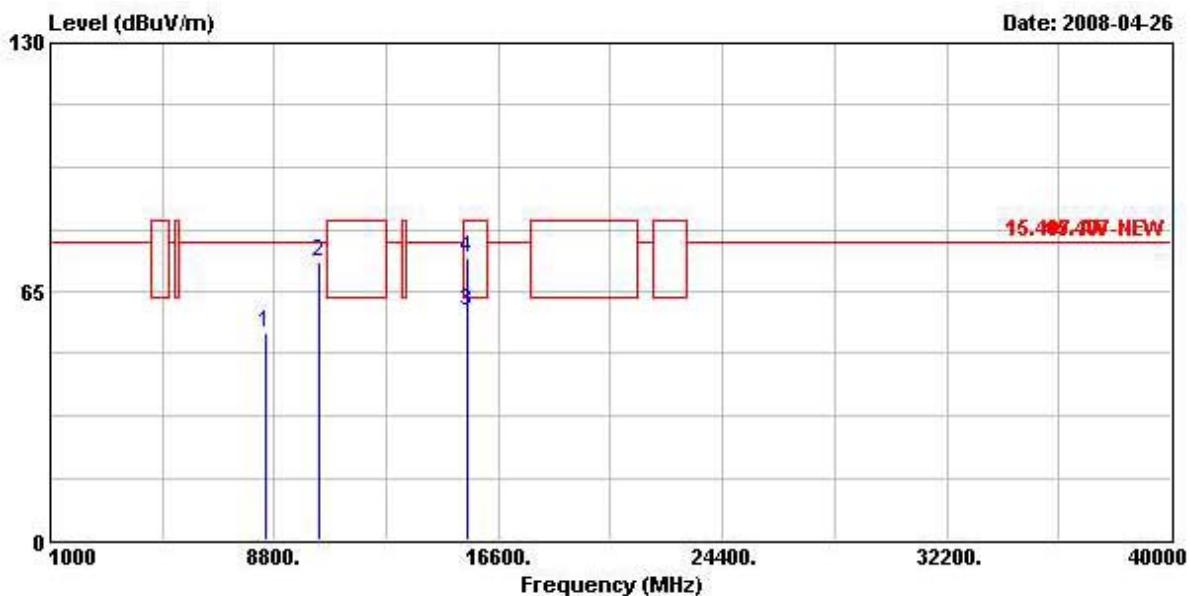
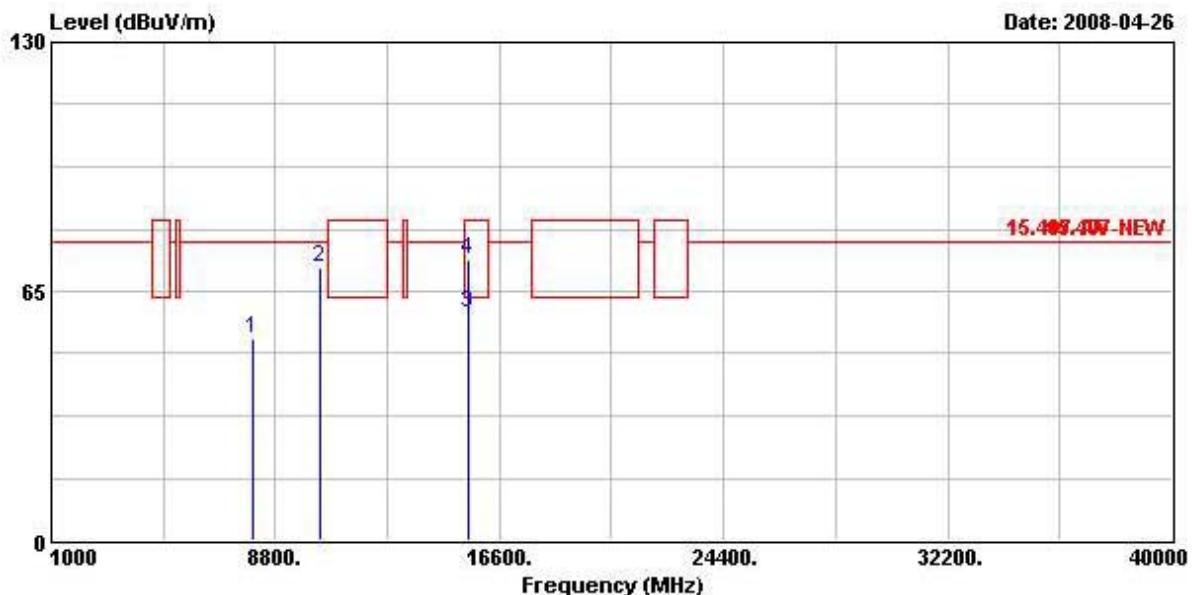


Test date	Apr. 26, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 36 (20MHz)

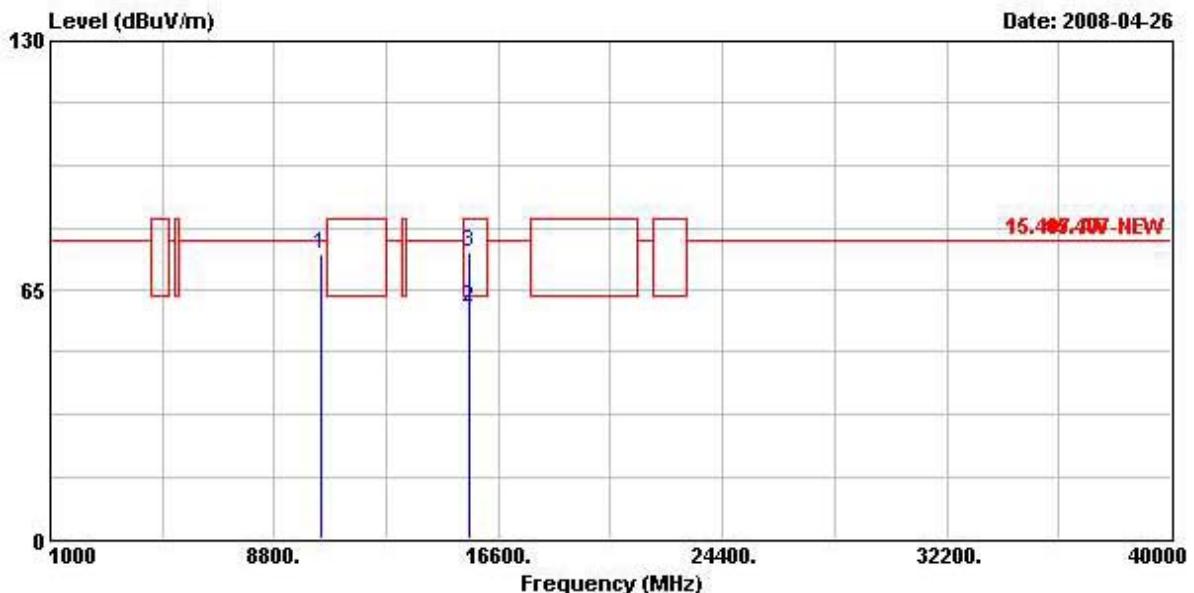
**Horizontal**

Freq	Level	Over Limit	Limit Line	Read		Antenna Factor	Cable Preamp		Remark
				MHz	dBuV/m		dB	dB	
1	8504.000	53.99	-23.85	77.84	43.01	38.30	5.49	32.81	PEAK
2	10360.000	72.73	-5.11	77.84	58.99	39.33	6.09	31.67	PEAK
3	15537.500	59.97	-3.57	63.54	44.78	37.51	7.37	29.69	Average
4	15537.500	74.01	-9.53	83.54	58.82	37.51	7.37	29.69	PEAK

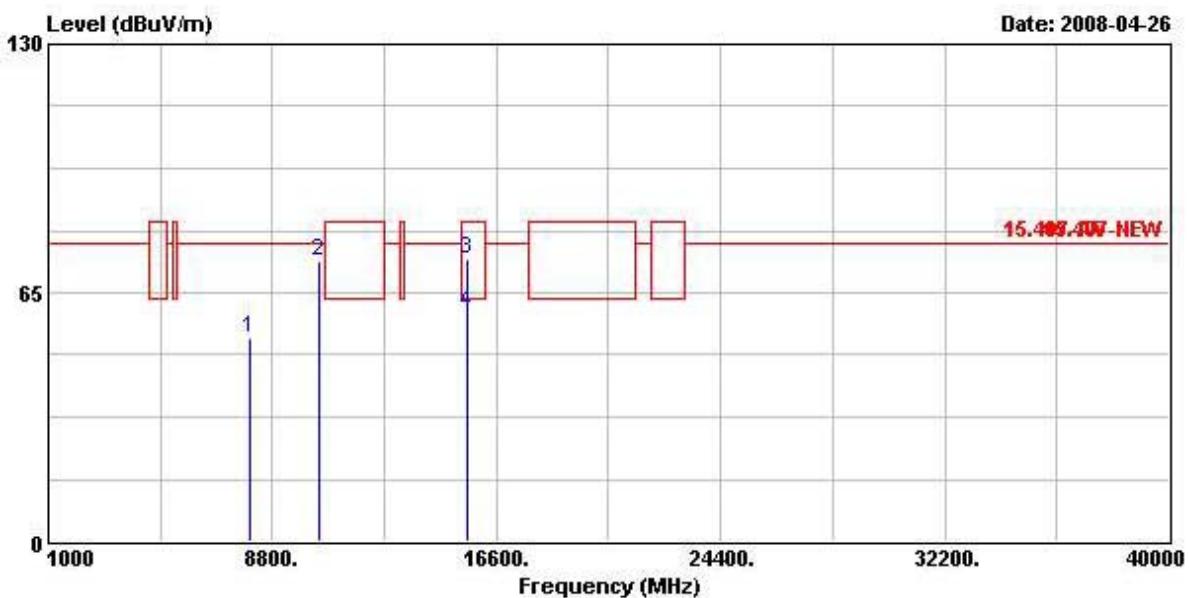
*Vertical*

Freq	Level	Over Limit	Limit Line	Read		Antenna Factor	Cable Loss	Preamp Factor	Remark
				MHz	dBuV/m				
1	8000.000	52.57	-25.27	77.84	42.85	37.80	4.71	32.79	PEAK
2	10364.000	70.98	-6.86	77.84	57.24	39.33	6.09	31.67	PEAK
3	15540.700	59.43	-4.11	63.54	44.24	37.51	7.37	29.69	Average
4	15540.700	73.32	-10.22	83.54	58.13	37.51	7.37	29.69	PEAK

<b>Test date</b>	Apr. 26, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 40 (20MHz)

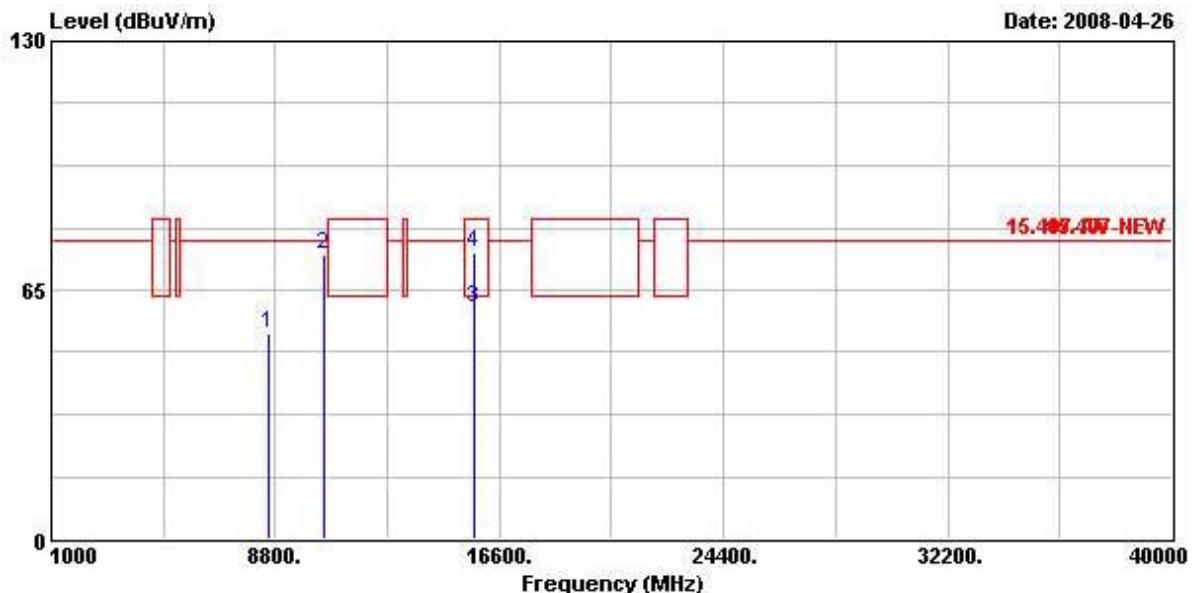
**Horizontal**

Freq	Level	Over Limit	Limit Line	Read		Antenna Factor	Cable Loss	Preamp Factor	Remark
				MHz	dBuV/m				
						dB	dBuV/m	dB	dB
1 0	10404.000	74.39	-3.45	77.84	60.44	39.32	6.14	31.51	PEAK
2 0	15600.600	60.48	-3.06	63.54	45.21	37.54	7.38	29.65	Average
3	15600.600	75.04	-8.50	83.54	59.77	37.54	7.38	29.65	PEAK

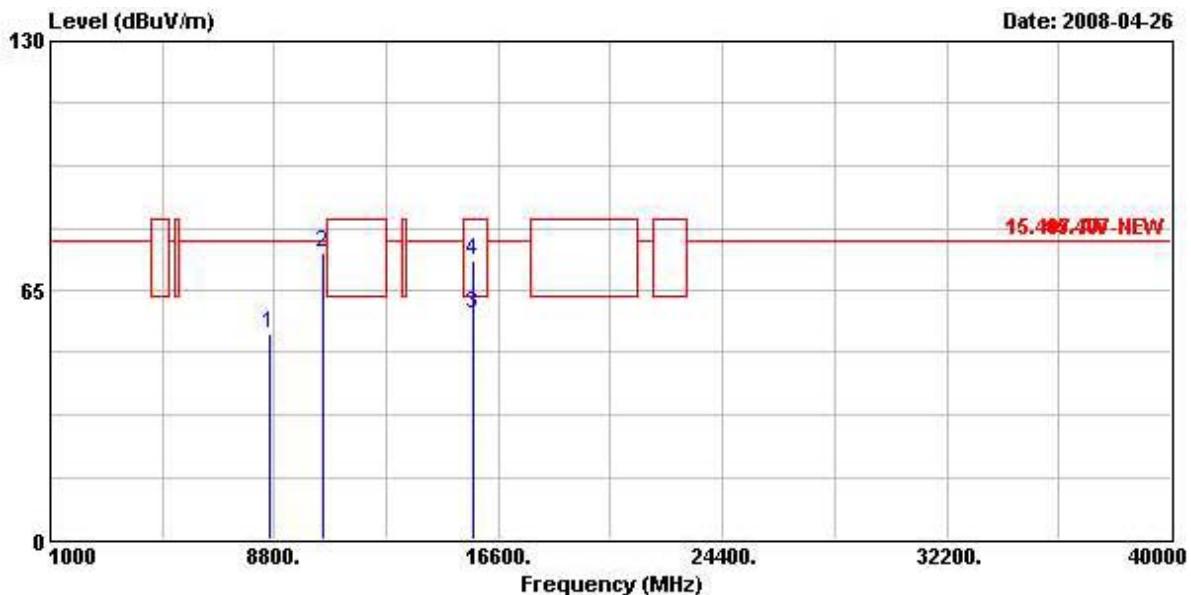
*Vertical*

Freq	Level	Over Limit		Read Antenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	Line	Level	Factor	
1	8016.000	53.08	-24.76	77.84	43.34	37.82	4.71	32.79 PEAK
2	10404.000	73.11	-4.73	77.84	59.16	39.32	6.14	31.51 PEAK
3	15600.800	73.57	-9.97	83.54	58.31	37.54	7.38	29.65 PEAK
4 (B)	15600.800	59.66	-3.88	63.54	44.39	37.54	7.38	29.65 Average

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

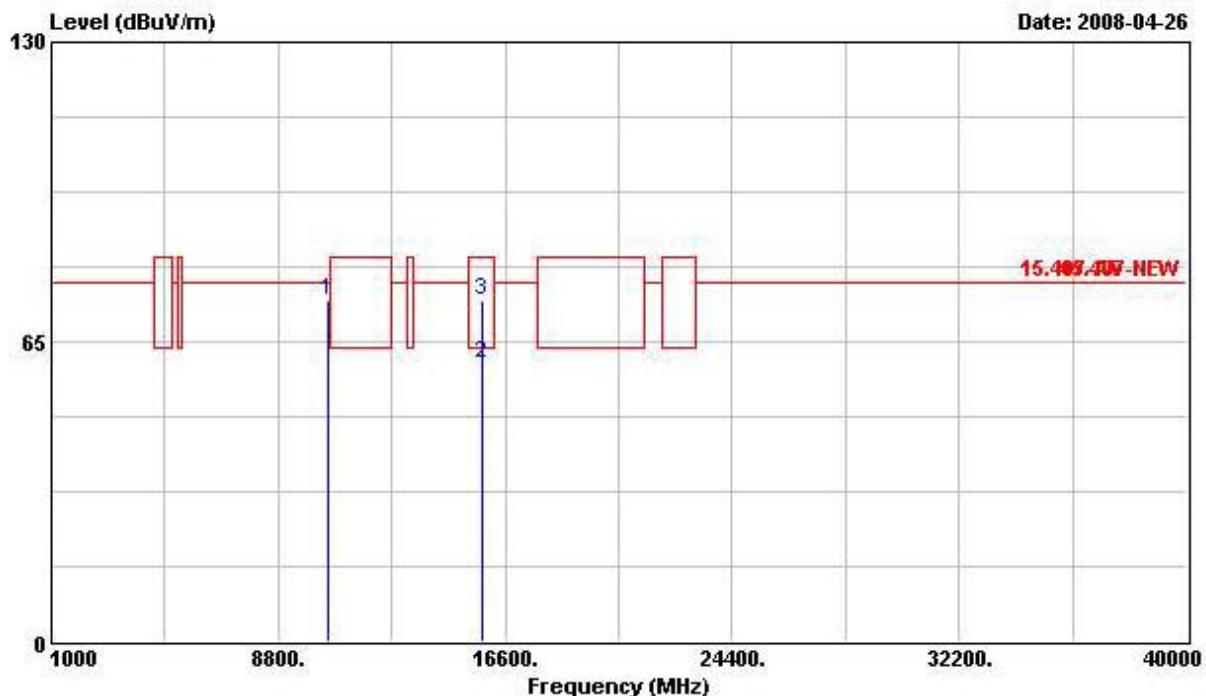
**Horizontal**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	8560.000	53.69	-24.15	77.84	42.81	38.34	5.35	32.81 PEAK
2 @	10488.000	74.51	-3.33	77.84	60.23	39.30	6.23	31.25 PEAK
3 @	15724.700	60.38	-3.16	63.54	44.98	37.59	7.41	29.60 Average
4	15724.700	74.88	-8.66	83.54	59.48	37.59	7.41	29.60 PEAK

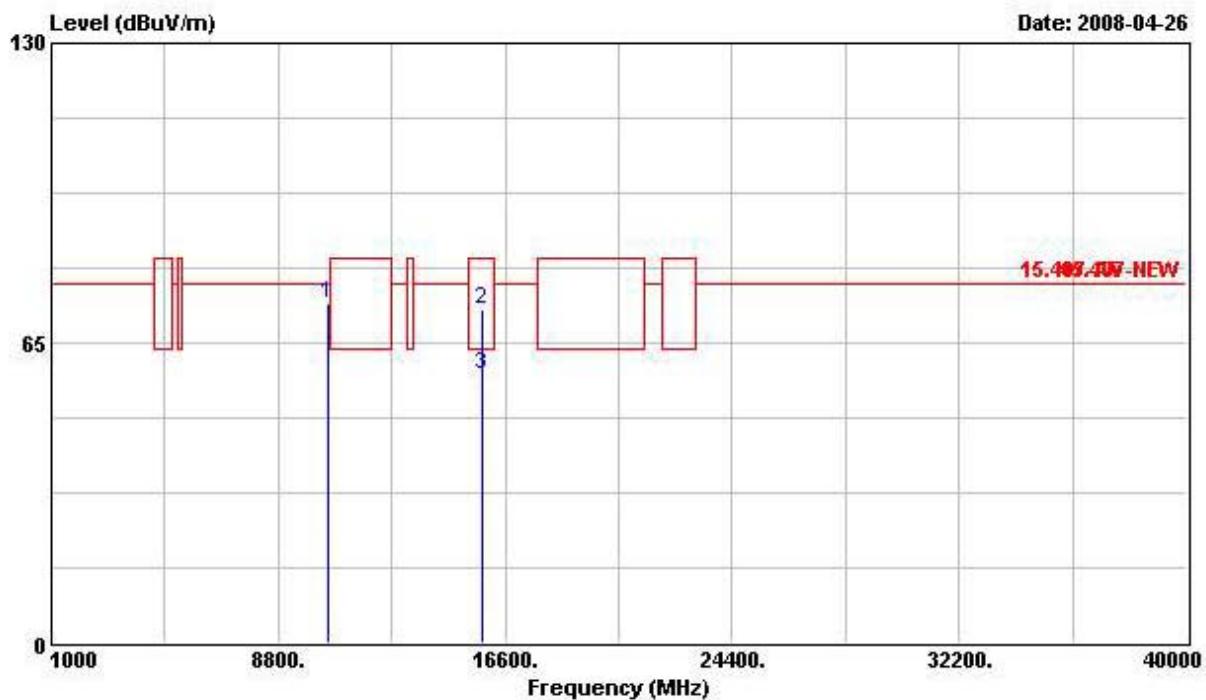
**Vertical**

Freq	Level	Over Limit		Read Antenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	Line	Level	Factor	
1	8640.000	53.58	-24.26	77.84	42.79	38.38	5.21	32.81 PEAK
2	10480.000	74.60	-3.24	77.84	60.33	39.30	6.23	31.25 PEAK
3	15721.100	58.95	-4.59	63.54	43.55	37.59	7.41	29.60 Average
4	15721.100	72.97	-10.57	83.54	57.57	37.59	7.41	29.60 PEAK

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

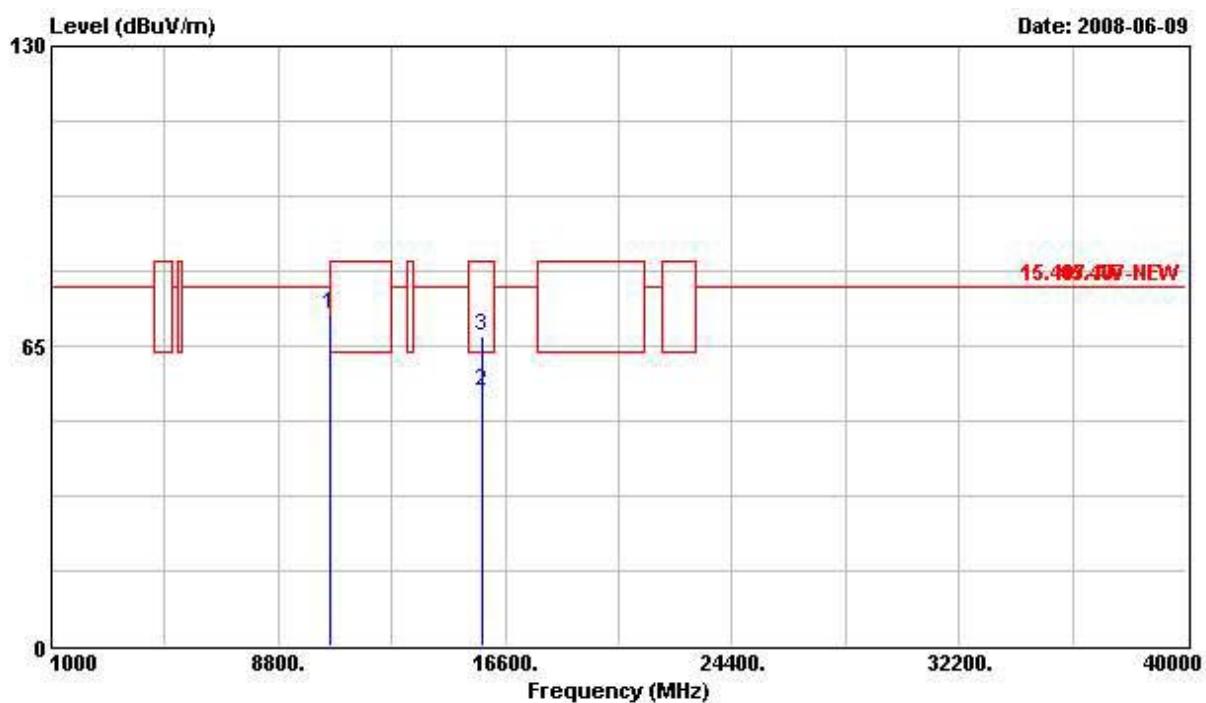
**Horizontal**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	dBuV	dB/m	dB	dB	
MHz	dBuV/m	dB	dBuV/m					
1	10520.000	73.78	-4.06	77.84	59.39	39.29	6.28	31.17 PEAK
2	15781.800	60.15	-3.39	63.54	44.67	37.62	7.42	29.56 Average
3	15781.800	73.83	-9.71	83.54	58.35	37.62	7.42	29.56 PEAK

