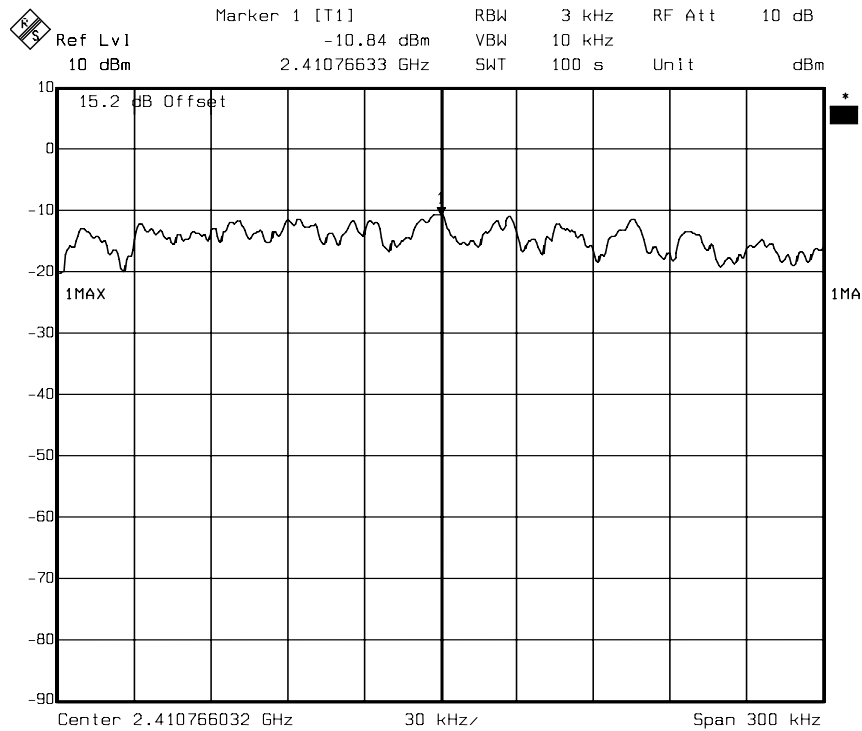
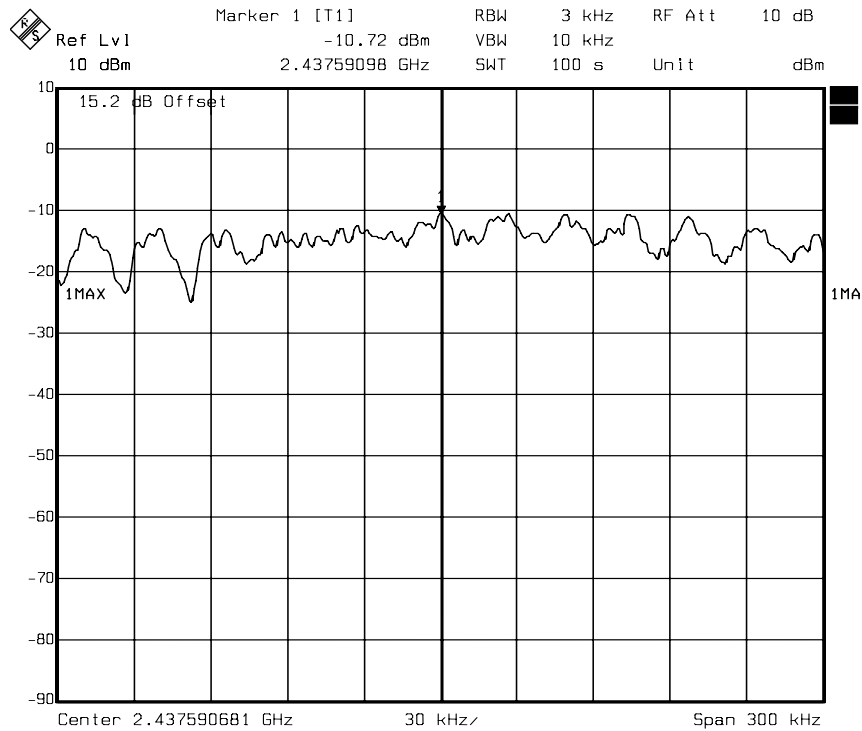


**draft 802.11n Standard-20 MHz Channel mode with combiner****PPSD (CH Low)**

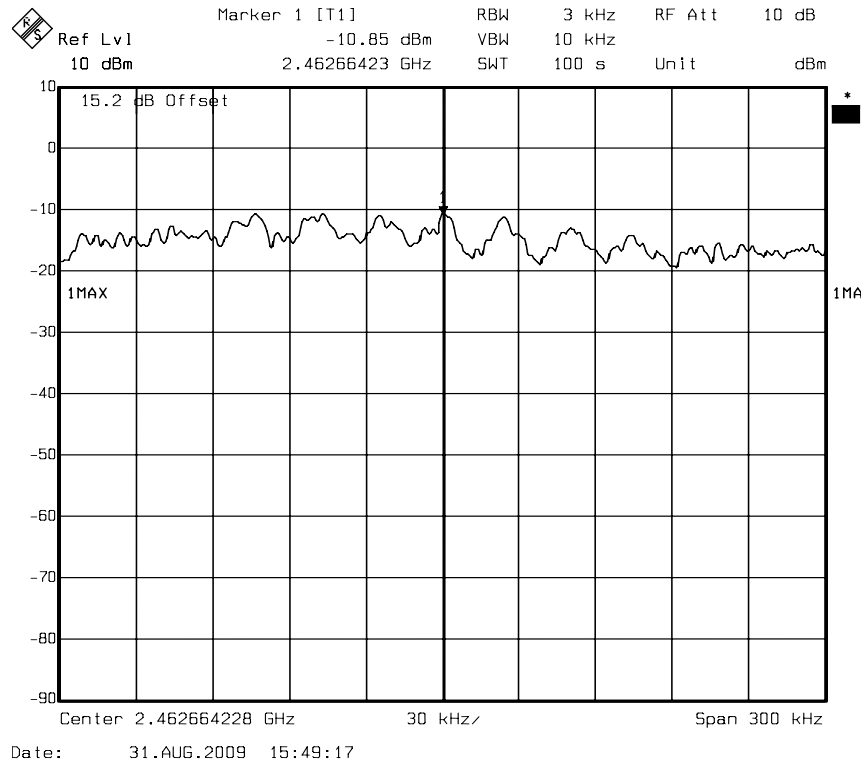
Date: 31.AUG.2009 15:45:17

**PPSD (CH Mid)**

Date: 31.AUG.2009 15:46:39

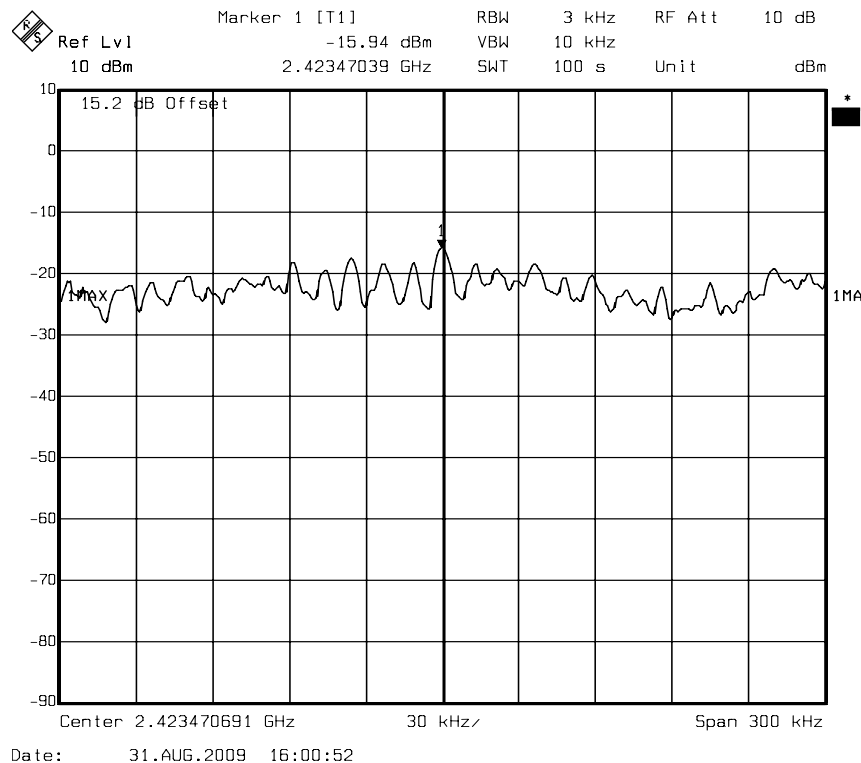


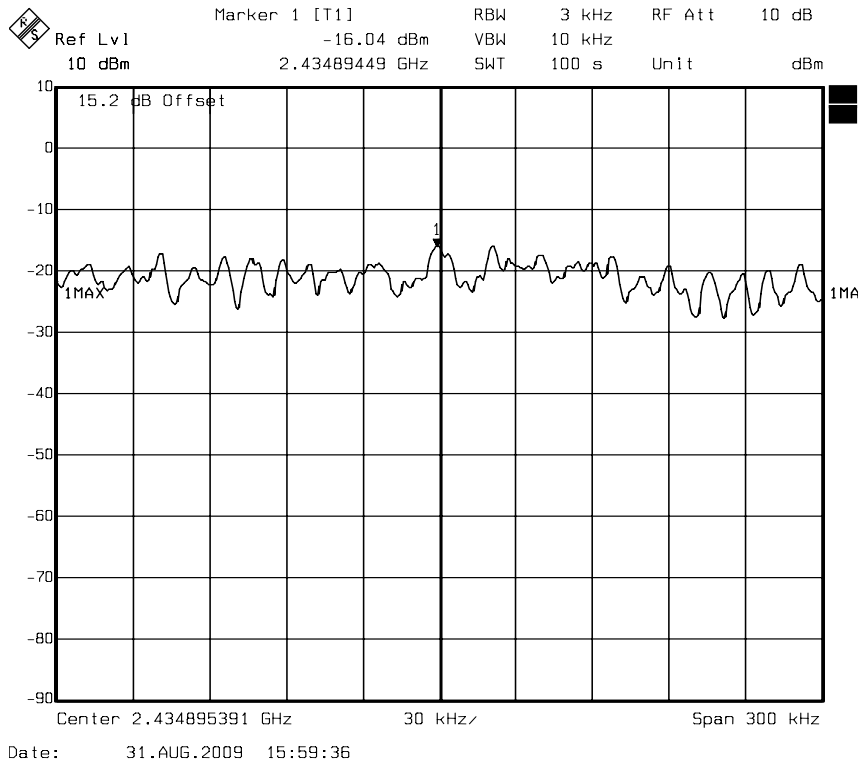
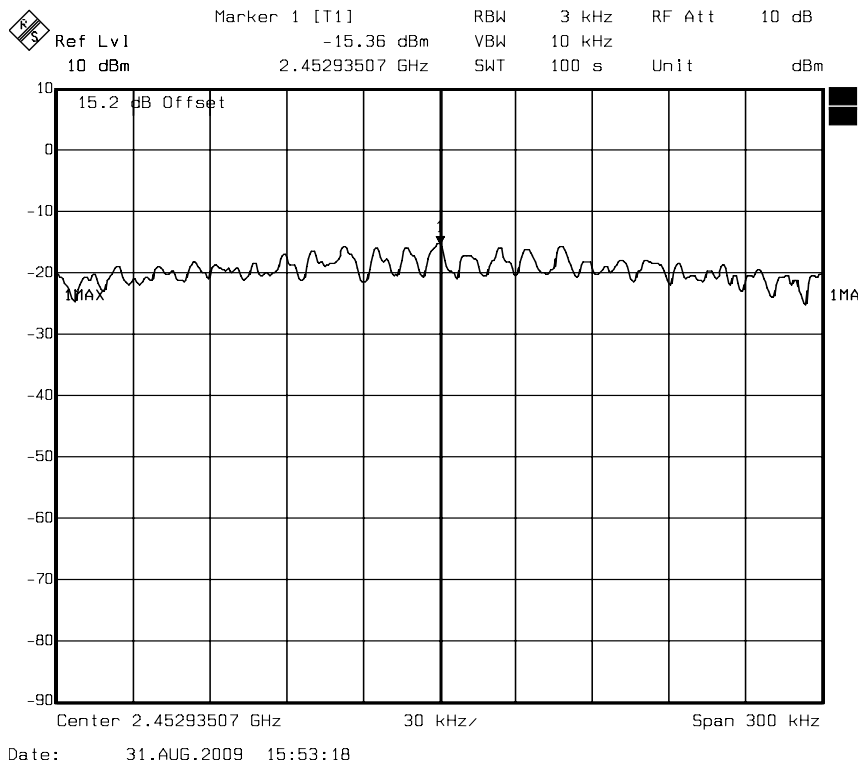
## PPSD (CH High)

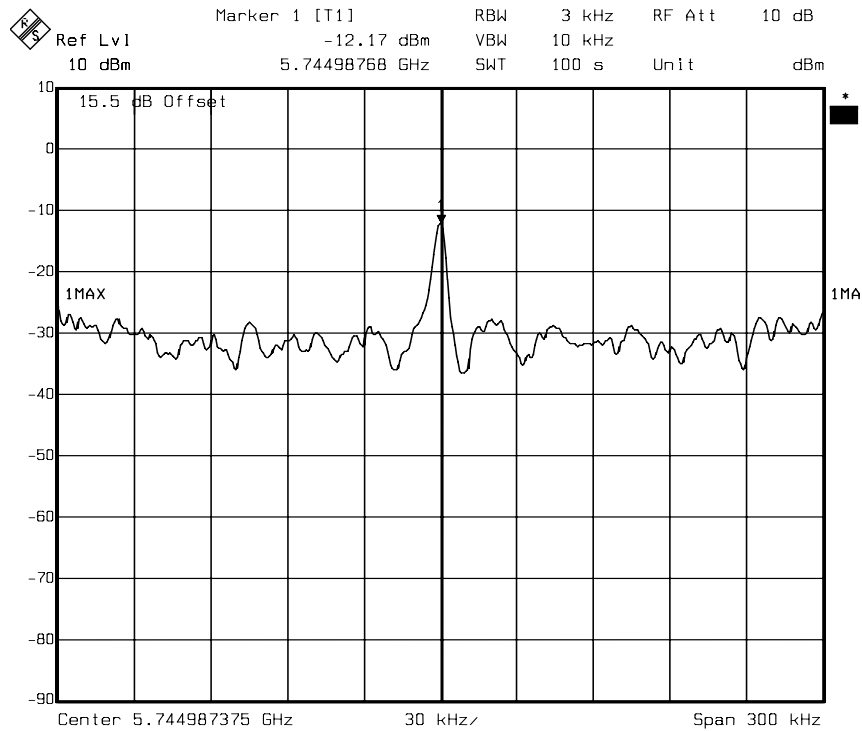


## draft 802.11n Wide-40 MHz Channel mode with combiner

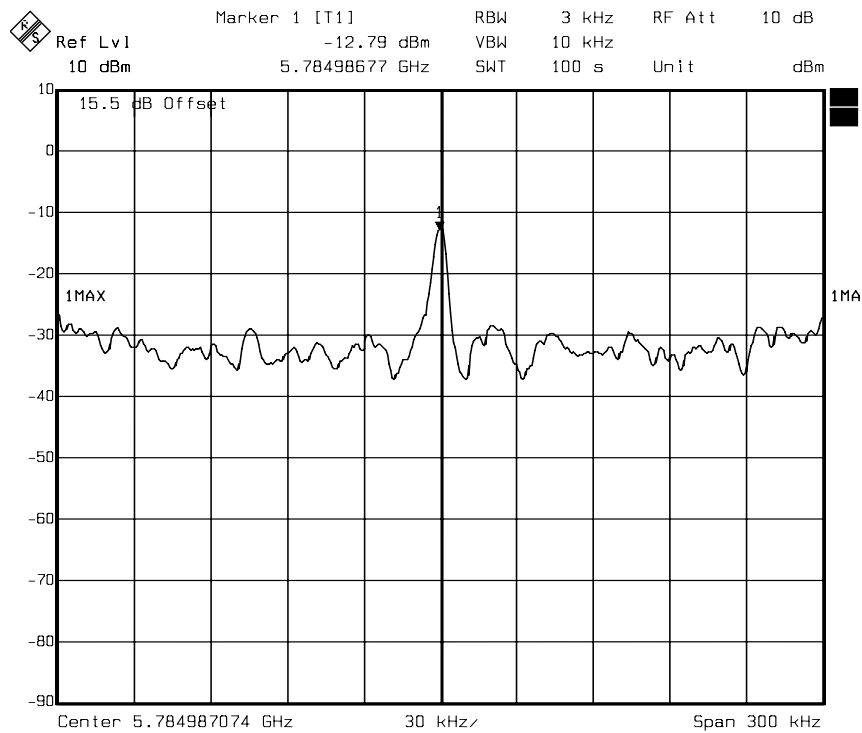
### PPSD (CH Low)



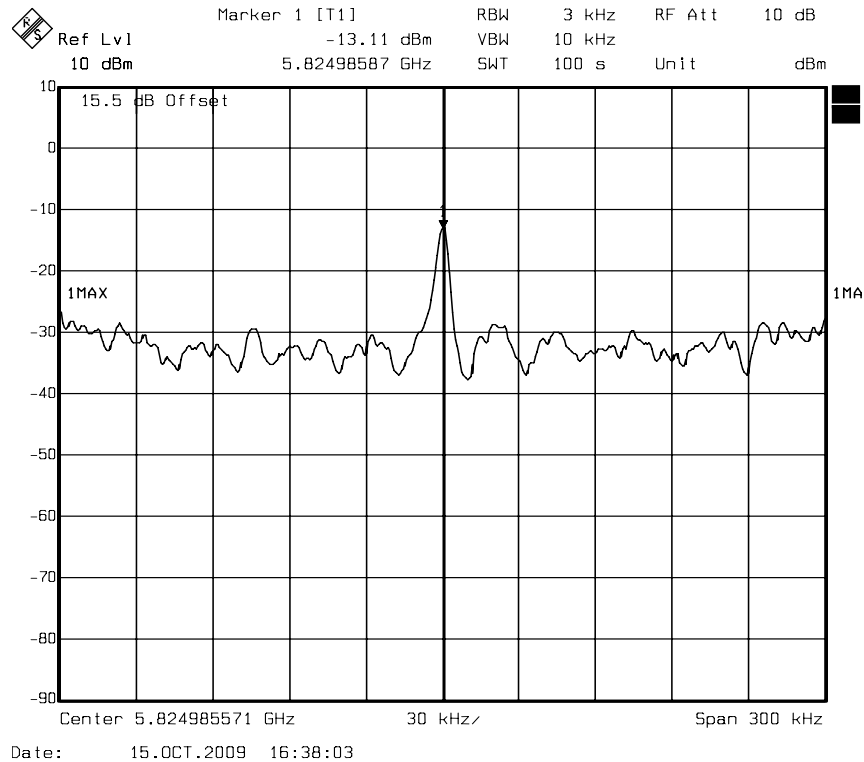
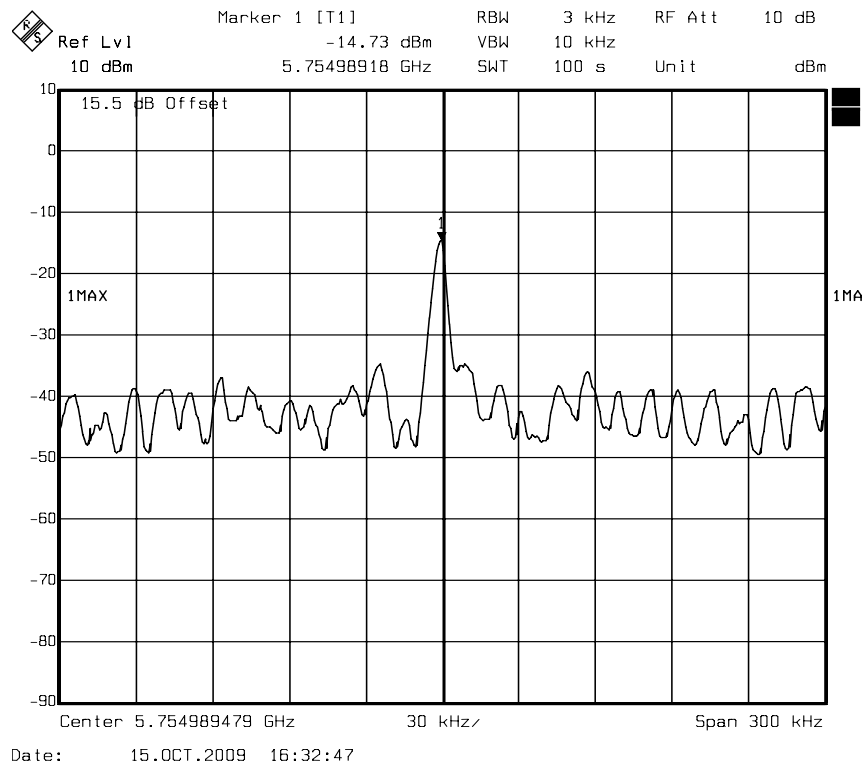
**PPSD (CH Mid)****PPSD (CH High)**

**draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz with combiner****PPSD (CH Low)**

Date: 15.OCT.2009 16:33:54

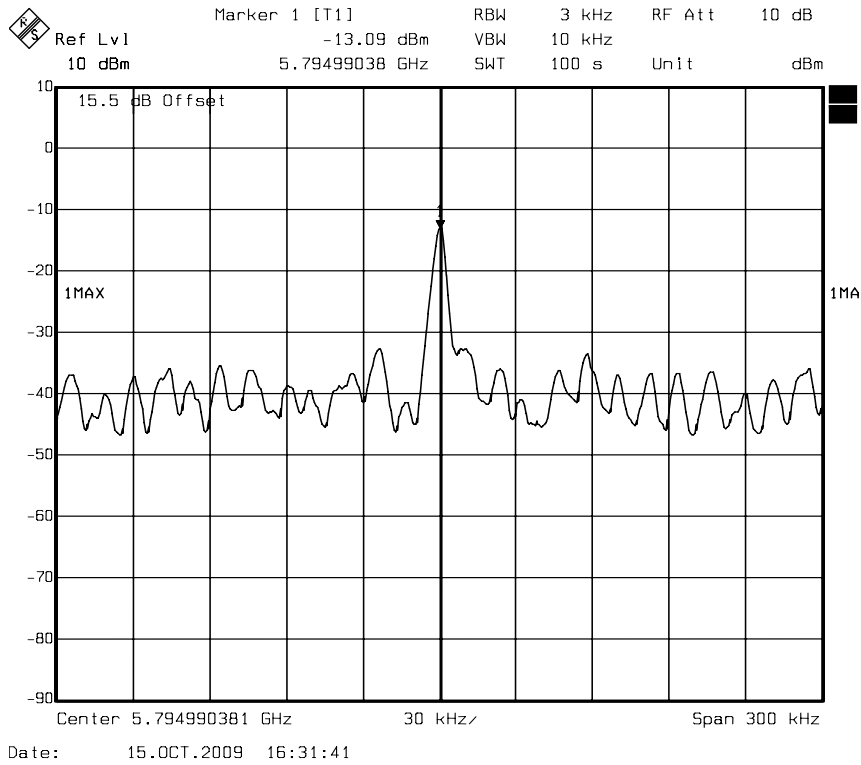
**PPSD (CH Mid)**

Date: 15.OCT.2009 16:35:19

**PPSD (CH High)****draft 802.11n Wide-40 MHz Channel mode with combiner****PPSD (CH Low)**



## PPSD (CH High)



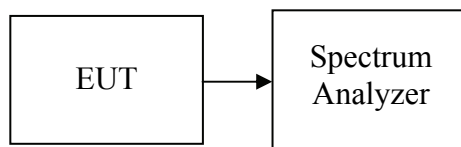
## 7.5 SPURIOUS EMISSIONS

### 7.5.1 Conducted Measurement

#### **LIMIT**

According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a) (see Section 15.205(c)).

