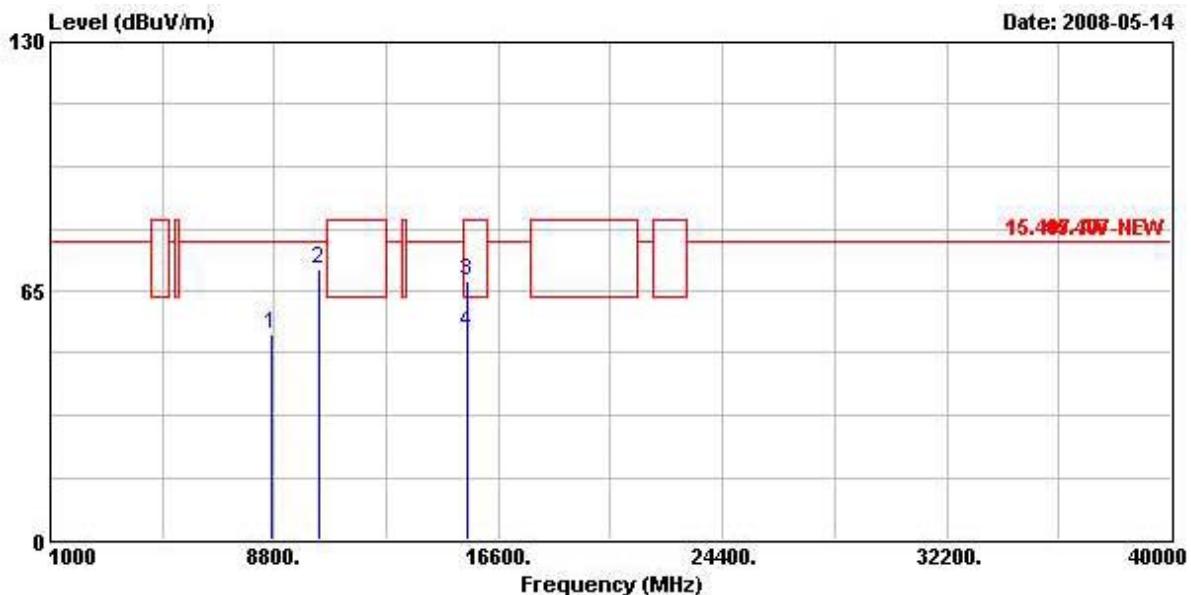
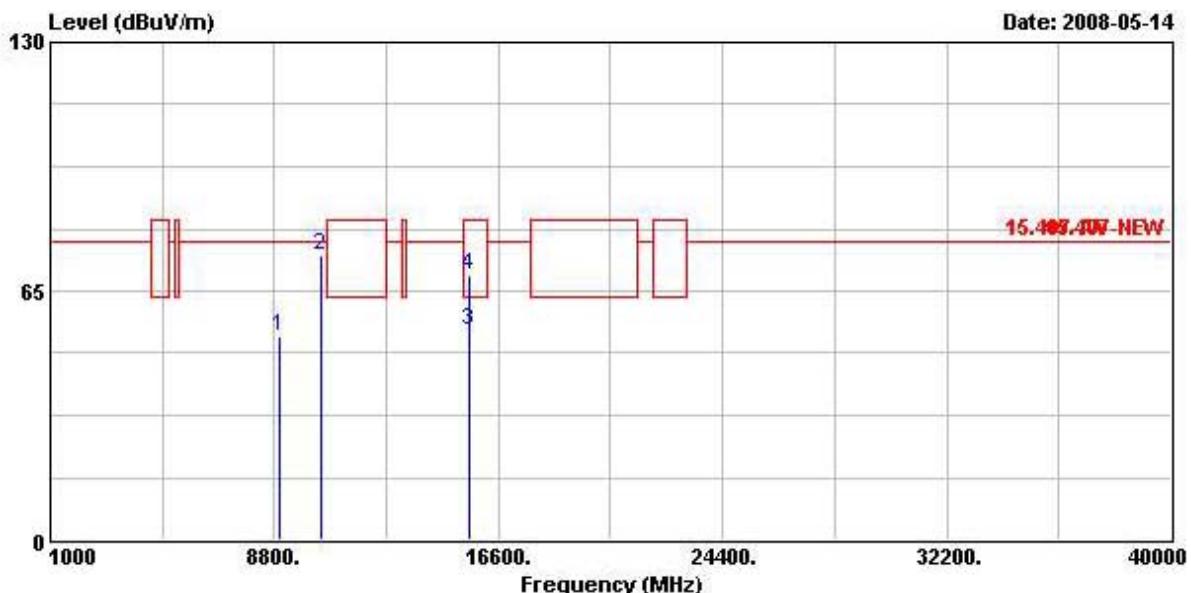


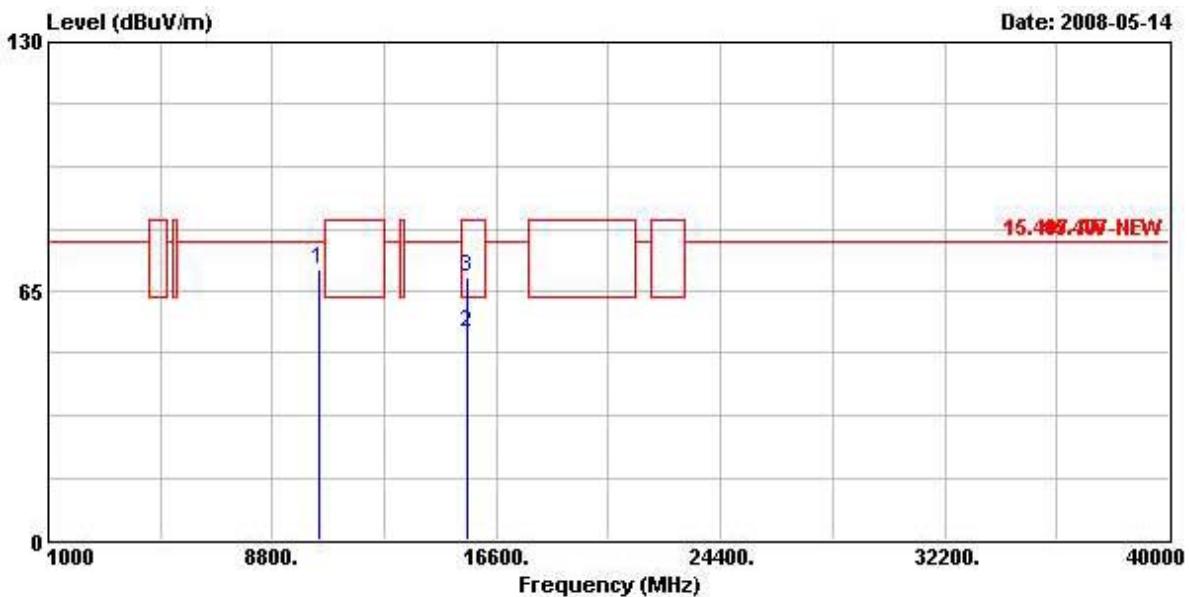
Vertical

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	8724.000	53.83	-24.01	77.84	43.13	38.43	5.08	32.81 PEAK
2	10360.600	70.62	-7.22	77.84	56.88	39.33	6.09	31.67 PEAK
3	15541.600	67.61	-15.93	83.54	52.41	37.51	7.37	29.69 PEAK
4	15541.600	53.92	-9.62	63.54	38.73	37.51	7.37	29.69 Average

Test date	May 14, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 40 (20MHz)

Horizontal

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Limit	Line	Level	Factor	Loss	Factor	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8960.000	52.97	-24.87	77.84	42.53	38.57	4.67	32.81 PEAK
2	10400.300	74.37	-3.47	77.84	60.42	39.32	6.14	31.51 PEAK
3	15602.500	54.77	-8.77	63.54	39.49	37.54	7.39	29.65 Average
4	15602.500	69.04	-14.50	83.54	53.76	37.54	7.39	29.65 PEAK

Vertical

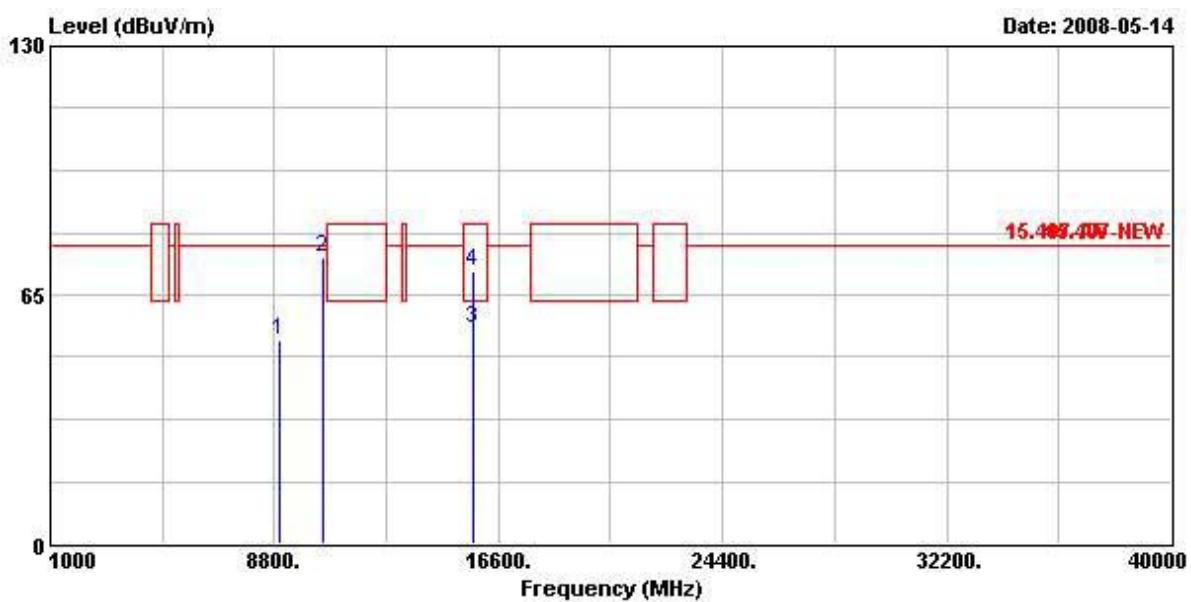
Freq	Level	Over Limit		Read Antenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	10400.800	70.83	-7.01	77.84	56.88	39.32	6.14	31.51 PEAK
2	15601.800	54.17	-9.37	63.54	38.89	37.54	7.39	29.65 Average
3	15601.800	68.85	-14.69	83.54	53.57	37.54	7.39	29.65 PEAK

FCC TEST REPORT

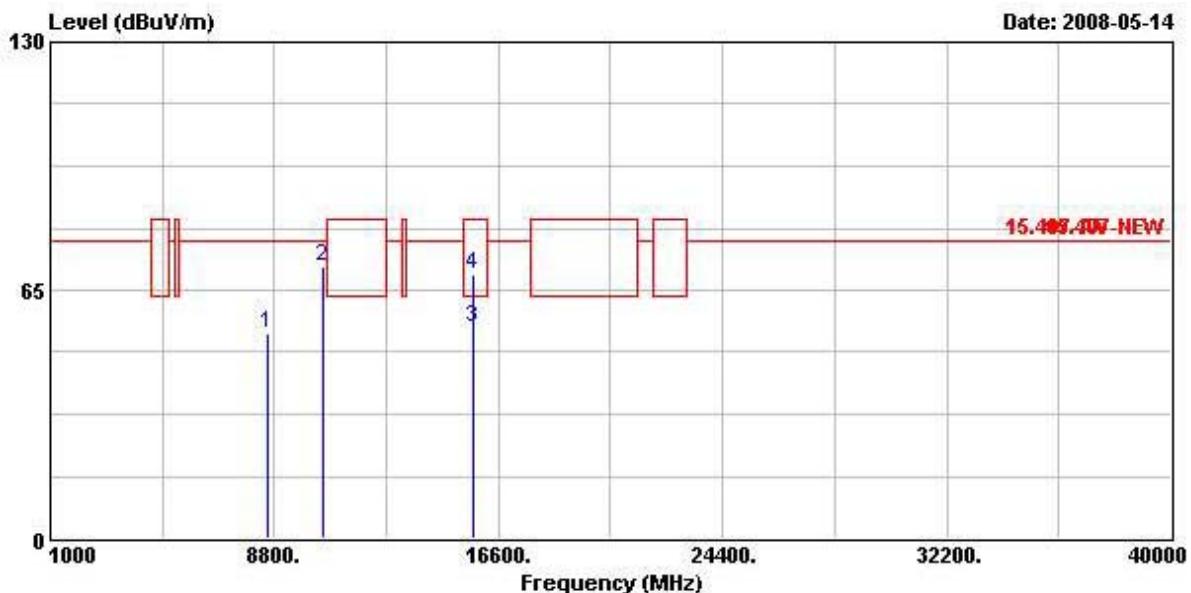
Report No.: FR843032-07AI

Test date	May 14, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 48 (20MHz)

Horizontal

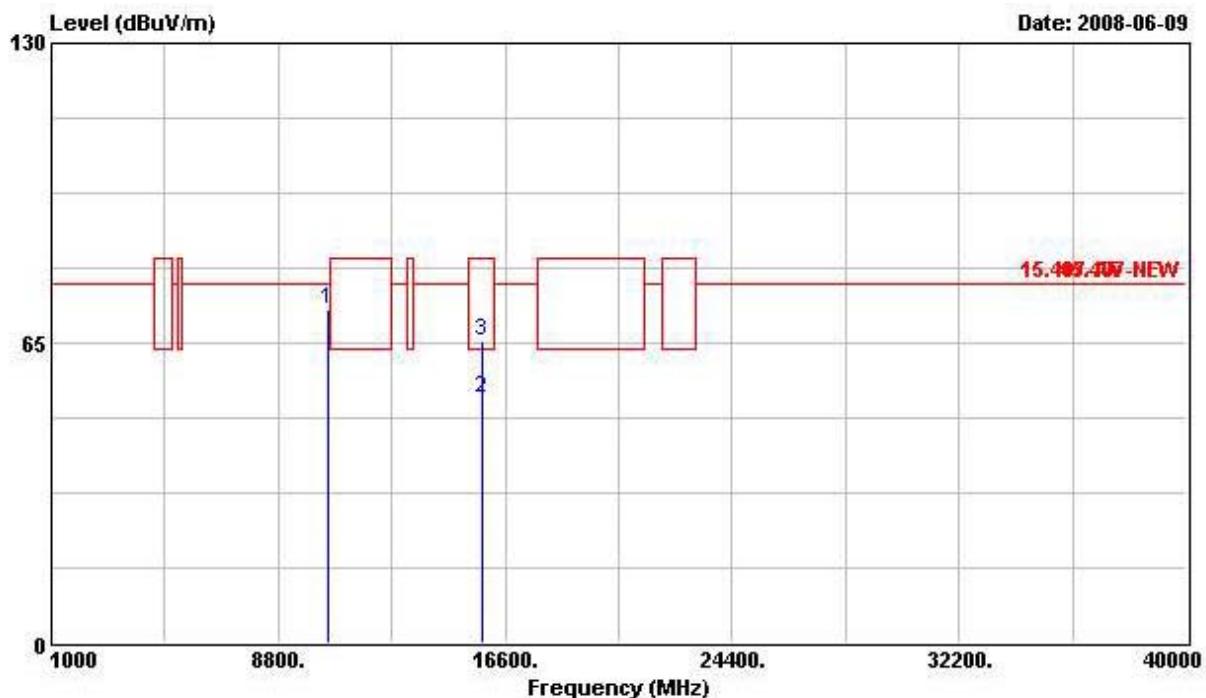


	Freq	Level	Over Limit	Limit Line	Read	Antenna Level	Cable Factor	Preamp Loss	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8996.000	53.06	-24.78	77.84	42.67	38.59	4.60	32.81	PEAK
2 @	10480.700	74.72	-3.12	77.84	60.44	39.30	6.23	31.25	PEAK
3	15717.400	56.19	-7.35	63.54	40.80	37.59	7.40	29.60	Average
4	15717.400	71.18	-12.36	83.54	55.78	37.59	7.40	29.60	PEAK

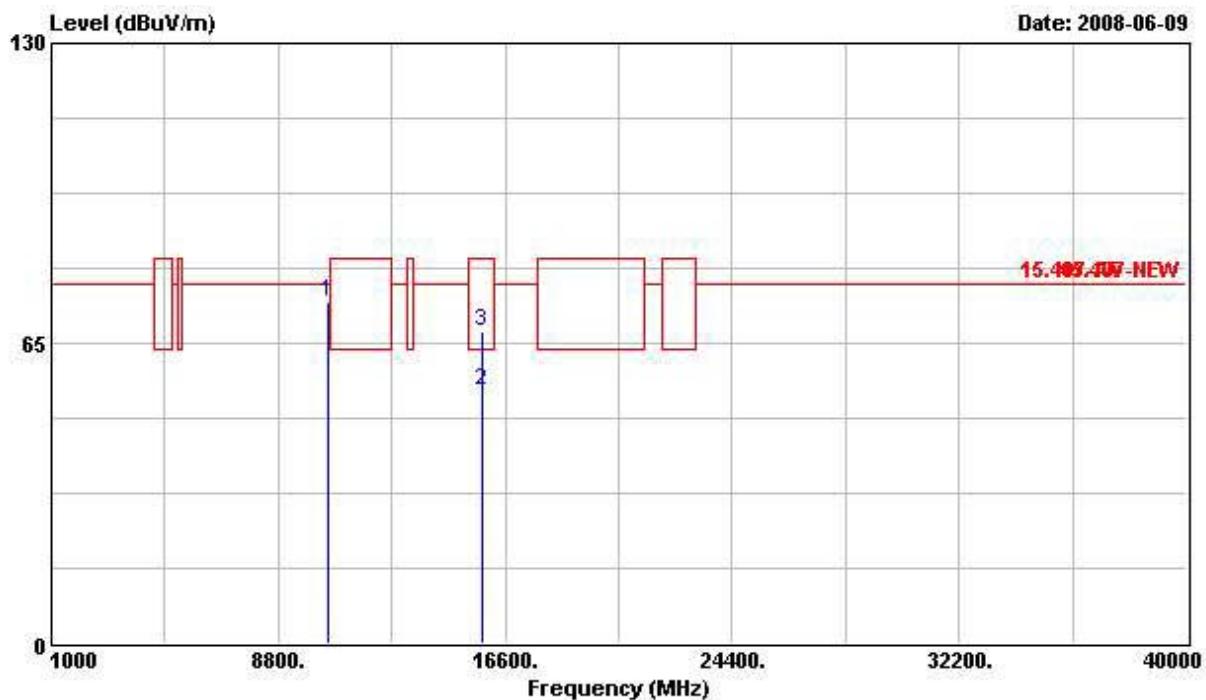
Vertical

Freq MHz	Level dBuV/m	Over Limit		Read Line		Antenna Level Factor	Cable Loss dB		Preamp Factor dB	Remark
		Limit dB	Line dBuV/m	dBuV	dB/m					
1 8576.000	53.44	-24.40	77.84	42.55	38.35	5.35	5.35	32.81	PEAK	
2 10481.100	71.22	-6.62	77.84	56.94	39.30	6.23	6.23	31.25	PEAK	
3 15713.300	55.30	-8.24	63.54	39.91	37.58	7.40	7.40	29.60	Average	
4 15713.300	69.09	-14.45	83.54	53.70	37.58	7.40	7.40	29.60	PEAK	

Test date	Jun. 09, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 52 (20MHz)

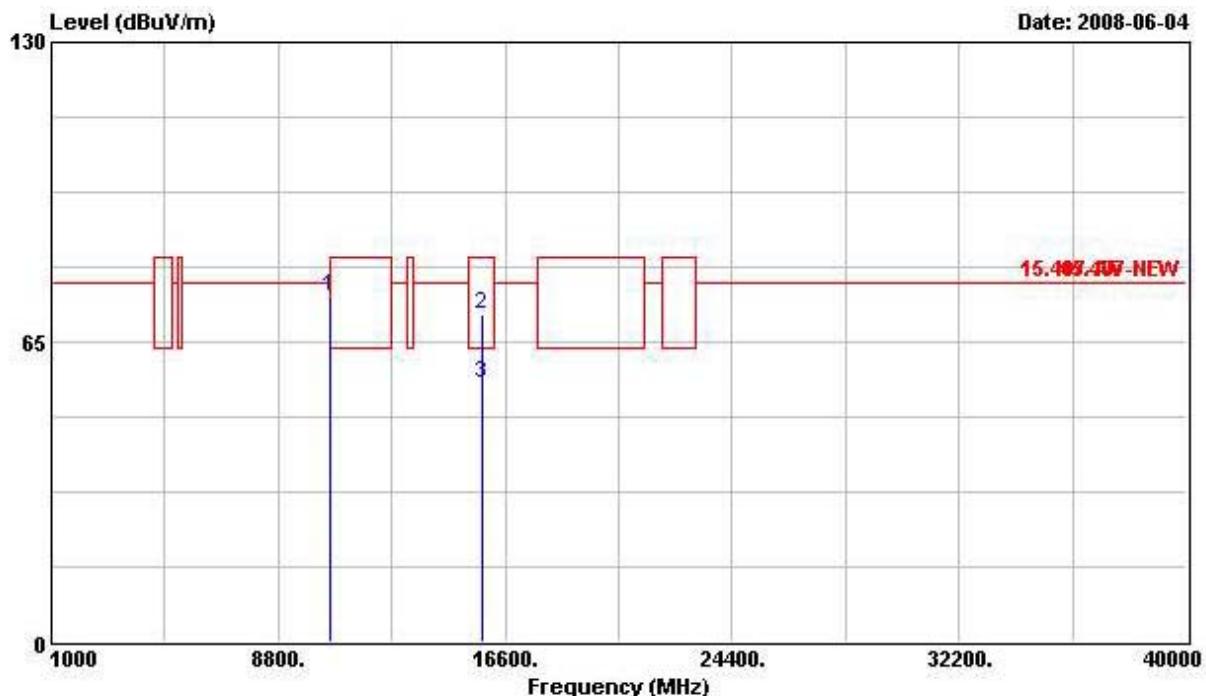
Horizontal

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	10520.240	72.12	-5.72	77.84	57.72	39.29	6.28	31.17 PEAK
2	15781.720	53.23	-10.31	63.54	37.76	37.62	7.42	29.56 AVERAGE
3	15781.720	65.60	-17.94	83.54	50.12	37.62	7.42	29.56 Peak

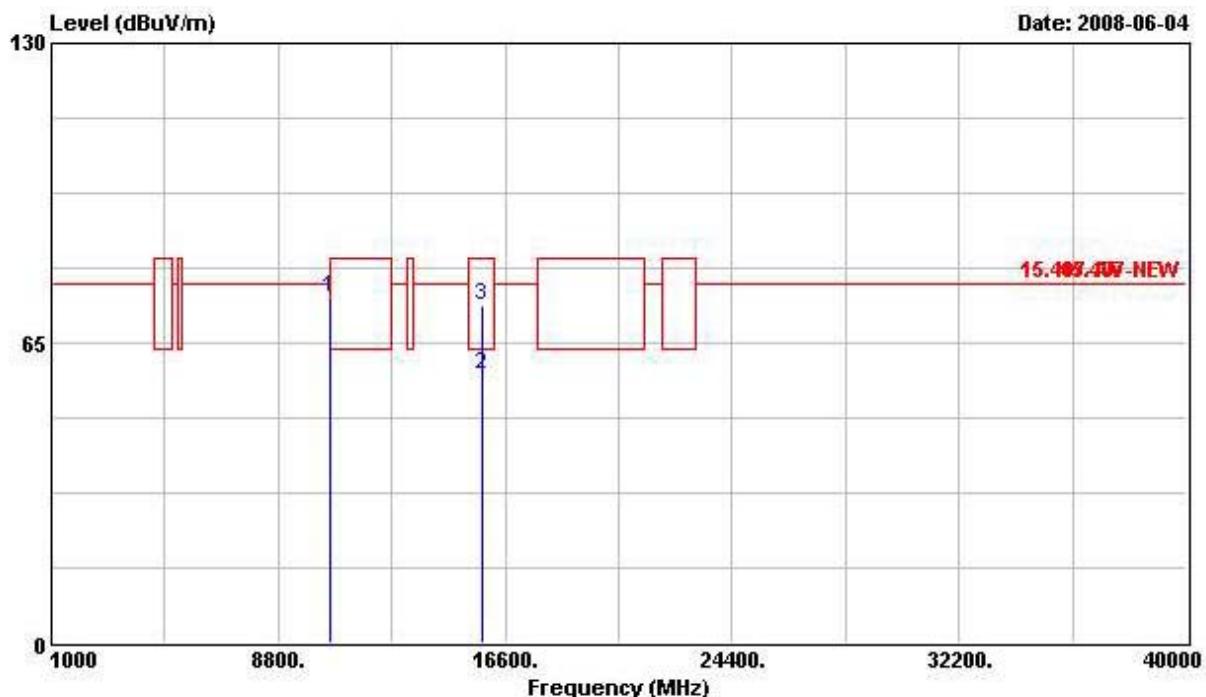
Vertical

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Limit	Line	Antenna	Level Factor	Cable Loss Factor	Preamp Gain	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
10520.400	74.02	-3.82	77.84	59.62	39.29	6.28	31.17	PEAK
15778.320	54.53	-9.01	63.54	39.06	37.61	7.42	29.56	AVERAGE
15778.320	67.55	-15.99	83.54	52.08	37.61	7.42	29.56	Peak

Test date	Jun. 04, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 56 (20MHz)