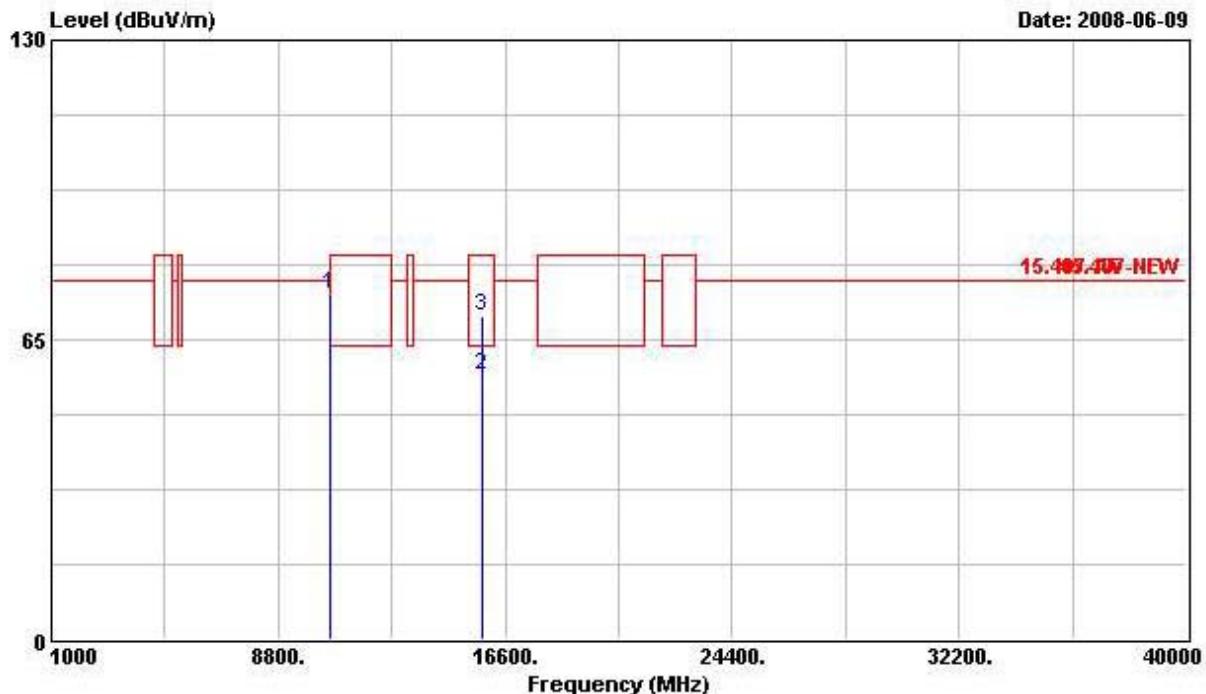
*Vertical*

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	dBuV	dB/m	dB	dB	
MHz	dBuV/m	dB	dBuV/m					
1	10524.000	73.39	-4.45	77.84	58.99	39.29	6.28	31.17 PEAK
2	15780.200	72.45	-11.09	83.54	56.98	37.61	7.42	29.56 PEAK
3	15780.200	57.97	-5.57	63.54	42.50	37.61	7.42	29.56 Average

<b>Test date</b>	Jun. 09, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 56 (20MHz)

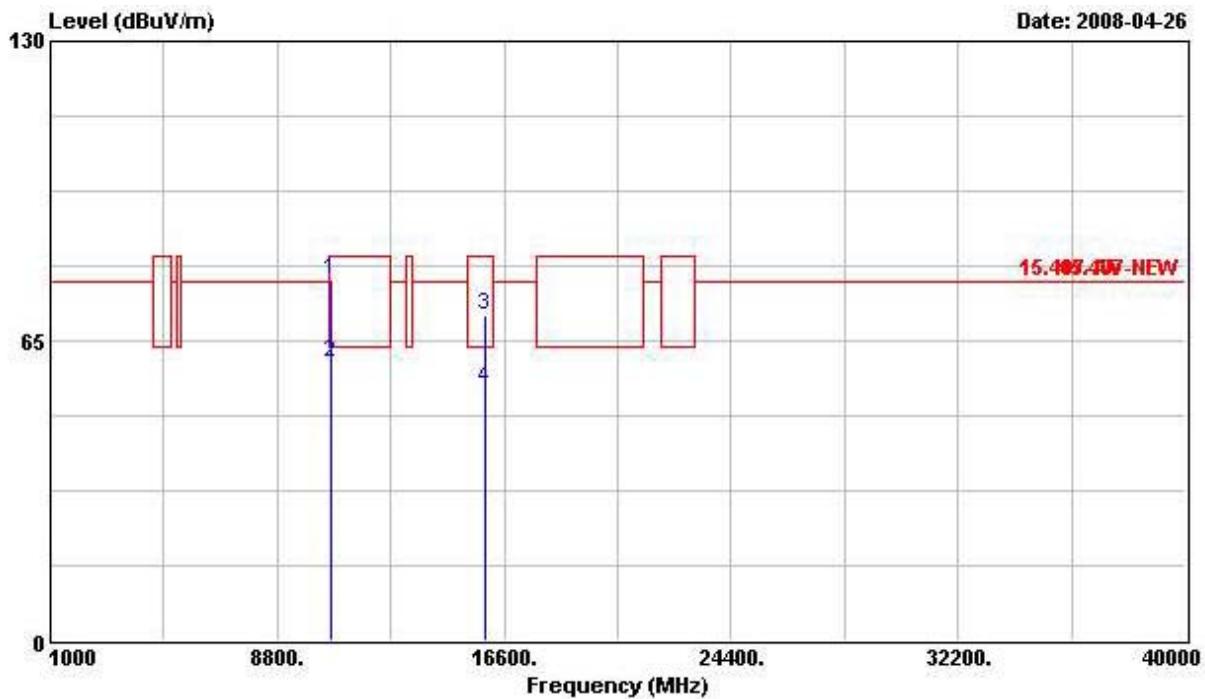
**Horizontal**

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	10560.080	71.99	-5.85	77.84	57.45	39.27	6.30	31.03 Peak
2	15838.700	55.29	-8.25	63.54	39.75	37.64	7.43	29.53 AVERAGE
3	15838.700	67.08	-16.46	83.54	51.54	37.64	7.43	29.53 Peak

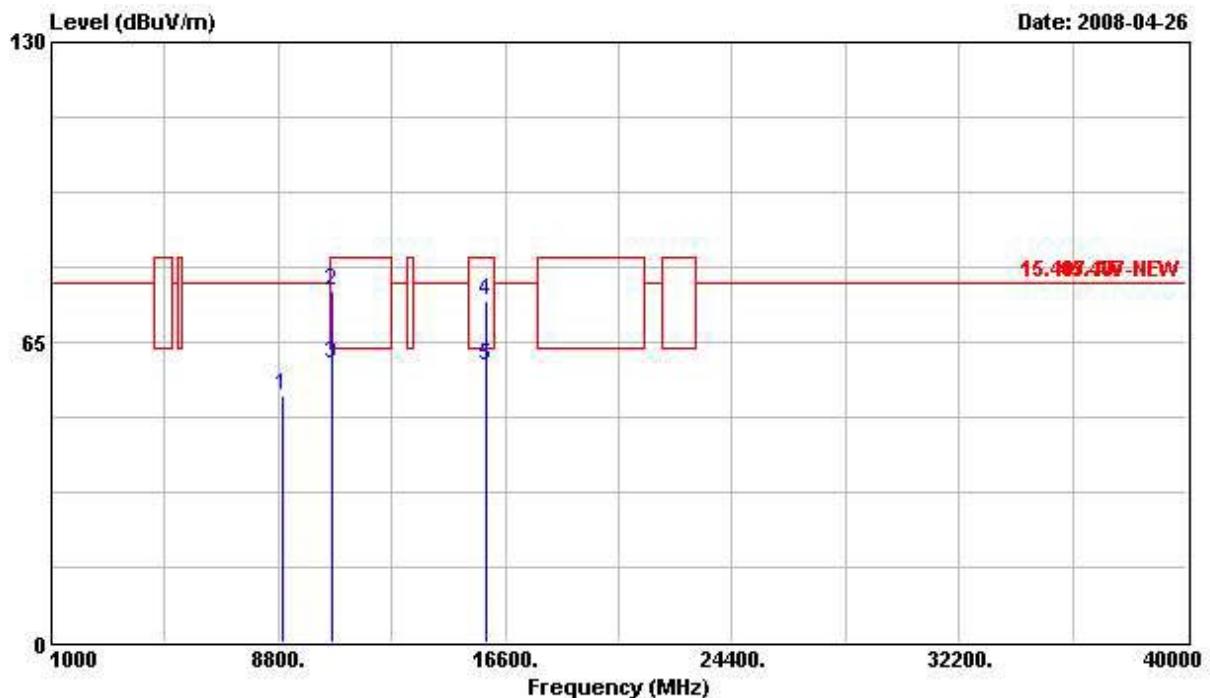
*Vertical*

Freq MHz	Level dBuV/m	Over Limit	Limit Line	Read dBuV	Antenna Factor	Cable dB	Preamp dB	Remark
		dB	dBuV/m	dBuV	dB/m			
1	10560.080	74.62	-3.22	77.84	60.08	39.27	6.30	31.03 Peak
2	15838.700	57.29	-6.25	63.54	41.75	37.64	7.43	29.53 AVERAGE
3	15838.700	70.29	-13.25	83.54	54.75	37.64	7.43	29.53 Peak

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

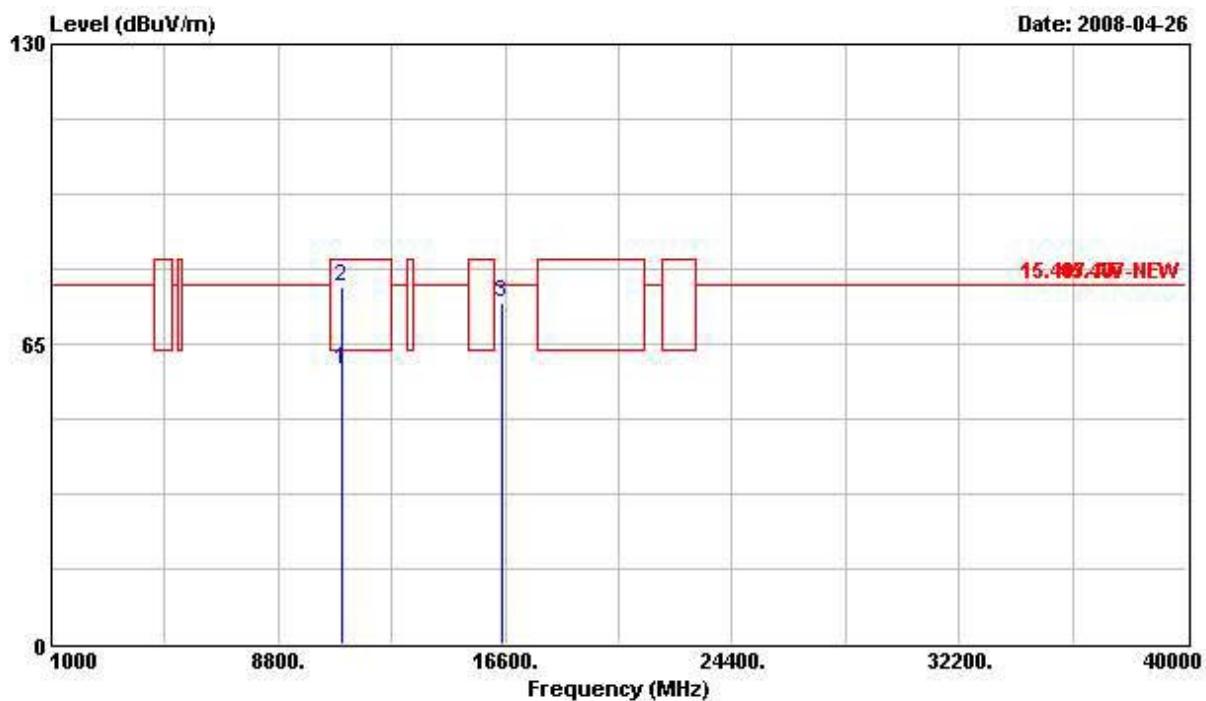
**Horizontal**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	Level	Factor	Loss	Factor	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	10640.600	78.25	-5.29	83.54	63.50	39.22	6.34	30.81 Peak
2	10640.600	60.35	-3.19	63.54	45.60	39.22	6.34	30.81 AVERAGE
3	15959.920	70.58	-12.96	83.54	54.90	37.69	7.46	29.46 Peak
4	15959.920	54.94	-8.60	63.54	39.26	37.69	7.46	29.46 AVERAGE

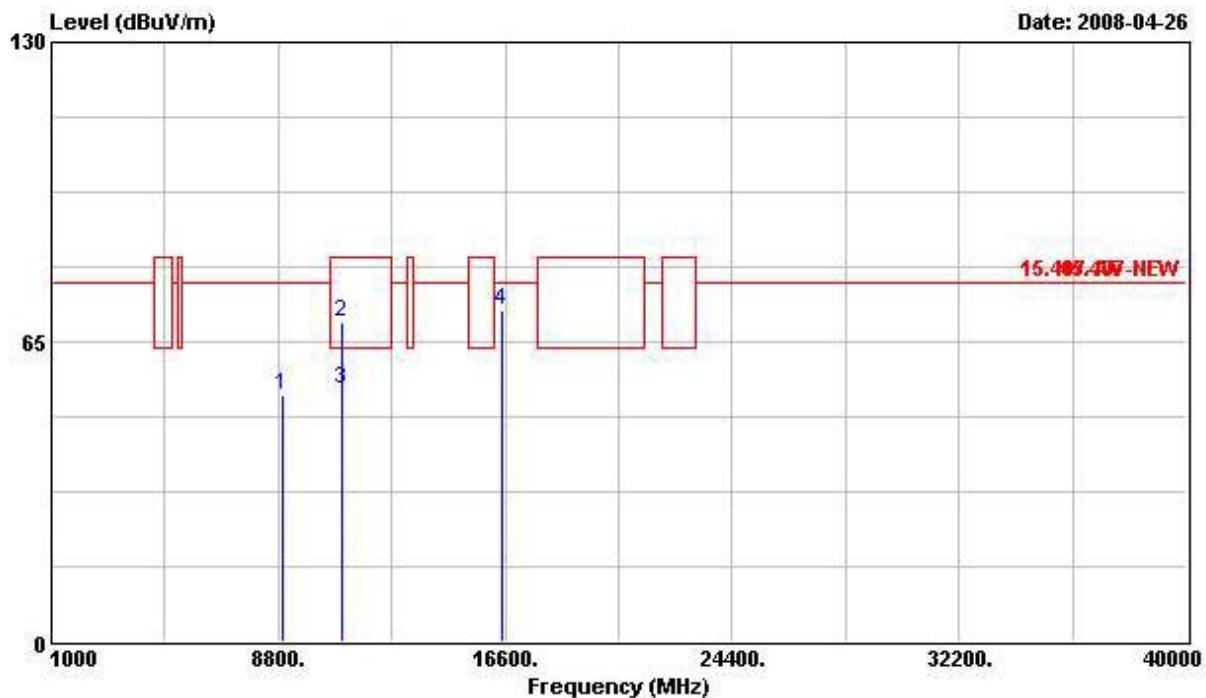
*Vertical*

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	Line	dBuV	dB/m	
1	8964.000	53.39	-24.45	77.84	42.96	38.57	4.67	32.81 PEAK
2	10638.920	75.99	-7.55	83.54	61.24	39.22	6.34	30.81 Peak
3	10638.920	60.37	-3.17	63.54	45.62	39.22	6.34	30.81 AVERAGE
4	15961.900	74.18	-9.36	83.54	58.50	37.69	7.46	29.46 Peak
5	15961.900	59.66	-3.88	63.54	43.98	37.69	7.46	29.46 AVERAGE

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

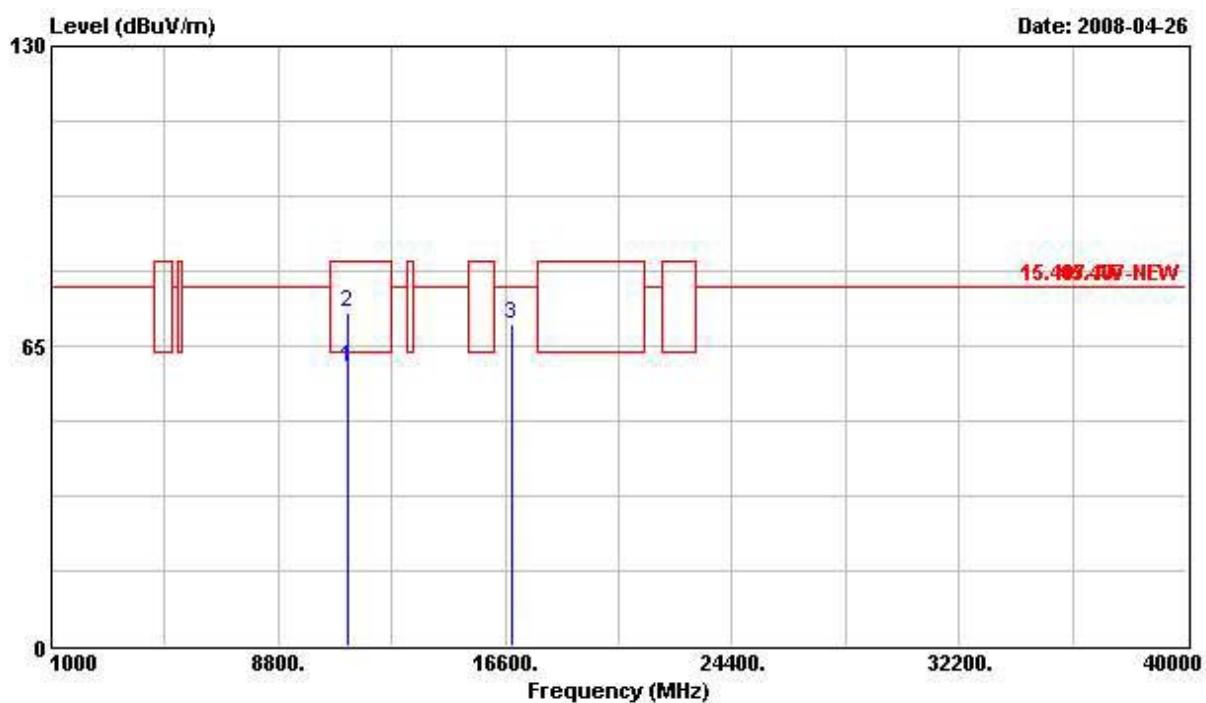
**Horizontal**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	Antenna	Level Factor	Cable Loss	Preamp Factor	
1	10999.500	59.52	-4.02	63.54	43.78	39.00	6.55	29.81 AVERAGE
2	10999.500	77.24	-6.30	83.54	61.50	39.00	6.55	29.81 Peak
3	16500.500	73.88	-3.96	77.84	56.80	39.00	7.52	29.44 PEAK

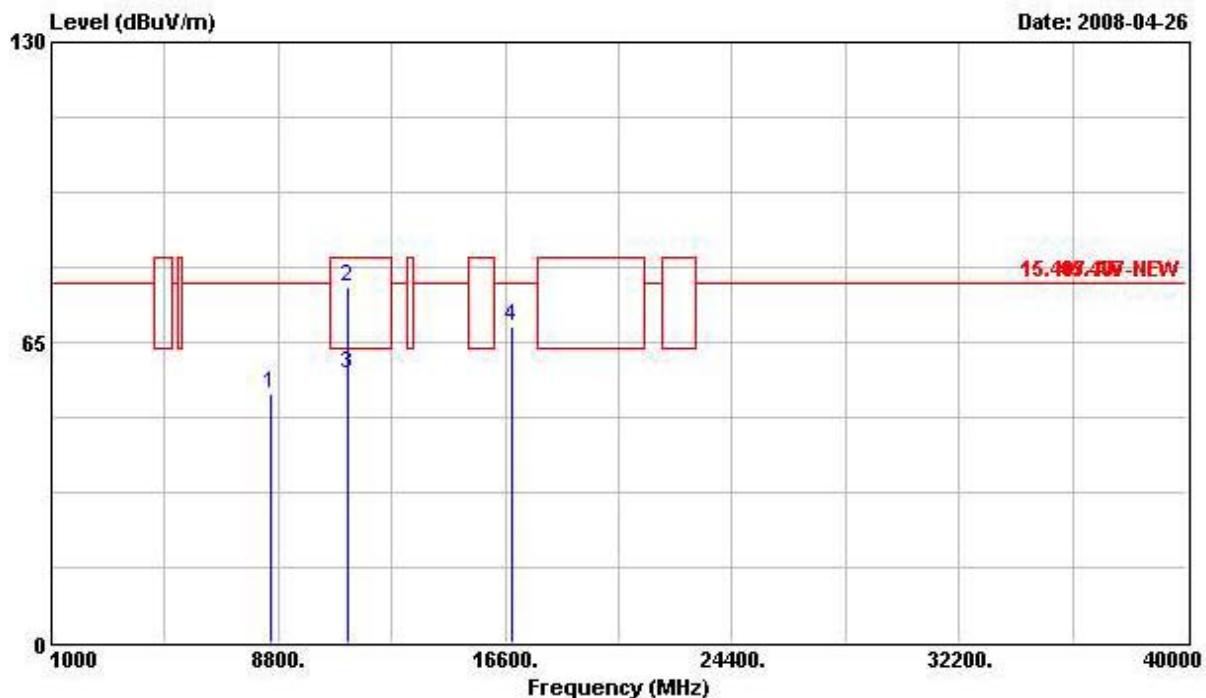
**Vertical**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	dB	dBuV/m	dBuV	dB/m	dB	
MHz	dBuV/m							
1	8948.000	53.56	-24.28	77.84	43.12	38.57	4.67	32.81 PEAK
2	11000.500	69.47	-14.07	83.54	53.73	39.00	6.55	29.81 Peak
3	11000.500	54.88	-8.66	63.54	39.14	39.00	6.55	29.81 Average
4	16506.600	71.72	-6.12	77.84	54.64	39.00	7.52	29.44 PEAK

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

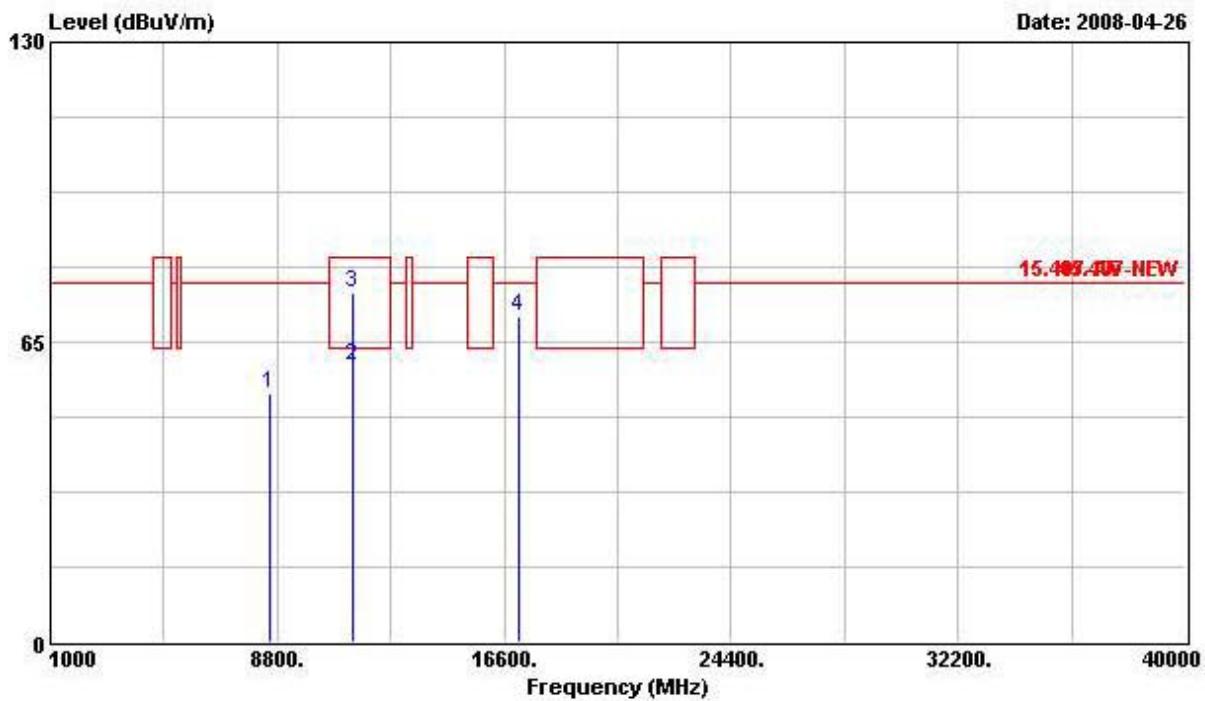
**Horizontal**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	Antenna	Level Factor	Cable Loss	Preamp Factor	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	11199.900	60.24	-3.30	63.54	45.17	39.28	6.66	30.86 AVERAGE
2	11199.900	72.43	-11.11	83.54	57.36	39.28	6.66	30.86 Peak
3	16797.600	69.65	-8.19	77.84	50.49	40.35	7.67	28.85 PEAK

