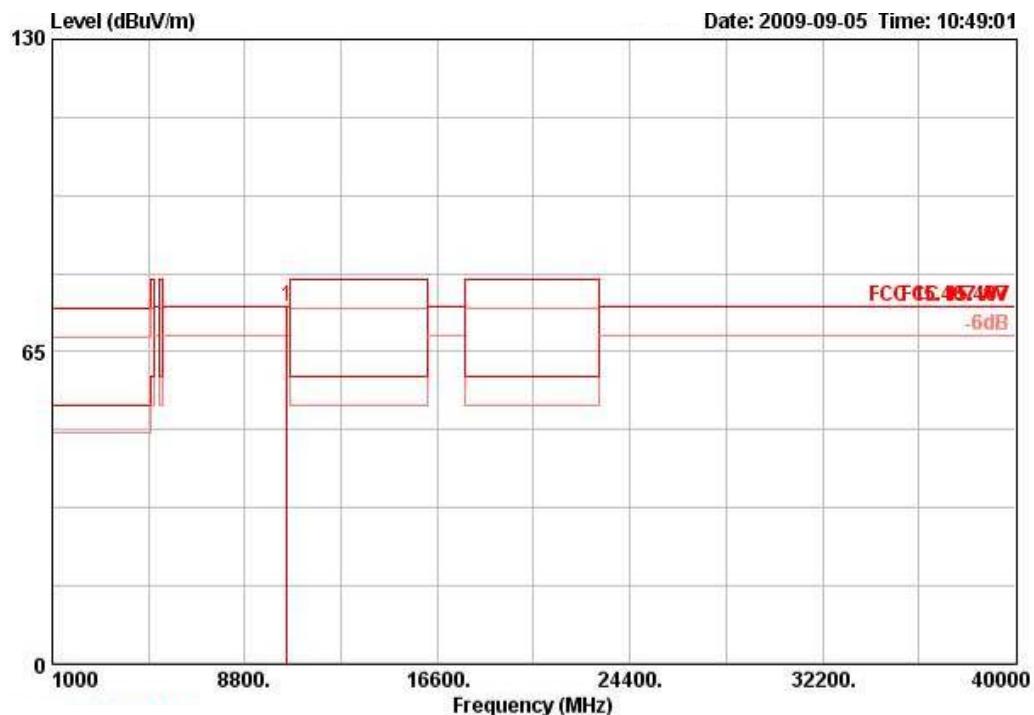


**<For Antenna 6>:**

<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 20MHz Ch 52 / Ant. 6

**Horizontal**


Freq	Level	Limit	Over	Read	Cable	Preamplifier	Antenna	Table	Ant	Pos	Remark	Pol/Phase
MHz	dBuV/m	dBuV/m	Line	Limit	dB	dBuV	dB	dB	dB/m	deg	cm	
10518.520	74.21	74.30	-0.09	64.74	6.58	35.50	38.40	290	109	PERK	HORIZONTAL	

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

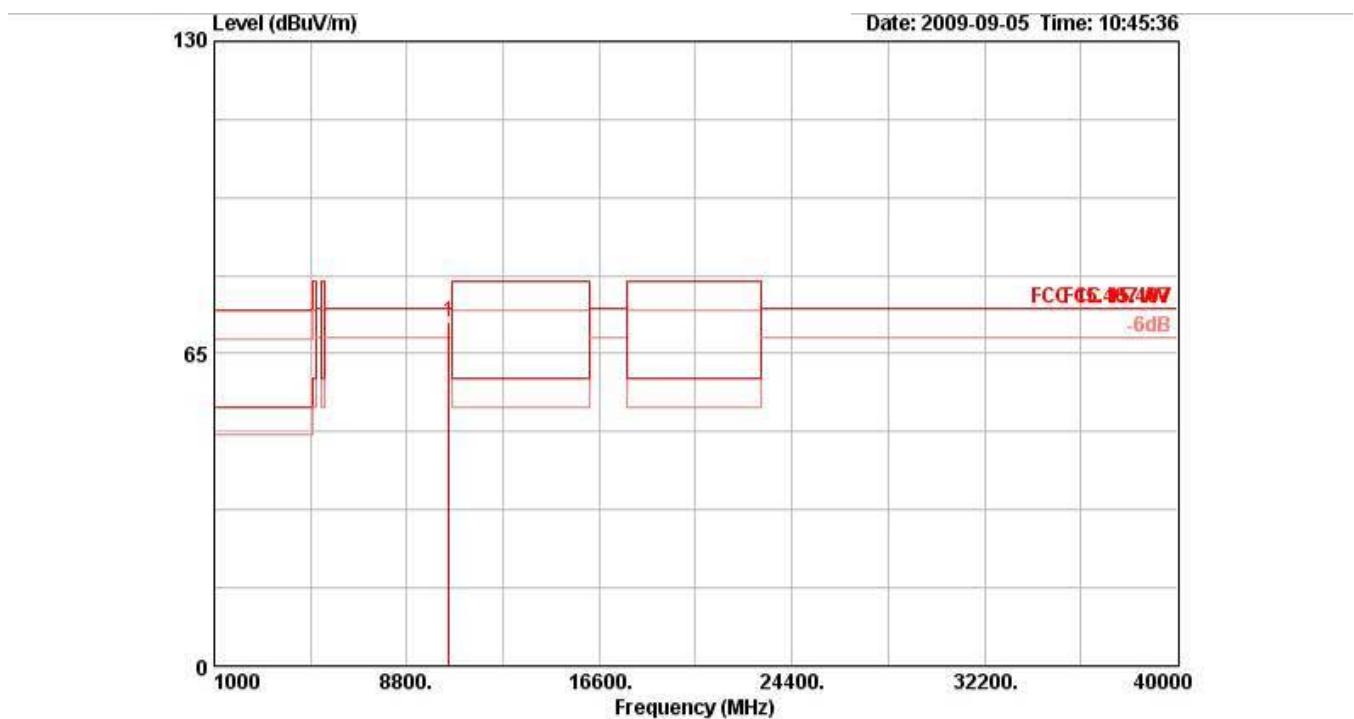
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

*Vertical*


Freq	Level	Limit	Over	Read	Cable	Preamplifier	Antenna	Table	Ant	Pos	Remark	Pol/Phase	
					MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg
1 !	10518.280	71.62	74.30	-2.68	62.14	6.58	35.50	38.39	245	109	PEAK		VERTICAL

## Note:

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205. The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

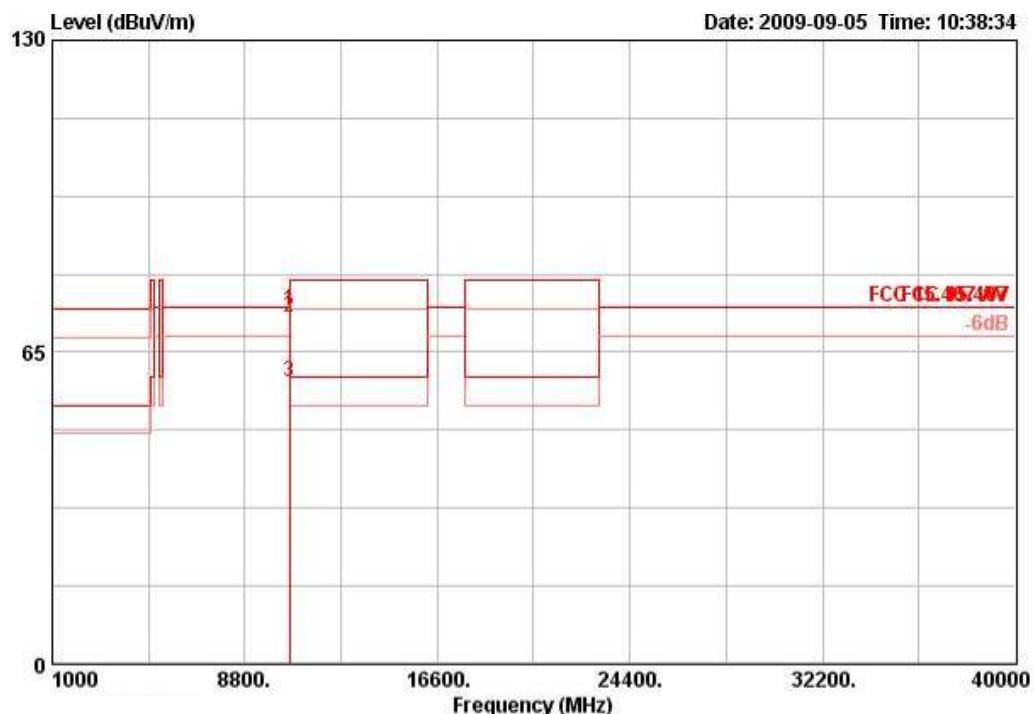
Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].



<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 20MHz Ch 60 / Ant. 6

## Horizontal



Freq	Level	Limit		Over Limit	Read Level	Cable Loss		Preamplifier	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 !	10598.240	73.59	74.30	-0.71	64.02	6.61	35.42	38.38	211	107	PEAK	HORIZONTAL	
2	10603.120	72.23	80.00	-7.77	62.66	6.61	35.42	38.38	211	107	PEAK	HORIZONTAL	
3 !	10603.360	58.89	60.00	-1.11	49.31	6.61	35.42	38.38	211	107	AVERAGE	HORIZONTAL	

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

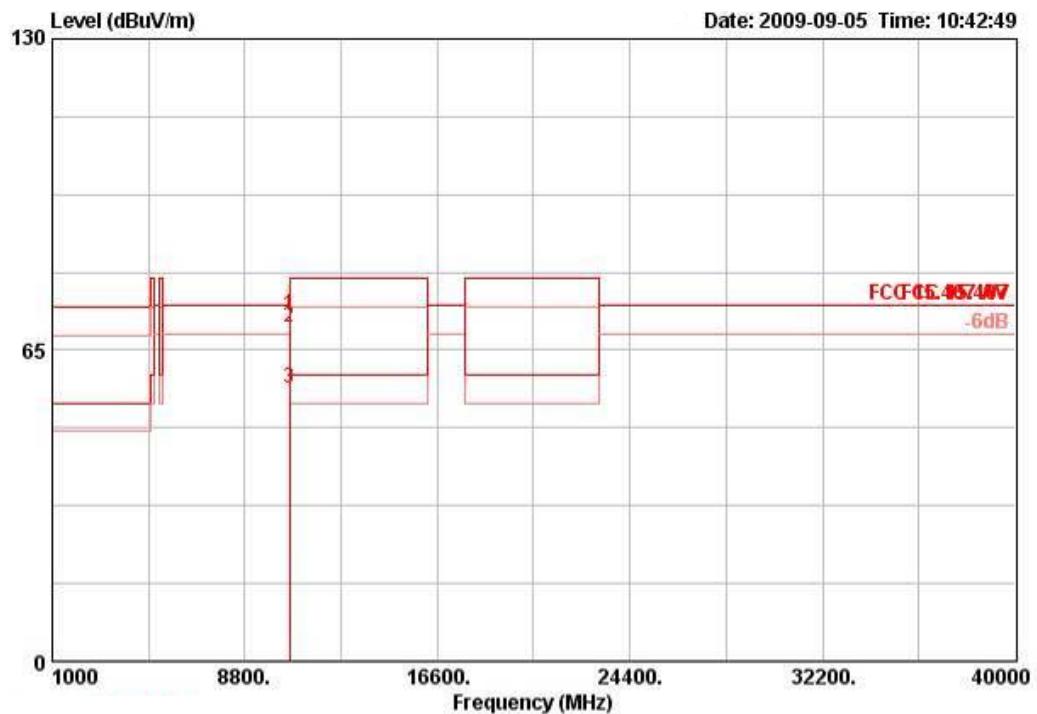
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

**Vertical**

Freq	Level	Limit	Over	Read	Cable	Preamplifier	Antenna	Table	Ant	Pos	Remark	Pol/Phase
	MHz	dBuV/m	Line	dB	dBuV	dB	dB	dB/m	deg	cm		
1 !	10598.680	72.15	74.30	-2.15	62.58	6.61	35.42	38.38	246	108	PEAK	VERTICAL
2	10602.760	69.88	80.00	-10.12	60.31	6.61	35.42	38.38	246	108	PEAK	VERTICAL
3 !	10603.080	56.87	60.00	-3.13	47.29	6.61	35.42	38.38	246	108	AVERAGE	VERTICAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