#### **Test Configuration**



#### **TEST PROCEDURE**

Conducted RF measurements of the transmitter output were made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 100 kHz.

Measurements are made over the 30MHz to 26.5GHz range with the transmitter set to the lowest, middle, and highest channels.

#### **TEST RESULTS**

No non-compliance noted

**802.11b Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2411.0236	11.7	99.27	110.97	N/A	N/A	---
2098.7976	11.7	40.83	52.53	90.97	-38.44	Pass
7721.6833	11.7	43.18	54.88	90.97	-36.09	Pass
11594.0481	11.7	45.05	56.75	90.97	-34.22	Pass

## CH Mid

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2436.2016	11.7	99.62	111.32	N/A	N/A	---
2098.7976	11.7	41.67	53.37	91.32	-37.95	Pass
6607.7154	11.7	43.84	55.54	91.32	-35.78	Pass
11063.5871	11.7	43.27	54.97	91.32	-36.35	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2462.2135	11.7	97.39	109.09	N/A	N/A	---
2098.7976	11.7	41.56	53.26	89.09	-35.83	Pass
6979.038	11.7	43.38	55.08	89.09	-34.01	Pass
9578.2965	11.7	43.51	55.21	89.09	-33.88	Pass

**802.11g Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2412.1326	11.7	92.47	104.17	N/A	N/A	---
2045.7515	11.7	41.63	53.33	84.17	-30.84	Pass
6925.9919	11.7	42.74	54.44	84.17	-29.73	Pass
11487.9559	11.7	43.60	55.3	84.17	-28.87	Pass

## CH Mid

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2436.5231	11.7	94.01	105.71	N/A	N/A	---
2098.7976	11.7	42.77	54.47	85.71	-31.24	Pass
6766.8537	11.7	43.16	54.86	85.71	-30.85	Pass
11328.8176	11.7	43.98	55.68	85.71	-30.03	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2461.5324	11.7	92.63	104.33	N/A	N/A	---
2098.7976	11.7	42.58	54.28	84.33	-30.05	Pass
6607.7715	11.7	42.19	53.89	84.33	-30.44	Pass
10320.0941	11.7	43.67	55.37	84.33	-28.96	Pass



**802.11n HT20 Chain 0 Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2411.8524	11.7	94.25	105.95	N/A	N/A	---
2098.7976	11.7	41.93	53.63	85.95	-32.32	Pass
7085.1302	11.7	42.98	54.68	85.95	-31.27	Pass
15996.8737	11.7	46.41	58.11	85.95	-27.84	Pass

## CH Mid

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2436.5142	11.7	94.53	106.23	N/A	N/A	---
2098.7976	11.7	42.13	53.83	86.23	-32.40	Pass
11275.7715	11.7	43.00	54.7	86.23	-31.53	Pass
16049.9198	11.7	46.32	58.02	86.23	-28.21	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2461.5325	11.7	93.82	105.52	N/A	N/A	---
2098.7976	11.7	43.28	54.98	85.52	-30.54	Pass
7244.2685	11.7	43.19	54.89	85.52	-30.63	Pass
15996.8737	11.7	45.87	57.57	85.52	-27.95	Pass

**802.11n HT20 Chain 1 Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2413.5241	11.7	91.45	103.15	N/A	N/A	---
3212.7655	11.7	43.96	55.66	83.15	-27.49	Pass
9684.3887	11.7	43.99	55.69	83.15	-27.46	Pass
15996.8737	11.7	45.95	57.65	83.15	-25.50	Pass

## CH Mid

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2436.5142	11.7	92.83	104.53	N/A	N/A	---
3212.7655	11.7	41.80	53.5	84.53	-31.03	Pass
9578.2965	11.7	43.04	54.74	84.53	-29.79	Pass
15996.8737	11.7	45.98	57.68	84.53	-26.85	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2462.2534	11.7	91.28	102.98	N/A	N/A	---
3265.8116	11.7	43.07	54.77	82.98	-28.21	Pass
7032.0841	11.7	42.46	54.16	82.98	-28.82	Pass
16049.9198	11.7	46.31	58.01	82.98	-24.97	Pass

**802.11n HT20 Combined Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2412.3256	15.2	89.58	104.78	N/A	N/A	---
2098.7976	15.2	41.42	56.62	84.78	-28.16	Pass
6331.0014	15.2	44.10	59.3	84.78	-25.48	Pass
6967.5545	15.2	46.07	61.27	84.78	-23.51	Pass

## CH Mid

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2437.5298	15.2	90.08	105.28	N/A	N/A	---
1727.4749	15.2	40.68	55.88	85.28	-29.40	Pass
5482.2639	15.2	42.82	58.02	85.28	-27.26	Pass
6702.324	15.2	46.68	61.88	85.28	-23.40	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2462.5351	15.2	89.69	104.89	N/A	N/A	---
1621.3827	15.2	40.84	56.04	84.89	-28.85	Pass
5853.5866	15.2	43.00	58.2	84.89	-26.69	Pass
6967.5545	15.2	46.16	61.36	84.89	-23.53	Pass

**802.11n HT40 Chain 0 Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2421.5635	11.7	89.15	100.85	N/A	N/A	---
2098.7976	11.7	41.73	53.43	80.85	-27.42	Pass
6925.9919	11.7	42.11	53.81	80.85	-27.04	Pass
16049.9184	11.7	45.57	57.27	80.85	-23.58	Pass

## CH Mid

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2437.5263	11.7	87.00	98.7	N/A	N/A	---
1037.8757	11.7	41.52	53.22	78.70	-25.48	Pass
4963.2865	11.7	43.22	54.92	78.70	-23.78	Pass
6660.7615	11.7	45.72	57.42	78.70	-21.28	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2452.6535	11.7	87.28	98.98	N/A	N/A	---
1727.4749	11.7	41.01	52.71	78.98	-26.27	Pass
5599.8396	11.7	45.15	56.85	78.98	-22.13	Pass
6779.038	11.7	45.82	57.52	78.98	-21.46	Pass

**802.11n HT40 Chain 1 Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2422.8563	11.7	85.22	96.92	N/A	N/A	---
1833.5671	11.7	40.51	52.21	76.92	-24.71	Pass
5535.31	11.7	43.60	55.3	76.92	-21.62	Pass
6649.2779	11.7	45.94	57.64	76.92	-19.28	Pass

## CH Mid

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2437.5263	11.7	85.25	96.95	N/A	N/A	---
1727.4749	11.7	41.60	53.3	76.95	-23.65	Pass
6024.2084	11.7	43.83	55.53	76.95	-21.42	Pass
6660.7615	11.7	46.19	57.89	76.95	-19.06	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2452.6535	11.7	84.62	96.32	N/A	N/A	---
1780.521	11.7	41.53	53.23	76.32	-23.09	Pass
6660.7615	11.7	45.42	57.12	76.32	-19.20	Pass
6979.038	11.7	46.37	58.07	76.32	-18.25	Pass

**802.11n HT40 Combined Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2422.8563	15.2	87.73	102.93	N/A	N/A	---
1780.521	15.2	41.07	56.27	82.93	-26.66	Pass
6431.0014	15.2	44.82	60.02	82.93	-22.91	Pass
6967.5545	15.2	45.03	60.23	82.93	-22.70	Pass

## CH Mid

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2437.9536	15.2	87.54	102.74	N/A	N/A	---
1727.4749	15.2	40.66	55.86	82.74	-26.88	Pass
5641.4022	15.2	42.76	57.96	82.74	-24.78	Pass
6596.2318	15.2	46.02	61.22	82.74	-21.52	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2452.6853	15.2	86.78	101.98	N/A	N/A	---
2151.8436	15.2	42.01	57.21	81.98	-24.77	Pass
5959.6787	15.2	43.62	58.82	81.98	-23.16	Pass
6808.4162	15.2	45.55	60.75	81.98	-21.23	Pass

**802.11a Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5744.85451	12.1	90.40	102.5	N/A	N/A	---
4591.96393	12.1	38.38	50.48	82.50	-32.02	Pass
6660.76152	12.1	34.69	46.79	82.50	-35.71	Pass
14988.998	12.1	33.86	45.96	82.50	-36.54	Pass

## CH Mid

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5785.15451	12.1	91.08	103.18	N/A	N/A	---
4591.96393	12.1	40.03	52.13	83.18	-31.05	Pass
6660.76152	12.1	35.12	47.22	83.18	-35.96	Pass
14723.76754	12.1	34.65	46.75	83.18	-36.43	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5824.53625	12.1	90.02	102.12	N/A	N/A	---
4645.01002	12.1	43.64	55.74	82.12	-26.38	Pass
6925.99198	12.1	34.83	46.93	82.12	-35.19	Pass
13768.93788	12.1	34.54	46.64	82.12	-35.48	Pass

**802.11n HT20 Chain 0 Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5746.53545	12.1	87.32	99.42	N/A	N/A	---
4591.96393	12.1	37.96	50.06	79.42	-29.36	Pass
6925.99198	12.1	35.07	47.17	79.42	-32.25	Pass
13768.93788	12.1	34.03	46.13	79.42	-33.29	Pass

## CH Mid

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5784.65235	12.1	87.05	99.15	N/A	N/A	---
4591.96393	12.1	35.02	47.12	79.15	-32.03	Pass
6607.71543	12.1	34.91	47.01	79.15	-32.14	Pass
13875.03006	12.1	33.88	45.98	79.15	-33.17	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5824.12745	12.1	87.89	99.99	N/A	N/A	---
4645.01002	12.1	43.56	55.66	79.99	-24.33	Pass
6660.76152	12.1	35.08	47.18	79.99	-32.81	Pass
13928.07615	12.1	34.19	46.29	79.99	-33.70	Pass

**802.11n HT20 Chain 1 Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5758.97796	12.1	86.84	98.94	N/A	N/A	---
4591.96393	12.1	51.01	63.11	78.94	-15.83	Pass
6925.99198	12.1	35.15	47.25	78.94	-31.69	Pass
1410.26052	12.1	34.43	46.53	78.94	-32.41	Pass

## CH Mid

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5786.51355	12.1	84.78	96.88	N/A	N/A	---
4645.01002	12.1	49.15	61.25	76.88	-15.63	Pass
6925.99198	12.1	34.79	46.89	76.88	-29.99	Pass
14988.998	12.1	33.71	45.81	76.88	-31.07	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5825.68752	12.1	84.55	96.65	N/A	N/A	---
4645.01002	12.1	47.94	60.04	76.65	-16.61	Pass
6925.99198	12.1	34.39	46.49	76.65	-30.16	Pass
14670.72144	12.1	33.66	45.76	76.65	-30.89	Pass

**802.11n HT20 Combined Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5745.51459	15.5	87.96	103.46	N/A	N/A	---
4591.96393	15.5	37.04	52.54	83.46	-30.92	Pass
6766.95371	15.5	34.25	49.75	83.46	-33.71	Pass
13821.98397	15.5	33.51	49.01	83.46	-34.45	Pass

## CH Mid

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5784.1217	15.5	88.31	103.81	N/A	N/A	---
4591.96393	15.5	35.35	50.85	83.81	-32.96	Pass
6979.03808	15.5	34.90	50.4	83.81	-33.41	Pass
13768.93788	15.5	33.05	48.55	83.81	-35.26	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5824.51355	15.5	87.90	103.4	N/A	N/A	---
4645.01002	15.5	43.63	59.13	83.40	-24.27	Pass
6660.76152	15.5	34.44	49.94	83.40	-33.46	Pass
13768.93788	15.5	33.34	48.84	83.40	-34.56	Pass

**802.11n HT40 Chain 0 Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5754.65399	12.1	83.26	95.36	N/A	N/A	---
4591.96393	12.1	36.71	48.81	75.36	-26.55	Pass
6660.75152	12.1	35.29	47.39	75.36	-27.97	Pass
14140.26052	12.1	33.78	45.88	75.36	-29.48	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5796.84564	12.1	84.10	96.2	N/A	N/A	---
4645.01002	12.1	37.80	49.9	76.20	-26.30	Pass
6819.8998	12.1	33.48	45.58	76.20	-30.62	Pass
1414026.52	12.1	33.30	45.4	76.20	-30.80	Pass

**802.11n HT40 Chain 1 Mode**

## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5753.49186	12.1	85.53	97.63	N/A	N/A	---
4591.96393	12.1	50.75	62.85	77.63	-14.78	Pass
6713.80762	12.1	28.72	40.82	77.63	-36.81	Pass
14140.26052	12.1	34.19	46.29	77.63	-31.34	Pass

## CH Mid

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5794.25366	12.1	82.93	95.03	N/A	N/A	---
4645.01002	12.1	49.48	61.58	75.03	-13.45	Pass
6925.99198	12.1	34.82	46.92	75.03	-28.11	Pass
14670.72144	12.1	33.46	45.56	75.03	-29.47	Pass

## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
2452.6535	12.1	84.22	96.32	N/A	N/A	---
1780.521	12.1	41.13	53.23	76.32	-23.09	Pass
6660.7615	12.1	45.02	57.12	76.32	-19.20	Pass
6979.038	12.1	45.97	58.07	76.32	-18.25	Pass

**802.11n HT40 Combined Mode**

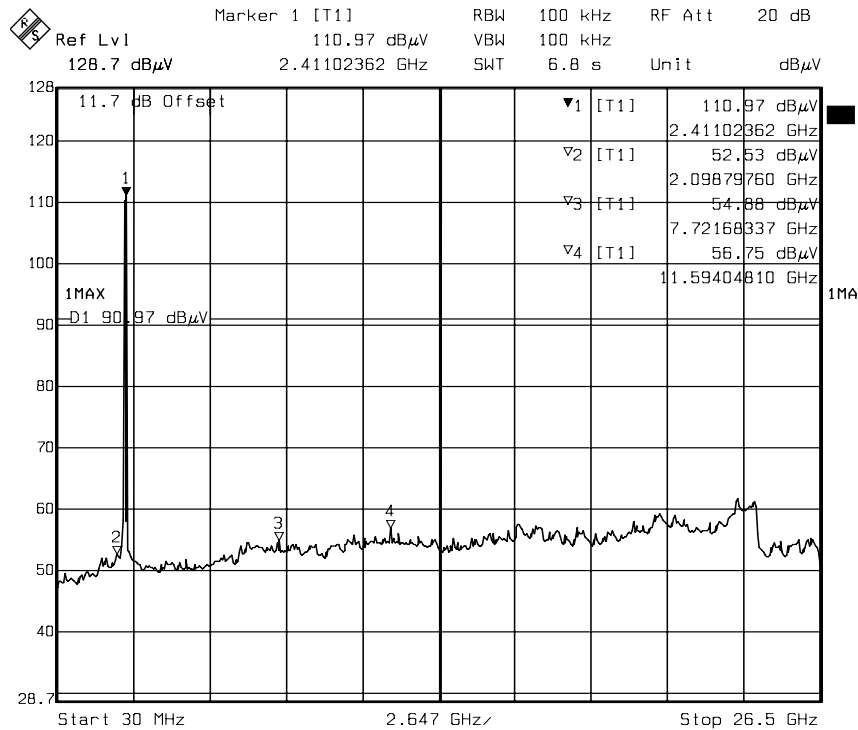
## CH Low

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5753.54511	15.5	85.94	101.44	N/A	N/A	---
4591.96393	15.5	37.19	52.69	81.44	-28.75	Pass
6660.76152	15.5	34.82	50.32	81.44	-31.12	Pass
13768.93788	15.5	33.58	49.08	81.44	-32.36	Pass

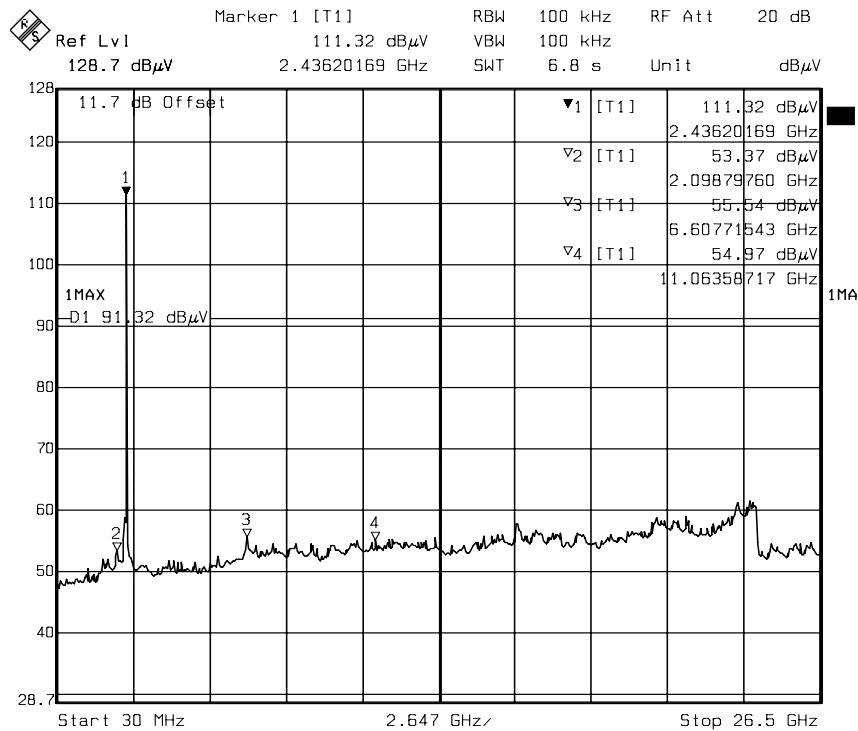
## CH High

Frequency	Offset	Reading	Level	Limit	Margin	Pass/Fail
(MHz)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
5795.84545	15.5	87.52	103.02	N/A	N/A	---
4645.01002	15.5	35.85	51.35	83.02	-31.67	Pass
6925.99198	15.5	34.42	49.92	83.02	-33.10	Pass
14140.26052	15.5	32.41	47.91	83.02	-35.11	Pass

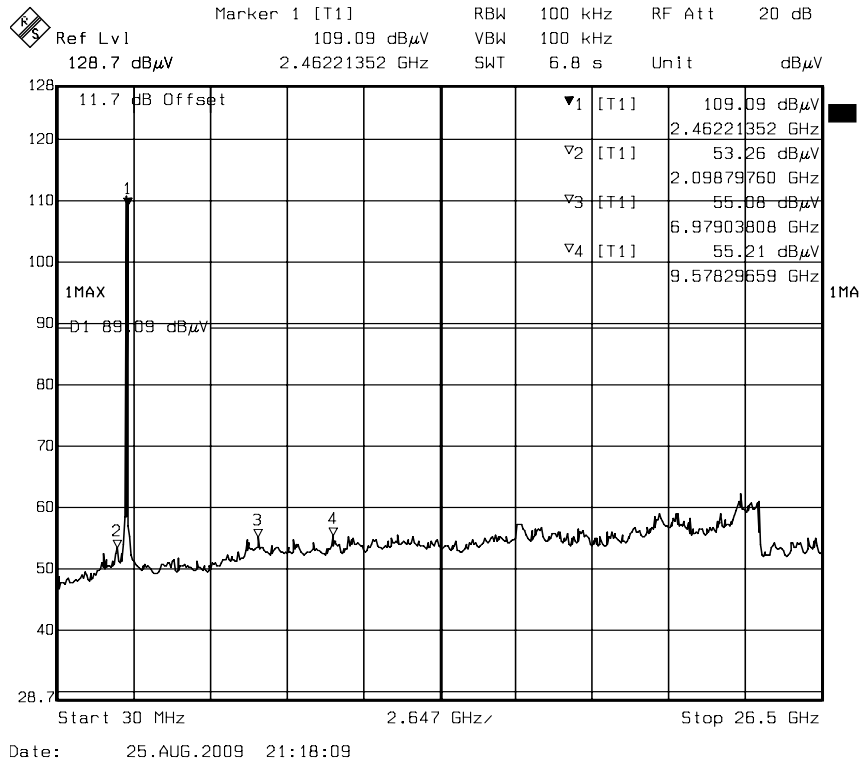
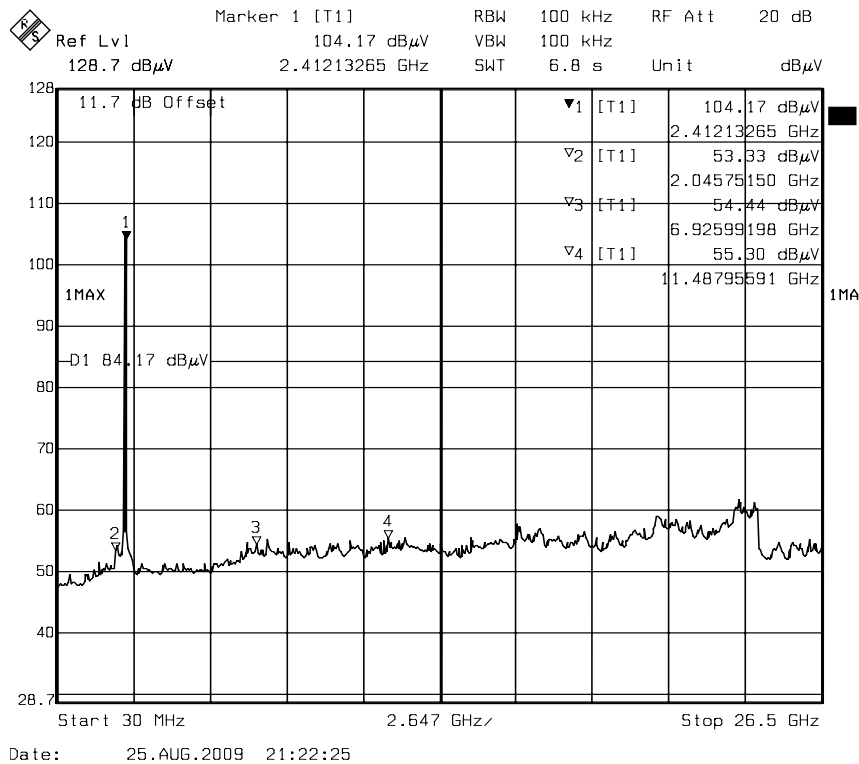