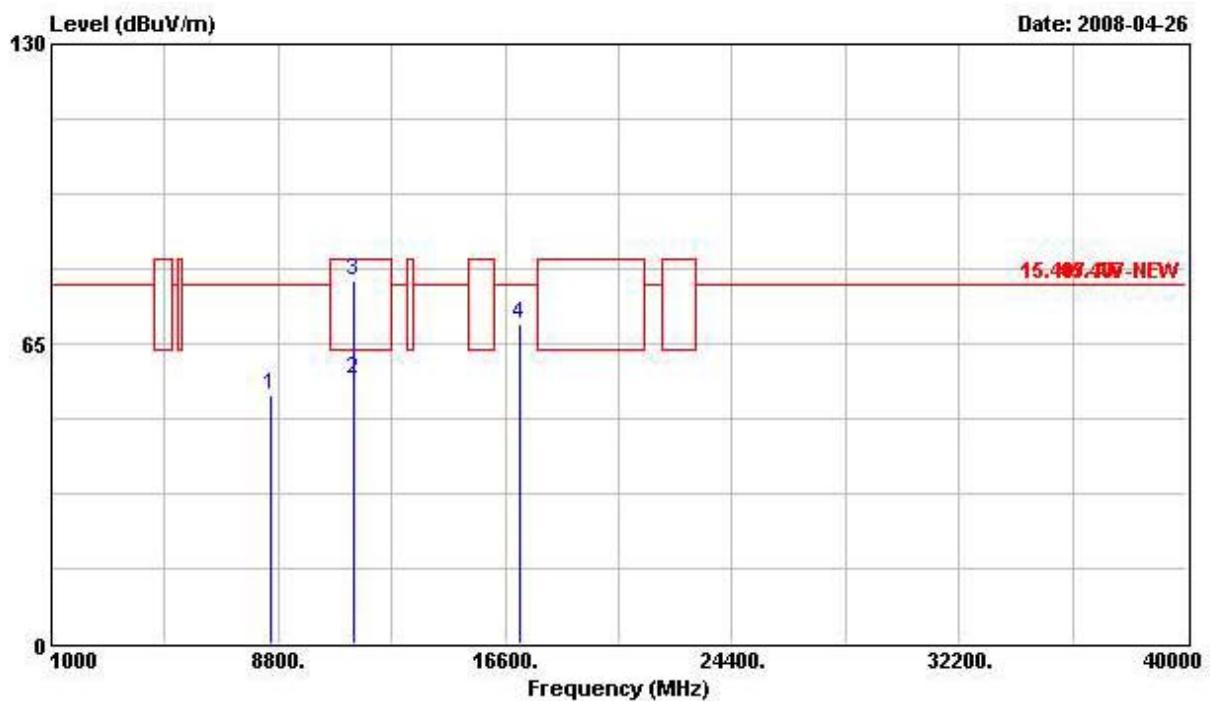
*Vertical*

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Limit	Line	Level	Factor	dB	dB	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8564.000	54.05	-23.79	77.84	43.17	38.34	5.35	32.81 PEAK
2	11200.100	77.07	-6.47	83.54	62.00	39.28	6.66	30.86 Peak
3	11200.100	58.07	-5.47	63.54	43.00	39.28	6.66	30.86 Average
4	16798.100	68.53	-9.31	77.84	49.37	40.35	7.67	28.85 PEAK

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

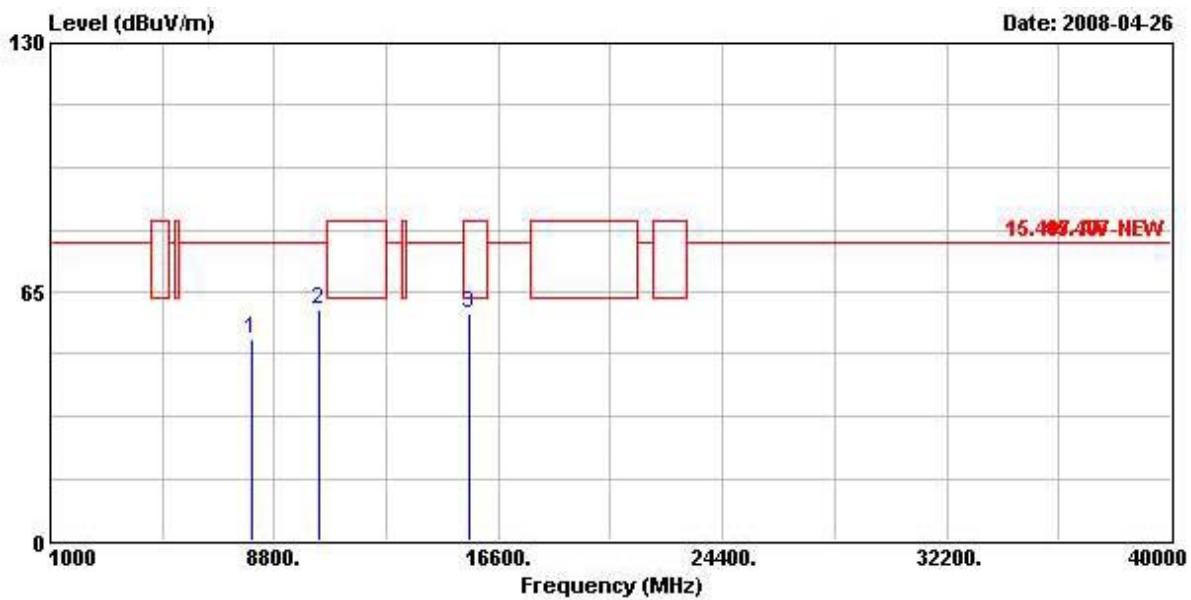
**Horizontal**

Freq	Level	Over Limit	Limit Line	Read		Antenna Factor	Cable Loss	Preamp Factor	Remark
				MHz	dBuV/m				
1	8552.000	53.73	-24.11	77.84	42.86	38.33	5.35	32.81	PEAK
2	11399.400	59.69	-3.85	63.54	45.31	39.56	6.75	31.92	AVERAGE
3	11399.400	75.64	-7.90	83.54	61.25	39.56	6.75	31.92	Peak
4	17100.000	70.52	-7.32	77.84	49.12	42.14	7.79	28.53	PEAK

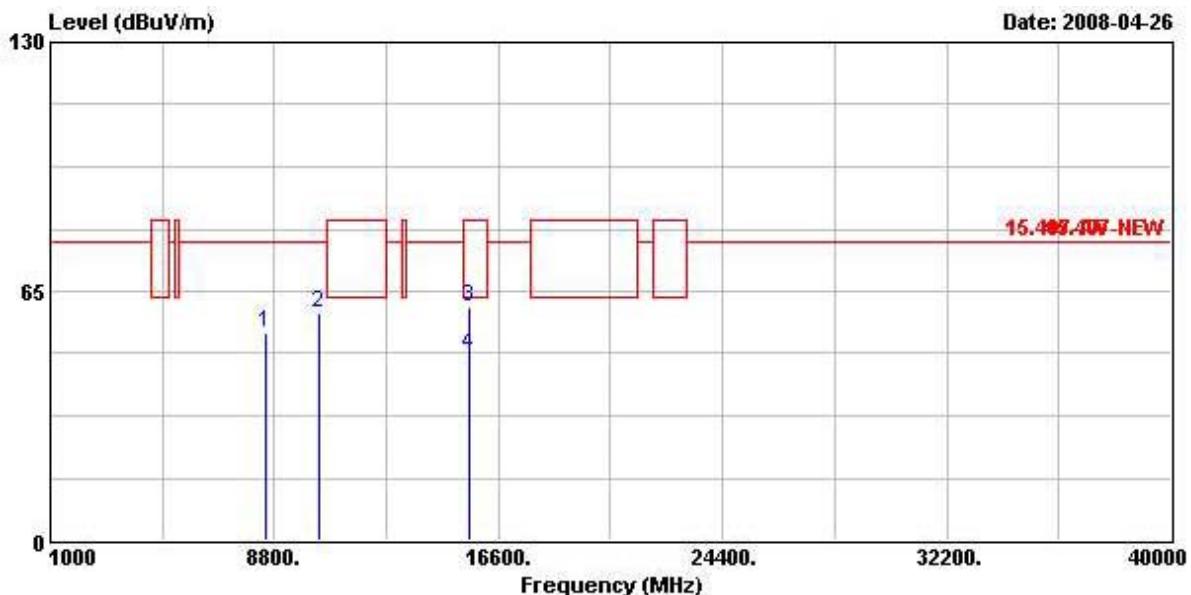
*Vertical*

Freq	Level	Over Limit	Limit Line	Read Antenna		Cable Loss	Preamp Factor	Remark
				dB	dBuV/m			
1	8548.000	53.83	-24.01	77.84	42.96	38.33	5.35	32.81 PEAK
2	11399.340	57.42	-6.12	63.54	43.03	39.56	6.75	31.92 AVERAGE
3	11399.340	78.52	-5.02	83.54	64.13	39.56	6.75	31.92 Peak
4	17100.900	69.22	-8.62	77.84	47.82	42.14	7.79	28.53 PEAK

<b>Test date</b>	Apr. 26, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 38 (40MHz)

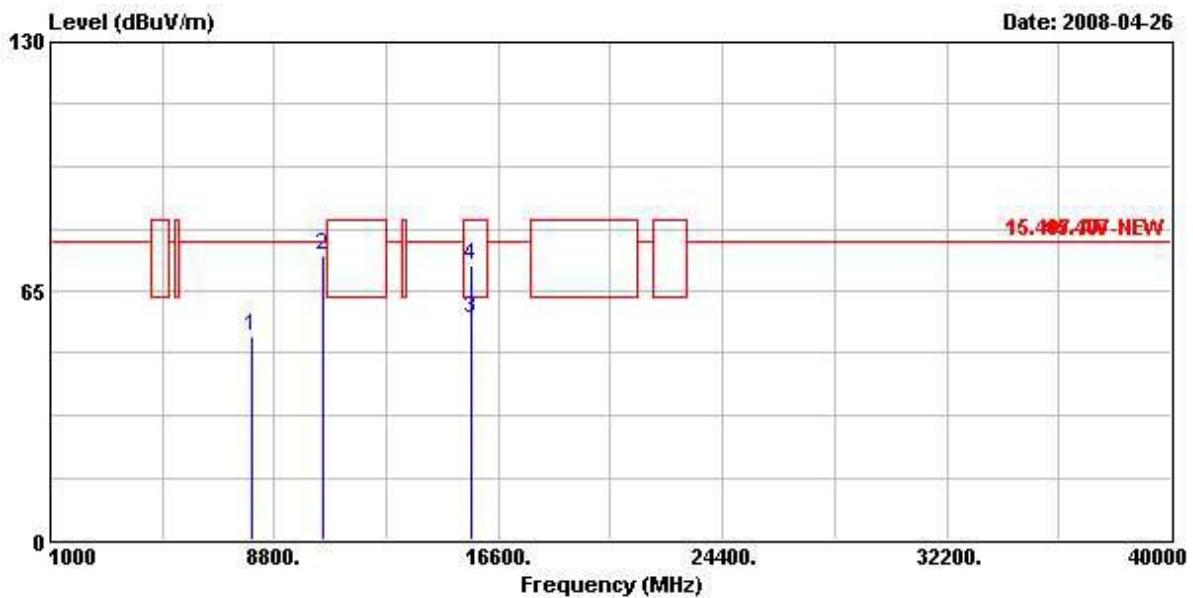
**Horizontal**

Freq MHz	Level dBuV/m	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Limit	Line	Level	Factor	Loss	Factor	
1 8024.000	52.54	-25.30	77.84	42.80	37.82	4.71	32.79	PEAK
2 10380.000	60.11	-17.73	77.84	46.24	39.32	6.14	31.59	PEAK
3 @ 15570.000	59.44	-4.10	63.54	44.21	37.53	7.38	29.68	PK

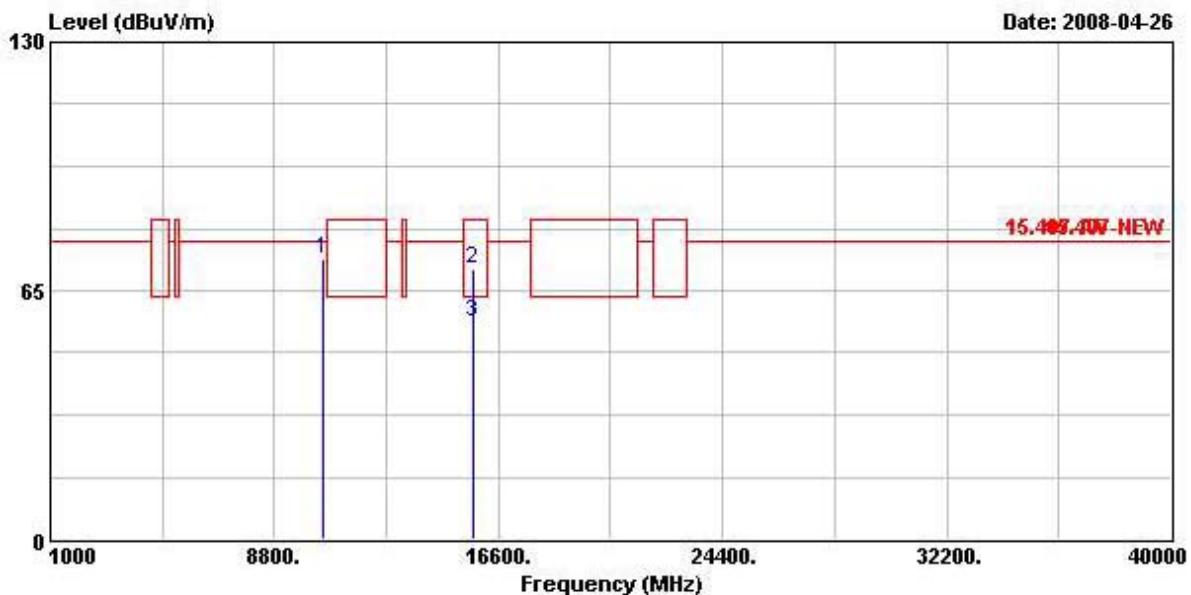
*Vertical*

Freq	Level	Over Limit		Read Antenna		Cable	Preamp	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	8512.000	54.23	-23.61	77.84	43.31	38.31	5.42	32.81 PEAK
2	10384.000	59.43	-18.41	77.84	45.56	39.32	6.14	31.59 PEAK
3	15566.000	60.77	-22.77	83.54	45.54	37.53	7.38	29.68 PEAK
4	15566.000	48.68	-14.86	63.54	33.45	37.53	7.38	29.68 Average

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

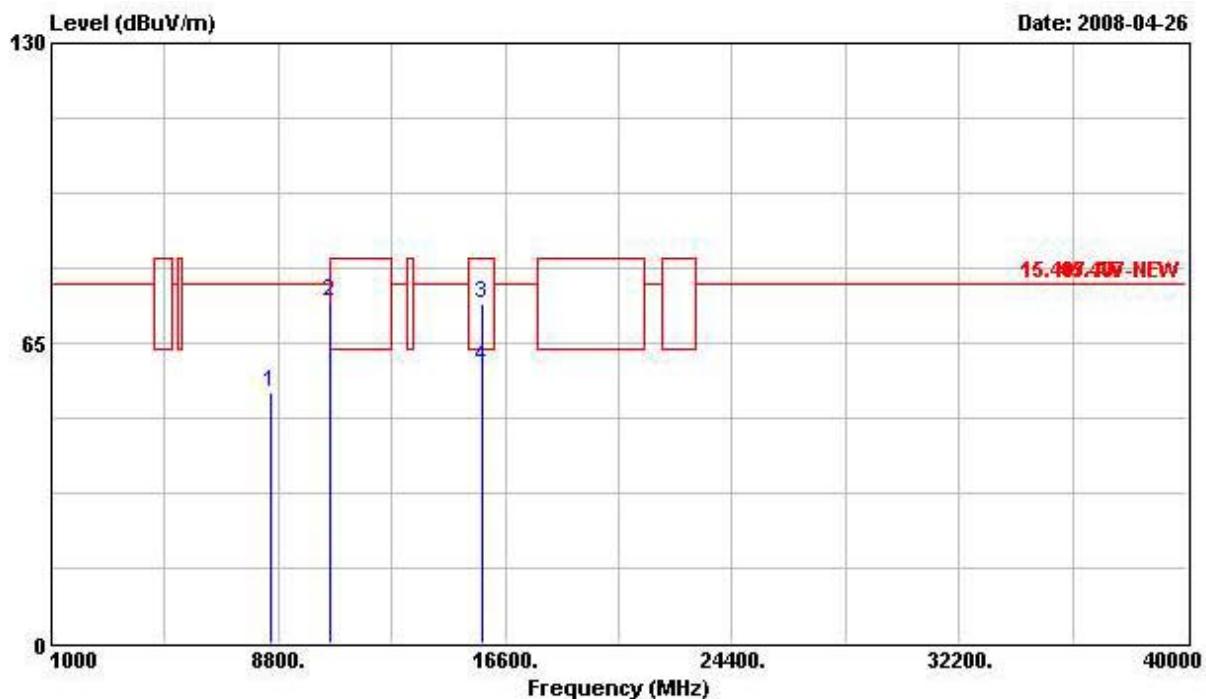
**Horizontal**

Freq	Level	Over Limit		Read Line		Antenna Factor	Cable Loss	Preamp Factor	Remark
		MHz	dBuV/m	dB	dBuV/m				
1	8024.000	53.21	-24.63	77.84	43.47	37.82	4.71	32.79	PEAK
2 @	10460.000	74.04	-3.80	77.84	59.84	39.31	6.23	31.34	PEAK
3	15680.800	57.67	-5.87	63.54	42.30	37.58	7.40	29.61	AVERAGE
4	15680.800	71.49	-12.05	83.54	56.12	37.58	7.40	29.61	Peak

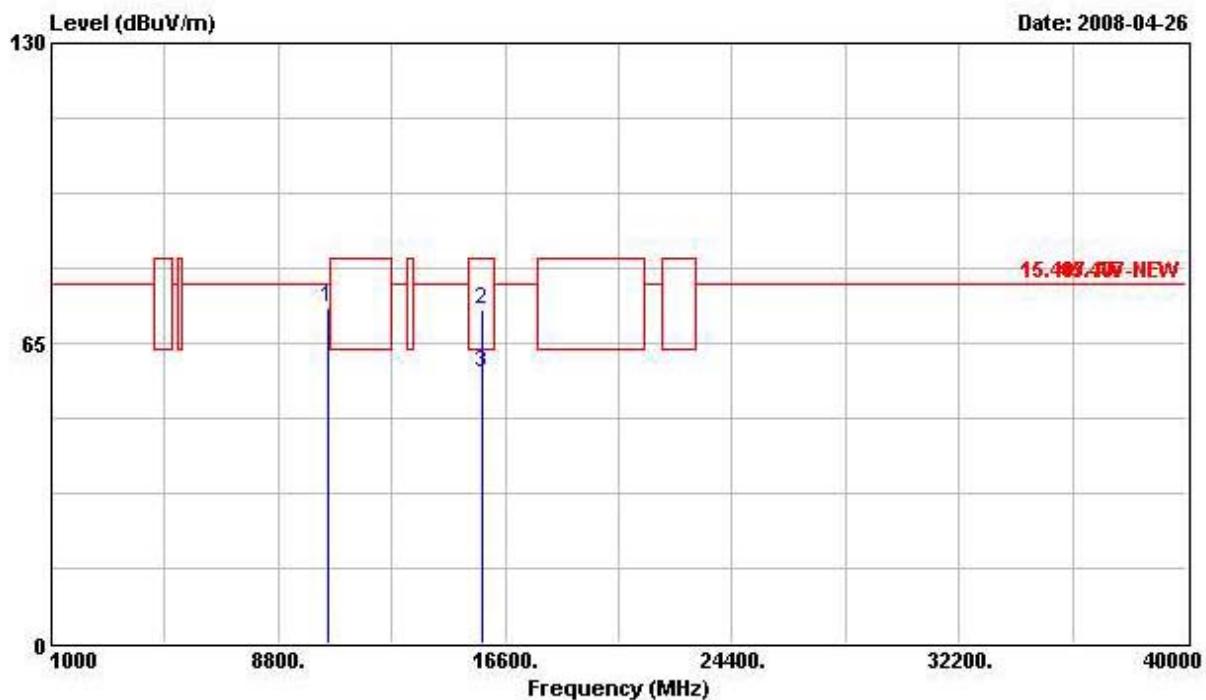
*Vertical*

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Limit	Line	dBuV	dB/m	dB	dB	
MHz	dBuV/m	dB	dBuV/m					
1	10460.000	73.04	-4.80	77.84	58.84	39.31	6.23	31.34 PEAK
2	15690.800	70.48	-13.06	83.54	55.11	37.58	7.40	29.61 Peak
3	15690.800	56.92	-6.62	63.54	41.56	37.58	7.40	29.61 AVERAGE

<b>Test date</b>	Apr. 26, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 54 (40MHz)

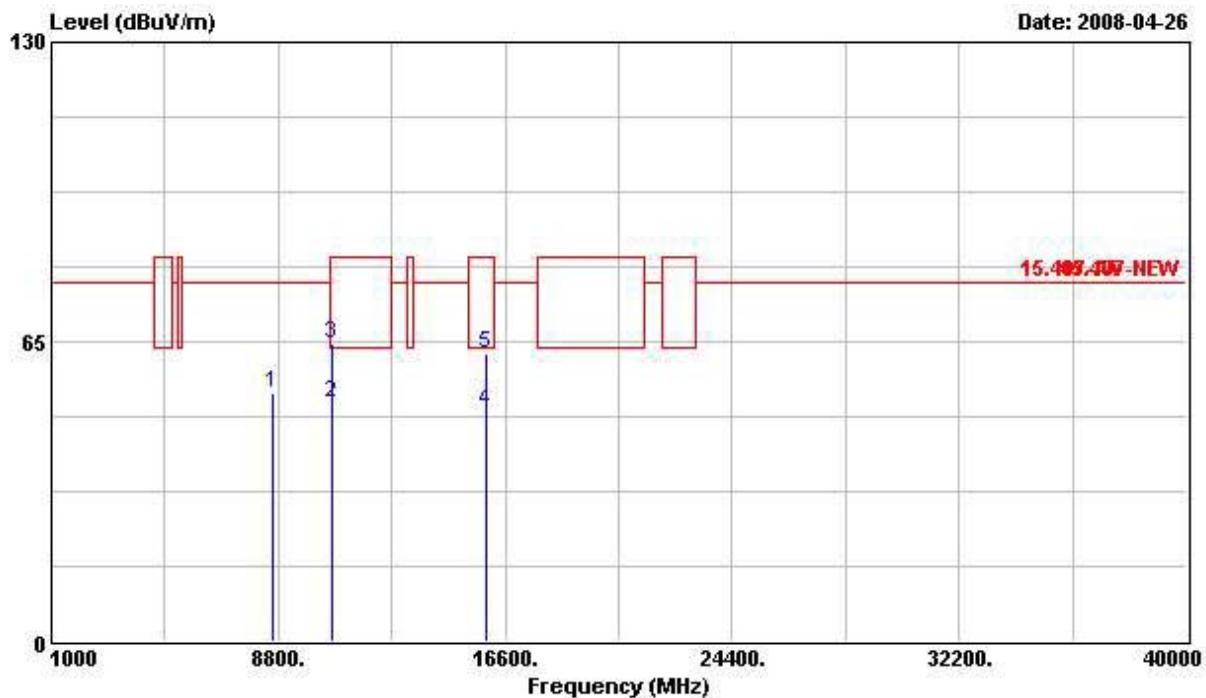
**Horizontal**

Freq MHz	Level dBuV/m	Over Limit	Limit dB	Read dBuV	Antenna Level dB	Cable Loss dB	Preamp Factor	Remark
		Line	dB	dB	dB/m	dB	dB	
1 8564.000	54.20	-23.64	77.84	43.31	38.34	5.35	32.81	PEAK
2 10548.000	74.07	-3.77	77.84	59.60	39.27	6.30	31.10	PEAK
3 15810.800	73.62	-9.92	83.54	58.11	37.62	7.43	29.54	Peak
4 15810.800	59.72	-3.82	63.54	44.21	37.62	7.43	29.54	AVERAGE

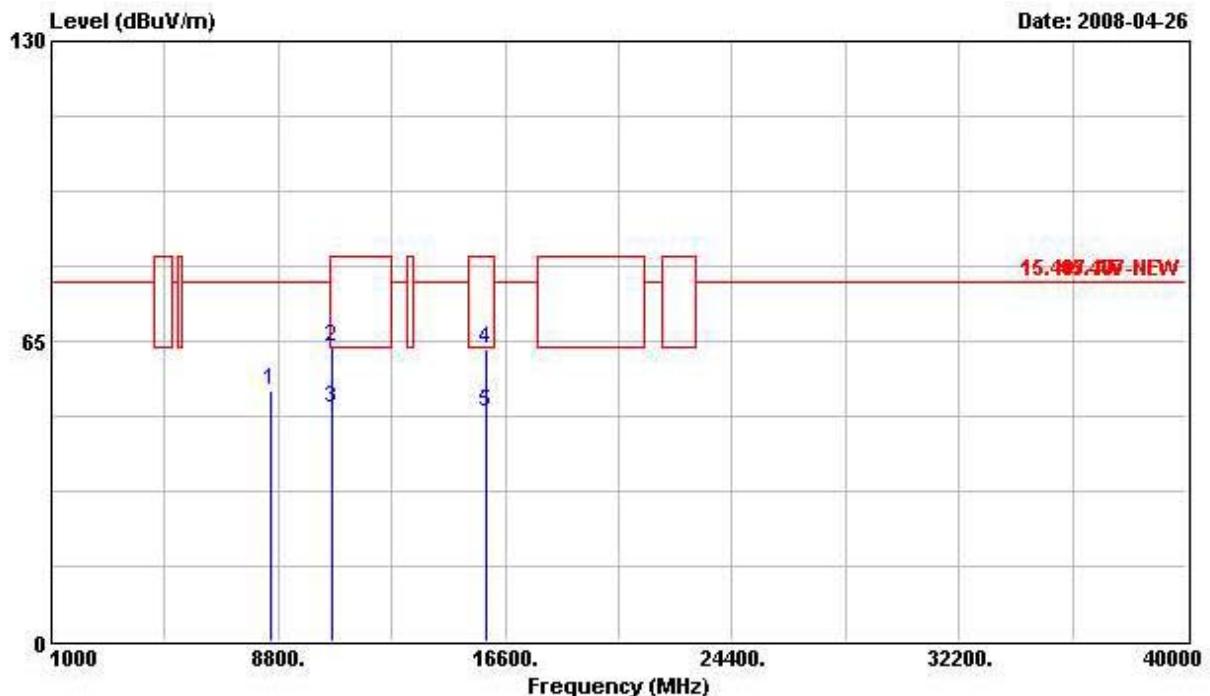
*Vertical*

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	dBuV	dB/m	dB	dB	
MHz	dBuV/m	dB	dBuV/m					
1	10544.000	72.57	-5.27	77.84	58.09	39.28	6.30	31.10 PEAK
2	15810.400	72.14	-11.40	83.54	56.63	37.62	7.43	29.54 Peak
3	15810.400	58.63	-4.91	63.54	43.13	37.62	7.43	29.54 AVERAGE