Horizontal

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	10560.440	74.76	-3.08	77.84	60.22	39.27	6.30	31.03 PEAK
2	15842.280	71.15	-12.39	83.54	55.61	37.64	7.43	29.53 Peak
3	15842.280	56.23	-7.31	63.54	40.69	37.64	7.43	29.53 Average

Vertical

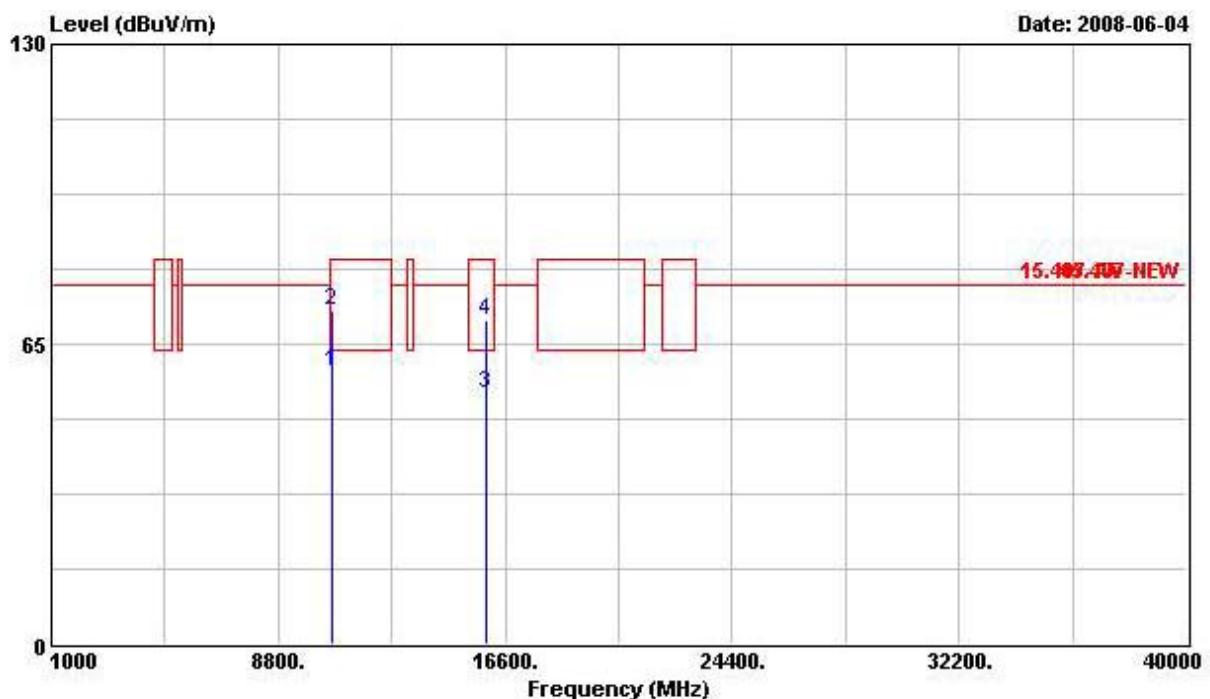
Freq	Level	Over Limit		Read Antenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	10560.480	74.77	-3.07	77.84	60.22	39.27	6.30	31.03 PEAK
2	15834.360	57.99	-5.55	63.54	42.46	37.64	7.43	29.53 AVERAGE
3	15834.360	73.15	-10.39	83.54	57.62	37.64	7.43	29.53 Peak

FCC TEST REPORT

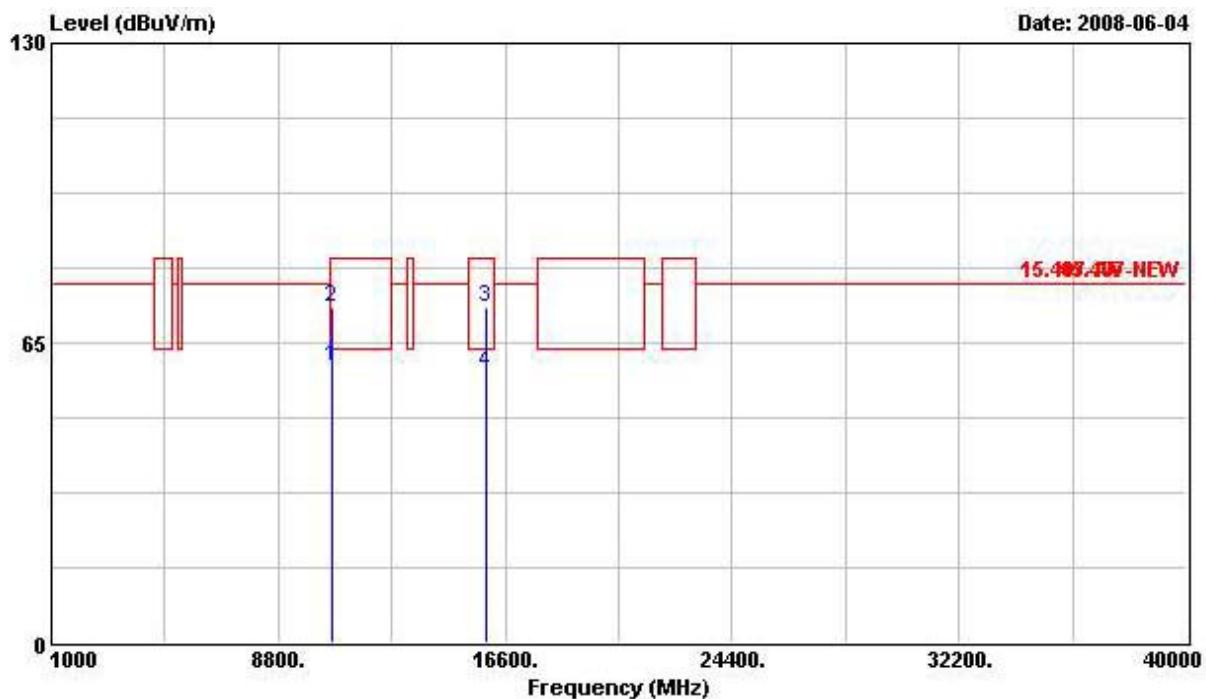
Report No.: FR843032-07AI

Test date	Jun. 04, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 64 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	Read	Antenna Level	Cable Factor	Preamp Loss Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	10641.200	59.04	-4.50	63.54	44.29	39.22	6.34	30.81	AVERAGE
2	10641.200	72.36	-11.18	83.54	57.61	39.22	6.34	30.81	Peak
3	15962.200	54.52	-9.02	63.54	38.84	37.69	7.46	29.46	AVERAGE
4	15962.200	69.95	-13.59	83.54	54.27	37.69	7.46	29.46	Peak

Vertical

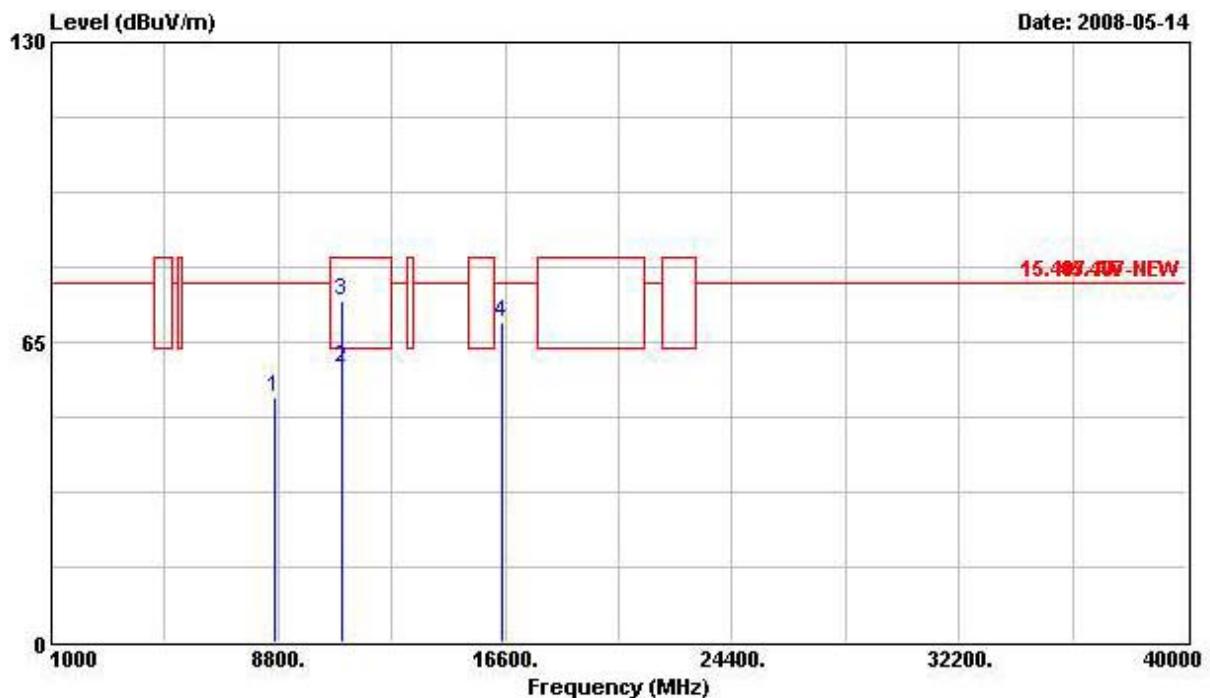
Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	dBuV	dB/m	dB	dB	
MHz	dBuV/m	dB	dBuV/m					
1	10639.280	59.95	-3.59	63.54	45.20	39.22	6.34	30.81 AVERAGE
2	10639.280	72.83	-10.71	83.54	58.08	39.22	6.34	30.81 Peak
3	15960.400	72.78	-10.76	83.54	57.10	37.69	7.46	29.46 PEAK
4	15960.400	58.52	-5.02	63.54	42.84	37.69	7.46	29.46 Average

FCC TEST REPORT

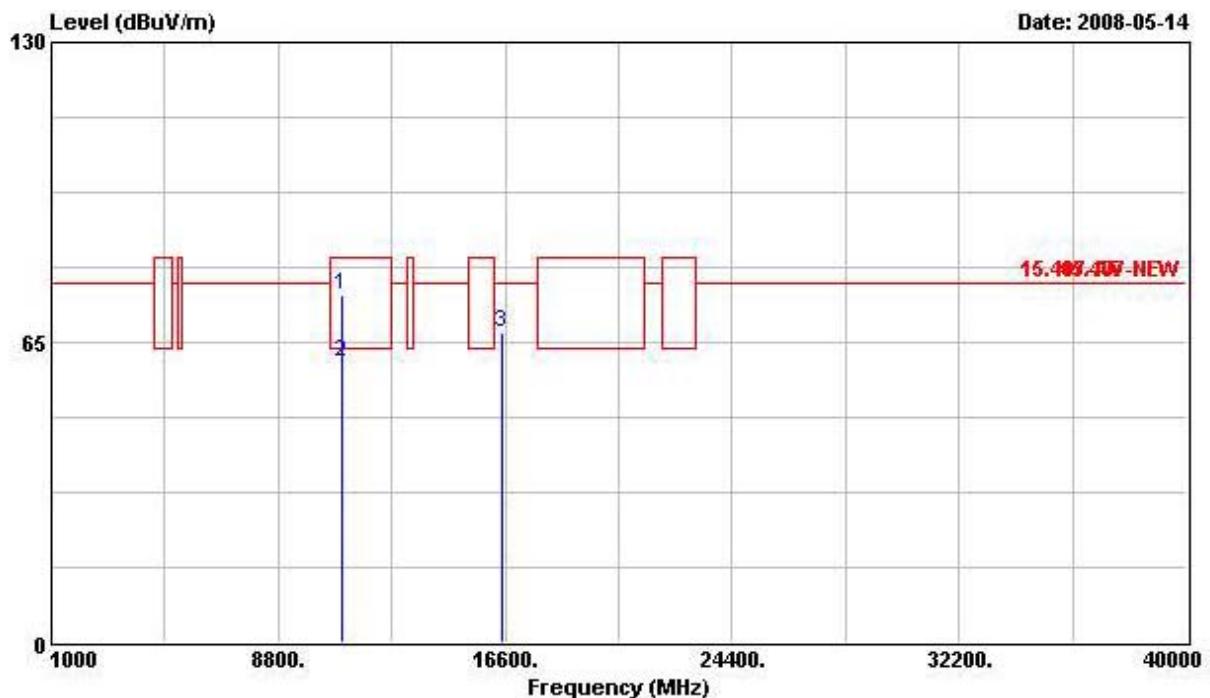
Report No.: FR843032-07AI

Test date	May. 14, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 100 (20MHz)

Horizontal

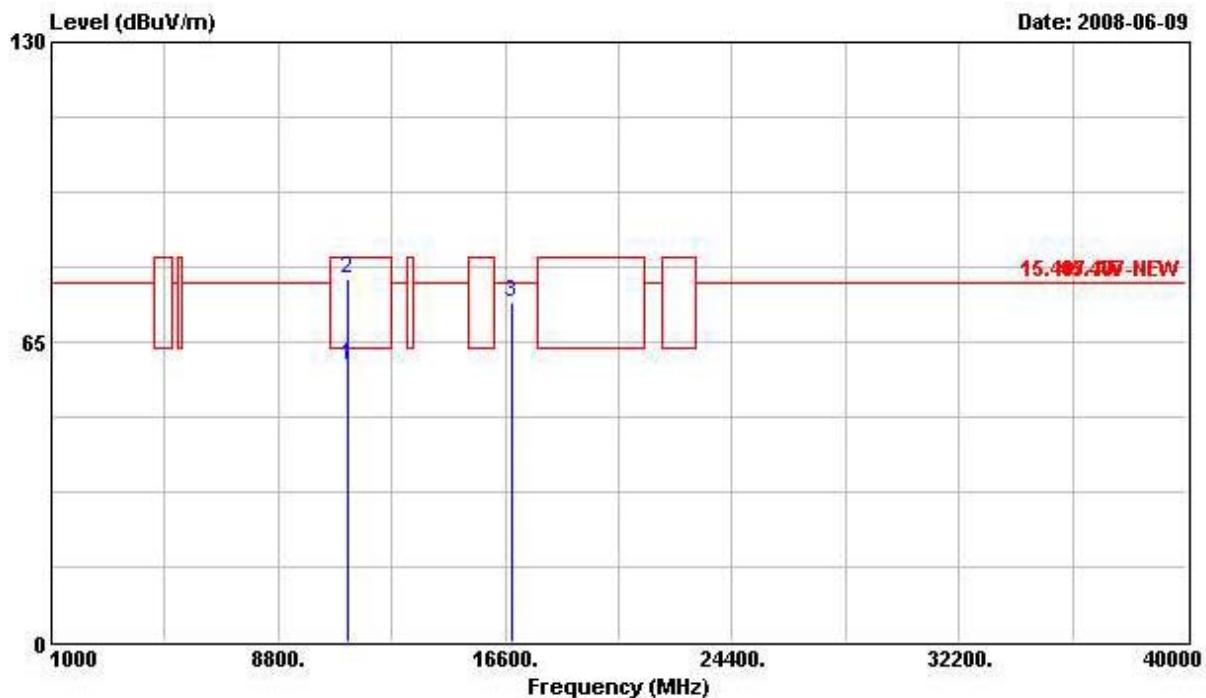


	Freq	Level	Over Limit	Limit Line	Read Antenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8704.000	52.99	-24.85	77.84	42.30	38.42	5.08	32.81	PEAK
2	10999.700	59.34	-4.20	63.54	43.60	39.00	6.55	29.81	Average
3	10999.700	74.09	-9.45	83.54	58.35	39.00	6.55	29.81	Peak
4	16500.000	69.14	-8.70	77.84	52.05	39.00	7.52	29.44	PEAK

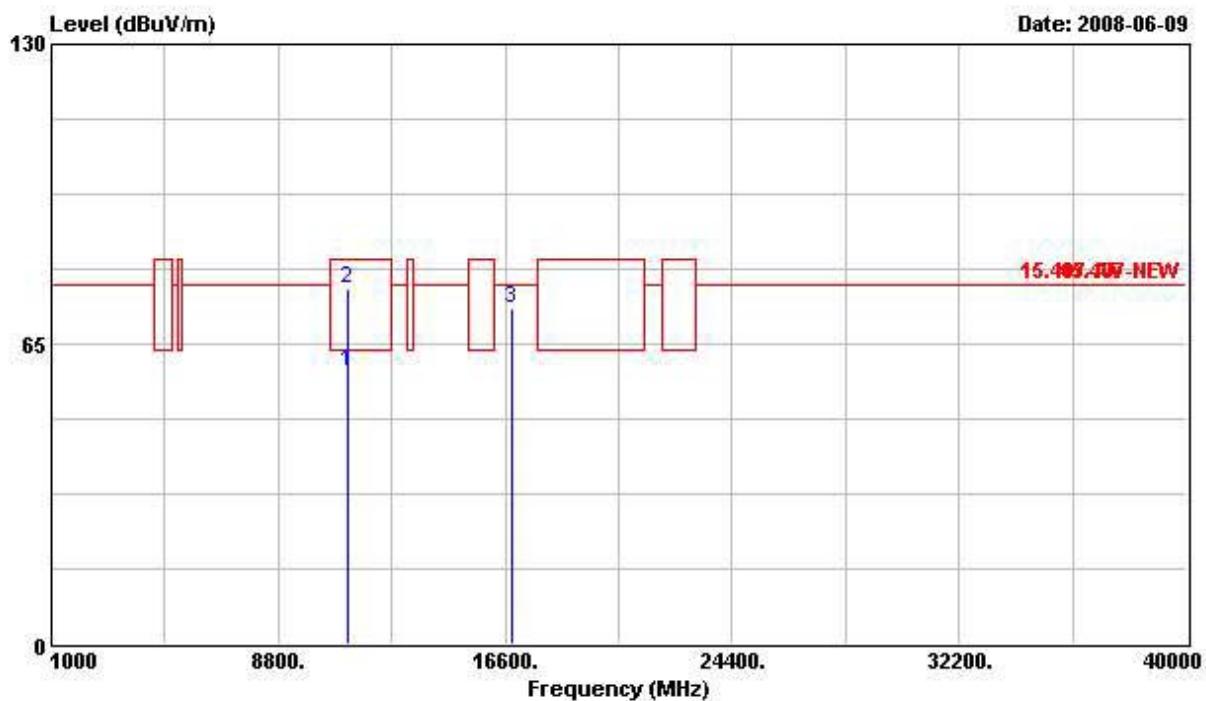
Vertical

Freq MHz	Level dBuV/m	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Limit	Line	Level	Factor	Loss	Factor	
		dB	dBuV/m	dBuV	dB/m	dB	dB	
1	11001.800	75.17	-8.37	83.54	59.41	39.00	6.57	29.81 PEAK
2	11001.800	60.52	-3.02	63.54	44.76	39.00	6.57	29.81 Average
3	16498.200	67.12	-10.72	77.84	50.04	39.00	7.52	29.44 PEAK

Test date	Jun. 09, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 120 (20MHz)

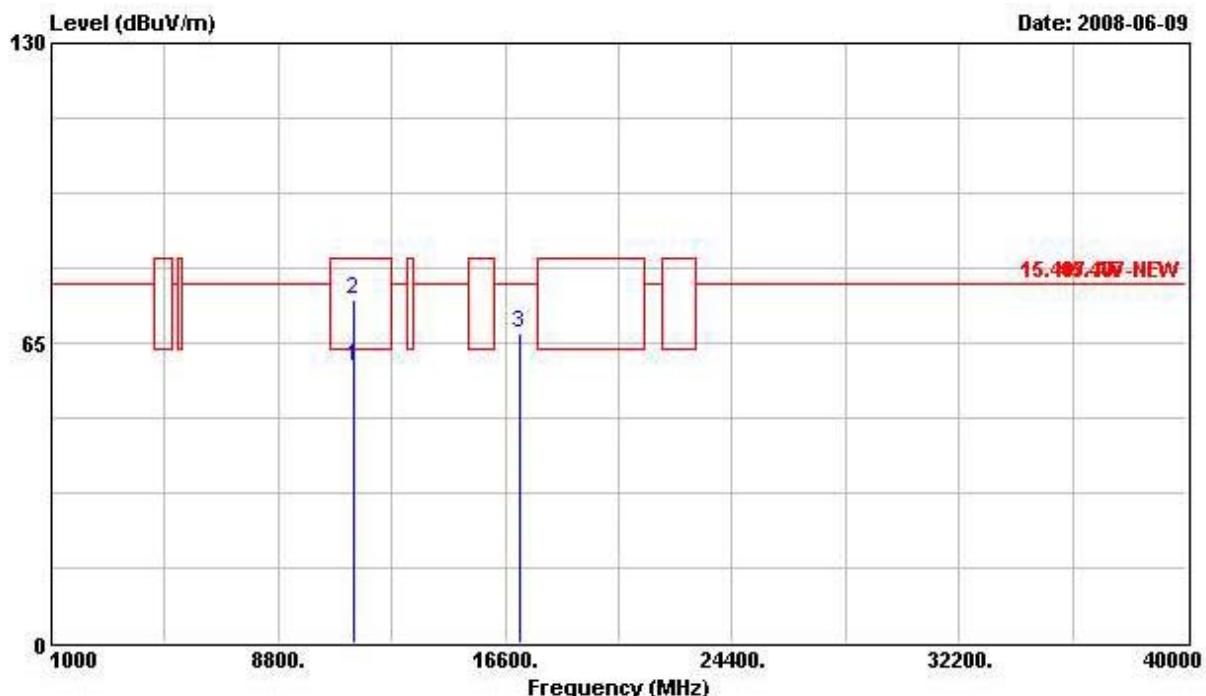
Horizontal

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	11201.600	59.88	-3.66	63.54	44.81	39.28	6.66	30.86 AVERAGE
2	11201.600	78.71	-4.83	83.54	63.64	39.28	6.66	30.86 Peak
3	16799.800	73.70	-4.14	77.84	54.54	40.35	7.67	28.85 PEAK

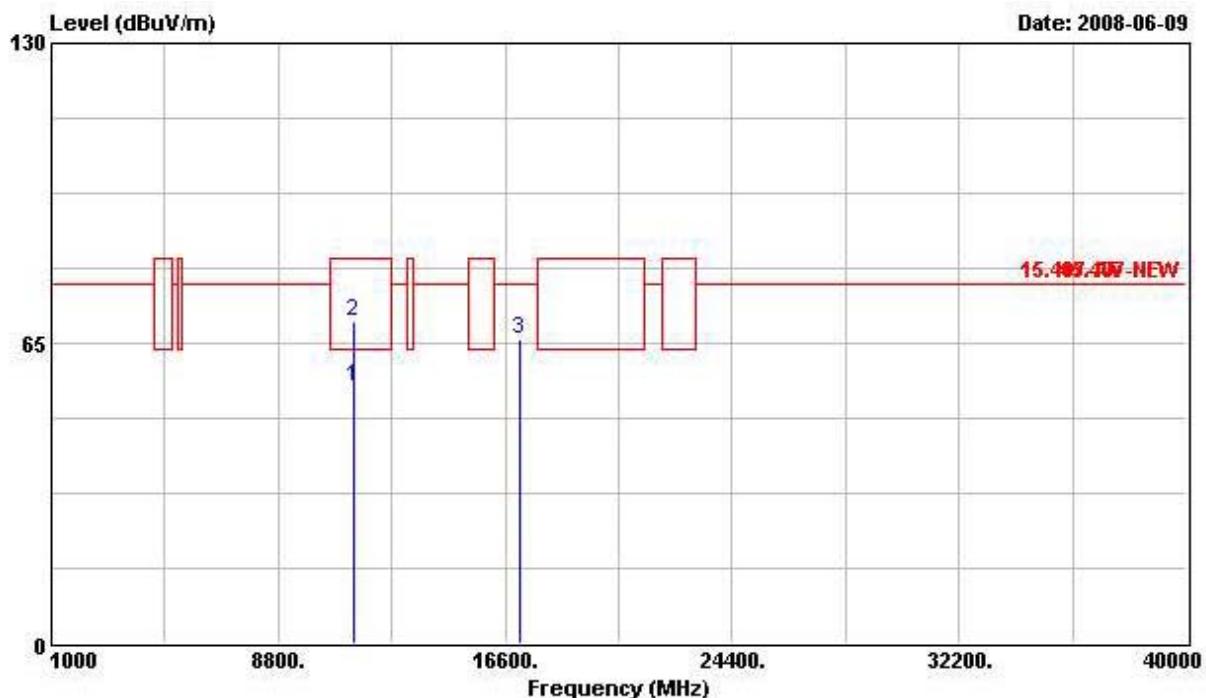
Vertical

Freq	Level	Over Limit		Read Antenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	Line	Level	Factor	
1	11201.400	58.98	-4.56	63.54	43.91	39.28	6.66	30.86 AVERAGE
2	11201.400	76.95	-6.59	83.54	61.88	39.28	6.66	30.86 Peak
3	16799.800	72.80	-5.04	77.84	53.64	40.35	7.67	28.85 PEAK

Test date	Jun. 09, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 140 (20MHz)

Horizontal

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Line	Antenna	Level Factor	Cable Loss	Preamp Factor	
1	11400.600	59.77	-3.77	63.54	45.38	39.56	6.75	31.92 AVERAGE
2	11400.600	74.49	-9.05	83.54	60.10	39.56	6.75	31.92 Peak
3	17100.000	67.13	-10.71	77.84	45.72	42.14	7.79	28.53 PEAK