**Test Plot****IEEE 802.11b mode****CH Low**

Date: 25.AUG.2009 21:13:31

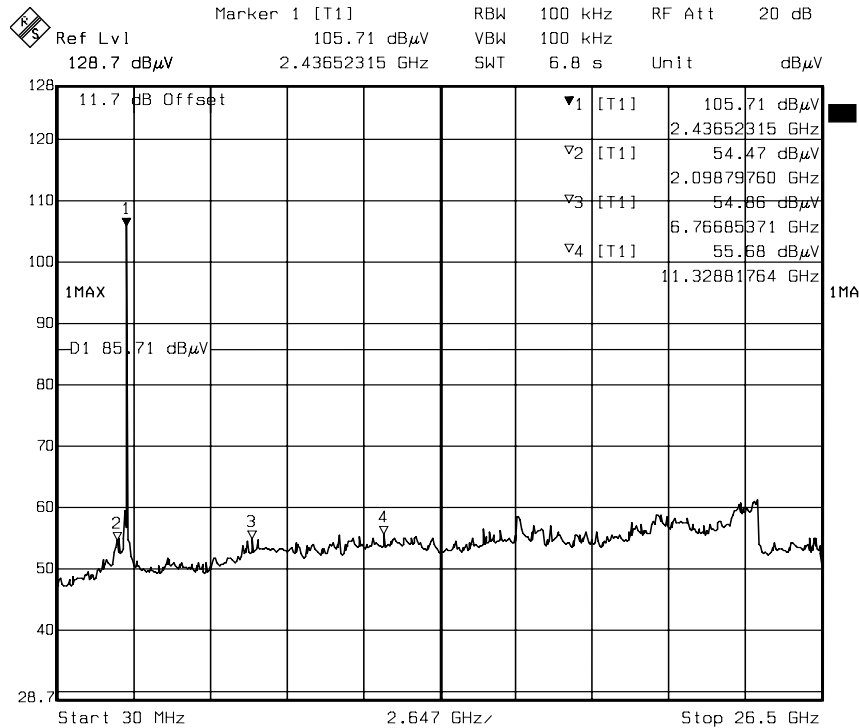
**CH Mid**

Date: 25.AUG.2009 21:14:29

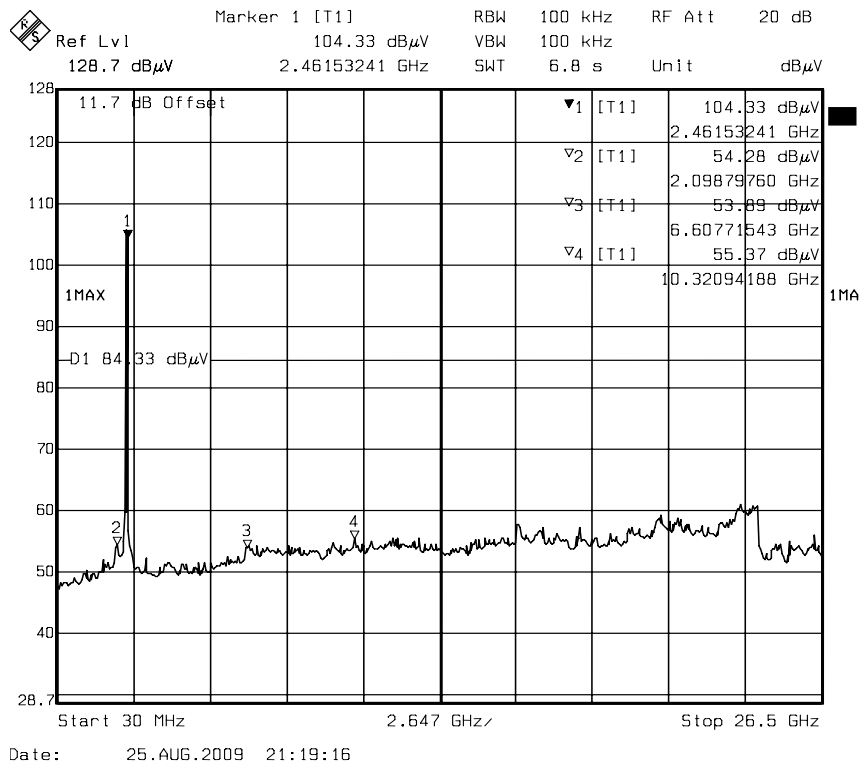
**CH High****IEEE 802.11g mode****CH Low**

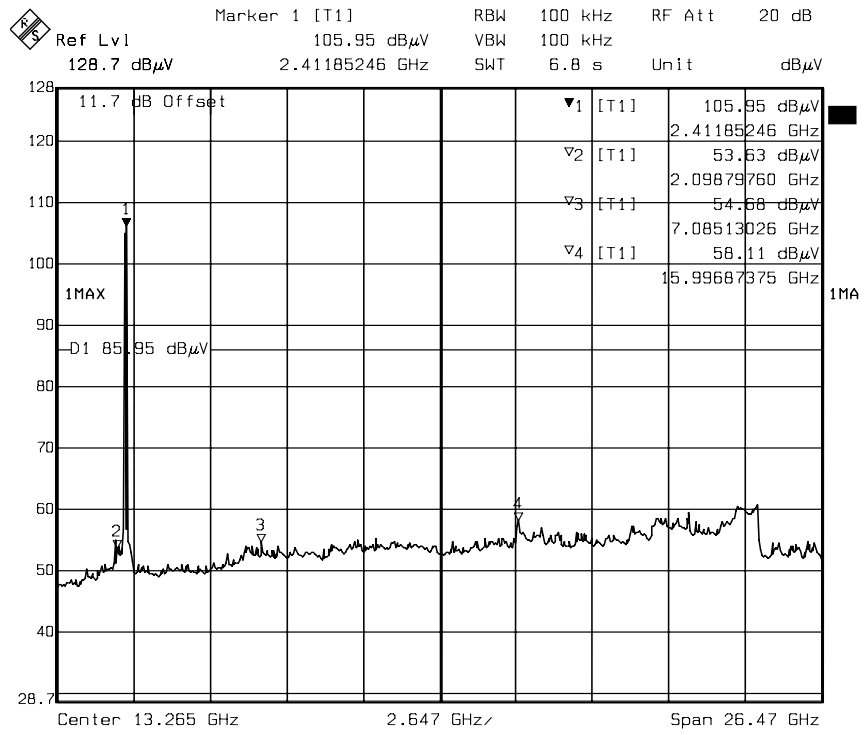


## CH Mid

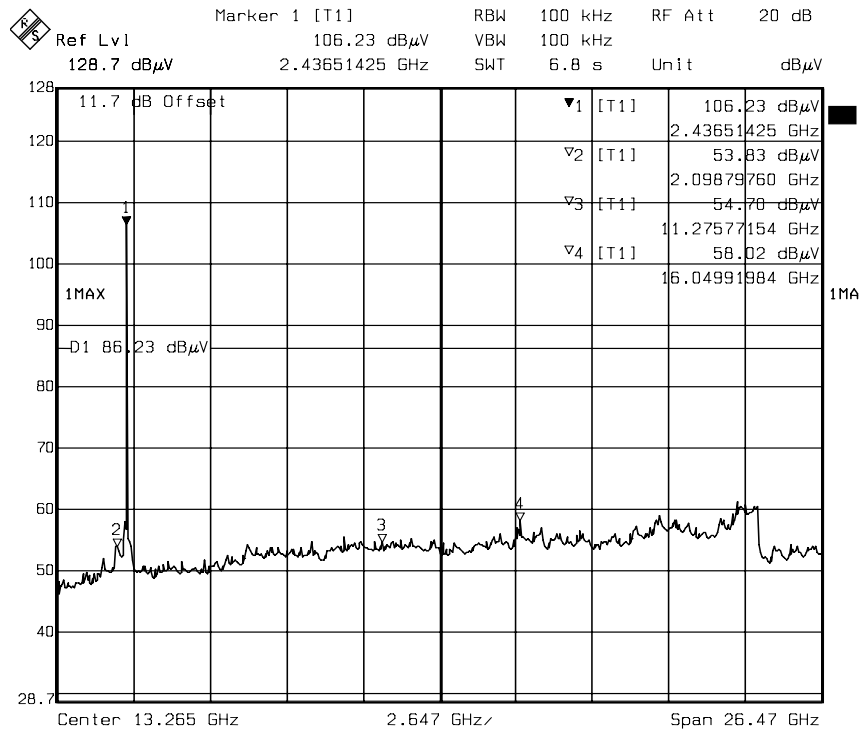


## CH High

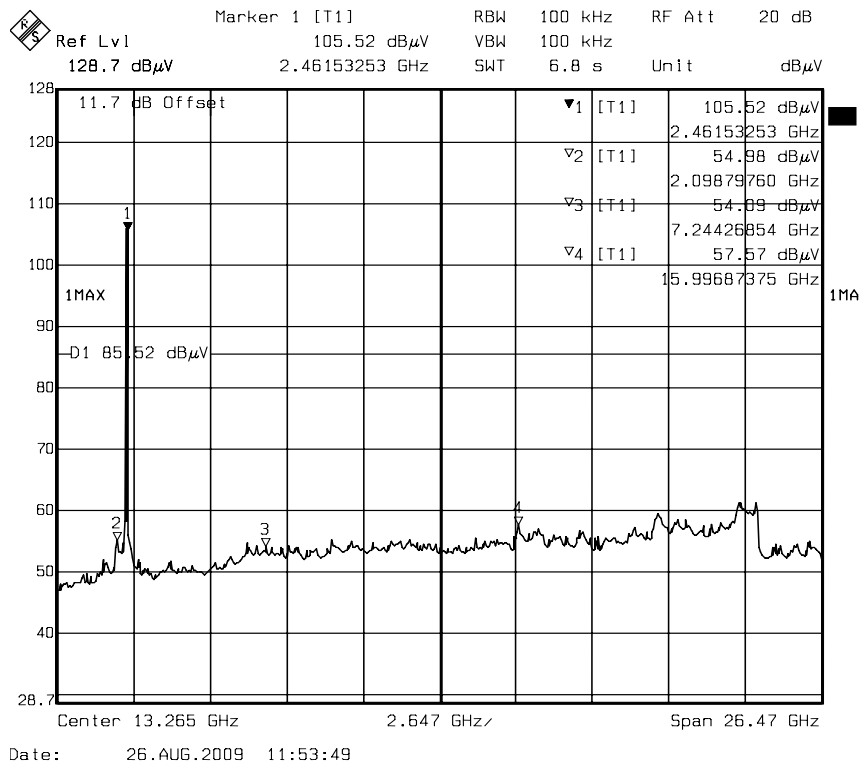
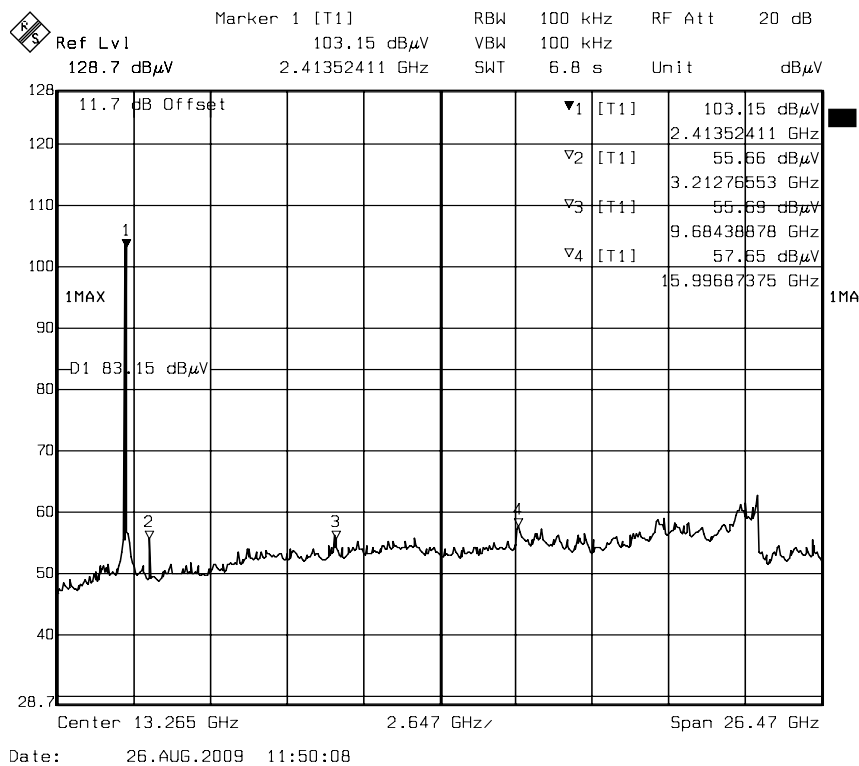


**draft 802.11n Standard-20 MHz Channel mode / Chain 0****CH Low**

Date: 26.AUG.2009 11:49:22

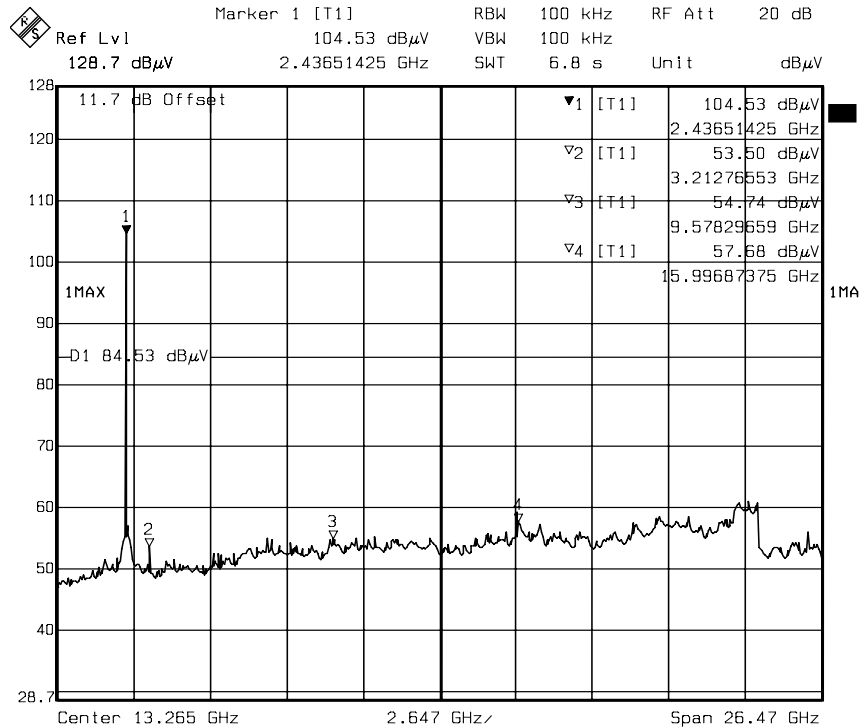
**CH Mid**

Date: 26.AUG.2009 11:51:53

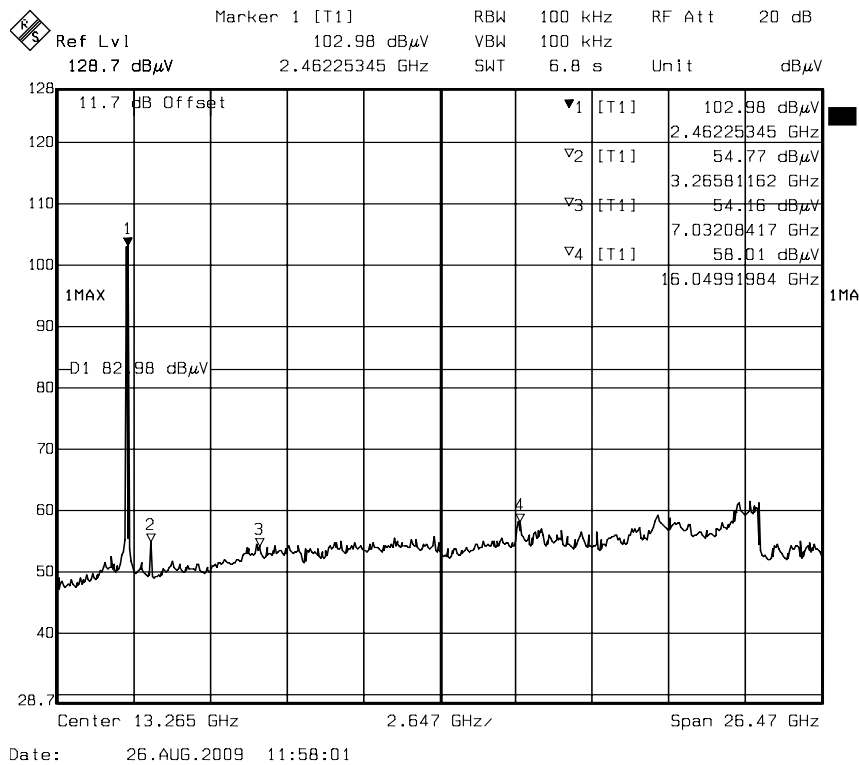
**CH High****draft 802.11n Standard-20 MHz Channel mode / Chain 1****CH Low**

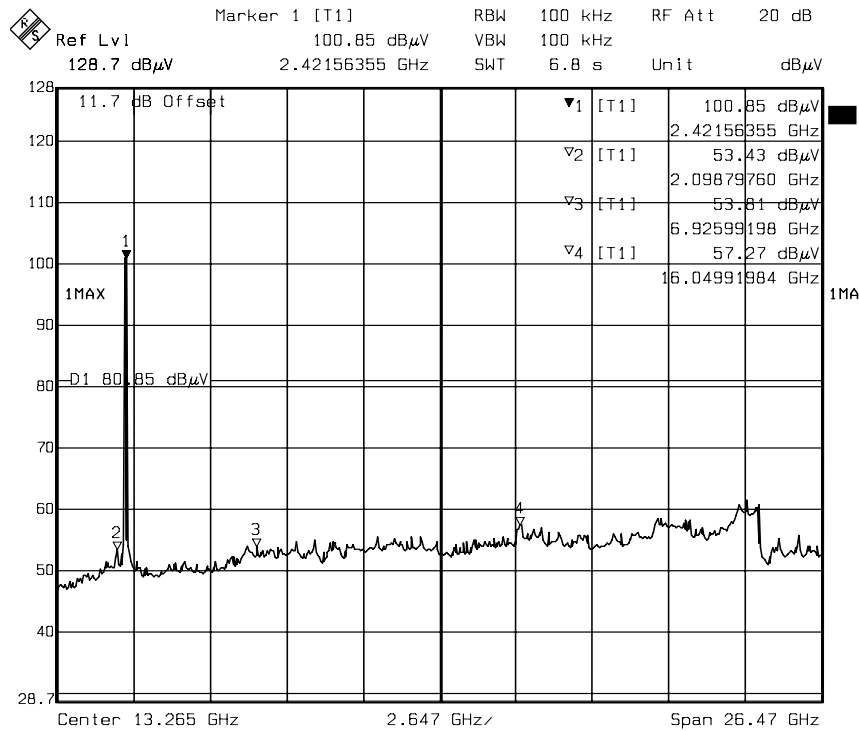


## CH Mid

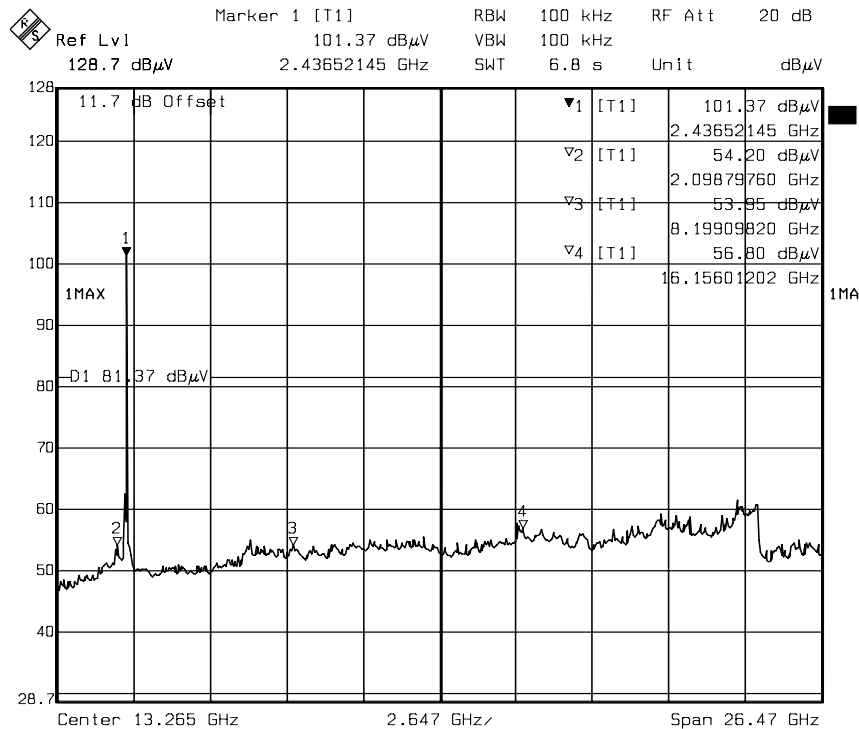


## CH High

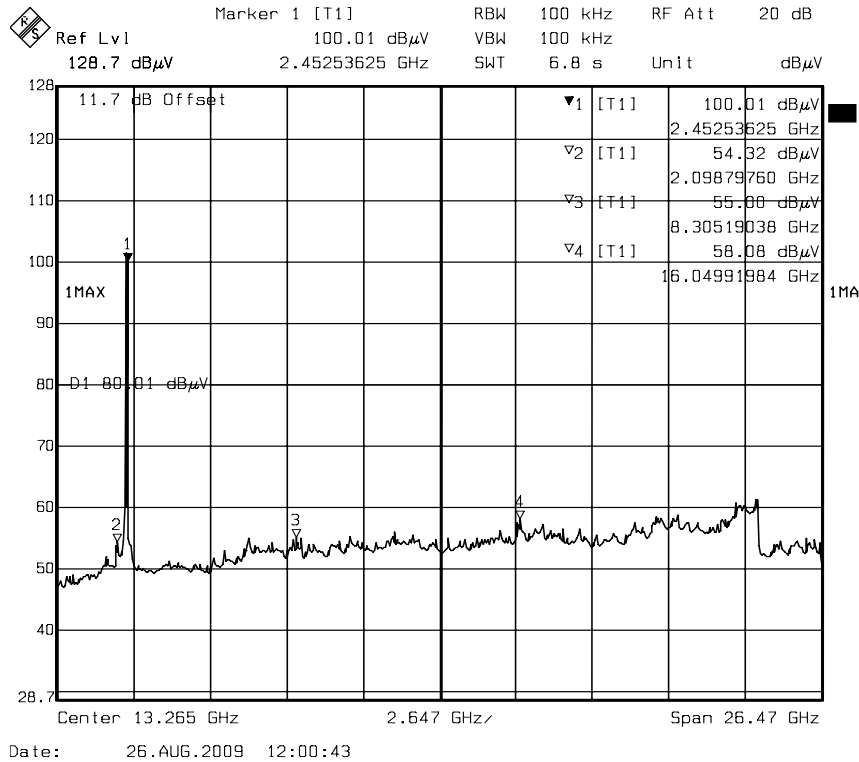
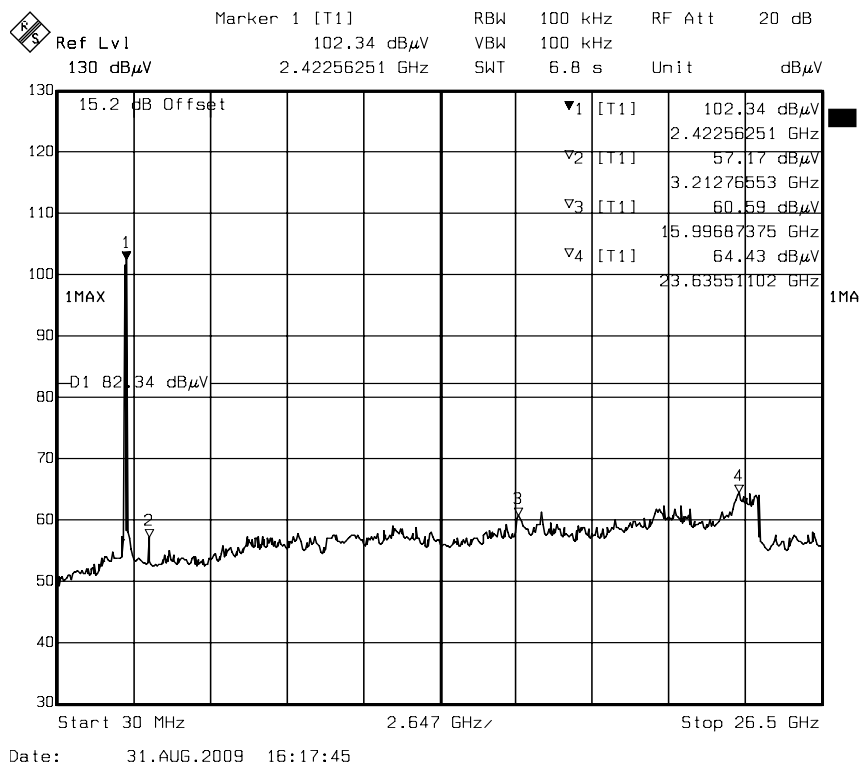