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

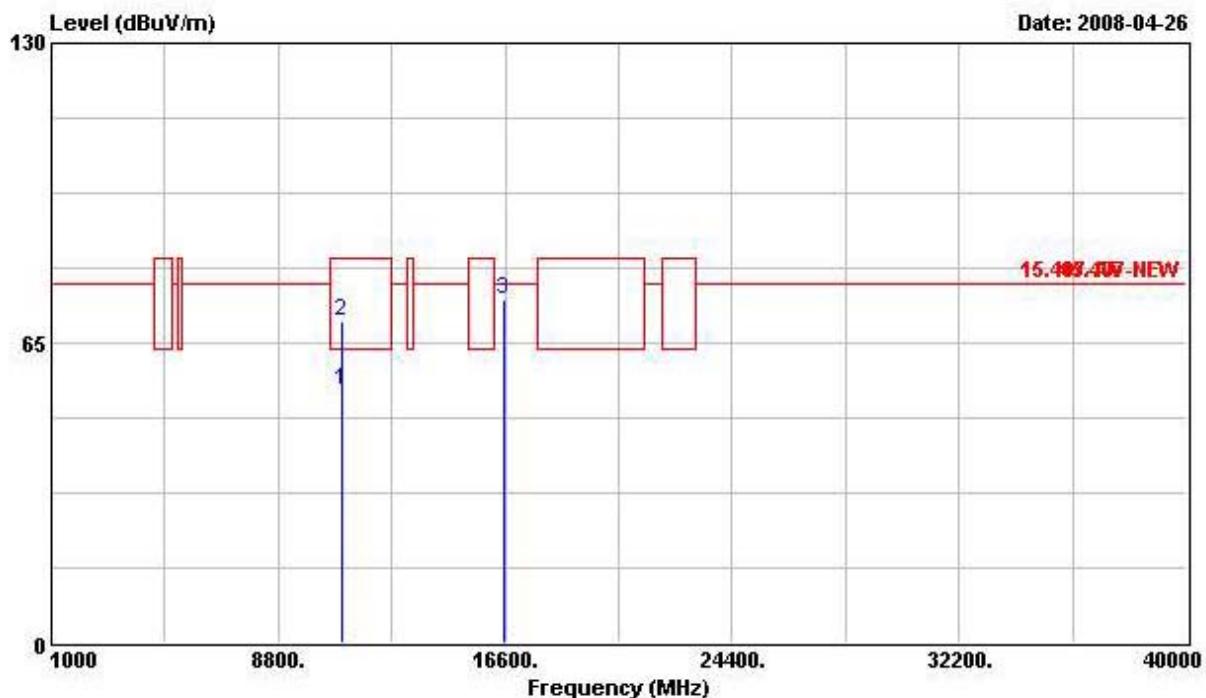
**Horizontal**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Line	Antenna	Level	Factor	Loss	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8640.000	54.01	-23.83	77.84	43.23	38.38	5.21	32.81 PEAK
2	10623.800	51.64	-11.90	63.54	36.95	39.23	6.34	30.88 Average
3	10623.800	64.60	-18.94	83.54	49.91	39.23	6.34	30.88 PEAK
4	15936.000	49.95	-13.59	63.54	34.30	37.68	7.45	29.48 Average
5	15936.000	62.43	-21.11	83.54	46.78	37.68	7.45	29.48 PEAK

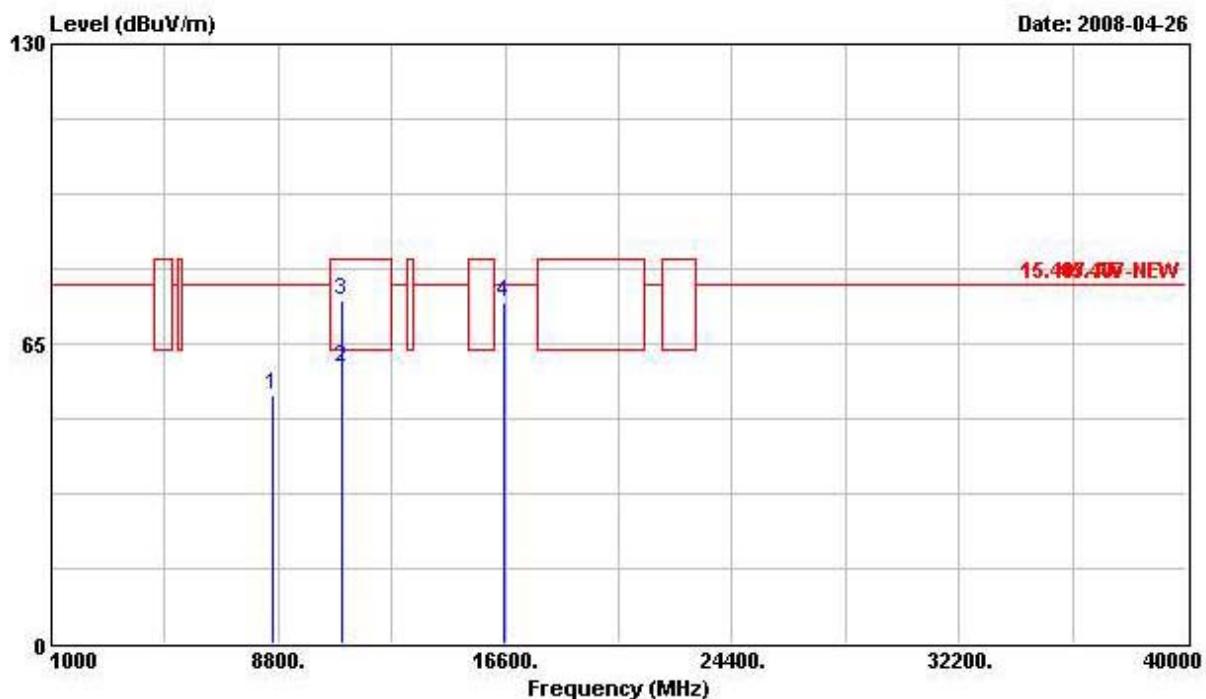
*Vertical*

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	8552.000	54.21	-23.63	77.84	43.34	38.33	5.35	32.81 PEAK
2	10615.200	63.86	-19.68	83.54	49.17	39.23	6.34	30.88 PEAK
3	10615.200	50.31	-13.23	63.54	35.62	39.23	6.34	30.88 Average
4	15935.040	63.15	-20.39	83.54	47.50	37.68	7.45	29.48 PEAK
5	15935.040	49.55	-13.99	63.54	33.90	37.68	7.45	29.48 Average

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

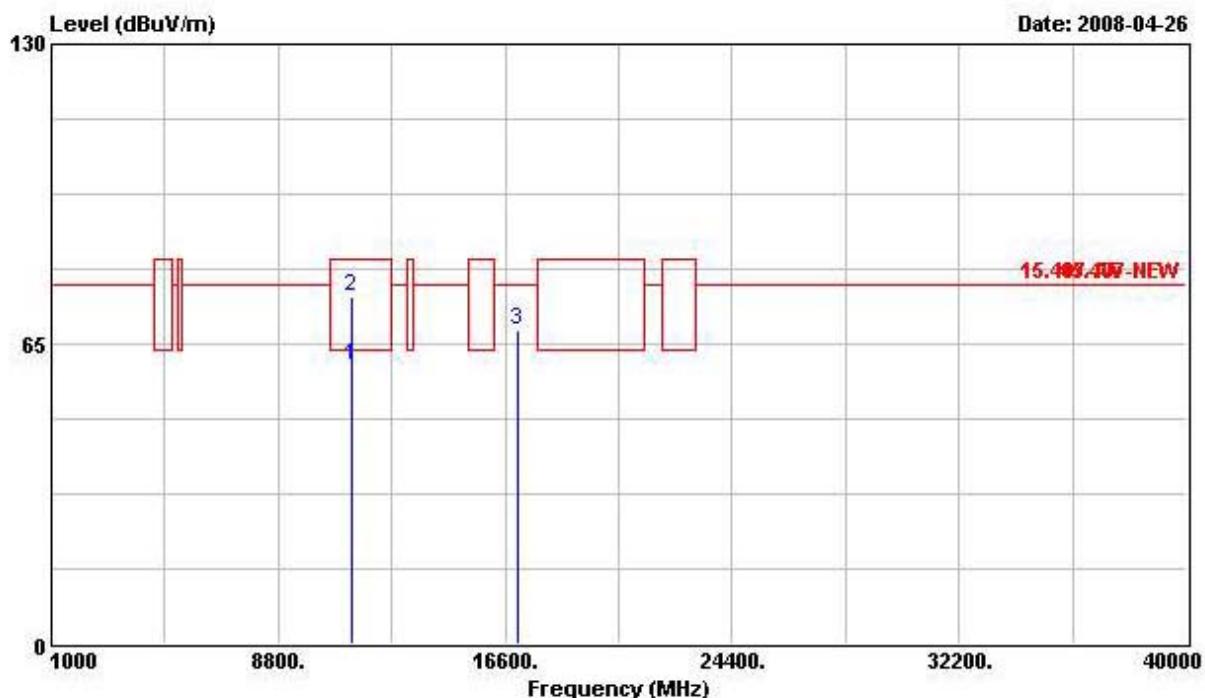
**Horizontal**

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	11019.100	54.70	-8.84	63.54	39.05	39.02	6.57	29.94 AVERAGE
2	11019.100	69.57	-13.97	83.54	53.92	39.02	6.57	29.94 Peak
3	16530.200	74.22	-3.62	77.84	56.93	39.16	7.52	29.39 PEAK

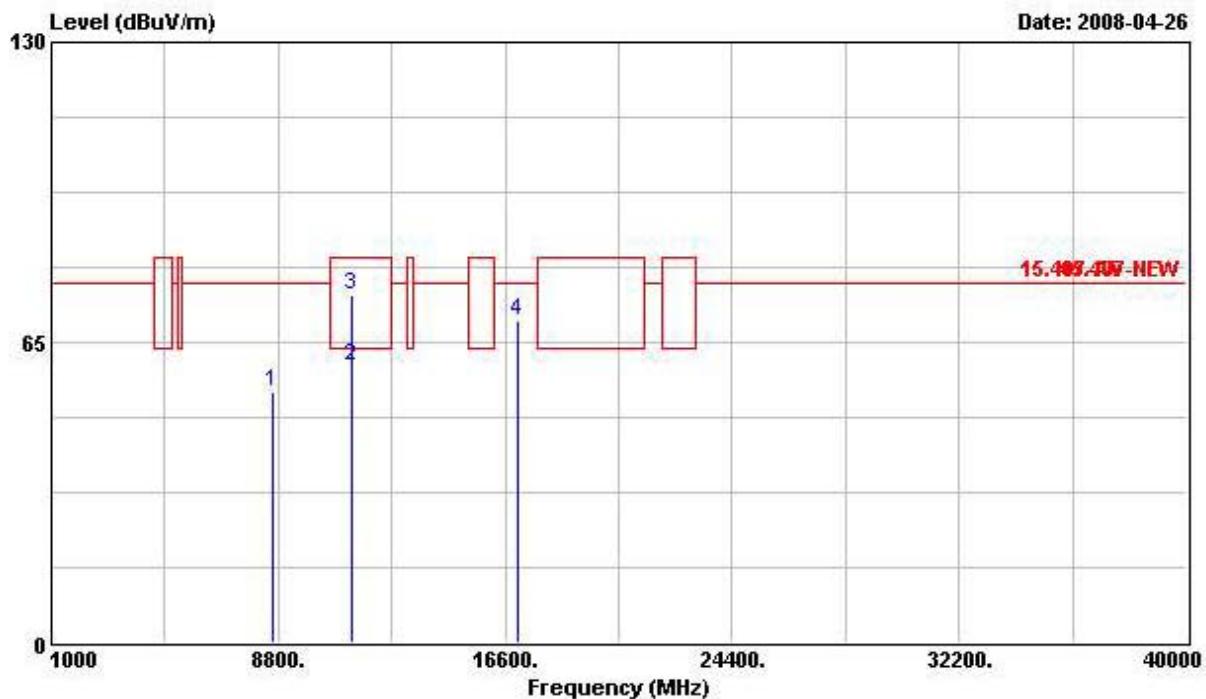
*Vertical*

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	8580.000	53.85	-23.99	77.84	42.96	38.35	5.35	32.81 PEAK
2	11019.800	60.00	-3.54	63.54	44.35	39.02	6.57	29.94 AVERAGE
3	11019.800	74.26	-9.28	83.54	58.61	39.02	6.57	29.94 Peak
4	16537.200	73.87	-3.97	77.84	56.57	39.16	7.52	29.39 PEAK

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

**Horizontal**

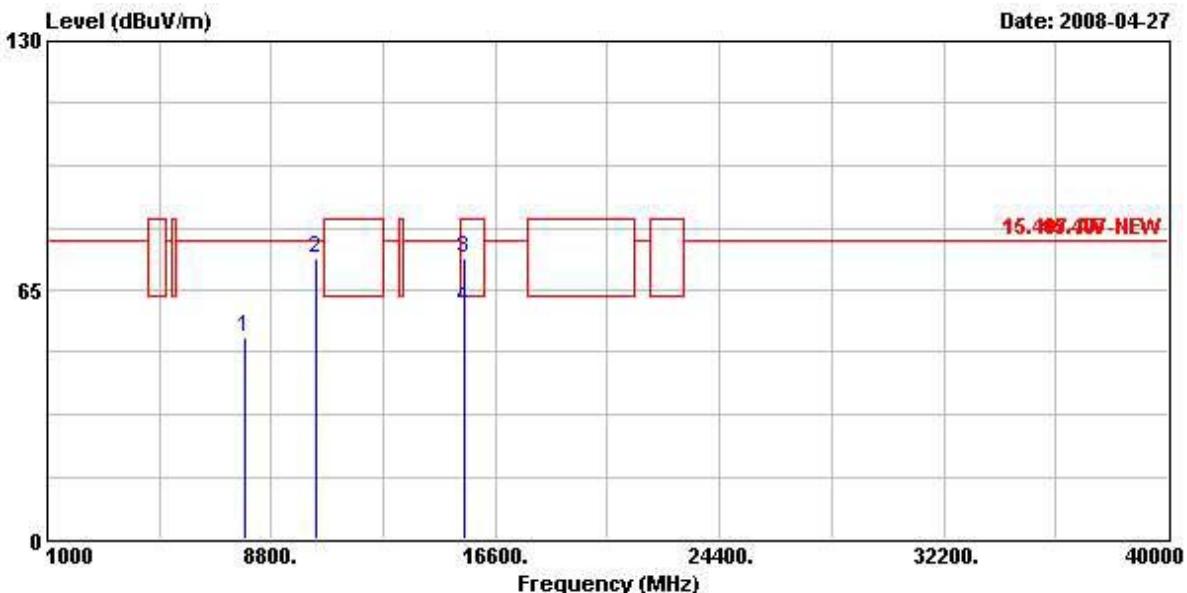
Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	Antenna	Level Factor	Cable Loss	Preamp Factor	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	11337.700	60.21	-3.33	63.54	45.55	39.47	6.71	31.52 AVERAGE
2	11337.700	75.15	-8.39	83.54	60.50	39.47	6.71	31.52 Peak
3	17010.000	67.90	-9.94	77.84	47.20	41.44	7.78	28.52 PEAK

*Vertical*

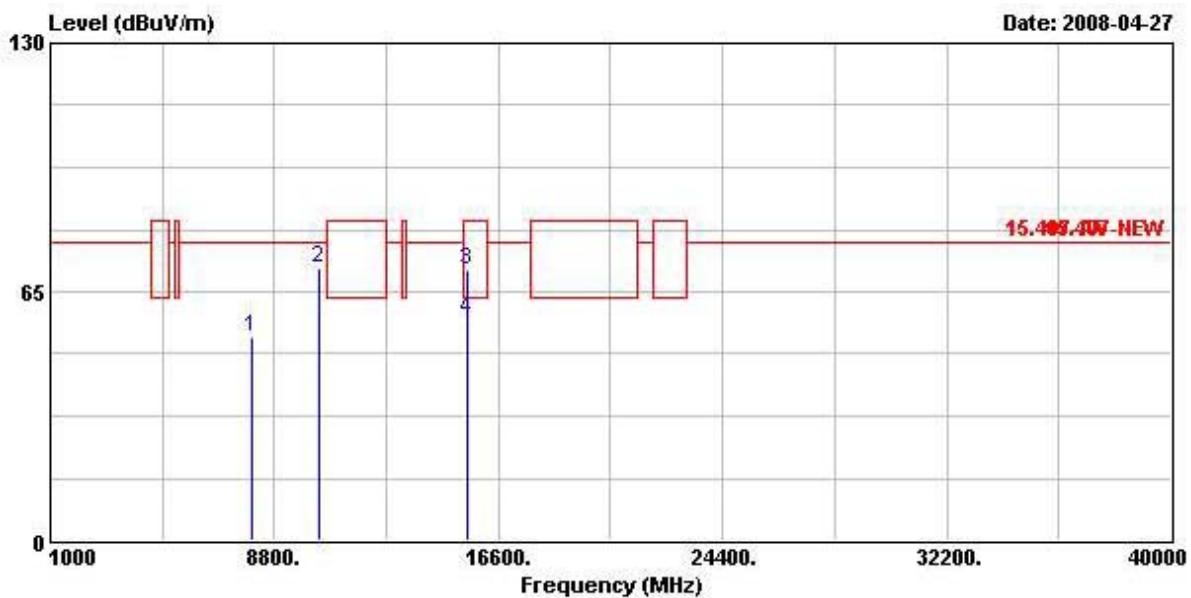
Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp
		Line	Limit	dBuV	dB/m	dB	dB
MHz	dBuV/m	dB	dBuV/m				
1	8588.000	54.10	-23.74	77.84	43.27	38.35	5.28 32.81 PEAK
2	11339.000	60.02	-3.52	63.54	45.37	39.47	6.71 31.52 AVERAGE
3	11339.000	75.35	-8.19	83.54	60.70	39.47	6.71 31.52 Peak
4	17010.000	69.59	-8.25	77.84	48.89	41.44	7.78 28.52 PEAK

For Two Chain:

<b>Test date</b>	Apr. 27, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 36 (20MHz)

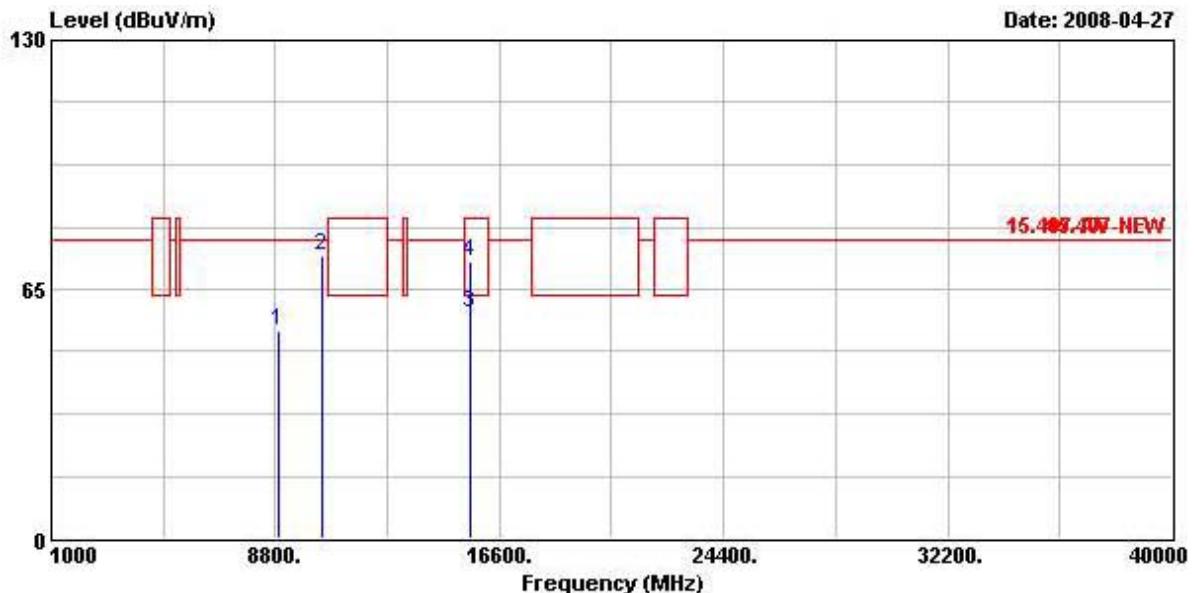
**Horizontal**

Freq	Level	Over Limit	Read Line	Antenna		Cable Loss	Preamp Factor	Remark	
				MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m
1	7896.000	52.48	-25.36	77.84	42.95	37.70	4.67	32.84	PEAK
2 @	10356.000	73.47	-4.37	77.84	59.72	39.33	6.09	31.67	PEAK
3	15537.900	73.18	-10.36	83.54	57.99	37.51	7.37	29.69	Peak
4 @	15537.900	60.10	-3.44	63.54	44.91	37.51	7.37	29.69	AVERAGE

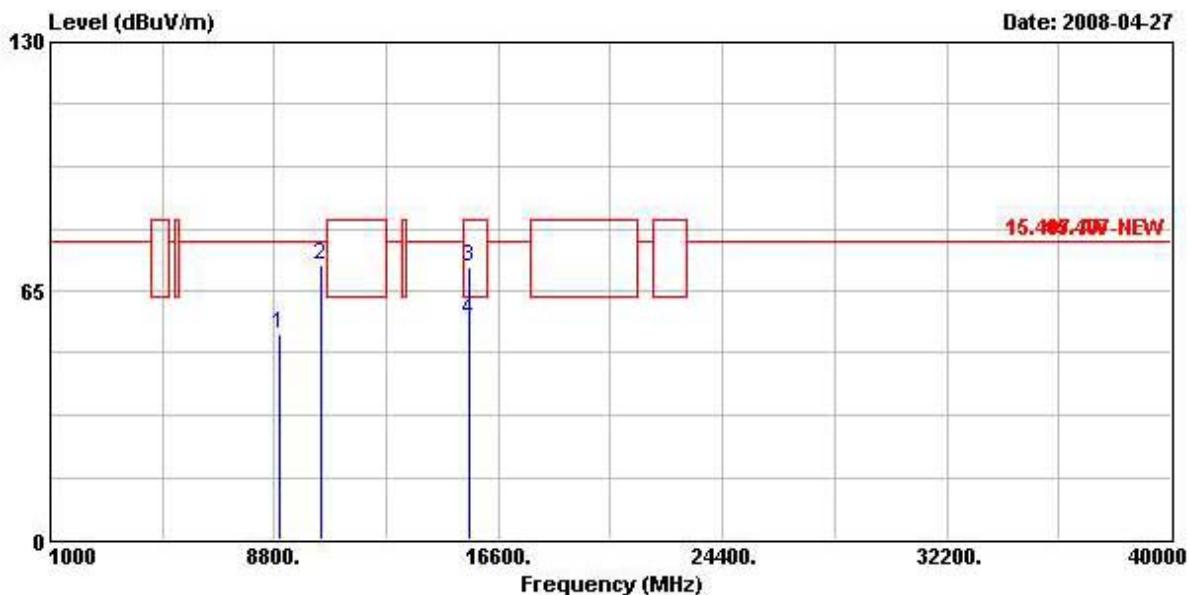
*Vertical*

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	7984.000	53.04	-24.80	77.84	43.36	37.78	4.70	32.80 PEAK
2	10352.000	71.12	-6.72	77.84	57.38	39.33	6.09	31.67 PEAK
3	15539.100	70.72	-12.82	83.54	55.53	37.51	7.37	29.69 Peak
4	15539.100	57.69	-5.85	63.54	42.50	37.51	7.37	29.69 AVERAGE

<b>Test date</b>	Apr. 27, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 40 (20MHz)