Vertical

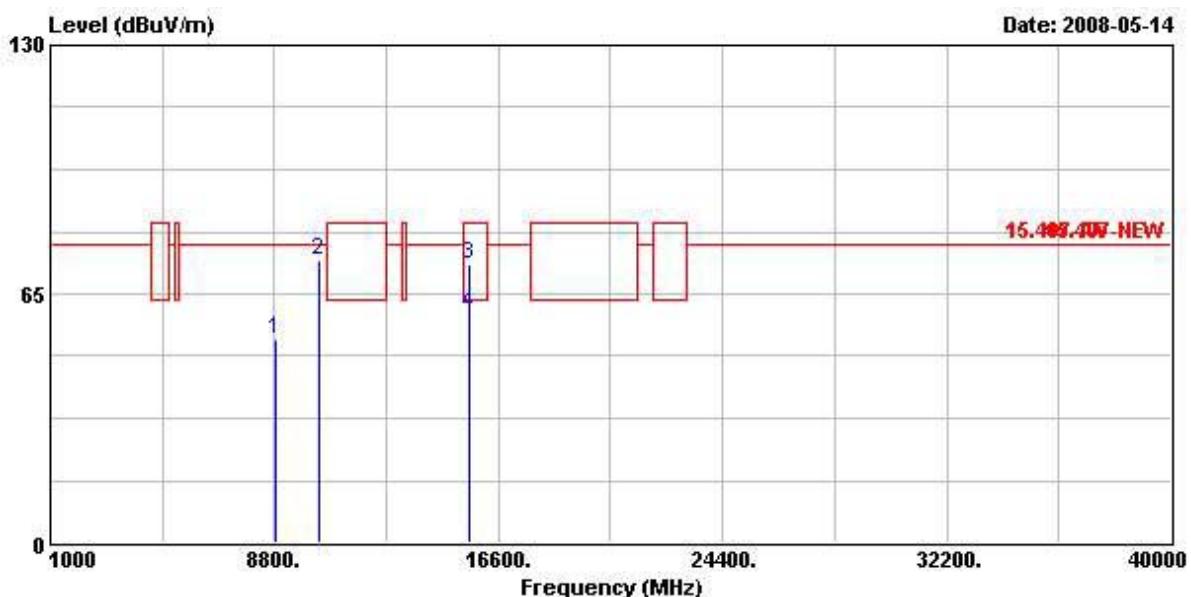
Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	dBuV	dB/m	dB	dB	
MHz	dBuV/m	dB	dBuV/m					
1	11400.240	55.75	-7.79	63.54	41.37	39.56	6.75	31.92 AVERAGE
2	11400.240	69.56	-13.98	83.54	55.17	39.56	6.75	31.92 Peak
3	17100.000	65.65	-12.19	77.84	44.25	42.14	7.79	28.53 AVERAGE

FCC TEST REPORT

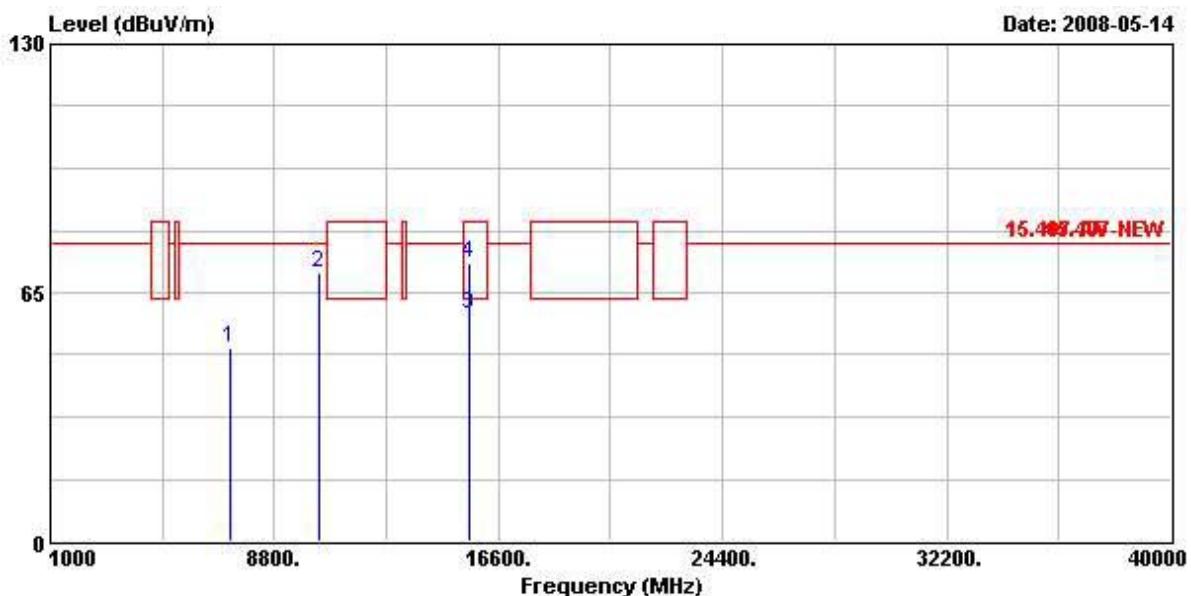
Report No.: FR843032-07AI

Test date	May 14, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 38 (40MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	Read Antenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8816.000	53.02	-24.82	77.84	42.40	38.49	4.94	32.81	PEAK
2 @	10384.000	73.82	-4.02	77.84	59.95	39.32	6.14	31.59	PEAK
3	15584.000	72.74	-10.80	83.54	57.49	37.53	7.38	29.67	Peak
4 @	15584.000	60.03	-3.51	63.54	44.79	37.53	7.38	29.67	AVERAGE

Vertical

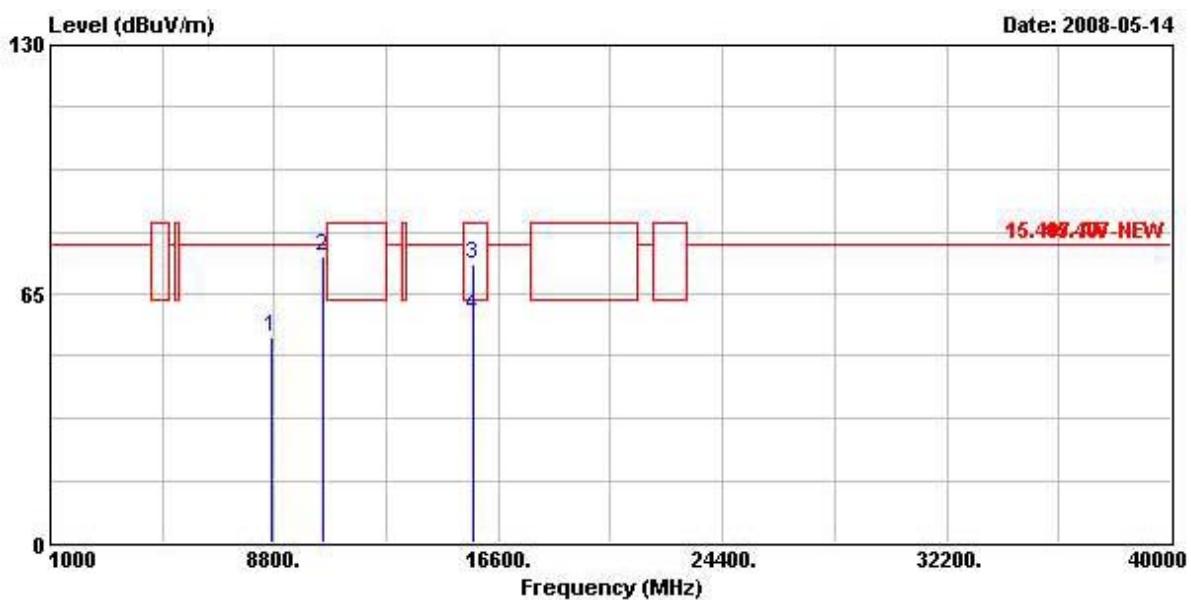
Freq	Level	Over Limit	Line	Read Antenna		Cable Preamp		Remark
				MHz	dBuV/m	dB	dBuV/m	
1	7248.000	50.54	-27.30	77.84	42.96	36.72	3.67	32.82 PEAK
2	10376.000	70.41	-7.43	77.84	56.59	39.32	6.09	31.59 PEAK
3	15570.400	59.40	-4.14	63.54	44.17	37.53	7.38	29.68 AVERAGE
4	15570.400	72.86	-10.68	83.54	57.63	37.53	7.38	29.68 Peak

FCC TEST REPORT

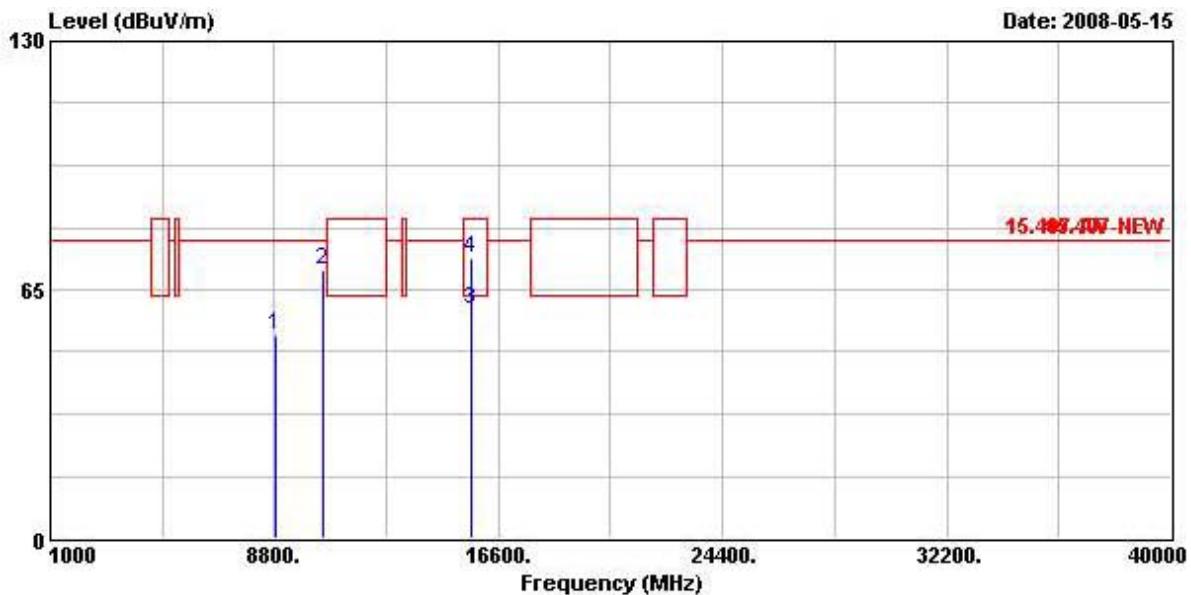
Report No.: FR843032-07AI

Test date	May 15, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 46 (40MHz)

Horizontal

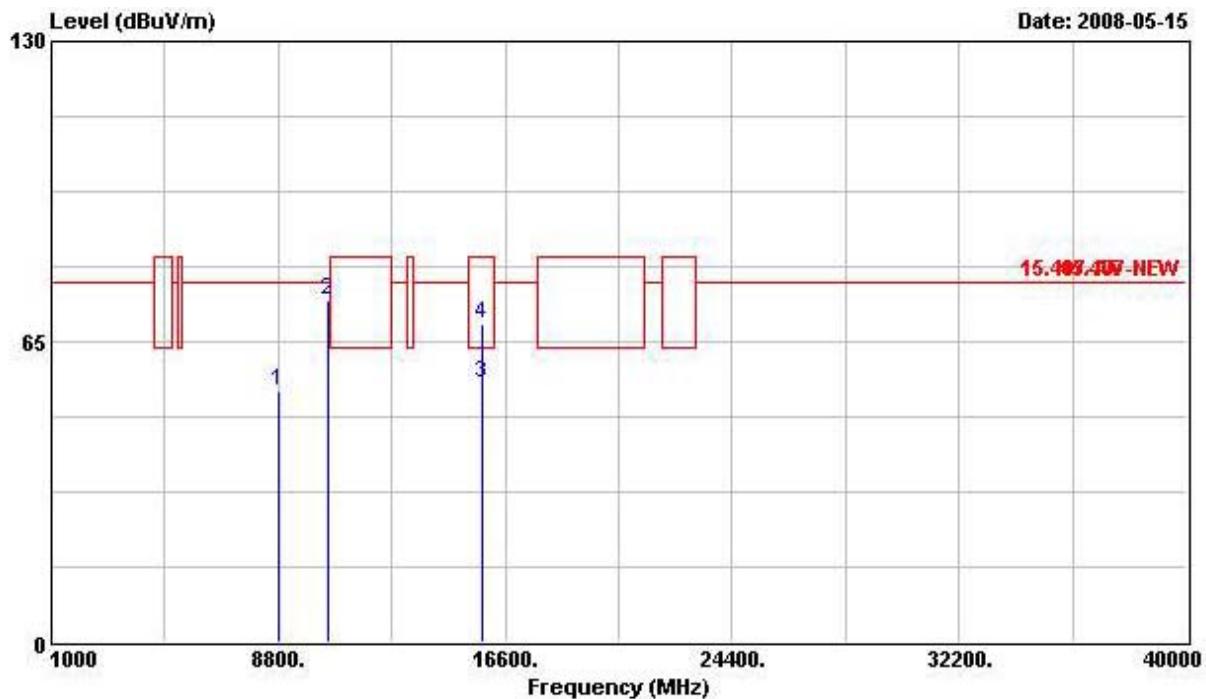


Freq	Level	Over Limit	Limit Line	ReadAntenna		Cable Preamp		Remark	
				dB	Factor	Loss	Factor		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1		8736.000	53.74	-24.10	77.84	43.03	38.44	5.08	32.81 PEAK
2 @		10460.000	74.64	-3.20	77.84	60.44	39.31	6.23	31.34 PEAK
3		15690.800	72.64	-10.90	83.54	57.27	37.58	7.40	29.61 Peak
4 @		15690.800	59.58	-3.96	63.54	44.22	37.58	7.40	29.61 AVERAGE

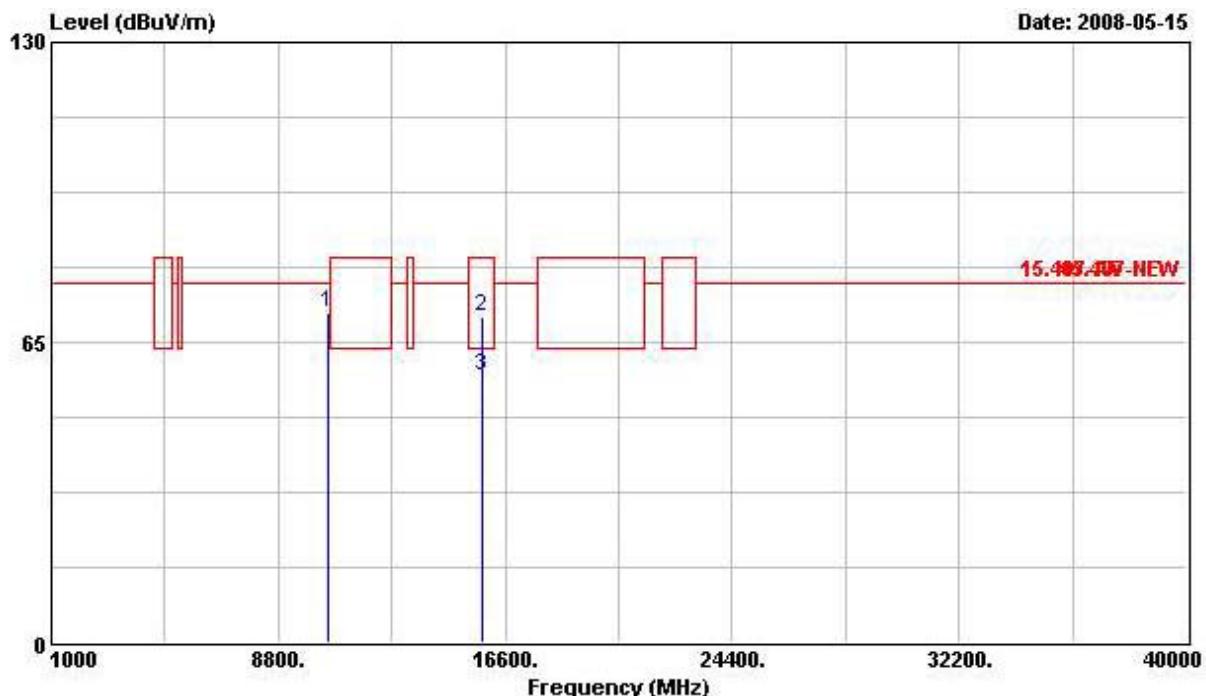
Vertical

Freq	Level	Over Limit		Read Antenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	8836.000	53.11	-24.73	77.84	42.54	38.50	4.88	32.81 PEAK
2	10460.000	70.36	-7.48	77.84	56.16	39.31	6.23	31.34 PEAK
3 @	15683.200	59.91	-3.63	63.54	44.54	37.58	7.40	29.61 AVERAGE
4	15683.200	73.36	-10.18	83.54	57.99	37.58	7.40	29.61 Peak

Test date	May 15, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 54 (40MHz)

Horizontal

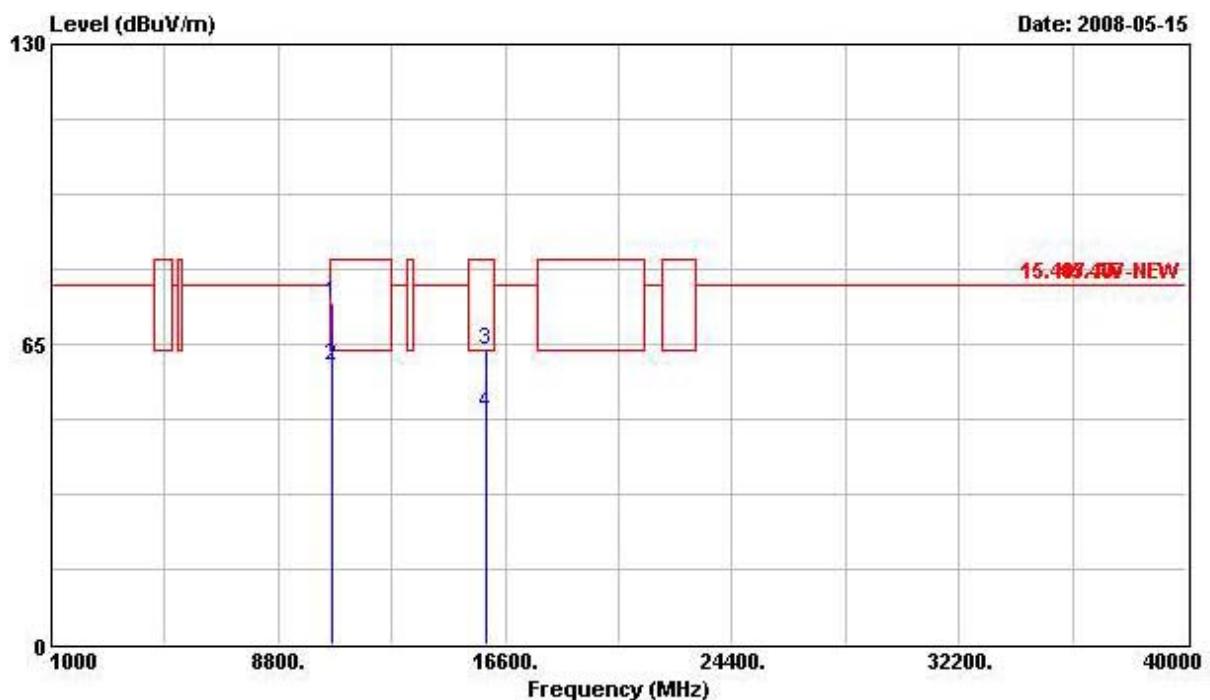
Freq	Level	Over Limit		Read Antenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	Line	Level Factor	dB/m	
1	8804.000	54.49	-23.35	77.84	43.87	38.48	4.94	32.81 PEAK
2	10540.000	73.87	-3.97	77.84	59.39	39.28	6.30	31.10 PEAK
3	15807.200	56.02	-7.52	63.54	40.52	37.62	7.43	29.54 AVERAGE
4	15807.200	68.93	-14.61	83.54	53.42	37.62	7.43	29.54 Peak

Vertical

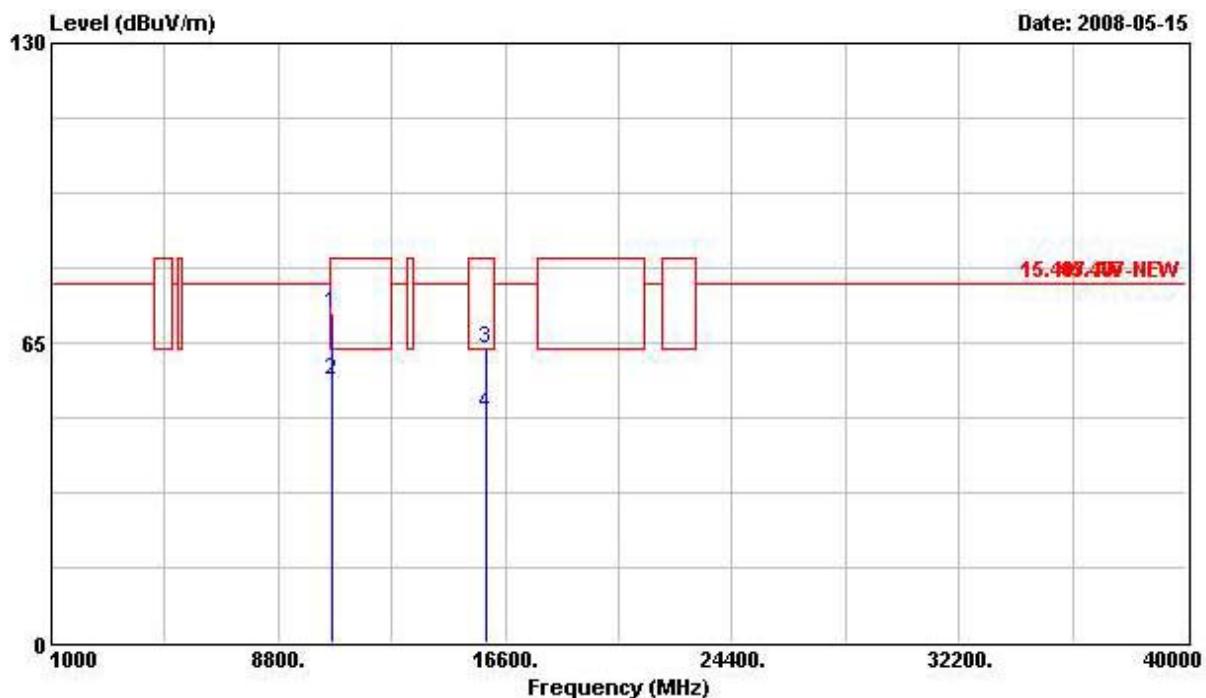
Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	dB	dBuV/m	dBuV	dB/m	dB	
MHz	dBuV/m							
1	10540.000	71.31	-6.53	77.84	56.83	39.28	6.30	31.10 PEAK
2	15807.600	70.36	-13.18	83.54	54.85	37.62	7.43	29.54 Peak
3	15807.600	57.71	-5.83	63.54	42.20	37.62	7.43	29.54 AVERAGE

Test date	May 15, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 62 (40MHz)

Horizontal

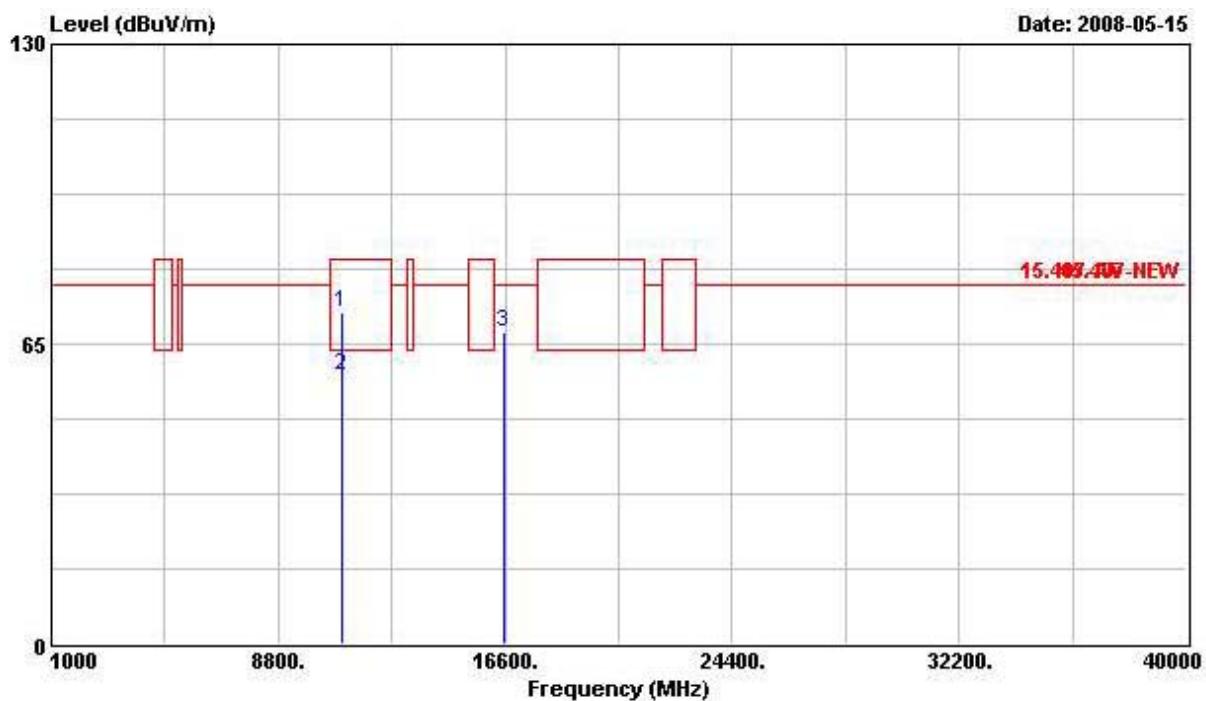


	Freq	Level	Over	Limit	Antenna		Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	10621.000	73.90	-9.64	83.54	59.21	39.23	6.34	30.88	Peak
2	10621.000	60.40	-3.14	63.54	45.71	39.23	6.34	30.88	AVERAGE
3	15935.400	63.53	-20.01	83.54	47.88	37.68	7.45	29.48	Peak
4	15935.400	49.83	-13.71	63.54	34.18	37.68	7.45	29.48	AVERAGE

