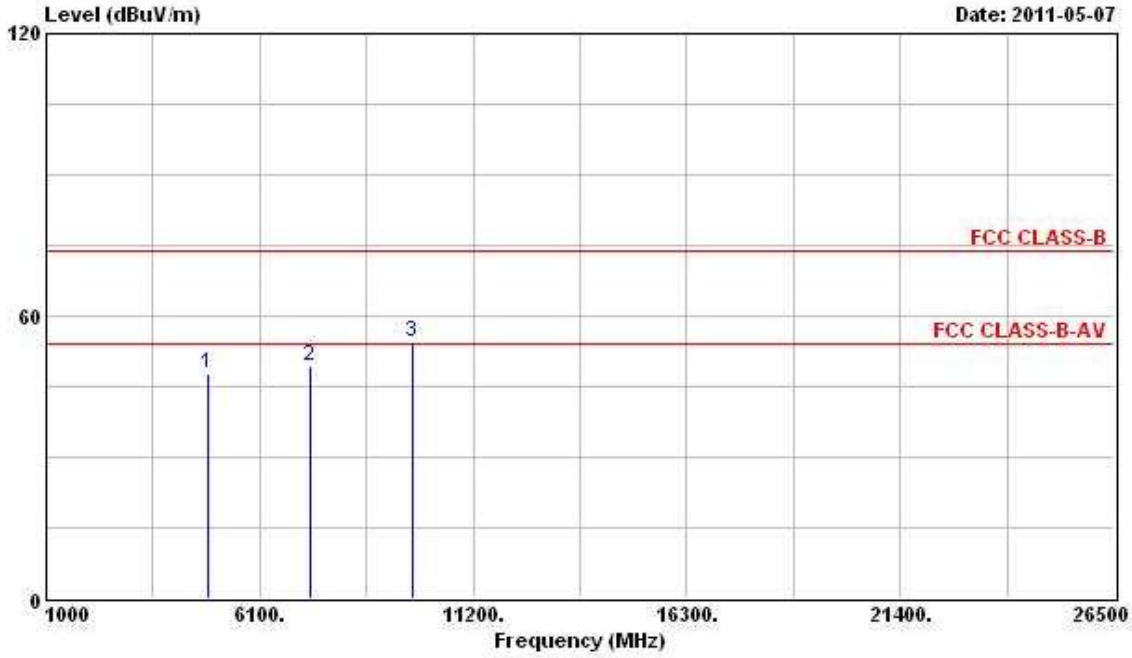
Vertical

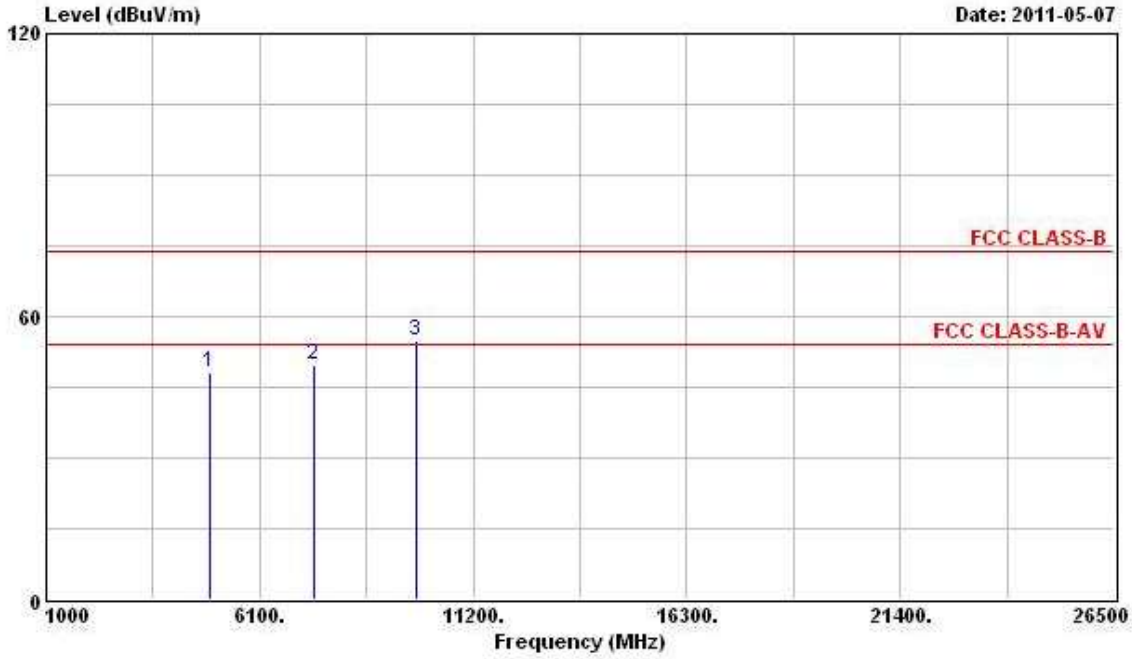


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	4874.000	47.62	-6.38	54.00	41.66	33.16	5.43	32.62	PK
2 @	7311.000	49.48	-4.52	54.00	41.34	35.68	5.36	32.90	PK
3	9748.000	54.48			42.46	38.62	6.74	33.34	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Final Test Date	May 07, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n Ch. 11 (20MHz) MCS0 (Ant. A)

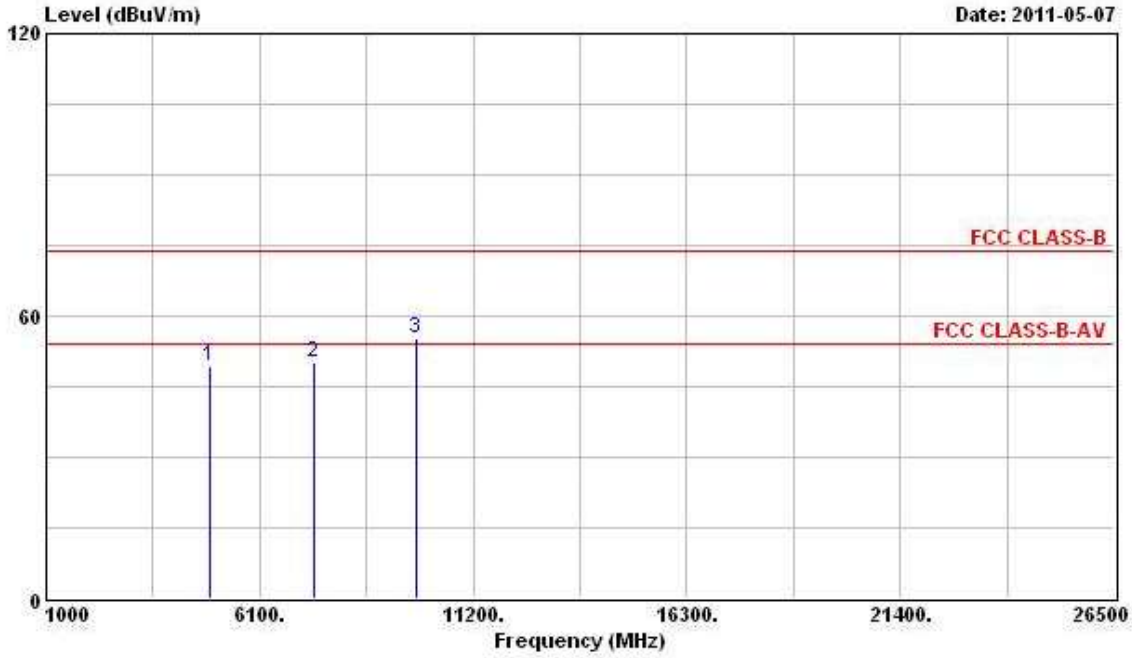
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	4924.000	48.11	-5.89	54.00	42.05	33.26	5.41	32.61	PK
2 @	7386.000	49.67	-4.33	54.00	41.15	35.87	5.57	32.92	PK
3	9848.000	54.87			42.61	38.79	6.80	33.33	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical

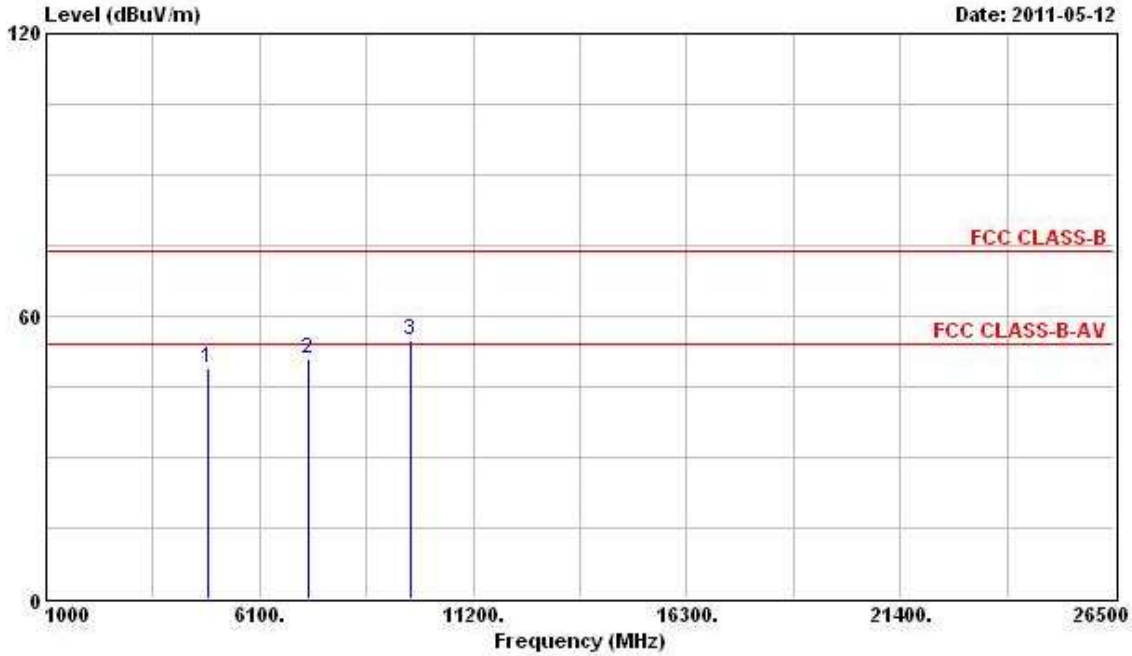


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	4924.000	49.31	-4.69	54.00	43.25	33.26	5.41	32.61	PK
2 @	7386.000	50.18	-3.82	54.00	41.66	35.87	5.57	32.92	PK
3	9848.000	55.33			43.07	38.79	6.80	33.33	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Final Test Date	May 12, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n Ch. 3 (40MHz) MCS0 (Ant. B)

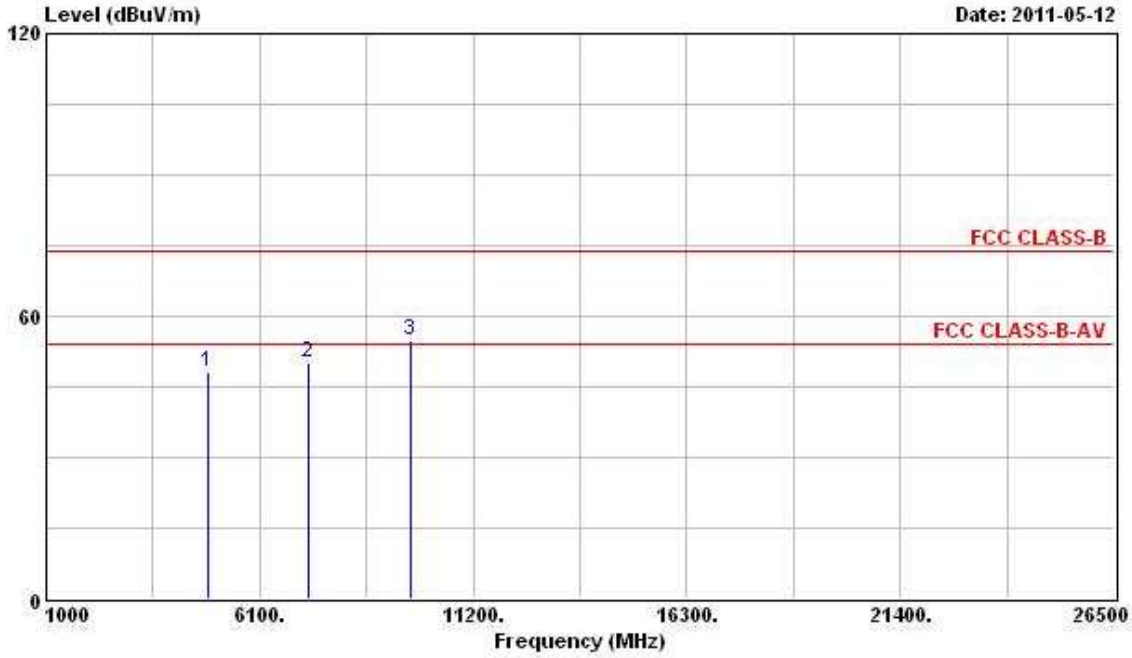
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	4844.000	49.05	-4.95	54.00	43.16	33.09	5.43	32.63	PK
2 @	7266.000	50.87	-3.13	54.00	42.91	35.61	5.25	32.89	PK
3	9688.000	54.80			42.94	38.48	6.72	33.34	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical

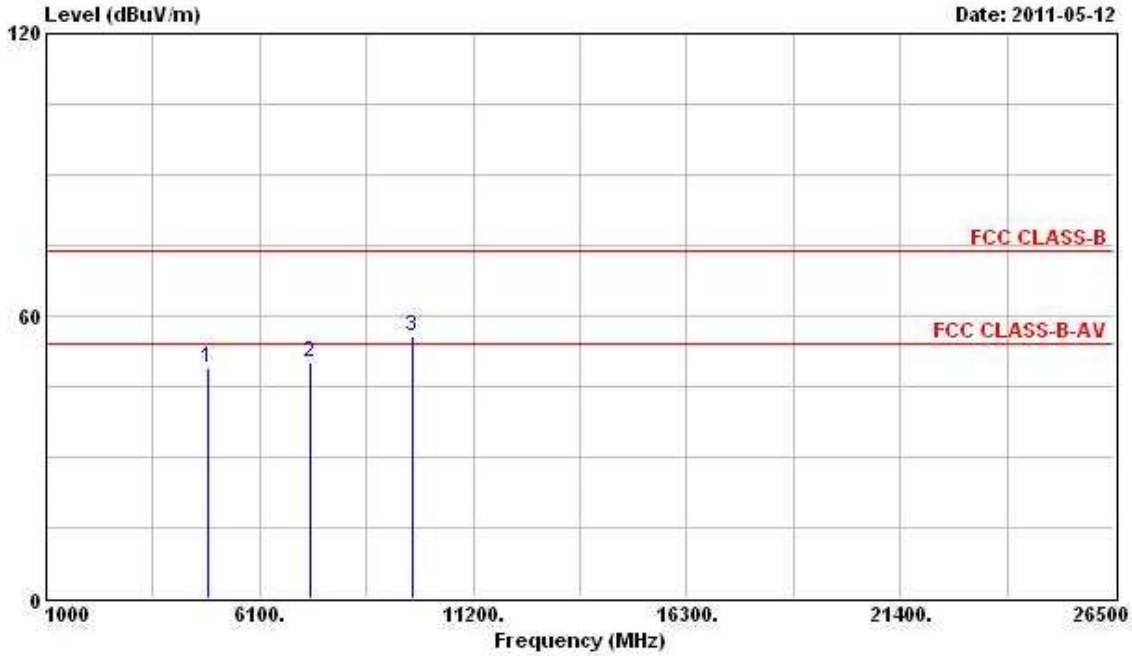


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	4844.000	48.30	-5.70	54.00	42.41	33.09	5.43	32.63	PK
2 @	7266.000	50.23	-3.77	54.00	42.27	35.61	5.25	32.89	PK
3	9688.000	54.88			43.02	38.48	6.72	33.34	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Final Test Date	May 12, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n Ch. 6 (40MHz) MCS0 (Ant. B)

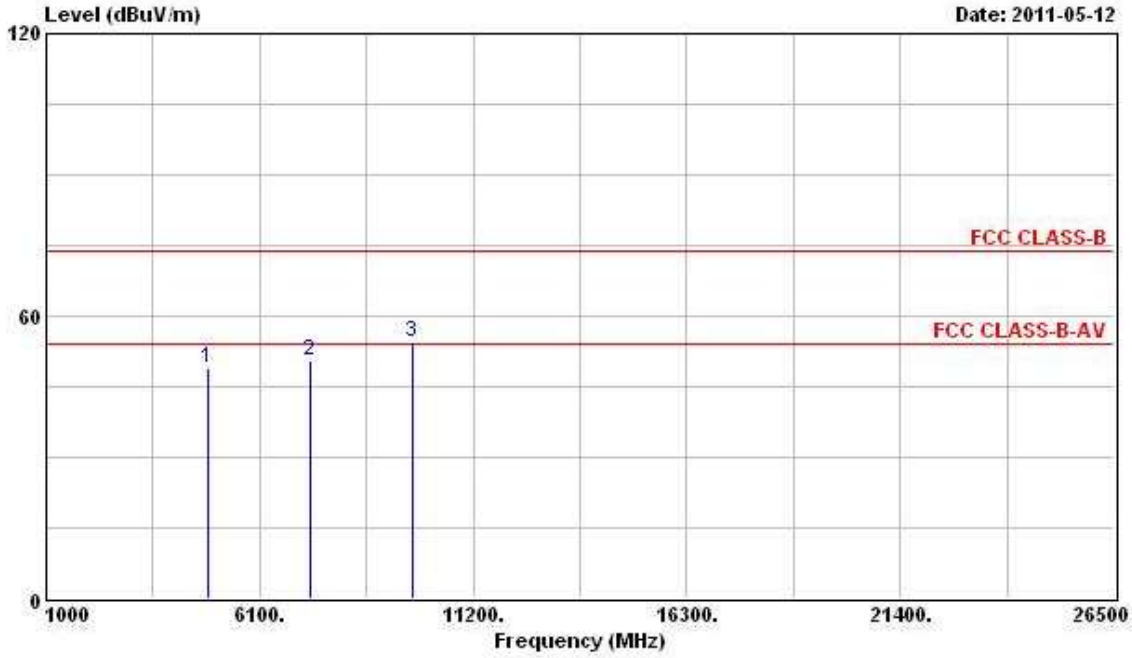
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	4874.000	49.01	-4.99	54.00	43.05	33.16	5.43	32.62	PK
2 @	7311.000	50.32	-3.68	54.00	42.18	35.68	5.36	32.90	PK
3	9748.000	55.58			43.56	38.62	6.74	33.34	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical