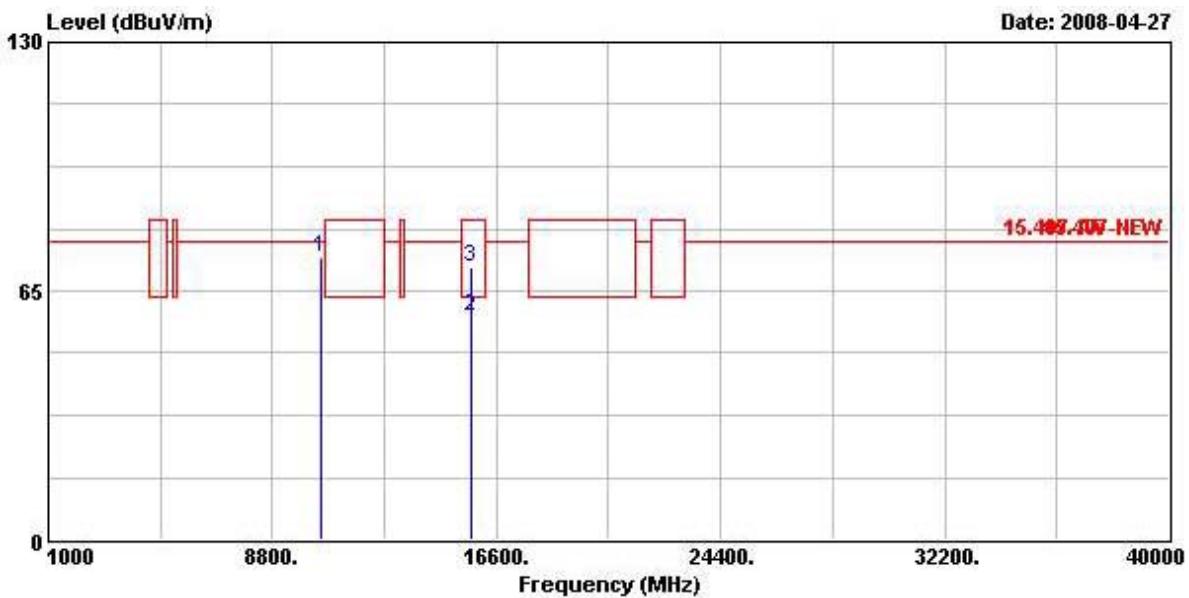
**Horizontal**

Freq	Level	Over Limit		Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	Line	Level Factor	dB/m	
1	8884.000	54.08	-23.76	77.84	43.55	38.53	4.81	32.81 PEAK
2 @	10400.000	73.97	-3.87	77.84	60.02	39.32	6.14	31.51 PEAK
3 @	15601.800	58.92	-4.62	63.54	43.64	37.54	7.39	29.65 AVERAGE
4	15601.800	72.23	-11.31	83.54	56.95	37.54	7.39	29.65 Peak

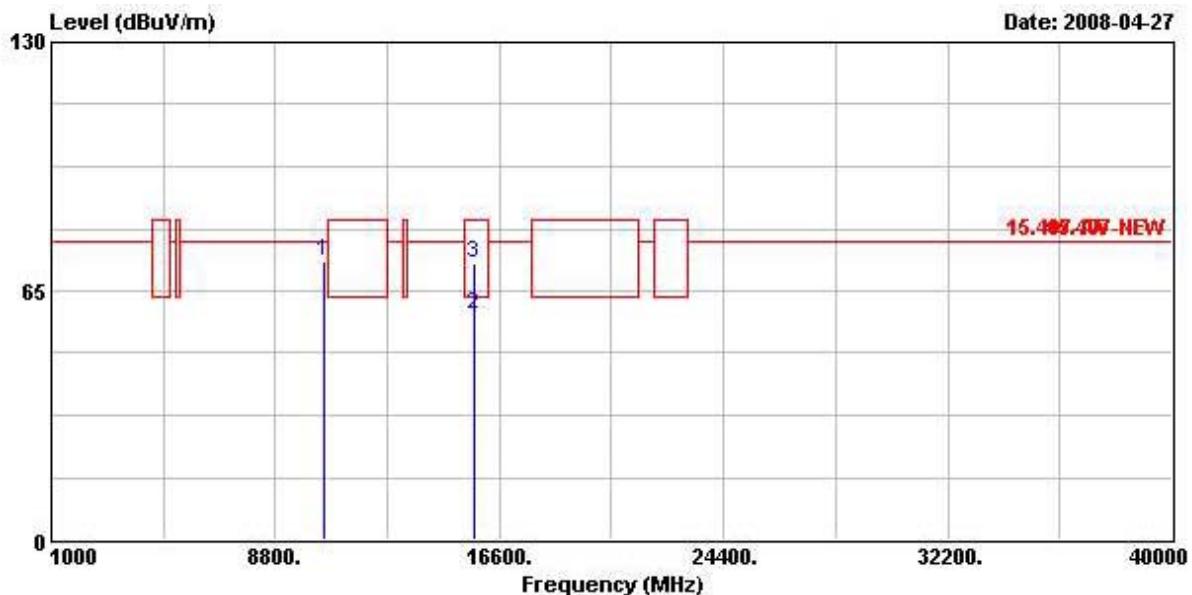
**Vertical**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Limit	Line	Antenna	Level Factor	Cable Loss	Preamp Factor	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8956.000	53.48	-24.36	77.84	43.05	38.57	4.67	32.81 PEAK
2	10404.000	71.78	-6.06	77.84	57.82	39.32	6.14	31.51 PEAK
3	15601.800	71.10	-12.44	83.54	55.82	37.54	7.39	29.65 Peak
4	15601.800	57.45	-6.09	63.54	42.18	37.54	7.39	29.65 AVERAGE

Test date	Apr. 27, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 48 (20MHz)

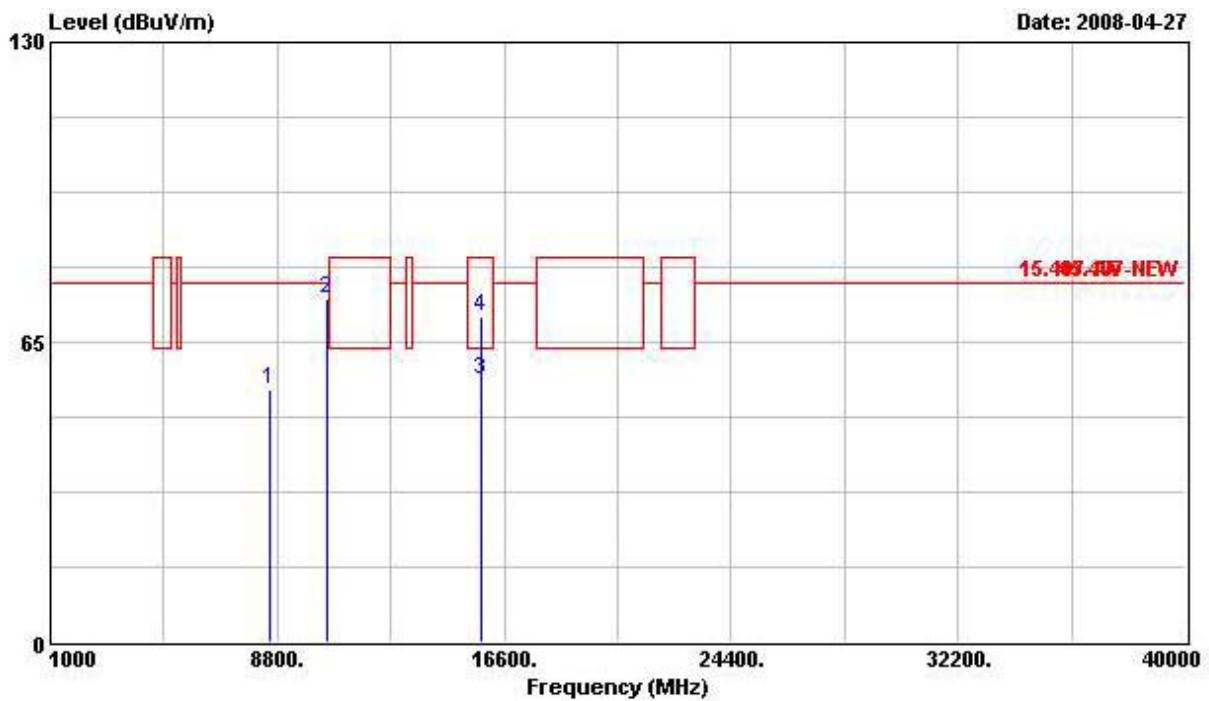
**Horizontal**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	Line	Level	Factor	
1	10480.000	73.94	-3.90	77.84	59.66	39.30	6.23	31.25 PEAK
2	15719.900	58.12	-5.42	63.54	42.72	37.59	7.41	29.60 AVERAGE
3	15719.900	71.08	-12.46	83.54	55.68	37.59	7.41	29.60 Peak

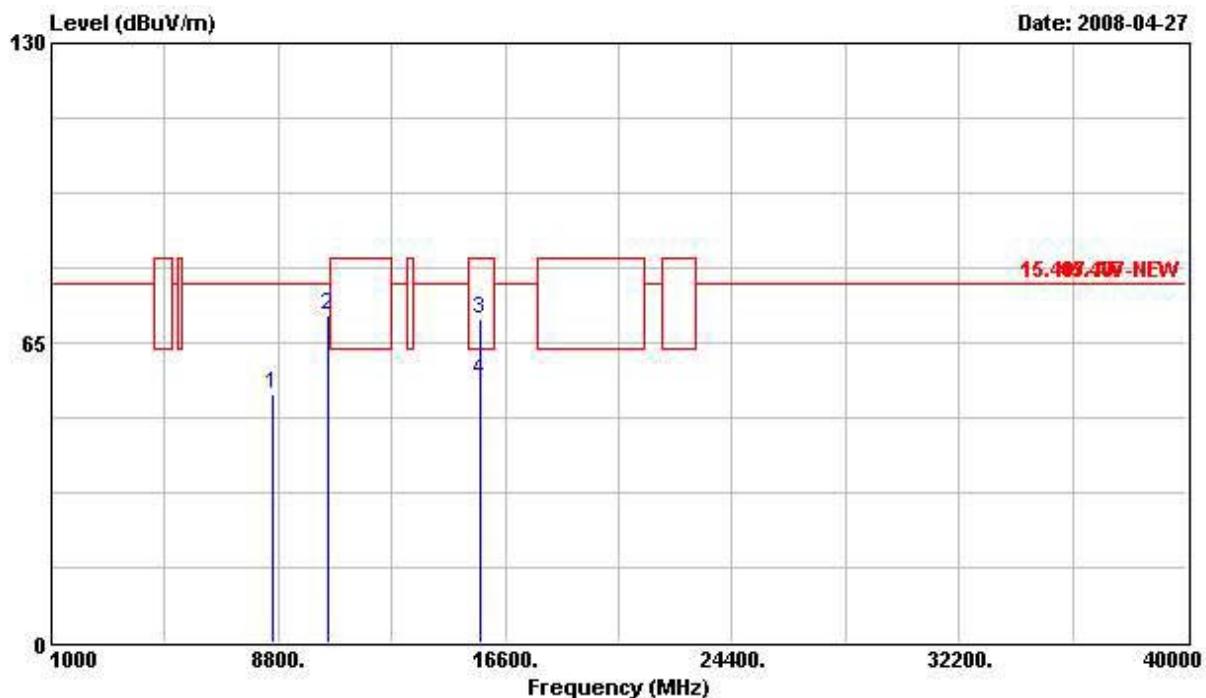
*Vertical*

Freq	Level	Over Limit	Limit Line	Read Antenna Level Factor		Cable Preamp Loss Factor		Remark
				MHz	dBuV/m	dB	dBuV/m	
1	10480.000	72.84	-5.00	77.84	58.56	39.30	6.23	31.25 PEAK
2	15722.400	58.86	-4.68	63.54	43.46	37.59	7.41	29.60 AVERAGE
3	15722.400	72.17	-11.37	83.54	56.77	37.59	7.41	29.60 Peak

<b>Test date</b>	Apr. 27, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 52 (20MHz)

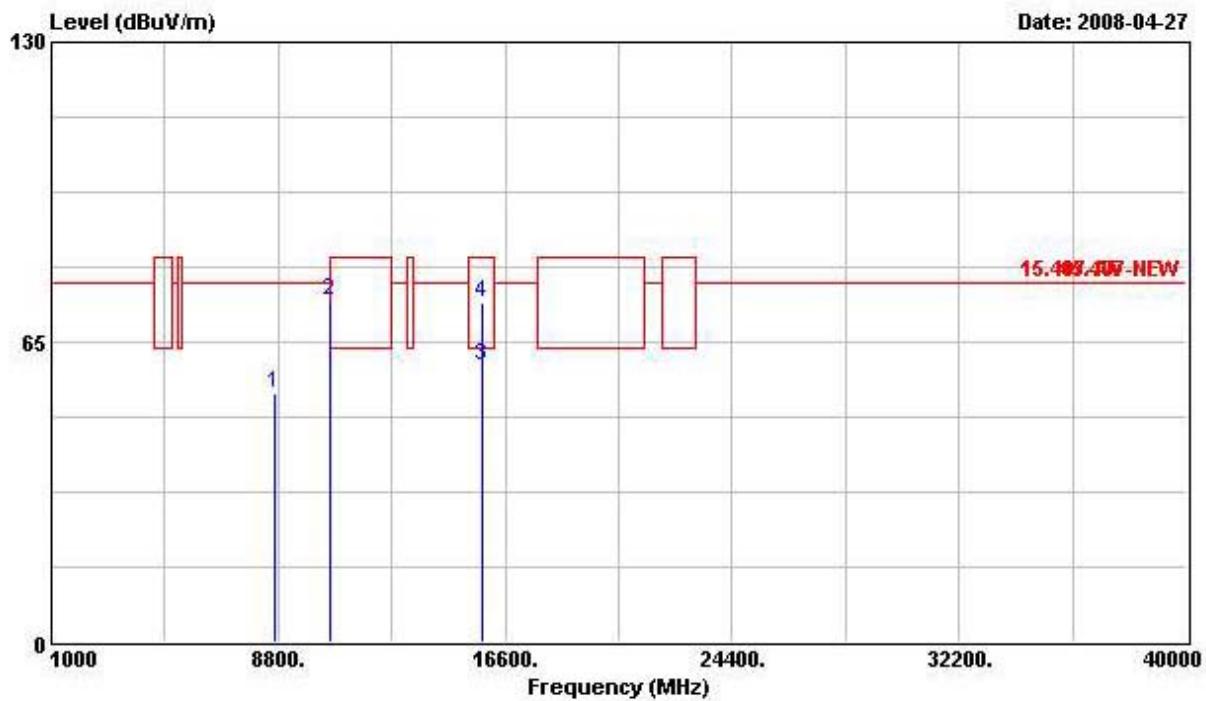
**Horizontal**

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	8532.000	54.61	-23.23	77.84	43.68	38.32	5.42	32.81 PEAK
2	10520.000	74.39	-3.45	77.84	59.99	39.29	6.28	31.17 PEAK
3	15780.000	56.87	-6.67	63.54	41.40	37.61	7.42	29.56 AVERAGE
4	15780.000	70.42	-13.12	83.54	54.95	37.61	7.42	29.56 Peak

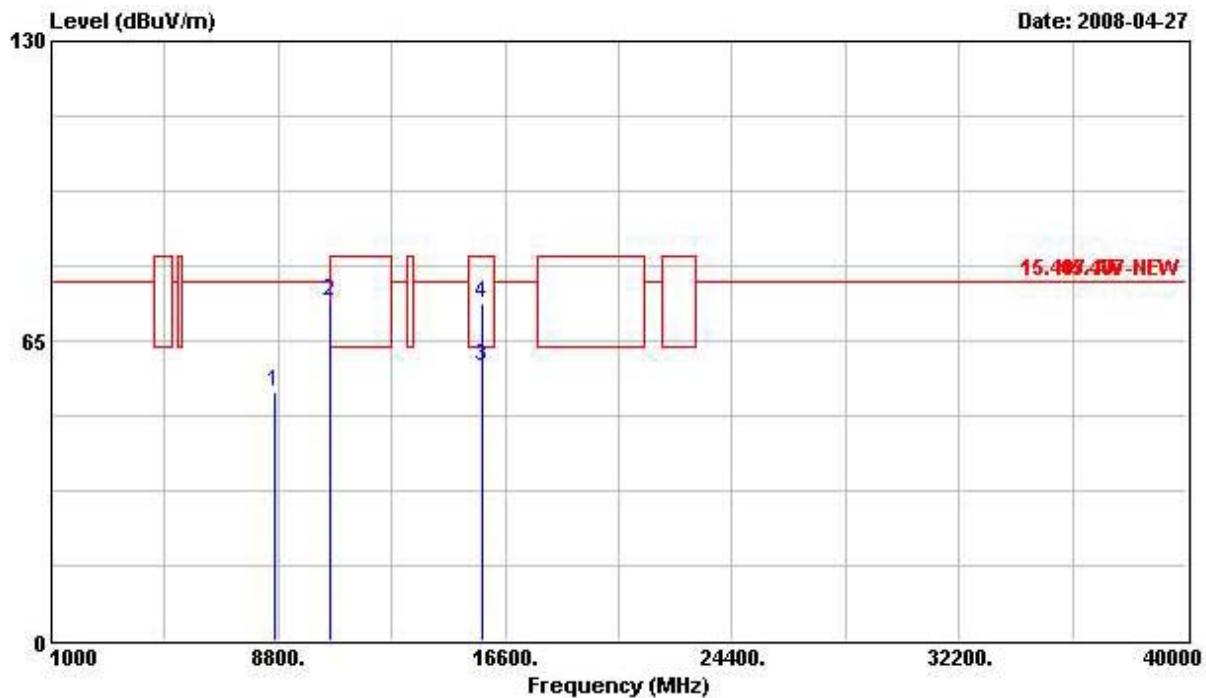
*Vertical*

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	8584.000	53.84	-24.00	77.84	43.01	38.35	5.28	32.81 PEAK
2	10520.000	71.07	-6.77	77.84	56.68	39.29	6.28	31.17 PEAK
3	15777.100	69.97	-13.57	83.54	54.51	37.61	7.42	29.57 Peak
4	15777.100	56.82	-6.72	63.54	41.36	37.61	7.42	29.57 AVERAGE

<b>Test date</b>	Apr. 27, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 56 (20MHz)

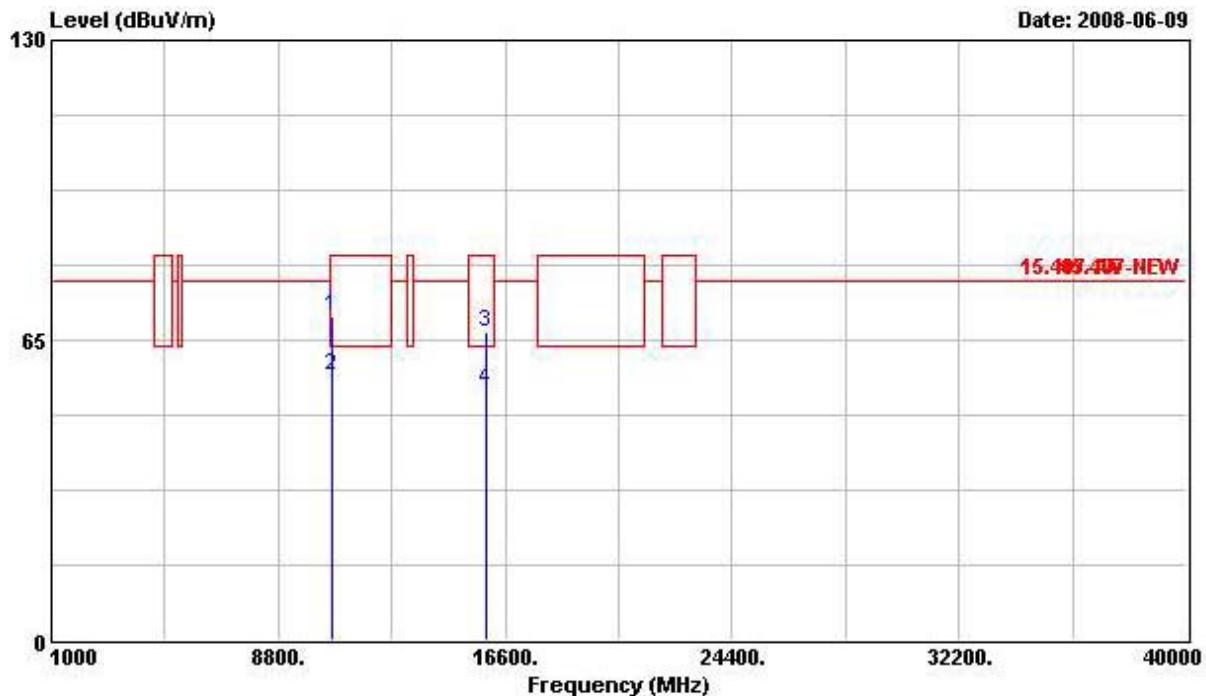
**Horizontal**

Freq	Level	Over Limit	Limit Line	Read		Antenna Factor	Cable Loss	Preamp Factor	Remark
				MHz	dBuV/m				
1	8664.000	53.69	-24.15	77.84	42.95	38.40	5.15	32.81	PEAK
2	10560.000	73.94	-3.90	77.84	59.40	39.27	6.30	31.03	PEAK
3	15838.100	59.78	-3.76	63.54	44.24	37.64	7.43	29.53	AVERAGE
4	15838.100	73.59	-9.95	83.54	58.05	37.64	7.43	29.53	Peak

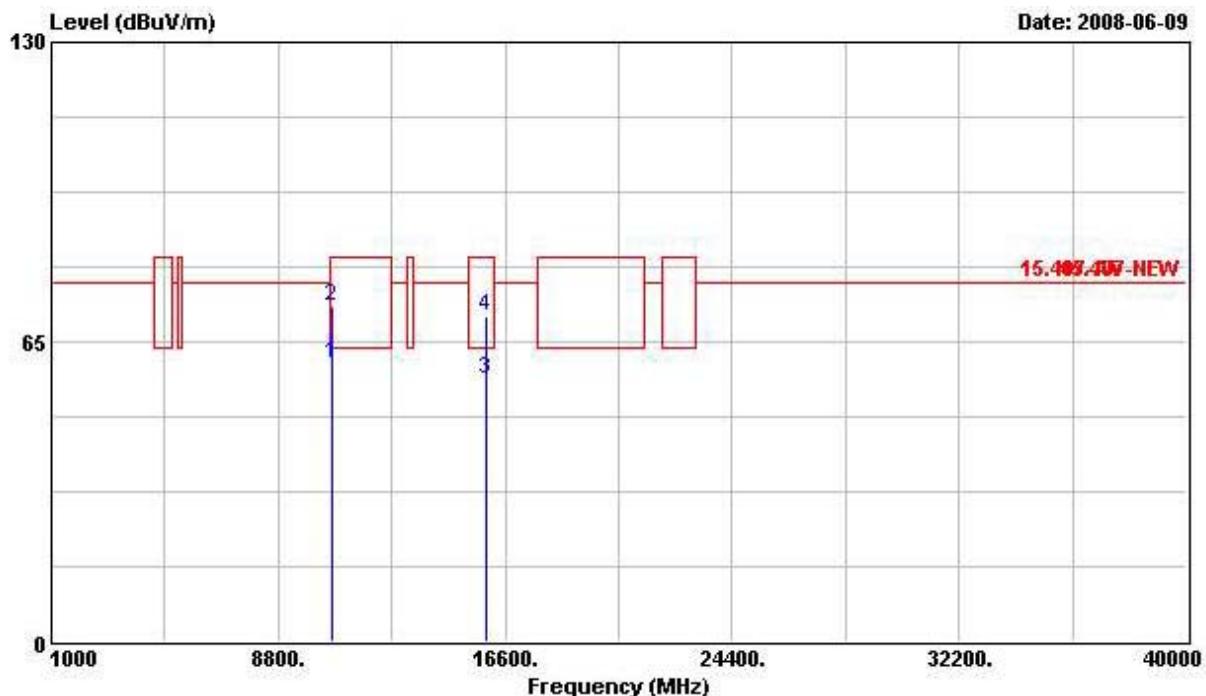
*Vertical*

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	8664.000	53.73	-24.11	77.84	42.99	38.40	5.15	32.81 PEAK
2	10560.000	73.52	-4.32	77.84	58.98	39.27	6.30	31.03 PEAK
3	15841.100	59.54	-4.00	63.54	44.00	37.64	7.43	29.53 AVERAGE
4	15841.100	73.27	-10.27	83.54	57.73	37.64	7.43	29.53 Peak

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

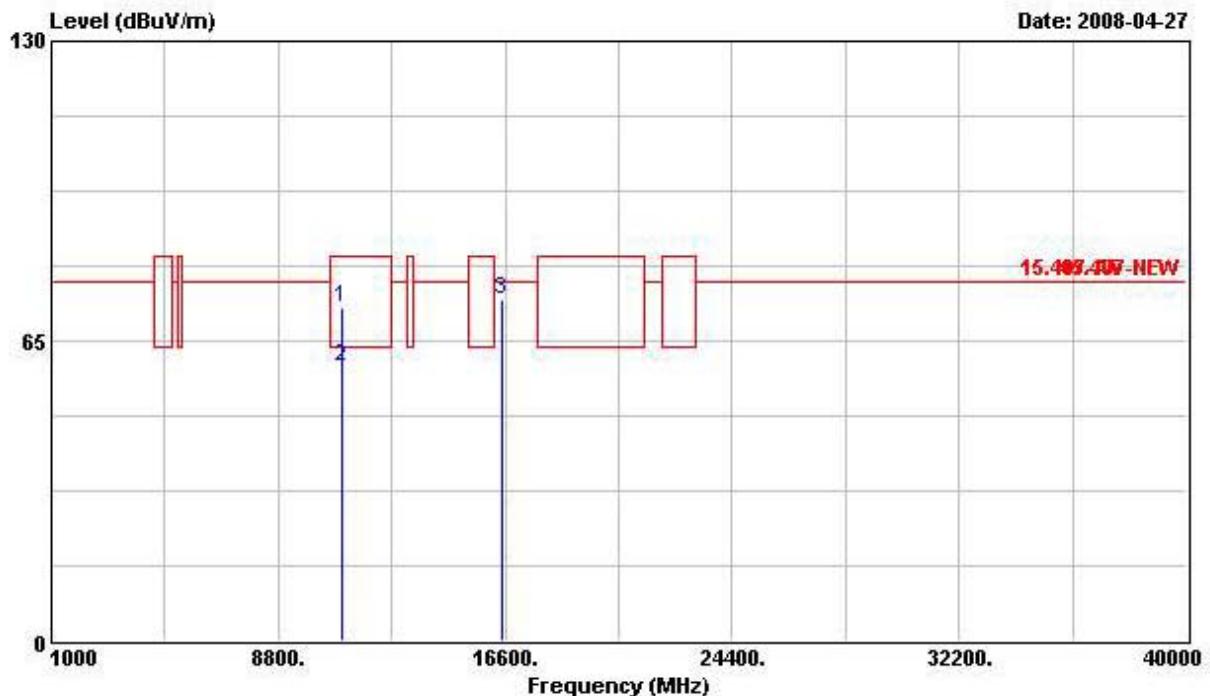
**Horizontal**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	Level	Factor	Loss	Factor	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	10640.080	70.30	-13.24	83.54	55.55	39.22	6.34	30.81 PEAK
2	10640.080	57.29	-6.25	63.54	42.54	39.22	6.34	30.81 Average
3	15960.280	66.67	-16.87	83.54	50.99	37.69	7.46	29.46 PEAK
4	15960.280	54.19	-9.35	63.54	38.51	37.69	7.46	29.46 Average

