92	0.00	100	121	Peak
1 @	5150.000	61.05	-2.49	63.54	22.76	34.35	3.94	0.00	100	121	Average
2 @	5187.500	111.57			73.26	34.38	3.92	0.00	100	121	Average

The item 2 is Fundamental Emissions.

Channel 40

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5126.100	73.99	-9.55	83.54	35.71	34.33	3.94	0.00	100	120	Peak
2 @	5193.000	125.06			86.76	34.40	3.90	0.00	100	120	Peak
3	5361.000	71.59	-11.95	83.54	33.21	34.57	3.82	0.00	100	120	Peak
1 @	5103.300	60.30	-3.24	63.54	22.04	34.30	3.96	0.00	100	120	Average
2 @	5194.200	112.92			74.62	34.40	3.90	0.00	100	120	Average
3 @	5388.600	58.28	-5.26	63.54	19.90	34.58	3.80	0.00	100	120	Average

The item 2 is Fundamental Emissions.

Channel 48

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5101.800	73.66	-9.88	83.54	35.40	34.30	3.96	0.00	100	119	Peak
2 @	5247.300	122.40			84.07	34.45	3.88	0.00	100	119	Peak
3	5385.300	71.55	-11.99	83.54	33.15	34.58	3.82	0.00	100	119	Peak
1 @	5103.300	60.21	-3.33	63.54	21.95	34.30	3.96	0.00	100	119	Average
2 @	5247.000	110.44			72.11	34.45	3.88	0.00	100	119	Average
3 @	5399.400	58.17	-5.37	63.54	19.77	34.60	3.80	0.00	100	119	Average

The item 2 is Fundamental Emissions.

Final Test Date	May 07, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ant. A+ Ant. B Ch. 52, 56, 64 (20MHz)

Channel 52

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5137.800	72.67	-10.87	83.54	34.39	34.33	3.94	0.00	100	118	Peak
2 @	5252.100	122.54			84.21	34.45	3.88	0.00	100	118	Peak
3	5374.200	71.23	-12.31	83.54	32.85	34.57	3.82	0.00	100	118	Peak
1 @	5141.700	59.72	-3.82	63.54	21.43	34.35	3.94	0.00	100	118	Average
2 @	5254.500	110.49			72.16	34.45	3.88	0.00	100	118	Average
3 @	5377.800	58.17	-5.37	63.54	19.77	34.58	3.82	0.00	100	118	Average

The item 2 is Fundamental Emissions.

Channel 56

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5113.800	77.11	-6.43	83.54	38.85	34.32	3.94	0.00	100	301	Peak
2 @	5277.000	125.98			87.64	34.48	3.86	0.00	100	301	Peak
3	5392.500	74.74	-8.80	83.54	36.36	34.58	3.80	0.00	100	301	Peak
1 @	5102.100	61.07	-2.47	63.54	22.81	34.30	3.96	0.00	100	301	Average
2 @	5277.000	113.08			74.74	34.48	3.86	0.00	100	301	Average
3 @	5399.400	59.22	-4.32	63.54	20.82	34.60	3.80	0.00	100	301	Average

The item 2 is Fundamental Emissions.

Channel 64

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5322.460	121.19			82.84	34.52	3.84	0.00	100	92	Peak
2	5350.460	79.97	-3.57	83.54	41.60	34.55	3.82	0.00	100	92	Peak
1 @	5321.690	108.54			70.19	34.52	3.84	0.00	100	92	Average
2 @	5350.000	60.20	-3.34	63.54	21.83	34.55	3.82	0.00	100	92	Average

The item 1 is Fundamental Emissions.

Final Test Date	May 07, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ant. A+ Ant. B Ch. 100, 116, 140 (20MHz)

Channel 100

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5459.360	82.35	-1.19	83.54	43.92	34.65	3.78	0.00	100	112	Peak
2 @	5505.120	125.47			87.05	34.70	3.72	0.00	100	112	Peak
1 @	5460.000	61.37	-2.17	63.54	22.94	34.65	3.78	0.00	100	112	Average
2 @	5504.480	112.82			74.40	34.70	3.72	0.00	100	112	Average

The item 2 is Fundamental Emissions.