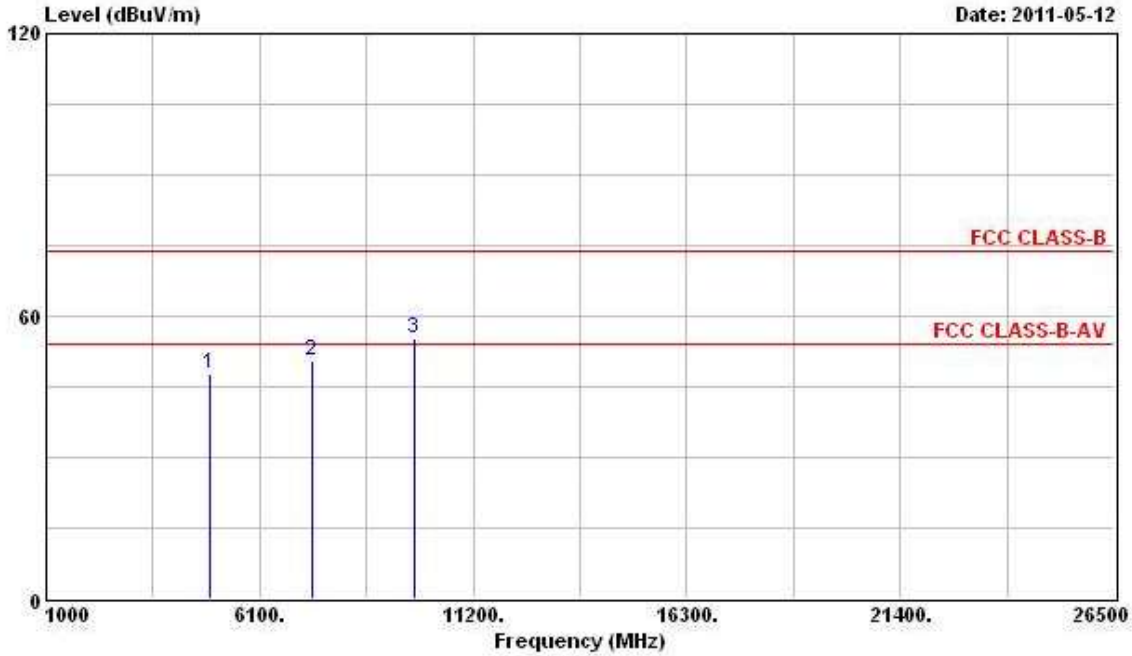


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	4874.000	49.07	-4.93	54.00	43.11	33.16	5.43	32.62	PK
2 @	7311.000	50.33	-3.67	54.00	42.19	35.68	5.36	32.90	PK
3	9748.000	54.65			42.63	38.62	6.74	33.34	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Final Test Date	May 12, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n Ch. 9 (40MHz) MCS0 (Ant. B)

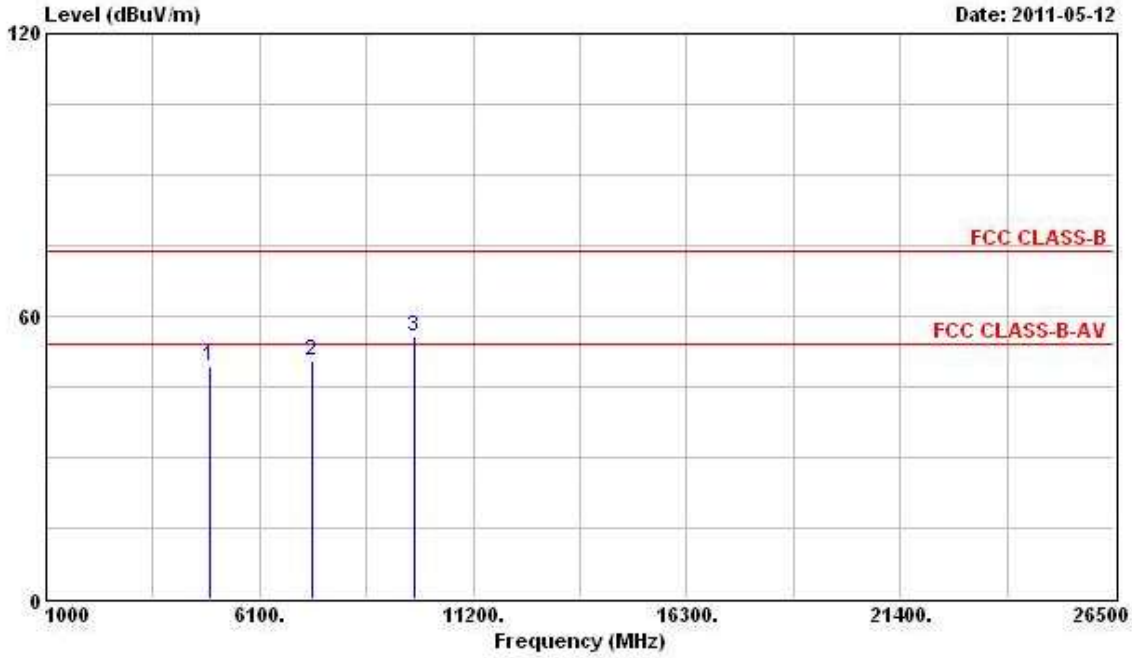
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	4904.000	47.72	-6.28	54.00	41.69	33.23	5.42	32.62	PK
2 @	7356.000	50.59	-3.41	54.00	42.25	35.80	5.46	32.92	PK
3	9808.000	55.14			42.97	38.72	6.78	33.33	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	4904.000	49.16	-4.84	54.00	43.13	33.23	5.42	32.62	PK
2 @	7356.000	50.46	-3.54	54.00	42.12	35.80	5.46	32.92	PK
3	9808.000	55.81			43.64	38.72	6.78	33.33	Peak

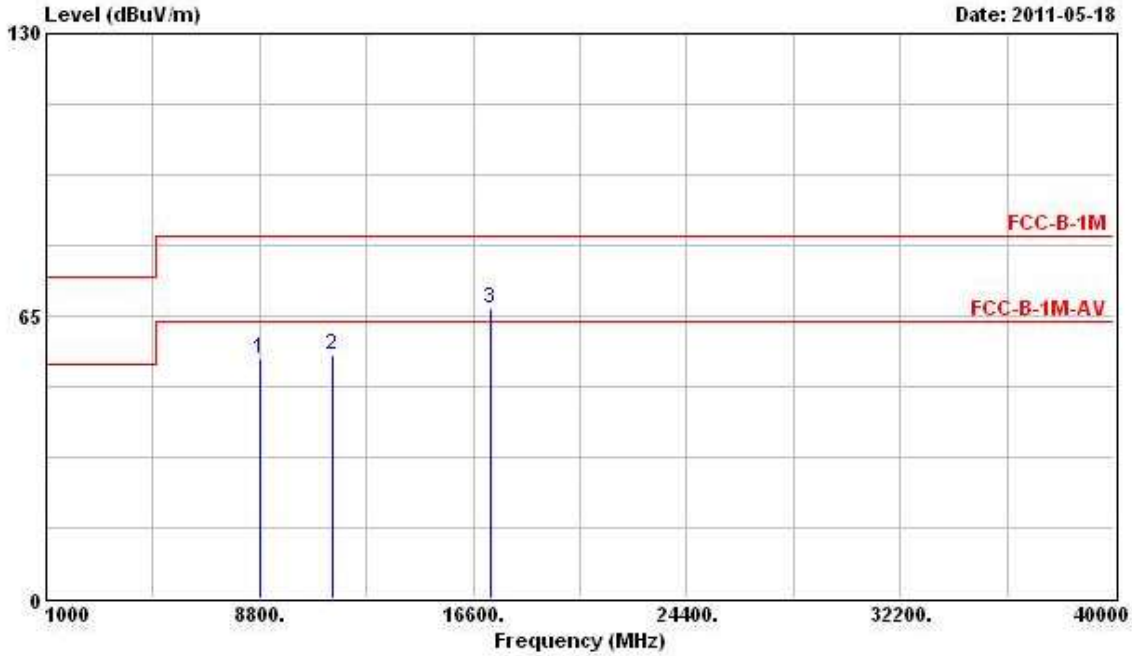
Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

For Two Chain:

Final Test Date	May 18, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	5G 802.11n Ch. 149 (20MHz) MCS8 (Ant. A+Ant. B)

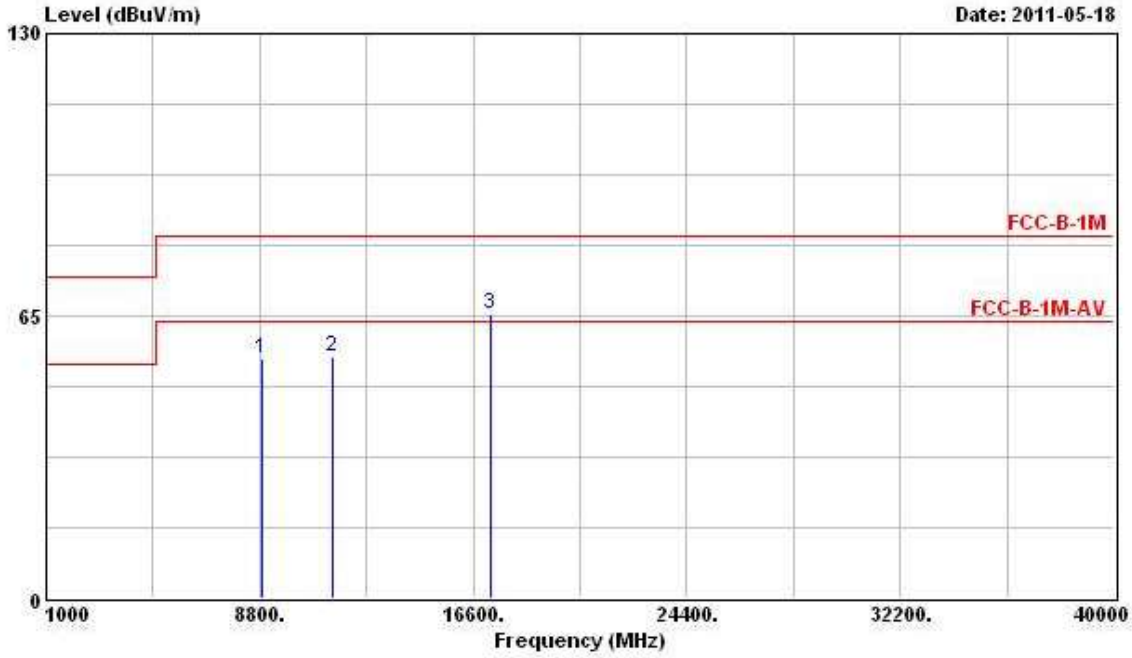
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8830.000	55.35			43.64	38.47	6.41	33.16	Peak
2	11490.000	55.91	-7.63	63.54	41.29	39.88	7.33	32.58	PK
3	17235.000	66.82			46.55	43.49	8.48	31.70	Peak

Note: The items 1 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical

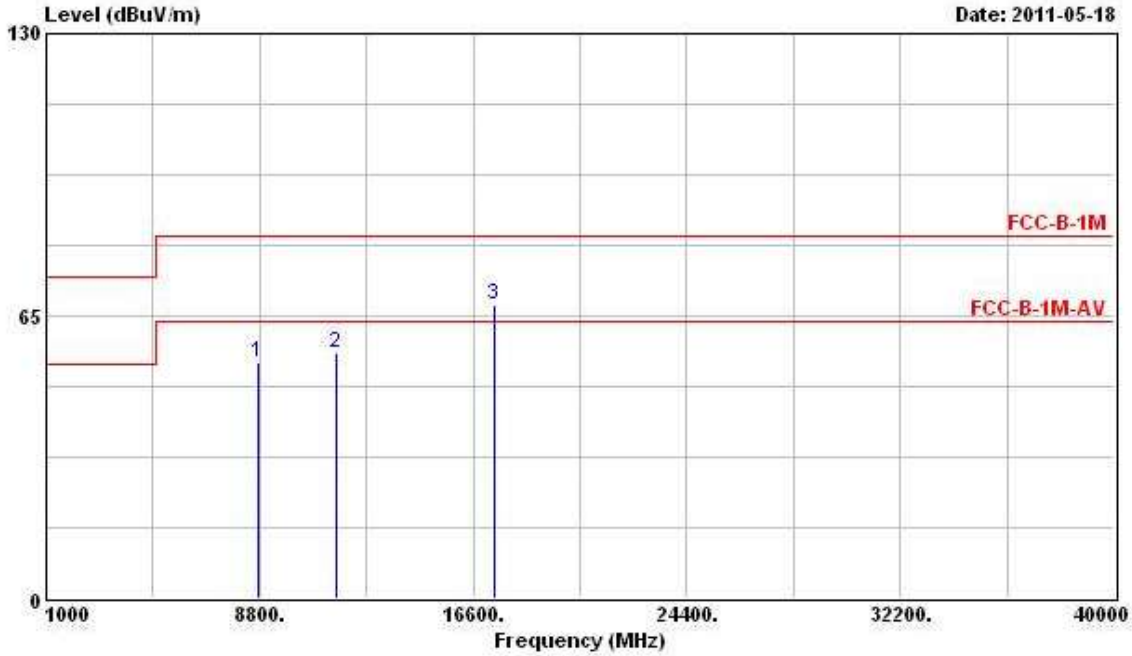


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8876.000	55.16			43.44	38.49	6.41	33.18	Peak
2	11490.000	55.72	-7.82	63.54	41.10	39.88	7.33	32.58	PK
3	17235.000	65.44			45.17	43.49	8.48	31.70	Peak

Note: The items 1 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Final Test Date	May 18, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	5G 802.11n Ch. 157 (20MHz) MCS8 (Ant. A+Ant. B)

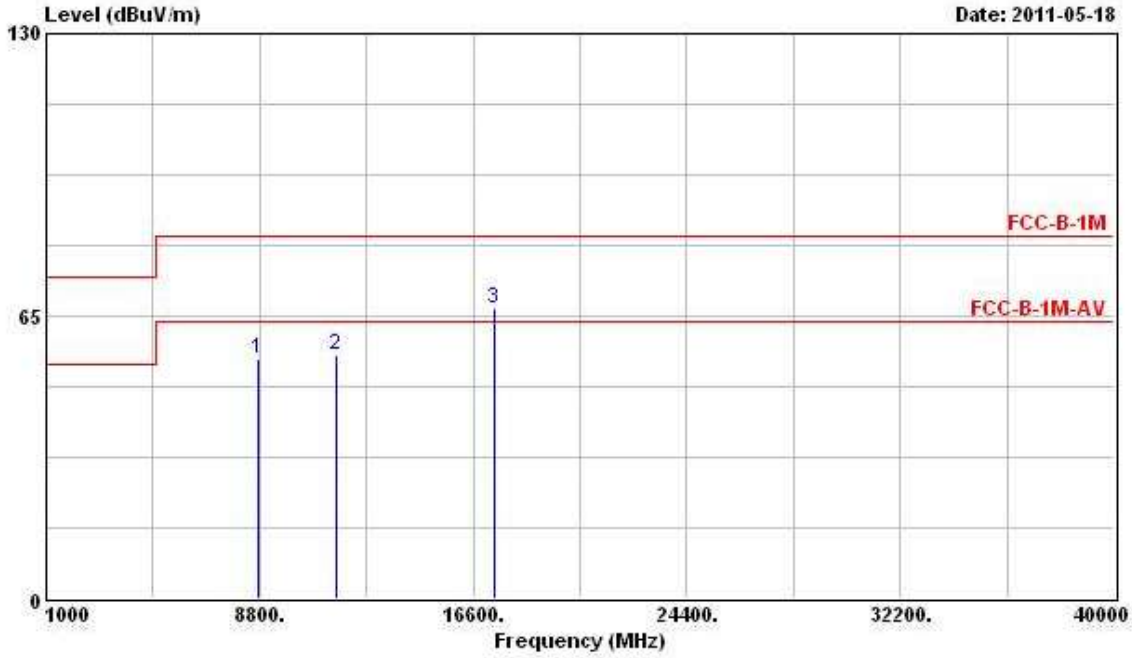
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8774.000	54.46			42.78	38.41	6.41	33.14	Peak
2	11570.000	56.40	-7.14	63.54	41.80	39.83	7.36	32.59	PK
3	17355.000	67.51			46.13	44.59	8.52	31.73	Peak

Note: The items 1 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical

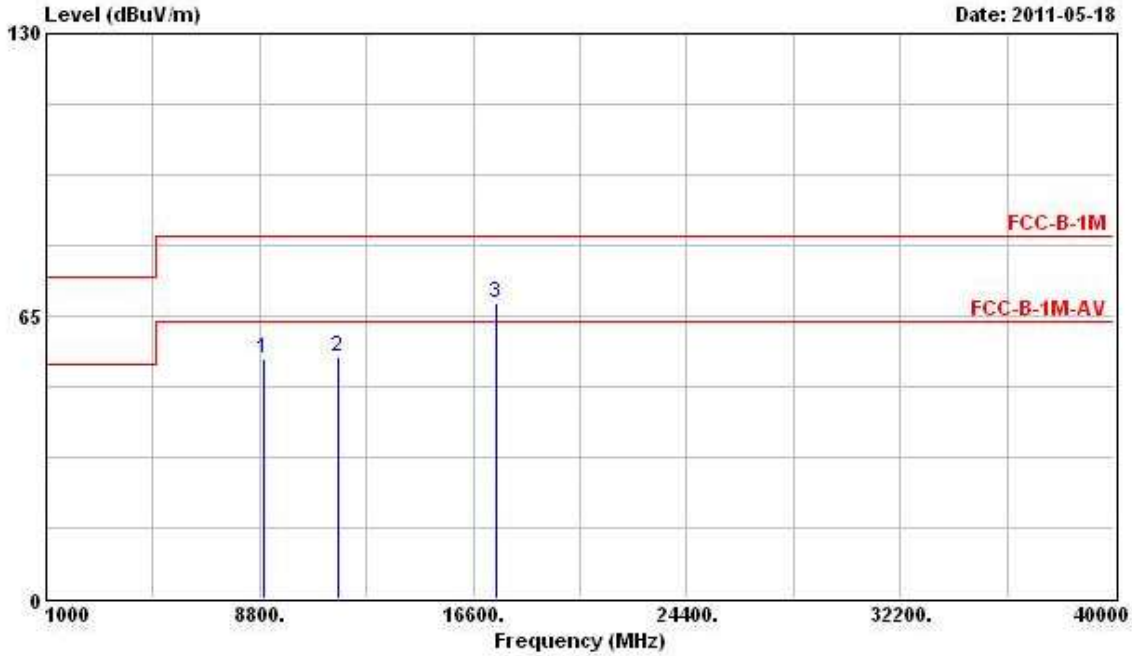


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8766.000	55.15			43.47	38.41	6.41	33.14	Peak
2	11570.000	55.99	-7.55	63.54	41.39	39.83	7.36	32.59	PK
3	17355.000	66.77			45.39	44.59	8.52	31.73	Peak