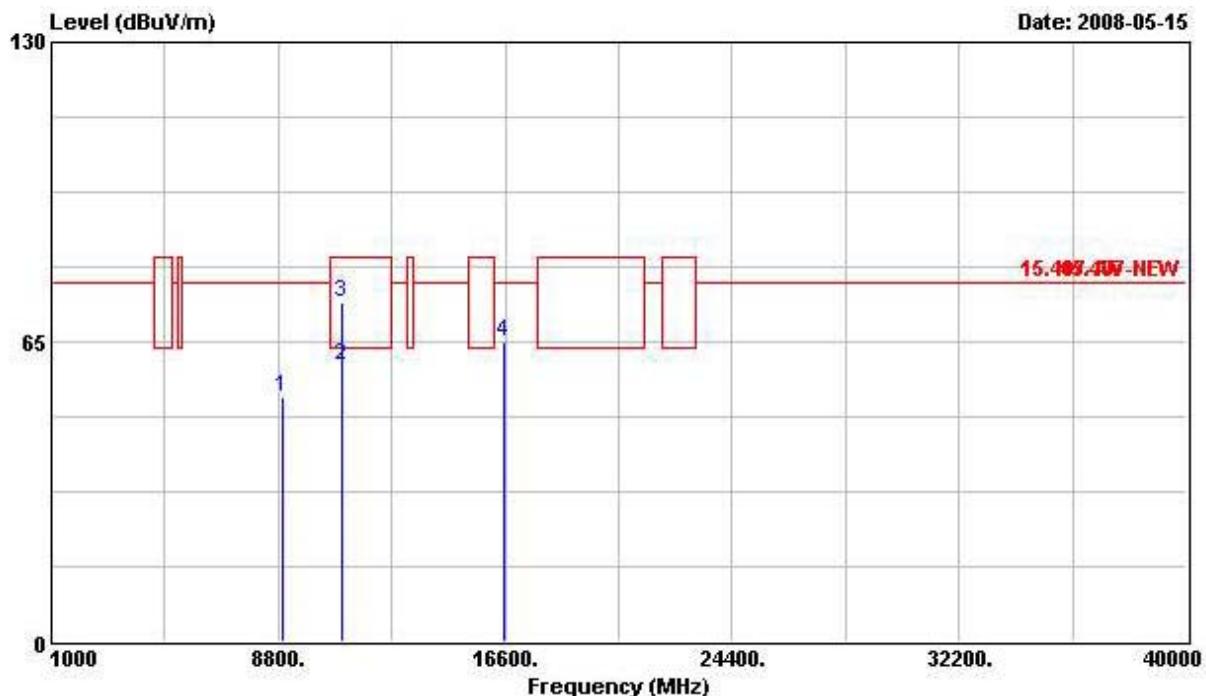
Vertical

Freq	Level	Over Limit	Line	Read		Cable Loss	Preamp Factor	Remark
				Antenna Level	Factor			
			MHz	dBuV/m	dB	dBuV/m	dB	dB
1	10619.200	71.62	-11.92	83.54	56.93	39.23	6.34	30.88 Peak
2	10619.200	57.05	-6.49	63.54	42.36	39.23	6.34	30.88 AVERAGE
3	15936.800	63.75	-19.79	83.54	48.10	37.68	7.45	29.48 Peak
4	15936.800	49.63	-13.91	63.54	33.97	37.68	7.45	29.48 AVERAGE

Test date	May 15, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 102 (40MHz)

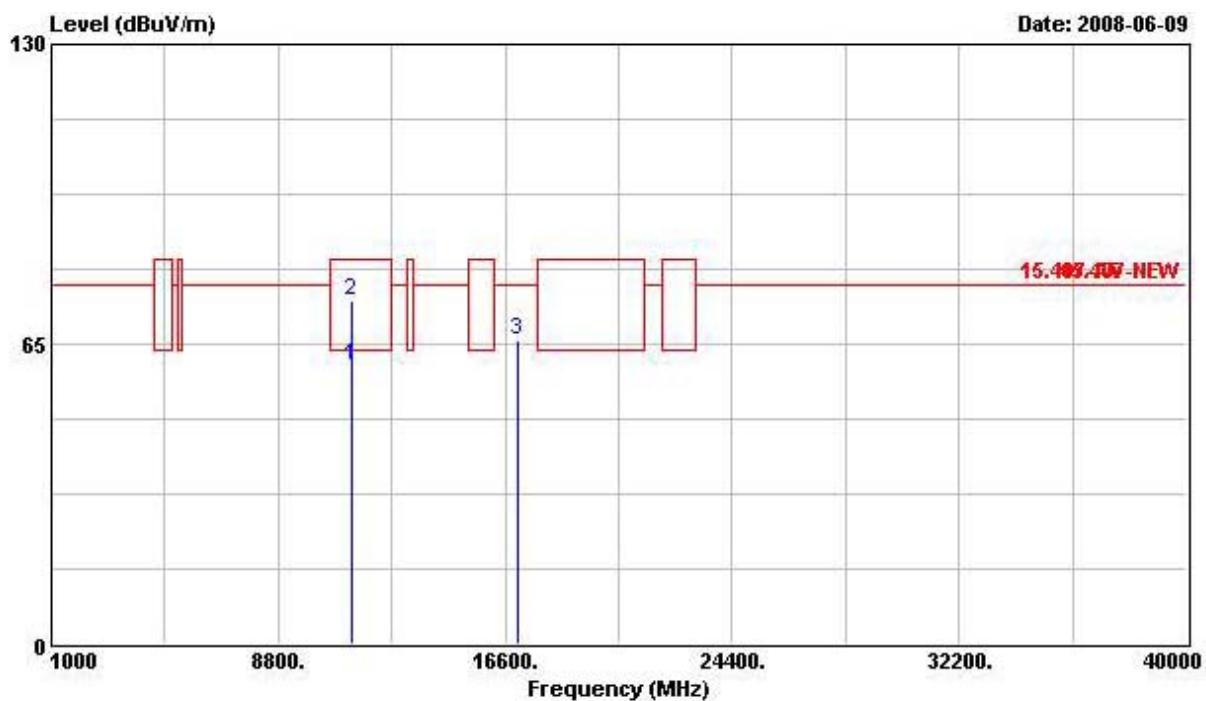
Horizontal

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Line	Antenna	Level Factor	Cable Loss	Preamp Factor	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	11019.000	71.89	-11.65	83.54	56.24	39.02	6.57	29.94 Peak
2	11019.000	58.26	-5.28	63.54	42.61	39.02	6.57	29.94 AVERAGE
3	16532.000	67.69	-10.15	77.84	50.40	39.16	7.52	29.39 PEAK

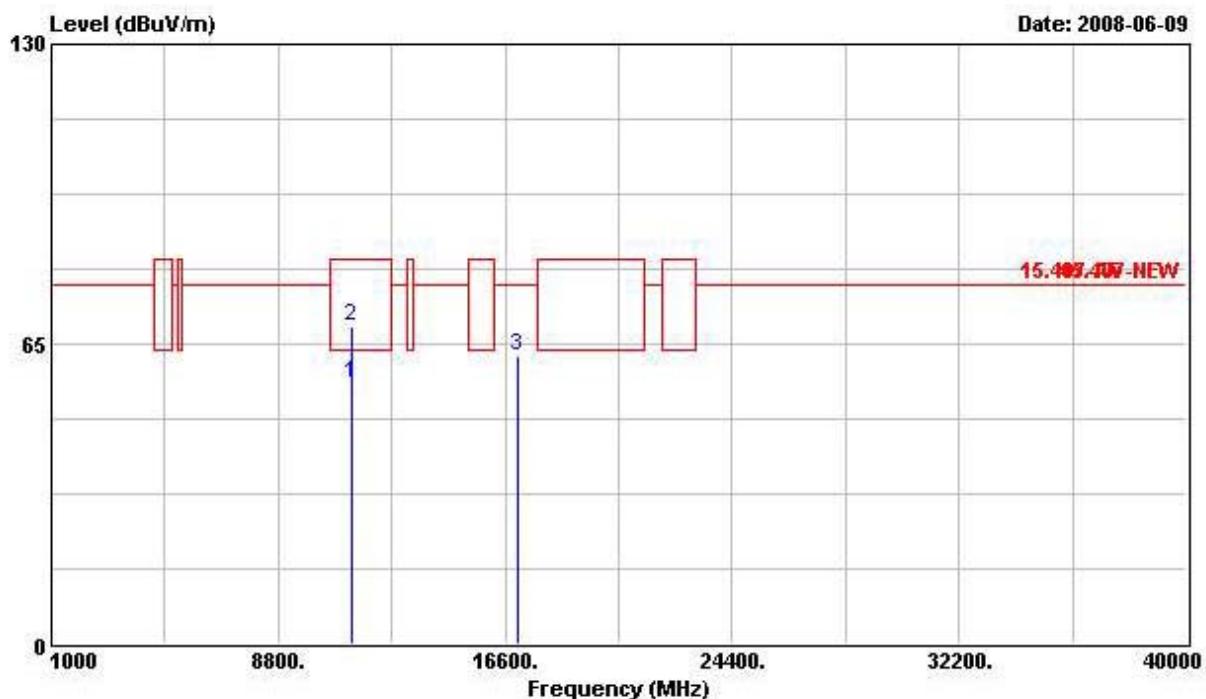
Vertical

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Limit	Line	Level	Factor	Loss	Factor	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8940.000	53.10	-24.74	77.84	42.68	38.56	4.67	32.81 PEAK
2	11021.200	59.89	-3.65	63.54	44.23	39.02	6.57	29.94 AVERAGE
3	11021.200	73.45	-10.09	83.54	57.80	39.02	6.57	29.94 Peak
4	16536.000	64.91	-12.93	77.84	47.62	39.16	7.52	29.39 PEAK

Test date	Jun. 09, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 134 (40MHz)

Horizontal

Freq	Level	Over Limit		Read Antenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	11339.100	60.49	-3.05	63.54	45.84	39.47	6.71	31.52 AVERAGE
2	11339.100	74.29	-9.25	83.54	59.64	39.47	6.71	31.52 PEAK
3	17010.000	65.90	-11.94	77.84	45.20	41.44	7.78	28.52 PEAK

Vertical

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	dBuV	dB/m	dB	dB	
MHz	dBuV/m	dB	dBuV/m					
1	11343.000	56.60	-6.94	63.54	42.08	39.47	6.71	31.65 AVERAGE
2	11343.000	68.89	-14.65	83.54	54.37	39.47	6.71	31.65 Peak
3	17010.000	62.32	-15.52	77.84	41.62	41.44	7.78	28.52 PEAK

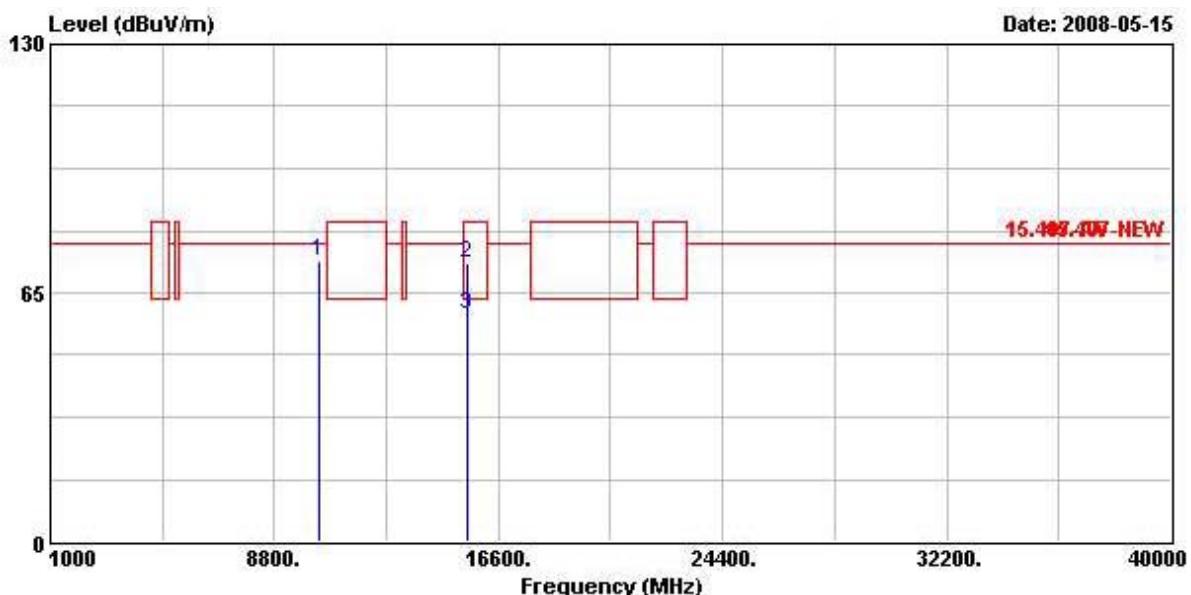
FCC TEST REPORT

Report No.: FR843032-07AI

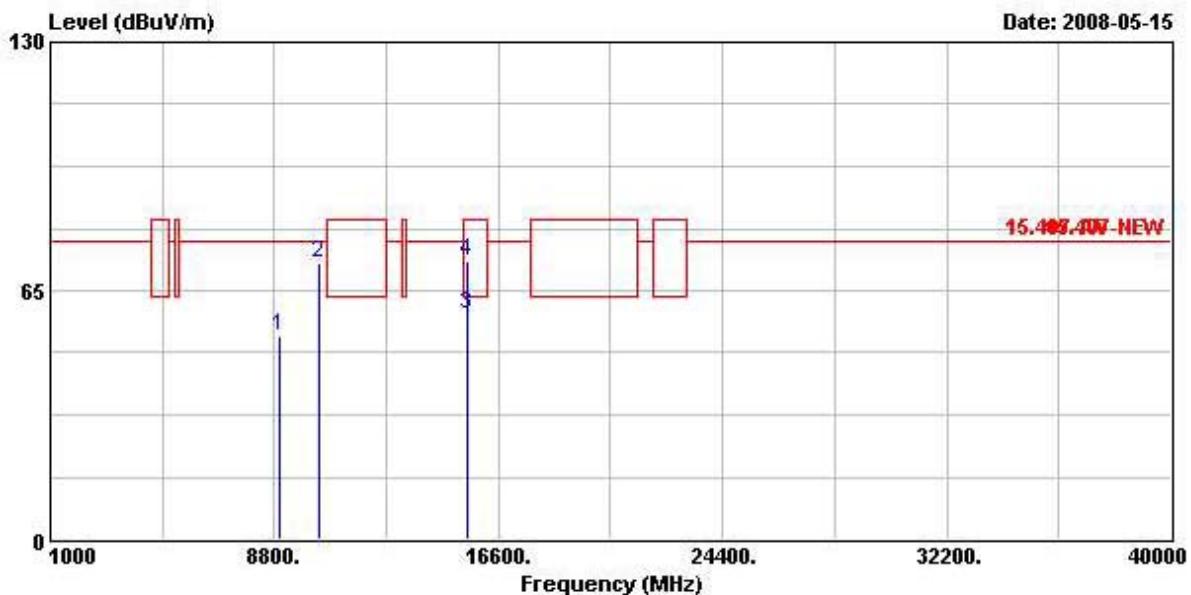
For Two Chain:

Test date	May 15, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 36 (20MHz)

Horizontal



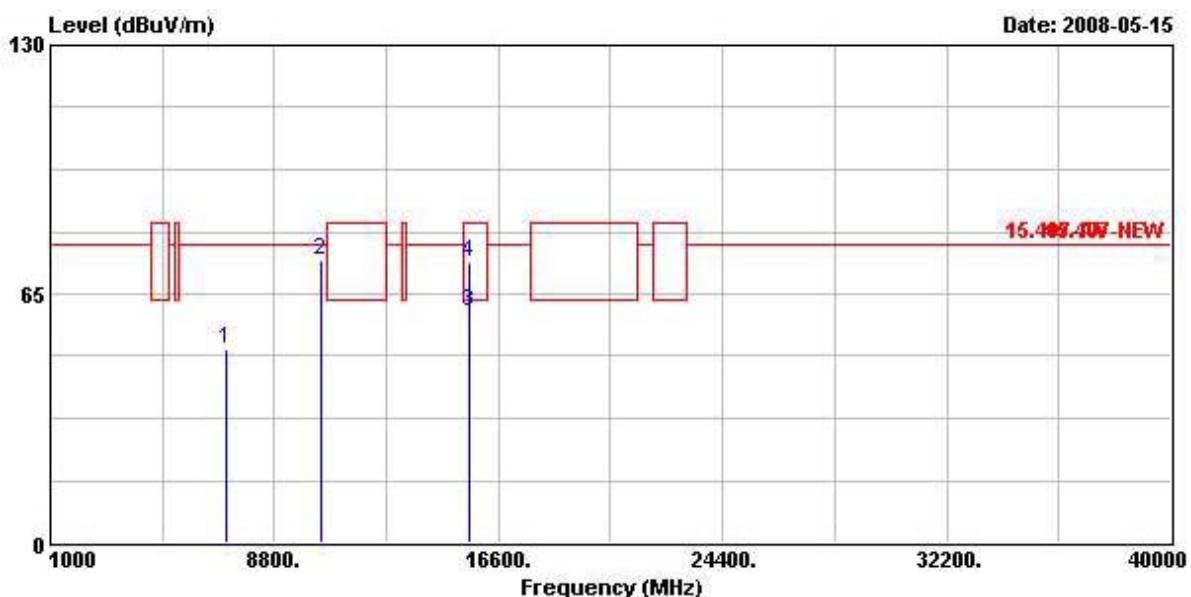
Freq	Level	Over Limit		ReadAntenna Level Factor		Cable Loss Factor		Preamp Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1 @	10356.000	73.00	-4.84	77.84	59.26	39.33	6.09	31.67 PEAK
2	15540.200	72.64	-10.90	83.54	57.45	37.51	7.37	29.69 Peak
3 @	15540.200	59.57	-3.97	63.54	44.38	37.51	7.37	29.69 AVERAGE

Vertical

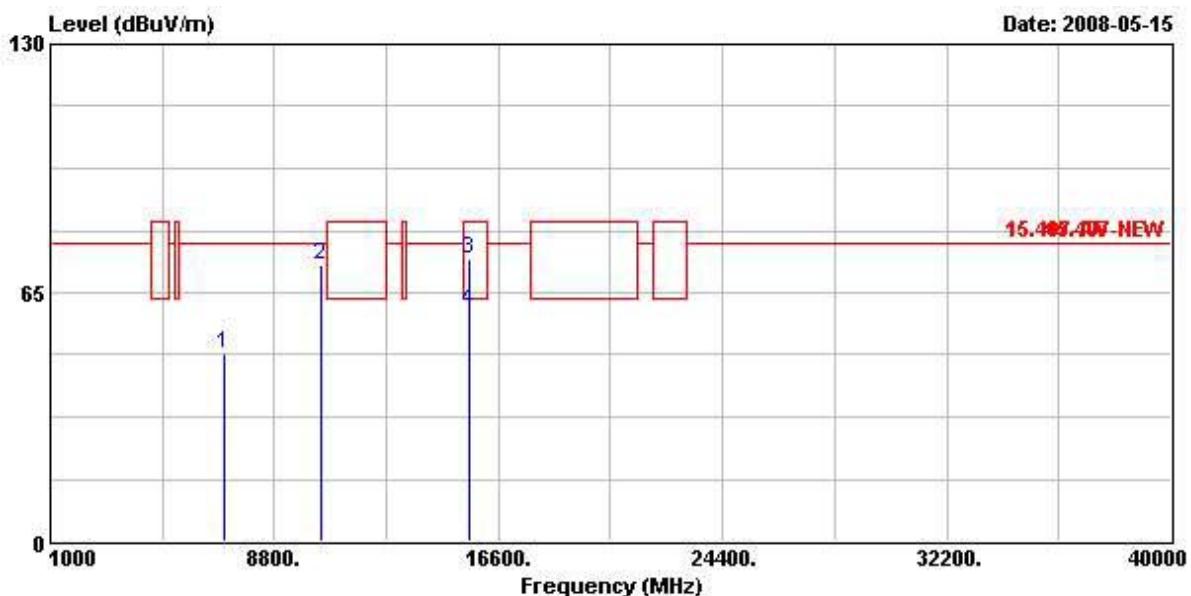
Freq	Level	Over Limit	Line	Read		Antenna Factor	Cable Preamp		Remark
				MHz	dBuV/m		dB	dBuV/m	
1	8968.000	52.95	-24.89	77.84	42.51	38.58	4.67	32.81	PEAK
2	10356.000	72.40	-5.44	77.84	58.65	39.33	6.09	31.67	PEAK
3	15539.600	58.93	-4.61	63.54	43.74	37.51	7.37	29.69	AVERAGE
4	15539.600	72.49	-11.05	83.54	57.30	37.51	7.37	29.69	Peak

Test date	May 15, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 40 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	Read	Antenna Level	Cable Factor	Preamp Loss Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7132.000	50.68	-27.16	77.84	43.68	36.43	3.30	32.73	PEAK
2 @	10400.000	74.01	-3.83	77.84	60.06	39.32	6.14	31.51	PEAK
3 @	15601.000	60.19	-3.35	63.54	44.92	37.54	7.38	29.65	AVERAGE
4	15601.000	73.35	-10.19	83.54	58.08	37.54	7.38	29.65	Peak

Vertical

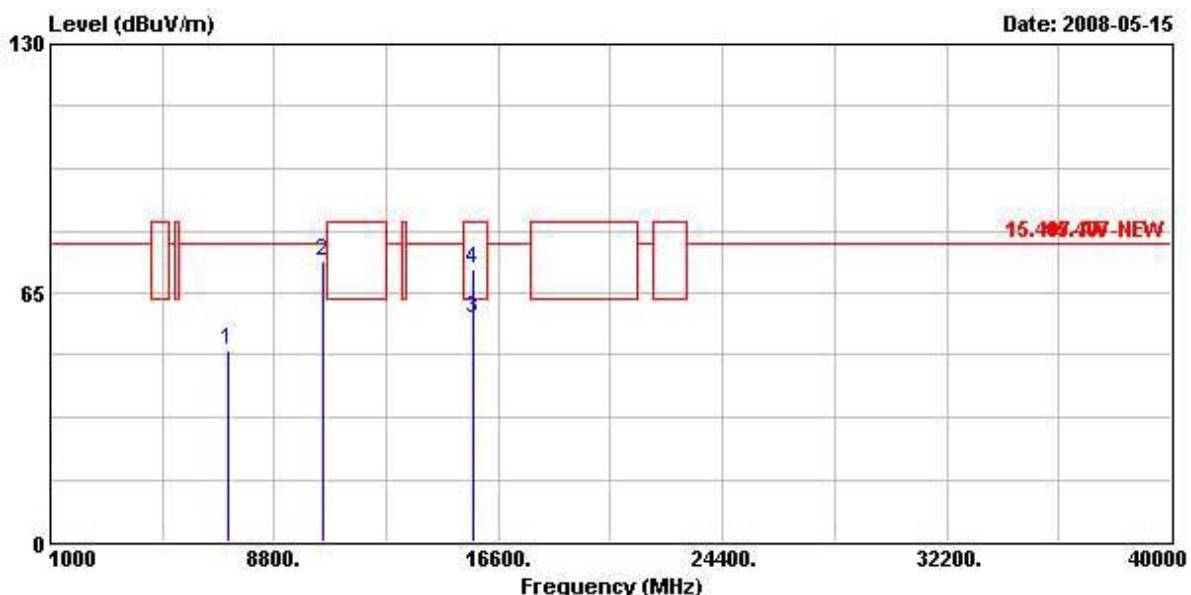
Freq	Level	Over Limit		Read Line		Antenna Factor	Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m		dBuV	dB/m	
1	7048.000	48.99	-28.85	77.84	42.39	36.22	3.06	32.68	PEAK
2	10400.000	72.21	-5.63	77.84	58.26	39.32	6.14	31.51	PEAK
3	15602.400	73.68	-9.86	83.54	58.40	37.54	7.39	29.65	Peak
4 @	15602.400	60.43	-3.11	63.54	45.16	37.54	7.39	29.65	AVERAGE