**draft 802.11n Wide-40 MHz Channel mode / Chain 0****CH Low**

Date: 26.AUG.2009 12:04:29

**CH Mid**

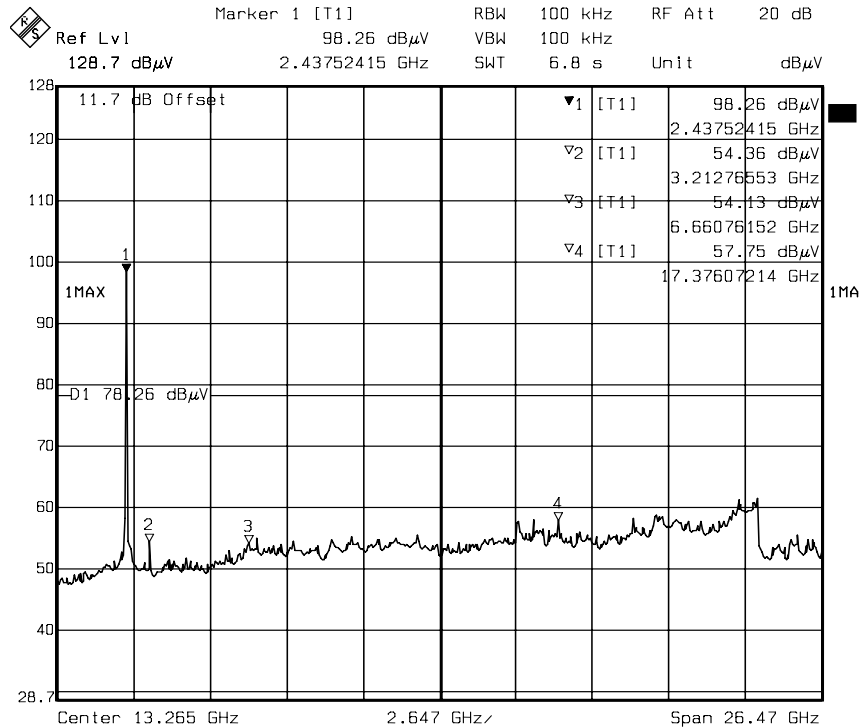
Date: 26.AUG.2009 12:01:59

**CH High****draft 802.11n Wide-40 MHz Channel mode / Chain 1****CH Low**

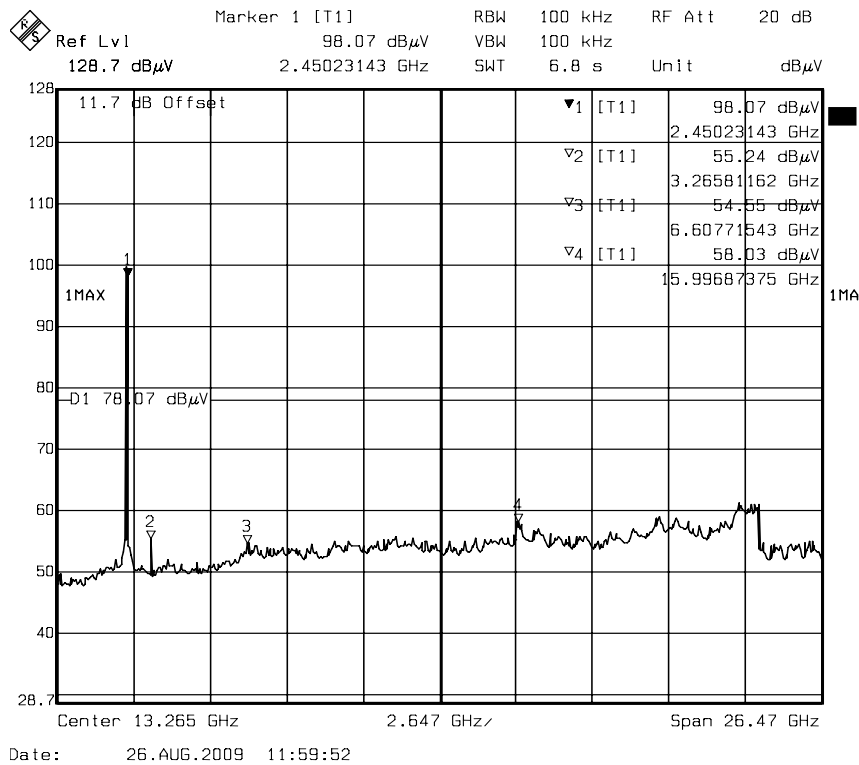


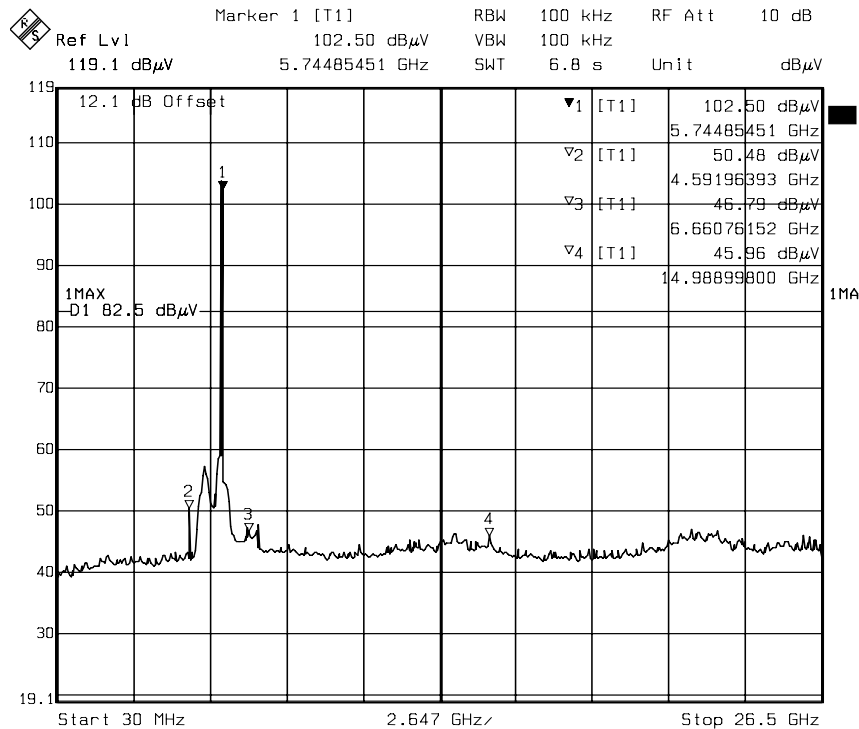


## CH Mid

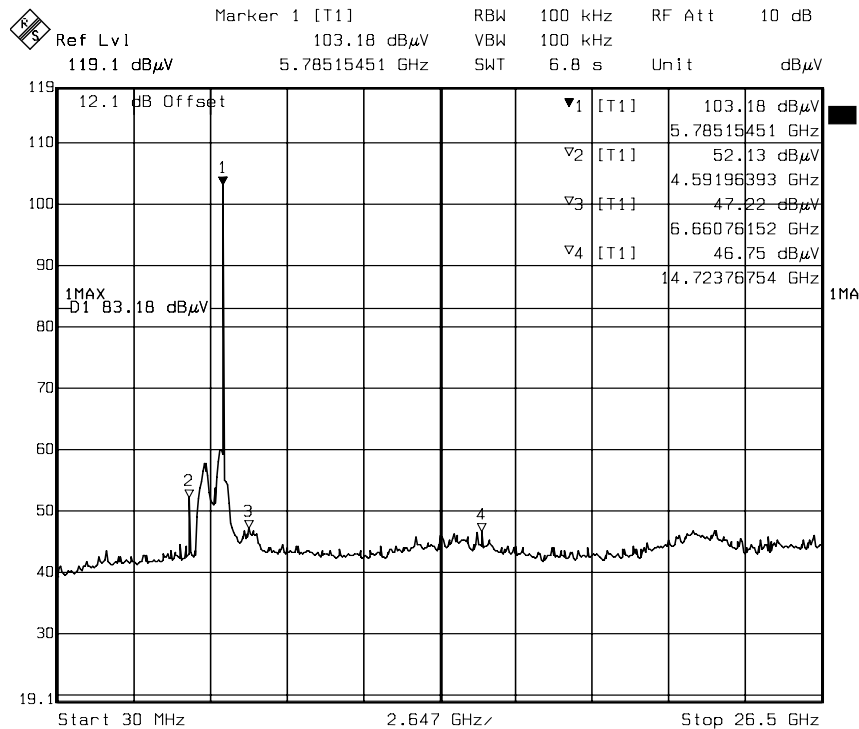


## CH High

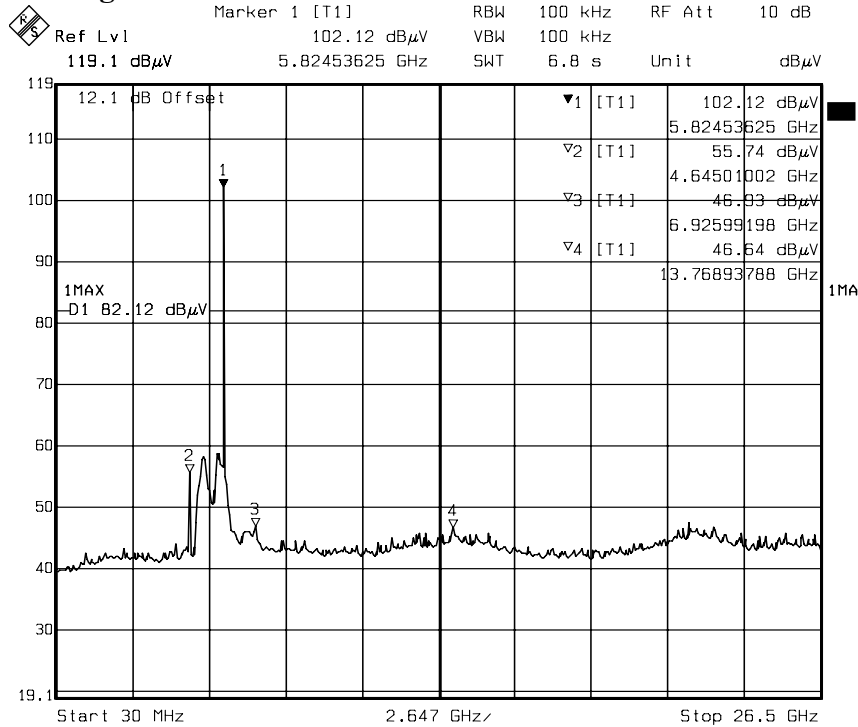


**IEEE 802.11a mode / 5745 ~ 5825MHz****CH Low**

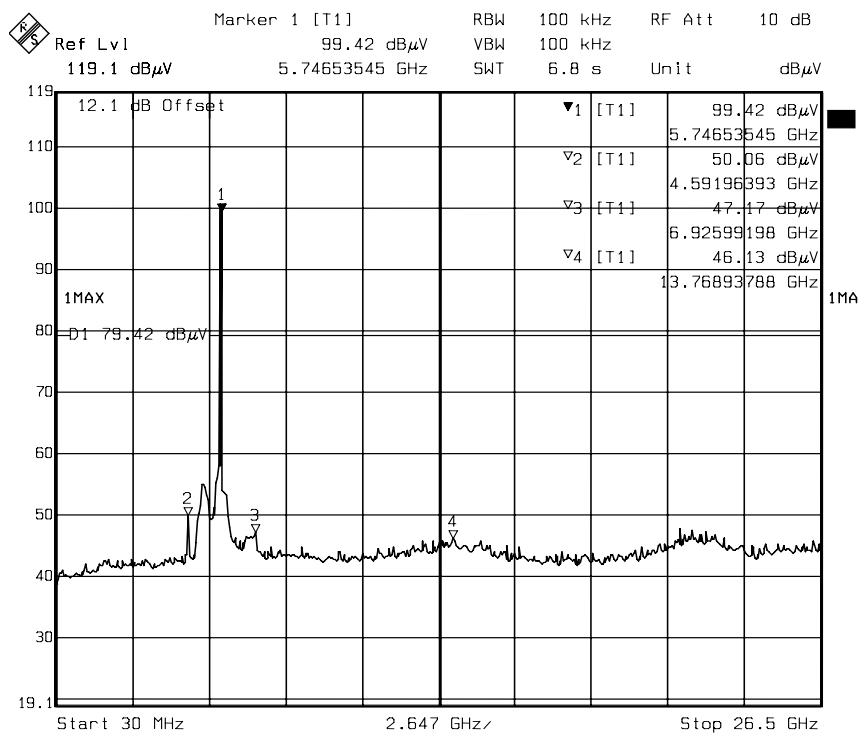
Date: 15.OCT.2009 16:46:51

**CH Mid**

Date: 15.OCT.2009 16:49:27

**CH High**

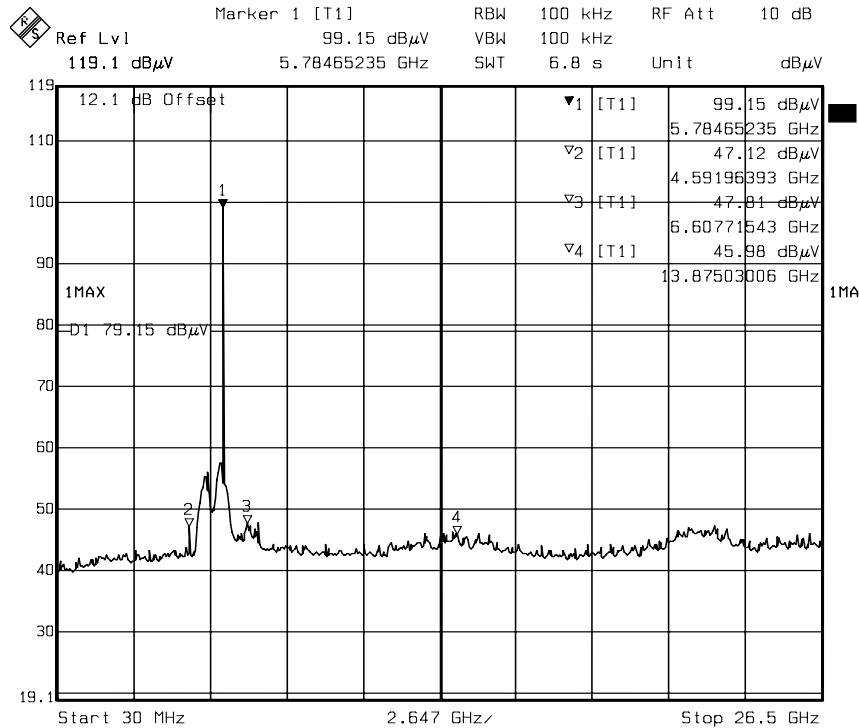
Date: 15.OCT.2009 16:50:49

**draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / Chain 0****CH Low**

Date: 15.OCT.2009 16:57:06

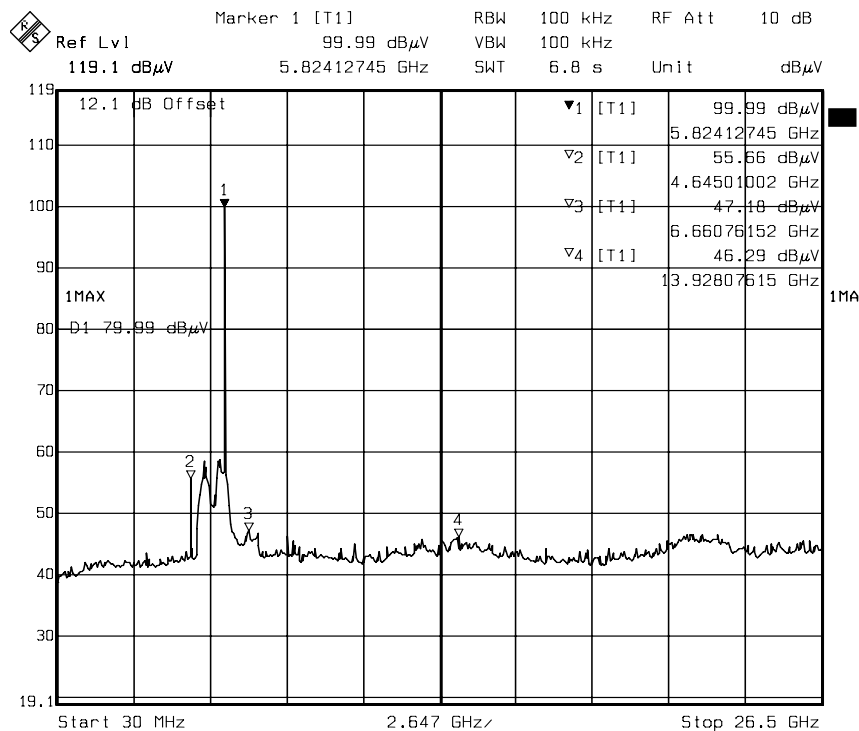


## CH Mid

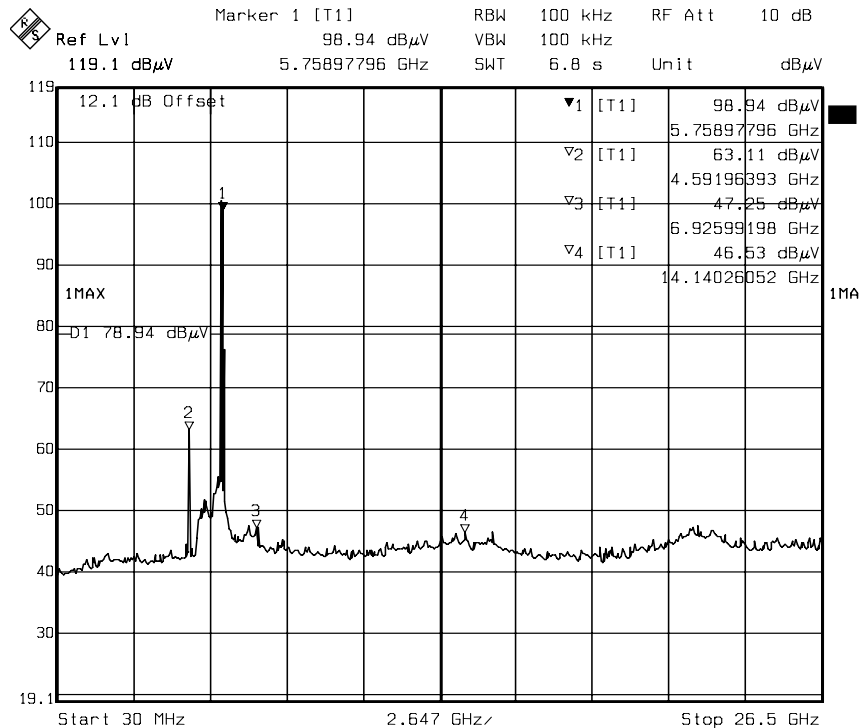


Date: 15.OCT.2009 16:54:46

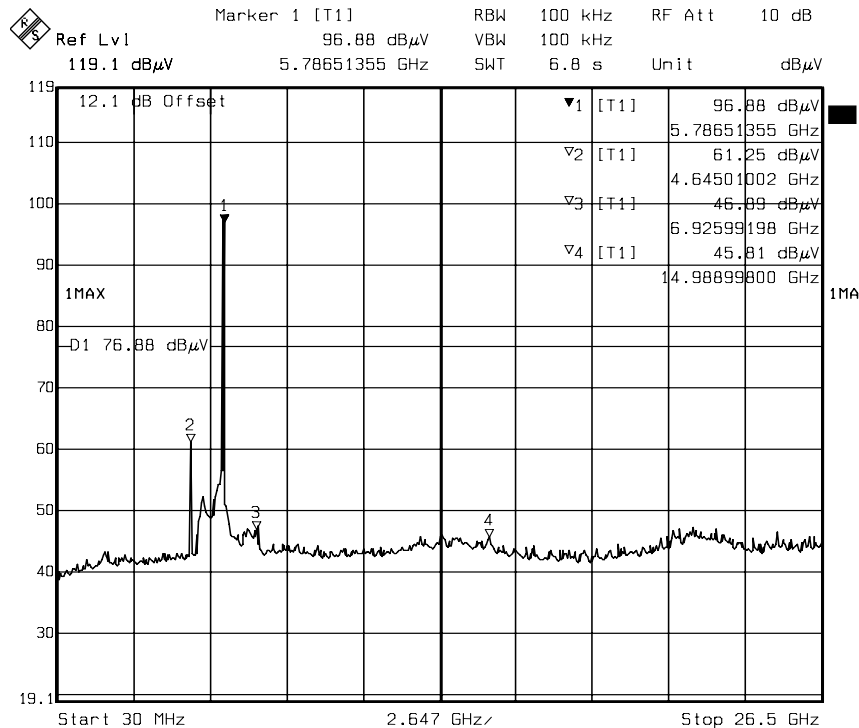
## CH High



Date: 15.OCT.2009 16:53:01

**draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / Chain 1****CH Low**

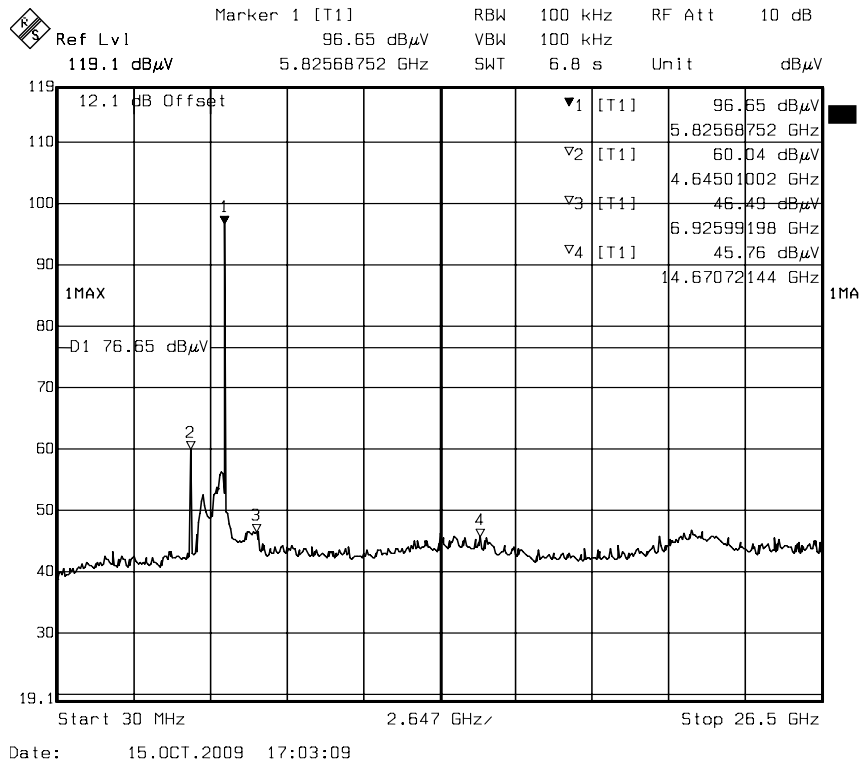
Date: 15.OCT.2009 16:59:07

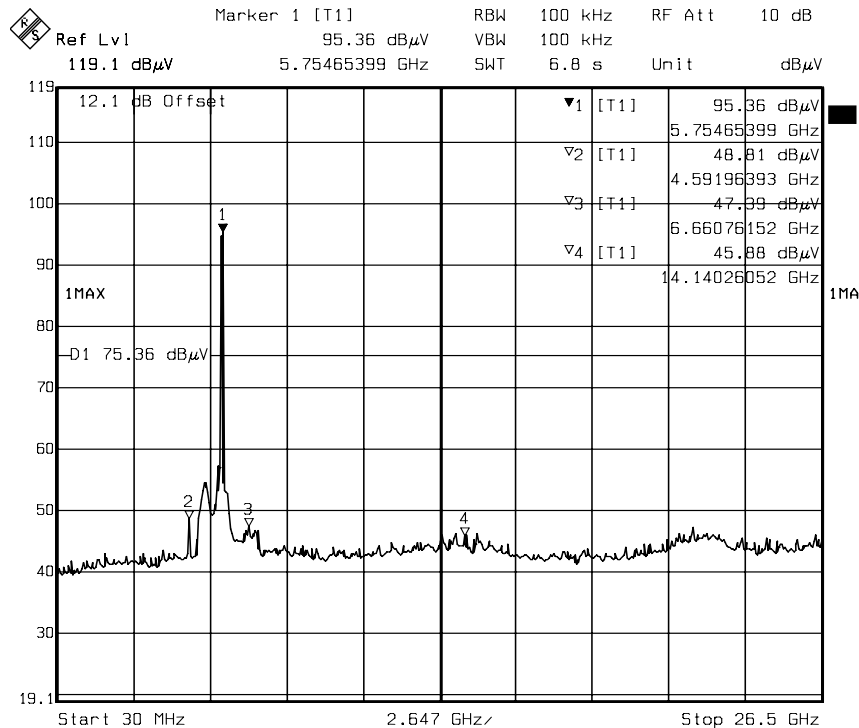
**CH Mid**

Date: 15.OCT.2009 17:01:19

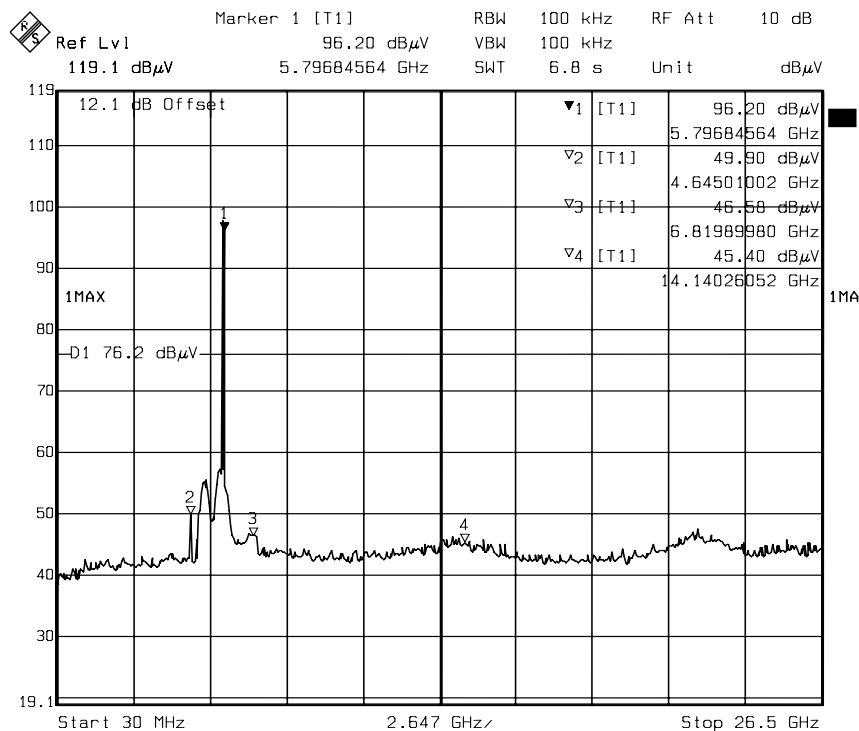


## CH High

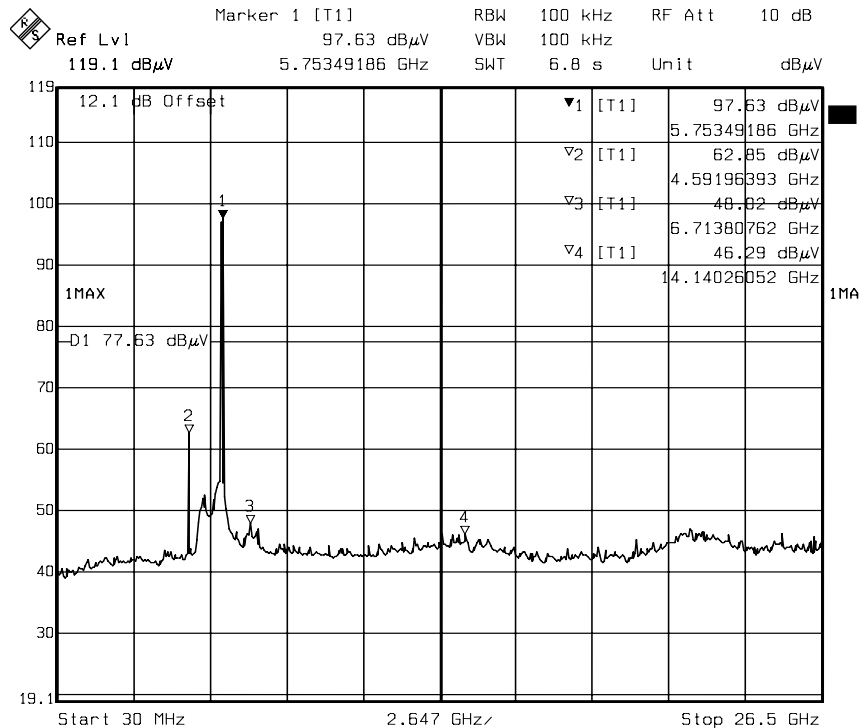


**draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / Chain 0****CH Low**

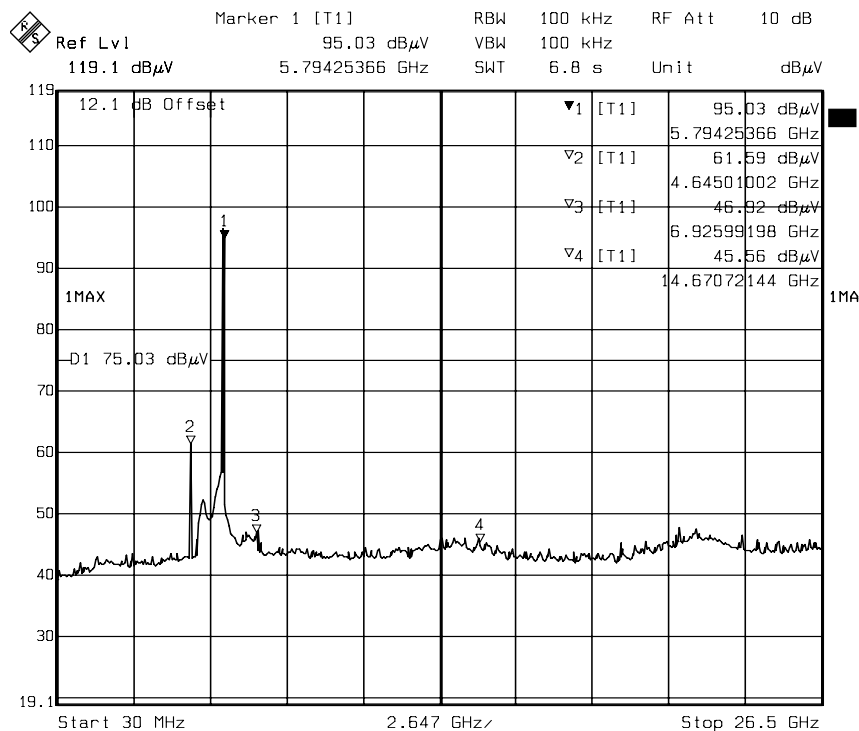
Date: 15.OCT.2009 17:10:03

**CH High**

Date: 15.OCT.2009 17:16:00

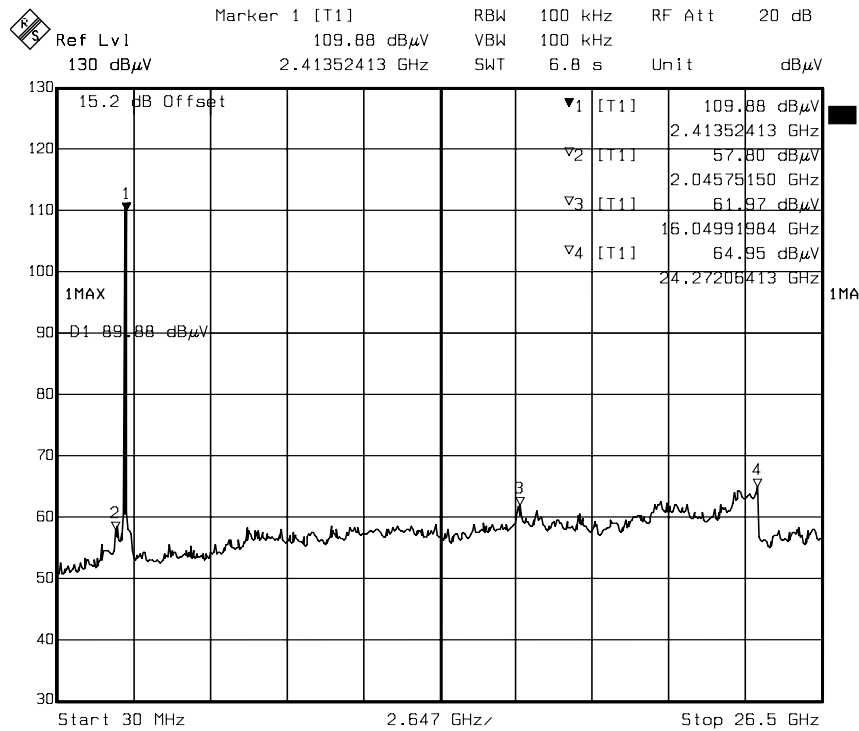
**draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / Chain 1****CH Low**