Note: The items 1 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Final Test Date	May 18, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	5G 802.11n Ch. 165 (20MHz) MCS8 (Ant. A+Ant. B)

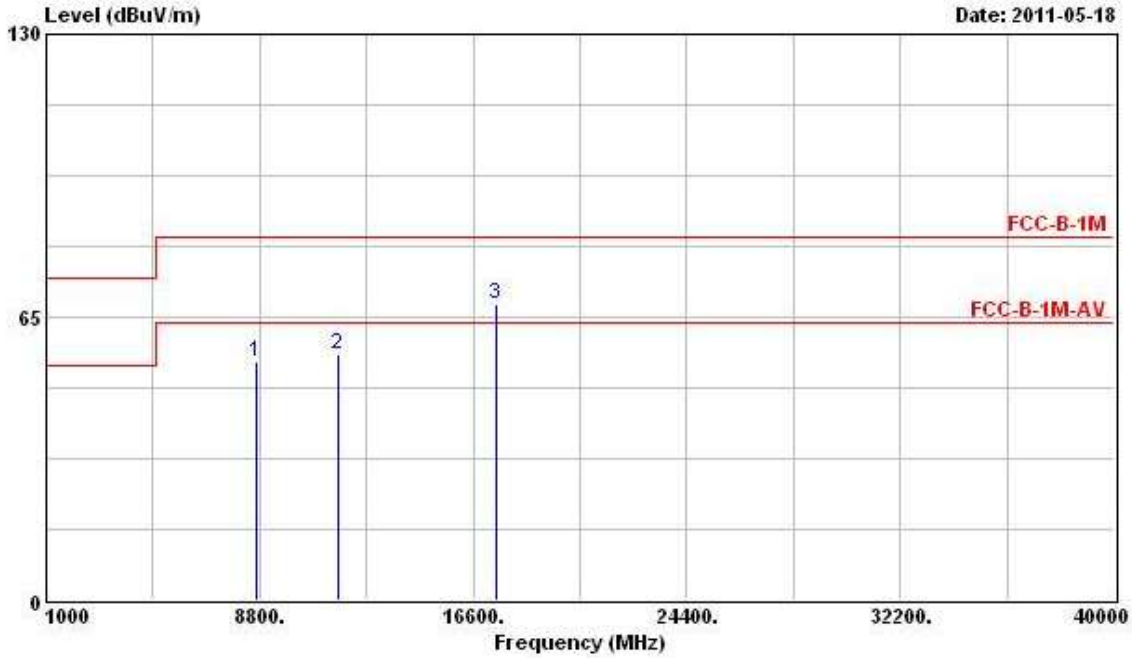
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8956.000	55.11			43.35	38.56	6.40	33.20	Peak
2	11650.000	55.72	-7.82	63.54	41.17	39.76	7.39	32.60	PK
3	17475.000	67.85			45.37	45.69	8.55	31.76	Peak

Note: The items 1 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical

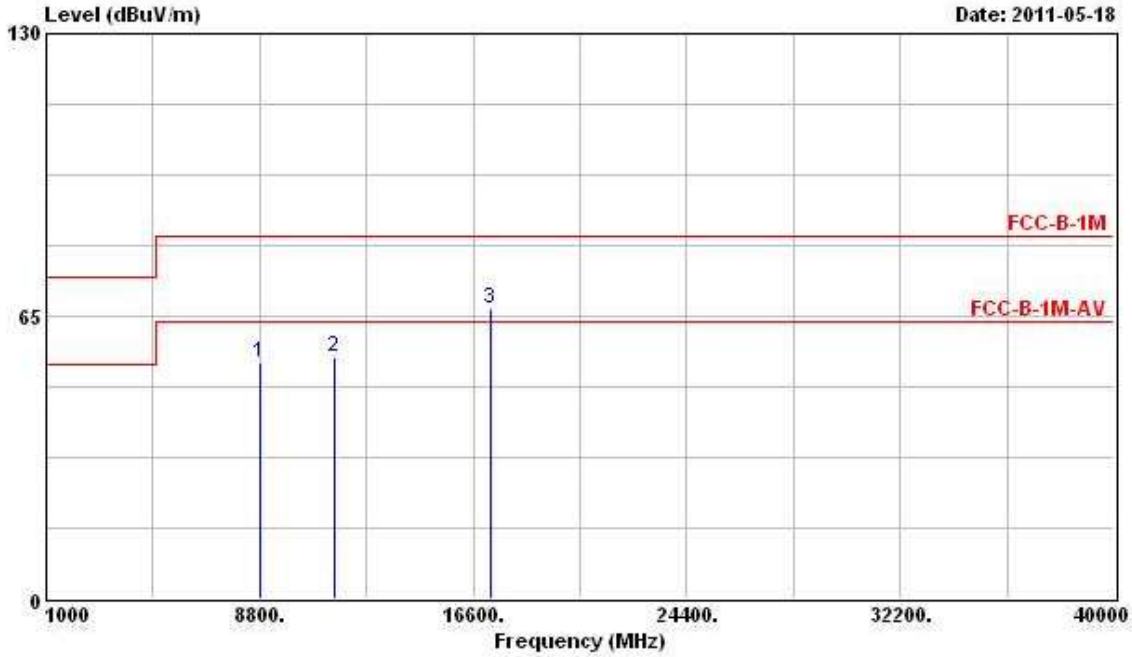


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8652.000	54.66			43.02	38.32	6.42	33.10	Peak
2	11650.000	56.36	-7.18	63.54	41.81	39.76	7.39	32.60	PK
3	17475.000	67.79			45.31	45.69	8.55	31.76	Peak

Note: The items 1 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Final Test Date	May 18, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	5G 802.11n Ch. 151 (40MHz) MCS8 (Ant. A+Ant. B)

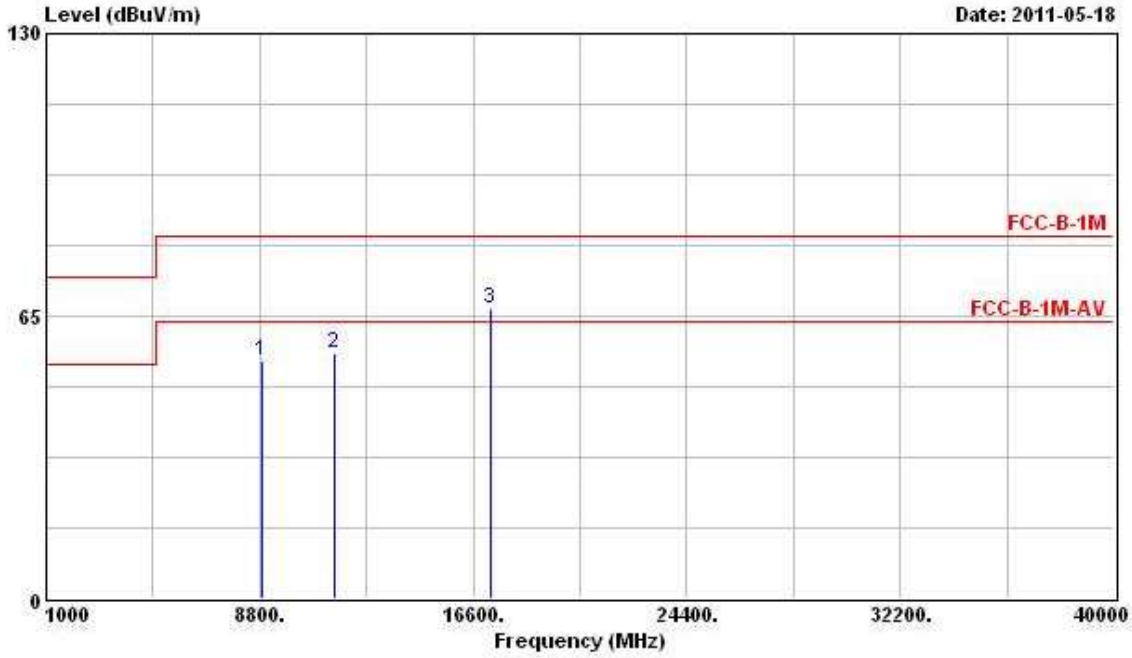
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8826.000	54.43			42.73	38.45	6.41	33.16	Peak
2	11510.000	55.66	-7.88	63.54	41.01	39.90	7.33	32.58	PK
3	17265.000	66.52			45.93	43.81	8.49	31.71	Peak

Note: The items 1 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical

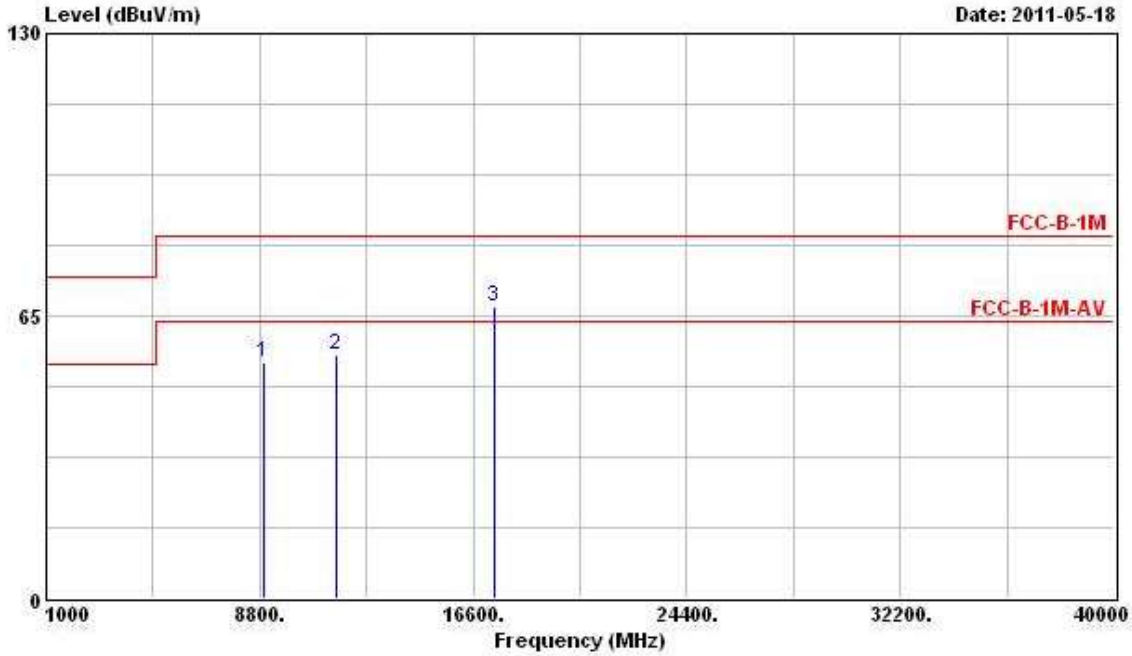


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8881.000	54.60			42.86	38.51	6.41	33.18	Peak
2	11510.000	56.49	-7.05	63.54	41.84	39.90	7.33	32.58	PK
3	17265.000	66.63			46.04	43.81	8.49	31.71	Peak

Note: The items 1 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Final Test Date	May 18, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	5G 802.11n Ch. 159 (40MHz) MCS8 (Ant. A+Ant. B)

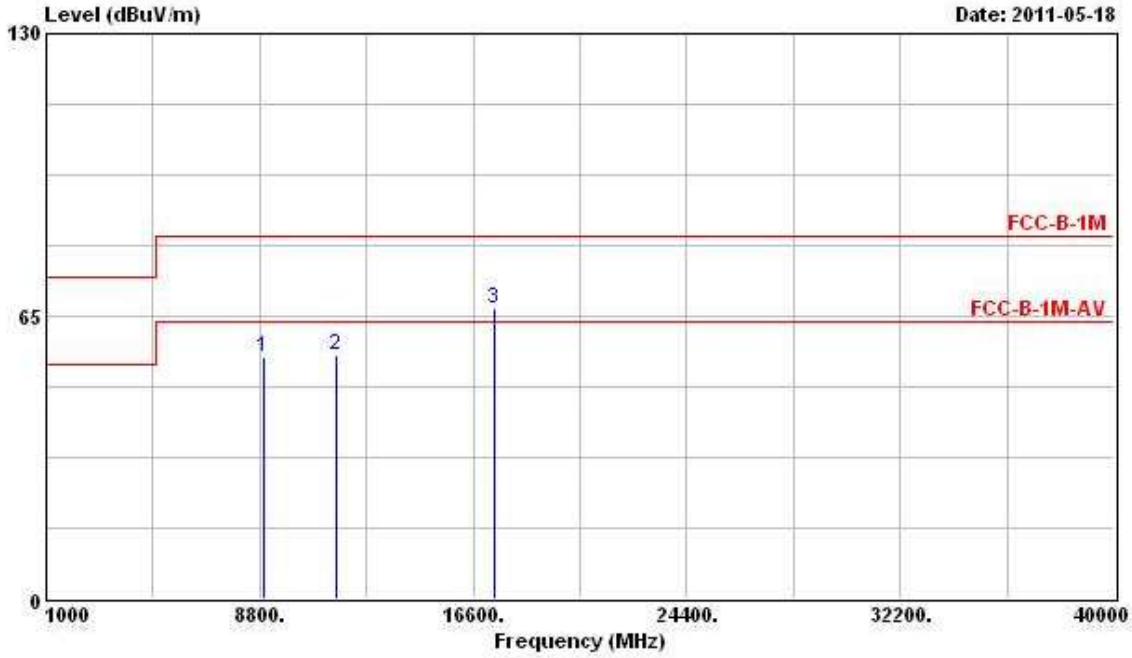
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8947.000	54.10			42.35	38.55	6.40	33.20	Peak
2	11590.000	56.08	-7.46	63.54	41.48	39.81	7.37	32.59	PK
3	17385.000	67.04			45.35	44.90	8.53	31.74	Peak

Note: The item 1 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical

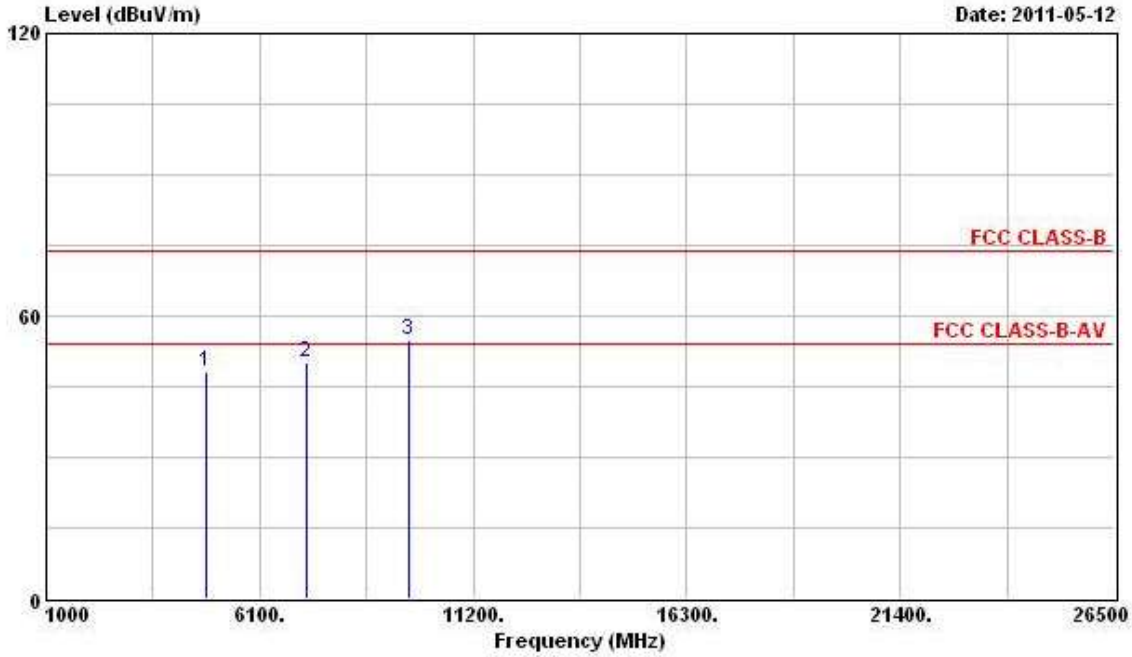


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	8925.000	55.51			43.77	38.53	6.41	33.19	Peak
2	11590.000	56.22	-7.32	63.54	41.62	39.81	7.37	32.59	PK
3	17385.000	66.89			45.20	44.90	8.53	31.74	Peak

Note: The item 1 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7)

Final Test Date	May 12, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n Ch. 1 (20MHz) MCS8 (Ant. A+Ant. B)

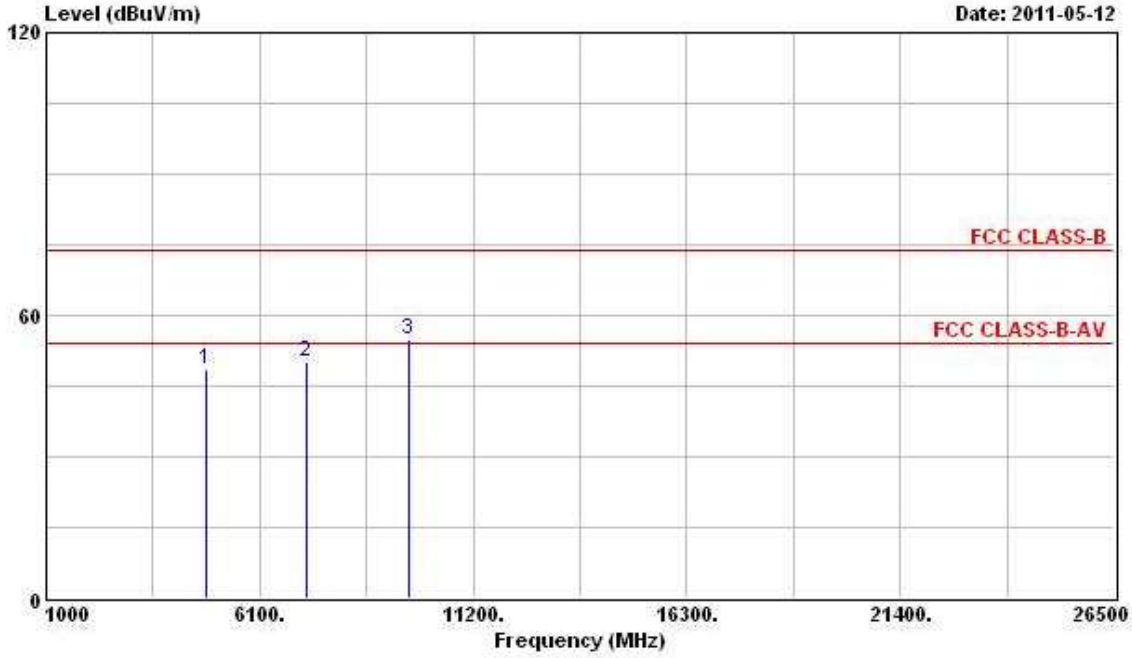
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	4824.000	48.30	-5.70	54.00	42.44	33.06	5.43	32.63	PK
2	7236.000	50.04			42.25	35.53	5.14	32.89	Peak
3	9648.000	54.81			43.04	38.41	6.70	33.34	Peak