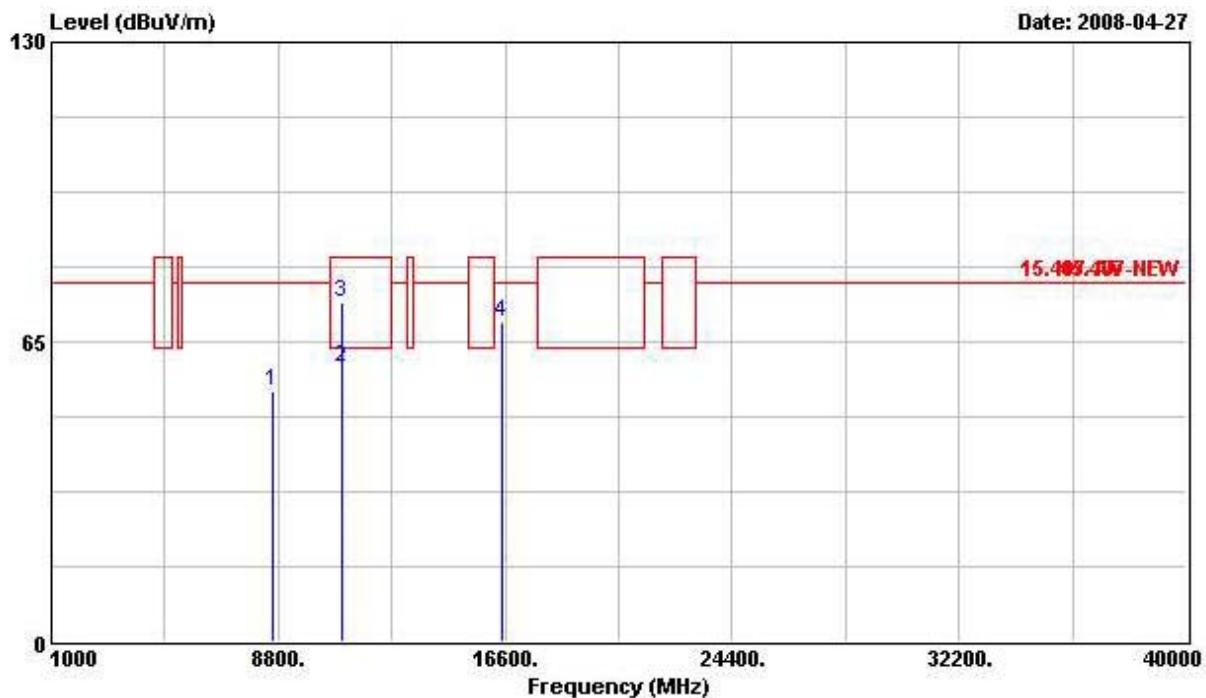
*Vertical*

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	10641.400	60.21	-3.33	63.54	45.46	39.22	6.34	30.81 AVERAGE
2	10641.400	72.64	-10.90	83.54	57.89	39.22	6.34	30.81 Peak
3	15963.000	56.81	-6.73	63.54	41.13	37.69	7.46	29.46 AVERAGE
4	15963.000	70.59	-12.95	83.54	54.91	37.69	7.46	29.46 Peak

Test date	Apr. 27, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 100 (20MHz)

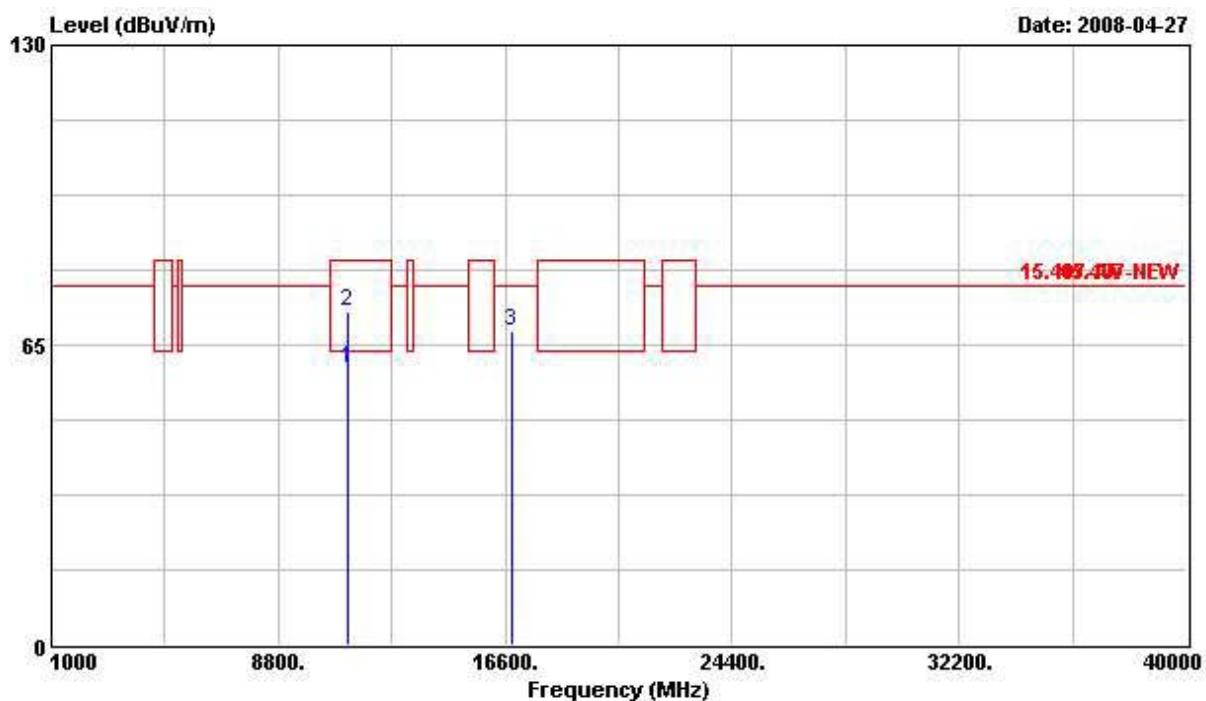
**Horizontal**

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	11001.000	72.46	-11.08	83.54	56.70	39.00	6.57	29.81 Peak
2	11001.000	59.53	-4.01	63.54	43.77	39.00	6.57	29.81 AVERAGE
3	16506.000	74.00	-3.84	77.84	56.92	39.00	7.52	29.44 PEAK

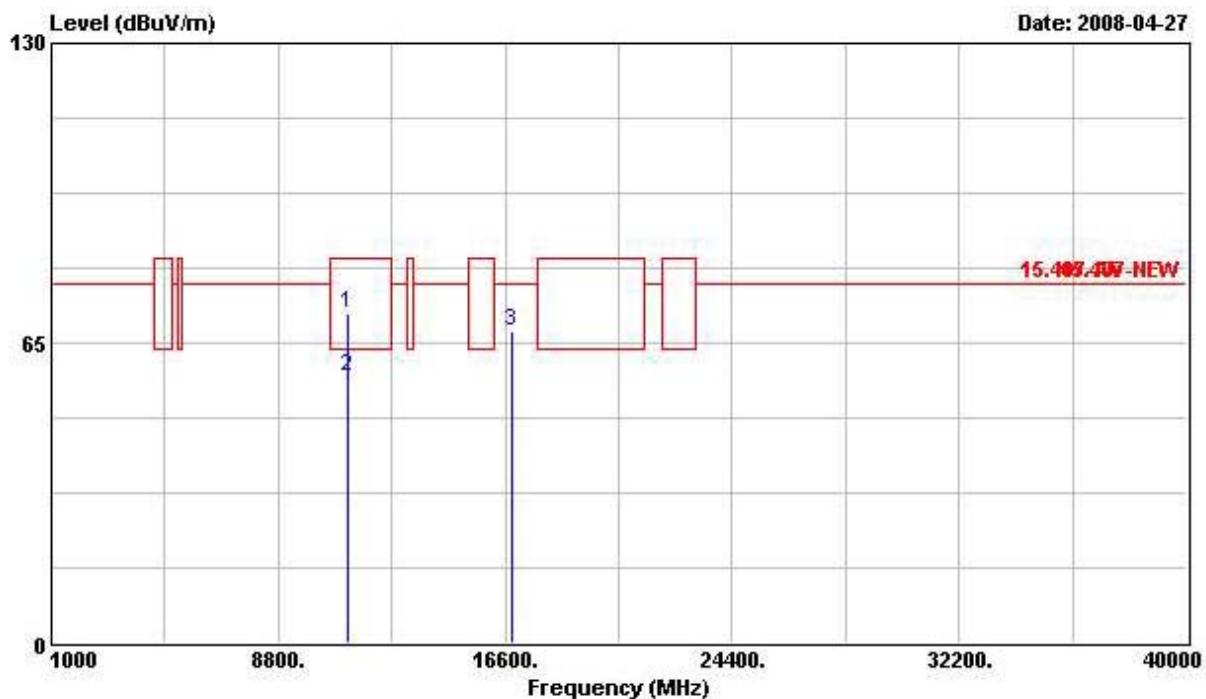
**Vertical**

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	8624.000	54.29	-23.55	77.84	43.51	38.37	5.21	32.81 PEAK
2	11000.000	59.35	-4.19	63.54	43.61	39.00	6.55	29.81 AVERAGE
3	11000.000	73.59	-9.95	83.54	57.85	39.00	6.55	29.81 Peak
4	16500.000	69.32	-8.52	77.84	52.24	39.00	7.52	29.44 PEAK

<b>Test date</b>	Apr. 27, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 120 (20MHz)

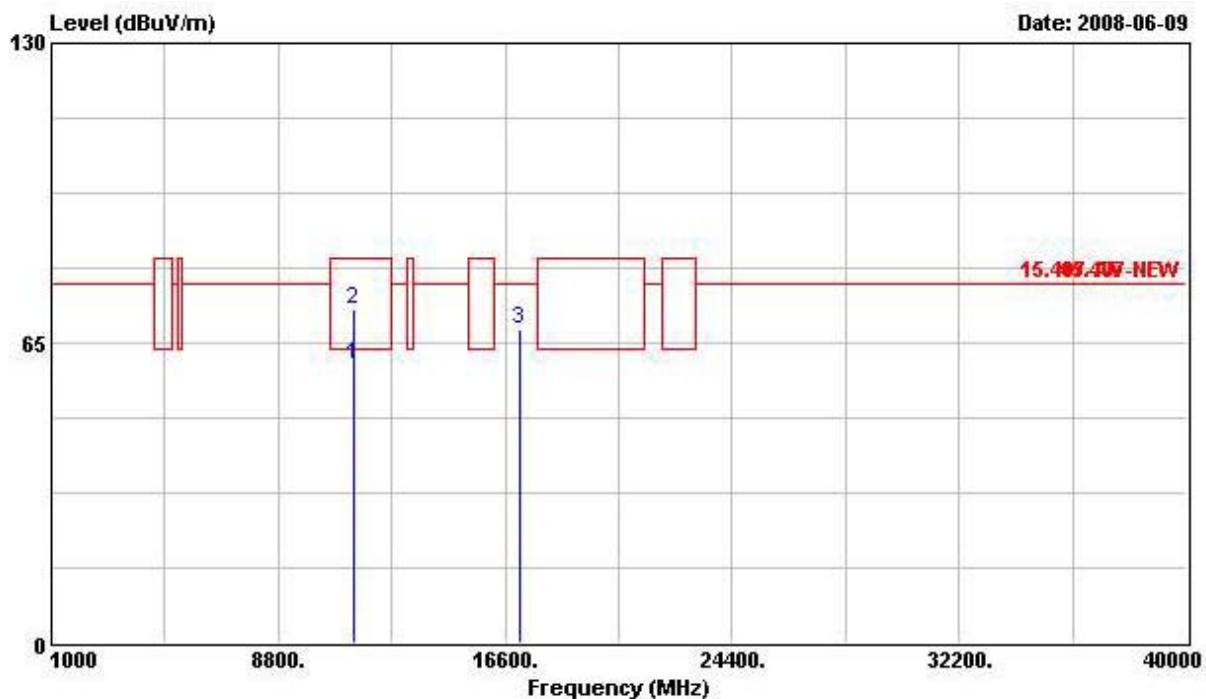
**Horizontal**

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	11199.200	59.90	-3.64	63.54	44.82	39.28	6.66	30.86 AVERAGE
2	11199.200	72.31	-11.23	83.54	57.24	39.28	6.66	30.86 Peak
3	16808.000	67.91	-9.93	77.84	48.67	40.43	7.67	28.85 PEAK

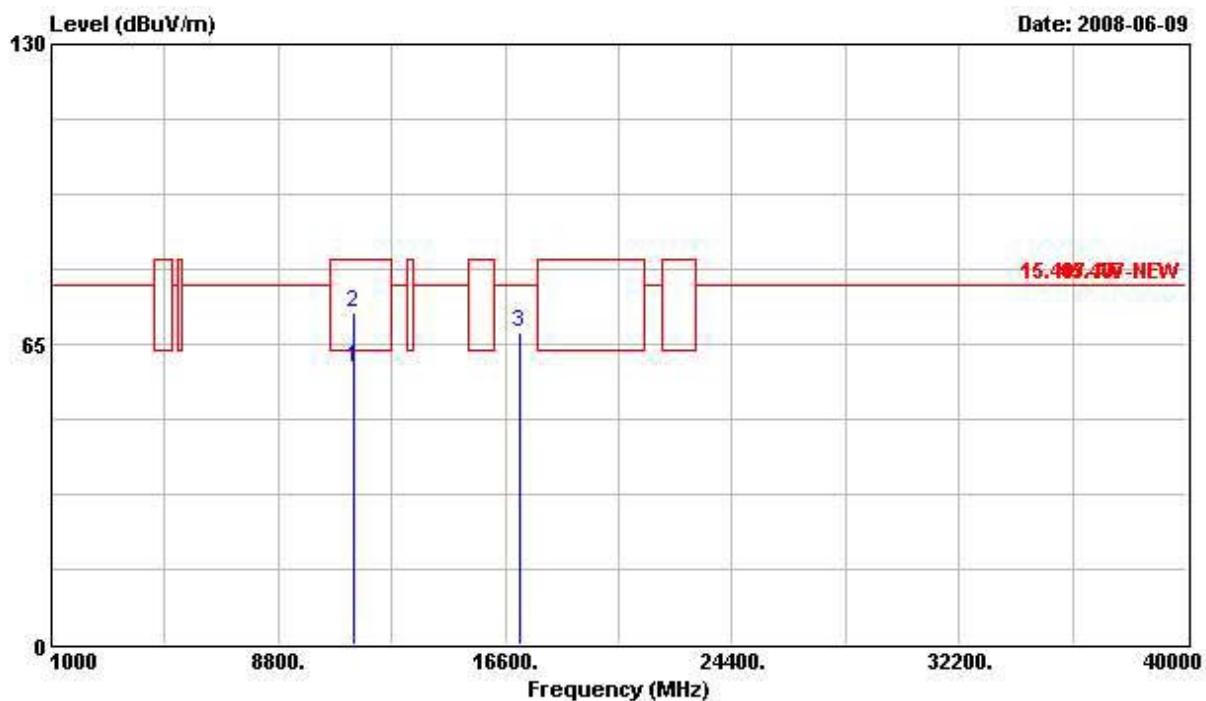
*Vertical*

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	11199.600	71.56	-11.98	83.54	56.49	39.28	6.66	30.86 PEAK
2	11199.600	57.76	-5.78	63.54	42.68	39.28	6.66	30.86 AVERAGE
3	16804.000	67.63	-10.21	77.84	48.39	40.43	7.67	28.85 PEAK

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

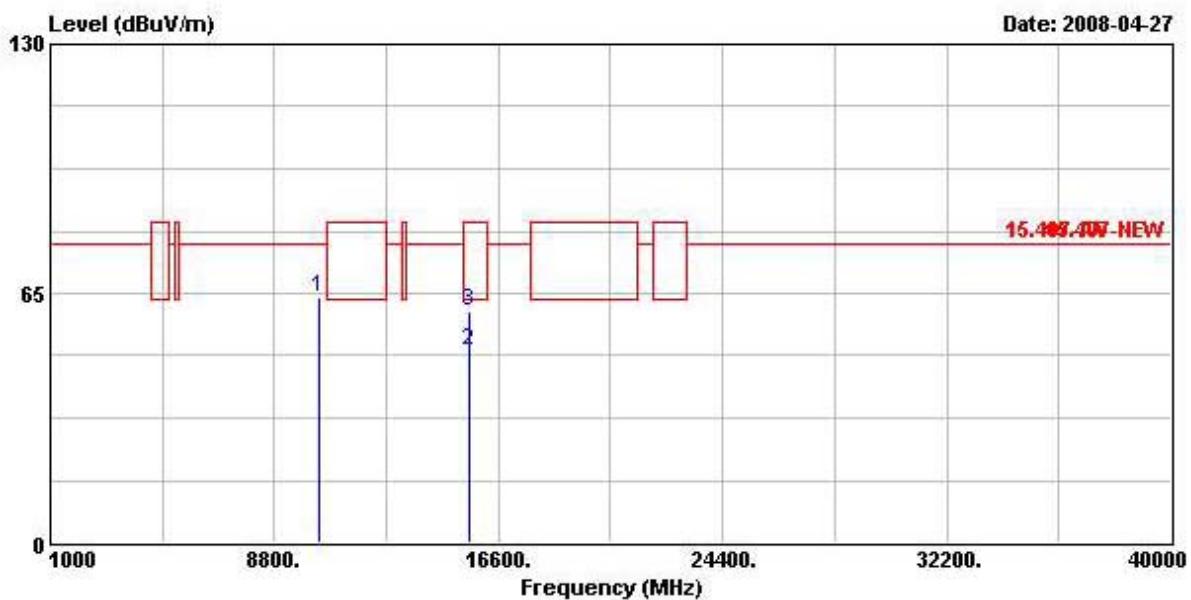
**Horizontal**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	dBuV	dB/m	dB	dB	
MHz	dBuV/m	dB	dBuV/m					
1	11400.640	60.28	-3.26	63.54	45.90	39.56	6.75	31.92 AVERAGE
2	11400.640	72.18	-11.36	83.54	57.79	39.56	6.75	31.92 Peak
3	17100.000	68.05	-9.79	77.84	46.65	42.14	7.79	28.53 Peak

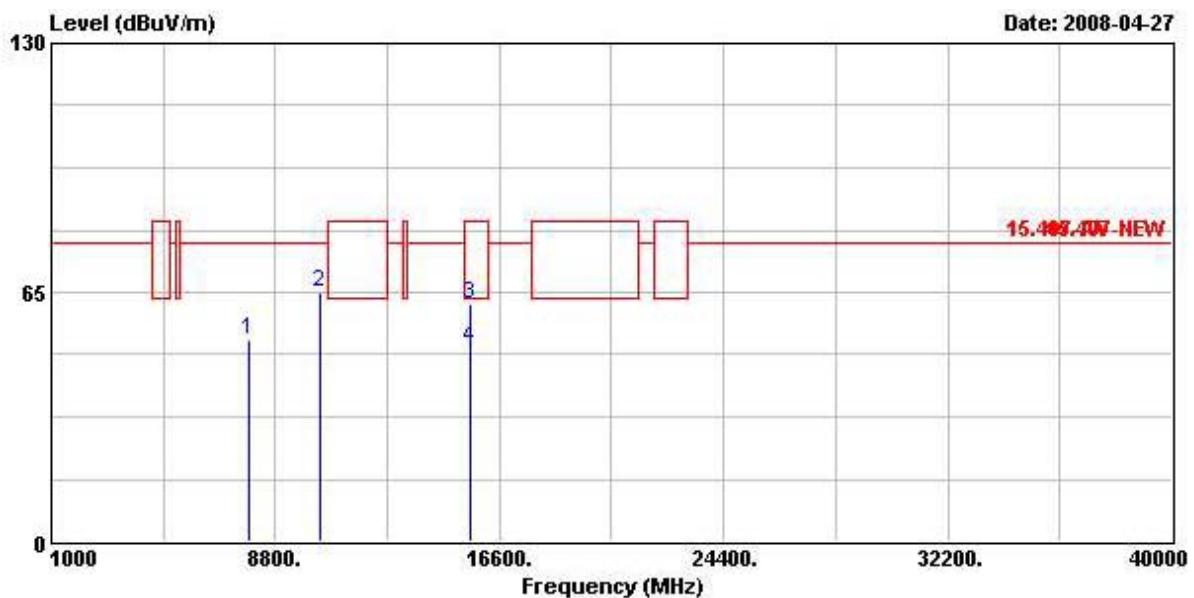
**Vertical**

Freq	Level	Over Limit		Read Antenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	Line	Level	Factor	
1	11399.760	59.67	-3.87	63.54	45.28	39.56	6.75	31.92 AVERAGE
2	11399.760	71.81	-11.73	83.54	57.42	39.56	6.75	31.92 Peak
3	17100.000	67.68	-10.16	77.84	46.28	42.14	7.79	28.53 Peak

<b>Test date</b>	Apr. 27, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 38 (40MHz)

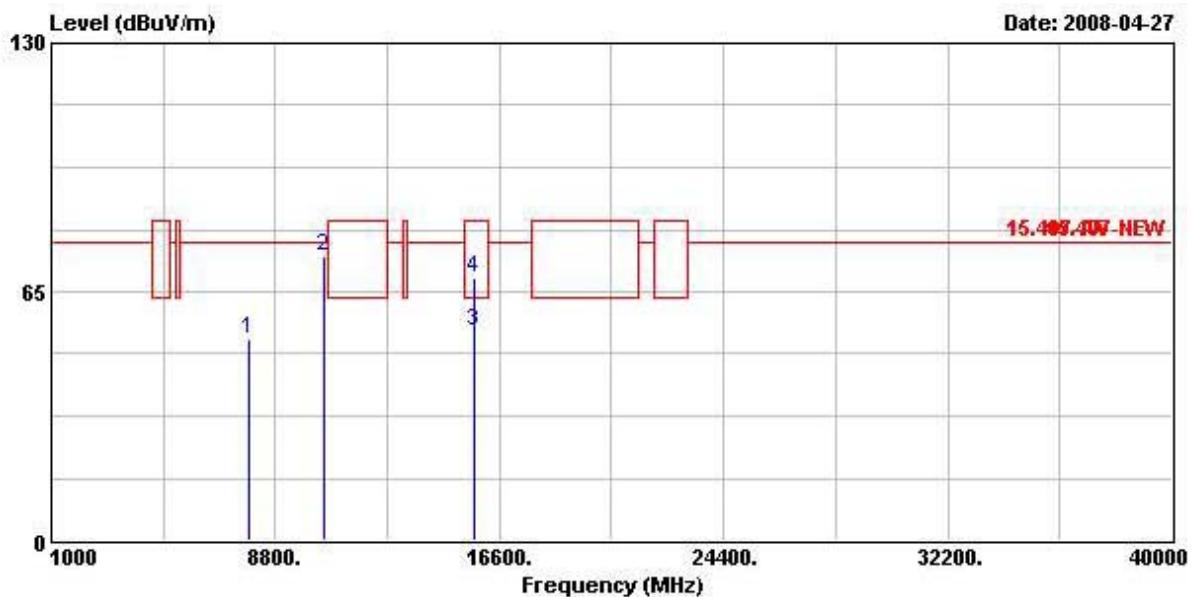
**Horizontal**

Freq MHz	Level dBuV/m	Over Limit dB	Limit dBuV/m	Read		Antenna Level dBuV	Cable Loss dB	Preamp Factor dB	Remark
				Line	Factor				
1 10380.000	64.04	-13.80	77.84	50.17	39.32	6.14	31.59	PEAK	
2 15574.000	50.13	-13.41	63.54	34.89	37.53	7.38	29.67	Average	
3 15574.000	60.59	-22.95	83.54	45.35	37.53	7.38	29.67	PEAK	