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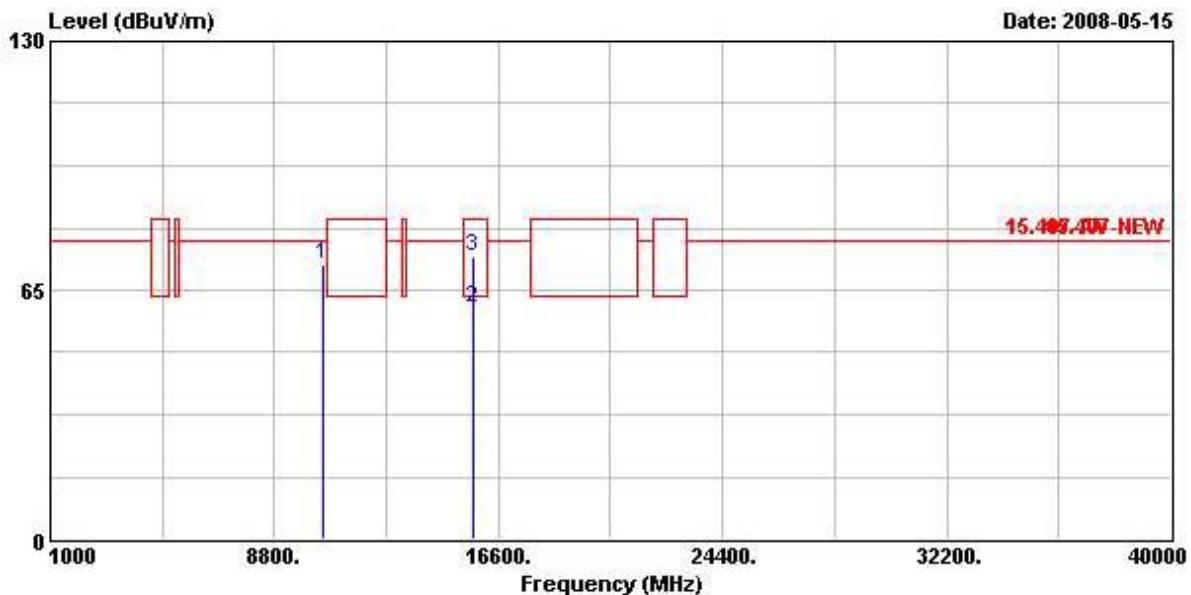
Report No.: FR843032-07AI

Test date	May 15, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 48 (20MHz)

Horizontal



	Freq	Level	Over Limit	Limit Line	Read Antenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7172.000	50.17	-27.67	77.84	43.00	36.51	3.42	32.77	PEAK
2 @	10488.000	73.48	-4.36	77.84	59.20	39.30	6.23	31.25	PEAK
3	15721.300	58.30	-5.24	63.54	42.89	37.59	7.41	29.60	AVERAGE
4	15721.300	71.31	-12.23	83.54	55.91	37.59	7.41	29.60	Peak

Vertical

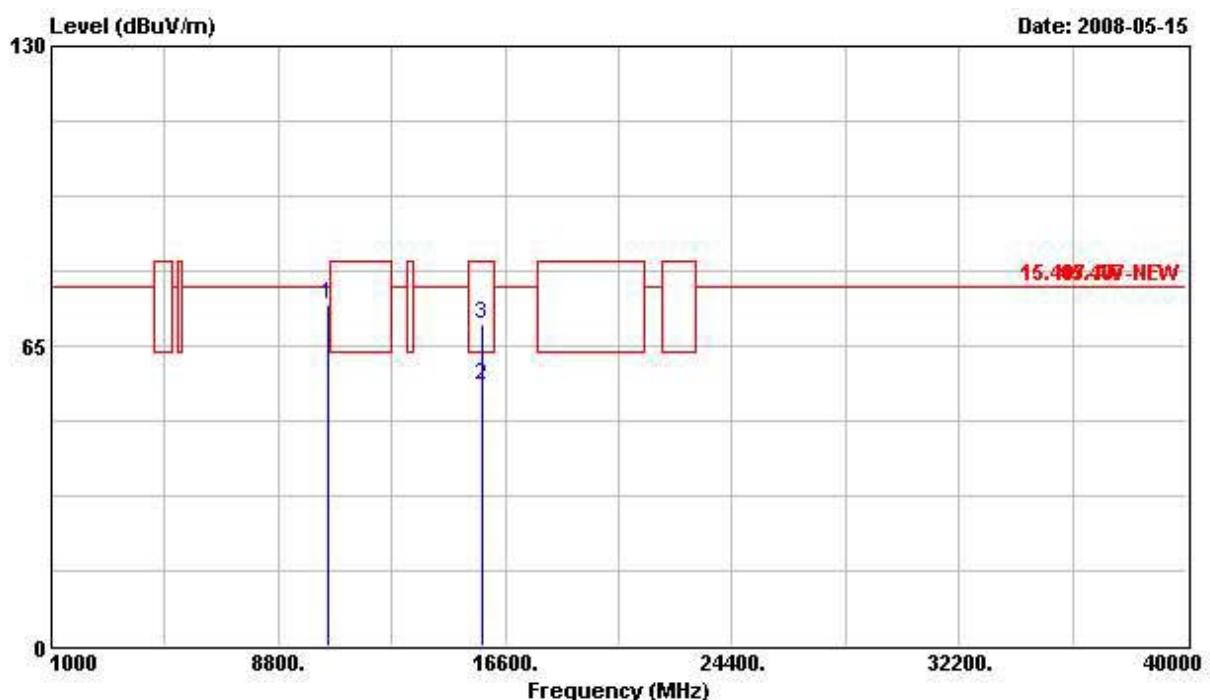
Freq MHz	Level dBuV/m	Over Limit		Line dBuV	Read Level dBuV	Antenna Factor	Cable Preamp		Remark
		Limit dB	Line dBuV/m				Loss dB	Preamp dB	
1	10484.000	71.59	-6.25	77.84	57.32	39.30	6.23	31.25	PEAK
2	15720.400	60.25	-3.29	63.54	44.85	37.59	7.41	29.60	AVERAGE
3	15720.400	73.85	-9.69	83.54	58.45	37.59	7.41	29.60	Peak

FCC TEST REPORT

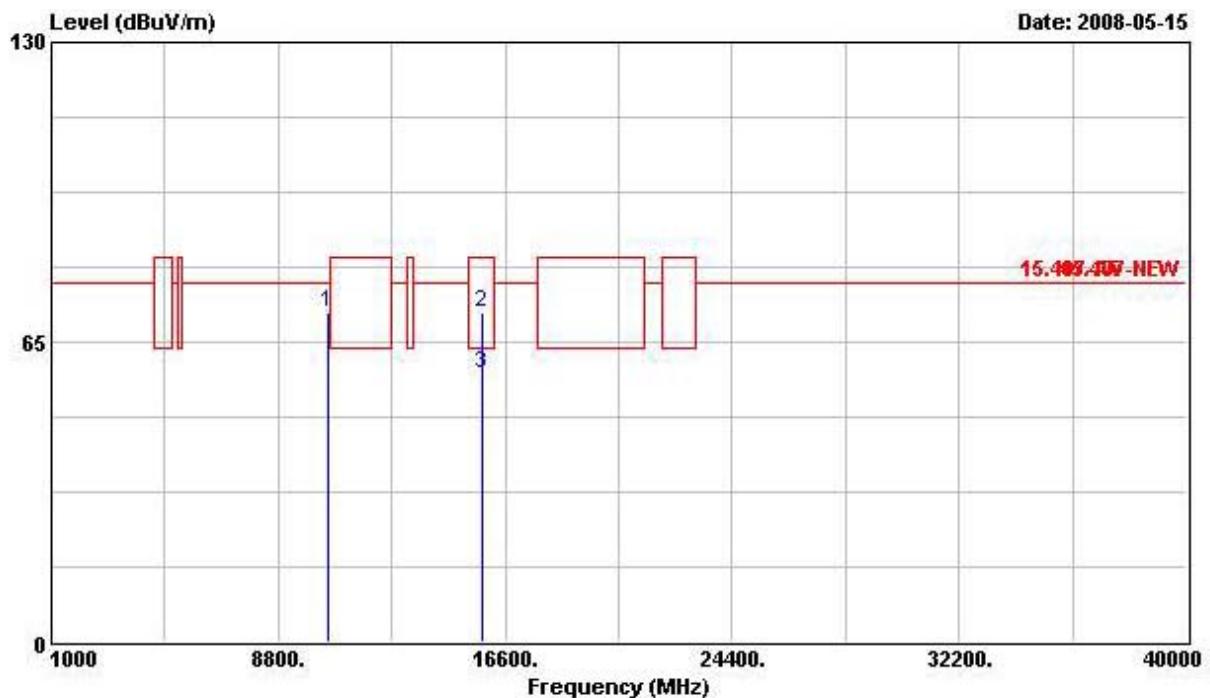
Report No.: FR843032-07AI

Test date	May 15, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 52 (20MHz)

Horizontal



	Freq	Level	Over	Limit	Antenna		Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m		dB	dBuV/m	dBuV	dB/m	dB	dB
1	10524.000	73.99	-3.85	77.84	59.59	39.29	6.28	31.17	PEAK
2	15778.800	56.66	-6.88	63.54	41.19	37.61	7.42	29.56	AVERAGE
3	15778.800	69.74	-13.80	83.54	54.27	37.61	7.42	29.56	Peak

Vertical

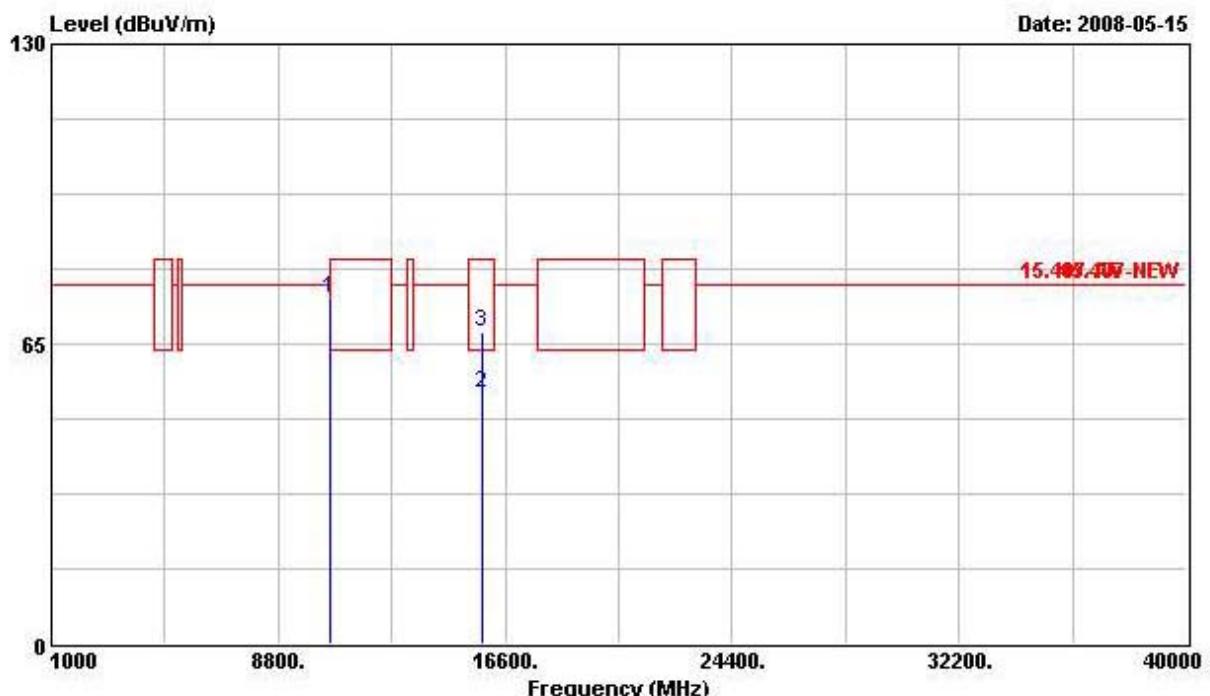
Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	dBuV	Factor	Loss	Factor	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	10524.000	71.57	-6.27	77.84	57.17	39.29	6.28	31.17 PEAK
2	15780.400	71.53	-12.01	83.54	56.06	37.61	7.42	29.56 Peak
3	15780.400	58.24	-5.30	63.54	42.77	37.61	7.42	29.56 AVERAGE

FCC TEST REPORT

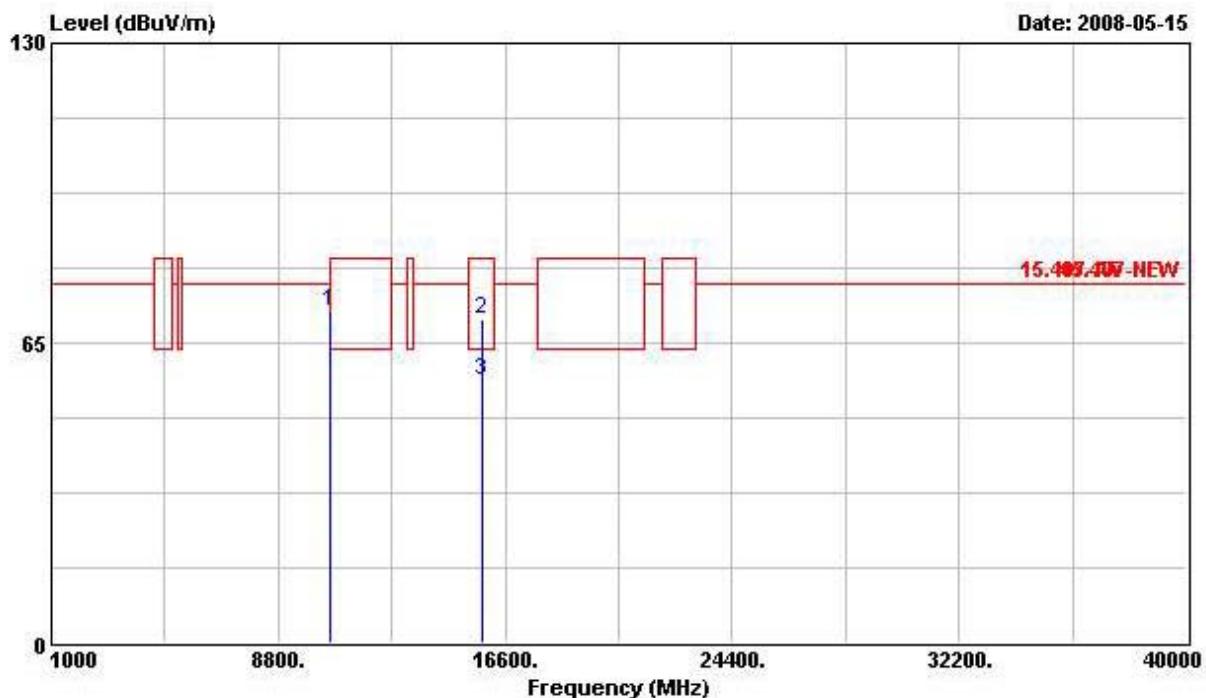
Report No.: FR843032-07AI

Test date	May 15, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 56 (20MHz)

Horizontal



	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp
			Limit	Line	Level	Factor	Loss	Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB
1	10560.000	74.80	-3.04	77.84	60.26	39.27	6.30	31.03 PEAK
2	15840.000	54.36	-9.18	63.54	38.82	37.64	7.43	29.53 AVERAGE
3	15840.000	67.50	-16.04	83.54	51.96	37.64	7.43	29.53 Peak

Vertical

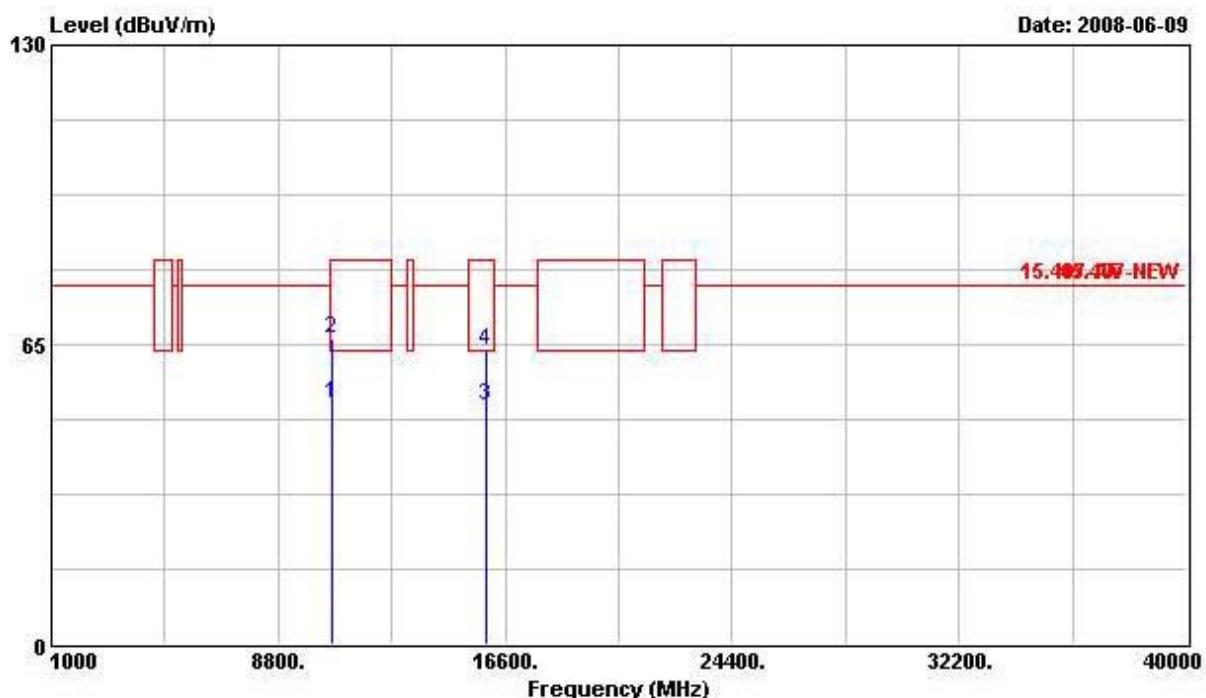
Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Limit	Line	Antenna	Level Factor	Cable Loss Factor	Preamp	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	10560.000	71.94	-5.90	77.84	57.39	39.27	6.30	31.03 PEAK
2	15837.400	70.06	-13.48	83.54	54.52	37.64	7.43	29.53 Peak
3	15837.400	56.72	-6.82	63.54	41.18	37.64	7.43	29.53 AVERAGE

FCC TEST REPORT

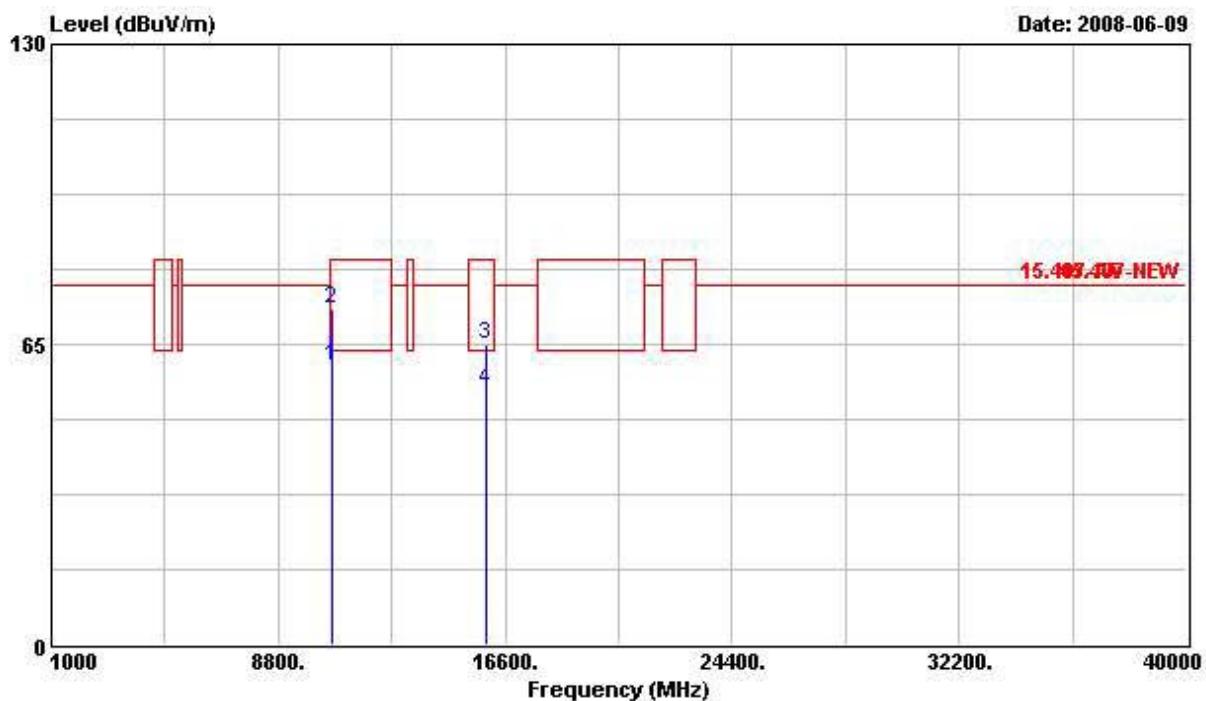
Report No.: FR843032-07AI

Test date	Jun. 09, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 64 (20MHz)

Horizontal

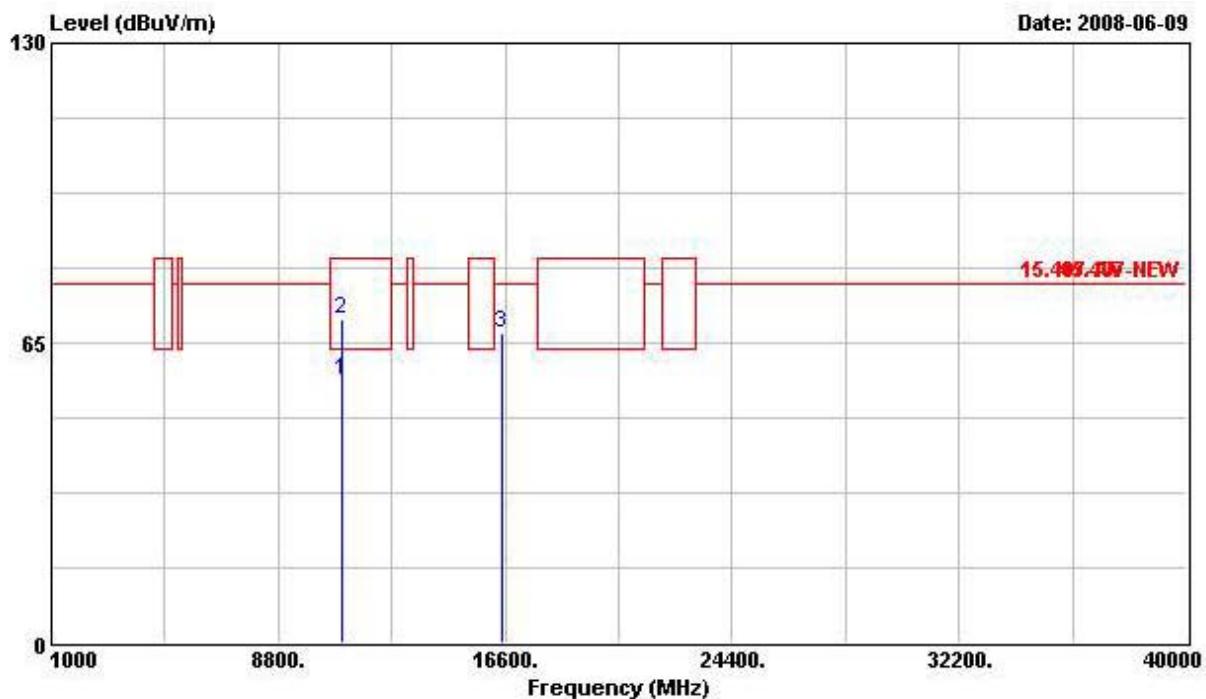


	Freq	Level	Over	Limit	ReadAntenna		Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	10640.080	52.34	-11.20	63.54	37.58	39.22	6.34	30.81	AVERAGE
2	10640.080	66.17	-17.37	83.54	51.42	39.22	6.34	30.81	Peak
3	15961.500	51.62	-11.92	63.54	35.94	37.69	7.46	29.46	AVERAGE
4	15961.500	63.90	-19.64	83.54	48.22	37.69	7.46	29.46	Peak