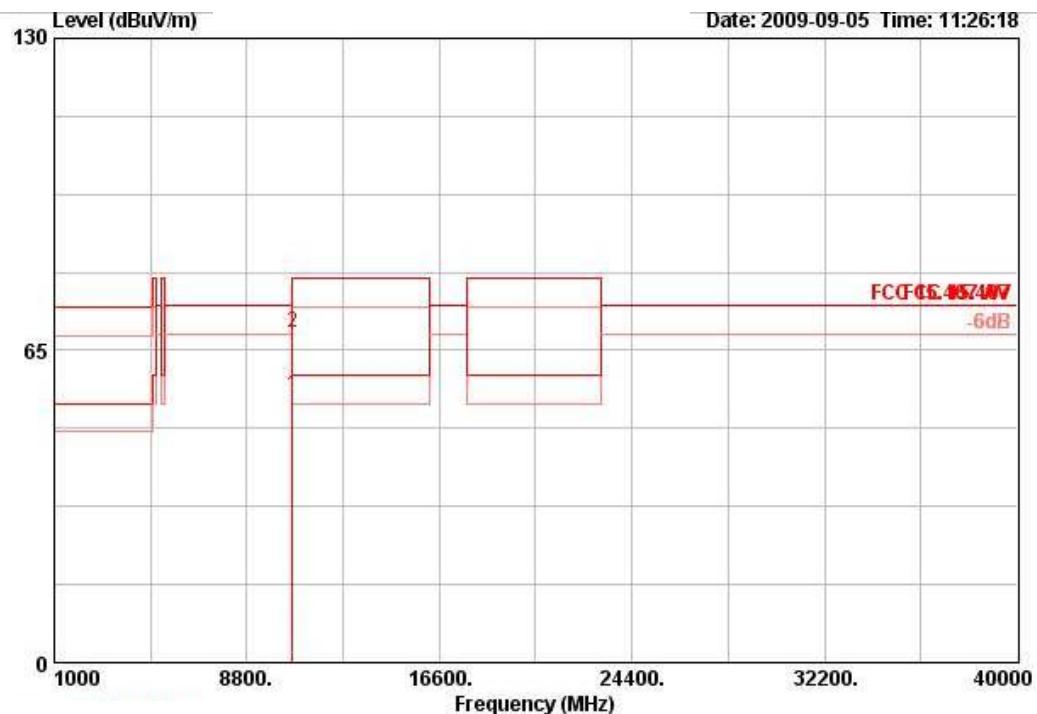
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 20MHz Ch 64 / Ant. 6

**Horizontal**


Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Pos	Remark	Pol/Phase
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm			
1 !	10638.360	55.72	60.00	-4.28	46.12	6.62	35.39	38.37	212	107	AVERAGE	HORIZONTAL
2	10643.480	68.79	80.00	-11.21	59.19	6.62	35.39	38.37	212	107	PEAK	HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

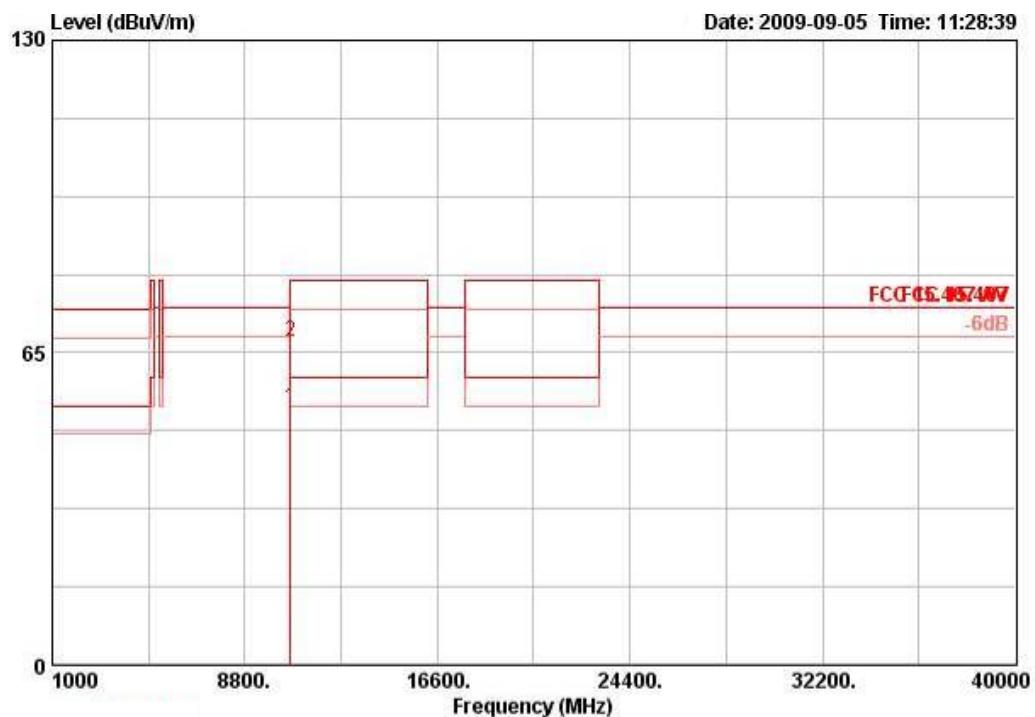
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

*Vertical*


Freq MHz	Level dBuV/m	Limit Line dB	Over Limit dB	Read Level dBuV	Cable Loss dB	Preamp Factor dB	Antenna Factor dB	Table Pos	Ant Pos deg	Remark cm	Pol/Phase
1 10637.880	53.34	60.00	-6.66	43.74	6.62	35.39	38.37	245	106	AVERAGE	VERTICAL
2 10642.600	67.25	80.00	-12.75	57.65	6.62	35.39	38.37	245	106	PEAK	VERTICAL

## Note:

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

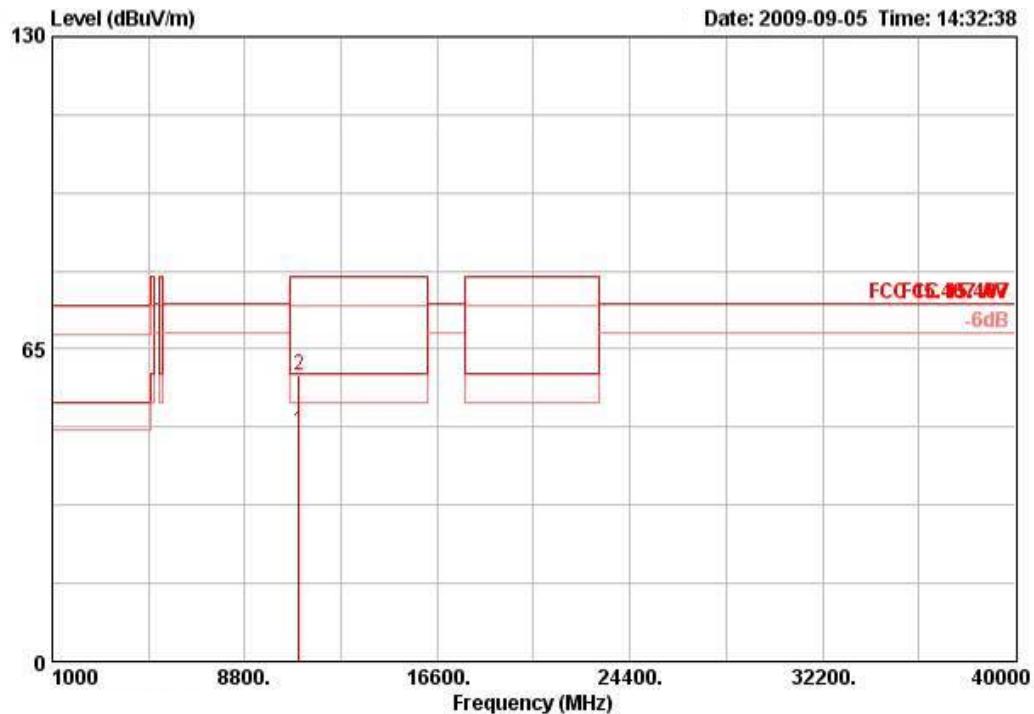
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 20MHz Ch 100 / Ant. 6

**Horizontal**


Freq	Level	Limit		Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
		Line	dB									
1	11000.840	47.91	60.00	-12.09	37.95	6.74	35.10	38.32	209	115	AVERAGE	HORIZONTAL
2	11002.760	59.63	80.00	-20.37	49.67	6.74	35.10	38.32	209	115	PEAK	HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

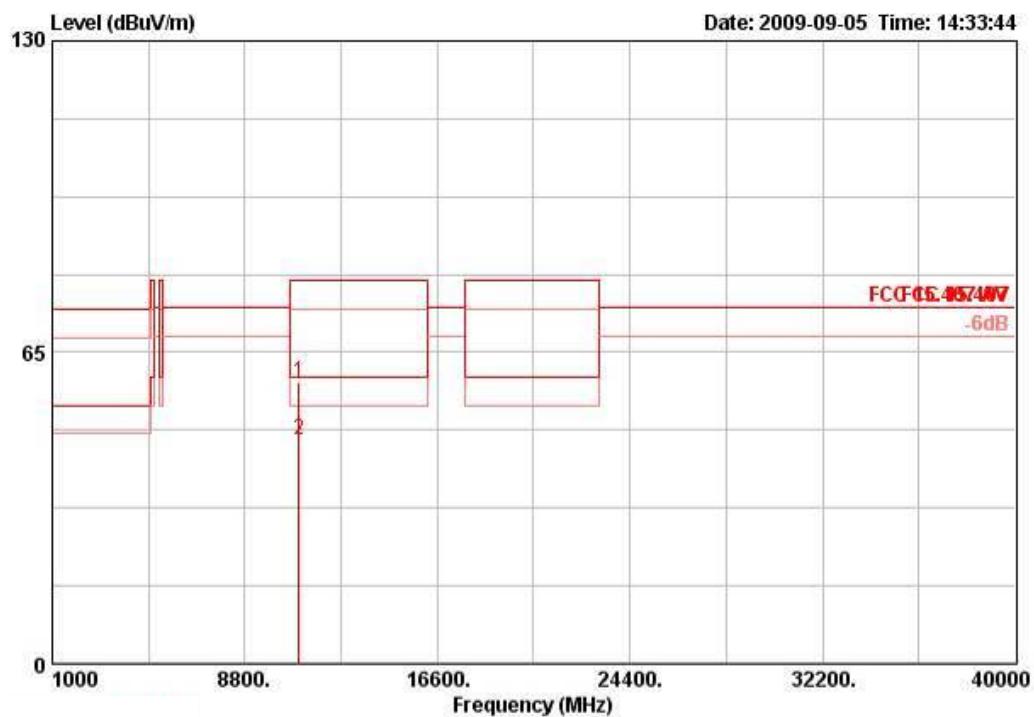
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

*Vertical*


	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm			
1	10997.280	58.63	80.00	-21.37	48.69	6.74	35.10	38.30	69	108	PEAK		VERTICAL
2	11000.760	46.86	60.00	-13.14	36.92	6.74	35.10	38.30	69	108	AVERAGE		VERTICAL

## Note:

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

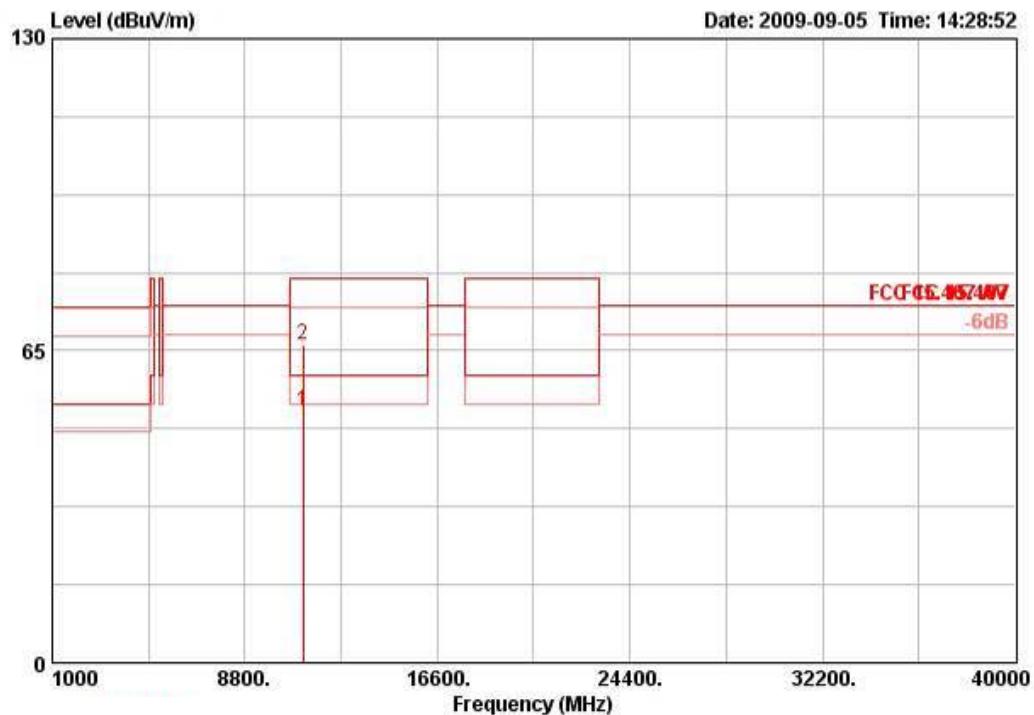
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

Temperature	26.8°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11n MCS8 20MHz Ch 116 / Ant. 6

**Horizontal**

Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11160.840	52.37	60.00	-7.63	42.33	6.74	35.17	38.47	210	107 AVERAGE	HORIZONTAL
2	11163.480	66.13	80.00	-13.87	56.09	6.74	35.17	38.47	210	107 PEAK	HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