Note: The items 2 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical

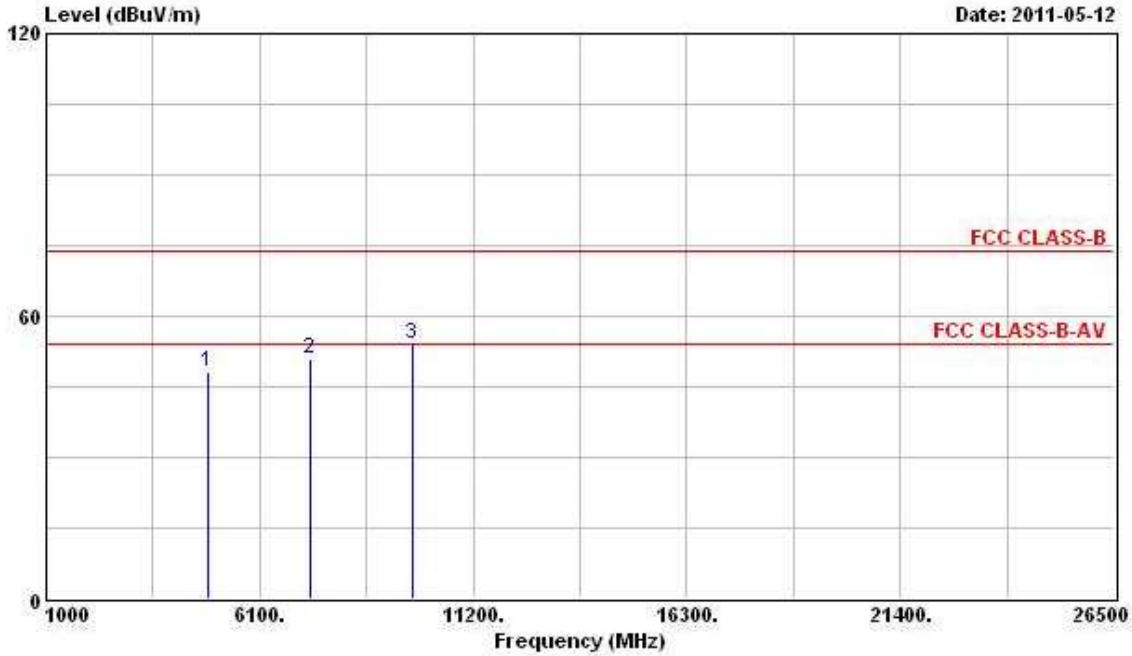


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	4824.000	48.44	-5.56	54.00	42.58	33.06	5.43	32.63	PK
2	7236.000	49.96			42.17	35.53	5.14	32.89	Peak
3	9648.000	54.89			43.12	38.41	6.70	33.34	Peak

Note: The items 2 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Final Test Date	May 12, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n Ch. 6 (20MHz) MCS8 (Ant. A+Ant. B)

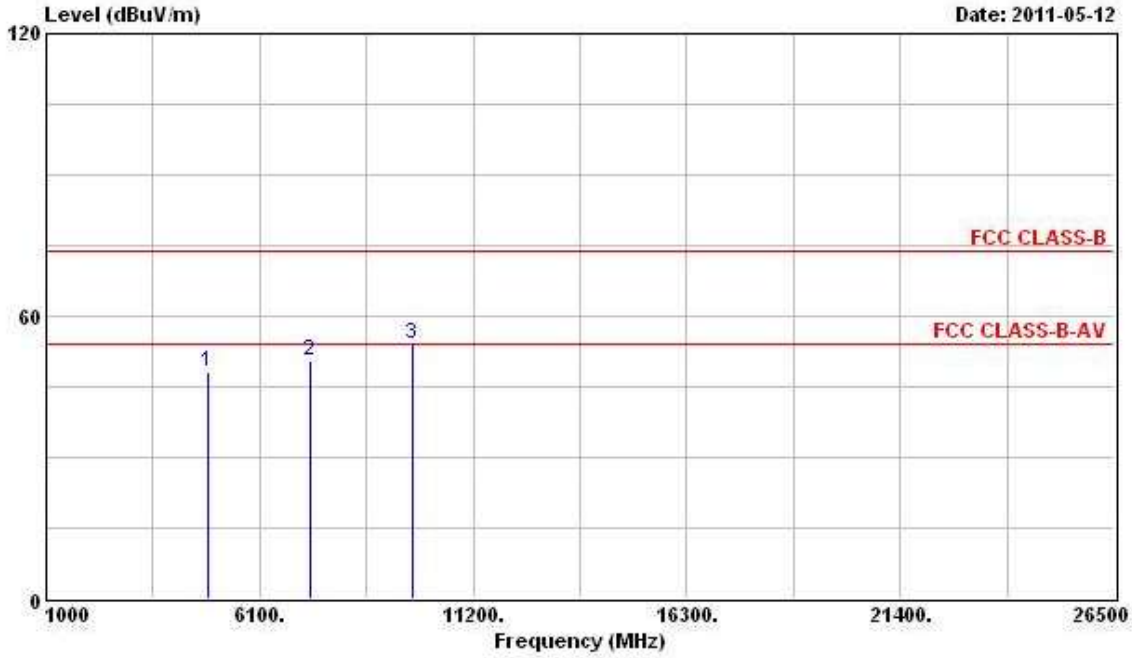
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	4874.000	48.18	-5.82	54.00	42.22	33.16	5.43	32.62	PK
2 @	7311.000	50.88	-3.12	54.00	42.74	35.68	5.36	32.90	PK
3	9748.000	54.12			42.10	38.62	6.74	33.34	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical

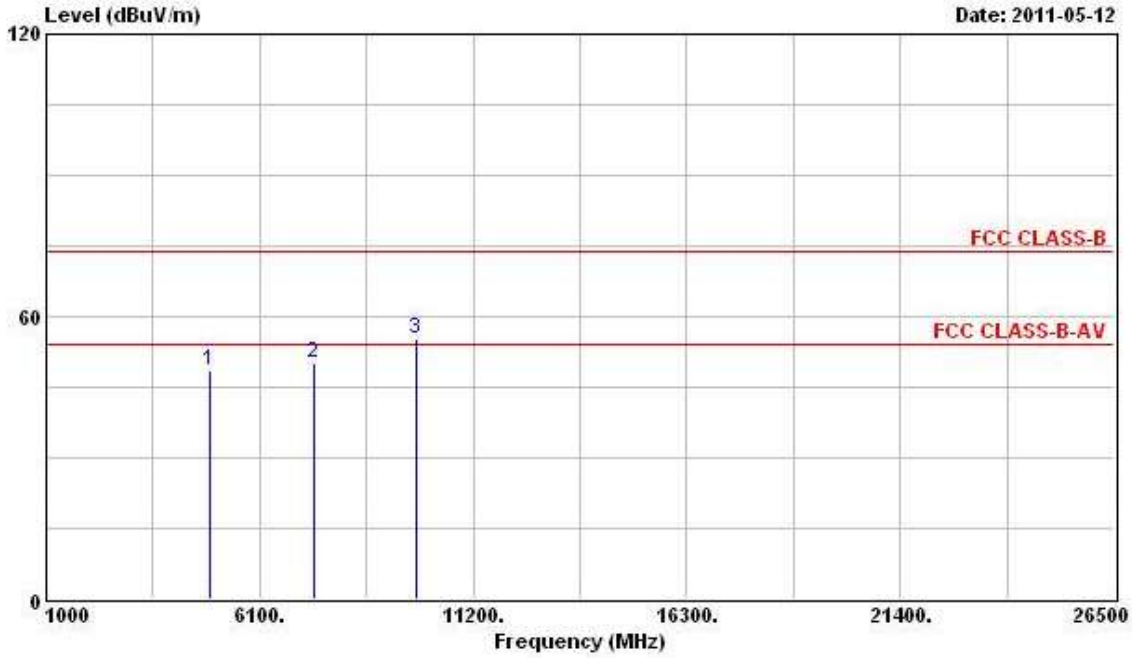


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	4874.000	48.12	-5.88	54.00	42.16	33.16	5.43	32.62	PK
2 @	7311.000	50.45	-3.55	54.00	42.31	35.68	5.36	32.90	PK
3	9748.000	54.27			42.25	38.62	6.74	33.34	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Final Test Date	May 12, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n Ch. 11 (20MHz) MCS8 (Ant. A+Ant. B)

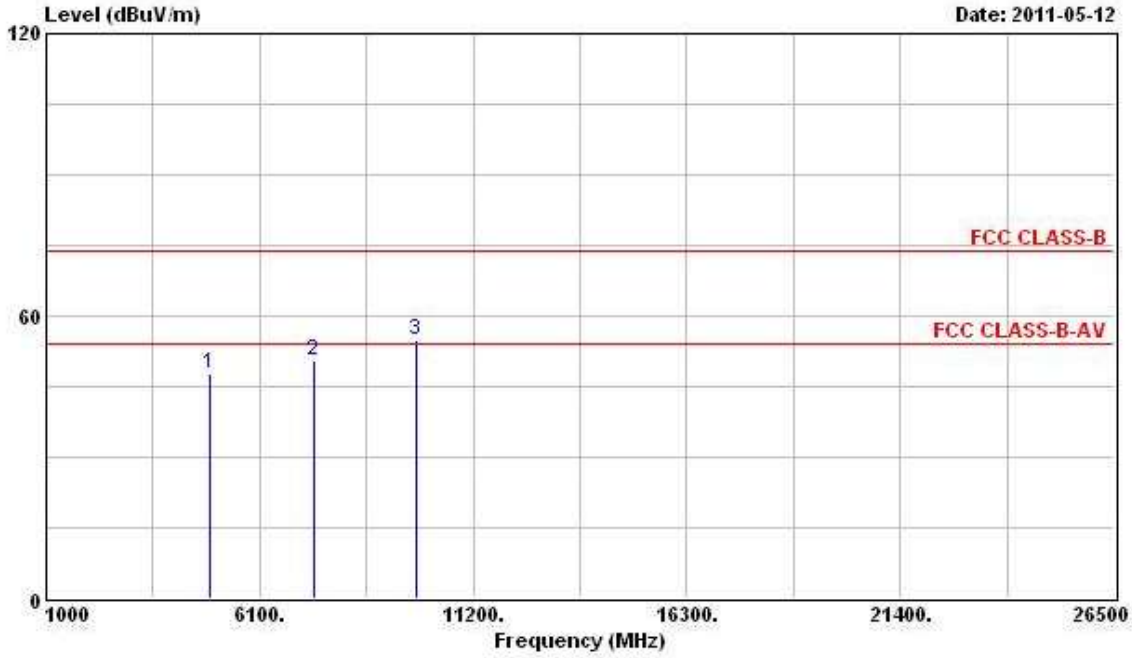
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	4924.000	48.68	-5.32	54.00	42.62	33.26	5.41	32.61	PK
2 @	7386.000	50.29	-3.71	54.00	41.77	35.87	5.57	32.92	PK
3	9848.000	55.07			42.81	38.79	6.80	33.33	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical

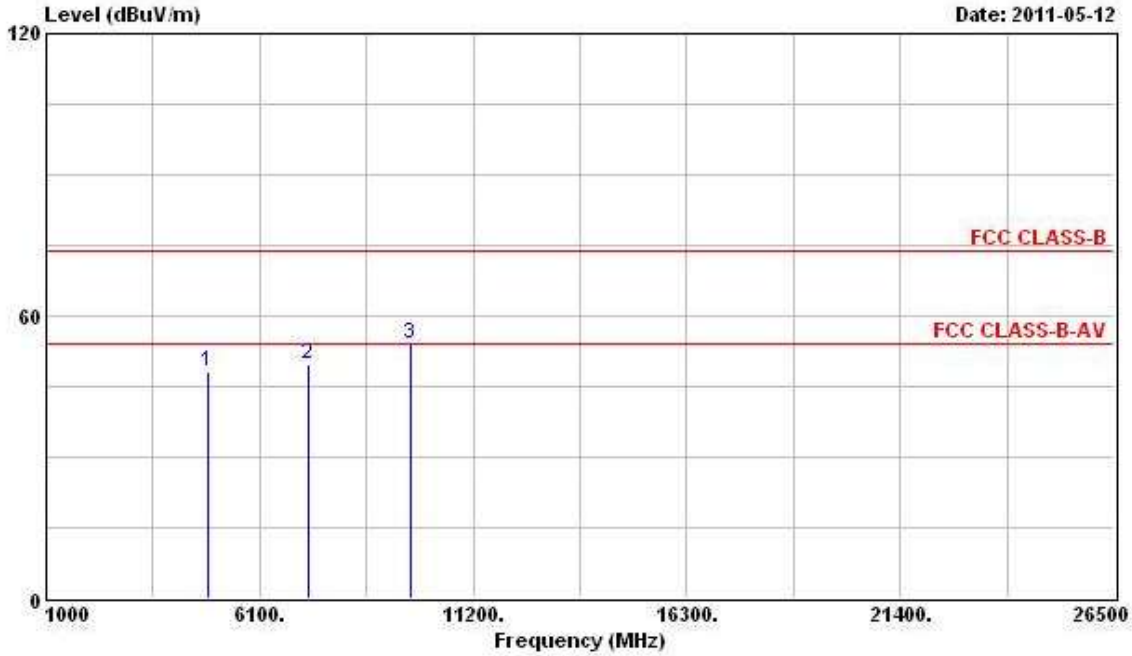


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	4924.000	47.79	-6.21	54.00	41.73	33.26	5.41	32.61	PK
2 @	7386.000	50.38	-3.62	54.00	41.86	35.87	5.57	32.92	PK
3	9848.000	54.80			42.54	38.79	6.80	33.33	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Final Test Date	May 12, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n Ch. 3 (40MHz) MCS8 (Ant. A+Ant. B)

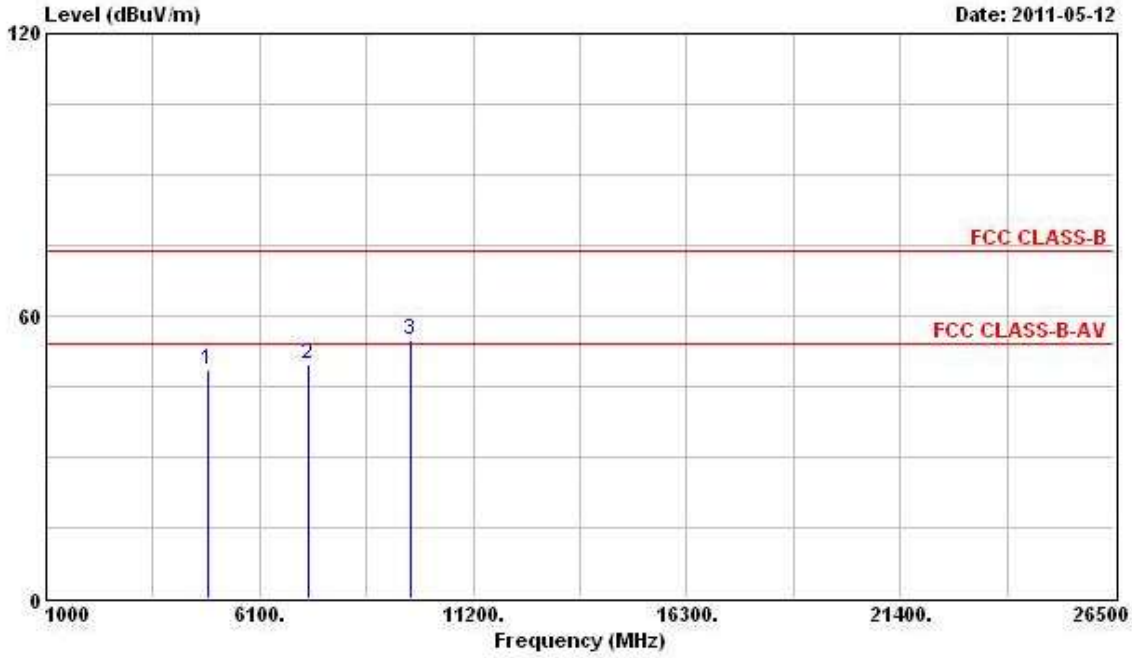
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	4844.000	48.07	-5.93	54.00	42.18	33.09	5.43	32.63	PK
2 @	7266.000	49.88	-4.12	54.00	41.92	35.61	5.25	32.89	PK
3	9688.000	54.02			42.16	38.48	6.72	33.34	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical