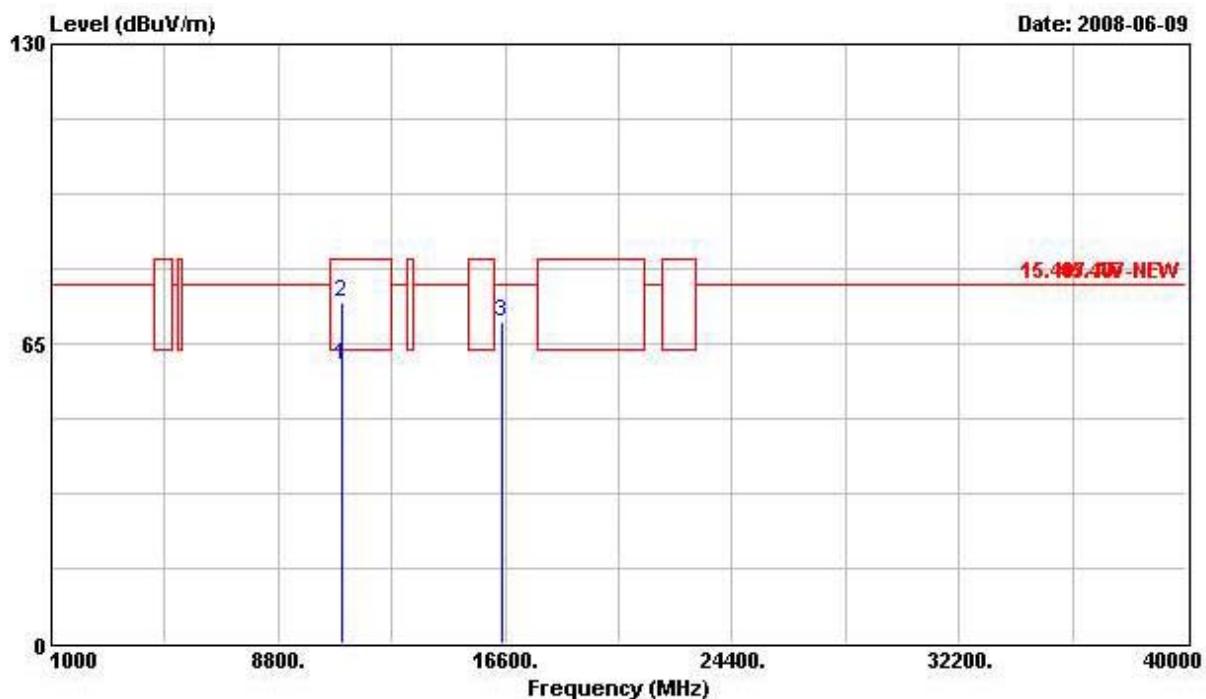
Vertical

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Line	dBuV	dB/m	dB	dB	
MHz	dBuV/m	dB	dBuV/m					
1	10641.400	60.41	-3.13	63.54	45.66	39.22	6.34	30.81 AVERAGE
2	10641.400	72.69	-10.85	83.54	57.94	39.22	6.34	30.81 Peak
3	15956.800	65.00	-18.54	83.54	49.32	37.69	7.46	29.46 PEAK
4	15956.800	55.00	-8.54	63.54	39.32	37.69	7.46	29.46 Average

Test date	Jun. 09, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 100 (20MHz)

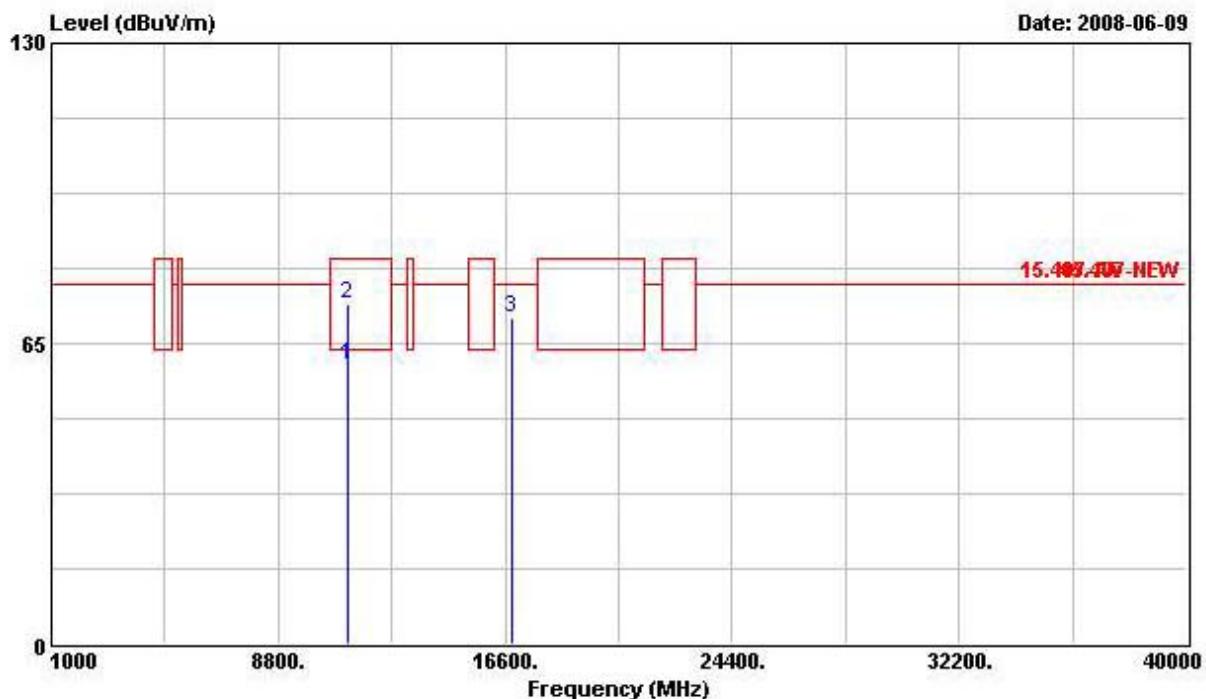
Horizontal

Freq MHz	Level dBuV/m	Over Limit dB	Limit Line dBuV/m	Read		Antenna Level dBuV	Cable Loss dB	Preamp Factor dB	Remark
				Line	Factor				
1	11000.940	56.75	-6.79	63.54	41.01	39.00	6.55	29.81	AVERAGE
2	11000.940	70.09	-13.45	83.54	54.35	39.00	6.55	29.81	Peak
3	16499.960	67.00	-10.84	77.84	49.92	39.00	7.52	29.44	PEAK

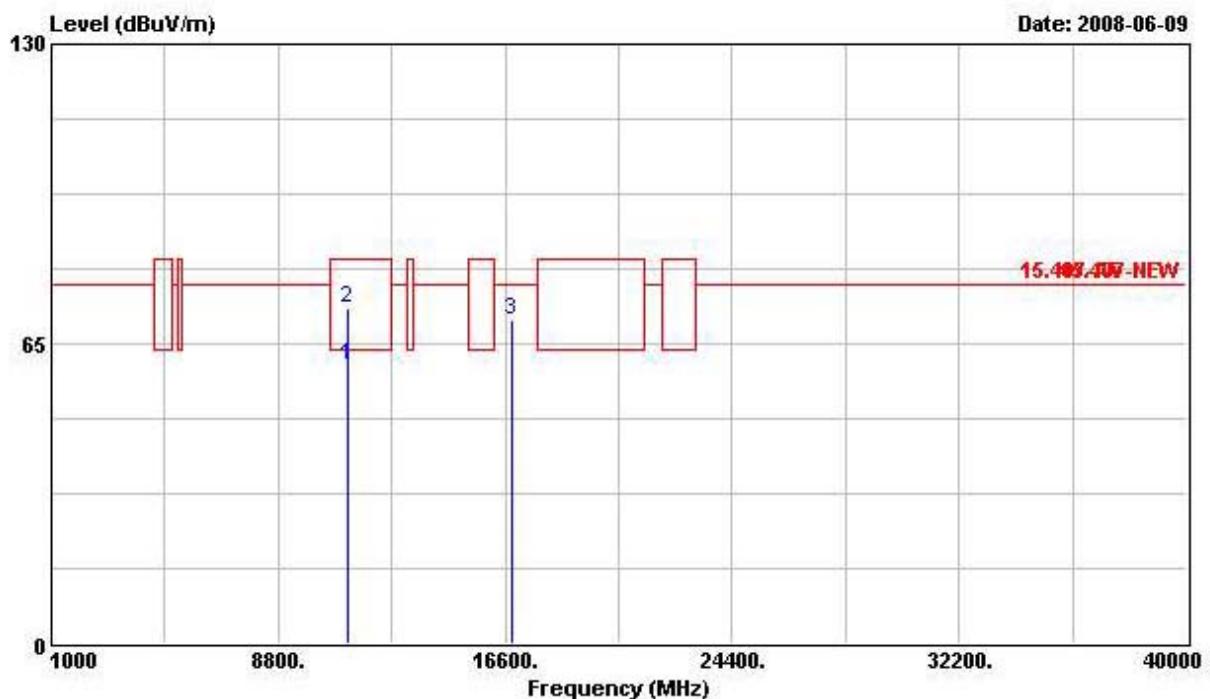
Vertical

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	dBuV	dB/m	dB	dB	
MHz	dBuV/m	dB	dBuV/m					
1	10999.660	60.40	-3.14	63.54	44.66	39.00	6.55	29.81 Average
2	10999.660	74.04	-9.50	83.54	58.30	39.00	6.55	29.81 Peak
3	16500.000	69.51	-8.33	77.84	52.42	39.00	7.52	29.44 PEAK

Test date	Jun. 09, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 120 (20MHz)

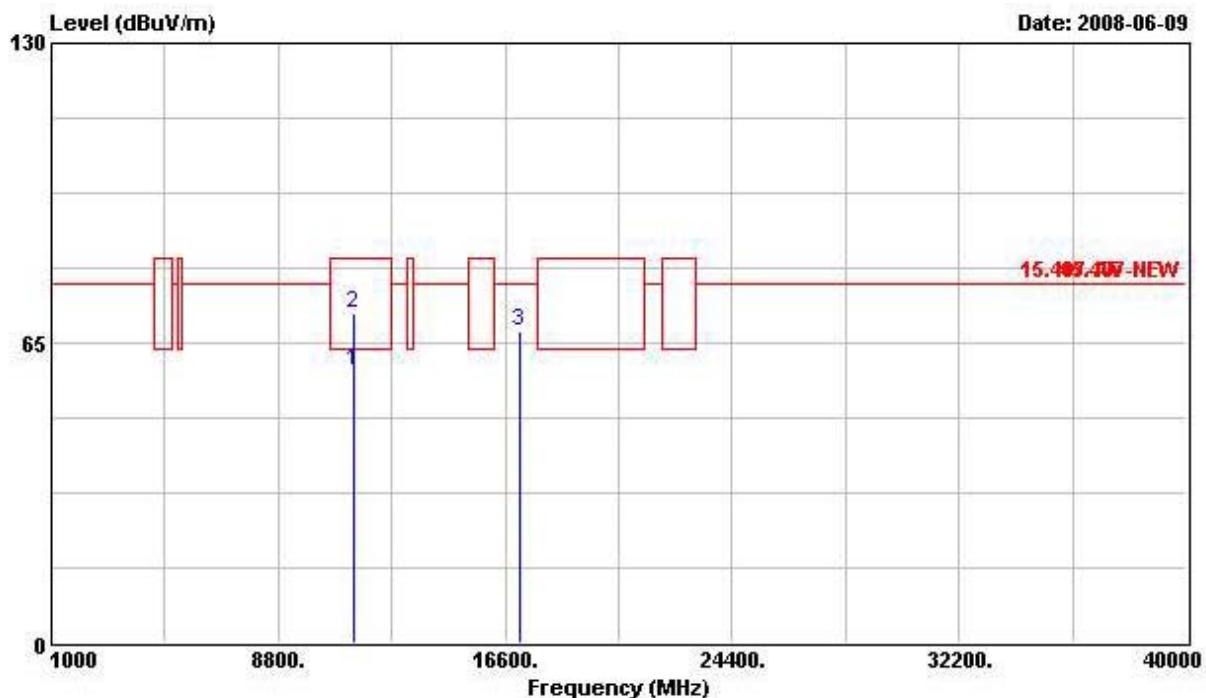
Horizontal

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	11201.360	60.47	-3.07	63.54	45.40	39.28	6.66	30.86 AVERAGE
2	11201.360	73.62	-9.92	83.54	58.55	39.28	6.66	30.86 Peak
3	16808.160	70.49	-7.35	77.84	51.25	40.43	7.67	28.85 PEAK

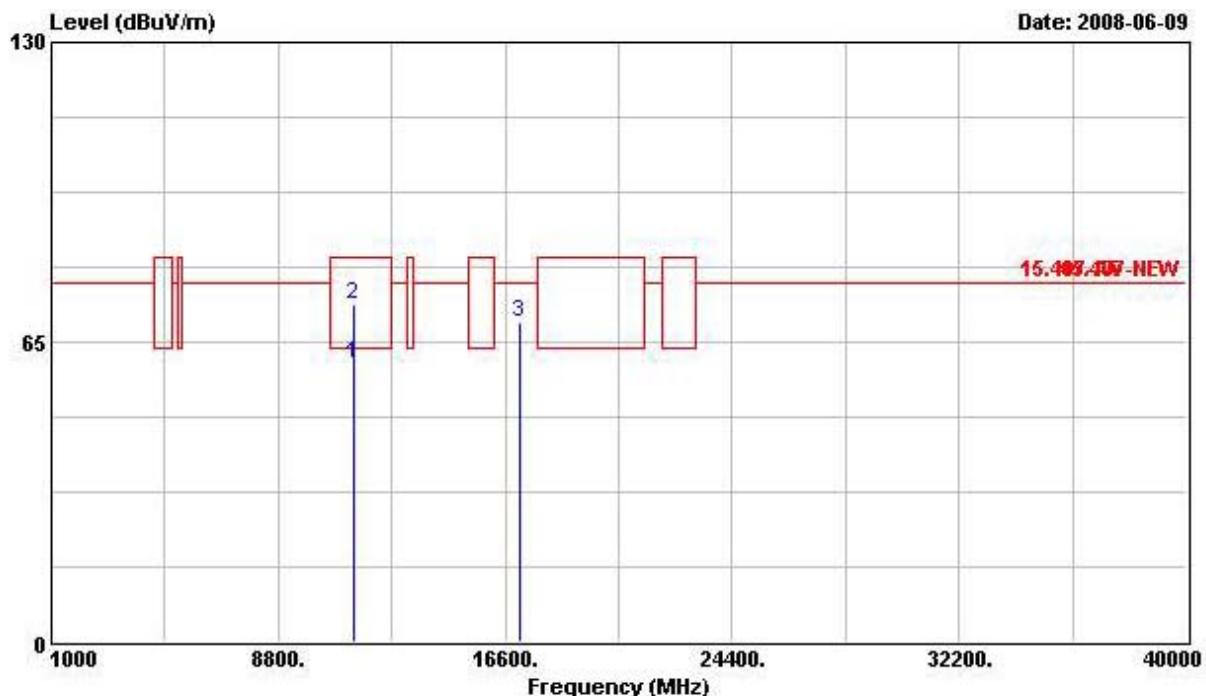
Vertical

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Limit	Line	Antenna	Level Factor	Cable Loss Factor	dB	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
11201.580	60.29	-3.25	63.54	45.22	39.28	6.66	30.86	AVERAGE
11201.580	72.85	-10.69	83.54	57.78	39.28	6.66	30.86	Peak
16808.000	69.96	-7.88	77.84	50.71	40.43	7.67	28.85	PEAK

Test date	Jun. 09, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 140 (20MHz)

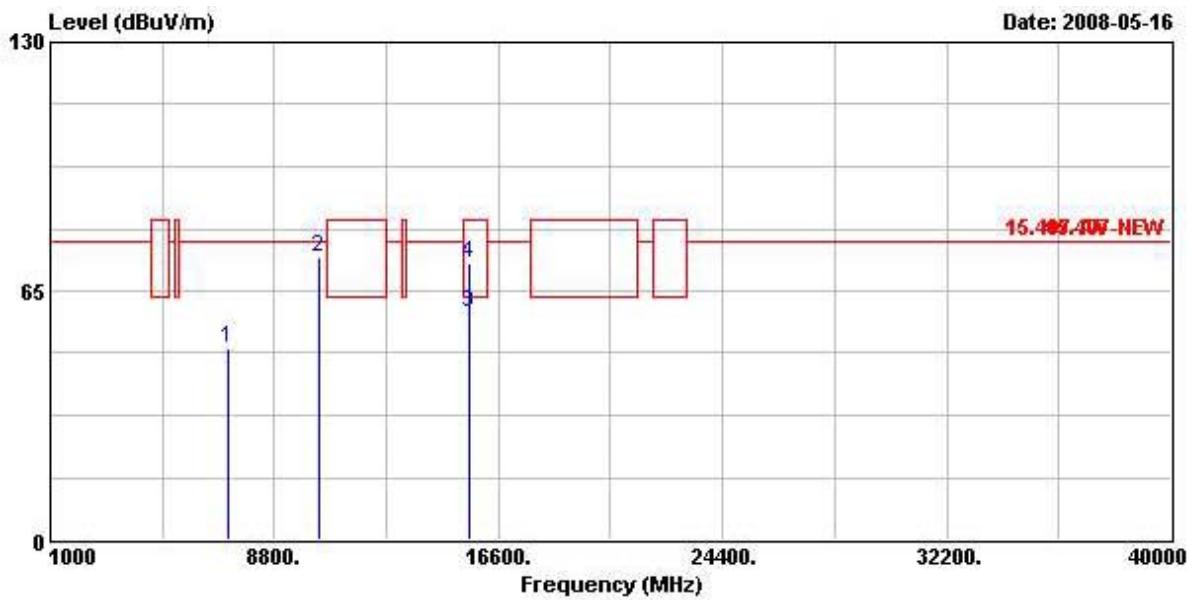
Horizontal

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Line	Antenna	Level Factor	Cable Loss	Preamp Factor	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	11400.480	58.85	-4.69	63.54	44.47	39.56	6.75	31.92 AVERAGE
2	11400.480	71.22	-12.32	83.54	56.83	39.56	6.75	31.92 Peak
3	17098.120	67.60	-10.24	77.84	46.20	42.14	7.79	28.53 PEAK

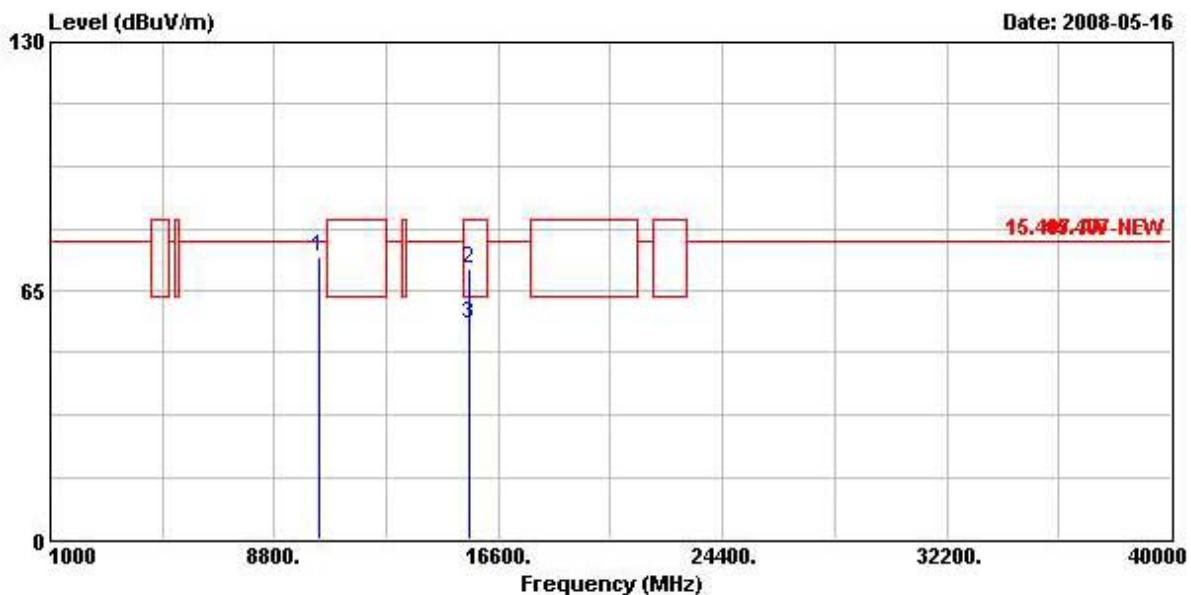
Vertical

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	Line	dBuV	dB/m	
1	11400.800	60.33	-3.21	63.54	45.94	39.56	6.75	31.92 AVERAGE
2	11400.800	73.04	-10.50	83.54	58.65	39.56	6.75	31.92 Peak
3	17094.280	69.45	-8.39	77.84	48.05	42.14	7.79	28.53 PEAK

Test date	May 16, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 38 (40MHz)

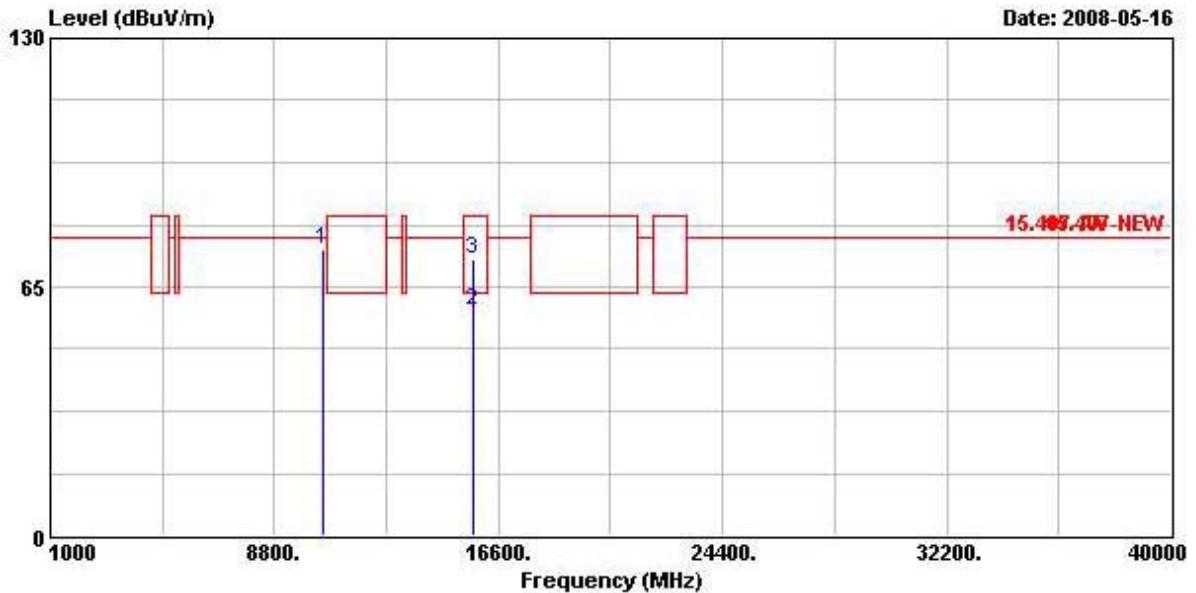
Horizontal

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Limit	Line	Level	Factor	Loss	Factor	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	7172.000	50.15	-27.69	77.84	42.98	36.51	3.42	32.77 PEAK
2 (S)	10376.000	73.78	-4.06	77.84	59.96	39.32	6.09	31.59 PEAK
3 (S)	15576.400	59.34	-4.20	63.54	44.10	37.53	7.38	29.67 AVERAGE
4	15576.400	72.41	-11.13	83.54	57.17	37.53	7.38	29.67 Peak

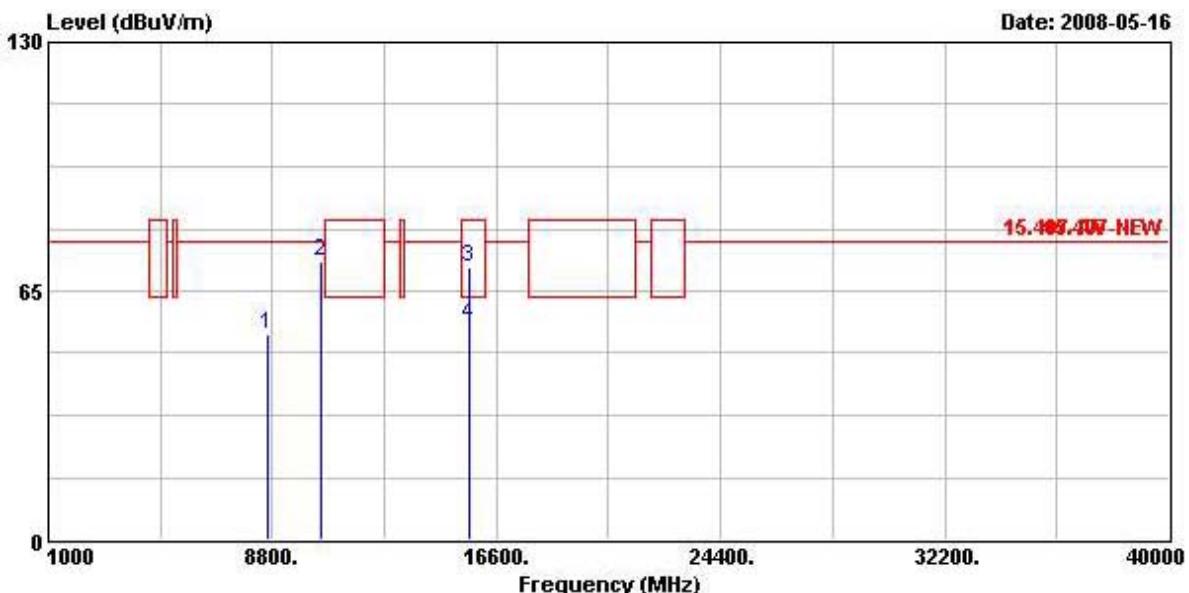
Vertical

Freq	Level	Over Limit		Read		Antenna Factor	Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m		dBuV	dB/m	
1	10380.000	73.86	-3.98	77.84	59.99	39.32	6.14	31.59	PEAK
2	15565.400	70.73	-12.81	83.54	55.50	37.53	7.38	29.68	Peak
3	15565.400	56.19	-7.35	63.54	40.97	37.53	7.38	29.68	AVERAGE

Test date	May 16, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 46 (40MHz)

Horizontal

Freq	Level	Over Limit		Read Antenna Line	Antenna Factor	Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1 @	10460.000	74.63	-3.21	77.84	60.42	39.31	6.23	31.34 PEAK
2 @	15687.400	58.56	-4.98	63.54	43.19	37.58	7.40	29.61 AVERAGE
3	15687.400	72.18	-11.36	83.54	56.81	37.58	7.40	29.61 Peak