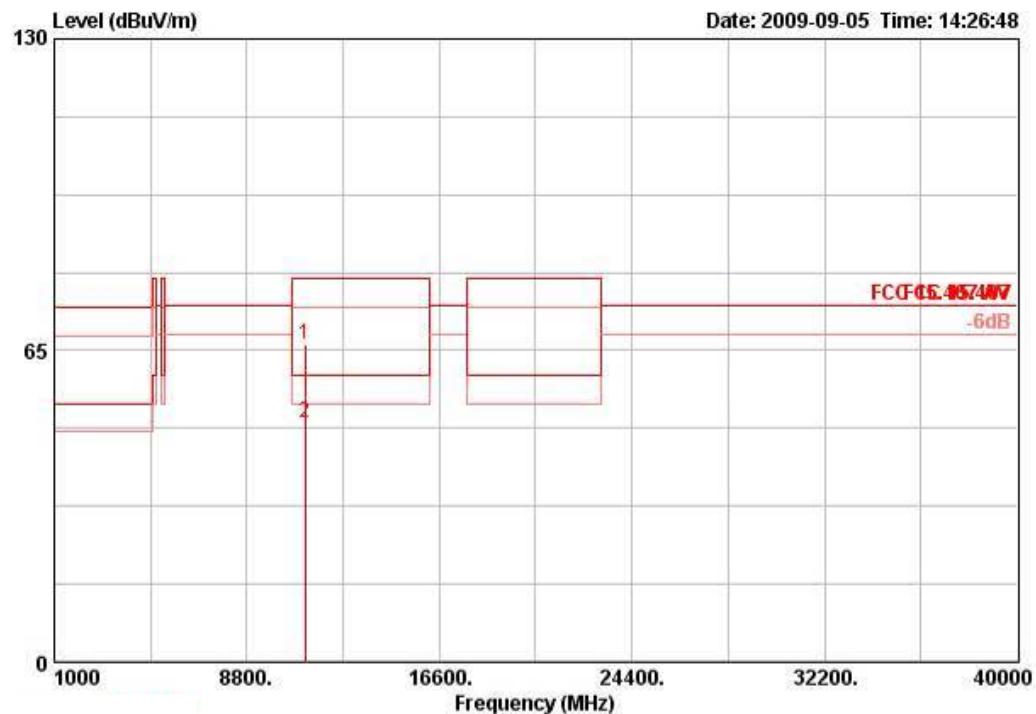
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

*Vertical*


Freq	Level	Limit	Over	Read	Cable	Preamplifier	Antenna	Table	Ant	Pos	Remark	Pol/Phase
					Line	Limit	Level					
MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm		
1	11159.960	66.12	80.00	-13.88	56.08	6.74	35.17	38.47	307	101	PERK	VERTICAL
2	11160.280	49.81	60.00	-10.19	39.77	6.74	35.17	38.47	307	101	AVERAGE	VERTICAL

## Note:

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

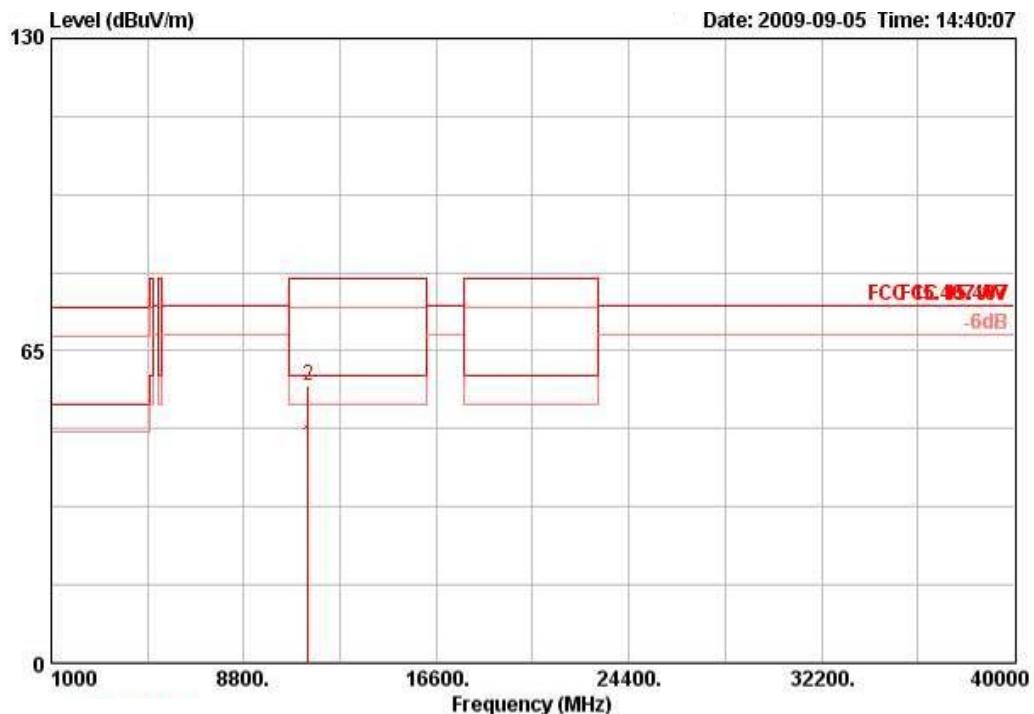
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 20MHz Ch 140 / Ant. 6

**Horizontal**


Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Pos	Remark	Pol/Phase
					Line	Limit	Level					
MHz	dBuV/m	dBuV/m		dB	dB	dB	dB	dB/m	deg	cm		
1	11400.600	45.35	60.00	-14.65	35.40	6.74	35.10	38.32	69	108	AVERAGE	HORIZONTAL
2	11400.620	57.65	80.00	-22.35	47.70	6.74	35.10	38.32	69	108	PEAK	HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

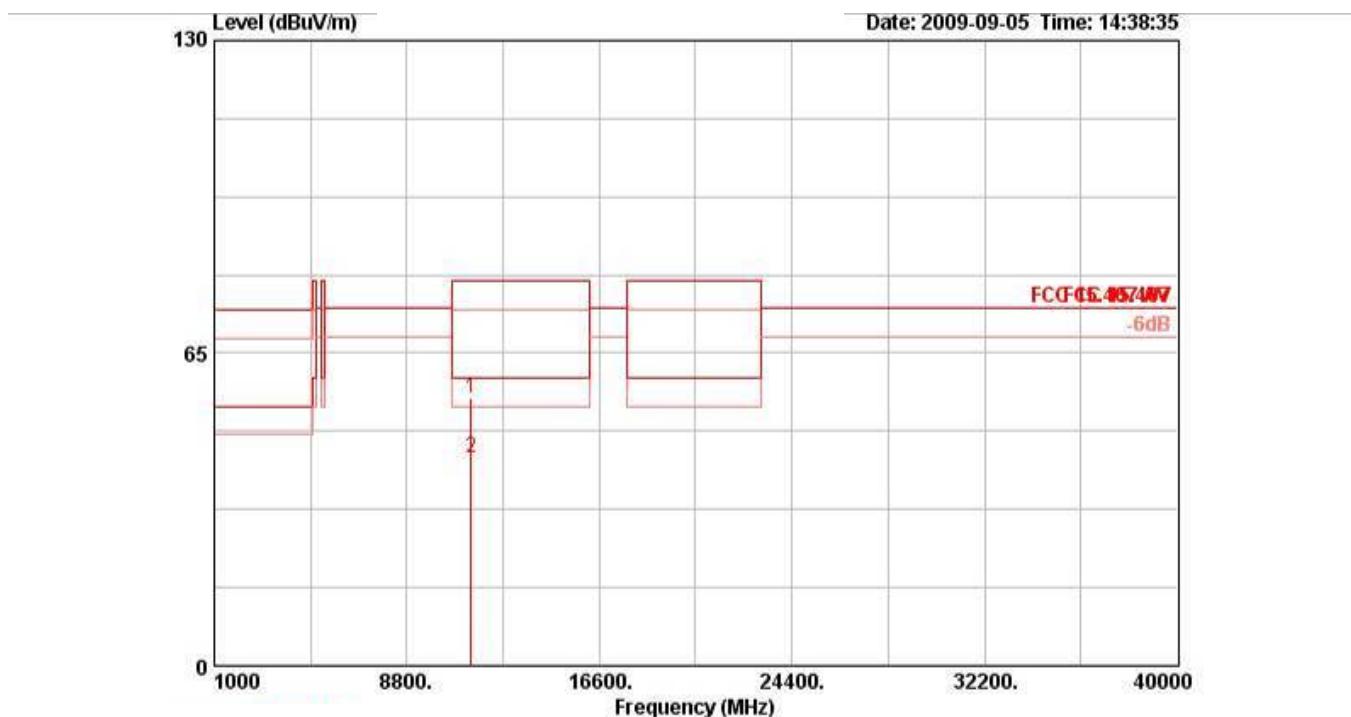
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

**Vertical**


Freq	Level	Limit Line	Over Limit	Read Level	Cable	Preamplifier	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
					Loss	Factor	Factor				
MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm	
1	11400.010	55.67	80.00	-24.33	45.73	6.74	35.10	38.30	72	107 PEAK	VERTICAL
2	11400.640	43.34	60.00	-16.66	33.40	6.74	35.10	38.30	72	107 AVERAGE	VERTICAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

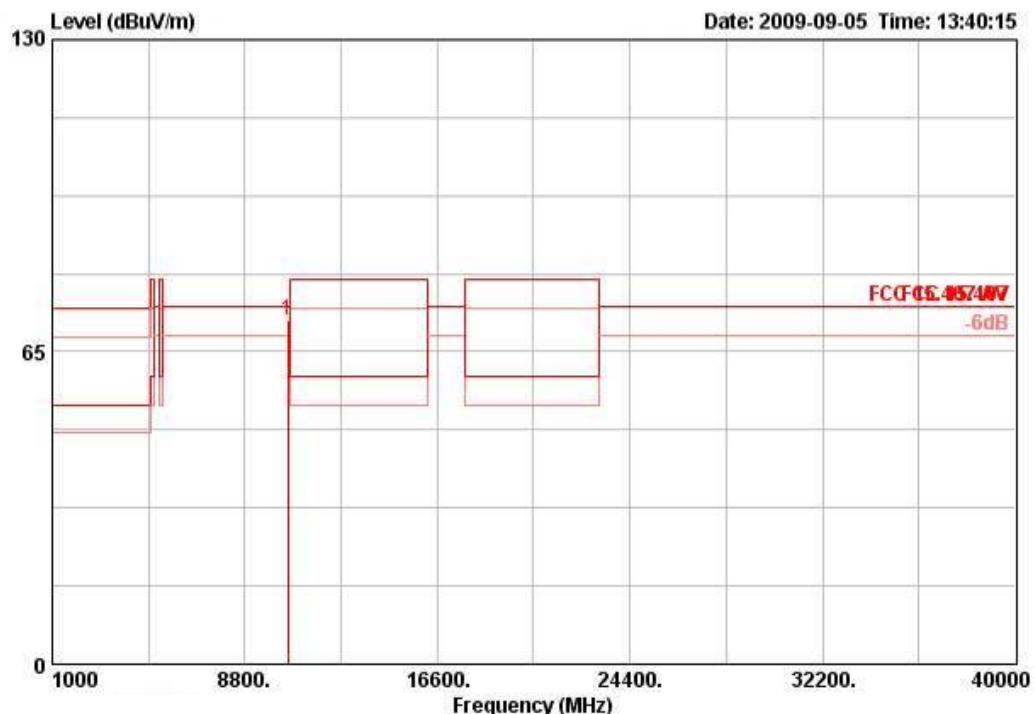
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 40MHz Ch 54 / Ant. 6

**Horizontal**


Freq	Level	Limit		Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm	
10539.900	71.61	74.30	-2.69	62.11	6.59	35.48	38.39	288	110	PEAK		HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

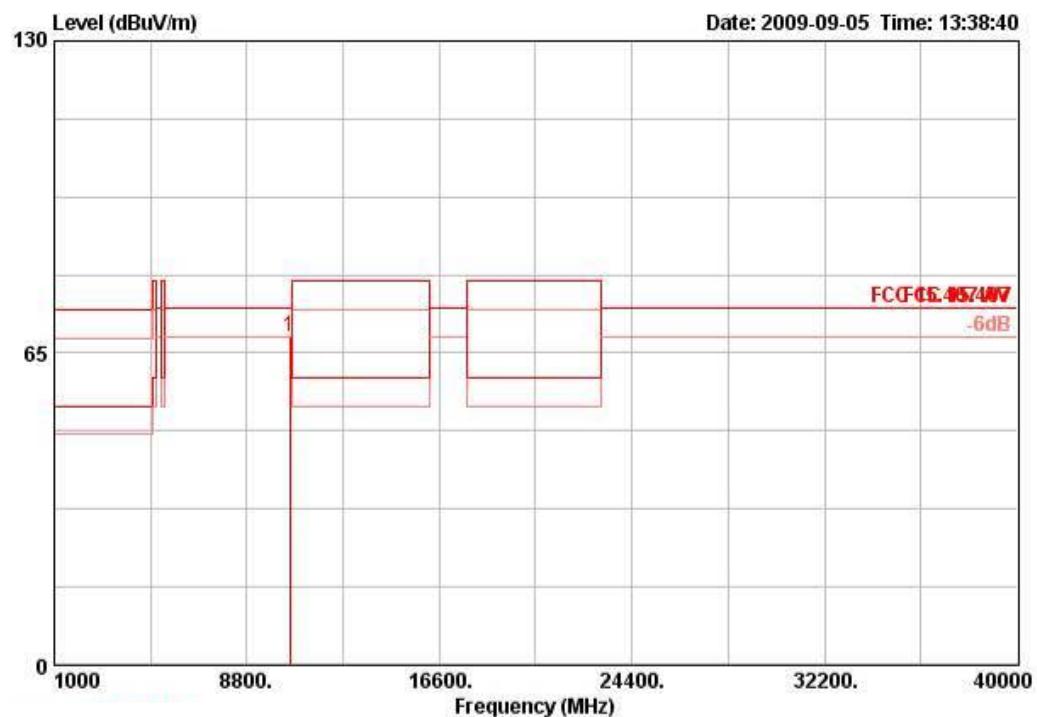
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