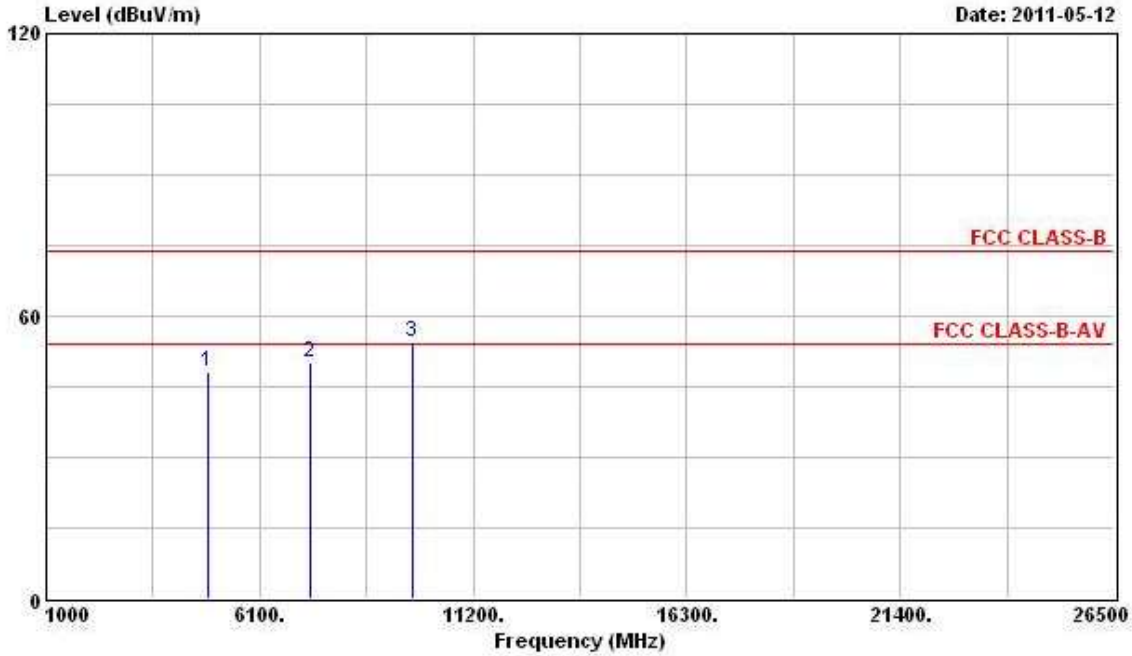


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	4844.000	48.55	-5.45	54.00	42.66	33.09	5.43	32.63	PK
2 @	7266.000	49.82	-4.18	54.00	41.86	35.61	5.25	32.89	PK
3	9688.000	54.70			42.84	38.48	6.72	33.34	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Final Test Date	May 12, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n Ch. 6 (40MHz) MCS8 (Ant. A+Ant. B)

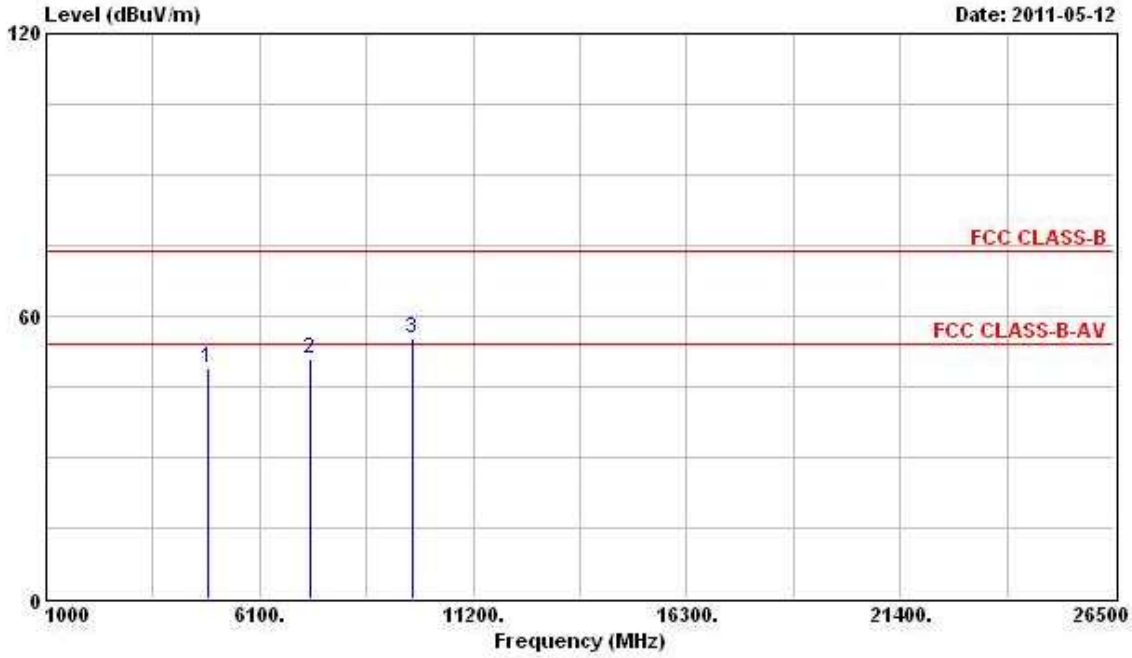
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	4874.000	48.05	-5.95	54.00	42.09	33.16	5.43	32.62	PK
2 @	7311.000	50.10	-3.90	54.00	41.96	35.68	5.36	32.90	PK
3	9748.000	54.55			42.53	38.62	6.74	33.34	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical

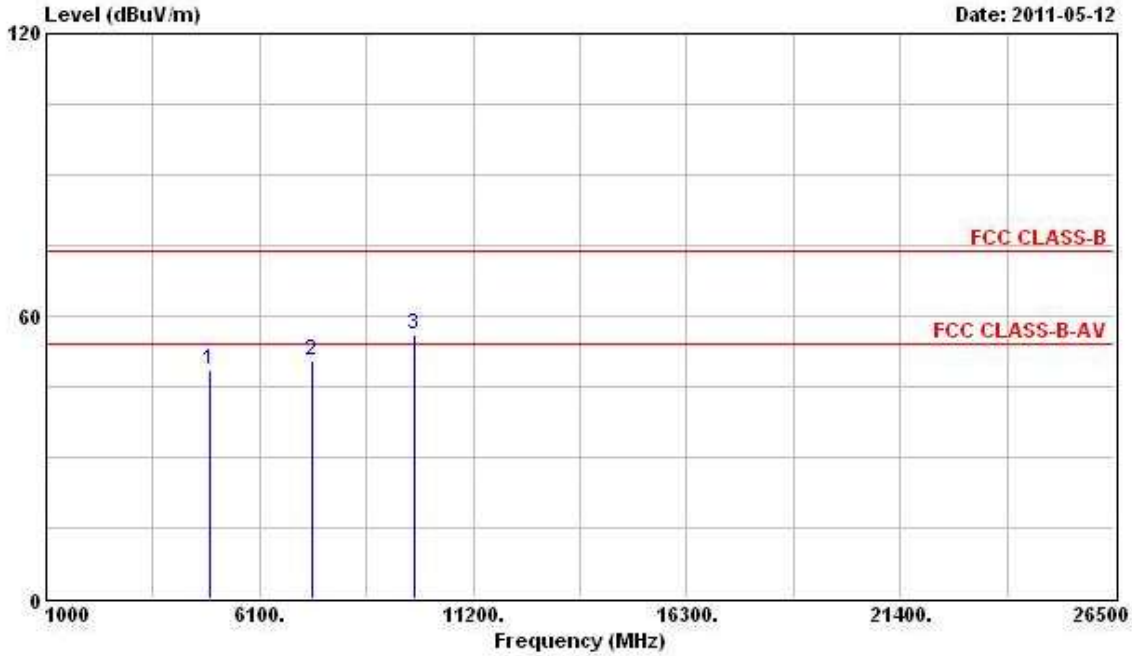


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	4874.000	48.88	-5.12	54.00	42.92	33.16	5.43	32.62	PK
2 @	7311.000	50.92	-3.08	54.00	42.78	35.68	5.36	32.90	PK
3	9748.000	55.10			43.08	38.62	6.74	33.34	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Final Test Date	May 12, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n Ch. 9 (40MHz) MCS8 (Ant. A+Ant. B)

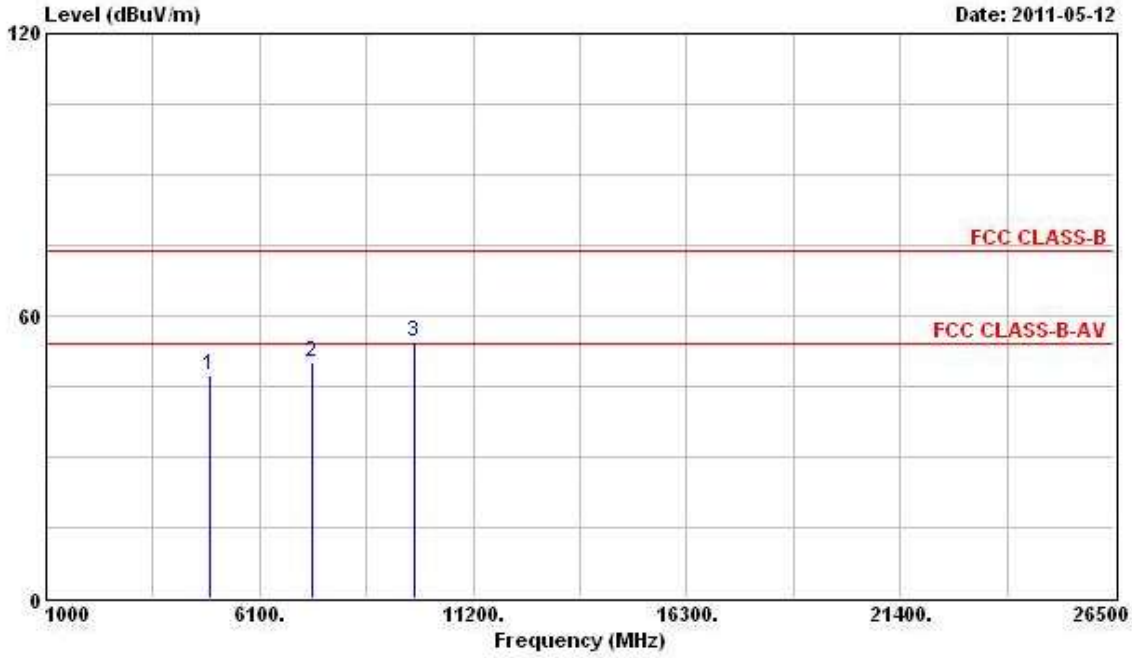
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	4904.000	48.55	-5.45	54.00	42.52	33.23	5.42	32.62	PK
2 @	7356.000	50.35	-3.65	54.00	42.01	35.80	5.46	32.92	PK
3	9808.000	55.90			43.73	38.72	6.78	33.33	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Vertical



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	4904.000	47.53	-6.47	54.00	41.50	33.23	5.42	32.62	PK
2 @	7356.000	49.95	-4.05	54.00	41.61	35.80	5.46	32.92	PK
3	9808.000	54.62			42.45	38.72	6.78	33.33	Peak

Note: The item 3 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions (see section 3.6.7).

Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

3.6 Band Edge and Fundamental Emissions Measurement

3.6.1 Limit

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. If the transmitter measurement is based on the maximum conducted output power, the attenuation required under this paragraph shall be 30dB instead of 20dB. In addition, radiated emissions which fall in section 15.205(a) the restricted bands must also comply with the radiated emission limit specified in section 15.209(a).

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

3.6.2 Measuring Instruments and Setting

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

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

3.6.3 Test Procedures

1. The test procedure is the same as section 3.5.3; only the frequency range investigated is limited to 100MHz around band edges.
2. In case the emission is fail due to the used RB/VB is too wide, marker-delta method of FCC Public Notice DA00-705 will be followed.

3.6.4 Test Setup Layout

This test setup layout is the same as that shown in section 3.5.4.

3.6.5 Test Deviation

There is no deviation with the original standard.

3.6.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

3.6.7 Test Result of Band Edge and Fundamental Emissions

For Single Chain:

Final Test Date	May 14, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	5G 802.11n MCS0 (Ant. A) Ch. 149, 157, 165 (20MHz)

Channel 149

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5722.940	74.40	-9.14	83.54	34.37	34.80	5.23	0.00	Peak
2 @	5741.980	110.39			70.38	34.80	5.21	0.00	Peak
1 @	5724.970	58.15	-5.39	63.54	18.12	34.80	5.23	0.00	Average
2 @	5748.140	99.48			59.47	34.80	5.21	0.00	Average

The item 2 is fundamental emissions and the item 1 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions.

Channel 157

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5704.590	70.84	-12.70	83.54	30.81	34.80	5.23	0.00	Peak
2 @	5788.230	110.94			70.95	34.80	5.19	0.00	Peak
3	5867.110	69.87	-13.67	83.54	29.93	34.80	5.14	0.00	Peak
1	5718.020	57.20	-6.34	63.54	17.17	34.80	5.23	0.00	Average
2 @	5787.550	100.23			60.24	34.80	5.19	0.00	Average
3	5860.820	56.61	-6.93	63.54	16.67	34.80	5.14	0.00	Average

The item 2 is fundamental emissions and the items 1 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions.

Channel 165

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5828.150	112.39			72.43	34.80	5.16	0.00	Peak
2	5854.110	70.76	-12.78	83.54	30.80	34.80	5.16	0.00	Peak
1 @	5818.250	101.67			61.71	34.80	5.16	0.00	Average
2	5850.150	57.28	-6.26	63.54	17.32	34.80	5.16	0.00	Average

The item 1 is fundamental emissions and the item 2 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions.

Note:

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

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

Final Test Date	May 14, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	5G 802.11n MCS0 (Ant. A) Ch. 151, 159 (40MHz)

Channel 151

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5725.000	76.05	-7.49	83.54	36.02	34.80	5.23	0.00	Peak
2 @	5757.800	110.76			70.75	34.80	5.21	0.00	Peak
1 @	5725.000	61.22	-2.32	63.54	21.19	34.80	5.23	0.00	Average
2 @	5758.200	99.06			59.05	34.80	5.21	0.00	Average

The item 2 is fundamental emissions and the item 1 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions.

Channel 159

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5784.200	111.14			71.15	34.80	5.19	0.00	Peak
2	5858.600	70.54	-13.00	83.54	30.60	34.80	5.14	0.00	Peak
1 @	5790.600	100.26			60.27	34.80	5.19	0.00	Average
2	5862.600	56.70	-6.84	63.54	16.76	34.80	5.14	0.00	Average

The item 1 is fundamental emissions and the item 2 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions.

Note:

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

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

Final Test Date	May 07, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n MCS0 (Ant. A) Ch. 1, 6, 11(20MHz)

Channel 1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	2340.210	60.02	-13.98	74.00	27.43	28.05	4.54	0.00	Peak
2 @	2408.420	99.86			67.05	28.16	4.65	0.00	Peak
1	2388.660	48.10	-5.90	54.00	15.31	28.13	4.65	0.00	Average
2 @	2409.180	89.30			56.49	28.16	4.65	0.00	Average

The item 2 is fundamental emissions.

Channel 6

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	2435.020	98.09			65.19	28.19	4.71	0.00	Peak
1 @	2433.690	87.59			54.69	28.19	4.71	0.00	Average

The item 1 is fundamental emissions.

Channel 11

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	2465.420	97.68			64.67	28.24	4.77	0.00	Peak
2	2498.860	60.93	-13.07	74.00	27.86	28.30	4.77	0.00	Peak
1 @	2464.850	87.13			54.12	28.24	4.77	0.00	Average
2 @	2499.620	48.74	-5.26	54.00	15.67	28.30	4.77	0.00	Average

The item 1 is fundamental emissions.

Note:
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Final Test Date	May 07, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n MCS0 (Ant. B) Ch. 3, 6, 9 (40MHz)

Channel 3

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	2363.770	61.64	-12.36	74.00	28.97	28.08	4.59	0.00	Peak
2 @	2419.060	93.28	-----	-----	60.47	28.16	4.65	0.00	Peak
1	2388.660	48.10	-5.90	54.00	15.31	28.13	4.65	0.00	Average
2 @	2410.700	82.68			49.87	28.16	4.65	0.00	Average

The item 2 is fundamental emissions.

Channel 6

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	2434.260	96.96			64.06	28.19	4.71	0.00	Peak
1 @	2434.450	86.18			53.28	28.19	4.71	0.00	Average

The item 1 is fundamental emissions.

Channel 9

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	2448.700	93.19			60.26	28.22	4.71	0.00	Peak
2	2486.700	61.57	-12.43	74.00	28.53	28.27	4.77	0.00	Peak
1 @	2449.460	82.46			49.53	28.22	4.71	0.00	Average
2 @	2496.580	48.75	-5.25	54.00	15.68	28.30	4.77	0.00	Average

The item 1 is fundamental emissions.

Note:

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

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

For Two Chain:

Final Test Date	May 14, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	5G 802.11n MCS8 (Ant. A+Ant. B) Ch. 149, 157, 165 (20MHz)

Channel 149

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5724.410	75.45	-8.09	83.54	35.42	34.80	5.23	0.00	Peak
2 @	5740.370	112.79			72.78	34.80	5.21	0.00	Peak
1 @	5725.000	60.27	-3.27	63.54	20.24	34.80	5.23	0.00	Average
2 @	5741.420	99.71			59.70	34.80	5.21	0.00	Average

The item 2 is fundamental emissions and the item 1 ais on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions.

Channel 157

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	5703.230	70.60	-12.94	83.54	30.57	34.80	5.23	0.00	Peak
2 @	5780.070	113.62			73.63	34.80	5.19	0.00	Peak
3	5853.340	70.32	-13.22	83.54	30.36	34.80	5.16	0.00	Peak
1	5720.060	57.23	-6.31	63.54	17.20	34.80	5.23	0.00	Average
2 @	5788.230	101.00			61.01	34.80	5.19	0.00	Average
3	5827.670	56.93	-6.61	63.54	16.97	34.80	5.16	0.00	Average

The item 2 is fundamental emissions and the items 1 and 3 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions.

Channel 165

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5820.450	114.07			74.11	34.80	5.16	0.00	Peak
2	5852.130	71.95	-11.59	83.54	31.99	34.80	5.16	0.00	Peak
1 @	5821.270	101.44			61.48	34.80	5.16	0.00	Average
2	5850.000	57.43	-6.11	63.54	17.47	34.80	5.16	0.00	Average

The item 1 is fundamental emissions and the item 2 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions.

Note:

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

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

Final Test Date	May 14, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	5G 802.11n (Ant. A + Ant. B) Ch. 151, 159 (40MHz)

Channel 151

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5725.000	78.65	-4.89	83.54	38.62	34.80	5.23	0.00	Peak
2 @	5746.700	111.49			71.48	34.80	5.21	0.00	Peak
1	5725.000	62.00	-1.54	63.54	21.97	34.80	5.23	0.00	Average
2 @	5744.200	98.50			58.49	34.80	5.21	0.00	Average

The item 2 is fundamental emissions and the item 1 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions.

Channel 159

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	5786.300	112.90			72.91	34.80	5.19	0.00	Peak
2	5866.200	70.21	-13.33	83.54	30.27	34.80	5.14	0.00	Peak
1 @	5783.900	99.27			59.28	34.80	5.19	0.00	Average
2	5851.900	56.80	-6.74	63.54	16.84	34.80	5.16	0.00	Average

The item 1 is fundamental emissions and the item 2 is on un-restricted band, so the limit is -20dB for the field strength of the fundamental emissions.