Date: 15.OCT.2009 17:09:00

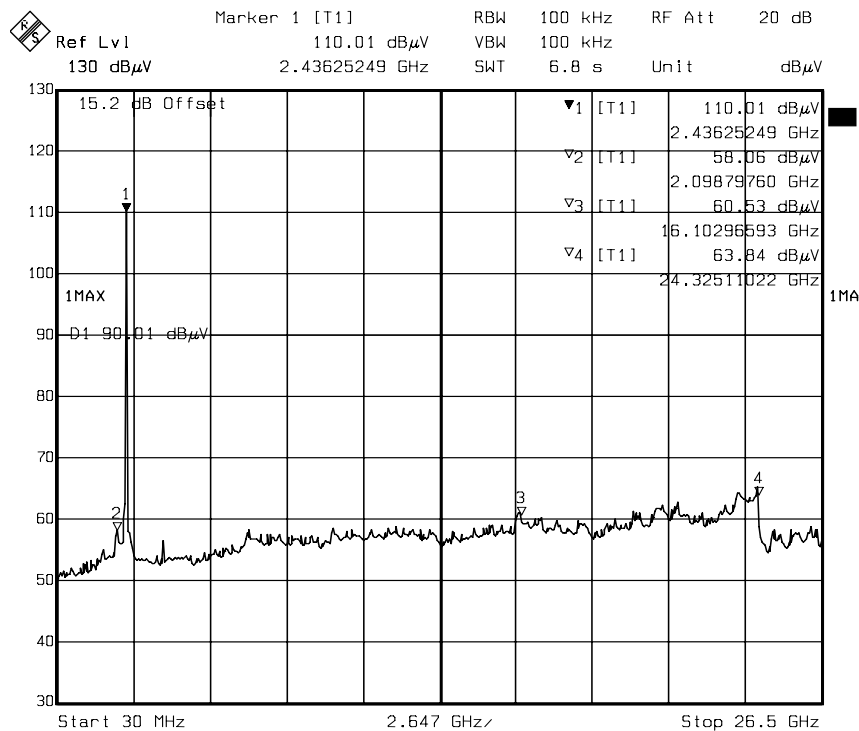
**CH High**

Date: 15.OCT.2009 17:05:11

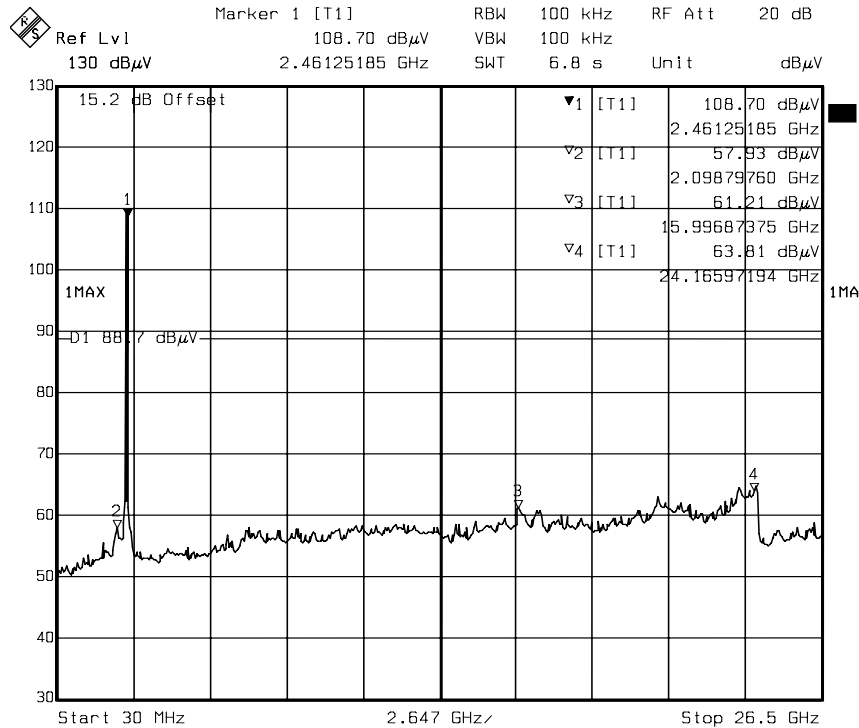


**draft 802.11n Standard-20 MHz Channel mode with combiner****CH Low**

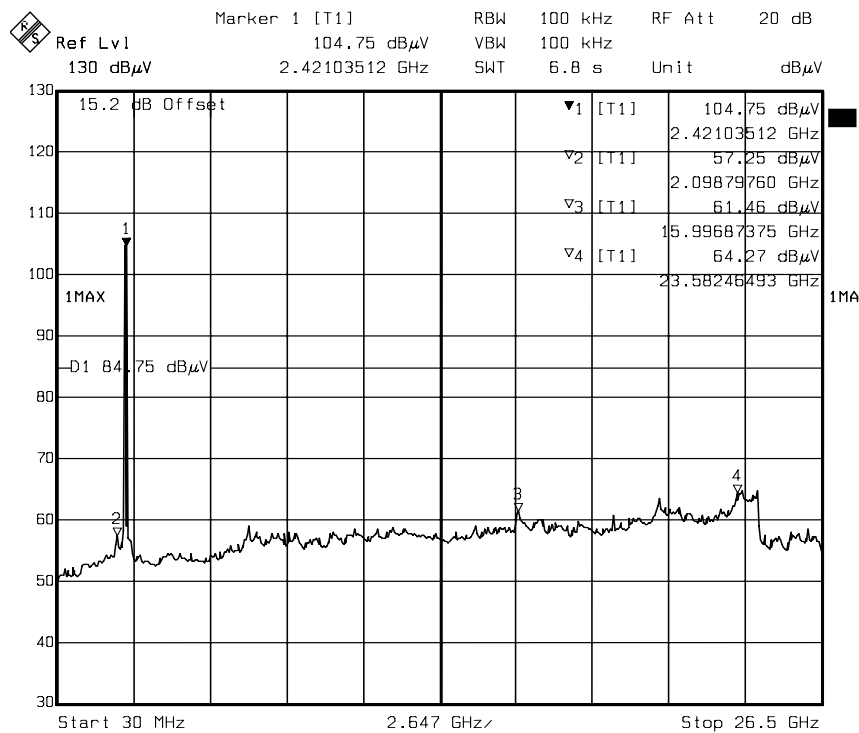
Date: 31.AUG.2009 16:03:23

**CH Mid**

Date: 31.AUG.2009 16:04:39

**CH High**

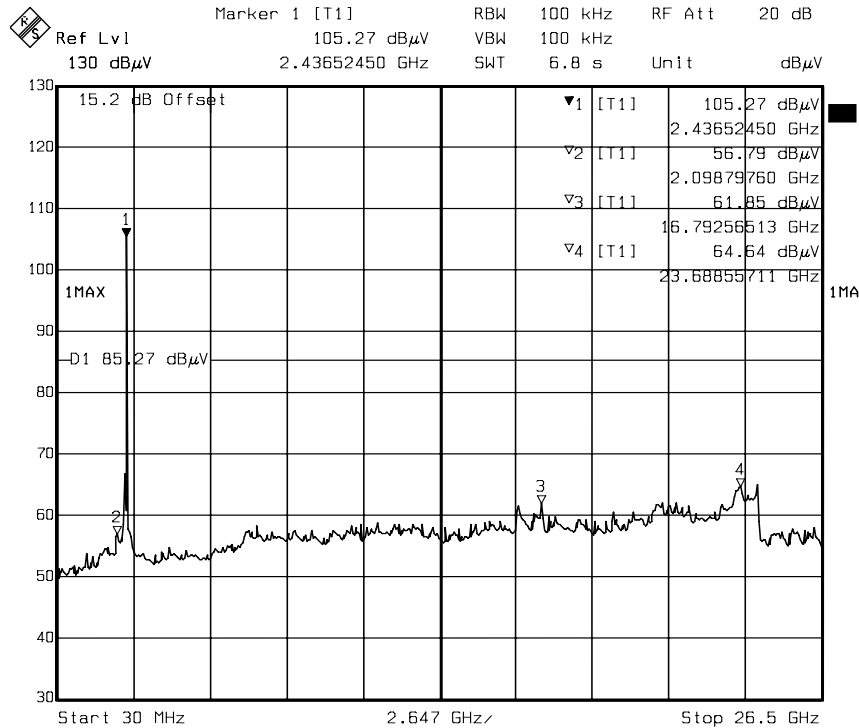
Date: 31.AUG.2009 16:05:44

**draft 802.11n Wide-40 MHz Channel mode with combiner****CH Low**

Date: 31.AUG.2009 16:09:33

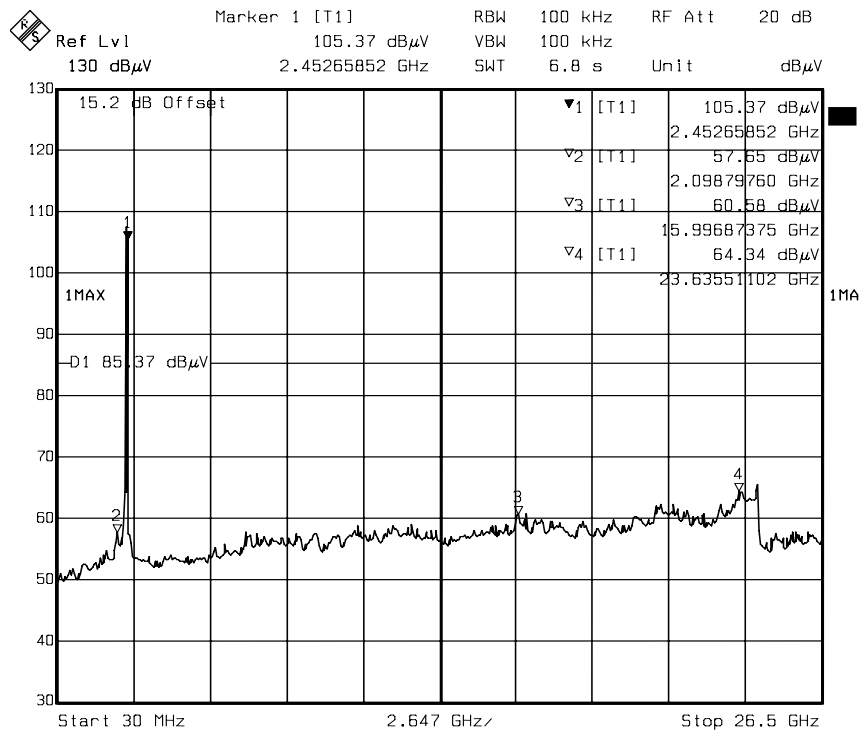


## CH Mid

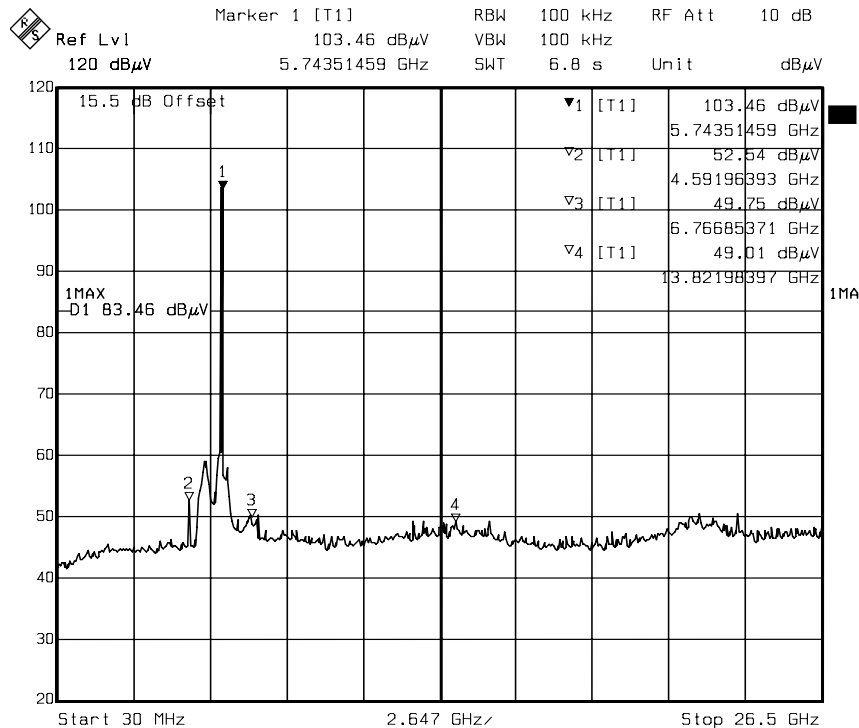


Date: 31.AUG.2009 16:08:15

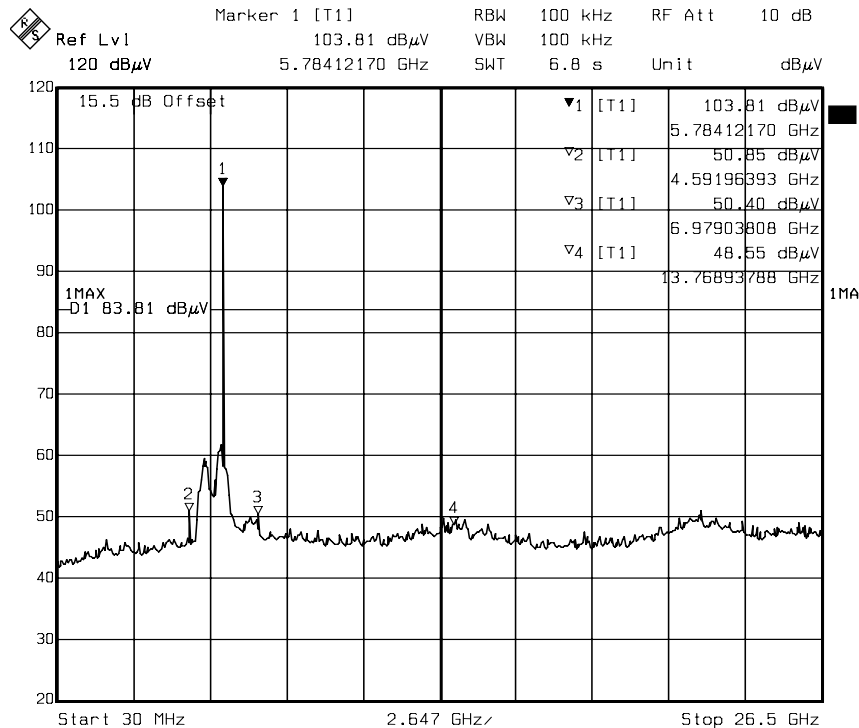
## CH High



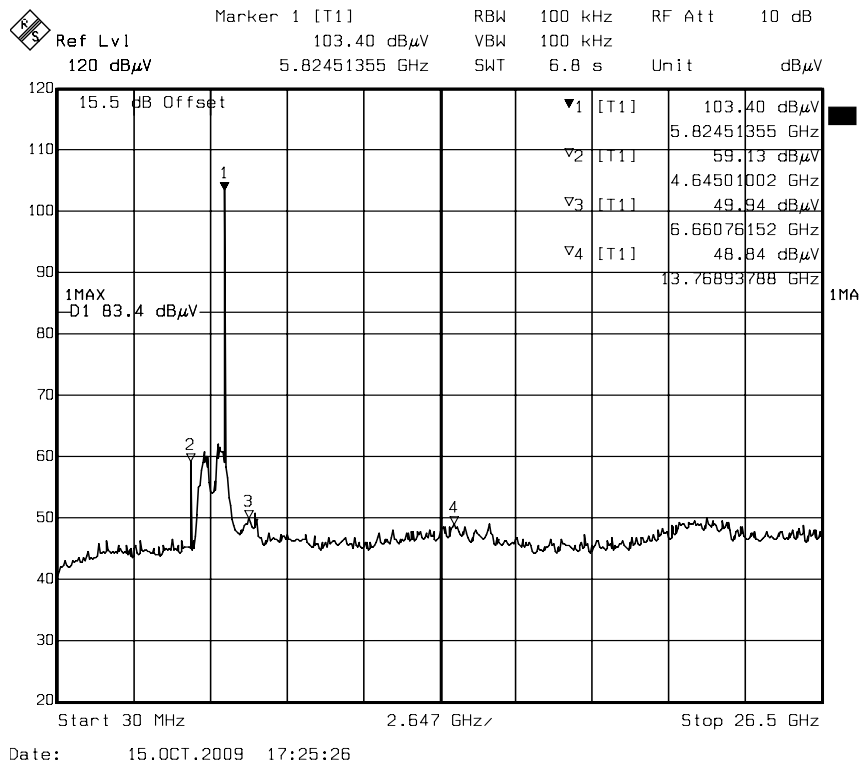
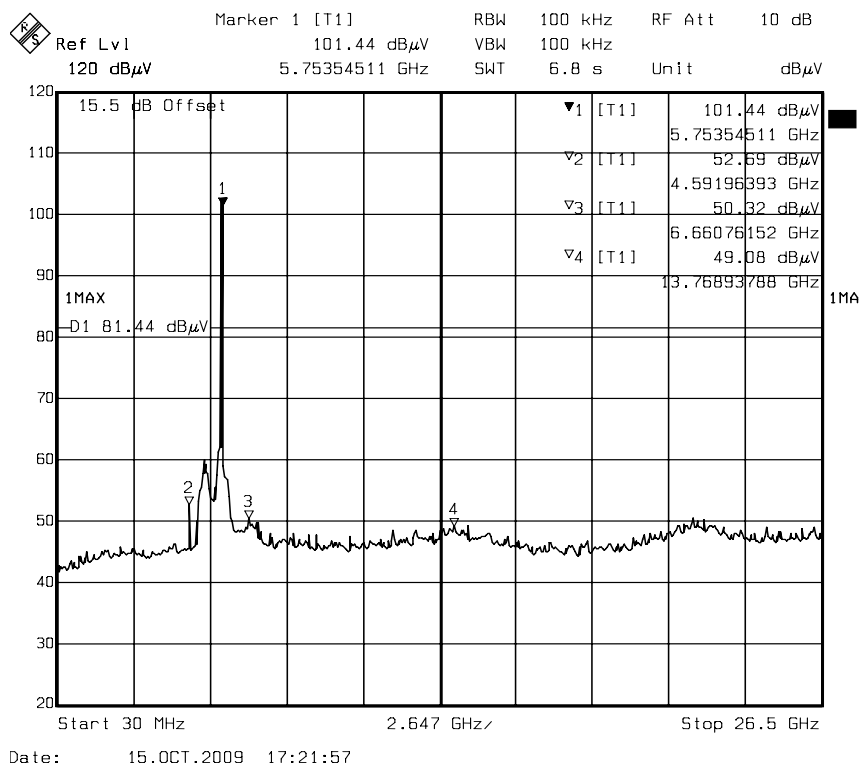
Date: 31.AUG.2009 16:07:18

**draft 802.11n Standard-20 MHz Channel mode with combiner / 5745 ~ 5825MHz****CH Low**

Date: 15.OCT.2009 17:23:06

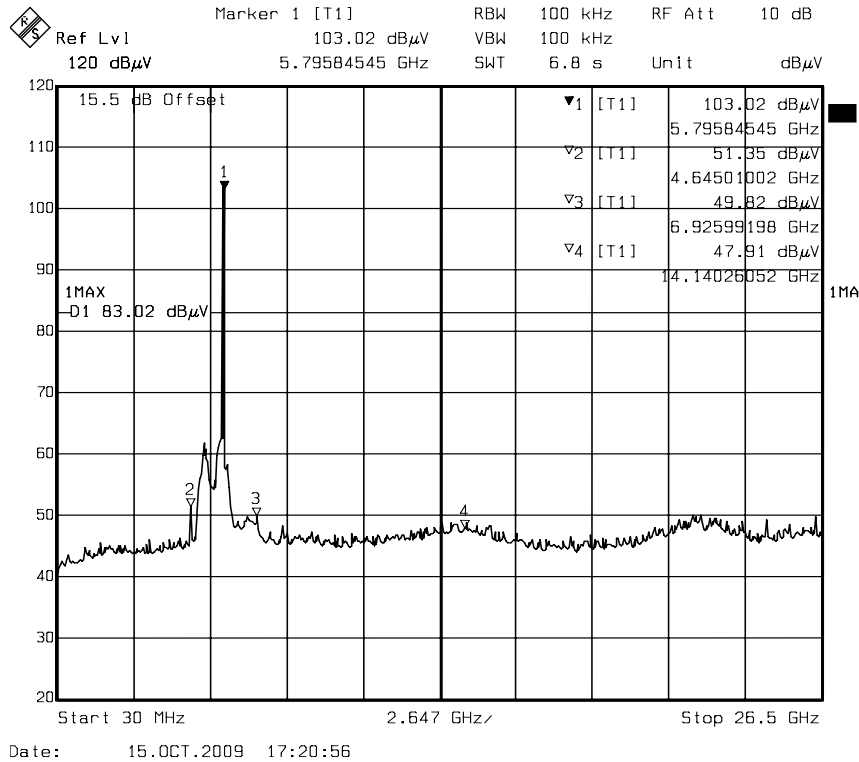
**CH Mid**

Date: 15.OCT.2009 17:24:32

**CH High****draft 802.11n Wide-40 MHz Channel mode with combiner / 5755 ~ 5795MHz****CH Low**



## CH High





## 7.6 RADIATED EMISSIONS

### LIMIT

1. According to §15.209(a), except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ( $\mu\text{V/m}$ )	Measurement Distance (m)
30-88	100*	3
88-216	150*	3
216-960	200*	3
Above 960	500	3

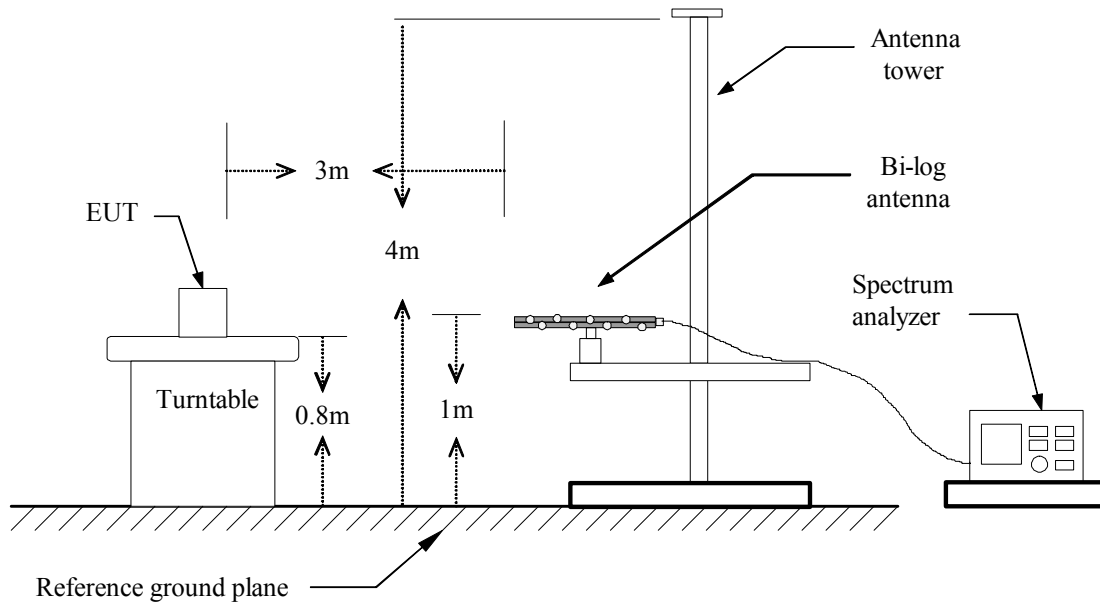
**Remark:** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

2. In the emission table above, the tighter limit applies at the band edges.

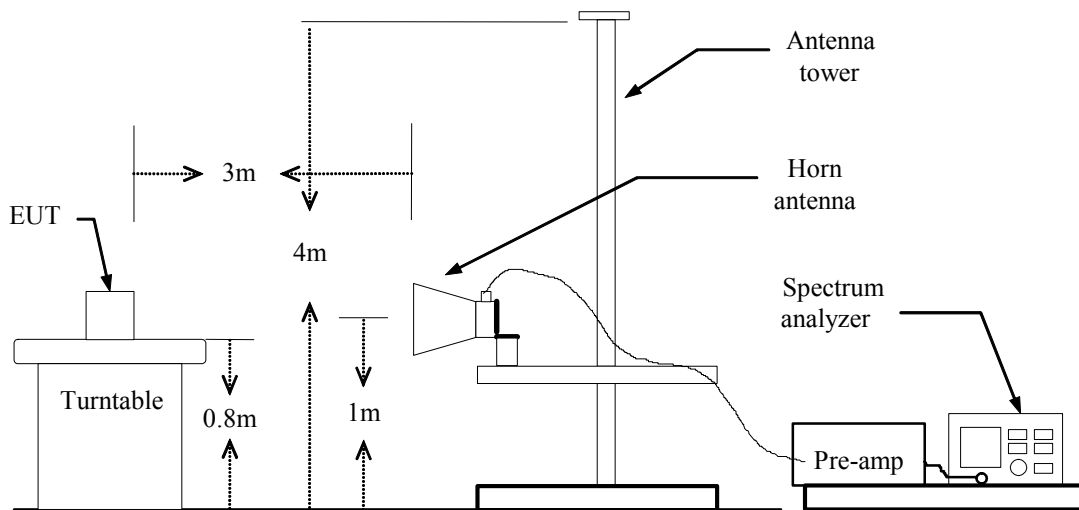
Frequency (MHz)	Field Strength ( $\mu\text{V/m}$ at 3-meter)	Field Strength (dB $\mu\text{V/m}$ at 3-meter)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

## Test Configuration

### **Below 1 GHz**



### **Above 1 GHz**







## **TEST PROCEDURE**

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:  
Below 1GHz:  
RBW=100kHz / VBW=300kHz / Sweep=AUTO  
Above 1GHz:  
(a) PEAK: RBW=VBW=1MHz / Sweep=AUTO  
(b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
7. Repeat above procedures until the measurements for all frequencies are complete.

**Below 1GHz****Operation Mode:** Normal Link**Test Date:** October 20, 2009**Temperature:** 27.5°C**Tested by:** Eric Yang**Humidity:** 49 % RH**Polarity:** Vertical

Freq.	Reading at 3 m Level	AF	Cable loss	Emission at 3 m Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
81.24	21.20	7.74	1.79	30.73	40.00	-9.27	QP
125.00	21.25	13.67	2.12	37.04	43.50	-6.46	QP
233.33	23.70	11.91	2.94	38.55	46.00	-7.45	QP
400.00	21.30	16.13	3.83	41.26	46.00	-4.74	QP
500.00	18.70	18.01	4.49	41.20	46.00	-4.80	QP
625.00	16.80	19.68	5.23	41.71	46.00	-4.30	QP
699.01	16.20	20.61	5.47	42.27	46.00	-3.73	QP
800.00	15.70	21.78	5.95	43.43	46.00	-2.57	QP
933.34	13.60	23.08	6.93	43.61	46.00	-2.39	QP
N/A	-----	-----	-----	-----	-----	-----	QP
N/A	-----	-----	-----	-----	-----	-----	QP

**Remark:**

1. No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).
2. Radiated emissions measured were made with an instrument using peak/quasi-peak detector mode.
3. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit or as required by the applicant.
4. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
5. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).

**Operation Mode:** Normal Link**Temperature:** 27.5°C**Humidity:** 49 % RH**Test Date:** October 20, 2009**Tested by:** Eric Yang**Polarity:** Horizontal

Freq.	Reading at 3 m Level	AF	Cable loss	Emission at 3 m Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
63.25	18.57	7.71	1.48	27.76	40.00	-12.24	QP
233.31	23.55	11.91	2.94	38.40	46.00	-7.60	QP
400.00	22.41	16.13	3.83	42.37	46.00	-3.63	QP
500.00	18.22	18.01	4.49	40.72	46.00	-5.28	QP
625.00	15.40	19.68	5.23	40.31	46.00	-5.69	QP
800.00	12.70	21.78	5.95	40.43	46.00	-5.57	QP
875.00	15.10	22.52	6.25	43.87	46.00	-2.14	QP
933.33	14.70	23.08	6.93	44.71	46.00	-1.29	QP
1000.00	20.54	23.71	7.03	51.28	54.00	-2.72	QP
N/A	-----	-----	-----	-----	-----	-----	QP
N/A	-----	-----	-----	-----	-----	-----	QP

**Remark:**

1. No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).
2. Radiated emissions measured were made with an instrument using peak/quasi-peak detector mode.
3. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit or as required by the applicant.
4. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
5. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).

**Above 1 GHz****Operation Mode:** TX / IEEE 802.11b / CH Low**Test Date:** August 25, 2009**Temperature:** 28.1°C**Tested by:** Eric Yang**Humidity:** 52 % RH**Polarity:** Horizontal

TX / IEEE 802.11b mode / CH Low				Measurement Distance at 3m			Horizontal polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2411.17	106.86	30.05	2.34	39.79	0.00	99.46	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	63.84	25.23	1.72	39.48	0.72	52.03	74.00	-21.98	P
* 1125.00	58.46	25.23	1.72	39.48	0.72	46.65	54.00	-7.35	A
3216.08	52.78	30.03	2.77	40.22	1.26	46.62	79.46	-32.84	P
* 4825.49	52.83	32.82	3.71	41.34	0.69	48.71	74.00	-25.29	P
* 4825.49	45.68	32.82	3.71	41.34	0.69	41.56	54.00	-12.44	A
6431.99	59.94	35.64	4.56	41.98	0.77	58.92	79.46	-20.54	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11b / CH Low**Test Date:** August 25, 2009**Temperature:** 28.1°C**Tested by:** Eric Yang**Humidity:** 52 % RH**Polarity:** Vertical