Channel 116

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5457.520	72.53	-11.01	83.54	34.10	34.65	3.78	0.00	107	116	Peak
2 @	5584.560	123.21			84.86	34.72	3.64	0.00	107	116	Peak
3	5727.600	71.40	-26.44	97.84	33.14	34.74	3.52	0.00	107	116	Peak
1 @	5456.240	59.60	-3.94	63.54	21.17	34.65	3.78	0.00	107	116	Average
2 @	5574.000	110.92			72.53	34.71	3.68	0.00	107	116	Average
3	5744.240	57.93	-19.91	77.84	19.70	34.75	3.48	0.00	107	116	Average

The item 2 is Fundamental Emissions.

Channel 140

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5696.360	123.17			84.87	34.74	3.56	0.00	101	120	Peak
2	5725.000	87.31	-10.53	97.84	49.05	34.74	3.52	0.00	101	120	Peak
1 @	5693.720	110.38			72.08	34.74	3.56	0.00	101	120	Average
2	5725.000	66.25	-11.59	77.84	27.99	34.74	3.52	0.00	101	120	Average

The item 1 is Fundamental Emissions.

Final Test Date	May 07, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ant. A+ Ant. B Ch. 38, 46, 54 (40MHz)

Channel 38

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5147.800	78.11	-5.43	83.54	39.82	34.35	3.94	0.00	100	118	Peak
2 @	5178.200	117.35			79.04	34.38	3.92	0.00	100	118	Peak
1	5149.800	62.41	-1.13	63.54	24.12	34.35	3.94	0.00	100	118	Average
2 @	5179.000	104.56			66.25	34.38	3.92	0.00	100	118	Average

The item 2 is Fundamental Emissions.

Channel 46

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5126.500	72.66	-10.88	83.54	34.38	34.33	3.94	0.00	100	302	Peak
2 @	5223.500	118.55			80.23	34.42	3.90	0.00	100	302	Peak
3	5355.500	70.54	-13.00	83.54	32.17	34.55	3.82	0.00	100	302	Peak
1 @	5149.500	59.57	-3.97	63.54	21.28	34.35	3.94	0.00	100	302	Average
2 @	5224.500	105.97			67.65	34.42	3.90	0.00	100	302	Average
3 @	5351.500	57.90	-5.64	63.54	19.53	34.55	3.82	0.00	100	302	Average

The item 2 is Fundamental Emissions.

Channel 54

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5125.750	72.31	-11.23	83.54	34.03	34.33	3.94	0.00	100	120	Peak
2 @	5260.750	114.18			75.83	34.47	3.88	0.00	100	120	Peak
3	5359.750	71.71	-11.83	83.54	33.34	34.55	3.82	0.00	100	120	Peak
1 @	5139.750	58.56	-4.98	63.54	20.27	34.35	3.94	0.00	100	120	Average
2 @	5263.750	101.49			63.14	34.47	3.88	0.00	100	120	Average
3 @	5360.750	57.80	-5.74	63.54	19.42	34.57	3.82	0.00	100	120	Average

The item 2 is Fundamental Emissions.

Final Test Date	May 07, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ant. A+ Ant. B Ch. 62, 102, 110 (40MHz)

Channel 62

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5304.700	116.16			77.80	34.50	3.86	0.00	100	92	Peak
2 @	5350.200	77.00	-6.54	83.54	38.63	34.55	3.82	0.00	100	92	Peak
1 @	5305.900	102.99			64.63	34.50	3.86	0.00	100	92	Average
2 @	5350.000	61.27	-2.27	63.54	22.90	34.55	3.82	0.00	100	92	Average

The item 1 is Fundamental Emissions.