**Vertical**

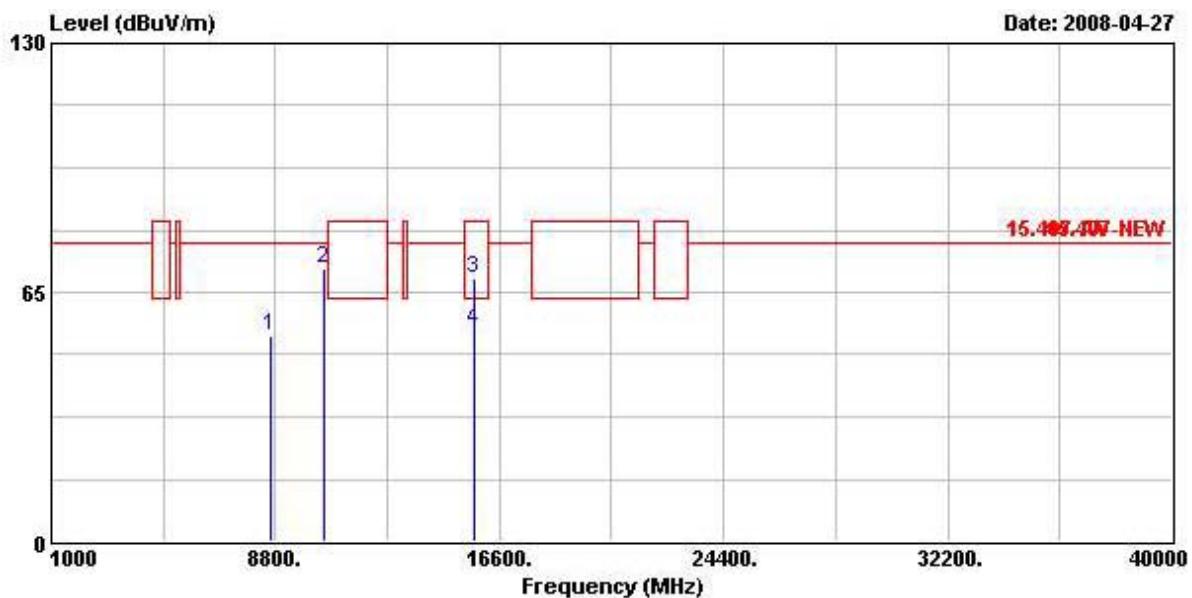
Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	7908.000	52.80	-25.04	77.84	43.26	37.70	4.67	32.83 PEAK
2	10380.000	65.04	-12.80	77.84	51.17	39.32	6.14	31.59 PEAK
3	15576.000	61.65	-21.89	83.54	46.41	37.53	7.38	29.67 PEAK
4	15576.000	50.32	-13.22	63.54	35.08	37.53	7.38	29.67 Average

Test date	Apr. 27, 2008	Test Site No.	03CH03-HY
Temperature	26	Humidity	54%
Test Engineer	Duncan	Configuration	802.11n CH 46 (40MHz)

**Horizontal**

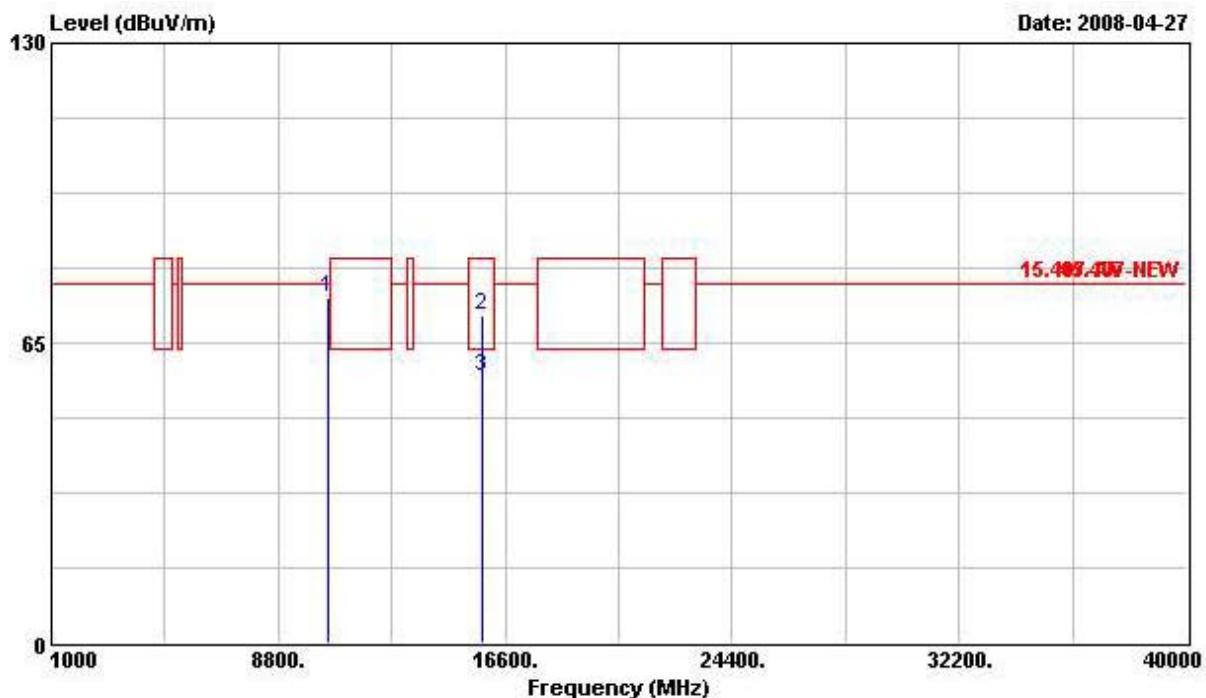
http://www.fccid.org/fccid/submitSearchResults

Freq	Over Limit		ReadLine	Antenna Factor	Cable Loss		Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dB/m	dB		
1	7904.000	52.84	-25.00	77.84	43.30	37.70	4.67	32.83 PEAK
2 @	10460.000	74.21	-3.63	77.84	60.01	39.31	6.23	31.34 PEAK
3	15692.400	54.44	-9.10	63.54	39.08	37.58	7.40	29.61 AVERAGE
4	15692.400	68.47	-15.07	83.54	53.10	37.58	7.40	29.61 Peak

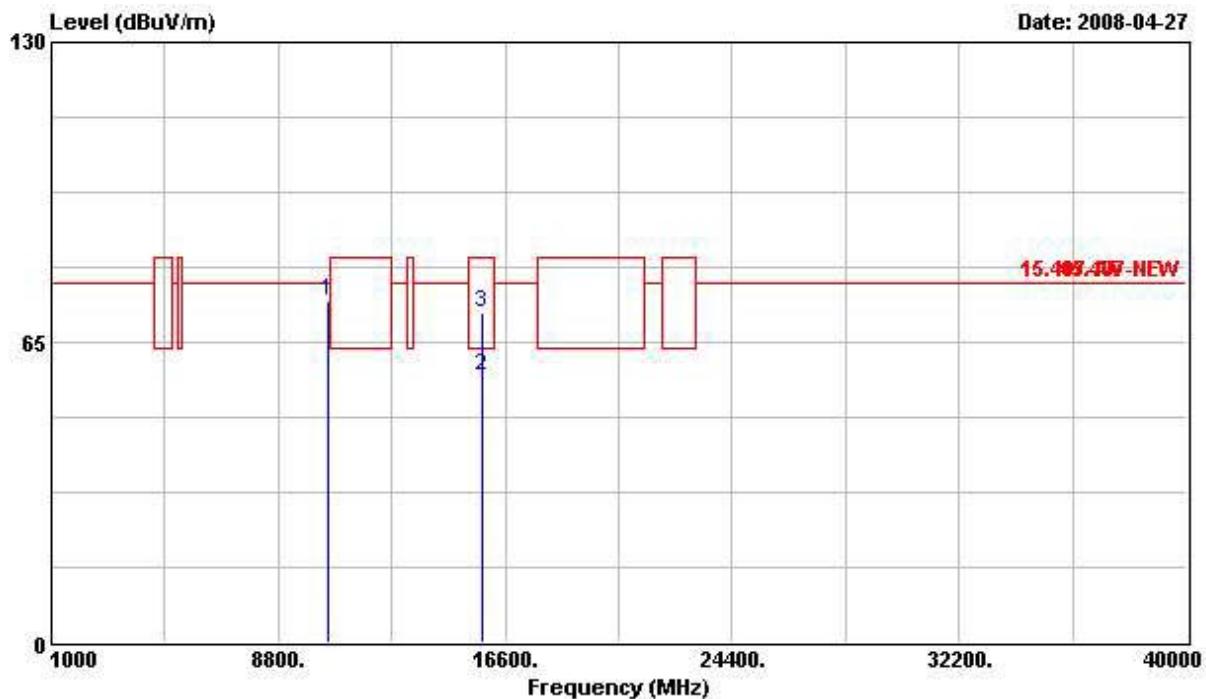
**Vertical**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	8624.000	53.89	-23.95	77.84	43.12	38.37	5.21	32.81 PEAK
2	10460.000	71.04	-6.80	77.84	56.84	39.31	6.23	31.34 PEAK
3	15687.000	68.82	-14.72	83.54	53.45	37.58	7.40	29.61 Peak
4	15687.000	54.97	-8.57	63.54	39.60	37.58	7.40	29.61 AVERAGE

<b>Test date</b>	Apr. 27, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 54 (40MHz)

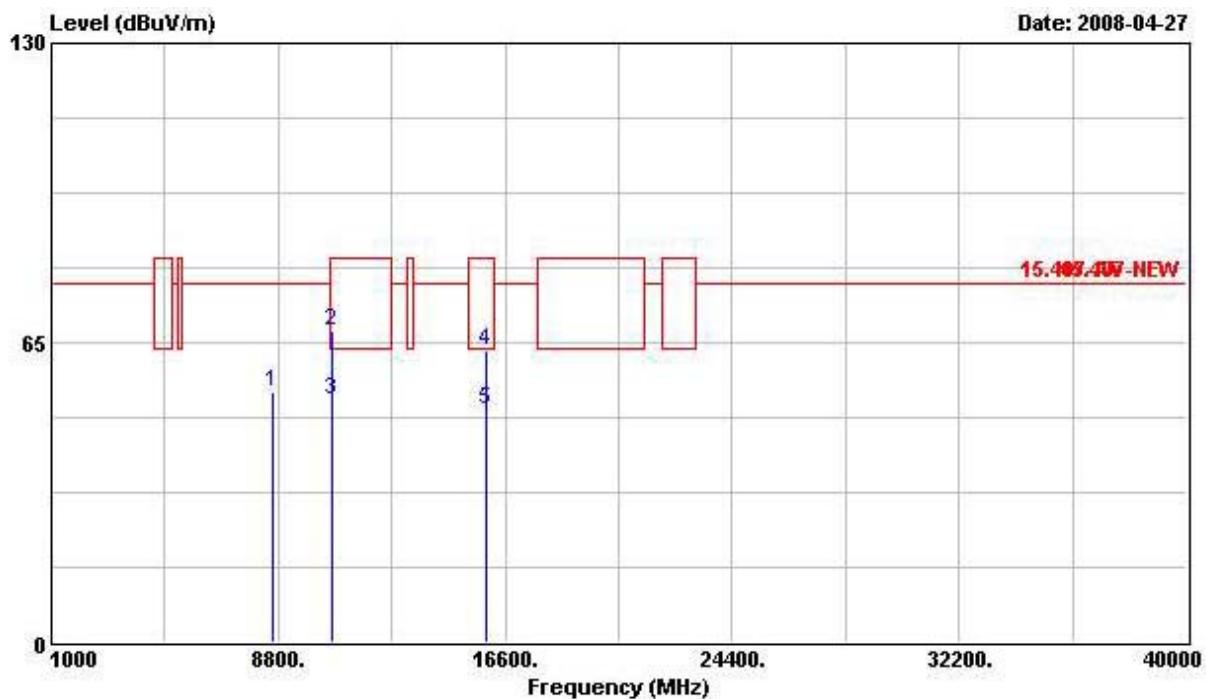
**Horizontal**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	10544.000	74.72	-3.12	77.84	60.24	39.28	6.30	31.10 PEAK
2	15811.800	70.99	-12.55	83.54	55.48	37.62	7.43	29.54 Peak
3	15811.800	57.88	-5.66	63.54	42.37	37.62	7.43	29.54 AVERAGE

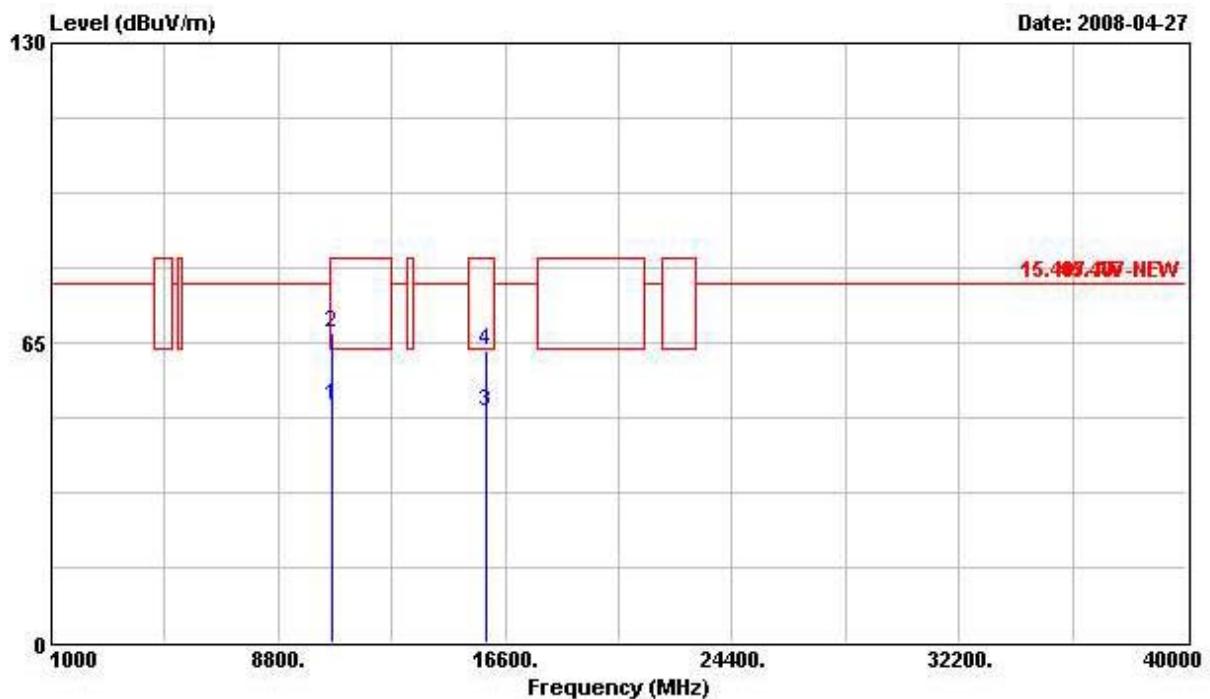
**Vertical**

Freq MHz	Level dBuV/m	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Limit	Line	Level	Factor	Loss	Factor	
1	10540.000	74.04	-3.80	77.84	59.56	39.28	6.30	31.10 PEAK
2	15806.000	57.91	-5.63	63.54	42.41	37.62	7.43	29.54 AVERAGE
3	15806.000	71.31	-12.23	83.54	55.80	37.62	7.43	29.54 Peak

<b>Test date</b>	Apr. 27, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 62 (40MHz)

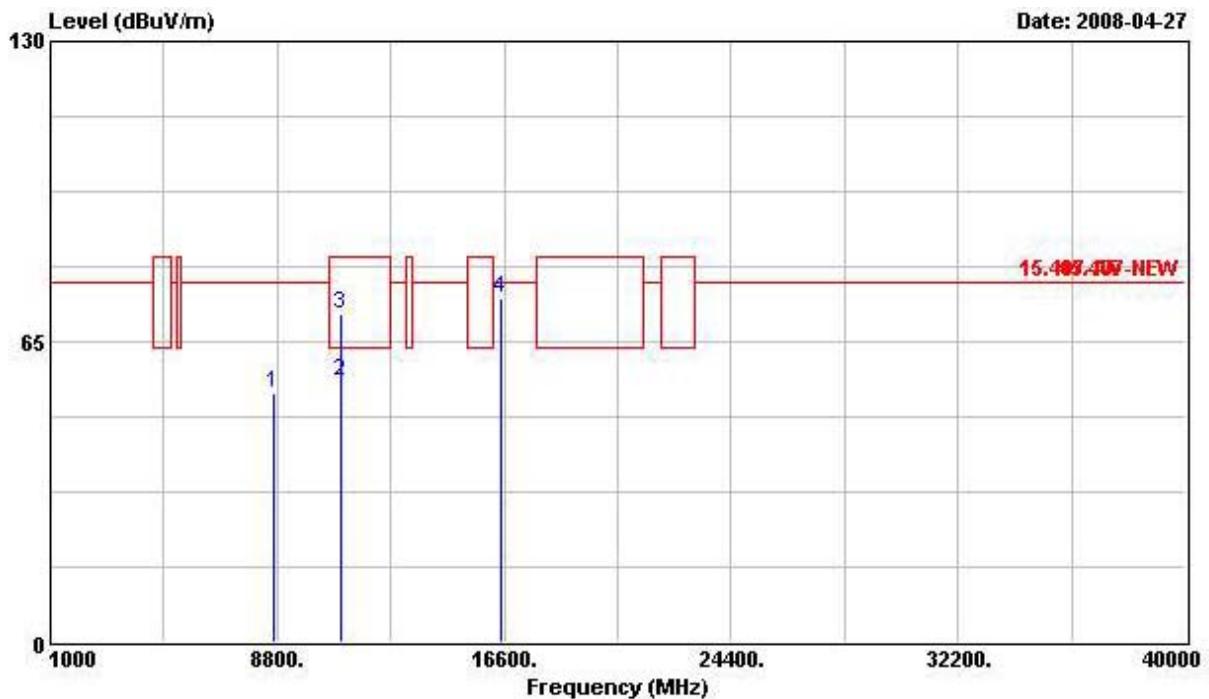
**Horizontal**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	Antenna	Level Factor	Cable Loss	Preamp Factor	
1	8620.000	54.32	-23.52	77.84	43.48	38.37	5.28	32.81 PEAK
2	10620.000	67.67	-15.87	83.54	52.98	39.23	6.34	30.88 Peak
3	10620.000	52.55	-10.99	63.54	37.86	39.23	6.34	30.88 AVERAGE
4	15934.000	63.20	-20.34	83.54	47.56	37.67	7.45	29.48 Peak
5	15934.000	50.39	-13.15	63.54	34.75	37.67	7.45	29.48 AVERAGE

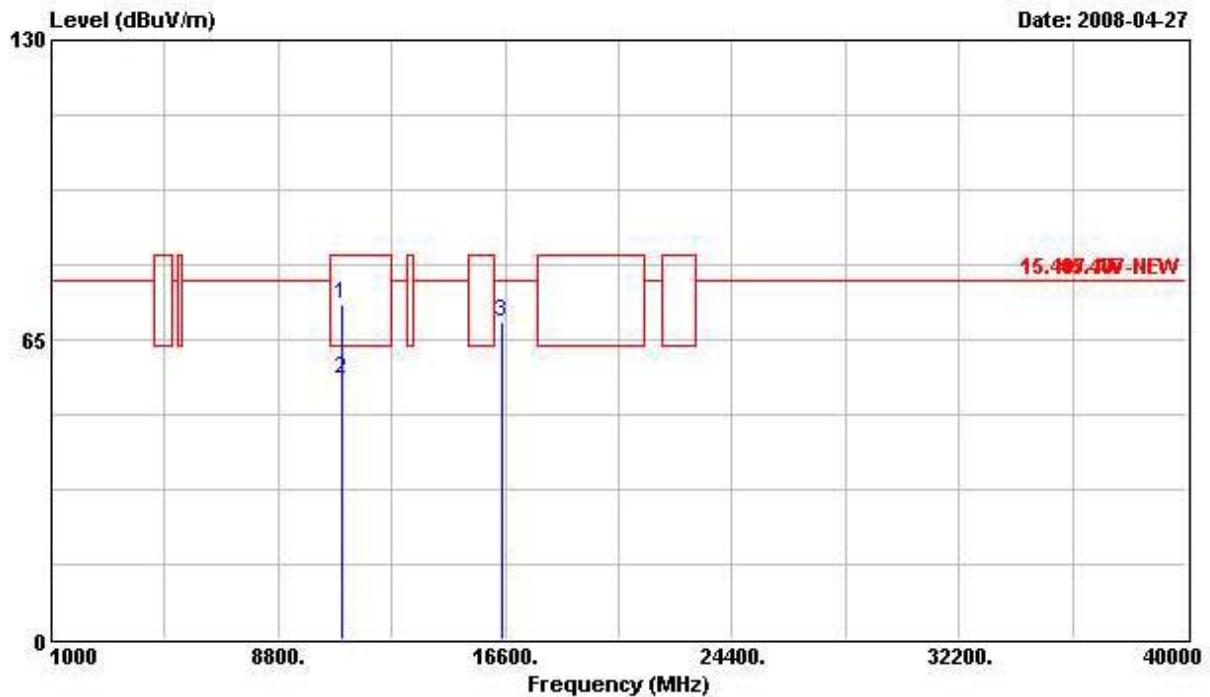
*Vertical*

Freq	Level	Over Limit	Limit Line	ReadAntenna		Cable Loss	Preamp Factor	Remark
				dB	dBuV			
						dB/m		
1	10622.760	51.19	-12.35	63.54	36.50	39.23	6.34	30.88 AVERAGE
2	10622.760	67.29	-16.25	83.54	52.60	39.23	6.34	30.88 Peak
3	15935.480	49.86	-13.68	63.54	34.21	37.68	7.45	29.48 AVERAGE
4	15935.480	63.18	-20.36	83.54	47.53	37.68	7.45	29.48 Peak

<b>Test date</b>	Apr. 27, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 102 (40MHz)

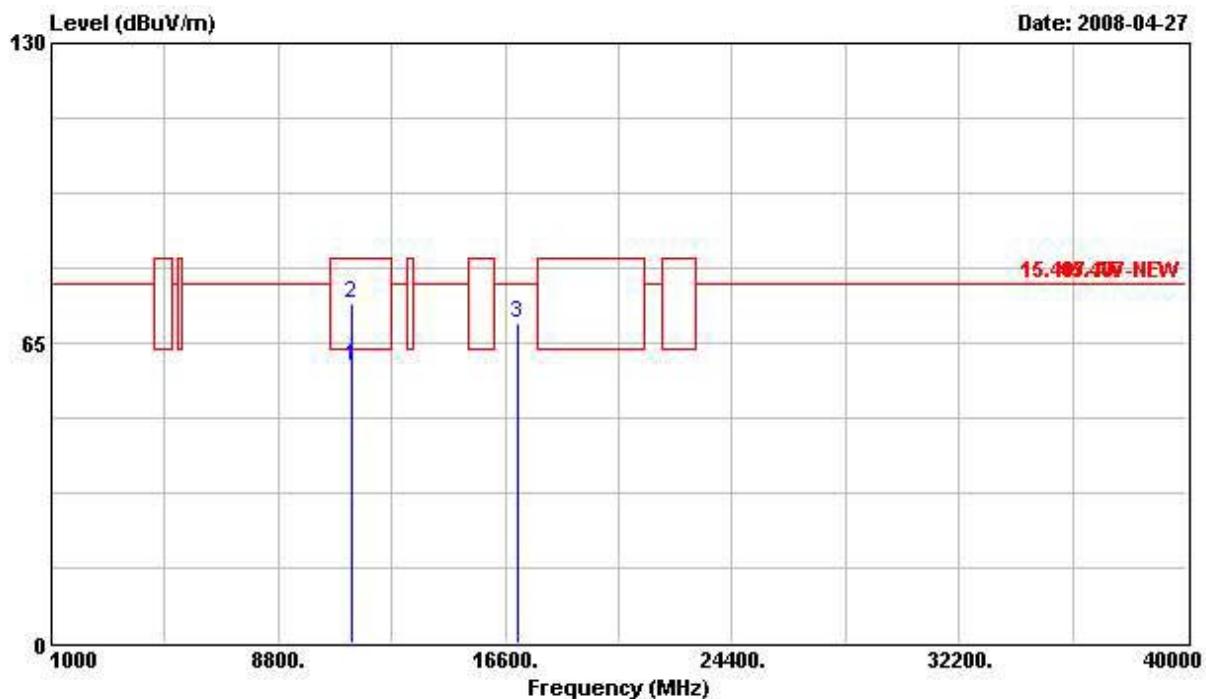
**Horizontal**

Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
		Line	Limit	Antenna	Level Factor	Loss Factor	dB	
1	8644.000	54.08	-23.76	77.84	43.28	38.39	5.21	32.81 PEAK
2	11019.400	56.58	-6.96	63.54	40.93	39.02	6.57	29.94 AVERAGE
3	11019.400	70.94	-12.60	83.54	55.29	39.02	6.57	29.94 Peak
4	16524.000	74.35	-3.49	77.84	57.14	39.08	7.52	29.39 PEAK

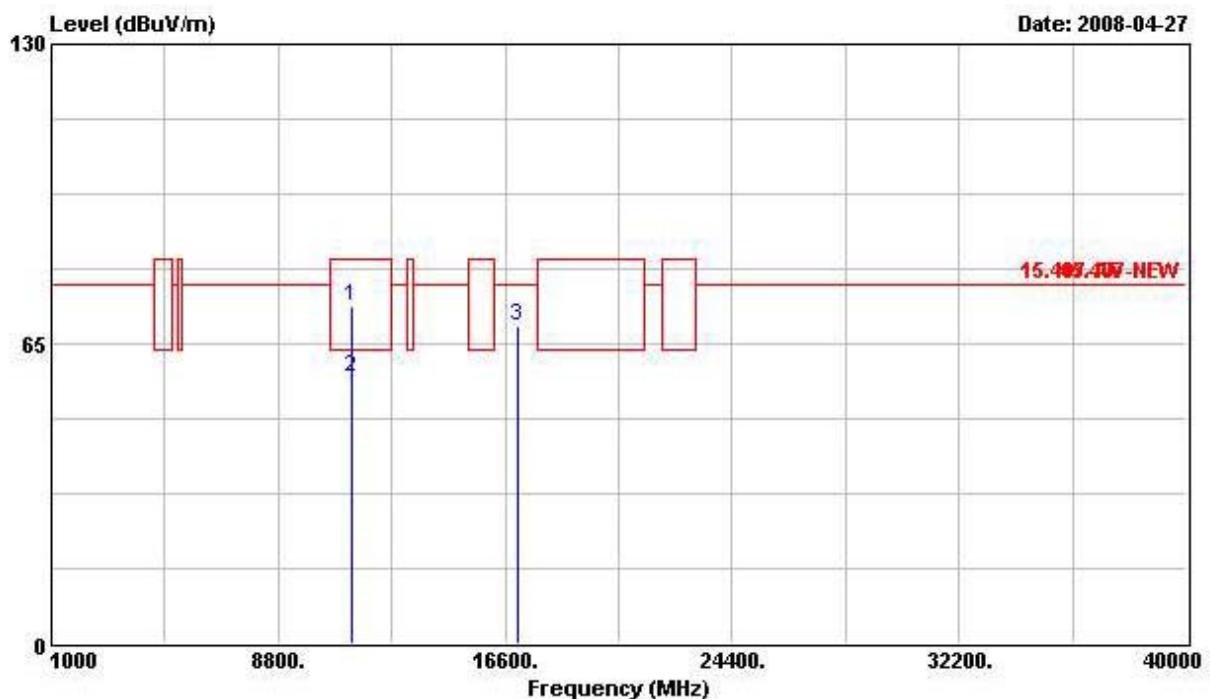
*Vertical*

Freq MHz	Level dBuV/m	Over Limit	Line	Read	Antenna	Cable	Preamp	Remark
		dB	dBuV/m	dBuV	dB/m	dB	dB	
1	11019.600	72.52	-11.02	83.54	56.87	39.02	6.57	29.94 Peak
2	11019.600	56.51	-7.03	63.54	40.86	39.02	6.57	29.94 AVERAGE
3	16524.000	68.80	-9.04	77.84	51.59	39.08	7.52	29.39 PEAK

<b>Test date</b>	Apr. 27, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	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	11339.800	59.99	-3.55	63.54	45.33	39.47	6.71	31.52 AVERAGE
2	11339.800	73.36	-10.18	83.54	58.71	39.47	6.71	31.52 Peak
3	17004.000	69.44	-8.40	77.84	48.88	41.30	7.77	28.52 PEAK

**Vertical**

Freq	Level	Over Limit	Limit Line	Read		Antenna Factor	Cable Preamp		Remark
				MHz	dBuV/m		dB	dBuV/m	
1	11339.600	73.09	-10.45	83.54	58.44	39.47	6.71	31.52	Peak
2	11339.600	57.55	-5.99	63.54	42.89	39.47	6.71	31.52	AVERAGE
3	17018.000	68.80	-9.04	77.84	48.10	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:

<b>Test date</b>	Apr. 22, 2008			<b>Test Site No.</b>	03CH03-HY		
<b>Temperature</b>	26			<b>Humidity</b>	54%		
<b>Test Engineer</b>	Duncan			<b>Configuration</b>	802.11a CH 36, 40, 48		

#### Channel 36

	<b>Freq</b>	<b>Level</b>	<b>Over Limit</b>	<b>Read</b>	<b>Antenna</b>	<b>Cable</b>	<b>Preamp</b>	<b>Remark</b>
			<b>Limit</b>	<b>Line</b>	<b>Level</b>	<b>Factor</b>	<b>Loss</b>	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	
1	5149.400	76.25	-7.29	83.54	37.96	34.35	3.94	0.00 Peak
2 X	5177.100	123.77			85.46	34.38	3.92	0.00 Peak
1	5149.950	59.83	-3.71	63.54	21.54	34.35	3.94	0.00 Average
2 X	5177.100	114.55			76.24	34.38	3.92	0.00 Average

An item 2 is Fundamental Emissions.