*Vertical*


	Freq	Level	Limit	Over	Read	Cable	Preamplifier	Antenna	Table	Ant	Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm			
1	10539.800	68.29	74.30	-6.01	58.79	6.59	35.48	38.39	77	107	PEAK		VERTICAL

## Note:

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205. The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

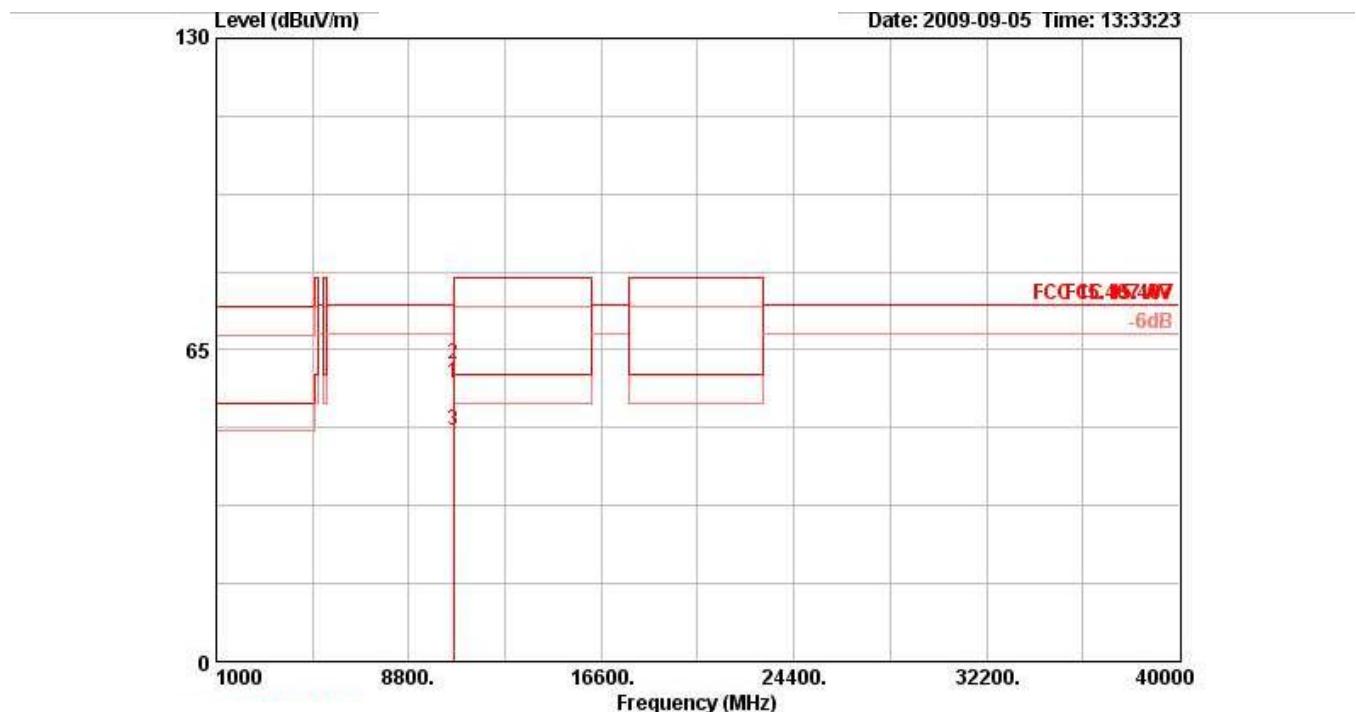
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 40MHz Ch 62 / Ant. 6

**Horizontal**


Freq	Level	Limit		Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm	
1	10599.000	58.13	74.30	-16.17	48.56	6.61	35.42	38.38	214	122	PEAK	HORIZONTAL
2	10620.000	61.86	80.00	-18.14	52.28	6.61	35.42	38.38	214	122	PEAK	HORIZONTAL
3	10621.000	48.15	60.00	-11.85	38.57	6.61	35.42	38.38	214	122	AVERAGE	HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

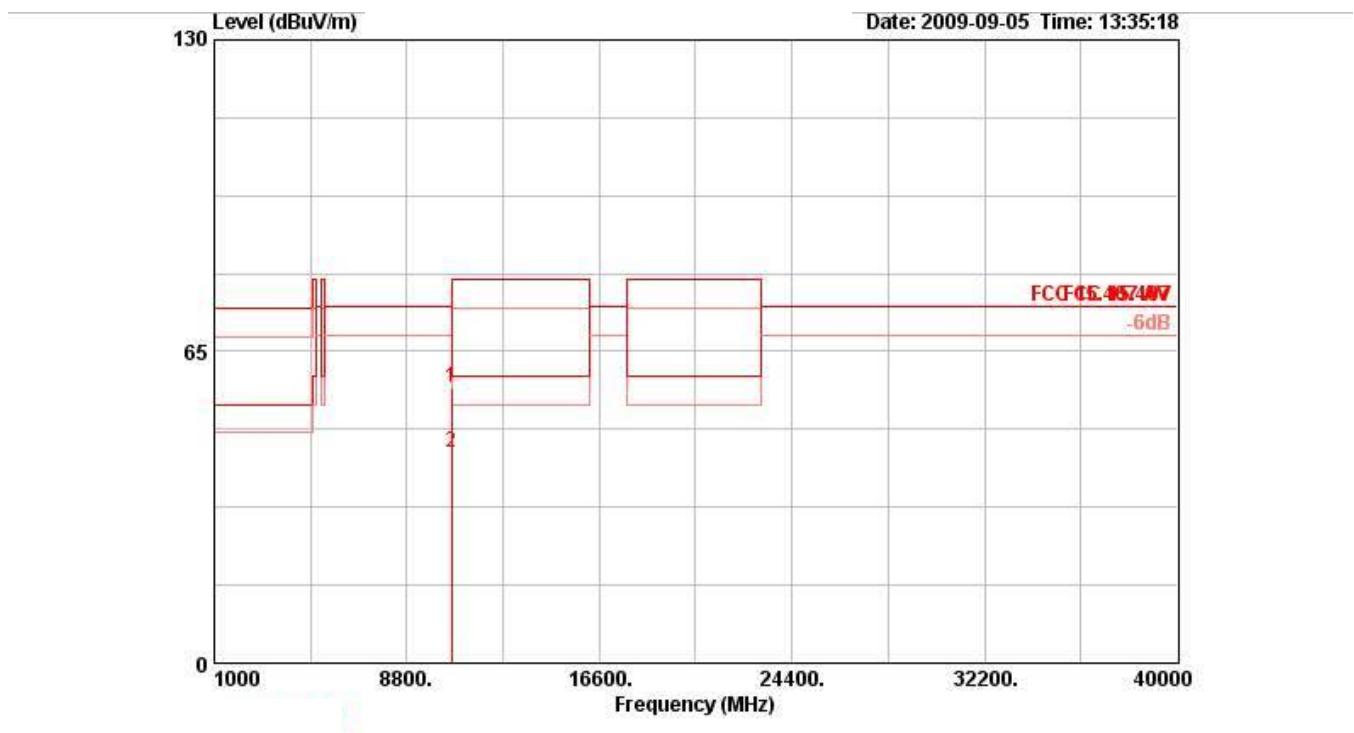
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

**Vertical**


freq	Level	Limit		Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
		Line	dB									
1	10620.280	57.53	80.00	-22.47	47.96	6.61	35.42	38.38	312	106	PEAK	VERTICAL
2	10620.440	44.01	60.00	-15.99	34.44	6.61	35.42	38.38	312	106	AVERAGE	VERTICAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

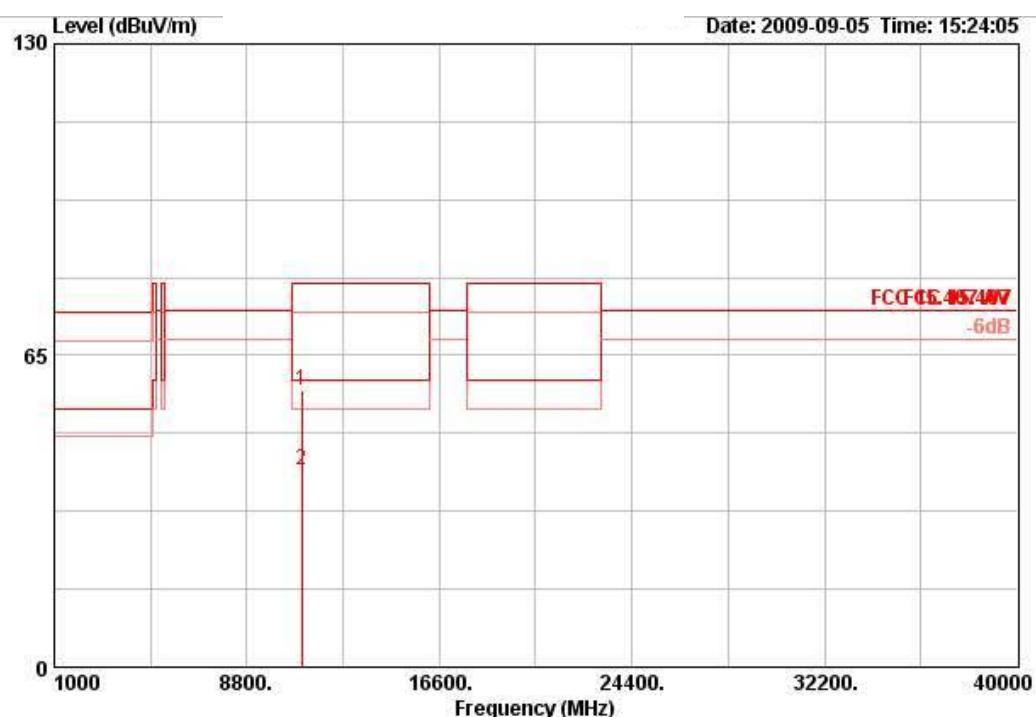
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

Temperature	26.8°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11n MCS8 40MHz Ch 102 / Ant. 6

**Horizontal**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamplifier	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
		Line	dB			dBuV	dB					
MHz	dBuV/m	dBuV/m	dB					dB/m	deg	cm		
1	11019.760	57.66	80.00	-22.34	47.70	6.74	35.11	38.33	219	110	PEAK	HORIZONTAL
2	11020.290	41.13	60.00	-18.87	31.17	6.74	35.11	38.33	219	110	AVERAGE	HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

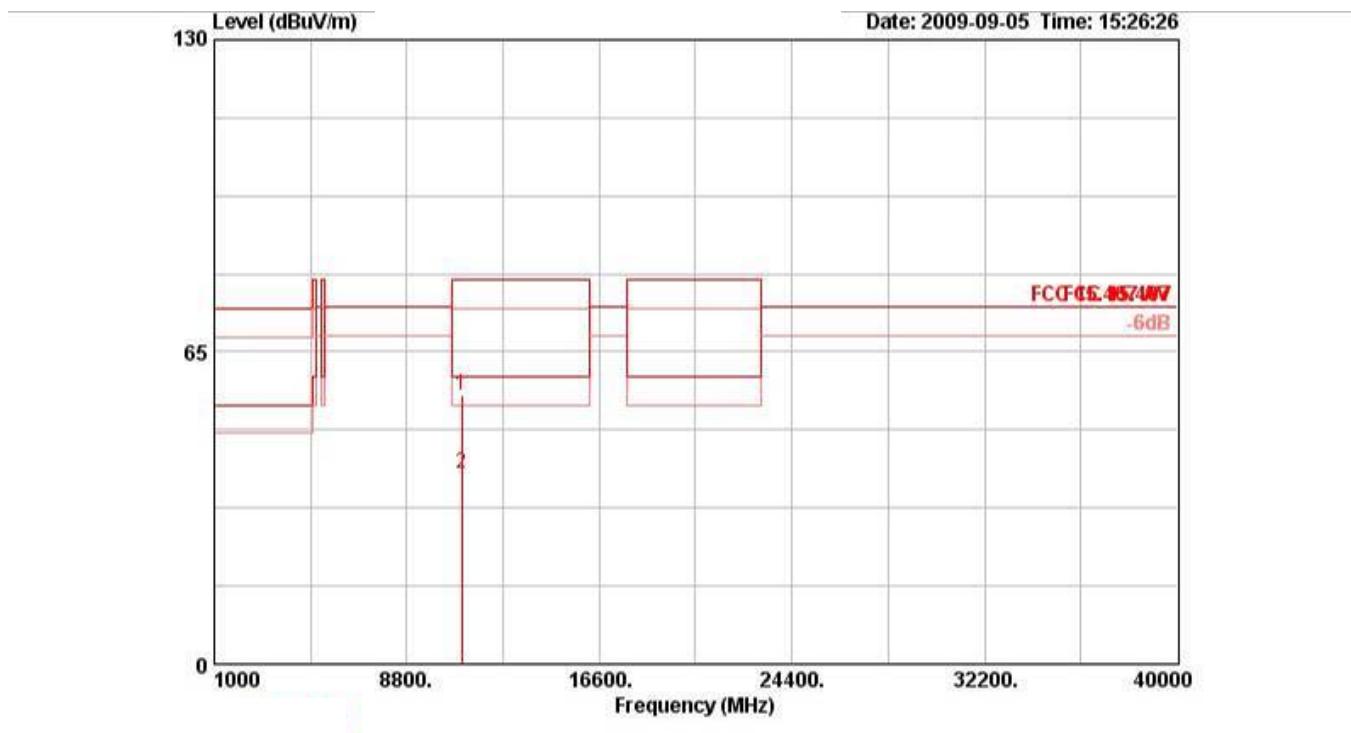
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