Channel 102

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5456.600	77.58	-5.96	83.54	39.15	34.65	3.78	0.00	100	112	Peak
2 @	5500.700	119.68			81.23	34.70	3.75	0.00	100	112	Peak
1 @	5460.000	60.56	-2.98	63.54	22.13	34.65	3.78	0.00	100	112	Average
2 @	5503.000	106.52			68.07	34.70	3.75	0.00	100	112	Average

The item 2 is Fundamental Emissions

Channel 110

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5446.900	72.30	-11.24	83.54	33.87	34.65	3.78	0.00	100	112	Peak
1 @	5455.300	58.21	-5.33	63.54	19.78	34.65	3.78	0.00	100	112	Average

Final Test Date	May 07, 2010	Test Site No.	03CH03-HY
Temperature	24.6	Humidity	61%
Test Engineer	Eddie	Configuration	802.11n Ant. A+ Ant. B Ch. 134 (40MHz)

Channel 134

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5683.000	116.44			78.15	34.73	3.56	0.00	100	120	Peak
1	5682.600	103.48			65.19	34.73	3.56	0.00	100	120	Average

The item 1 is Fundamental Emissions.

Note:

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 form 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].

3.8 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 ±20ppm (IEEE 802.11a specification).

3.8.2 Measuring Instruments and Setting

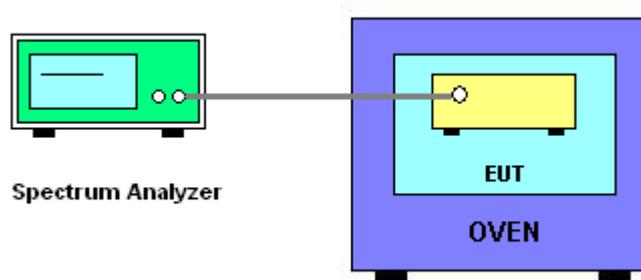
Please refer to section 4 of equipments list in this report. The following table is the setting of the spectrum analyzer.

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. fc is declaring of channel frequency. Then the frequency error formula is $(fc-f)/fc \times 10^6$ ppm and the limit is less than ±20ppm (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°C~50°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

For Single Chain

Voltage (V)	Measurement Frequency (MHz)		
	IEEE 802.11 a/n 5500 MHz (20MHz)	IEEE 802.11n 5310 MHz (40MHz)	IEEE 802.11n 5510 MHz (40MHz)
126.5	5499.999400	5309.999400	5509.999700
110	5499.998700	5309.998700	5509.998100
93.5	5499.995800	5309.995800	5509.999400
Max. Deviation (MHz)	0.004200	0.004200	0.001900
Max. Deviation (ppm)	0.76	0.79	0.34

Temperature vs. Frequency Stability

Temperature ()	Measurement Frequency (MHz)		
	IEEE 802.11 a/n 5500 MHz (20MHz)	IEEE 802.11n 5310 MHz (40MHz)	IEEE 802.11n 5510 MHz (40MHz)
-30	5499.968400	5309.968400	5509.986200
-20	5499.971800	5309.971800	5509.985200
-10	5499.978400	5309.978400	5509.996200
0	5499.985700	5309.985700	5509.997400
10	5499.991400	5309.991400	5509.998900
20	5499.998700	5309.998700	5509.998100
30	5500.003100	5310.003100	5510.000400
40	5500.012400	5310.012400	5510.021800
50	5500.019700	5310.019700	5510.033400
Max. Deviation (MHz)	0.031600	0.031600	0.033400
Max. Deviation (ppm)	5.75	5.95	6.0617

For Two Chain

Voltage (V)	Measurement Frequency (MHz)	
	IEEE 802.11n 5500 MHz (20MHz)	IEEE 802.11n 5510 MHz (40MHz)
126.5	5499.999400	5509.999700
110	5499.998700	5509.998100
93.5	5499.995800	5509.999400
Max. Deviation (MHz)	0.004200	0.001900
Max. Deviation (ppm)	0.76	0.34