TX / IEEE 802.11b mode / CH Low				Measurement Distance at 3m			Vertical polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2412.23	115.09	30.05	2.34	39.79	0.00	107.69	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	70.56	25.23	1.72	39.48	0.72	58.75	74.00	-15.26	P
* 1125.00	65.12	25.23	1.72	39.48	0.72	53.31	54.00	-0.69	A
3216.11	53.14	30.03	2.77	40.22	1.26	46.98	79.46	-32.48	P
* 4824.25	52.63	32.81	3.71	41.34	0.69	48.51	74.00	-25.49	P
* 4824.25	42.13	32.81	3.71	41.34	0.69	38.01	54.00	-15.99	A
6432.29	61.78	35.64	4.56	41.98	0.77	60.77	87.69	-26.92	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11b / CH Mid**Test Date:** August 25, 2009**Temperature:** 28.1°C**Tested by:** Eric Yang**Humidity:** 52 % RH**Polarity:** Horizontal

TX / IEEE 802.11b mode / CH Mid				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2438.03	109.04	30.04	2.34	39.77	0.00	101.65	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1124.93	63.45	25.22	1.72	39.47	0.71	51.63	74.00	-22.37	P
* 1124.93	58.69	25.22	1.72	39.47	0.71	46.87	54.00	-7.13	A
3249.33	52.06	30.05	2.82	40.24	1.22	45.90	81.65	-35.75	P
* 4873.98	58.11	32.92	3.73	41.41	0.71	54.07	74.00	-19.93	P
* 4873.98	45.35	32.92	3.73	41.41	0.71	41.31	54.00	-12.69	A
6498.70	58.12	35.80	4.59	41.92	0.78	57.36	81.65	-24.28	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11b / CH Mid**Test Date:** August 25, 2009**Temperature:** 28.1°C**Tested by:** Eric Yang**Humidity:** 52 % RH**Polarity:** Vertical

TX / IEEE 802.11b mode / CH Mid				Measurement Distance at 3m			Vertical polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2435.30	114.59	30.04	2.34	39.77	0.00	107.20	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	70.52	25.23	1.72	39.48	0.72	58.71	74.00	-15.30	P
* 1125.00	65.24	25.23	1.72	39.48	0.72	53.43	54.00	-0.57	A
3249.56	52.41	30.05	2.82	40.24	1.22	46.25	87.20	-40.95	P
* 4876.40	54.63	32.93	3.73	41.41	0.71	50.59	74.00	-23.41	P
* 4876.40	43.54	32.93	3.73	41.41	0.71	39.50	54.00	-14.50	A
6498.93	61.13	35.80	4.59	41.92	0.78	60.38	87.20	-26.82	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11b / CH High**Test Date:** August 25, 2009**Temperature:** 28.1°C**Tested by:** Eric Yang**Humidity:** 52 % RH**Polarity:** Horizontal

TX / IEEE 802.11b mode / CH High				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2462.98	108.76	30.02	2.34	39.75	0.00	101.37	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	60.99	25.23	1.72	39.48	0.72	49.18	74.00	-24.83	P
* 1125.00	54.31	25.23	1.72	39.48	0.72	42.50	54.00	-11.51	A
3282.61	51.01	30.07	2.87	40.27	1.17	44.85	81.37	-36.52	P
* 4924.05	54.36	33.03	3.76	41.49	0.73	50.40	74.00	-23.60	P
* 4924.05	43.44	33.03	3.76	41.49	0.73	39.48	54.00	-14.52	A
6565.29	56.35	36.15	4.62	41.90	0.80	56.02	81.37	-25.35	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / IEEE 802.11b / CH High**Test Date:** August 25, 2009**Temperature:** 28.1°C**Tested by:** Eric Yang**Humidity:** 52 % RH**Polarity:** Vertical

TX / IEEE 802.11b mode / CH High				Measurement Distance at 3m			Vertical polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2461.75	113.97	30.02	2.34	39.75	0.00	106.58	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	70.59	25.23	1.72	39.48	0.72	58.78	74.00	-15.23	P
* 1125.00	65.14	25.23	1.72	39.48	0.72	53.33	54.00	-0.67	A
3282.65	52.54	30.07	2.87	40.27	1.17	46.38	86.58	-40.20	P
* 4922.29	54.22	33.03	3.76	41.48	0.73	50.25	74.00	-23.75	P
* 4922.29	44.84	33.03	3.76	41.48	0.73	40.87	54.00	-13.13	A
6565.30	60.87	36.15	4.62	41.90	0.80	60.54	86.58	-26.04	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11g / CH Low**Test Date:** August 25, 2009**Temperature:** 28.1°C**Tested by:** Eric Yang**Humidity:** 52 % RH**Polarity:** Horizontal

TX / IEEE 802.11g mode / CH Low				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2411.87	108.93	30.05	2.34	39.79	0.00	101.53	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1124.99	60.75	25.22	1.72	39.47	0.71	48.93	74.00	-25.07	P
* 1124.99	55.76	25.22	1.72	39.47	0.71	43.94	54.00	-10.06	A
3216.00	52.66	30.03	2.77	40.22	1.26	46.50	81.53	-35.03	P
* 4822.35	55.19	32.81	3.70	41.33	0.69	51.06	74.00	-22.94	P
* 4822.35	42.80	32.81	3.70	41.33	0.69	38.67	54.00	-15.33	A
6431.95	58.78	35.64	4.56	41.98	0.77	57.76	81.53	-23.77	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11g / CH Low**Test Date:** August 25, 2009**Temperature:** 28.1°C**Tested by:** Eric Yang**Humidity:** 52 % RH**Polarity:** Vertical

TX / IEEE 802.11g mode / CH Low				Measurement Distance at 3m			Vertical polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2418.76	112.60	30.05	2.34	39.78	0.00	105.20	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	70.13	25.23	1.72	39.48	0.72	58.32	74.00	-15.69	P
* 1125.00	64.98	25.23	1.72	39.48	0.72	53.17	54.00	-0.83	A
3216.00	51.31	30.03	2.77	40.22	1.26	45.15	85.20	-40.05	P
9641.57	52.13	38.74	5.74	38.44	0.62	58.79	85.20	-26.41	P
9641.57	43.12	38.74	5.74	38.44	0.62	49.78	76.77	-26.99	A
6432.23	61.67	35.64	4.56	41.98	0.77	60.66	85.20	-24.55	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11g / CH Mid**Test Date:** August 25, 2009**Temperature:** 28.1°C**Tested by:** Eric Yang**Humidity:** 52 % RH**Polarity:** Horizontal