**Vertical**


Freq	Level	Limit Line	Over Limit	Read Level	Cable	Preamp	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
					Loss	Factor	Factor				
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11019.220	55.90	80.00	-24.10	45.95	6.74	35.11	38.32	159	100 PEAK	VERTICAL
2	11019.590	39.76	60.00	-20.24	29.81	6.74	35.11	38.32	159	100 AVERAGE	VERTICAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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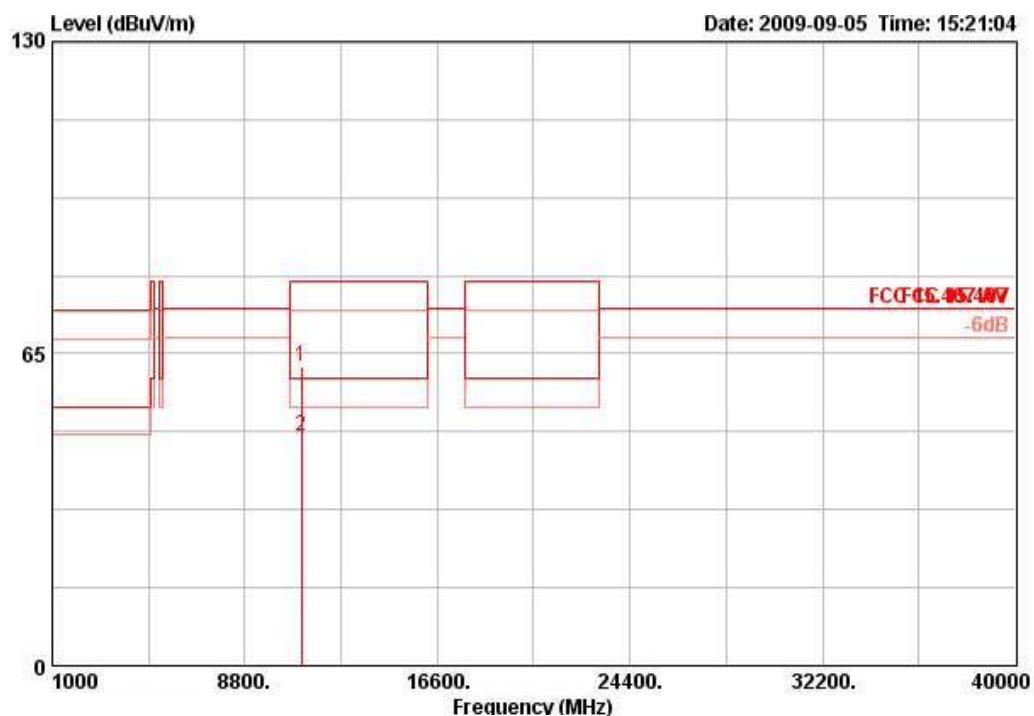
Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].



<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 40MHz Ch 110 / Ant. 6

## **Horizontal**



	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm			
1	11090.360	62.40	80.00	-17.60	52.40	6.74	35.14	38.40	210	112	PEAK		HORIZONTAL
2	11097.440	47.80	60.00	-12.20	37.80	6.74	35.14	38.40	210	112	AVERAGE		HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

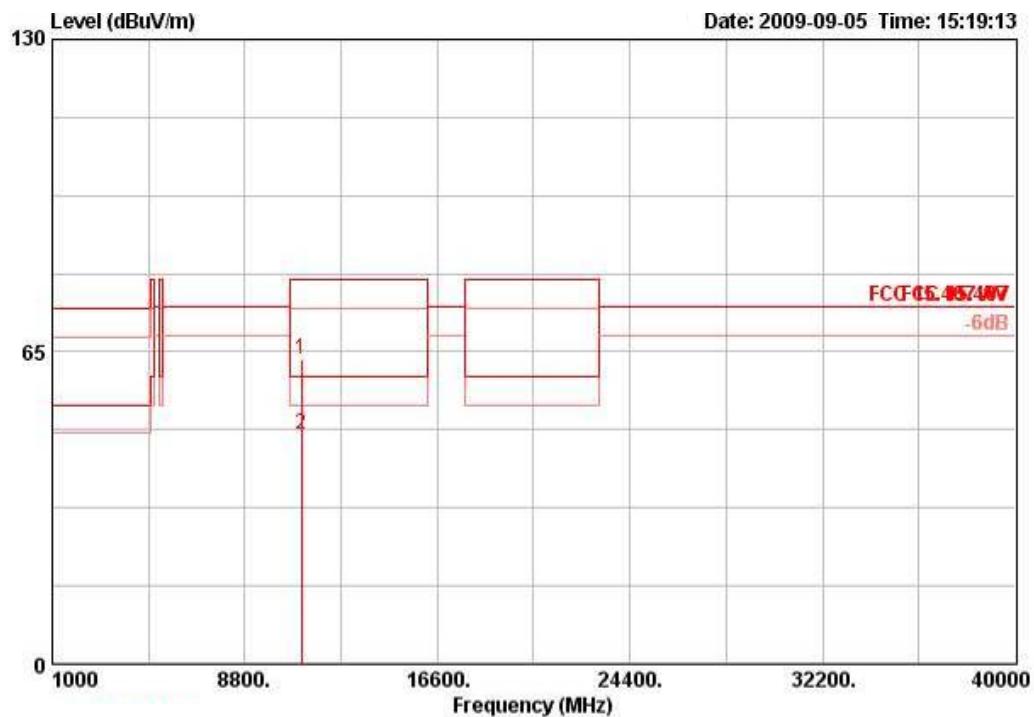
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Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

*Vertical*


Freq	Level	Limit Line	Over Limit	Read Level	Cable	Preamplifier	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
					Loss	Factor	Factor				
MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm	
1	11100.000	63.54	80.00	-16.46	53.54	6.74	35.14	38.40	302	101 PEAK	VERTICAL
2	11101.100	47.65	60.00	-12.35	37.65	6.74	35.14	38.40	302	101 AVERAGE	VERTICAL

## Note:

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

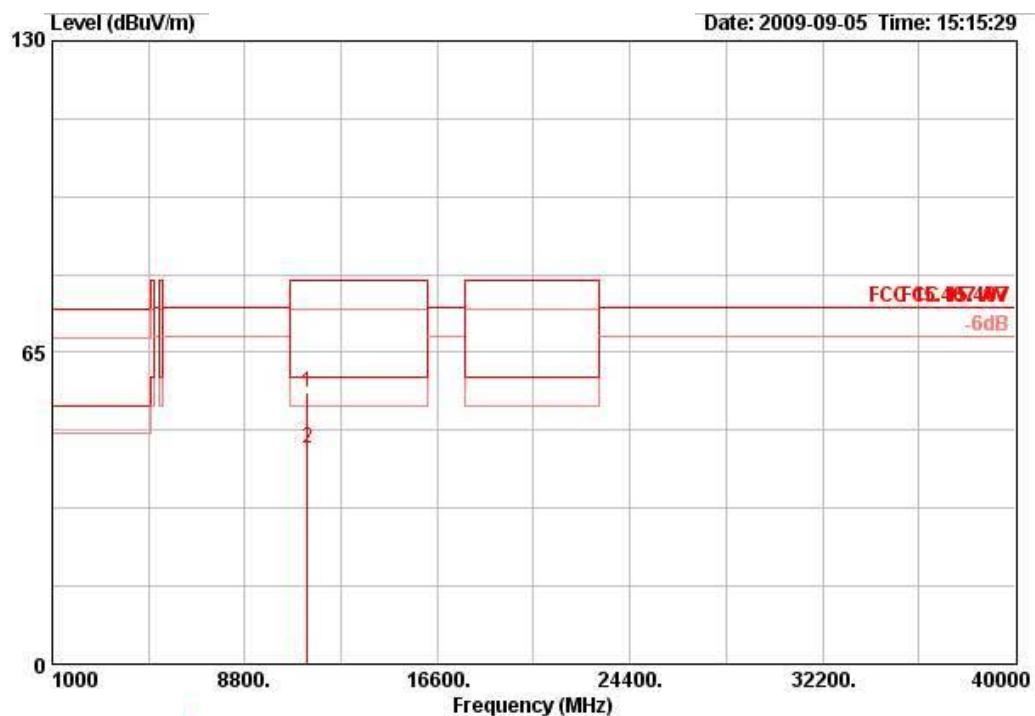
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

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Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

Temperature	26.8°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11n MCS8 40MHz Ch 134 / Ant. 6

**Horizontal**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamplifier	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm	
1	11338.820	56.56	80.00	-23.44	46.43	6.74	35.24	38.63	207	106	PEAK	HORIZONTAL
2	11341.980	44.82	60.00	-15.18	34.69	6.74	35.24	38.63	207	106	AVERAGE	HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

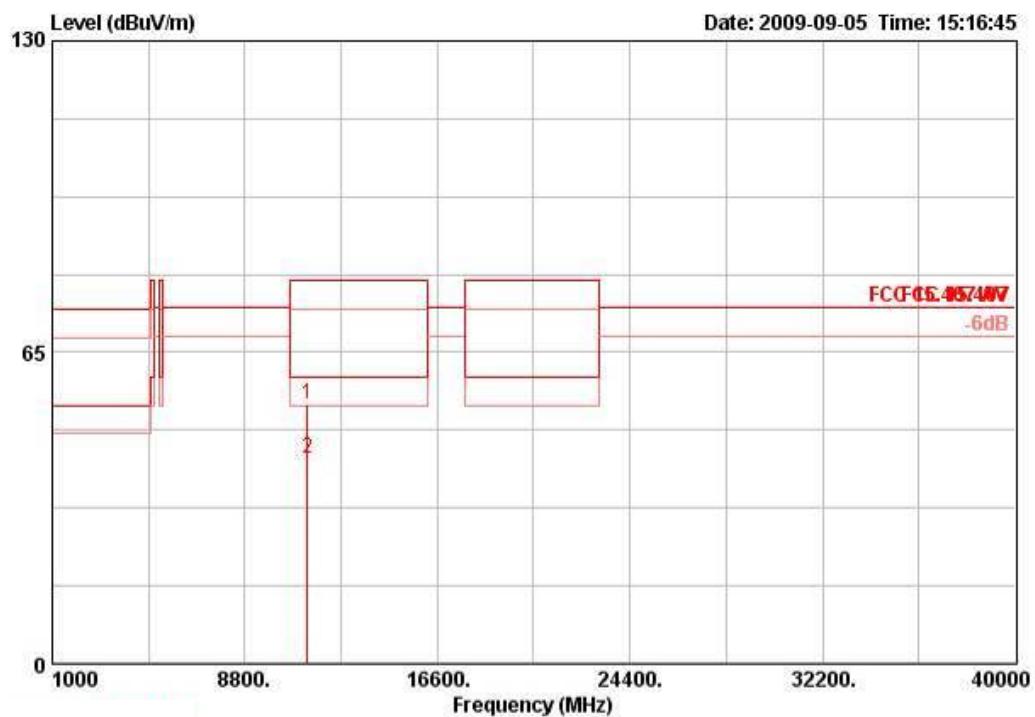
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Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

*Vertical*


Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos deg	Remark	Pol/Phase
					dB	dB	dB				
1 11338.540	54.35	80.00	-25.65	44.22	6.74	35.24	38.63	167	100	PEAK	VERTICAL
2 11340.620	42.71	60.00	-17.29	32.58	6.74	35.24	38.63	167	100	AVERAGE	VERTICAL