Note:

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

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

Final Test Date	May 07, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n MCS8 (Ant. A+Ant. B) Ch. 1, 6, 11(20MHz)

Channel 1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	2382.770	60.79	-13.21	74.00	28.09	28.11	4.59	0.00	Peak
2 @	2415.260	102.98			70.17	28.16	4.65	0.00	Peak
1	2389.420	48.13	-5.87	54.00	15.34	28.13	4.65	0.00	Average
2 @	2408.610	90.54			57.73	28.16	4.65	0.00	Average

The item 2 is fundamental emissions.

Channel 6

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	2439.010	102.17			69.24	28.22	4.71	0.00	Peak
1 @	2435.780	89.93			57.03	28.19	4.71	0.00	Average

The item 1 is fundamental emissions.

Channel 11

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	2464.090	100.61			67.60	28.24	4.77	0.00	Peak
2	2497.340	61.34	-12.66	74.00	28.27	28.30	4.77	0.00	Peak
1 @	2464.090	87.90			54.89	28.24	4.77	0.00	Average
2 @	2496.580	48.71	-5.29	54.00	15.64	28.30	4.77	0.00	Average

The item 1 is fundamental emissions.

Note:
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Final Test Date	May 07, 2011	**Test Site No.**	03CH03-HY
Temperature	23℃	**Humidity**	55%
Test Engineer	Streak	**Configuration**	2.4G 802.11n MCS8 (Ant. A+Ant. B) Ch. 3, 6, 9 (40MHz)

Channel 3

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	2382.010	61.29	-12.71	74.00	28.59	28.11	4.59	0.00	Peak
2 @	2416.210	96.85			64.04	28.16	4.65	0.00	Peak
1	2388.850	48.24	-5.76	54.00	15.45	28.13	4.65	0.00	Average
2 @	2410.700	84.21			51.40	28.16	4.65	0.00	Average

The item 2 is fundamental emissions.

Channel 6

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	2432.170	100.50			67.60	28.19	4.71	0.00	Peak
1 @	2434.450	87.07			54.17	28.19	4.71	0.00	Average

The item 1 is fundamental emissions.

Channel 9

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 @	2457.820	95.35			62.40	28.24	4.71	0.00	Peak
2	2487.460	61.98	-12.02	74.00	28.94	28.27	4.77	0.00	Peak
1 @	2463.900	82.71			49.70	28.24	4.77	0.00	Average
2 @	2484.610	48.72	-5.28	54.00	15.68	28.27	4.77	0.00	Average

The item 1 is fundamental emissions.

Note:

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

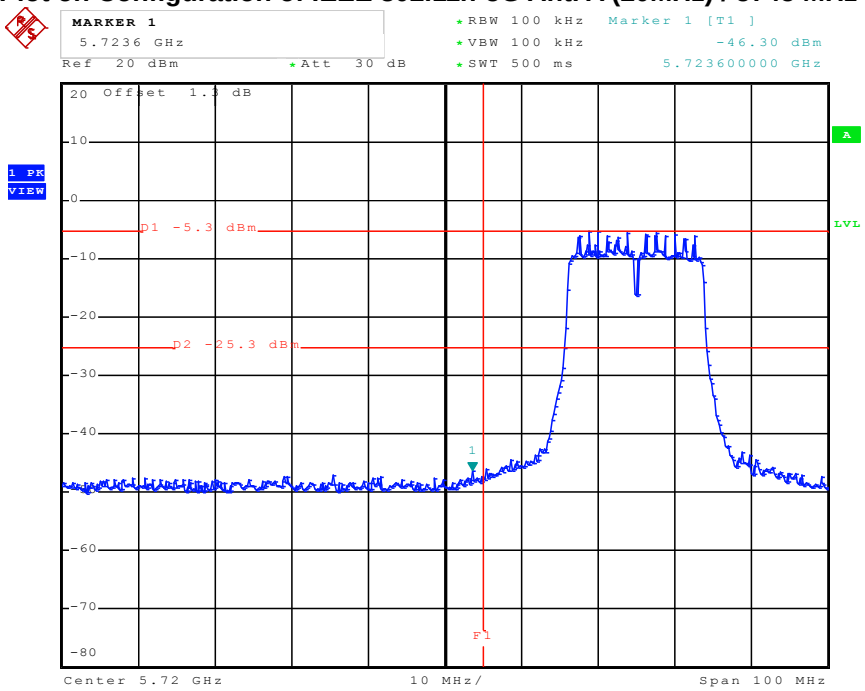
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

For Emission not in Restricted Band

Final Test Date	May 02, 2011	**Test Site No.**	TH01-HY
Temperature	27℃	**Humidity**	62%
Test Engineer	Ian	**Configuration**	802.11n

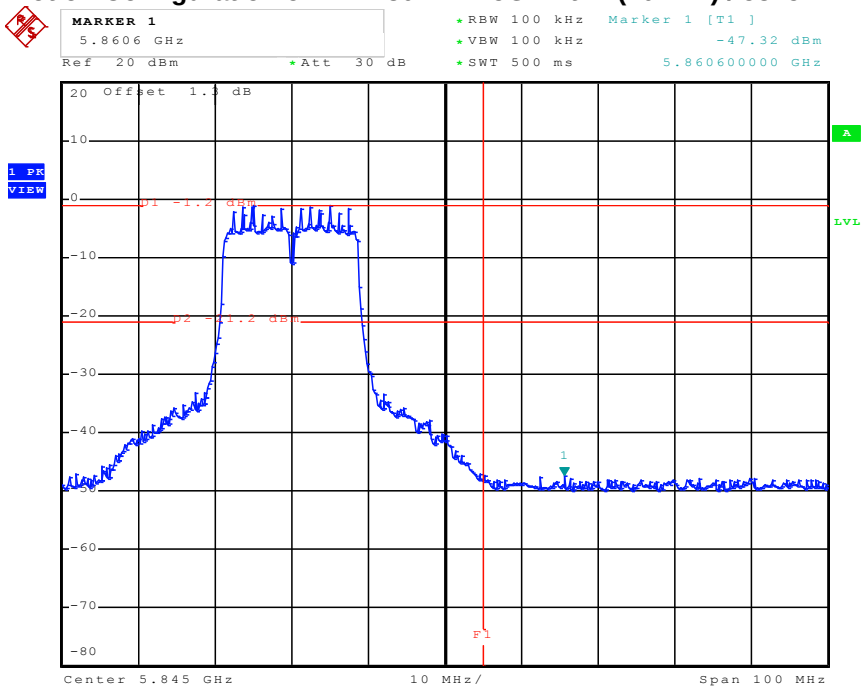
For Single Chain:

Low Band Edge Plot on Configuration of IEEE 802.11n-5G Ant. A (20MHz) / 5745 MHz



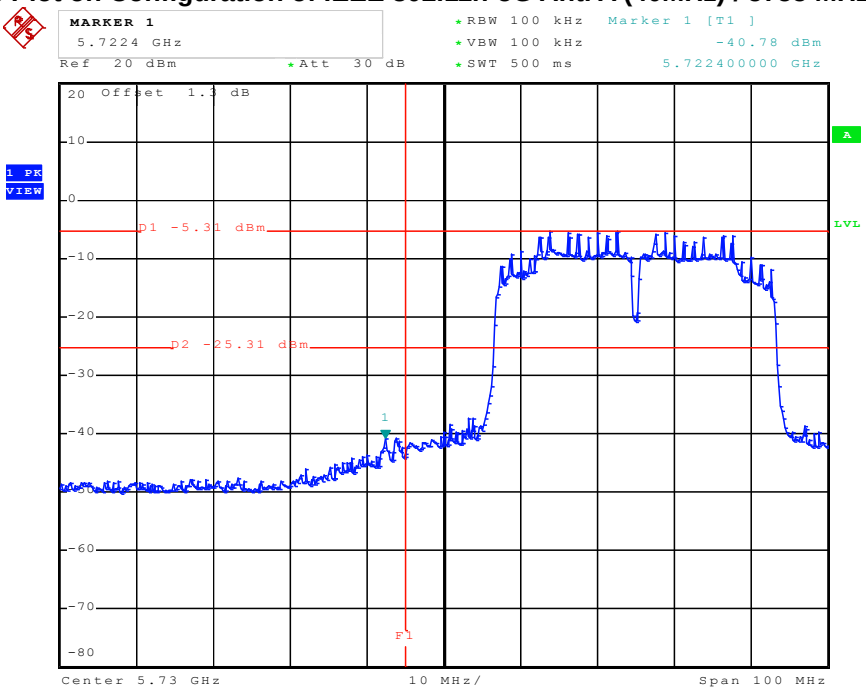
Date: 2.MAY.2011 16:46:40

High Band Edge Plot on Configuration of IEEE 802.11n-5G Ant. A (20MHz) / 5825 MHz



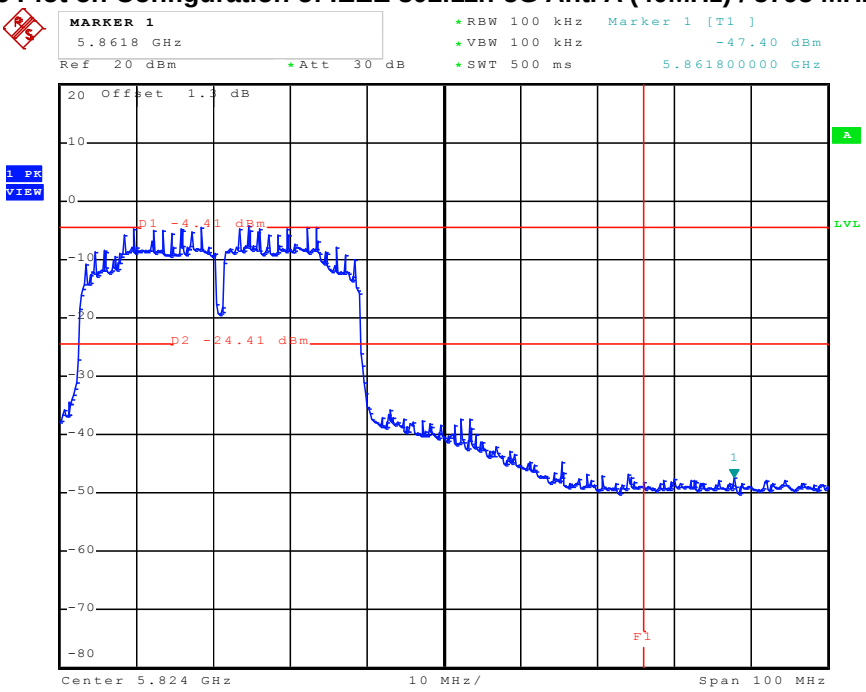
Date: 2.MAY.2011 17:09:30

Low Band Edge Plot on Configuration of IEEE 802.11n-5G Ant. A (40MHz) / 5755 MHz



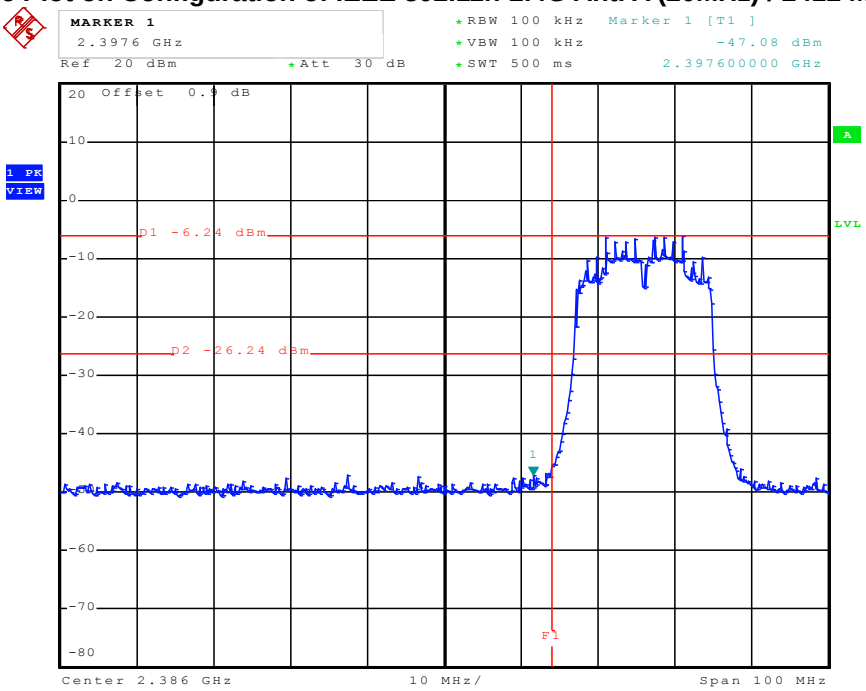
Date: 2.MAY.2011 17:13:45

High Band Edge Plot on Configuration of IEEE 802.11n-5G Ant. A (40MHz) / 5795 MHz



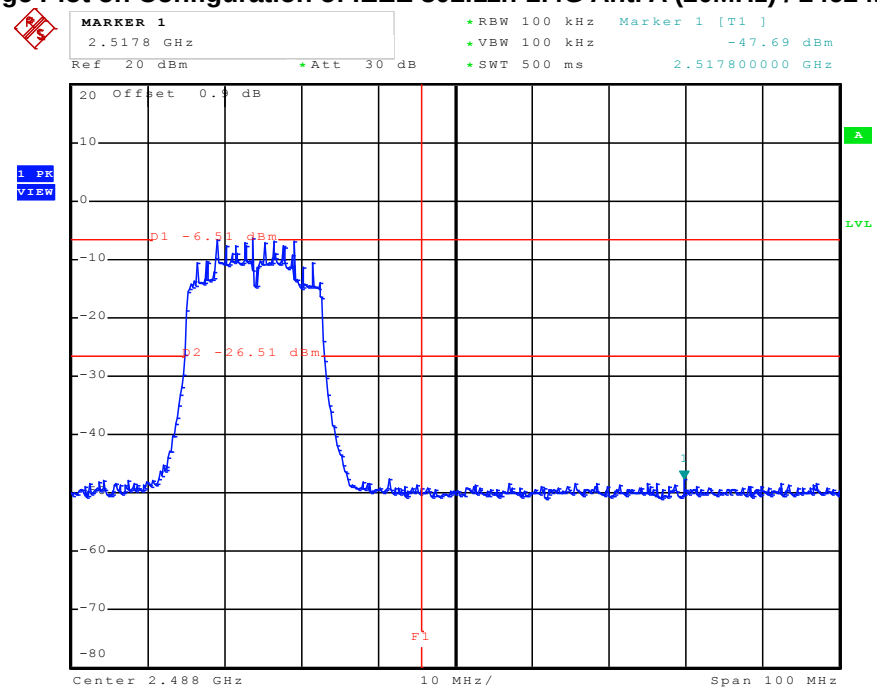
Date: 2.MAY.2011 17:18:52

Low Band Edge Plot on Configuration of IEEE 802.11n-2.4G Ant. A (20MHz) / 2412 MHz



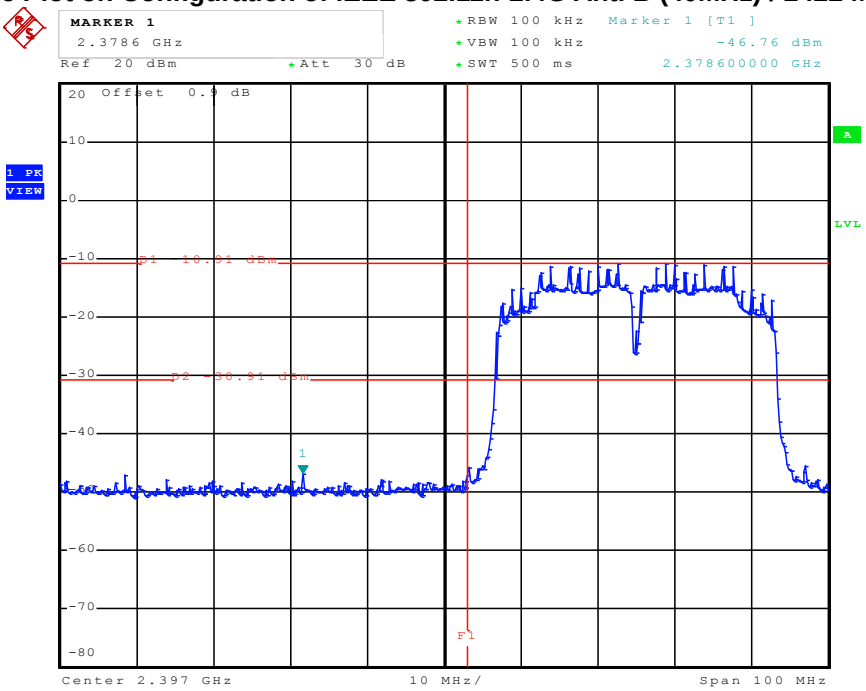
Date: 29.APR.2011 19:28:51

High Band Edge Plot on Configuration of IEEE 802.11n-2.4G Ant. A (20MHz) / 2462 MHz



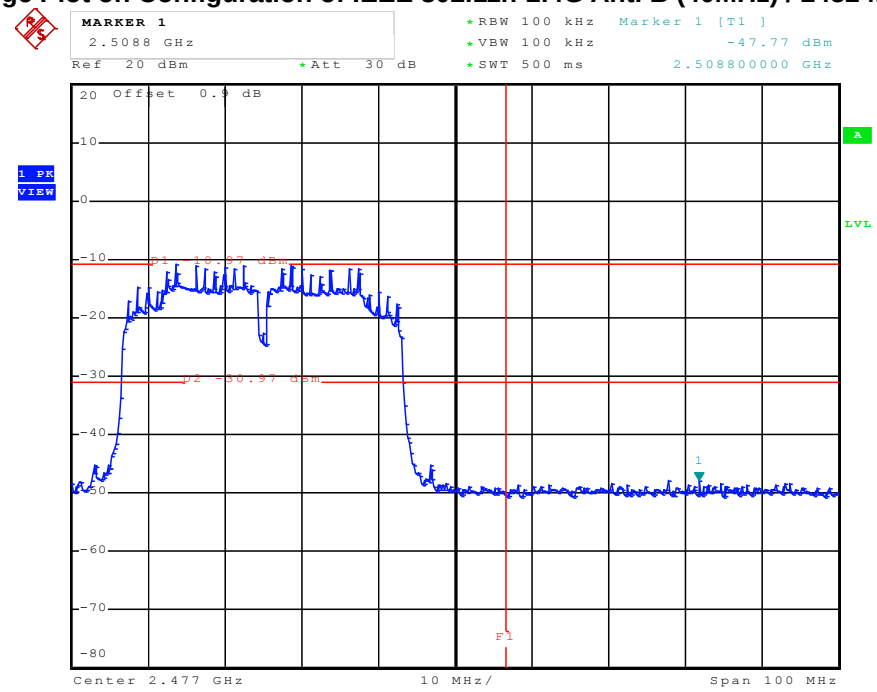
Date: 29.APR.2011 19:37:46

Low Band Edge Plot on Configuration of IEEE 802.11n-2.4G Ant. B (40MHz) / 2422 MHz