Vertical

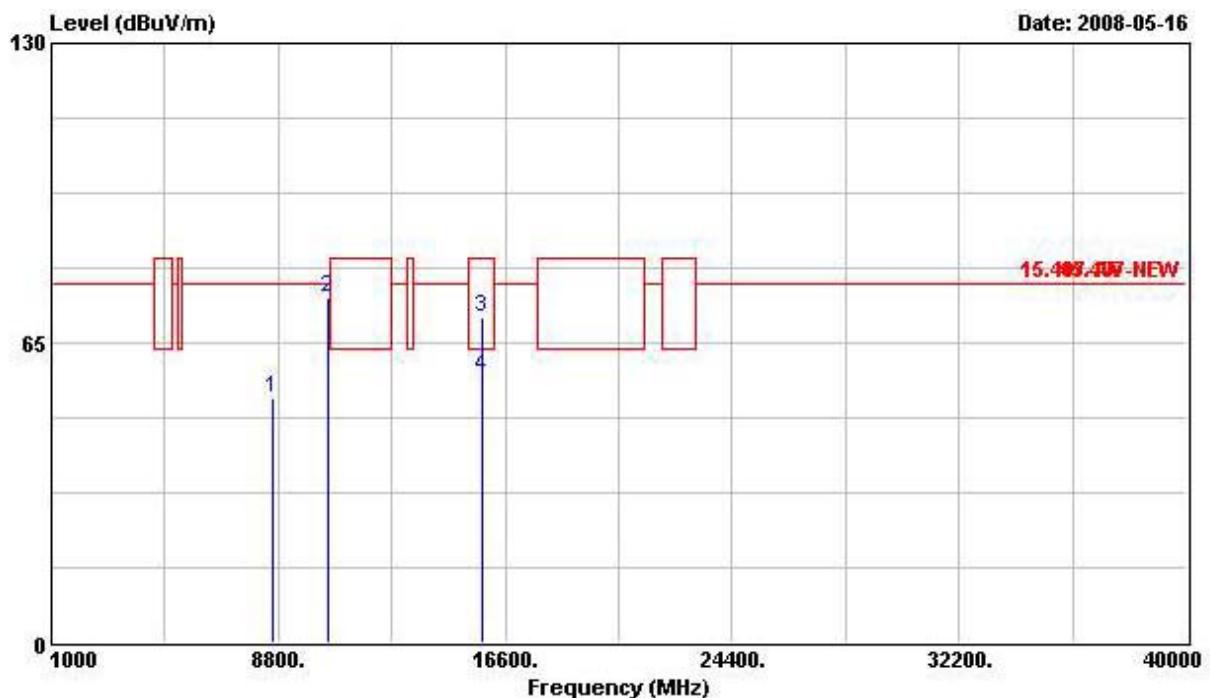
Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	dBuV/m	dB	dBuV	dB/m	dB	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8648.000	53.48	-24.36	77.84	42.68	38.39	5.21	32.81 PEAK
2	10460.000	72.98	-4.86	77.84	58.78	39.31	6.23	31.34 PEAK
3	15685.000	71.10	-12.44	83.54	55.73	37.58	7.40	29.61 Peak
4	15685.000	56.45	-7.09	63.54	41.09	37.58	7.40	29.61 AVERAGE

FCC TEST REPORT

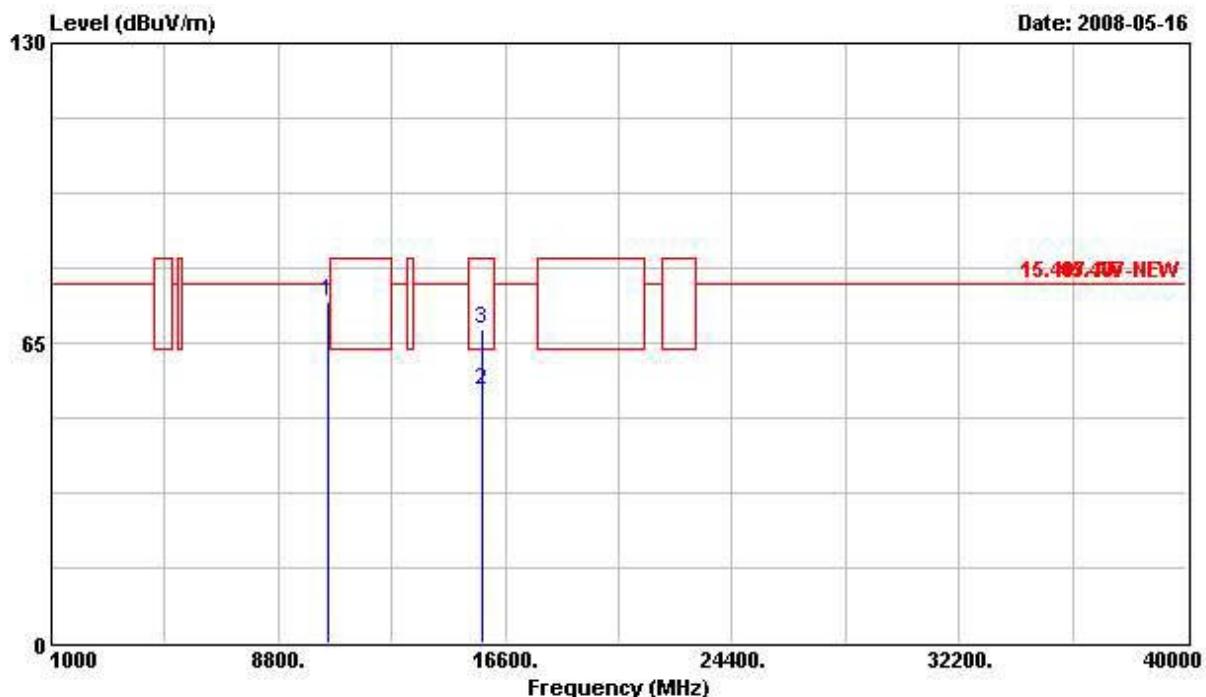
Report No.: FR843032-07AI

Test date	May 16, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 54 (40MHz)

Horizontal



	Freq	Level	Over	Limit	Antenna		Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8608.000	53.21	-24.63	77.84	42.36	38.37	5.28	32.81	PEAK
2	10536.000	74.70	-3.14	77.84	60.22	39.28	6.30	31.10	PEAK
3	15797.800	70.71	-12.83	83.54	55.22	37.62	7.43	29.56	PEAK
4	15797.800	57.52	-6.02	63.54	42.04	37.62	7.43	29.56	Average

Vertical

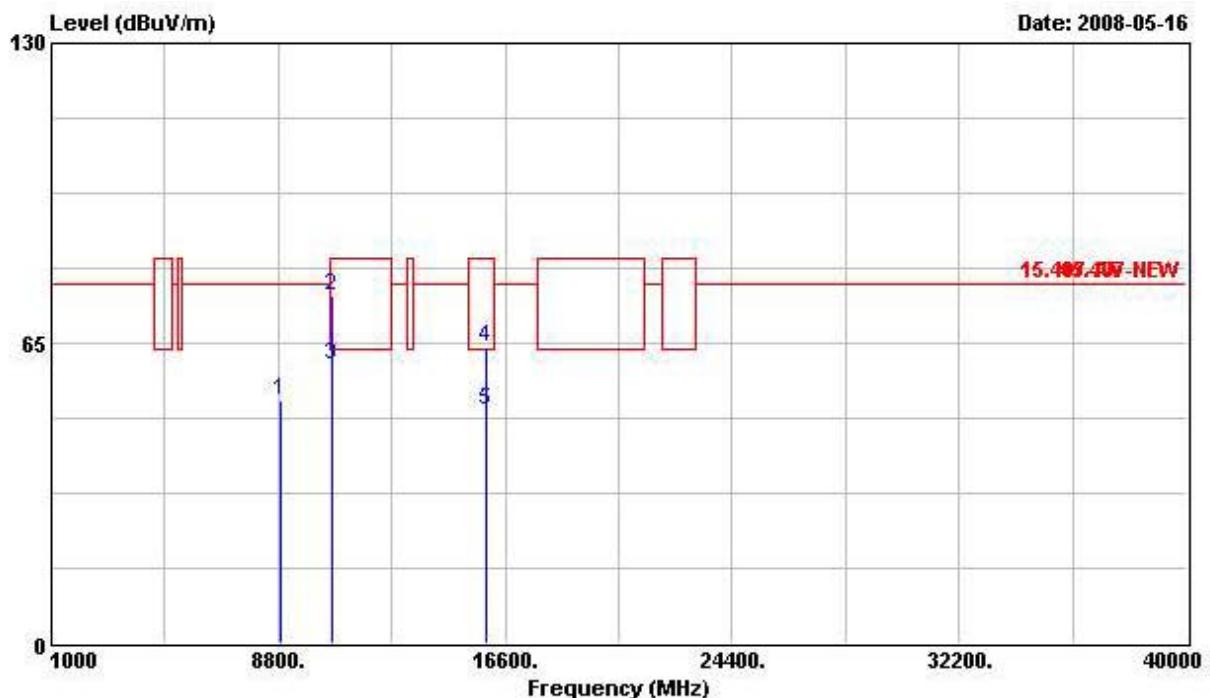
Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	dBuV/m	dB	dBuV	dB/m	dB	
MHz	dBuV/m							
1	10540.000	73.86	-3.98	77.84	59.38	39.28	6.30	31.10 PEAK
2	15802.600	54.75	-8.79	63.54	39.26	37.62	7.43	29.56 AVERAGE
3	15802.600	68.00	-15.54	83.54	52.51	37.62	7.43	29.56 Peak

FCC TEST REPORT

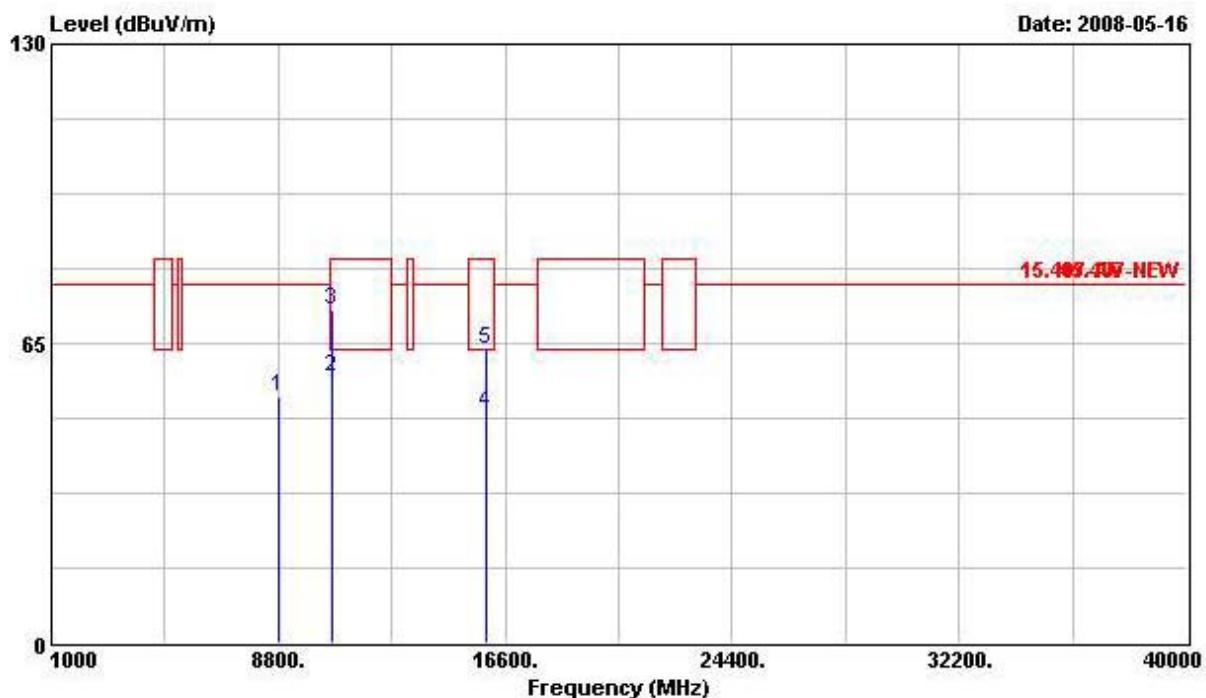
Report No.: FR843032-07AI

Test date	May 16, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 62 (40MHz)

Horizontal

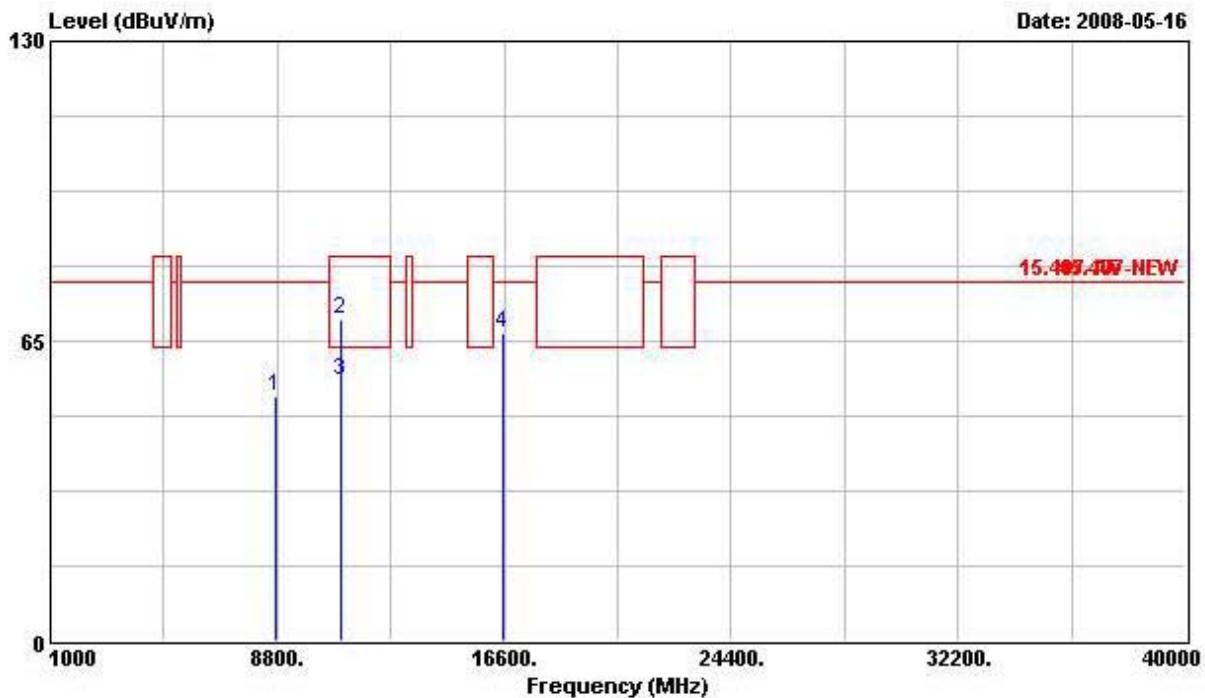


	Freq	Level	Over Limit	Limit Line	Read	Antenna Level	Cable Factor	Preamp Loss Factor	Remark
	MHz	dBuV/m		dB	dBuV/m	dBuV	dB/m	dB	dB
1	8856.000	52.53	-25.31	77.84	41.95	38.51	4.88	32.81	PEAK
2	10622.000	75.42	-8.12	83.54	60.73	39.23	6.34	30.88	Peak
3	10622.000	60.38	-3.16	63.54	45.69	39.23	6.34	30.88	AVERAGE
4	15920.800	64.15	-19.39	83.54	48.52	37.67	7.45	29.49	Peak
5	15920.800	50.48	-13.06	63.54	34.85	37.67	7.45	29.49	AVERAGE

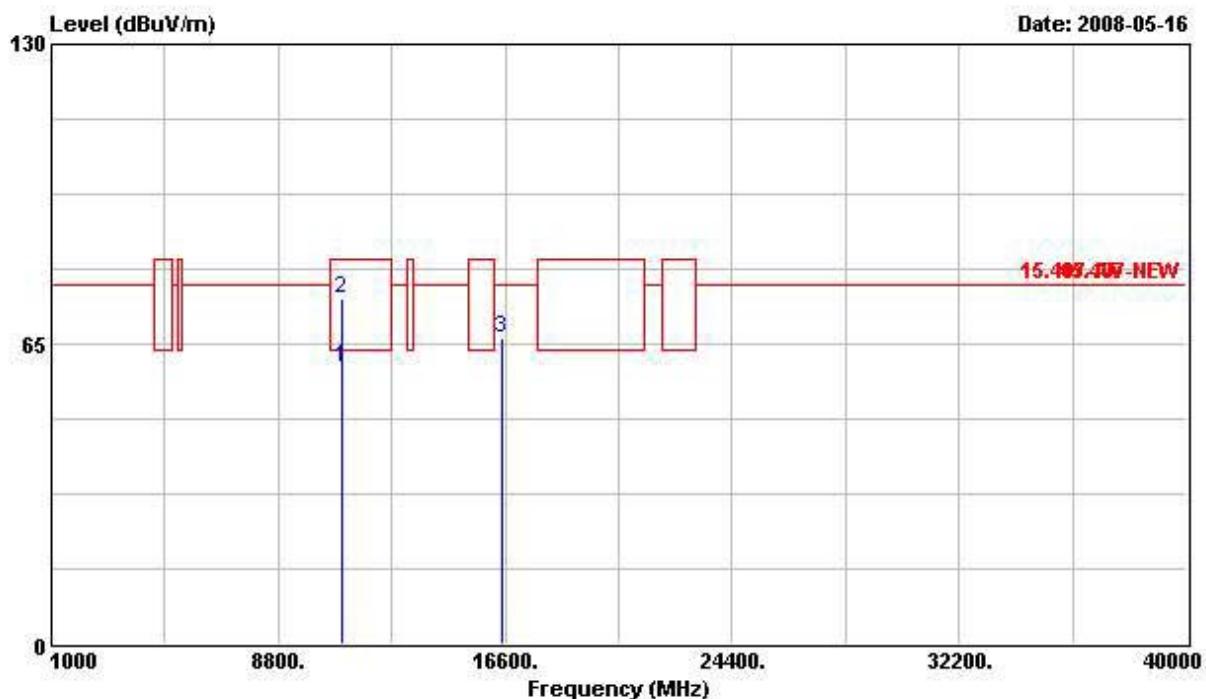
Vertical

Freq MHz	Level dBuV/m	Over Limit	Line	Read	Antenna	Cable	Preamp	Remark
		dB	dBuV/m	dBuV	dB/m	dB	dB	
1 8792.000	53.30	-24.54	77.84	42.70	38.47	4.94	32.81	PEAK
2 10621.600	57.56	-5.98	63.54	42.87	39.23	6.34	30.88	AVERAGE
3 10621.600	72.40	-11.14	83.54	57.71	39.23	6.34	30.88	Peak
4 15934.400	49.93	-13.61	63.54	34.29	37.67	7.45	29.48	AVERAGE
5 15934.400	63.74	-19.80	83.54	48.10	37.67	7.45	29.48	Peak

Test date	May 16, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 102 (40MHz)

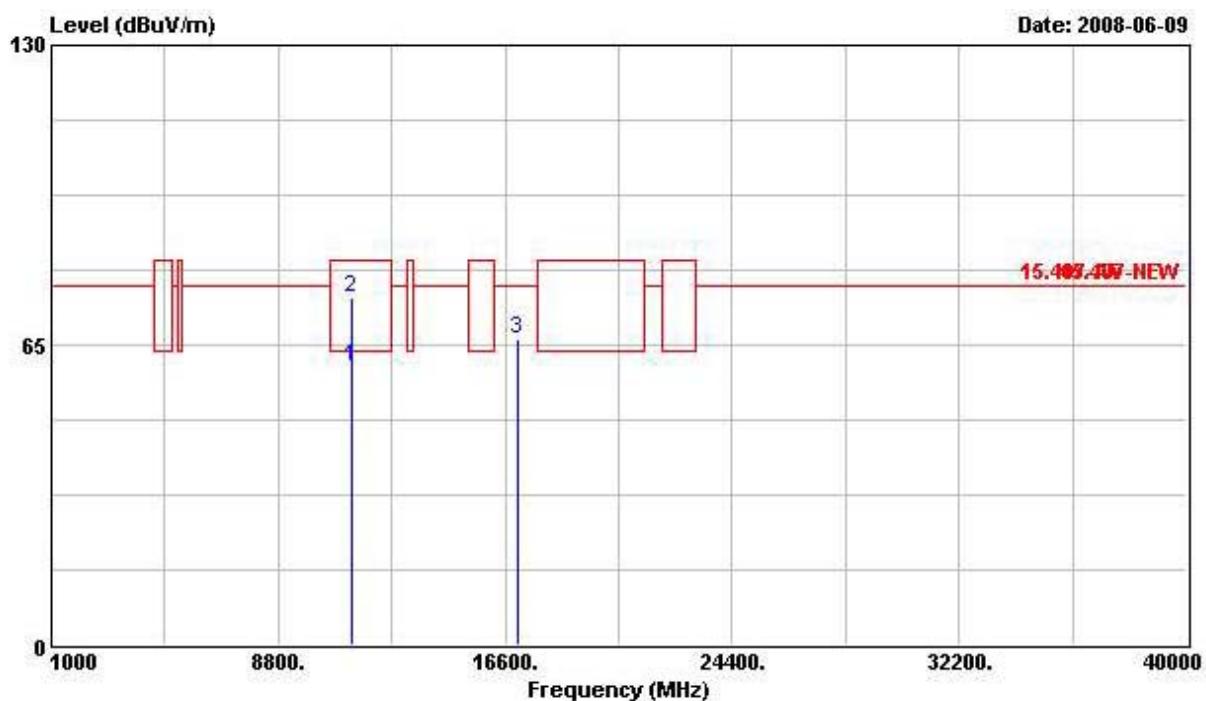
Horizontal

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	Line	Level Factor	Loss Factor	
1	8732.000	53.16	-24.68	77.84	42.45	38.44	5.08	32.81 PEAK
2	11019.200	69.50	-14.04	83.54	53.85	39.02	6.57	29.94 Peak
3	11019.200	56.24	-7.30	63.54	40.58	39.02	6.57	29.94 AVERAGE
4	16536.000	66.53	-11.31	77.84	49.23	39.16	7.52	29.39 PEAK

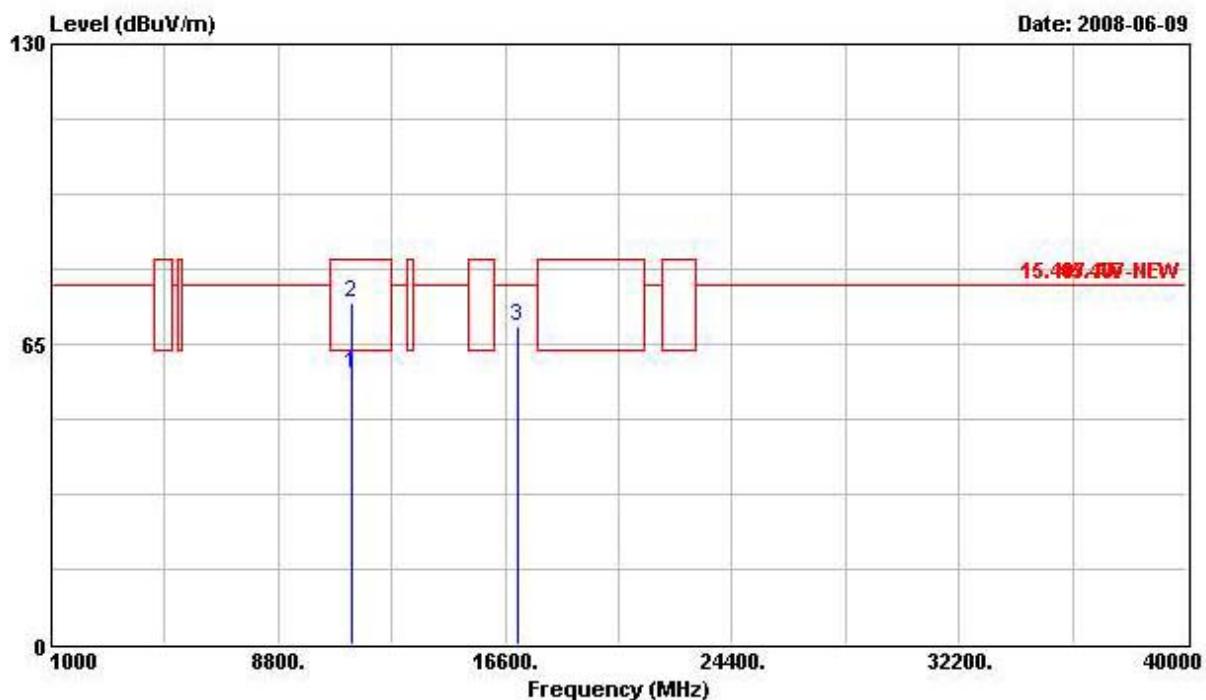
Vertical

Freq	Level	Over Limit		Read Antenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	Line	Level	Factor	
1	11019.200	59.83	-3.71	63.54	44.18	39.02	6.57	29.94 AVERAGE
2	11019.200	74.96	-8.58	83.54	59.31	39.02	6.57	29.94 Peak
3	16520.000	66.10	-11.74	77.84	48.89	39.08	7.52	29.39 PEAK

Test date	Jun. 09, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 134 (40MHz)

Horizontal

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	11340.500	60.50	-3.04	63.54	45.98	39.47	6.71	31.65 AVERAGE
2	11340.500	75.10	-8.44	83.54	60.58	39.47	6.71	31.65 Peak
3	17010.100	66.20	-11.64	77.84	45.50	41.44	7.78	28.52 PEAK

Vertical

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Limit	Line	Level	Factor	Loss	Factor	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	11340.200	58.60	-4.94	63.54	43.95	39.47	6.71	31.52 AVERAGE
2	11340.200	74.16	-9.38	83.54	59.51	39.47	6.71	31.52 Peak
3	17017.000	68.78	-9.06	77.84	48.08	41.44	7.78	28.52 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 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 bandedges.
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:

Test date	May 13, 2008			Test Site No.	03CH03-HY		
Temperature	26			Humidity	54%		
Test Engineer	Duncan			Configuration	802.11a CH 36, 40, 48		

Chanel 36

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1 @	5149.900	62.09	-1.45	63.54	23.80	34.35	3.94	0.00 Average
2 @	5178.300	114.54			76.23	34.38	3.92	0.00 Average
1 @	5149.100	79.46	-4.08	83.54	41.17	34.35	3.94	0.00 Peak
2 @	5183.000	123.90			85.59	34.38	3.92	0.00 Peak

An item 2 is Fundamental Emissions.