## Note:

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

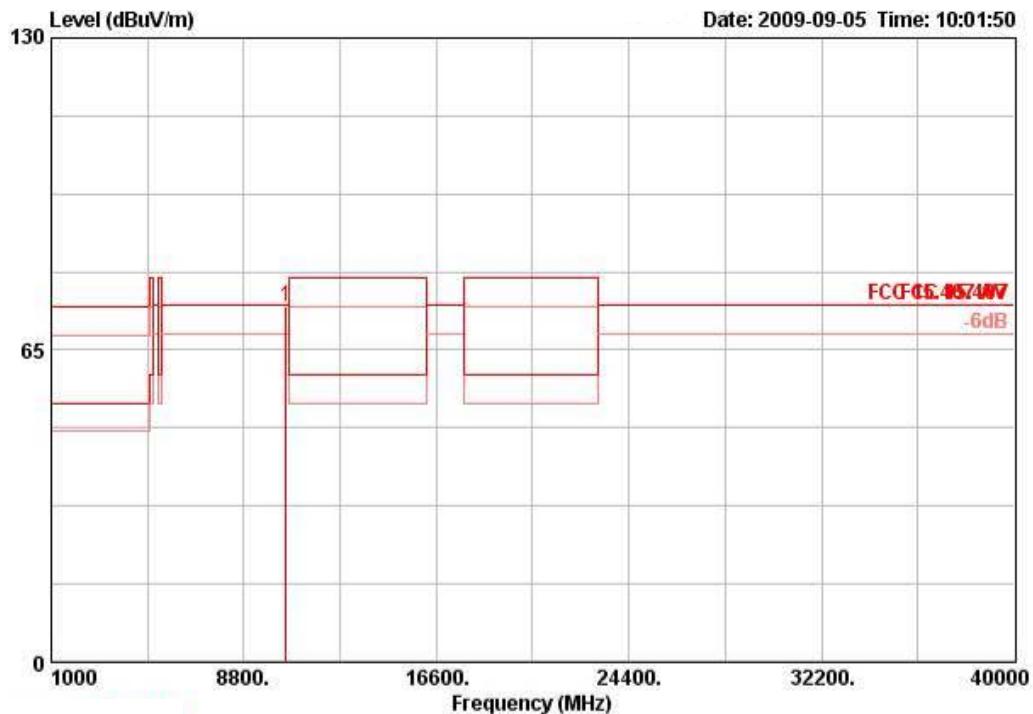
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11a Ch 52 / Ant. 6

**Horizontal**


Freq	Level	Limit	Over	Read	Cable PreampAntenna			Table	Ant	Pos	Remark	Pol/Phase	
					MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg
10523.600	74.06	74.30	-0.24	64.56	6.58	35.48	38.40	289	111	PEAK		HORIZONTAL	

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

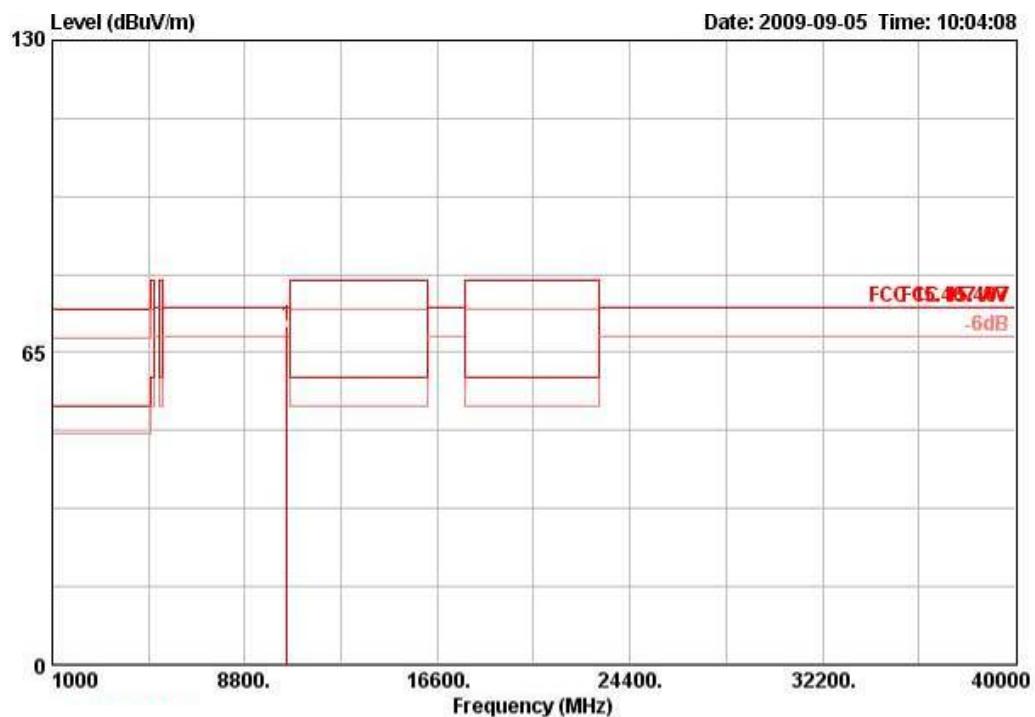
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

*Vertical*


Freq	Level	Limit	Over	Read	Cable	Preamplifier	Antenna	Table	Ant	Pos	Remark	Pol/Phase
					Loss	Factor	Factor					
MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm		
10518.760	70.64	74.30	-3.66	61.16	6.58	35.50	38.39	78	111	PEAK		VERTICAL

## Note:

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205. The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

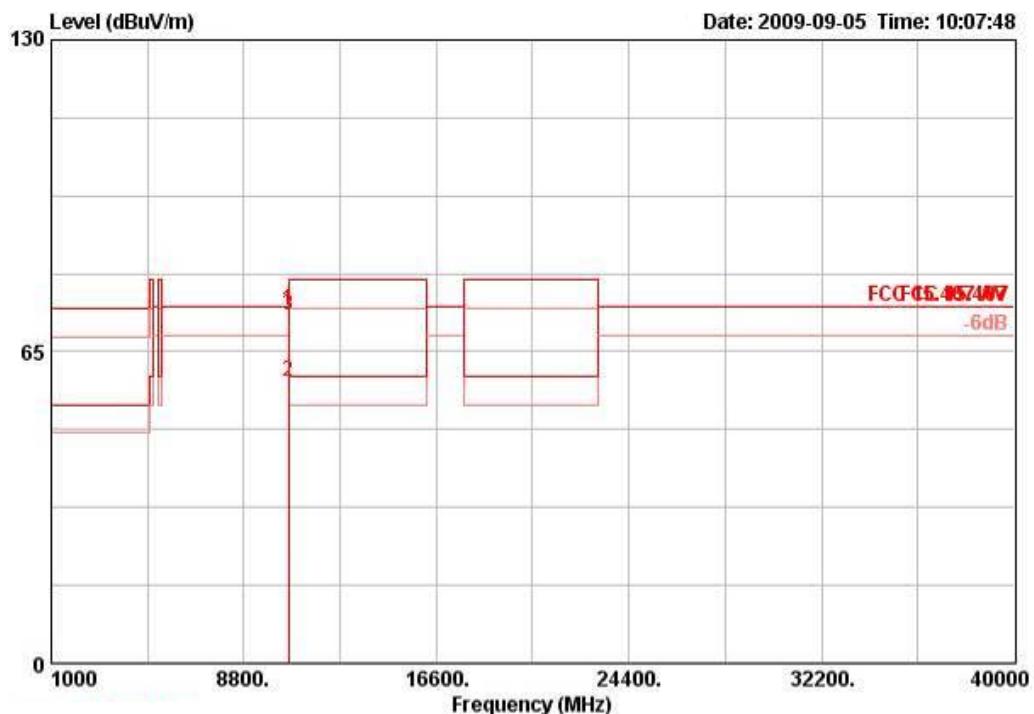
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

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Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11a Ch 60 / Ant. 6

**Horizontal**


Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Pos	Remark	Pol/Phase
					Line	Limit	Level					
MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm		
1 !	10597.880	73.58	74.30	-0.72	64.03	6.61	35.44	38.38	286	111	PEAK	HORIZONTAL
2 !	10602.600	58.73	60.00	-1.27	49.16	6.61	35.42	38.38	286	111	AVERAGE	HORIZONTAL
3	10602.680	72.50	80.00	-7.50	62.92	6.61	35.42	38.38	286	111	PEAK	HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

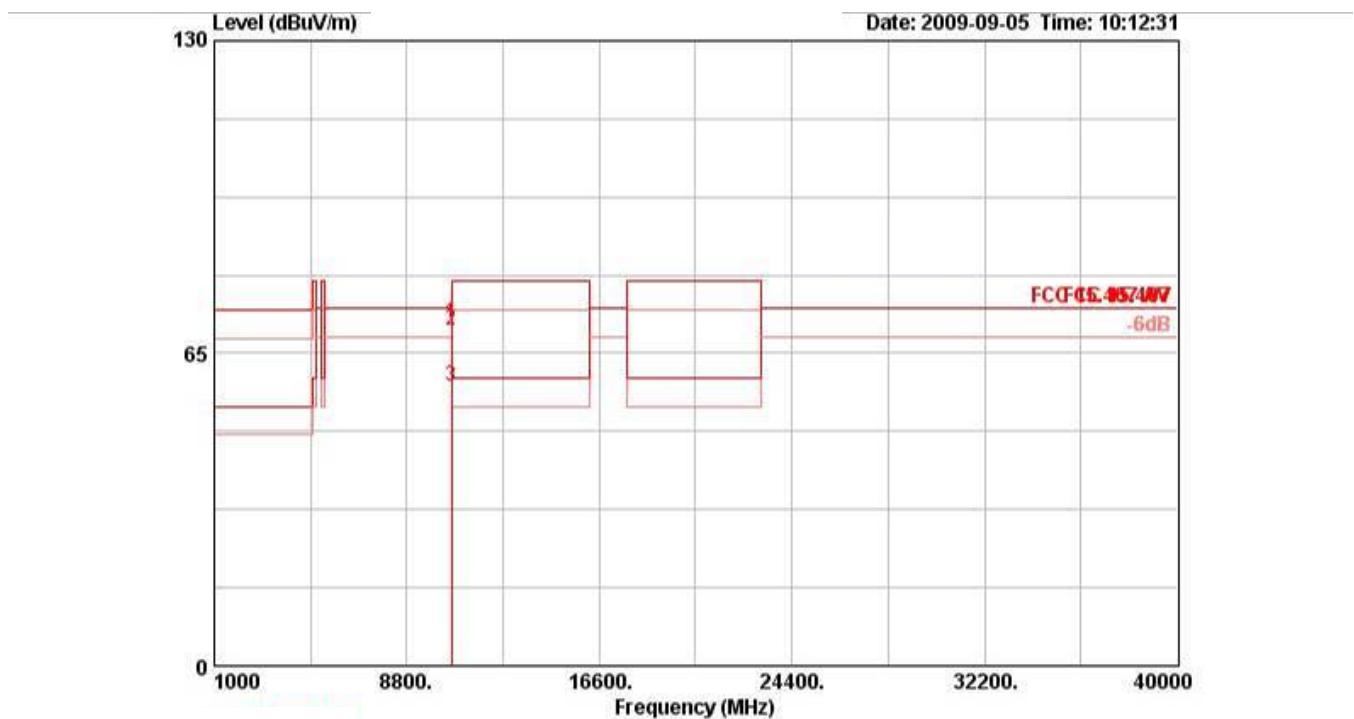
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

**Vertical**


Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Pos	Remark	Pol/Phase
					Line	Loss	Factor					
MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm		
1 !	10597.680	71.33	74.30	-2.97	61.78	6.61	35.44	38.38	245	108	PEAK	VERTICAL
2	10603.000	69.74	80.00	-10.26	60.16	6.61	35.42	38.38	245	108	PEAK	VERTICAL
3 !	10603.160	57.93	60.00	-2.07	48.35	6.61	35.42	38.38	245	108	AVERAGE	VERTICAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

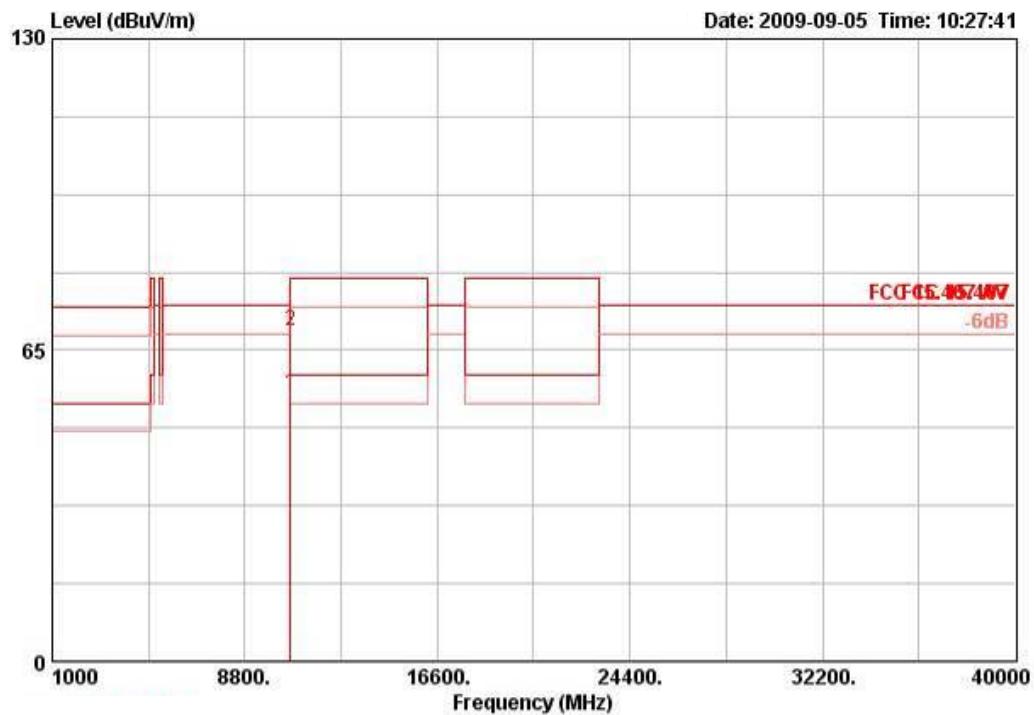
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Distance extrapolation factor =  $20 \log(\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11a Ch 64 / Ant. 6