Date: 29.APR.2011 19:51:28

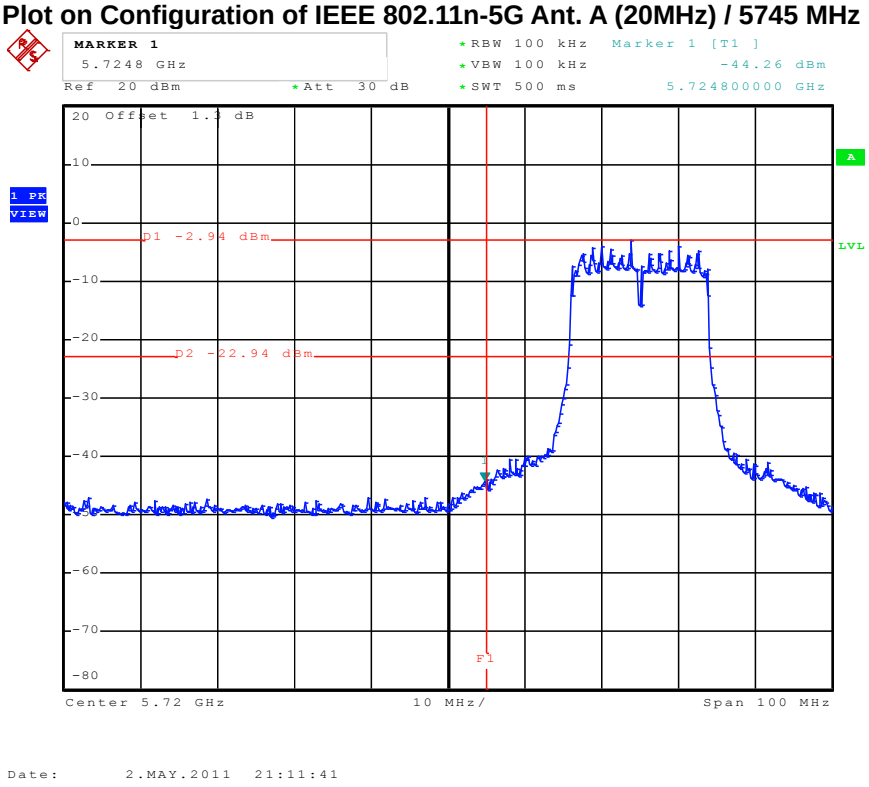
High Band Edge Plot on Configuration of IEEE 802.11n-2.4G Ant. B (40MHz) / 2452 MHz



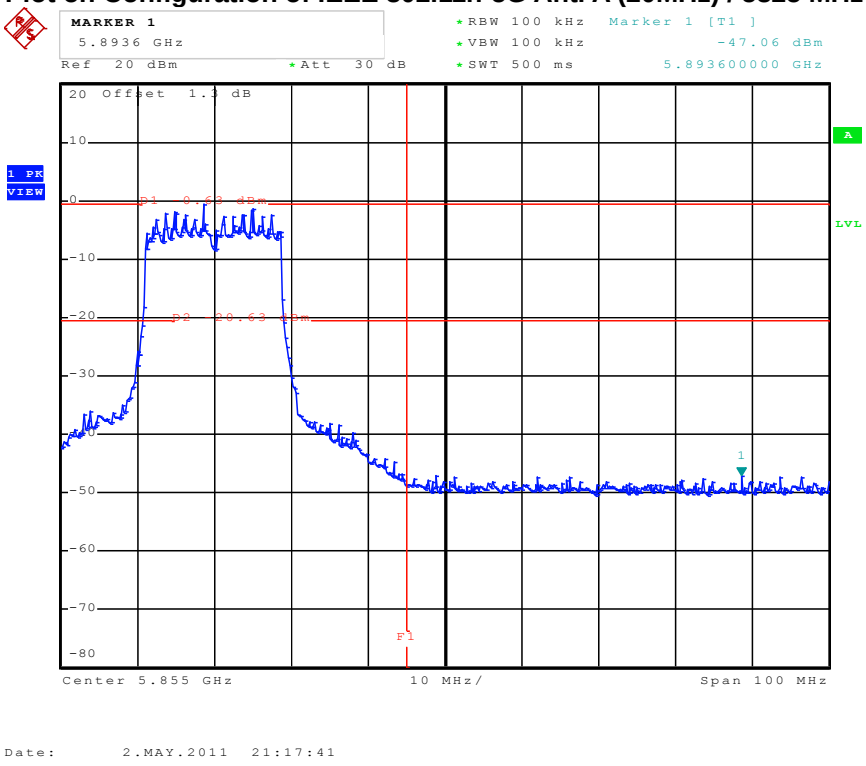
Date: 29.APR.2011 19:58:22

For Two Chain:

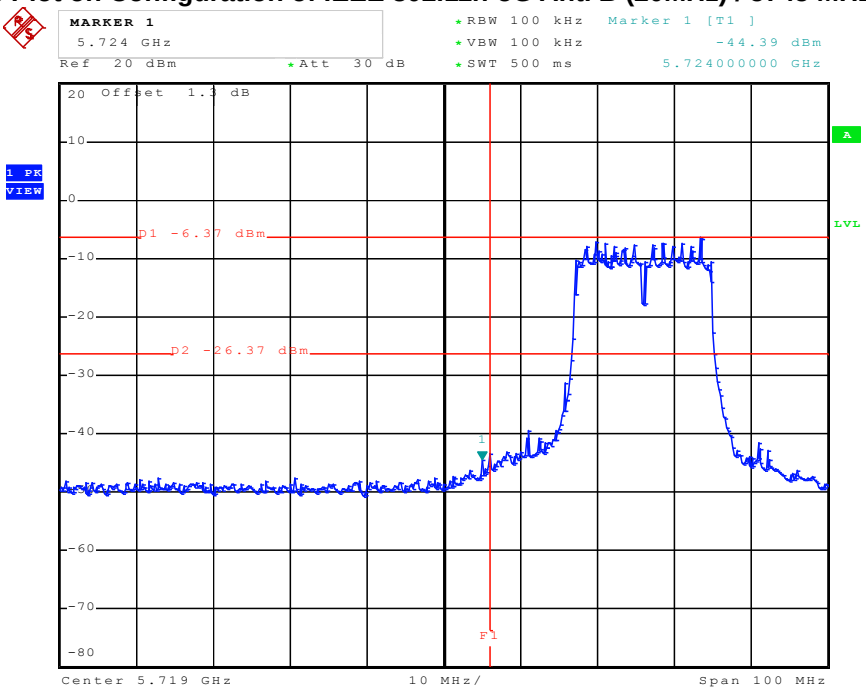
Low Band Edge Plot on Configuration of IEEE 802.11n-5G Ant. A (20MHz) / 5745 MHz



High Band Edge Plot on Configuration of IEEE 802.11n-5G Ant. A (20MHz) / 5825 MHz

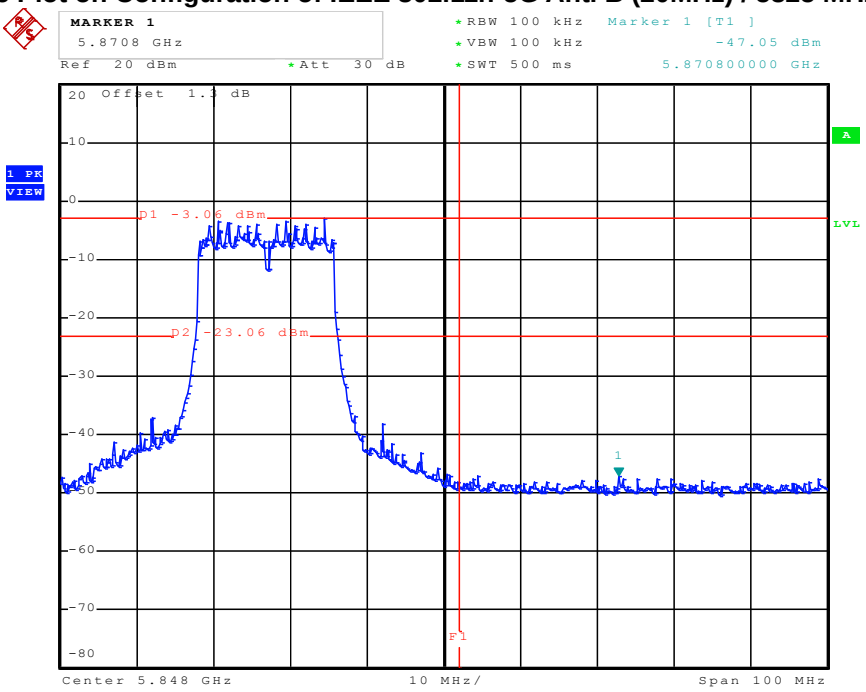


Low Band Edge Plot on Configuration of IEEE 802.11n-5G Ant. B (20MHz) / 5745 MHz



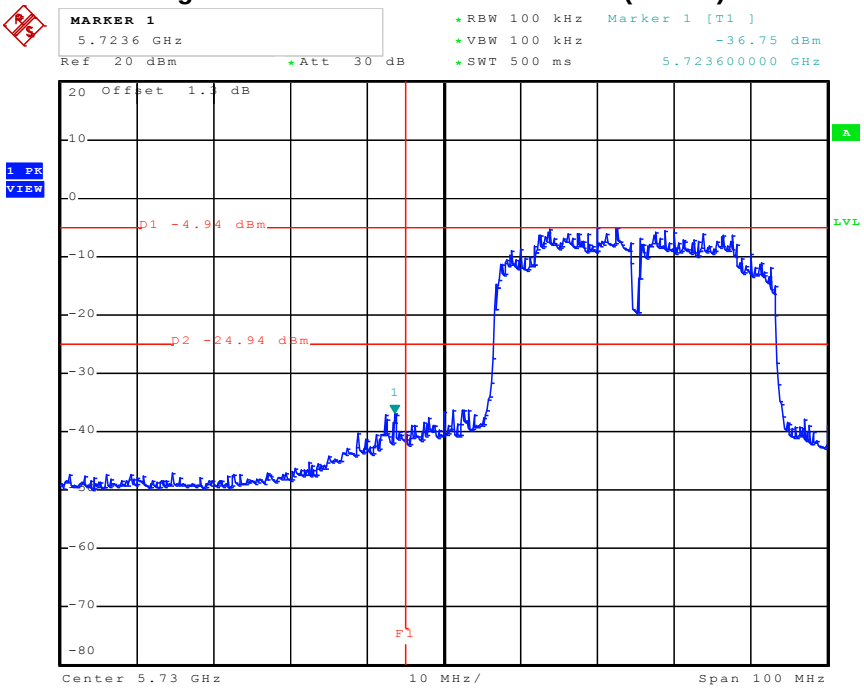
Date: 2.MAY.2011 21:21:23

High Band Edge Plot on Configuration of IEEE 802.11n-5G Ant. B (20MHz) / 5825 MHz



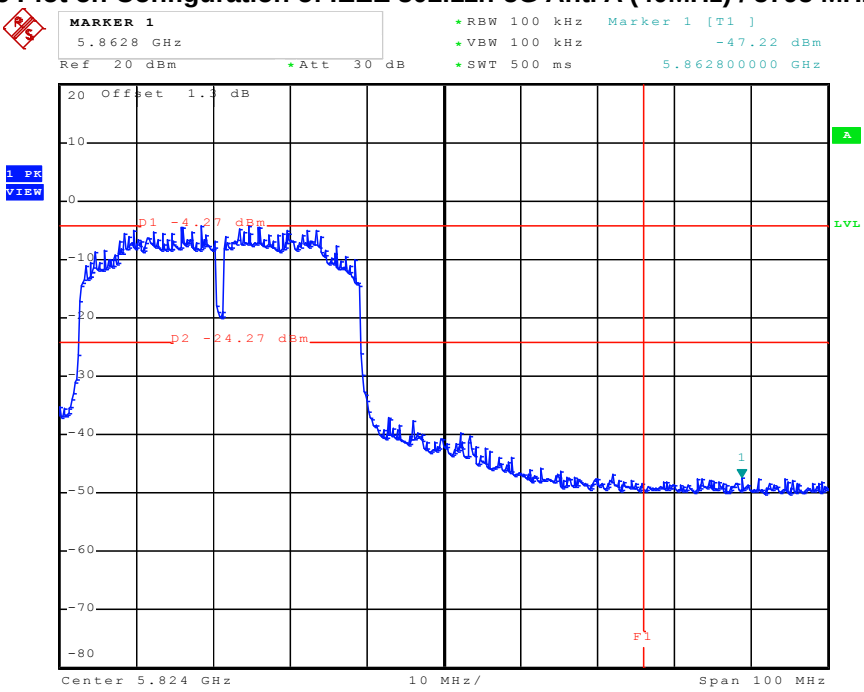
Date: 2.MAY.2011 21:26:57

Low Band Edge Plot on Configuration of IEEE 802.11n-5G Ant. A (40MHz) / 5755 MHz



Date: 2.MAY.2011 21:50:58

High Band Edge Plot on Configuration of IEEE 802.11n-5G Ant. A (40MHz) / 5795 MHz



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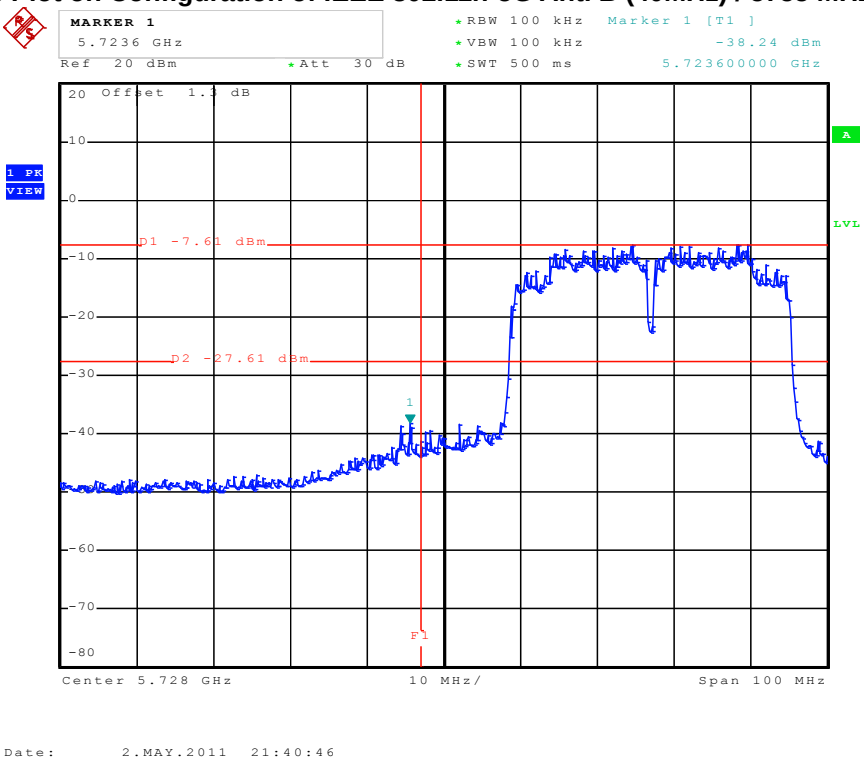
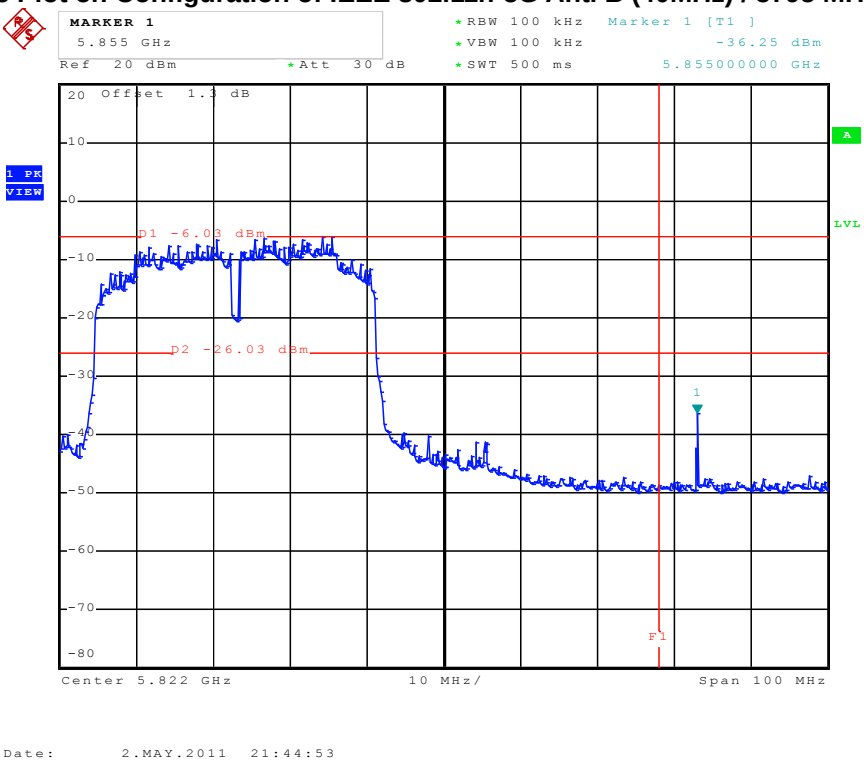
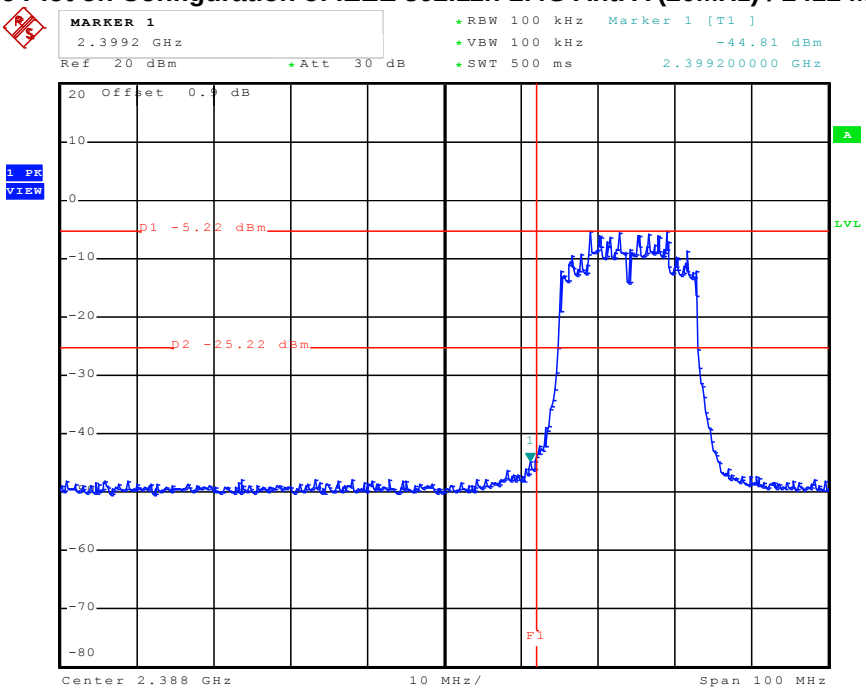
Low Band Edge Plot on Configuration of IEEE 802.11n-5G Ant. B (40MHz) / 5755 MHz