#### Channel 40

	<b>Freq</b>	<b>Level</b>	<b>Over Limit</b>	<b>Read</b>	<b>Antenna</b>	<b>Cable</b>	<b>Preamp</b>	<b>Remark</b>
			<b>Limit</b>	<b>Line</b>	<b>Level</b>	<b>Factor</b>	<b>Loss</b>	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	
1	5109.350	69.40	-14.14	83.54	31.12	34.32	3.96	0.00 Peak
2 X	5202.500	123.41			85.11	34.40	3.90	0.00 Peak
3	5368.100	69.74	-13.80	83.54	31.36	34.57	3.82	0.00 Peak
1	5150.000	58.22	-5.32	63.54	19.93	34.35	3.94	0.00 Average
2 X	5202.500	114.46			76.16	34.40	3.90	0.00 Average
3	5399.150	57.92	-5.62	63.54	19.52	34.60	3.80	0.00 Average

An item 2 is Fundamental Emissions.

#### Channel 48

	<b>Freq</b>	<b>Level</b>	<b>Over Limit</b>	<b>Read</b>	<b>Antenna</b>	<b>Cable</b>	<b>Preamp</b>	<b>Remark</b>
			<b>Limit</b>	<b>Line</b>	<b>Level</b>	<b>Factor</b>	<b>Loss</b>	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	
1	5057.200	69.69	-13.85	83.54	31.44	34.27	3.98	0.00 Peak
2 X	5242.800	121.22			82.89	34.45	3.88	0.00 Peak
3	5370.800	69.89	-13.65	83.54	31.51	34.57	3.82	0.00 Peak
1	5113.200	58.14	-5.40	63.54	19.86	34.32	3.96	0.00 Average
2 X	5242.800	112.19			73.86	34.45	3.88	0.00 Average
3	5395.200	57.92	-5.62	63.54	19.52	34.60	3.80	0.00 Average

An item 2 is Fundamental Emissions.

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

**Channel 52**

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Line	Limit	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5142.400	70.24	-13.30	83.54	31.95	34.35	3.94	0.00	Peak
2 @	5264.000	122.85			84.50	34.47	3.88	0.00	Peak
3	5388.800	69.06	-14.48	83.54	30.68	34.58	3.80	0.00	Peak
1	5104.400	57.90	-5.64	63.54	19.64	34.30	3.96	0.00	Average
2 @	5264.000	113.34			74.99	34.47	3.88	0.00	Average
3	5392.000	57.80	-5.74	63.54	19.42	34.58	3.80	0.00	Average

An item 2 is Fundamental Emissions.

**Channel 56**

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Line	Limit	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5136.690	69.92	-13.62	83.54	31.64	34.33	3.94	0.00	Peak
2 @	5283.330	121.75			83.41	34.48	3.86	0.00	Peak
3	5395.260	69.15	-14.39	83.54	30.75	34.60	3.80	0.00	Peak
1	5112.900	58.07	-5.47	63.54	19.79	34.32	3.96	0.00	Average
2 @	5283.330	112.30			73.96	34.48	3.86	0.00	Average
3	5366.010	57.92	-5.62	63.54	19.54	34.57	3.82	0.00	Average

An item 2 is Fundamental Emissions.

**Channel 64**

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Line	Limit	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5322.600	126.43			88.08	34.52	3.84	0.00	Peak
2	5352.300	80.94	-2.60	83.54	42.57	34.55	3.82	0.00	Peak
1 @	5322.600	116.70			78.35	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.

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

**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	5459.900	72.80	-10.74	83.54	34.37	34.65	3.78	0.00	Peak
2 @	5503.000	124.33			85.88	34.70	3.75	0.00	Peak
1	5412.200	59.23	-4.31	63.54	20.82	34.62	3.80	0.00	Average
2 @	5503.000	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
			Limit	Line	Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5456.800	70.60	-12.94	83.54	32.17	34.65	3.78	0.00	Peak
2 @	5600.800	124.62			86.26	34.72	3.64	0.00	Peak
3	5725.000	67.28	-20.56	87.84	29.02	34.74	3.52	0.00	Peak
1	5400.800	59.99	-3.55	63.54	21.59	34.60	3.80	0.00	Average
2 @	5600.800	116.10			77.74	34.72	3.64	0.00	Average
3	5725.000	57.42	-30.42	87.84	19.16	34.74	3.52	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 @	5703.000	120.85			82.59	34.74	3.52	0.00	Peak
2	5725.500	76.01	-1.83	77.84	37.75	34.74	3.52	0.00	Peak
1 @	5703.000	110.93			72.67	34.74	3.52	0.00	Average
2	5725.000	58.57	-19.27	77.84	20.31	34.74	3.52	0.00	Average

An item 1 is Fundamental Emissions.

<b>Test date</b>	Apr. 22, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 36, 40, 48 (20MHz)

**Channel 36**

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Antenna	Level	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5149.500	78.10	-5.44	83.54	39.81	34.35	3.94	0.00	Peak
2 @	5177.900	124.84			86.53	34.38	3.92	0.00	Peak
1	5149.900	60.76	-2.78	63.54	22.47	34.35	3.94	0.00	Average
2 X	5181.000	115.00			76.69	34.38	3.92	0.00	Average

An item 2 is Fundamental Emissions.

**Channel 40**

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Antenna	Level	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5094.500	70.01	-13.53	83.54	31.75	34.30	3.96	0.00	Peak
2 @	5197.550	123.81			85.51	34.40	3.90	0.00	Peak
3	5397.350	69.50	-14.04	83.54	31.10	34.60	3.80	0.00	Peak
1	5149.000	58.41	-5.13	63.54	20.12	34.35	3.94	0.00	Average
2 X	5197.550	114.20			75.90	34.40	3.90	0.00	Average
3	5390.150	58.05	-5.49	63.54	19.67	34.58	3.80	0.00	Average

An item 2 is Fundamental Emissions.

**Channel 48**

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark
			Limit	Line	Antenna	Level	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5129.200	69.67	-13.87	83.54	31.39	34.33	3.94	0.00	Peak
2 X	5241.200	122.36			84.05	34.43	3.88	0.00	Peak
3	5433.200	70.13	-13.41	83.54	31.72	34.63	3.78	0.00	Peak
1	5126.400	58.37	-5.17	63.54	20.09	34.33	3.94	0.00	Average
2 X	5241.200	112.88			74.57	34.43	3.88	0.00	Average
3	5387.200	58.16	-5.38	63.54	19.78	34.58	3.80	0.00	Average

An item 2 is Fundamental Emissions.

<b>Test date</b>	Apr. 22, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	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	5080.000	69.57	-13.97	83.54	31.32	34.28	3.96	0.00	Peak
2 @	5259.600	122.59			84.24	34.47	3.88	0.00	Peak
3	5353.600	68.93	-14.61	83.54	30.56	34.55	3.82	0.00	Peak
1	5118.400	58.01	-5.53	63.54	19.75	34.32	3.94	0.00	Average
2 @	5259.600	112.08			73.73	34.47	3.88	0.00	Average
3	5387.200	57.82	-5.72	63.54	19.44	34.58	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 @	5280.000	126.33			87.99	34.48	3.86	0.00	Peak
2	5357.800	70.33	-13.21	83.54	31.96	34.55	3.82	0.00	Peak
1 @	5280.000	116.08			77.74	34.48	3.86	0.00	Average
2	5350.100	58.03	-5.51	63.54	19.66	34.55	3.82	0.00	Average

An item 1 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 @	5319.800	123.67			85.32	34.52	3.84	0.00	Peak
2	5352.200	79.83	-3.71	83.54	41.46	34.55	3.82	0.00	Peak
1 @	5319.800	112.87			74.52	34.52	3.84	0.00	Average
2	5350.100	60.71	-2.83	63.54	22.34	34.55	3.82	0.00	Average

An item 1 is Fundamental Emissions.

<b>Test date</b>	Apr. 22, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	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	5459.500	79.69	-3.85	83.54	41.26	34.65	3.78	0.00	Peak
2 @	5500.200	126.00			87.55	34.70	3.75	0.00	Peak
1	5459.900	61.20	-2.34	63.54	22.77	34.65	3.78	0.00	Average
2 @	5500.200	115.14			76.69	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	5410.400	71.91	-11.63	83.54	33.51	34.60	3.80	0.00	Peak
2 @	5602.400	125.99			87.63	34.72	3.64	0.00	Peak
3	5725.000	68.71	-19.13	87.84	30.45	34.74	3.52	0.00	Peak
1	5400.000	60.40	-3.14	63.54	22.00	34.60	3.80	0.00	Average
2 @	5602.400	116.92			78.56	34.72	3.64	0.00	Average
3	5725.000	57.58	-30.26	87.84	19.32	34.74	3.52	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 @	5699.900	120.88			82.62	34.74	3.52	0.00	Peak
2	5725.100	76.07	-1.77	77.84	37.81	34.74	3.52	0.00	Peak
1 X	5699.900	109.84			71.58	34.74	3.52	0.00	Average
2	5725.000	58.20	-19.64	77.84	19.94	34.74	3.52	0.00	Average

An item 1 is Fundamental Emissions.

<b>Test date</b>	Apr. 22 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 38, 46, 54 (40MHz)

**Channel 38**

	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	5149.800	77.24	-6.30	83.54	38.95	34.35	3.94	0.00	Peak
2 X	5192.200	114.31			76.01	34.40	3.90	0.00	Peak
1	5149.900	62.24	-1.30	63.54	23.95	34.35	3.94	0.00	Average
2 X	5192.800	104.66			66.36	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	Antenna Level	Factor	Loss	Factor	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5138.150	74.76	-8.78	83.54	36.48	34.33	3.94	0.00	Peak
2 X	5219.740	122.88			84.56	34.42	3.90	0.00	Peak
3	5387.020	71.08	-12.46	83.54	32.70	34.58	3.80	0.00	Peak
1	5149.950	60.62	-2.92	63.54	22.33	34.35	3.94	0.00	Average
2 X	5219.740	113.74			75.42	34.42	3.90	0.00	Average
3	5372.670	60.25	-3.29	63.54	21.87	34.57	3.82	0.00	Average

An item 2 is Fundamental Emissions.

**Channel 54**

	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	5134.460	71.13	-12.41	83.54	32.85	34.33	3.94	0.00	Peak
2 B	5264.020	122.10			83.75	34.47	3.88	0.00	Peak
3	5350.530	75.75	-7.79	83.54	37.38	34.55	3.82	0.00	Peak
1	5126.670	60.40	-3.14	63.54	22.12	34.33	3.94	0.00	Average
2 B	5264.020	113.13			74.78	34.47	3.88	0.00	Average
3	5350.530	61.55	-1.99	63.54	23.18	34.55	3.82	0.00	Average

An item 2 is Fundamental Emissions.

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

**Channel 62**

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1 E	5304.800	114.86			76.50	34.50	3.86	0.00 Peak
2	5350.100	74.89	-8.65	83.54	36.52	34.55	3.82	0.00 Peak
1 X	5304.800	104.76			66.40	34.50	3.86	0.00 Average
2	5350.100	61.70	-1.84	63.54	23.33	34.55	3.82	0.00 Average

An item 1 is Fundamental Emissions.

**Channel 102**

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1	5459.900	80.56	-2.98	83.54	42.13	34.65	3.78	0.00 Peak
2 E	5505.000	120.65			82.23	34.70	3.72	0.00 Peak
1	5459.900	61.37	-2.17	63.54	22.94	34.65	3.78	0.00 Average
2 X	5505.000	110.70			72.28	34.70	3.72	0.00 Average

An item 1 is Fundamental Emissions.

**Channel 134**

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1 E	5655.000	119.18			80.85	34.73	3.60	0.00 Peak
2	5726.800	76.36	-1.48	77.84	38.10	34.74	3.52	0.00 Peak
1 X	5655.000	109.41			71.08	34.73	3.60	0.00 Average
2	5725.000	59.14	-18.70	77.84	20.88	34.74	3.52	0.00 Average

An item 1 is Fundamental Emissions.

## For Two Chain:

<b>Test date</b>	Apr. 22, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	802.11n CH 36, 40, 48 (20MHz)

## Channel 36

	<b>Freq</b>	<b>Level</b>	<b>Over</b>	<b>Limit</b>	<b>Read</b>	<b>Antenna</b>	<b>Cable</b>	<b>Preamp</b>	<b>Remark</b>
			<b>Line</b>	<b>dB</b>	<b>dBuV/m</b>	<b>Antenna</b>	<b>Level</b>	<b>Factor</b>	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5149.900	78.08	-5.46	83.54	39.79	34.35	3.94	0.00	Peak
2 @	5178.200	126.00			87.69	34.38	3.92	0.00	Peak
1	5149.900	61.94	-1.60	63.54	23.65	34.35	3.94	0.00	Average
2 X	5178.600	115.29			76.98	34.38	3.92	0.00	Average

An item 2 is Fundamental Emissions.

## Channel 40

	<b>Freq</b>	<b>Level</b>	<b>Over</b>	<b>Limit</b>	<b>Read</b>	<b>Antenna</b>	<b>Cable</b>	<b>Preamp</b>	<b>Remark</b>
			<b>Line</b>	<b>dB</b>	<b>dBuV/m</b>	<b>Antenna</b>	<b>Level</b>	<b>Factor</b>	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5102.150	70.71	-12.83	83.54	32.45	34.30	3.96	0.00	Peak
2 @	5192.150	126.88			88.58	34.40	3.90	0.00	Peak
3	5416.700	69.57	-13.97	83.54	31.16	34.62	3.80	0.00	Peak
1	5149.950	59.41	-4.13	63.54	21.12	34.35	3.94	0.00	Average
2 X	5192.150	115.84			77.54	34.40	3.90	0.00	Average
3	5400.950	58.27	-5.27	63.54	19.87	34.60	3.80	0.00	Average

An item 2 is Fundamental Emissions.

## Channel 48

	<b>Freq</b>	<b>Level</b>	<b>Over</b>	<b>Limit</b>	<b>Read</b>	<b>Antenna</b>	<b>Cable</b>	<b>Preamp</b>	<b>Remark</b>
			<b>Line</b>	<b>dB</b>	<b>dBuV/m</b>	<b>Antenna</b>	<b>Level</b>	<b>Factor</b>	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5129.600	69.59	-13.95	83.54	31.31	34.33	3.94	0.00	Peak
2 @	5241.600	126.82			88.49	34.45	3.88	0.00	Peak
3	5356.800	69.81	-13.73	83.54	31.44	34.55	3.82	0.00	Peak
1	5129.200	58.66	-4.88	63.54	20.38	34.33	3.94	0.00	Average
2 X	5241.600	116.58			78.25	34.45	3.88	0.00	Average
3	5386.800	58.53	-5.01	63.54	20.15	34.58	3.80	0.00	Average

An item 2 is Fundamental Emissions.

<b>Test date</b>	Apr. 22, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	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	5110.400	69.95	-13.59	83.54	31.67	34.32	3.96	0.00	Peak
2 @	5262.800	127.31			88.96	34.47	3.88	0.00	Peak
3	5377.600	69.49	-14.05	83.54	31.09	34.58	3.82	0.00	Peak
1	5149.200	58.71	-4.83	63.54	20.42	34.35	3.94	0.00	Average
2 @	5262.800	116.47			78.12	34.47	3.88	0.00	Average
3	5398.400	58.48	-5.06	63.54	20.08	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	5148.780	70.33	-13.21	83.54	32.04	34.35	3.94	0.00	Peak
2 @	5278.260	125.90			87.56	34.48	3.86	0.00	Peak
3	5357.820	69.93	-13.61	83.54	31.56	34.55	3.82	0.00	Peak
1	5149.170	58.35	-5.19	63.54	20.06	34.35	3.94	0.00	Average
2 @	5278.260	115.73			77.39	34.48	3.86	0.00	Average
3	5360.940	58.32	-5.22	63.54	19.94	34.57	3.82	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 @	5321.800	125.65			87.30	34.52	3.84	0.00	Peak
2	5350.600	79.47	-4.07	83.54	41.10	34.55	3.82	0.00	Peak
1 @	5321.800	115.23			76.88	34.52	3.84	0.00	Average
2	5350.100	61.64	-1.90	63.54	23.27	34.55	3.82	0.00	Average

An item 1 is Fundamental Emissions.

<b>Test date</b>	Apr. 22, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	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	78.52	-5.02	83.54	40.09	34.65	3.78	0.00 Peak
2 @	5497.900	127.43			88.98	34.70	3.75	0.00 Peak
1	5459.900	61.44	-2.10	63.54	23.01	34.65	3.78	0.00 Average
2 @	5497.900	116.95			78.50	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	5433.200	72.96	-10.58	83.54	34.55	34.63	3.78	0.00 Peak
2 @	5596.400	127.86			89.51	34.72	3.64	0.00 Peak
3	5725.000	67.80	-10.04	77.84	29.54	34.74	3.52	0.00 Peak
1	5400.000	59.70	-3.84	63.54	21.30	34.60	3.80	0.00 Average
2 @	5601.200	117.43			79.07	34.72	3.64	0.00 Average
3	5777.200	57.48	-20.36	77.84	19.28	34.76	3.44	0.00 Average

An item 2 is Fundamental Emissions.

**Channel 140**

Freq	Level	Over Limit		ReadAntenna		Cable Preamp		Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	
1 @	5703.200	121.33			83.07	34.74	3.52	0.00 Peak
2	5725.100	75.57	-2.27	77.84	37.31	34.74	3.52	0.00 Peak
1 X	5703.200	110.19			71.93	34.74	3.52	0.00 Average
2	5725.000	58.64	-19.20	77.84	20.38	34.74	3.52	0.00 Average

An item 1 is Fundamental Emissions.

<b>Test date</b>	Apr. 22, 2008	<b>Test Site No.</b>	03CH03-HY
<b>Temperature</b>	26	<b>Humidity</b>	54%
<b>Test Engineer</b>	Duncan	<b>Configuration</b>	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	5149.900	76.25	-7.29	83.54	37.96	34.35	3.94	0.00	Peak
2 X	5177.800	116.23			77.92	34.38	3.92	0.00	Peak
1	5149.900	62.03	-1.51	63.54	23.74	34.35	3.94	0.00	Average
2 X	5192.800	104.57			66.27	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	5149.950	73.87	-9.67	83.54	35.58	34.35	3.94	0.00	Peak
2 @	5223.020	124.05			85.73	34.42	3.90	0.00	Peak
3	5372.260	71.13	-12.41	83.54	32.75	34.57	3.82	0.00	Peak
1	5149.950	60.93	-2.61	63.54	22.64	34.35	3.94	0.00	Average
2 X	5223.020	113.33			75.01	34.42	3.90	0.00	Average
3	5372.670	59.95	-3.59	63.54	21.57	34.57	3.82	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	5137.740	70.72	-12.82	83.54	32.44	34.33	3.94	0.00	Peak
2 @	5265.660	124.01			85.66	34.47	3.88	0.00	Peak
3	5350.530	76.24	-7.30	83.54	37.87	34.55	3.82	0.00	Peak
1	5126.670	60.51	-3.03	63.54	22.23	34.33	3.94	0.00	Average
2 @	5264.430	113.24			74.89	34.47	3.88	0.00	Average
3	5350.530	61.09	-2.45	63.54	22.72	34.55	3.82	0.00	Average

An item 2 is Fundamental Emissions.

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

**Channel 62**

Freq	Level	Over Limit	Line	ReadAntenna		Cable Preamp		Remark
				dB	dBuV/m	dBuV	dB/m	
1 @	5315.400	115.73				77.38	34.52	3.84 0.00 Peak
2	5350.100	74.37	-9.17	83.54	36.00	34.55	3.82	0.00 Peak
1 X	5315.400	104.90				66.55	34.52	3.84 0.00 Average
2	5350.100	62.11	-1.43	63.54	23.74	34.55	3.82	0.00 Average

An item 1 is Fundamental Emissions.

**Channel 102**

Freq	Level	Over Limit	Line	ReadAntenna		Cable Preamp		Remark
				dB	dBuV/m	dBuV	dB/m	
1	5459.900	79.66	-3.88	83.54	41.23	34.65	3.78	0.00 Peak
2 @	5500.800	122.28			83.83	34.70	3.75	0.00 Peak
1	5459.900	61.74	-1.80	63.54	23.31	34.65	3.78	0.00 Average
2 @	5500.800	110.95	---	---	72.50	34.70	3.75	0.00 Average

An item 2 is Fundamental Emissions.

**Channel 134**

Freq	Level	Over Limit	Line	ReadAntenna		Cable Preamp		Remark
				dB	dBuV/m	dBuV	dB/m	
1 @	5660.600	121.59			83.30	34.73	3.56	0.00 Peak
2	5726.200	75.80	-2.04	77.84	37.54	34.74	3.52	0.00 Peak
1 @	5670.000	110.75			72.46	34.73	3.56	0.00 Average
2	5725.000	61.51	-16.33	77.84	23.25	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

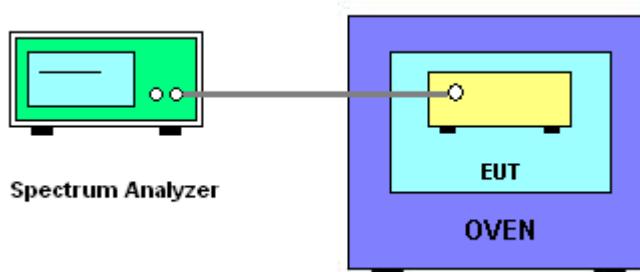
Please refer to section 4 of equipments list in this report. The following table is the setting of the spectrum analyzer.

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  $-30^\circ\text{C} \sim 50^\circ\text{C}$ .
8. When measuring maximum conducted output power within multiple antenna systems, add every result of the values by mathematic formula.

#### 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
<b>Max. Deviation (MHz)</b>	0.003100	0.004200
<b>Max. Deviation (ppm)</b>	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
<b>Max. Deviation (MHz)</b>	0.015700	0.031600
<b>Max. Deviation (ppm)</b>	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.

**FCC TEST REPORT**

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<b>Instrument</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Characteristics</b>	<b>Calibration Date</b>	<b>Remark</b>
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30 MHz - 1 GHz 3m	Jun. 14, 2007	Radiation (03CH03-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30 MHz - 1 GHz 3m	Jun. 14, 2008	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.

<b>Instrument</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Characteristics</b>	<b>Calibration Date</b>	<b>Remark</b>
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 <sup>nd</sup> 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.