TX / IEEE 802.11g mode / CH Mid				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2436.02	106.20	30.04	2.34	39.77	0.00	98.81	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	60.14	25.23	1.72	39.48	0.72	48.33	74.00	-25.68	P
* 1125.00	55.20	25.23	1.72	39.48	0.72	43.39	54.00	-10.62	A
3249.24	51.01	30.05	2.82	40.24	1.22	44.85	78.81	-33.96	P
* 4876.39	55.95	32.93	3.73	41.41	0.71	51.91	74.00	-22.09	P
* 4876.39	43.85	32.93	3.73	41.41	0.71	39.81	54.00	-14.19	A
6498.64	57.34	35.80	4.59	41.92	0.78	56.58	78.81	-22.22	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11g / CH Mid**Test Date:** August 25, 2009**Temperature:** 28.1°C**Tested by:** Eric Yang**Humidity:** 52 % RH**Polarity:** Vertical

TX / IEEE 802.11g mode / CH Mid				Measurement Distance at 3m			Vertical polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2439.97	112.87	30.04	2.34	39.77	0.00	105.48	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	70.42	25.23	1.72	39.48	0.72	58.61	74.00	-15.40	P
* 1125.00	65.09	25.23	1.72	39.48	0.72	53.28	54.00	-0.72	A
3249.29	52.76	30.05	2.82	40.24	1.22	46.60	85.48	-38.88	P
* 4876.13	53.14	32.93	3.73	41.41	0.71	49.10	74.00	-24.90	P
* 4876.13	42.08	32.93	3.73	41.41	0.71	38.04	54.00	-15.96	A
6498.75	60.59	35.80	4.59	41.92	0.78	59.84	85.48	-25.64	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11g / CH High**Test Date:** August 25, 2009**Temperature:** 28.1°C**Tested by:** Eric Yang**Humidity:** 52 % RH**Polarity:** Horizontal

TX / IEEE 802.11g mode / CH High				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2458.67	107.78	30.02	2.34	39.75	0.00	100.39	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	60.87	25.23	1.72	39.48	0.72	49.06	74.00	-24.95	P
* 1125.00	55.65	25.23	1.72	39.48	0.72	43.84	54.00	-10.17	A
3282.73	51.86	30.07	2.87	40.27	1.17	45.70	80.39	-34.69	P
* 4926.18	56.79	33.04	3.76	41.49	0.73	52.83	74.00	-21.17	P
* 4926.18	42.80	33.04	3.76	41.49	0.73	38.84	54.00	-15.16	A
6565.31	55.38	36.15	4.62	41.90	0.80	55.05	80.39	-25.34	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / IEEE 802.11g / CH High**Test Date:** August 25, 2009**Temperature:** 28.1°C**Tested by:** Eric Yang**Humidity:** 52 % RH**Polarity:** Vertical

TX / IEEE 802.11g mode / CH High				Measurement Distance at 3m			Vertical polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2457.94	112.94	30.03	2.34	39.75	0.00	105.55	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	70.65	25.23	1.72	39.48	0.72	58.84	74.00	-15.17	P
* 1125.00	65.43	25.23	1.72	39.48	0.72	53.62	54.00	-0.38	A
3282.71	53.01	30.07	2.87	40.27	1.17	46.85	85.55	-38.70	P
* 4920.57	53.34	33.03	3.76	41.48	0.73	49.37	74.00	-24.63	P
* 4920.57	42.47	33.03	3.76	41.48	0.73	38.50	54.00	-15.50	A
6565.34	59.05	36.15	4.62	41.90	0.80	58.72	85.55	-26.83	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Standard-20 MHz Channel mode / CH Low

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Horizontal

TX / draft 802.11n Standard-20 MHz Channel mode / CH Low				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2411.25	111.77	30.05	2.34	39.79	0.00	0.00	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	60.71	25.23	1.72	39.48	0.00	0.72	74.00	-25.11	P
* 1125.00	55.84	25.23	1.72	39.48	0.00	0.72	54.00	-9.97	A
3215.97	51.37	30.03	2.77	40.22	0.00	1.26	84.37	-39.16	P
* 4822.13	59.87	32.81	3.70	41.33	0.00	0.69	74.00	-18.26	P
* 4822.13	46.73	32.81	3.70	41.33	0.00	0.69	54.00	-11.40	A
6431.99	60.35	35.64	4.56	41.98	0.00	0.77	84.37	-25.04	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).





**Operation Mode:** TX / draft 802.11n Standard-20 MHz Channel mode / CH Low

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Vertical

TX / draft 802.11n Standard-20 MHz Channel mode / CH Low				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2410.57	115.80	30.05	2.34	39.79	0.00	108.40	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	72.85	25.23	1.72	39.48	0.72	61.04	74.00	-12.97	P
* 1125.00	66.34	25.23	1.72	39.48	0.72	54.53	54.00	0.53	A
3215.91	54.40	30.03	2.77	40.22	1.26	48.24	88.40	-40.16	P
* 4823.31	60.48	32.81	3.70	41.33	0.69	56.35	74.00	-17.65	P
* 4823.31	47.06	32.81	3.70	41.33	0.69	42.93	54.00	-11.07	A
6432.04	62.47	35.64	4.56	41.98	0.77	61.45	88.40	-26.95	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Standard-20 MHz Channel mode / CH Mid

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Horizontal

TX / draft 802.11n Standard-20 MHz Channel mode / CH Mid				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2434.87	111.08	30.04	2.34	39.77	0.00	103.69	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	59.97	25.23	1.72	39.48	0.72	48.16	74.00	-25.85	P
* 1125.00	55.46	25.23	1.72	39.48	0.72	43.65	54.00	-10.36	A
3249.39	52.12	30.05	2.82	40.24	1.22	45.96	83.69	-37.73	P
* 4872.60	58.69	32.92	3.73	41.41	0.71	54.64	74.00	-19.36	P
* 4872.60	45.13	32.92	3.73	41.41	0.71	41.08	54.00	-12.92	A
6498.62	59.23	35.80	4.59	41.92	0.78	58.47	83.69	-25.21	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Standard-20 MHz Channel mode / CH Mid

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Vertical

TX / draft 802.11n Standard-20 MHz Channel mode / CH Mid				Measurement Distance at 3m			Vertical polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2438.80	116.58	30.04	2.34	39.77	0.00	109.19	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1124.98	70.84	25.22	1.72	39.47	0.71	59.02	74.00	-14.98	P
* 1124.98	65.24	25.22	1.72	39.47	0.71	53.42	54.00	-0.58	A
3249.32	54.75	30.05	2.82	40.24	1.22	48.59	89.19	-40.60	P
* 4873.79	61.62	32.92	3.73	41.41	0.71	57.58	74.00	-16.42	P
* 4873.79	48.28	32.92	3.73	41.41	0.71	44.24	54.00	-9.76	A
6498.70	60.20	35.80	4.59	41.92	0.78	59.44	89.19	-29.74	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Standard-20 MHz Channel mode / CH High

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Horizontal

TX / draft 802.11n Standard-20 MHz Channel mode / CH High				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2459.87	110.03	30.02	2.34	39.75	0.00	102.64	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	60.24	25.23	1.72	39.48	0.72	48.43	74.00	-25.58	P
* 1125.00	55.57	25.23	1.72	39.48	0.72	43.76	54.00	-10.25	A
3282.76	53.39	30.07	2.87	40.27	1.17	47.23	82.64	-35.41	P
* 4926.45	58.46	33.04	3.76	41.49	0.73	54.50	74.00	-19.50	P
* 4926.45	45.84	33.04	3.76	41.49	0.73	41.88	54.00	-12.12	A
6565.31	57.63	36.15	4.62	41.90	0.80	57.30	82.64	-25.34	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Standard-20 MHz Channel mode / CH High

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Vertical

TX / draft 802.11n Standard-20 MHz Channel mode / CH High				Measurement Distance at 3m			Vertical polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2458.74	116.62	30.02	2.34	39.75	0.00	109.23	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	71.15	25.23	1.72	39.48	0.72	59.34	74.00	-14.67	P
* 1125.00	66.38	25.23	1.72	39.48	0.72	54.57	54.00	0.56	A
3282.67	56.19	30.07	2.87	40.27	1.17	50.03	89.23	-39.20	P
* 4929.67	60.48	33.05	3.76	41.49	0.73	56.53	74.00	-17.47	P
* 4929.67	46.34	33.05	3.76	41.49	0.73	42.39	54.00	-11.61	A
6565.54	60.13	36.15	4.62	41.90	0.80	59.81	89.23	-29.42	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode  
/ CH Low

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Horizontal

TX / draft 802.11n Standard-40 MHz Channel mode / CH Low				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2419.58	108.82	30.05	2.34	39.78	0.00	101.42	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	60.69	25.23	1.72	39.48	0.72	48.88	74.00	-25.13	P
* 1125.00	55.97	25.23	1.72	39.48	0.72	44.16	54.00	-9.85	A
3229.39	54.23	30.04	2.79	40.23	1.24	48.07	81.42	-33.35	P
* 4840.16	55.47	32.85	3.71	41.36	0.70	51.37	74.00	-22.63	P
* 4840.16	42.87	32.85	3.71	41.36	0.70	38.77	54.00	-15.23	A
6458.64	60.67	35.70	4.57	41.96	0.78	59.76	81.42	-21.66	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH Low

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Vertical

TX / draft 802.11n Standard-40 MHz Channel mode / CH Low				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2421.33	112.84	30.05	2.34	39.78	0.00	105.44	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	71.04	25.23	1.72	39.48	0.72	59.23	74.00	-14.78	P
* 1125.00	65.94	25.23	1.72	39.48	0.72	54.13	54.00	0.13	A
3229.36	55.08	30.04	2.79	40.23	1.24	48.92	85.44	-36.52	P
* 4843.46	55.45	32.86	3.72	41.37	0.70	51.36	74.00	-22.64	P
* 4843.46	44.51	32.86	3.72	41.37	0.70	40.42	54.00	-13.58	A
6458.11	61.19	35.70	4.57	41.96	0.78	60.28	85.44	-25.17	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH Mid

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Horizontal

TX / draft 802.11n Standard-40 MHz Channel mode / CH Mid				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2435.14	106.32	30.04	2.34	39.77	0.00	98.93	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	61.23	25.23	1.72	39.48	0.72	49.42	74.00	-24.59	P
* 1125.00	57.12	25.23	1.72	39.48	0.72	45.31	54.00	-8.69	A
3249.30	52.80	30.05	2.82	40.24	1.22	46.64	78.93	-32.29	P
* 4871.25	54.19	32.92	3.73	41.41	0.71	50.14	74.00	-23.86	P
* 4871.25	41.87	32.92	3.73	41.41	0.71	37.82	54.00	-16.18	A
6498.64	59.55	35.80	4.59	41.92	0.78	58.79	78.93	-20.13	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).





**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH Mid

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Vertical

TX / draft 802.11n Standard-40 MHz Channel mode / CH Mid				Measurement Distance at 3m			Vertical polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2436.58	112.56	30.04	2.34	39.77	0.00	105.17	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.00	69.90	25.23	1.72	39.48	0.72	58.09	74.00	-15.92	P
* 1125.00	66.41	25.23	1.72	39.48	0.72	54.60	54.00	0.59	A
3249.33	52.04	30.05	2.82	40.24	1.22	45.88	85.17	-39.29	P
* 4875.02	47.51	32.93	3.73	41.41	0.71	43.47	74.00	-30.53	P
* 4875.02	36.57	32.93	3.73	41.41	0.71	32.53	54.00	-21.47	A
6489.65	60.90	35.78	4.59	41.93	0.78	60.11	85.17	-25.06	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH High**Test Date:** August 25, 2009**Temperature:** 28.1°C**Tested by:** Eric Yang**Humidity:** 52 % RH**Polarity:** Horizontal

TX / draft 802.11n Standard-40 MHz Channel mode / CH High				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2456.70	107.31	30.03	2.34	39.75	0.00	99.92	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1125.08	63.41	25.23	1.72	39.48	0.72	51.60	74.00	-22.40	P
* 1125.08	58.54	25.23	1.72	39.48	0.72	46.73	54.00	-7.27	A
3269.45	53.17	30.06	2.85	40.26	1.19	47.01	79.92	-32.91	P
* 4893.84	54.14	32.97	3.74	41.44	0.72	50.13	74.00	-23.87	P
* 4893.84	41.24	32.97	3.74	41.44	0.72	37.23	54.00	-16.77	A
6539.00	58.42	36.01	4.61	41.91	0.79	57.92	79.92	-22.00	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** TX / draft 802.11n Wide-40 MHz Channel mode / CH High

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Vertical

TX / draft 802.11n Standard-40 MHz Channel mode / CH High				Measurement Distance at 3m			Vertical polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
2450.24	113.13	30.03	2.34	39.76	0.00	105.74	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1124.99	70.41	25.22	1.72	39.47	0.71	58.59	74.00	-15.41	P
* 1124.99	65.12	25.22	1.72	39.47	0.71	53.30	54.00	-0.70	A
3269.37	56.29	30.06	2.85	40.26	1.19	50.13	85.74	-35.61	P
* 4894.00	56.12	32.97	3.74	41.44	0.72	52.11	74.00	-21.89	P
* 4894.00	43.24	32.97	3.74	41.44	0.72	39.23	54.00	-14.77	A
6538.76	59.30	36.01	4.61	41.91	0.79	58.80	85.74	-26.94	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH Low **Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Horizontal

Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH Low				Measurement Distance at 3m			Horizontal polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5738.77	104.70	34.29	4.21	42.25	0.00	100.94	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1374.98	58.25	26.07	1.94	39.68	0.76	47.34	74.00	-26.66	P
* 1374.98	52.48	26.07	1.94	39.68	0.76	41.57	54.00	-12.43	A
* 2298.05	51.24	30.12	2.34	39.88	1.19	45.00	74.00	-29.00	P
* 2298.05	44.36	30.12	2.34	39.88	1.19	38.12	54.00	-15.88	A
* 4595.96	52.24	32.31	3.58	40.99	0.61	47.75	74.00	-26.25	P
* 4595.96	48.37	32.31	3.58	40.99	0.61	43.88	54.00	-10.12	A
* 11481.26	47.81	40.46	6.62	37.42	1.20	58.67	74.00	-15.33	P
* 11481.26	37.15	40.46	6.62	37.42	1.20	48.01	54.00	-5.99	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH Low **Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Vertical

Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH Low				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5741.60	110.06	34.29	4.21	42.26	0.00	106.30	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1374.95	63.25	26.07	1.94	39.68	0.76	52.34	74.00	-21.66	P
* 1374.95	57.24	26.07	1.94	39.68	0.76	46.33	54.00	-7.67	A
* 2298.03	53.52	30.12	2.34	39.88	1.19	47.28	74.00	-26.72	P
* 2298.03	46.18	30.12	2.34	39.88	1.19	39.94	54.00	-14.06	A
* 4595.97	54.58	32.31	3.58	40.99	0.61	50.09	74.00	-23.91	P
* 4595.97	50.25	32.31	3.58	40.99	0.61	45.76	54.00	-8.24	A
* 11481.57	48.25	40.46	6.62	37.42	1.20	59.11	74.00	-14.89	P
* 11481.57	38.27	40.46	6.62	37.42	1.20	49.13	54.00	-4.87	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH Mid **Test Date:** August 25, 2009  
**Temperature:** 28.1°C **Tested by:** Eric Yang  
**Humidity:** 52 % RH **Polarity:** Horizontal

Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH Mid				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5788.22	103.83	34.35	4.24	42.28	0.00	100.13	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1374.99	61.24	26.07	1.94	39.68	0.76	50.33	74.00	-23.67	P
* 1374.99	55.75	26.07	1.94	39.68	0.76	44.84	54.00	-9.16	A
* 2314.11	50.35	30.11	2.34	39.87	1.20	44.13	74.00	-29.87	P
* 2314.11	46.27	30.11	2.34	39.87	1.20	40.05	54.00	-13.95	A
* 4628.23	52.26	32.38	3.60	41.04	0.62	47.82	74.00	-26.18	P
* 4628.23	47.96	32.38	3.60	41.04	0.62	43.52	54.00	-10.48	A
* 11560.25	46.14	40.56	6.66	37.46	1.15	57.06	74.00	-16.94	P
* 11560.25	36.22	40.56	6.66	37.46	1.15	47.14	54.00	-6.86	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH Mid **Test Date:** August 25, 2009

**Temperature:** 28.1°C **Tested by:** Eric Yang

**Humidity:** 52 % RH **Polarity:** Vertical

Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH Mid				Measurement Distance at 3m			Vertical polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5780.19	109.25	34.34	4.23	42.27	0.00	105.54	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1374.98	63.85	26.07	1.94	39.68	0.76	52.94	74.00	-21.06	P
* 1374.98	57.88	26.07	1.94	39.68	0.76	46.97	54.00	-7.03	A
* 2314.09	52.96	30.11	2.34	39.87	1.20	46.74	74.00	-27.26	P
* 2314.09	48.24	30.11	2.34	39.87	1.20	42.02	54.00	-11.98	A
* 4628.17	54.97	32.38	3.60	41.04	0.62	50.53	74.00	-23.47	P
* 4628.17	50.59	32.38	3.60	41.04	0.62	46.15	54.00	-7.85	A
* 11560.28	47.58	40.56	6.66	37.46	1.15	58.50	74.00	-15.50	P
* 11560.28	37.59	40.56	6.66	37.46	1.15	48.51	54.00	-5.49	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH High  
**Temperature:** 28.1°C  
**Humidity:** 52 % RH

**Test Date:** August 25, 2009  
**Tested by:** Eric Yang  
**Polarity:** Horizontal

Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH High				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5831.50	103.38	34.40	4.26	42.30	0.00	99.74	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1375.02	62.22	26.08	1.94	39.69	0.77	51.32	74.00	-22.68	P
* 1375.02	56.35	26.08	1.94	39.69	0.77	45.45	54.00	-8.55	A
* 2329.96	51.14	30.10	2.34	39.86	1.20	44.93	74.00	-29.07	P
* 2329.96	44.27	30.10	2.34	39.86	1.20	38.06	54.00	-15.94	A
* 4659.74	58.22	32.45	3.62	41.09	0.63	53.83	74.00	-20.17	P
* 4659.74	55.36	32.45	3.62	41.09	0.63	50.97	54.00	-3.03	A
* 11641.23	46.25	40.64	6.71	37.48	1.09	57.20	74.00	-16.80	P
* 11641.23	36.58	40.64	6.71	37.48	1.09	47.53	54.00	-6.47	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).





**Operation Mode:** Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH High **Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Vertical

Tx / IEEE 802.11a mode / 5745 ~ 5825MHz / CH High				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5820.70	109.49	34.38	4.25	42.29	0.00	105.83	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1375.01	64.44	26.08	1.94	39.69	0.77	53.54	74.00	-20.46	P
* 1375.01	58.07	26.08	1.94	39.69	0.77	47.17	54.00	-6.83	A
* 2329.98	52.03	30.10	2.34	39.86	1.20	45.82	74.00	-28.18	P
* 2329.98	45.89	30.10	2.34	39.86	1.20	39.68	54.00	-14.32	A
* 4659.72	59.87	32.45	3.62	41.09	0.63	55.48	74.00	-18.52	P
* 4659.72	56.85	32.45	3.62	41.09	0.63	52.46	54.00	-1.54	A
* 11641.25	48.57	40.64	6.71	37.48	1.09	59.52	74.00	-14.48	P
* 11641.25	38.57	40.64	6.71	37.48	1.09	49.52	54.00	-4.48	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH Low

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Horizontal

Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH Low				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5749.42	103.89	34.30	4.21	42.26	0.00	100.14	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1375.02	61.25	26.08	1.94	39.69	0.77	50.35	74.00	-23.65	P
* 1375.02	55.34	26.08	1.94	39.69	0.77	44.44	54.00	-9.56	A
* 2297.98	51.24	30.12	2.34	39.88	1.19	45.00	74.00	-29.00	P
* 2297.98	46.75	30.12	2.34	39.88	1.19	40.51	54.00	-13.49	A
* 4596.03	57.84	32.31	3.58	40.99	0.61	53.35	74.00	-20.65	P
* 4596.03	55.29	32.31	3.58	40.99	0.61	50.80	54.00	-3.20	A
* 11505.47	47.69	40.51	6.63	37.44	1.20	58.58	74.00	-15.42	P
* 11505.47	38.25	40.51	6.63	37.44	1.20	49.14	54.00	-4.86	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH Low **Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Vertical

Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH Low				Measurement Distance at 3m			Vertical polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5752.11	110.48	34.30	4.22	42.26	0.00	106.74	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1374.98	63.15	26.07	1.94	39.68	0.76	52.24	74.00	-21.76	P
* 1374.98	57.08	26.07	1.94	39.68	0.76	46.17	54.00	-7.83	A
* 2297.99	53.37	30.12	2.34	39.88	1.19	47.13	74.00	-26.87	P
* 2297.99	47.92	30.12	2.34	39.88	1.19	41.68	54.00	-12.32	A
* 4596.02	59.10	32.31	3.58	40.99	0.61	54.61	74.00	-19.39	P
* 4596.02	57.24	32.31	3.58	40.99	0.61	52.75	54.00	-1.25	A
* 11504.58	48.75	40.50	6.63	37.44	1.20	59.64	74.00	-14.36	P
* 11504.58	39.25	40.50	6.63	37.44	1.20	50.14	54.00	-3.86	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH Mid

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Horizontal

Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH Mid				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5778.26	102.82	34.33	4.23	42.27	0.00	99.11	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1374.98	60.25	26.07	1.94	39.68	0.76	49.34	74.00	-24.66	P
* 1374.98	54.71	26.07	1.94	39.68	0.76	43.80	54.00	-10.20	A
* 2313.95	49.35	30.11	2.34	39.87	1.20	43.13	74.00	-30.87	P
* 2313.95	45.27	30.11	2.34	39.87	1.20	39.05	54.00	-14.95	A
* 4628.16	57.22	32.38	3.60	41.04	0.62	52.78	74.00	-21.22	P
* 4628.16	55.46	32.38	3.60	41.04	0.62	51.02	54.00	-2.98	A
* 11563.87	47.84	40.56	6.66	37.46	1.15	58.76	74.00	-15.24	P
* 11563.87	36.58	40.56	6.66	37.46	1.15	47.50	54.00	-6.50	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH Mid **Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Vertical

Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH Mid				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5781.84	110.43	34.34	4.23	42.28	0.00	106.73	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1374.96	62.85	26.07	1.94	39.68	0.76	51.94	74.00	-22.06	P
* 1374.96	56.74	26.07	1.94	39.68	0.76	45.83	54.00	-8.17	A
* 2313.96	51.86	30.11	2.34	39.87	1.20	45.64	74.00	-28.36	P
* 2313.96	46.59	30.11	2.34	39.87	1.20	40.37	54.00	-13.63	A
* 4628.15	59.14	32.38	3.60	41.04	0.62	54.70	74.00	-19.30	P
* 4628.15	57.25	32.38	3.60	41.04	0.62	52.81	54.00	-1.19	A
* 11563.85	48.65	40.56	6.66	37.46	1.15	59.57	74.00	-14.43	P
* 11563.85	37.85	40.56	6.66	37.46	1.15	48.77	54.00	-5.23	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH High

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Horizontal

Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH High				Measurement Distance at 3m			Horizontal polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5818.26	100.92	34.38	4.25	42.29	0.00	97.26	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1375.02	59.68	26.08	1.94	39.69	0.77	48.78	74.00	-25.22	P
* 1375.02	54.27	26.08	1.94	39.69	0.77	43.37	54.00	-10.63	A
* 2330.02	50.11	30.10	2.34	39.86	1.21	43.90	74.00	-30.10	P
* 2330.02	43.27	30.10	2.34	39.86	1.21	37.06	54.00	-16.94	A
* 4660.01	57.12	32.45	3.62	41.09	0.63	52.73	74.00	-21.27	P
* 4660.01	55.28	32.45	3.62	41.09	0.63	50.89	54.00	-3.11	A
* 11637.49	47.35	40.64	6.70	37.48	1.09	58.30	74.00	-15.70	P
* 11637.49	36.55	40.64	6.70	37.48	1.09	47.50	54.00	-6.50	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH High **Test Date:** August 25, 2009

**Temperature:** 28.1°C **Tested by:** Eric Yang

**Humidity:** 52 % RH **Polarity:** Vertical

Tx / draft 802.11n Standard-20 MHz Channel mode / 5745 ~ 5825MHz / CH High				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5818.13	109.54	34.38	4.25	42.29	0.00	105.88	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1374.98	62.58	26.07	1.94	39.68	0.76	51.67	74.00	-22.33	P
* 1374.98	56.84	26.07	1.94	39.68	0.76	45.93	54.00	-8.07	A
* 2329.98	52.41	30.10	2.34	39.86	1.20	46.20	74.00	-27.80	P
* 2329.98	45.99	30.10	2.34	39.86	1.20	39.78	54.00	-14.22	A
* 4660.03	59.87	32.45	3.62	41.09	0.63	55.48	74.00	-18.52	P
* 4660.03	57.14	32.45	3.62	41.09	0.63	52.75	54.00	-1.25	A
* 11638.25	48.25	40.64	6.70	37.48	1.09	59.20	74.00	-14.80	P
* 11638.25	37.95	40.64	6.70	37.48	1.09	48.90	54.00	-5.10	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Wide-40 MHz  
mode / 5755 ~ 5795MHz / CH Low

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Horizontal

Tx / draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / CH Low				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5758.52	100.68	34.31	4.22	42.26	0.00	96.95	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1375.02	60.22	26.08	1.94	39.69	0.77	49.32	74.00	-24.68	P
* 1375.02	54.73	26.08	1.94	39.69	0.77	43.83	54.00	-10.17	A
2302.07	51.11	30.12	2.34	39.88	1.19	44.88	76.95	-32.07	P
* 4603.97	56.87	32.33	3.59	41.01	0.61	52.39	74.00	-21.61	P
* 4603.97	54.38	32.33	3.59	41.01	0.61	49.90	54.00	-4.10	A
* 11524.76	47.88	40.52	6.64	37.45	1.18	58.78	74.00	-15.22	P
* 11524.76	36.29	40.52	6.64	37.45	1.18	47.19	54.00	-6.81	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).