Temperature vs. Frequency Stability

Temperature ()	Measurement Frequency (MHz)	
	IEEE 802.11n 5500 MHz (20MHz)	IEEE 802.11n 5510 MHz (40MHz)
-30	5499.968400	5509.986200
-20	5499.971800	5509.985200
-10	5499.978400	5509.996200
0	5499.985700	5509.997400
10	5499.991400	5509.998900
20	5499.998700	5509.998100
30	5500.003100	5510.000400
40	5500.012400	5510.021800
50	5500.019700	5510.033400
Max. Deviation (MHz)	0.031600	0.033400
Max. Deviation (ppm)	5.75	6.0617

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 2.2 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	100132	9kHz – 2.75GHz	Sep. 01, 2009	Conduction (CO01-HY)
LISN	MessTec	NNB-2/16Z	2001/004	9kHz – 30MHz	Jan. 19, 2010	Conduction (CO01-HY)
LISN (Support Unit)	MessTec	NNB-2/16Z	2001/009	9kHz – 30MHz	Mar. 01, 2010	Conduction (CO01-HY)
EMI Filter	LINDGREN	LRE-2060	1004	< 450Hz	N/A	Conduction (CO01-HY)
EMI Filter	LINDGREN	N6006	201052	0 – 60Hz	N/A	Conduction (CO01-HY)
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832010001	9kHz – 30MHz	May 04, 2010	Conduction (CO01-HY)
Isolation Transformer	Erika Fiedler OHG	D-65396 Walluf	58	45MHz-2.15GHz	N/A	Conduction (CO01-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	Oct. 29, 2009	Conducted (TH01-HY)
Power Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	Dec. 03, 2009	Conducted (TH01-HY)
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	Dec. 03, 2009	Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z32	100057	30MHz ~ 6GHz	Jul. 31, 2009	Conducted (TH01-HY)
Temp. and Humidity Chamber	Giant Force	GTH-225-20-S	MAB0103-001	N/A	Aug. 06, 2009	Conducted (TH01-HY)
RF CABLE-1m	Jye Bao	RG142	CB034-1m	20MHz ~ 7GHz	Dec. 01, 2009	Conducted (TH01-HY)
RF CABLE-2m	Jye Bao	RG142	CB035-2m	20MHz ~ 1GHz	Dec. 01, 2009	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. 12, 2009*	Conducted (TH01-HY)

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

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30 MHz - 1 GHz 3m	Jun. 07, 2009	Radiation (03CH03-HY)
Amplifier	SCHAFFNER	COA9231A	18667	9 kHz - 2 GHz	Jan. 24, 2010	Radiation (03CH03-HY)
Amplifier	Agilent	8449B	3008A02120	1 GHz - 26.5 GHz	Jul. 21, 2009	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSP40	100004	9 kHz - 40 GHz	Oct. 03, 2009	Radiation (03CH03-HY)
Bilog Antenna	SCHAFFNER	CBL 6112D	22237	30 MHz - 1 GHz	Sep. 26, 2009	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6741	1GHz ~ 18GHz	Apr. 28, 2010	Radiation (03CH03-HY)
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15 GHz - 40 GHz	Jan.11, 2010	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30 MHz - 1 GHz	Jan. 05, 2010	Radiation (03CH03-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	1 GHz - 40 GHz	Jan. 05, 2010	Radiation (03CH03-HY)
Turn Table	HD	DS 420	420/650/00	0 - 360 degree	N/A	Radiation (03CH03-HY)

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

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Amplifier	MITEQ	AMF-6F-260400	9121372	26.5 GHz - 40 GHz	Apr. 06, 2009*	Radiation (03CH03-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	Jul. 28, 2008*	Radiation (03CH03-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



Certificate No. : L1190-100107

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

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 07, 2010

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