**Horizontal**


Freq	Level	Limit	Over	Read	Cable	Preamplifier	Antenna	Table	Ant	Pol/Phase	
		Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm	
1 !	10639.200	56.05	60.00	-3.95	46.45	6.62	35.39	38.37	212	110 AVERAGE	HORIZONTAL
2	10643.760	69.13	80.00	-10.87	59.53	6.62	35.39	38.37	212	110 PEAK	HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

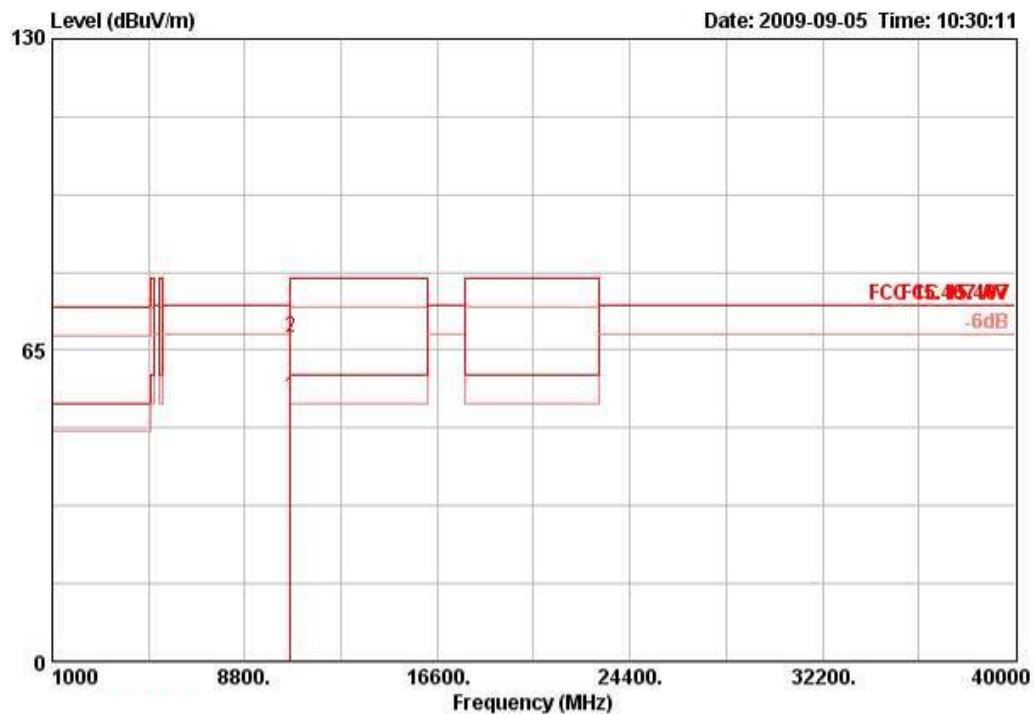
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Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

*Vertical*


Freq	Level	Limit		Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
		Line	dB									
MHz	dBuV/m	dBuV/m			dB	dBuV	dB	dB	dB/m	deg	cm	
1 !	10638.200	55.24	60.00	-4.76	45.64	6.62	35.39	38.37	255	104	AVERAGE	VERTICAL
2	10638.720	67.76	80.00	-12.24	58.16	6.62	35.39	38.37	255	104	PEAK	VERTICAL

## Note:

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

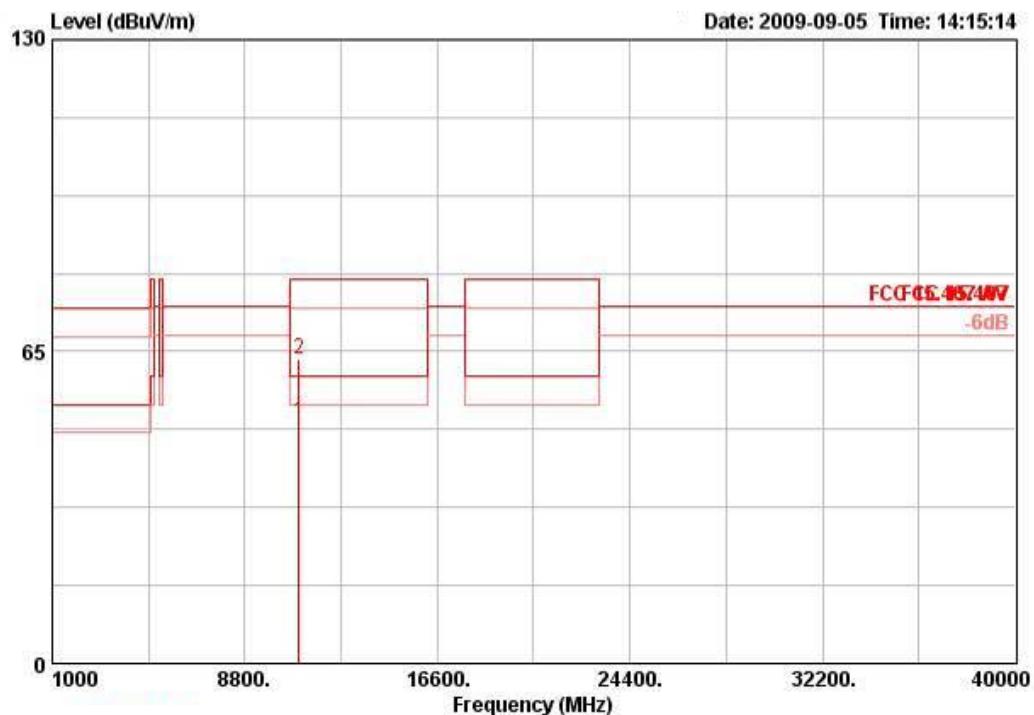
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Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11a Ch 100 / Ant. 6

**Horizontal**


Freq	Level	Limit		Over Limit	Read Level	Cable PreampAntenna			Table Pos	Ant Pos	Remark	Pol/Phase
		Line	dB			dBuV	dB	dB/m				
1	11000.320	50.30	60.00	-9.70	40.34	6.74	35.10	38.32	196	100	AVERAGE	HORIZONTAL
2	11000.520	63.44	80.00	-16.56	53.48	6.74	35.10	38.32	196	100	PERK	HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

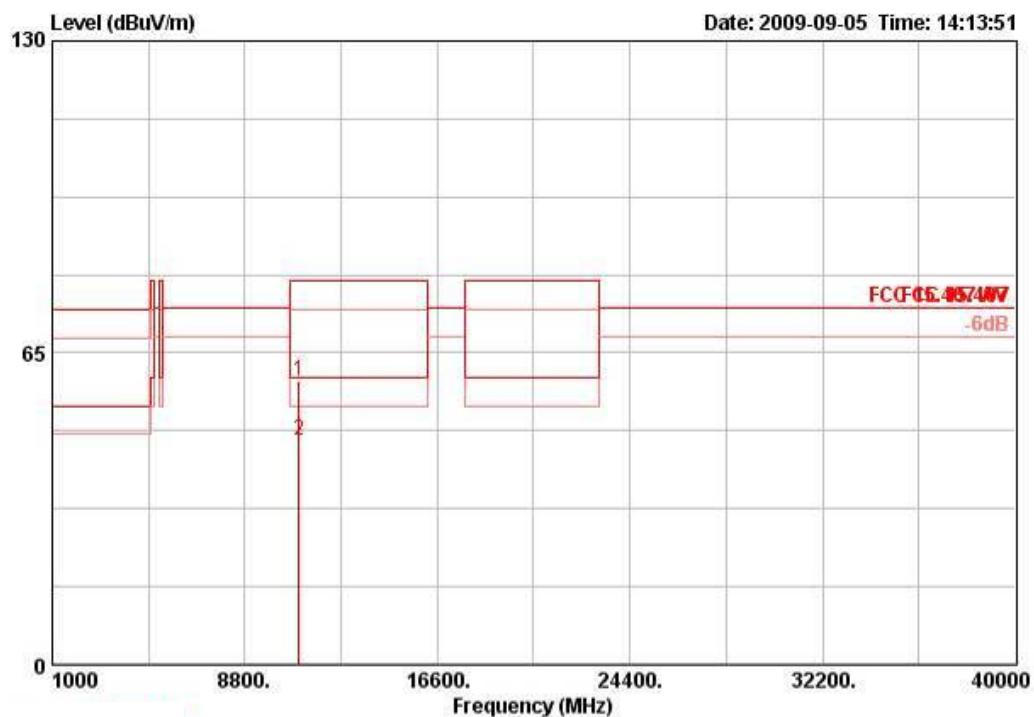
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

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Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

*Vertical*


Freq	Level	Limit Line	Over Limit	Read Level	Cable	Preamp	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
					Loss	Factor	Factor				
MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm	
1	10999.840	59.00	80.00	-21.00	49.06	6.74	35.10	38.30	196	100 PEAK	VERTICAL
2	11000.200	46.91	60.00	-13.09	36.97	6.74	35.10	38.30	196	100 AVERAGE	VERTICAL

## Note:

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

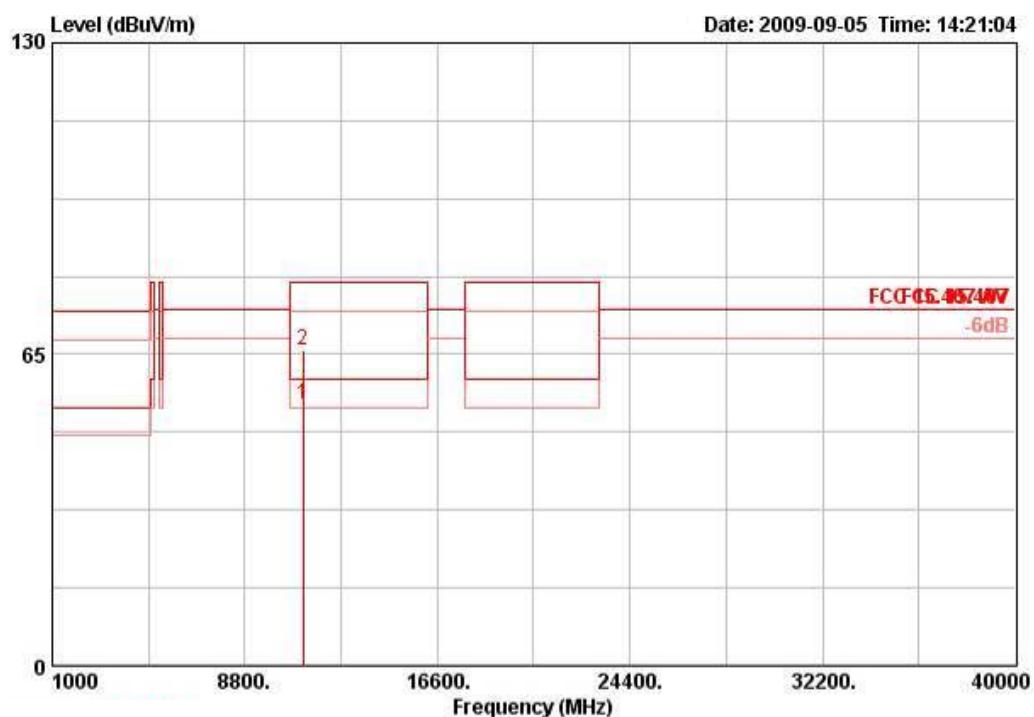
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Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11a Ch 116 / Ant. 6

**Horizontal**


Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 1	11160.360	54.60	60.00	-5.40	44.57	6.74	35.17	38.47	220	102 AVERAGE	HORIZONTAL
2	11160.840	65.84	80.00	-14.16	55.80	6.74	35.17	38.47	220	102 PEAK	HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