**Operation Mode:** Tx / draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / CH Low

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Vertical

Tx / draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / CH Low				Measurement Distance at 3m			Vertical polarity		
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5761.92	109.89	34.31	4.22	42.27	0.00	106.16	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1374.98	62.25	26.07	1.94	39.68	0.76	51.34	74.00	-22.66	P
* 1374.98	56.17	26.07	1.94	39.68	0.76	45.26	54.00	-8.74	A
2302.05	53.32	30.12	2.34	39.88	1.19	47.09	76.95	-29.86	P
* 4603.95	58.97	32.33	3.59	41.01	0.61	54.49	74.00	-19.51	P
* 4603.95	57.23	32.33	3.59	41.01	0.61	52.75	54.00	-1.25	A
* 11523.78	49.68	40.52	6.64	37.45	1.18	60.58	74.00	-13.42	P
* 11523.78	38.59	40.52	6.64	37.45	1.18	49.49	54.00	-4.51	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / CH High

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Horizontal

Tx / draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / CH High				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5788.01	99.20	34.35	4.24	42.28	0.00	95.50	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1374.98	59.22	26.07	1.94	39.68	0.76	48.31	74.00	-25.69	P
* 1374.98	53.47	26.07	1.94	39.68	0.76	42.56	54.00	-11.44	A
* 2318.02	50.22	30.11	2.34	39.87	1.20	44.00	74.00	-30.00	P
* 2318.02	43.75	30.11	2.34	39.87	1.20	37.53	54.00	-16.47	A
* 4636.02	56.22	32.40	3.60	41.05	0.62	51.79	74.00	-22.21	P
* 4636.02	54.71	32.40	3.60	41.05	0.62	50.28	54.00	-3.72	A
* 11586.74	47.12	40.59	6.68	37.47	1.13	58.05	74.00	-15.95	P
* 11586.74	37.25	40.59	6.68	37.47	1.13	48.18	54.00	-5.82	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



**Operation Mode:** Tx / draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / CH High

**Test Date:** August 25, 2009

**Temperature:** 28.1°C

**Tested by:** Eric Yang

**Humidity:** 52 % RH

**Polarity:** Vertical

Tx / draft 802.11n Wide-40 MHz Channel mode / 5755 ~ 5795MHz / CH High				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Closs	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
5792.27	107.41	34.35	4.24	42.28	0.00	103.72	Fundamental Frequency		P
N/A	-----	-----	-----	-----	-----	-----			A
* 1374.96	61.25	26.07	1.94	39.68	0.76	50.34	74.00	-23.66	P
* 1374.96	55.87	26.07	1.94	39.68	0.76	44.96	54.00	-9.04	A
* 2318.01	51.40	30.11	2.34	39.87	1.20	45.18	74.00	-28.82	P
* 2318.01	45.57	30.11	2.34	39.87	1.20	39.35	54.00	-14.65	A
* 4635.98	58.67	32.40	3.60	41.05	0.62	54.24	74.00	-19.76	P
* 4635.98	56.22	32.40	3.60	41.05	0.62	51.79	54.00	-2.21	A
* 11585.46	48.95	40.59	6.68	37.47	1.13	59.88	74.00	-14.12	P
* 11585.46	38.29	40.59	6.68	37.47	1.13	49.22	54.00	-4.78	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



## 7.7 POWERLINE CONDUCTED EMISSIONS

### LIMIT

According to §15.207(a), except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency Range (MHz)	Limits (dB $\mu$ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

\* Decreases with the logarithm of the frequency.

### Test Configuration

See test photographs attached in Appendix II for the actual connections between EUT and support equipment.

### TEST PROCEDURE

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

### TEST RESULTS

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

## Test Data

Operation Mode: TX + RX mode

Test Date: September 17, 2009

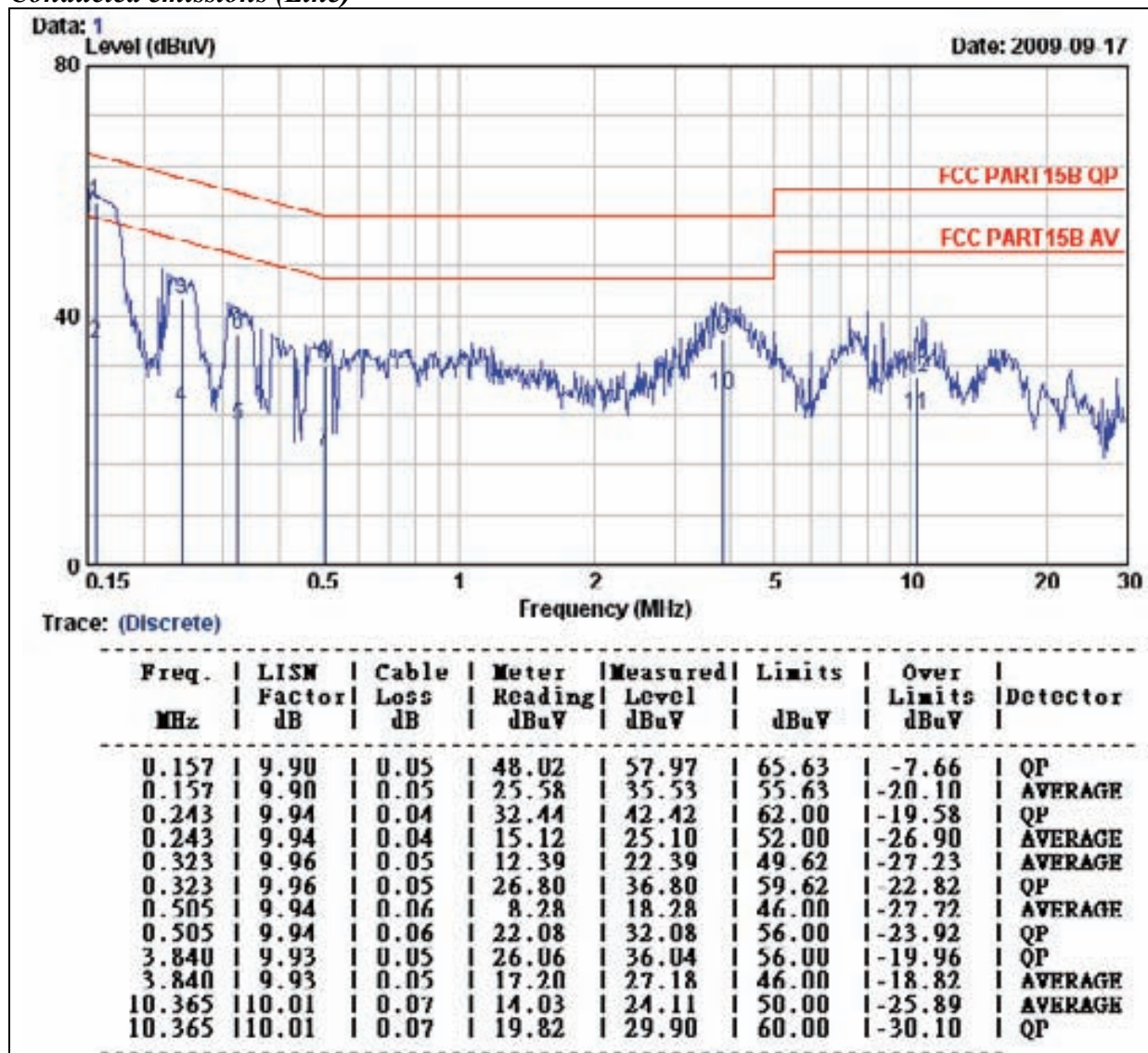
Temperature: 26°C

Humidity: 50% RH

Tested by: Taiyu Cyu

Test Mode: Normal Link

## Conducted emissions (Line)



## Remark:

- 1 Measuring frequencies from 0.15 MHz to 30MHz.
- 2 The emissions measured in frequency range from 0.15 MHz to 30MHz were made with an instrument using Quasi-peak detector and average detector.
- 3 The IF bandwidth of SPA between 0.15MHz to 30MHz was 10kHz; the IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9kHz;
- 4 a. Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB)  
b. Over Limit value (dB) = Level (dBuV) – Limit Line (dBuV)



Operation Mode: TX + RX mode

Test Date: September 17, 2009

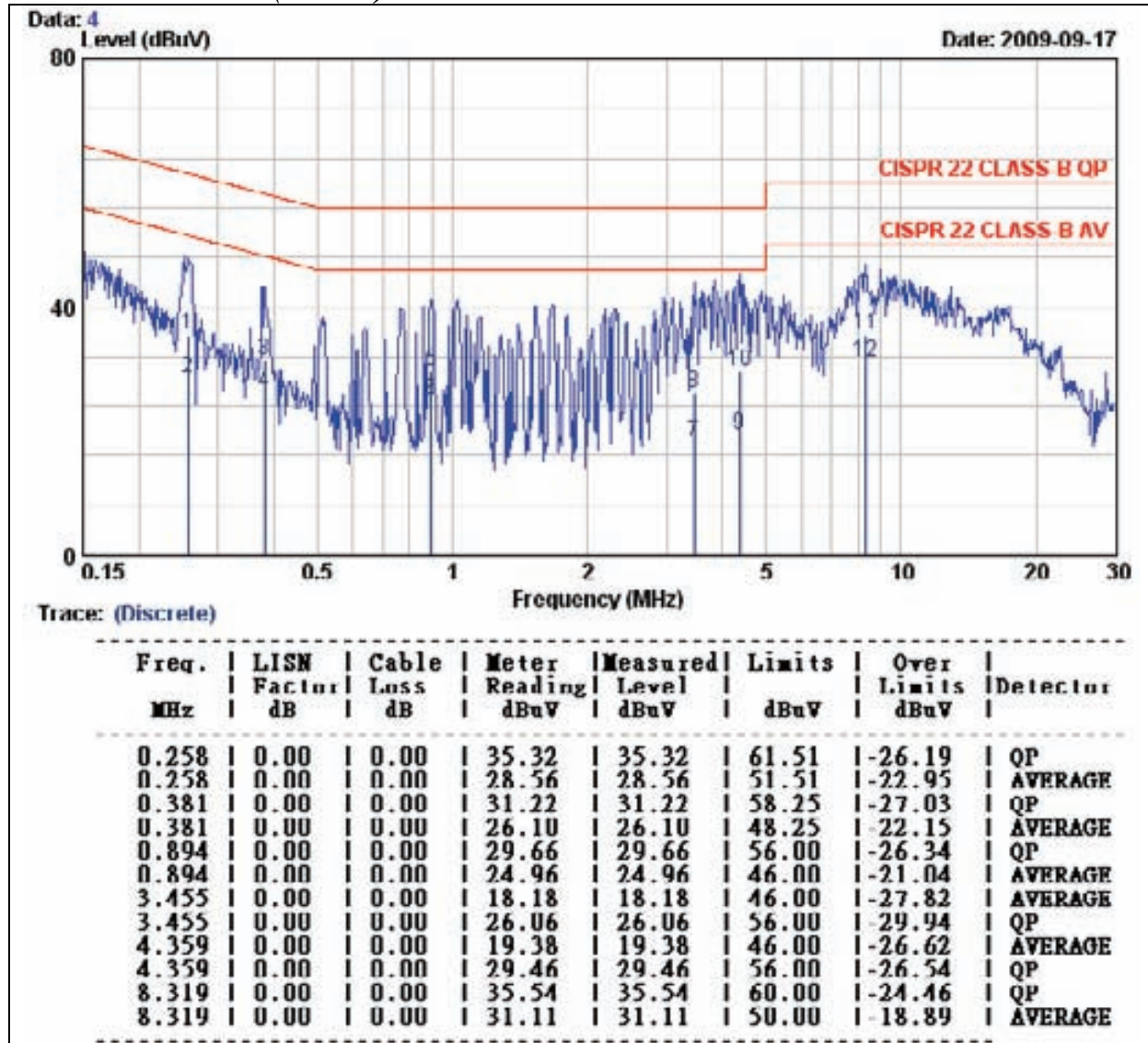
Temperature: 26°C

Humidity: 50% RH

Tested by: Taiyu Cyu

Test Mode: Normal Link

### Conducted emissions (Neutral)



### Remark:

- 1 Measuring frequencies from 0.15 MHz to 30MHz.
- 2 The emissions measured in frequency range from 0.15 MHz to 30MHz were made with an instrument using Quasi-peak detector and average detector.
- 3 The IF bandwidth of SPA between 0.15MHz to 30MHz was 10kHz; the IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9kHz;
- 4 a. Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB)  
b. Over Limit value (dB) = Level (dBuV) – Limit Line (dBuV)



## APPENDIX I

### RADIO FREQUENCY EXPOSURE

#### LIMIT

According to §15.247(i), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this chapter.

#### EUT Specification

<b>EUT</b>	Air Tune
<b>Frequency band (Operating)</b>	<input checked="" type="checkbox"/> WLAN: 2.412GHz ~ 2.462GHz <input type="checkbox"/> WLAN: 5.18GHz ~ 5.32GHz / 5.50GHz ~ 5.70GHz <input type="checkbox"/> WLAN: 5.745GHz ~ 5.825GHz <input type="checkbox"/> Others
<b>Device category</b>	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others
<b>Exposure classification</b>	<input type="checkbox"/> Occupational/Controlled exposure ( $S = 5\text{mW}/\text{cm}^2$ ) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure ( $S=1\text{mW}/\text{cm}^2$ )
<b>Antenna diversity</b>	<input type="checkbox"/> Single antenna <input checked="" type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input checked="" type="checkbox"/> Tx/Rx diversity
<b>Max. output power</b>	IEEE 802.11b mode: 21.94 dBm(156.315 mW) IEEE 802.11g mode: 21.52 dBm(141.906 mW) draft 802.11n Standard-20 MHz Channel mode: 24.91 dBm(309.73 mW) draft 802.11n Wide-40 MHz Channel mode: 22.99 dBm(199.104 mW)
<b>Antenna gain (Max)</b>	1.5 dBi (Numeric gain: 1.4125)
<b>Evaluation applied</b>	<input checked="" type="checkbox"/> MPE Evaluation* <input type="checkbox"/> SAR Evaluation <input type="checkbox"/> N/A

#### **Remark:**

1. The maximum output power is 24.91dBm (309.73mW) at 2437MHz (with 1.4125 numeric antenna gain.)
2. DTS device is not subject to routine RF evaluation; MPE estimate is used to justify the compliance.
3. For mobile or fixed location transmitters, no SAR consideration applied. The maximum power density is 1.0 mW/cm<sup>2</sup> even if the calculation indicates that the power density would be larger.

#### TEST RESULTS

No non-compliance noted.

#### MPE

No non-compliance noted.

**Calculation**

Given  $E = \frac{\sqrt{30 \times P \times G}}{d}$  &  $S = \frac{E^2}{3770}$

Where  $E$  = Field strength in Volts / meter

$P$  = Power in Watts

$G$  = Numeric antenna gain

$d$  = Distance in meters

$S$  = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770 d^2}$$

Changing to units of mW and cm, using:

$$P (mW) = P (W) / 1000 \text{ and}$$

$$d (cm) = d(m) / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where  $d$  = Distance in cm

$P$  = Power in mW

$G$  = Numeric antenna gain

$S$  = Power density in mW / cm<sup>2</sup>

**Maximum Permissible Exposure**

EUT output power = 309.73mW

Numeric Antenna gain = 1.4125

Substituting the MPE safe distance using  $d = 20$  cm into Equation 1:

Yields

$$S = 0.000199 \times P \times G$$

Where  $P$  = Power in mW

$G$  = Numeric antenna gain

$S$  = Power density in mW / cm<sup>2</sup>

→ Power density = 0.08706 mW / cm<sup>2</sup>

(For mobile or fixed location transmitters, the maximum power density is 1.0 mW/cm<sup>2</sup> even if the calculation indicates that the power density would be larger.)



**TEST RESULTS**

No non-compliance noted.

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$

$$G = 1.5 \text{ dBi} = 1.41253754 \text{ mW}$$

$$\text{IEEE 802.11b} = 0.0796 \times 156.3148 \times 1.41253754 / 400 = 0.0439393$$

$$\text{IEEE 802.11g} = 0.0796 \times 141.9058 \times 1.41253754 / 400 = 0.039889$$

$$\text{IEEE 802.11n HT20} = 0.0796 \times 309.7297 \times 1.41253754 / 400 = 0.0870635$$

$$\text{IEEE 802.11n HT40} = 0.0796 \times 199.104 \times 1.41253754 / 400 = 0.0559671$$

Mode	Minimum separation distance (cm)	Output Power (dBm)	Output Power (mw)	Antenna Gain (dBi)	Power Density Limit (mW/cm <sup>2</sup> )	Power Density at 20cm (mW/cm <sup>2</sup> )
B MODE	20.0	21.94	156.3148	1.50	1	0.0439393
G MODE	20.0	21.52	141.9058	1.50	1	0.0398890
HT-20 Mode	20.0	24.91	309.7297	1.50	1	0.0870635
HT-40 Mode	20.0	22.99	199.104	1.50	1	0.0559671

**Remark:** For mobile or fixed location transmitters, the maximum power density is 1.0 mW/cm<sup>2</sup> even if the calculation indicates that the power density would be larger.



<b>EUT</b>	Air Tune
<b>Frequency band (Operating)</b>	<input type="checkbox"/> WLAN: 2.412GHz ~ 2.462GHz <input checked="" type="checkbox"/> WLAN: 5.745GHz ~ 5.825GHz <input type="checkbox"/> Others: <u>Bluetooth: 2.402GHz ~ 2.480GHz</u>
<b>Device category</b>	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others
<b>Exposure classification</b>	<input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm <sup>2</sup> ) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm <sup>2</sup> )
<b>Antenna diversity</b>	<input type="checkbox"/> Single antenna <input checked="" type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input checked="" type="checkbox"/> Tx/Rx diversity
<b>Max. output power</b>	IEEE 802.11a mode / 5745 ~ 5825MHz: 18.63 dBm (72.94575mW) draft 802.11n Standard-20 MHz Channel mode: 17.96 dBm (62.47215mW) draft 802.11n Wide-40 MHz Channel mode: 17.77 dBm (59.89656mW)
<b>Antenna gain (Max)</b>	2.0 dBi (Numeric gain: 1.5848932)
<b>Evaluation applied</b>	<input checked="" type="checkbox"/> MPE Evaluation* <input type="checkbox"/> SAR Evaluation <input type="checkbox"/> N/A
<b>Remark:</b> 1. The maximum output power is <u>18.63dBm (72.94575mW) at 5745MHz (with 1.5848932 numeric antenna gain.)</u> 2. DTS device is not subject to routine RF evaluation; MPE estimate is used to justify the compliance. 3. For mobile or fixed location transmitters, no SAR consideration applied. The maximum power density is 1.0 mW/cm <sup>2</sup> even if the calculation indicates that the power density would be larger.	

## **TEST RESULTS**

*No non-compliance noted.*

## **MPE**

*No non-compliance noted.*

**Calculation**

Given  $E = \frac{\sqrt{30 \times P \times G}}{d}$  &  $S = \frac{E^2}{3770}$

Where  $E$  = Field strength in Volts / meter

$P$  = Power in Watts

$G$  = Numeric antenna gain

$d$  = Distance in meters

$S$  = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770 d^2}$$

Changing to units of mW and cm, using:

$$P (mW) = P (W) / 1000 \text{ and}$$

$$d (cm) = d(m) / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where  $d$  = Distance in cm

$P$  = Power in mW

$G$  = Numeric antenna gain

$S$  = Power density in mW / cm<sup>2</sup>

**Maximum Permissible Exposure**

EUT output power = 72.94575mW

Numeric Antenna gain = 1.5848932

Substituting the MPE safe distance using  $d = 20$  cm into Equation 1:

Yields

$$S = 0.000199 \times P \times G$$

Where  $P$  = Power in mW

$G$  = Numeric antenna gain

$S$  = Power density in mW / cm<sup>2</sup>

$$\rightarrow \text{Power density} = 0.0230066 \text{ mW} / \text{cm}^2$$

(For mobile or fixed location transmitters, the maximum power density is 1.0 mW/cm<sup>2</sup> even if the calculation indicates that the power density would be larger.)

**TEST RESULTS**

No non-compliance noted.

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$

G= 2.0dBi=1.5848932 mW

IEEE 802.11a =0.0796\*72.94575\*1.58489319/400=0.0230066

IEEE 802.11n HT20 =0.0796\*62.47215\*1.58489319/400=0.0197033

IEEE 802.11n HT40 =0.0796\*59.84116\*1.58489319/400=0.0188735

Mode	Minimum separation distance (cm)	Output Power (dBm)	Output Power (mw)	Antenna Gain (dBi)	Power Density Limit (mW/cm <sup>2</sup> )	Power Density at 20cm (mW/cm <sup>2</sup> )
A MODE	20.0	18.63	72.94575	2.0	1	0.0230066
HT-20 Mode	20.0	17.96	62.47215	2.0	1	0.0197033
HT-40 Mode	20.0	17.77	59.84116	2.0	1	0.0188735

**Remark:** For mobile or fixed location transmitters, the maximum power density is 1.0 mW/cm<sup>2</sup> even if the calculation indicates that the power density would be larger.