High Band Edge Plot on Configuration of IEEE 802.11n-5G Ant. B (40MHz) / 5795 MHz

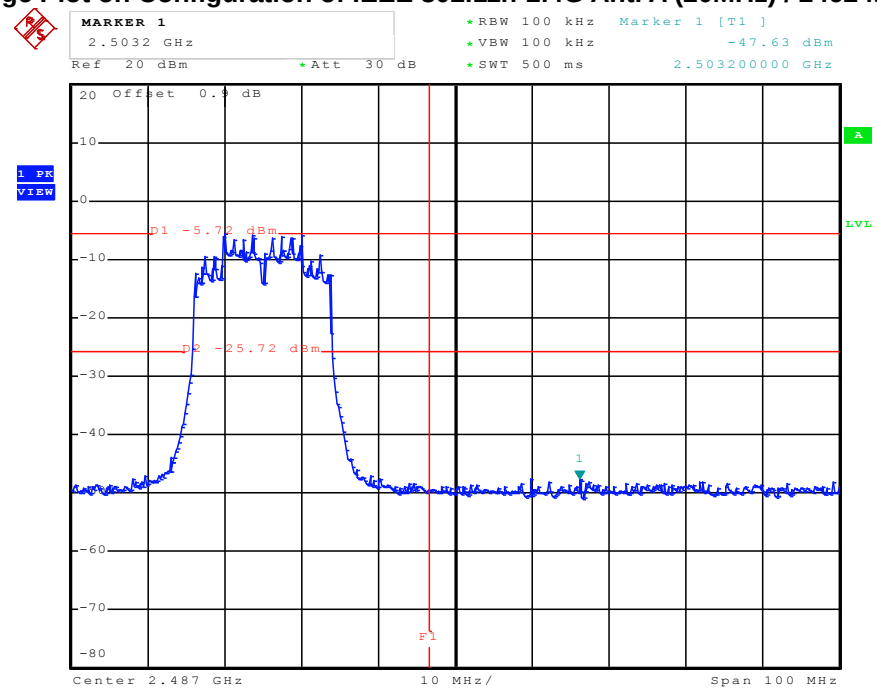


Low Band Edge Plot on Configuration of IEEE 802.11n-2.4G Ant. A (20MHz) / 2412 MHz



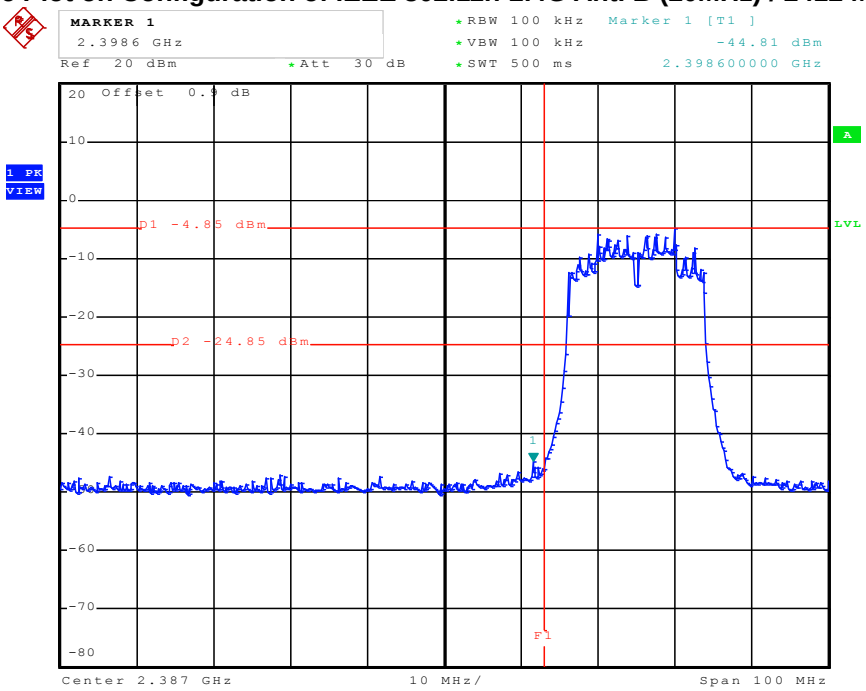
Date: 2.MAY.2011 19:25:36

High Band Edge Plot on Configuration of IEEE 802.11n-2.4G Ant. A (20MHz) / 2462 MHz



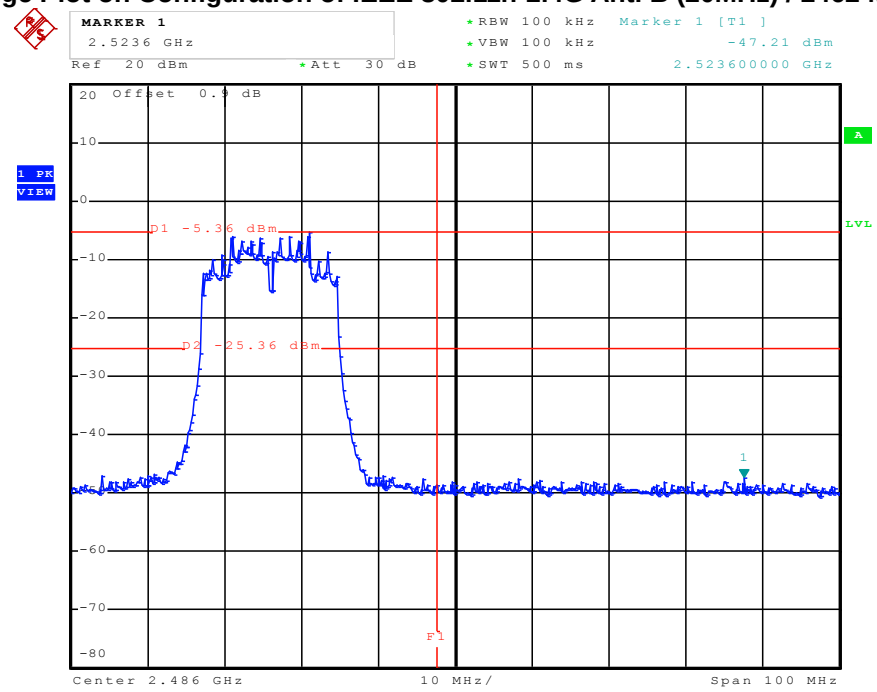
Date: 2.MAY.2011 19:31:36

Low Band Edge Plot on Configuration of IEEE 802.11n-2.4G Ant. B (20MHz) / 2412 MHz



Date: 2.MAY.2011 19:35:16

High Band Edge Plot on Configuration of IEEE 802.11n-2.4G Ant. B (20MHz) / 2462 MHz



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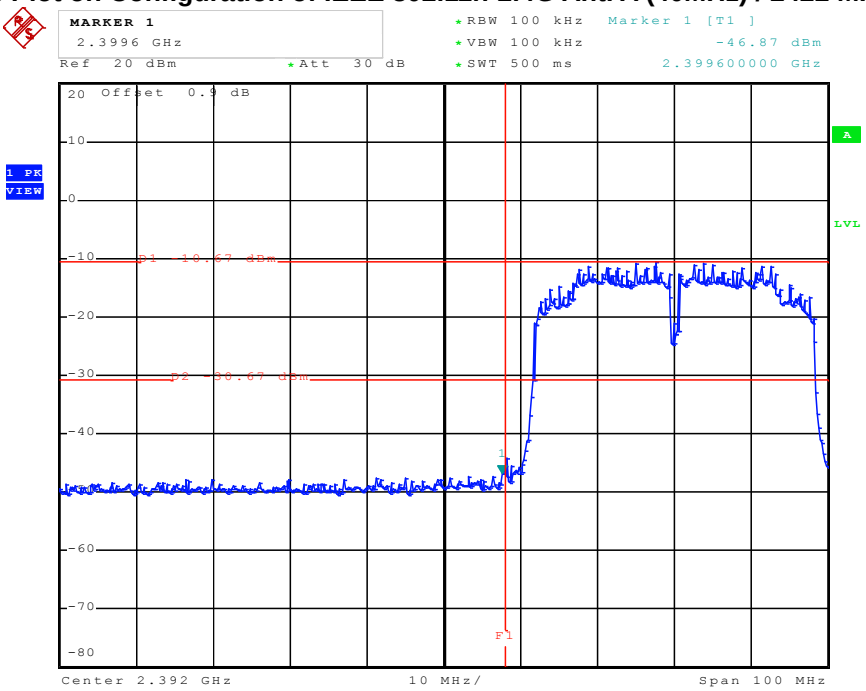
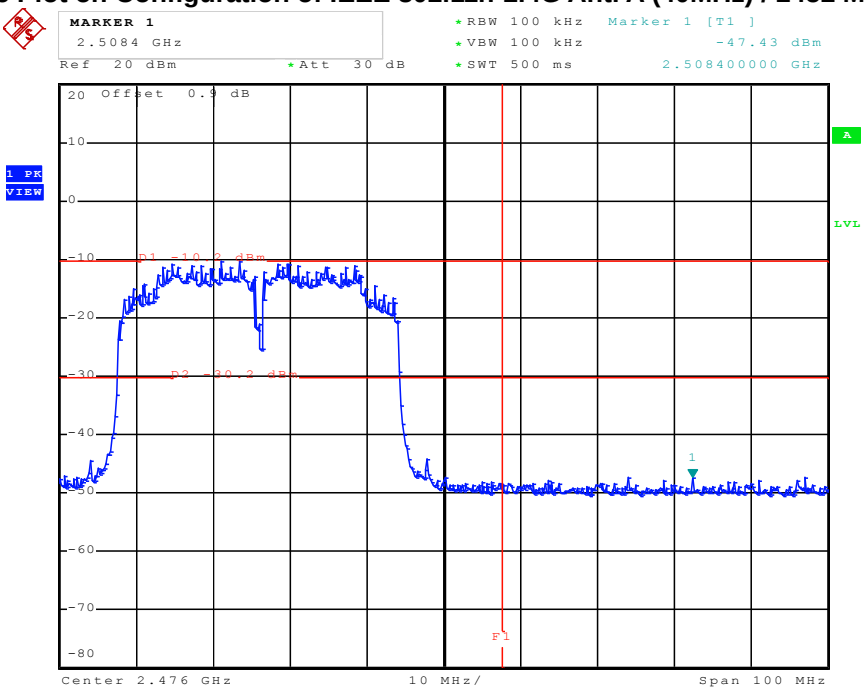
Low Band Edge Plot on Configuration of IEEE 802.11n-2.4G Ant. A (40MHz) / 2422 MHz



Date: 2.MAY.2011 20:29:14

High Band Edge Plot on Configuration of IEEE 802.11n-2.4G Ant. A (40MHz) / 2452 MHz



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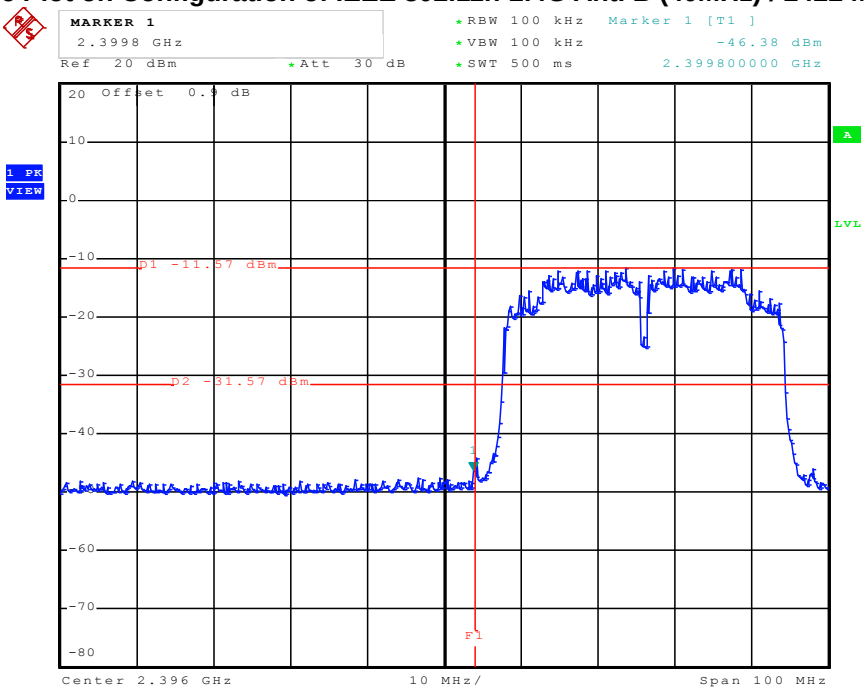
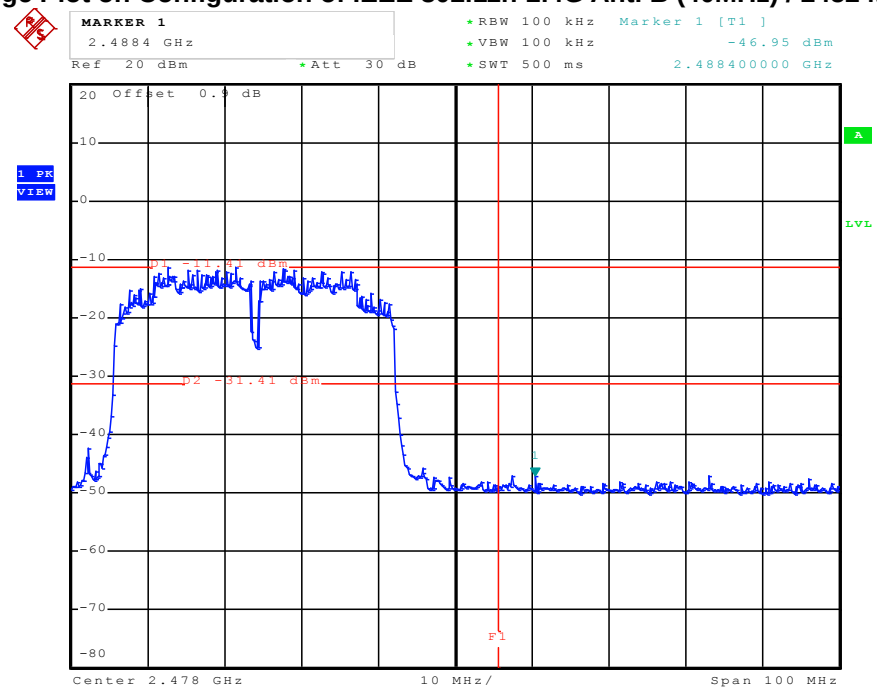
Low Band Edge Plot on Configuration of IEEE 802.11n-2.4G Ant. B (40MHz) / 2422 MHz



Date: 2.MAY.2011 20:18:26

High Band Edge Plot on Configuration of IEEE 802.11n-2.4G Ant. B (40MHz) / 2452 MHz



Date: 2.MAY.2011 20:24:44

3.7 Antenna Requirements

3.7.1 Limit

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

3.7.2 Antenna Connector Construction

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

4 LIST OF MEASURING EQUIPMENTS

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

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

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

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

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30 MHz - 1 GHz 3m	Jun. 18, 2010	Radiation (03CH03-HY)
Amplifier	SCHAFFNER	COA9231A	18667	9 kHz - 2 GHz	Jan. 25, 2011	Radiation (03CH03-HY)
Amplifier	Agilent	8449B	3008A02120	1 GHz - 26.5 GHz	Aug. 02, 2010	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSP40	100004	9 kHz - 40 GHz	Nov. 17, 2010	Radiation (03CH03-HY)
Bilog Antenna	SCHAFFNER	CBL 6112D	22237	30 MHz – 1 GHz	Oct. 16, 2010	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6741	1GHz ~ 18GHz	May 20, 2010	Radiation (03CH03-HY)
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15 GHz - 40 GHz	Jan.13, 2011	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30 MHz - 1 GHz	Jan. 18, 2011	Radiation (03CH03-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	1 GHz - 40 GHz	Jan. 18, 2011	Radiation (03CH03-HY)
Turn Table	HD	DS 420	420/650/00	0 – 360 degree	N/A	Radiation (03CH03-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	Radiation (03CH03-HY)

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

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	Jul. 29, 2010*	Radiation (03CH03-HY)

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

5 TEST LOCATION

SHIJR	ADD	:	6Fl., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C.
	TEL	:	886-2-2696-2468
	FAX	:	886-2-2696-2255
HWA YA	ADD	:	No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
	TEL	:	886-3-327-3456
	FAX	:	886-3-318-0055
LINKOU	ADD	:	No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C
	TEL	:	886-2-2601-1640
	FAX	:	886-2-2601-1695
DUNGHU	ADD	:	No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C.
	TEL	:	886-2-2631-4739
	FAX	:	886-2-2631-9740
JUNGHE	ADD	:	7Fl., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C.
	TEL	:	886-2-8227-2020
	FAX	:	886-2-8227-2626
NEIHU	ADD	:	4Fl., No. 339, Hsin Hu 2nd Rd., Taipei 114, Taiwan, R.O.C.
	TEL	:	886-2-2794-8886
	FAX	:	886-2-2794-9777
JHUBEI	ADD	:	No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.
	TEL	:	886-3-656-9065
	FAX	:	886-3-656-9085

6 TAF CERTIFICATE OF ACCREDITATION

TAF

Certificate No. : L1190-110111

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

Certificate of Accreditation

This is to certify that

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

is accredited in respect of laboratory

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

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

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