Channel 40

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	5122.100	70.96	-12.58	83.54	32.70	34.32	3.94	0.00 Peak
2 @	5193.600	124.27			85.97	34.40	3.90	0.00 Peak
1 @	5133.300	58.77	-4.77	63.54	20.49	34.33	3.94	0.00 Average
2 @	5198.400	114.99			76.69	34.40	3.90	0.00 Average

An item 2 is Fundamental Emissions.

Channel 48

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	5129.200	70.90	-12.64	83.54	32.62	34.33	3.94	0.00 Peak
2 @	5239.600	123.83			85.52	34.43	3.88	0.00 Peak
3	5401.200	71.31	-12.23	83.54	32.91	34.60	3.80	0.00 Peak
1 @	5106.400	58.75	-4.79	63.54	20.47	34.32	3.96	0.00 Average
2 @	5242.400	115.36			77.03	34.45	3.88	0.00 Average
3 @	5406.000	58.71	-4.83	63.54	20.31	34.60	3.80	0.00 Average

An item 2 is Fundamental Emissions.

Test date	Apr. 22, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11a CH 52, 56, 64

Channel 52

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	
			Line	Level	Factor	Loss	Factor	Remark	
			MHz	dBuV/m		dB	dBuV/m		
1	5104.400	58.80	-4.74	63.54	20.54	34.30	3.96	0.00	Average
2 @	5258.000	115.15			76.82	34.45	3.88	0.00	Average
3	5376.000	58.71	-4.83	63.54	20.33	34.57	3.82	0.00	Average
1	5113.600	70.88	-12.66	83.54	32.62	34.32	3.94	0.00	Peak
2 @	5259.200	123.95			85.60	34.47	3.88	0.00	Peak
3	5400.400	71.82	-11.72	83.54	33.42	34.60	3.80	0.00	Peak

An item 2 is Fundamental Emissions.

Channel 56

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	
			Line	Level	Factor	Loss	Factor	Remark	
			MHz	dBuV/m		dB	dBuV/m		
1	5095.000	70.56	-12.98	83.54	32.30	34.30	3.96	0.00	Peak
2 @	5275.000	124.97			86.64	34.47	3.86	0.00	Peak
3	5427.500	70.08	-13.46	83.54	31.69	34.62	3.78	0.00	Peak
1	5093.000	58.74	-4.80	63.54	20.48	34.30	3.96	0.00	Average
2 @	5275.000	115.39			77.06	34.47	3.86	0.00	Average
3	5399.000	58.07	-5.47	63.54	19.67	34.60	3.80	0.00	Average

An item 2 is Fundamental Emissions.

Channel 64

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	
			Line	Level	Factor	Loss	Factor	Remark	
			MHz	dBuV/m		dB	dBuV/m		
1 @	5317.500	123.08			84.73	34.52	3.84	0.00	Peak
2	5350.600	80.20	-3.34	83.54	41.83	34.55	3.82	0.00	Peak
1 @	5317.500	113.75			75.40	34.52	3.84	0.00	Average
2	5350.100	61.75	-1.79	63.54	23.38	34.55	3.82	0.00	Average

An item 1 is Fundamental Emissions.

Test date	Apr. 22, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11a CH 100, 120, 140

Channel 100

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Line	Level	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1		5457.900	76.97	-6.57	83.54	38.54	34.65	3.78	0.00 Peak
2 @		5502.200	123.46			85.01	34.70	3.75	0.00 Peak
1		5459.900	61.77	-1.77	63.54	23.34	34.65	3.78	0.00 Average
2 @		5502.200	114.24			75.79	34.70	3.75	0.00 Average

An item 2 is Fundamental Emissions.

Channel 120

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Line	Level	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @		5601.100	119.89			81.53	34.72	3.64	0.00 Peak
1 @		5601.100	110.84			72.48	34.72	3.64	0.00 Average

An item 1 is Fundamental Emissions.

Channel 140

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Line	Level	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @		5703.000	117.40			79.14	34.74	3.52	0.00 Peak
2		5725.800	75.79	-2.05	77.84	37.53	34.74	3.52	0.00 Peak
1 X		5703.000	107.40			69.14	34.74	3.52	0.00 Average
2		5725.000	57.80	-20.04	77.84	19.54	34.74	3.52	0.00 Average

An item 1 is Fundamental Emissions.

Test date	May 13, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 36, 40, 48 (20MHz)

Channel 36

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1 @	5149.900	61.79	-1.75	63.54	23.50	34.35	3.94	0.00 Average
2 @	5182.600	113.43			75.12	34.38	3.92	0.00 Average
1 @	5149.900	80.92	-2.62	83.54	42.63	34.35	3.94	0.00 Peak
2 @	5183.800	123.19			84.88	34.38	3.92	0.00 Peak

An item 2 is Fundamental Emissions.

Channel 40

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	5146.300	70.51	-13.03	83.54	32.22	34.35	3.94	0.00 Peak
2 @	5199.900	125.04			86.74	34.40	3.90	0.00 Peak
1	5123.100	58.01	-5.53	63.54	19.73	34.33	3.94	0.00 Average
2 @	5198.700	115.02			76.72	34.40	3.90	0.00 Average

An item 2 is Fundamental Emissions.

Channel 48

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	5122.800	71.40	-12.14	83.54	33.12	34.33	3.94	0.00 Peak
2 @	5239.600	125.23			86.92	34.43	3.88	0.00 Peak
3	5385.200	70.70	-12.84	83.54	32.30	34.58	3.82	0.00 Peak
1 @	5122.800	59.00	-4.54	63.54	20.72	34.33	3.94	0.00 Average
2 @	5241.200	115.65			77.34	34.43	3.88	0.00 Average
3 @	5425.200	58.62	-4.92	63.54	20.21	34.62	3.80	0.00 Average

An item 2 is Fundamental Emissions.

Test date	Apr. 22, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 52, 56, 64 (20MHz)

Channel 52

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Antenna Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5104.000	70.39	-13.15	83.54	32.13	34.30	3.96	0.00	Peak
2 @	5262.400	124.46			86.11	34.47	3.88	0.00	Peak
3	5377.600	71.82	-11.72	83.54	33.42	34.58	3.82	0.00	Peak
1	5061.200	58.38	-5.16	63.54	20.13	34.27	3.98	0.00	Average
2 @	5262.400	114.91			76.56	34.47	3.88	0.00	Average
3	5373.200	58.10	-5.44	63.54	19.72	34.57	3.82	0.00	Average

An item 2 is Fundamental Emissions.

Channel 56

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Antenna Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5095.600	70.66	-12.88	83.54	32.40	34.30	3.96	0.00	Peak
2 @	5276.400	124.47			86.13	34.48	3.86	0.00	Peak
3	5436.000	70.19	-13.35	83.54	31.78	34.63	3.78	0.00	Peak
1	5103.200	58.42	-5.12	63.54	20.16	34.30	3.96	0.00	Average
2 @	5276.400	114.95			76.61	34.48	3.86	0.00	Average
3	5350.100	57.89	-5.65	63.54	19.52	34.55	3.82	0.00	Average

An item 2 is Fundamental Emissions.

Channel 64

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Antenna Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5323.000	120.79			82.44	34.52	3.84	0.00	Peak
2	5351.000	79.64	-3.90	83.54	41.27	34.55	3.82	0.00	Peak
1 @	5323.000	111.18			72.83	34.52	3.84	0.00	Average
2	5350.100	61.08	-2.46	63.54	22.71	34.55	3.82	0.00	Average

An item 1 is Fundamental Emissions.

Test date	Apr. 22, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 100, 120, 140 (20MHz)

Channel 100

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	5459.900	81.28	-2.26	83.54	42.85	34.65	3.78	0.00 Peak
2 @	5499.700	122.91			84.46	34.70	3.75	0.00 Peak
1	5460.000	61.92	-1.62	63.54	23.49	34.65	3.78	0.00 Average
2 @	5502.900	113.18			74.73	34.70	3.75	0.00 Average

An item 2 is Fundamental Emissions.

Channel 120

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1 @	5599.800	121.12			82.76	34.72	3.64	0.00 Peak
1 @	5599.800	111.20			72.84	34.72	3.64	0.00 Average

An item 1 is Fundamental Emissions.

Channel 140

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1 @	5699.800	117.84			79.58	34.74	3.52	0.00 Peak
2	5725.000	75.83	-2.01	77.84	37.57	34.74	3.52	0.00 Peak
1 X	5699.800	107.11			68.85	34.74	3.52	0.00 Average
2	5725.000	58.73	-19.11	77.84	20.47	34.74	3.52	0.00 Average

An item 1 is Fundamental Emissions.

Test date	May 14, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 38, 46, 54 (40MHz)

Channel 38

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5149.500	76.92	-6.62	83.54	38.63	34.35	3.94	0.00	Peak
2 @	5192.600	112.54			74.24	34.40	3.90	0.00	Peak
1 @	5149.900	61.63	-1.91	63.54	23.34	34.35	3.94	0.00	Average
2 @	5198.200	103.22			64.92	34.40	3.90	0.00	Average

An item 2 is Fundamental Emissions.

Channel 46

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5141.250	73.47	-10.07	83.54	35.18	34.35	3.94	0.00	Peak
2 @	5225.100	121.88			83.55	34.43	3.90	0.00	Peak
1 @	5148.900	59.48	-4.06	63.54	21.19	34.35	3.94	0.00	Average
2 @	5234.100	111.94			73.63	34.43	3.88	0.00	Average

An item 2 is Fundamental Emissions.

Channel 54

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5263.500	122.22			83.87	34.47	3.88	0.00	Peak
2	5355.300	77.26	-6.28	83.54	38.89	34.55	3.82	0.00	Peak
1 @	5264.700	112.57			74.22	34.47	3.88	0.00	Average
2	5350.650	59.99	-3.55	63.54	21.62	34.55	3.82	0.00	Average

An item 1 is Fundamental Emissions.

Test date	Apr. 22, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 62, 102, 134 (40MHz)

Channel 62

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5314.360	113.33			74.98	34.52	3.84	0.00	Peak
2	5350.120	75.23	-8.31	83.54	36.86	34.55	3.82	0.00	Peak
1 X	5316.640	104.03			65.68	34.52	3.84	0.00	Average
2	5350.120	62.22	-1.32	63.54	23.85	34.55	3.82	0.00	Average

An item 1 is Fundamental Emissions.

Channel 102

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5458.360	77.67	-5.87	83.54	39.24	34.65	3.78	0.00	Peak
2 @	5504.440	116.31			77.89	34.70	3.72	0.00	Peak
1	5459.920	62.50	-1.04	63.54	24.07	34.65	3.78	0.00	Average
2 X	5504.440	106.67			68.25	34.70	3.72	0.00	Average

An item 2 is Fundamental Emissions.

Channel 134

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5656.750	115.79			77.46	34.73	3.60	0.00	Peak
2	5725.500	75.46	-2.38	77.84	37.20	34.74	3.52	0.00	Peak
1 X	5656.750	106.01			67.68	34.73	3.60	0.00	Average
2	5725.000	59.08	-18.76	77.84	20.82	34.74	3.52	0.00	Average

An item 1 is Fundamental Emissions.

For Two Chain:

Test date	May 13, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 36, 40, 48 (20MHz)

Channel 36

Freq	Level	Over Limit	Line	ReadAntenna		Cable Preamp		Remark
				MHz	dBuV/m	dB	dBuV/m	
1 @	5149.900	79.52	-4.02	83.54	41.23	34.35	3.94	0.00 Peak
2 @	5175.800	124.43			86.12	34.38	3.92	0.00 Peak
1 @	5149.900	62.49	-1.05	63.54	24.20	34.35	3.94	0.00 Average
2 @	5177.500	113.75			75.44	34.38	3.92	0.00 Average

An item 2 is Fundamental Emissions.

Channel 40

Freq	Level	Over Limit	Line	ReadAntenna		Cable Preamp		Remark
				MHz	dBuV/m	dB	dBuV/m	
1	5149.800	77.48	-6.06	83.54	39.19	34.35	3.94	0.00 Peak
2 @	5201.500	128.26			89.96	34.40	3.90	0.00 Peak
1 @	5149.900	60.58	-2.96	63.54	22.29	34.35	3.94	0.00 Average
2 @	5198.200	118.08			79.78	34.40	3.90	0.00 Average

An item 2 is Fundamental Emissions.

Channel 48

Freq	Level	Over Limit	Line	ReadAntenna		Cable Preamp		Remark
				MHz	dBuV/m	dB	dBuV/m	
1	5102.000	70.35	-13.19	83.54	32.09	34.30	3.96	0.00 Peak
2 @	5241.600	127.99			89.66	34.45	3.88	0.00 Peak
3	5385.200	70.66	-12.88	83.54	32.26	34.58	3.82	0.00 Peak
1 @	5100.800	58.64	-4.90	63.54	20.38	34.30	3.96	0.00 Average
2 @	5241.200	117.74			79.43	34.43	3.88	0.00 Average
3 @	5414.000	58.45	-5.09	63.54	20.04	34.62	3.80	0.00 Average

An item 2 is Fundamental Emissions.

Test date	Apr. 22, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 52, 56, 64 (20MHz)

Channel 52

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5072.000	69.82	-13.72	83.54	31.55	34.28	3.98	0.00	Peak
2 @	5260.800	128.14			89.79	34.47	3.88	0.00	Peak
3	5367.600	70.74	-12.80	83.54	32.36	34.57	3.82	0.00	Peak
1	5119.600	58.43	-5.11	63.54	20.17	34.32	3.94	0.00	Average
2 @	5262.000	118.17			79.82	34.47	3.88	0.00	Average
3	5403.200	58.66	-4.88	63.54	20.26	34.60	3.80	0.00	Average

An item 2 is Fundamental Emissions.

Channel 56

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5276.000	128.69			90.35	34.48	3.86	0.00	Peak
2	5371.640	71.30	-12.24	83.54	32.92	34.57	3.82	0.00	Peak
1 @	5277.080	118.36			80.02	34.48	3.86	0.00	Average
2	5387.360	58.46	-5.08	63.54	20.08	34.58	3.80	0.00	Average

An item 2 is Fundamental Emissions.

Channel 64

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5321.500	124.98			86.63	34.52	3.84	0.00	Peak
2	5350.700	77.07	-6.47	83.54	38.70	34.55	3.82	0.00	Peak
1 @	5321.500	114.23			75.88	34.52	3.84	0.00	Average
2	5350.100	61.49	-2.05	63.54	23.12	34.55	3.82	0.00	Average

An item 1 is Fundamental Emissions.

Test date	Apr. 22, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 100, 120, 140 (20MHz)

Channel 100

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5459.360	75.93	-7.61	83.54	37.50	34.65	3.78	0.00	Peak
2 @	5503.200	126.19			87.74	34.70	3.75	0.00	Peak
1	5459.900	61.80	-1.74	63.54	23.37	34.65	3.78	0.00	Average
2 @	5503.200	115.88			77.43	34.70	3.75	0.00	Average

An item 2 is Fundamental Emissions.

Channel 120

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5601.100	123.70			85.34	34.72	3.64	0.00	Peak
1 @	5601.100	113.36			75.00	34.72	3.64	0.00	Average

An item 2 is Fundamental Emissions.

Channel 140

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5702.200	119.27			81.01	34.74	3.52	0.00	Peak
2	5725.000	76.06	-1.78	77.84	37.80	34.74	3.52	0.00	Peak
1 X	5702.200	108.31			70.05	34.74	3.52	0.00	Average
2	5725.000	61.22	-16.62	77.84	22.96	34.74	3.52	0.00	Average

An item 1 is Fundamental Emissions.

Test date	May 14, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 38, 46, 54 (40MHz)

Channel 38

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	5149.880	76.02	-7.52	83.54	37.73	34.35	3.94	0.00 Peak
2 @	5180.000	115.52			77.21	34.38	3.92	0.00 Peak
1 @	5149.880	62.34	-1.20	63.54	24.05	34.35	3.94	0.00 Average
2 @	5196.320	104.48			66.18	34.40	3.90	0.00 Average

An item 2 is Fundamental Emissions.

Channel 46

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	5146.000	77.20	-6.34	83.54	38.91	34.35	3.94	0.00 Peak
2 @	5224.880	125.64			87.31	34.43	3.90	0.00 Peak
1 @	5149.840	62.25	-1.29	63.54	23.96	34.35	3.94	0.00 Average
2 @	5236.400	115.03			76.72	34.43	3.88	0.00 Average

An item 2 is Fundamental Emissions.

Channel 54

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1 @	5260.710	124.47			86.12	34.47	3.88	0.00 Peak
2	5350.980	76.26	-7.28	83.54	37.89	34.55	3.82	0.00 Peak
1 @	5263.940	114.31			75.96	34.47	3.88	0.00 Average
2	5350.000	62.08	-1.46	63.54	23.71	34.55	3.82	0.00 Average

An item 1 is Fundamental Emissions.

Test date	Apr. 22, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 62, 102, 134 (40MHz)

Channel 62

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Antenna Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @		5319.160 117.07			78.72	34.52	3.84	0.00	Peak
2		5351.680 74.53	-9.01	83.54	36.16	34.55	3.82	0.00	Peak
1 X		5297.920 106.03			67.67	34.50	3.86	0.00	Average
2		5350.120 62.25	-1.29	63.54	23.88	34.55	3.82	0.00	Average

An item 1 is Fundamental Emissions.

Channel 102

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Antenna Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1		5457.070 79.82	-3.72	83.54	41.39	34.65	3.78	0.00	Peak
2 @		5498.020 119.82			81.37	34.70	3.75	0.00	Peak
1		5459.930 62.20	-1.34	63.54	23.77	34.65	3.78	0.00	Average
2 @		5505.950 109.20			70.78	34.70	3.72	0.00	Average

An item 2 is Fundamental Emissions.

Channel 134

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Antenna Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @		5659.800 119.22			80.93	34.73	3.56	0.00	Peak
2		5725.400 76.05	-1.79	77.84	37.79	34.74	3.52	0.00	Peak
1 @		5659.800 108.34			70.05	34.73	3.56	0.00	Average
2		5725.000 62.50	-15.34	77.84	24.24	34.74	3.52	0.00	Average

An 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 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].

3.8 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

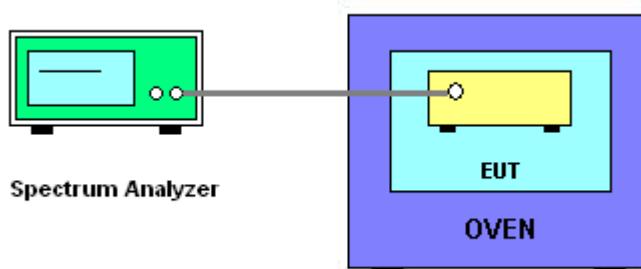
Please refer to section 4 of equipments list in this report. The following table is the setting of the spectrum analyzer.

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 analyser.
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 $\pm 20\text{ppm}$ (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 $-30^\circ\text{C} \sim 50^\circ\text{C}$.

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	Measurement Frequency (MHz)	
(V)	IEEE 802.11a 5200	IEEE 802.11a 5500
126.5	5199.998700	5499.999400
110	5199.998400	5499.998700
93.5	5199.996900	5499.995800
Max. Deviation (MHz)	0.003100	0.004200
Max. Deviation (ppm)	0.60	0.76

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)	
()	IEEE 802.11a 5200	IEEE 802.11a 5500
-30	5199.988700	5499.968400
-20	5199.991700	5499.971800
-10	5199.994200	5499.978400
0	5199.997400	5499.985700
10	5199.998700	5499.991400
20	5199.998400	5499.998700
30	5199.999200	5500.003100
40	5200.009400	5500.012400
50	5200.015700	5500.019700
Max. Deviation (MHz)	0.015700	0.031600
Max. Deviation (ppm)	3.02	5.75

For Two Chain

Voltage	Measurement Frequency (MHz)			
(V)	IEEE 802.11n 5200 (20MHz)	IEEE 802.11n 5230 (40MHz)	IEEE 802.11n 5500 (20MHz)	IEEE 802.11n 5510 (40MHz)
126.5	5219.9988	5229.9988	5499.999400	5509.999700
110	5219.9978	5229.9978	5499.998700	5509.998100
93.5	5219.9974	5229.9974	5499.995800	5509.999400
Max. Deviation (MHz)	0.0026	0.002600	0.004200	0.001900
Max. Deviation (ppm)	0.50	0.50	0.76	0.34

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
()	IEEE 802.11n 5200 (20MHz)	IEEE 802.11n 5230 (40MHz)	IEEE 802.11n 5500 (20MHz)	IEEE 802.11n 5510 (40MHz)
-30	5219.991700	5229.991700	5499.968400	5509.996200
-20	5219.988400	5229.988400	5499.971800	5509.995200
-10	5219.989700	5229.989700	5499.978400	5509.996200
0	5219.992800	5229.992800	5499.985700	5509.997400
10	5219.994100	5229.994100	5499.991400	5509.998900
20	5219.997800	5229.998800	5499.998700	5509.998100
30	5219.998800	5229.998800	5500.003100	5510.000400
40	5220.001100	5230.007500	5500.012400	5510.001800
50	5220.009200	5230.010400	5500.019700	5510.003400
Max. Deviation (MHz)	0.011600	0.011600	0.031600	0.004800
Max. Deviation (ppm)	2.22	2.2180	5.75	0.8711

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
Receiver	R&S	ESCS 30	836858/024	9 kHz - 2.75 GHz	Sep. 11, 2007	Conduction (CO01-LK)
LISN	SCHAFFNER	NNB-41	98087	9 kHz - 30 MHz	Sep. 21, 2007	Conduction (CO01-LK)
RF Cable-CON	Suhner Switzerland	RG223/U	CB017	9 kHz - 30 MHz	Nov. 30, 2007	Conduction (CO01-LK)

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

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	R&S	FSP30	100023	9kHz ~ 30GHz	Jan. 10, 2008	Conducted (TH01-HY)
Power Meter	R&S	NRVS	100444	DC ~ 40GHz	Jun. 27, 2007	Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z51	100458	DC ~ 30GHz	Jun. 27, 2007	Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z32	100057	30MHz ~ 6GHz	Jun. 27, 2007	Conducted (TH01-HY)
DC Power Source	G.W.	GPC-6030D	C671845	DC 1V ~ 60V	Mar. 13, 2008	Conducted (TH01-HY)
Temp. and Humidity Chamber	KSON	THS-C3L	612	N/A	Oct. 01, 2007	Conducted (TH01-HY)
RF CABLE-1m	Jye Bao	RG142	CB034-1m	20MHz ~ 7GHz	Dec. 01, 2007	Conducted (TH01-HY)
RF CABLE-2m	Jye Bao	RG142	CB035-2m	20MHz ~ 1GHz	Dec. 01, 2007	Conducted (TH01-HY)
Vector Signal Generator	R&S	SMU200A	102098	100kHz ~ 6GHz	Nov. 14, 2007	Conducted (TH01-HY)
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	Mar. 10, 2008	Conducted (TH01-HY)

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

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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. 14, 2007	Radiation (03CH03-HY)
Amplifier	SCHAFFNER	COA9231A	18667	9 kHz - 2 GHz	Jan. 14, 2008	Radiation (03CH03-HY)
Amplifier	Agilent	8449B	3008A02120	1 GHz - 26.5 GHz	Jun. 07, 2007	Radiation (03CH03-HY)
Amplifier	Agilent	8449B	3008A02120	1 GHz - 26.5 GHz	Jun. 06, 2008	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSP40	100305	9 kHz - 40 GHz	Sep. 27, 2007	Radiation (03CH03-HY)
Bilog Antenna	SCHAFFNER	CBL 6112D	22237	30 MHz – 1 GHz	Jul. 21, 2007	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6741	1GHz ~ 18GHz	Mar. 04, 2008	Radiation (03CH03-HY)
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15 GHz - 40 GHz	Jan.18, 2008	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30 MHz - 1 GHz	Dec. 03, 2007	Radiation (03CH03-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	1 GHz - 40 GHz	Dec. 03, 2007	Radiation (03CH03-HY)
Turn Table	HD	DS 420	420/650/00	0 – 360 degree	N/A	Radiation (03CH03-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	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
AC Power Source	HPC	HPA-500W	HPA-9100024	AC 0 ~ 300V	May 04, 2007*	Conducted (TH01-HY)
Amplifier	MITEQ	AMF-6F-260400	9121372	26.5 GHz - 40 GHz	Jan. 22, 2007*	Radiation (03CH03-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	May 22, 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.: L1190-070110

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, 2007 to January 09, 2010
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

Jay-San Chen
President, Taiwan Accreditation Foundation
Date : January 10, 2007

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The Appendix forms an integral part of this Certificate, which shall be invalid when used without the Appendix.