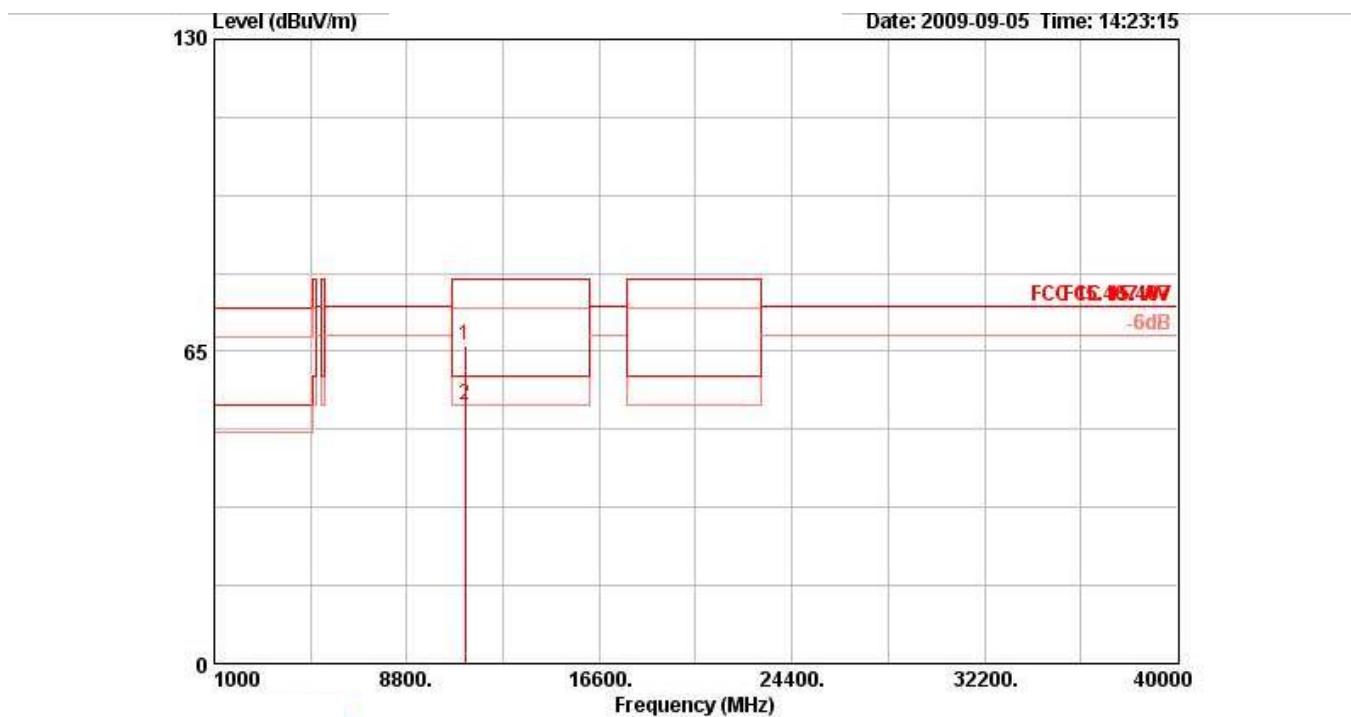
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

**Vertica**


Freq	Level	Limit		Over Limit	Read Level	Cable PreampAntenna			Table Pos	Ant Pos	Remark	Pol/Phase
		Line	dBuV/m			Loss	Preamp Factor	Antenna Factor				
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB	dB/m	deg	cm		
1	11156.400	66.08	80.00	-13.92	56.05	6.74	35.16	38.45	305	102	PEAK	VERTICAL
2	11161.400	53.83	60.00	-6.17	43.79	6.74	35.17	38.47	305	102	AVERAGE	VERTICAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

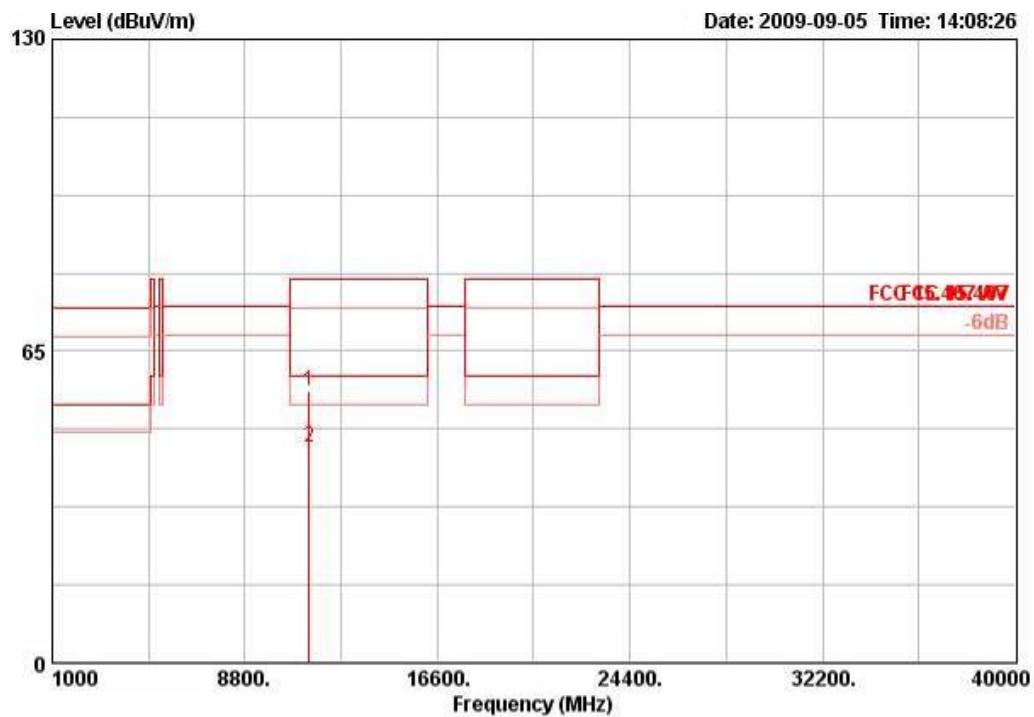
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Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

<b>Temperature</b>	26.8°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11a Ch 140 / Ant. 6

**Horizontal**


Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm	
1	11396.040	56.85	80.00	-23.15	46.68	6.74	35.26	38.68	222	104 PEAK	HORIZONTAL
2	11400.160	45.07	60.00	-14.93	34.88	6.74	35.26	38.70	222	104 AVERAGE	HORIZONTAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

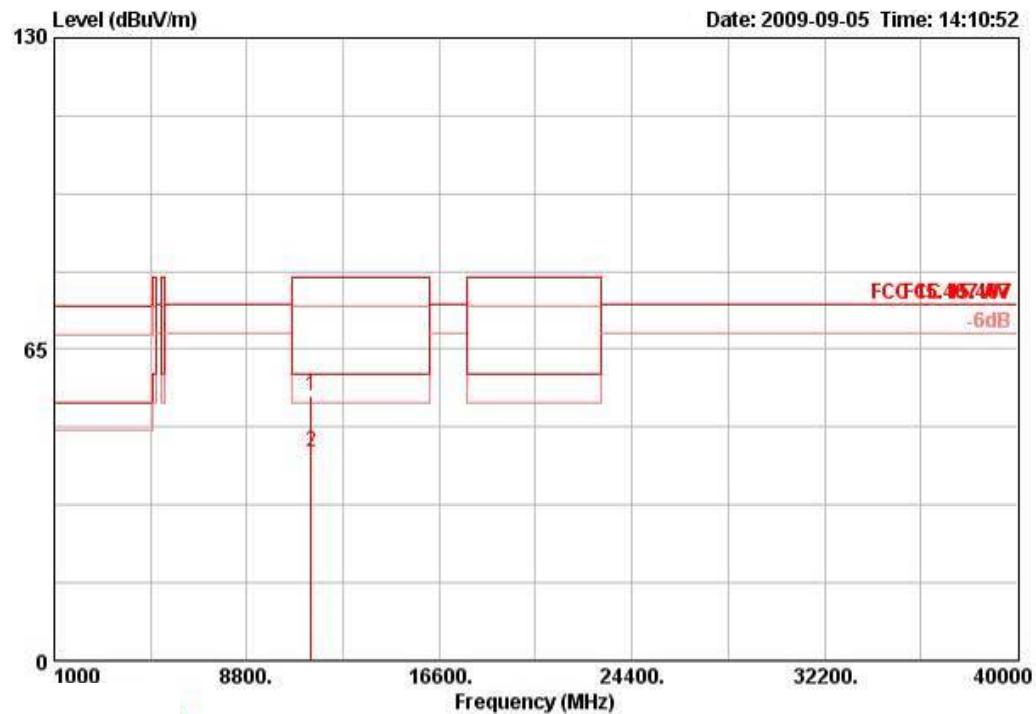
The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

**Vertical**


Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Cable Loss dB	Preamp Factor dB	Antenna Factor dB	Table Pos	Ant Pos cm	Remark	Pol/Phase
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 11395.720	55.13	80.00	-24.87	44.96	6.74	35.26	38.68	196	100	PEAK	VERTICAL
2 11400.960	43.51	60.00	-16.49	33.33	6.74	35.26	38.70	196	100	AVERAGE	VERTICAL

**Note:**

There are two spurious emission limit rules from 1GHz to 40GHz. One is restricted band defined in 15.205.

The limit is 74/54 dBuV/m at 3m in Peak and average value.

The other one is undesirable emission defined in 15.407(b). The limit is EIRP of -27dBm/MHz.

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor =  $20 \log(\text{specific distance [3m]} / \text{test distance [1.5m]})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

## 4.7. Band Edge Emissions Measurement

### 4.7.1. Limit

For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.25-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz (68.3dBuV/m at 3m). For transmitters operating in the 5.470-5.725 GHz band: all emissions outside of the 5.470-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz (68.3dBuV/m at 3m). For transmitters operating in the 5.725-5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz (78.3dBuV/m at 3m); for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz (68.3dBuV/m at 3m). In addition, in case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

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

### 4.7.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

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

### 4.7.3. Test Procedures

- The test procedure is the same as section 4.6.3, only the frequency range investigated is limited to 100MHz around bandedges.
- 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.

### 4.7.4. Test Setup Layout

This test setup layout is the same as that shown in section 4.6.4.

#### 4.7.5. Test Deviation

There is no deviation with the original standard.

#### 4.7.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

#### 4.7.7. Test Result of Band Edge and Fundamental Emissions

<For Antenna 1>:

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 20MHz Ch 60, 64 / Ant. 1
<b>Test Date</b>	Sep. 10, 2009		

##### Channel 60

Freq	Level	Limit Line	Over Limit	Read Level	Cable	Preamplifier	Antenna	Table	Ant	Remark	Pol/Phase
					Loss	Factor	Factor	Pos	Pos		
MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm	
1 @	5297.600	124.70			86.61	4.14	0.00	33.94	67	106 PEAK	VERTICAL
2 @	5301.600	112.42			74.34	4.14	0.00	33.94	67	106 AVERAGE	VERTICAL
3 @	5350.000	56.83	60.00	-3.17	18.63	4.17	0.00	34.03	67	106 AVERAGE	VERTICAL
4	5350.400	68.84	80.00	-11.16	30.63	4.17	0.00	34.03	67	106 PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

##### Channel 64

Freq	Level	Limit Line	Over Limit	Read Level	Cable	Preamplifier	Antenna	Table	Ant	Remark	Pol/Phase
					Loss	Factor	Factor	Pos	Pos		
MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm	
1 @	5319.200	109.81			71.69	4.16	0.00	33.97	308	102 AVERAGE	VERTICAL
2 @	5321.000	122.18			84.05	4.16	0.00	33.97	308	102 PEAK	VERTICAL
3 @	5350.400	59.08	60.00	-0.92	20.88	4.17	0.00	34.03	308	102 AVERAGE	VERTICAL
4	5352.200	74.03	80.00	-5.97	35.82	4.17	0.00	34.03	308	102 PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11n MCS8 20MHz Ch 100, 140 / Ant. 1
Test Date	Sep. 10, 2009		

**Channel 100**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
			MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm
1	5460.000	68.54	80.00	-11.46	30.10	4.23	0.00	34.21	39	100	PERK	VERTICAL
2 @	5460.000	56.60	60.00	-3.40	18.17	4.23	0.00	34.21	39	100	AVERAGE	VERTICAL
3 @	5469.218	72.92	74.30	-1.38	34.44	4.24	0.00	34.24	39	100	PEAK	VERTICAL
4 @	5501.000	120.07			81.56	4.26	0.00	34.26	39	100	PERK	VERTICAL
5 @	5502.200	107.73			69.19	4.26	0.00	34.28	39	100	AVERAGE	VERTICAL

Item 4, 5 are the fundamental frequency at 5500 MHz.

**Channel 140**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
			MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm
1 @	5693.800	105.83			67.14	4.36	0.00	34.34	360	100	AVERAGE	VERTICAL
2 @	5704.400	118.44			79.72	4.38	0.00	34.34	360	100	PERK	VERTICAL
3 @	5725.600	73.64	74.30	-0.66	34.91	4.39	0.00	34.34	360	100	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 40MHz Ch 54, 62 / Ant. 1
<b>Test Date</b>	Sep. 10, 2009		

### Channel 54

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		Line	dB			dB	dB	dB/m	deg	cm		
1 @	5276.800	121.77			83.76	4.13	0.00	33.88	152	100 PEAK	VERTICAL	
2 @	5284.800	108.82			70.78	4.13	0.00	33.91	152	100 AVERAGE	VERTICAL	
3 @	5350.000	59.68	60.00	-0.32	21.48	4.17	0.00	34.03	152	100 AVERAGE	VERTICAL	
4 @	5350.000	71.86	80.00	-8.14	33.66	4.17	0.00	34.03	152	100 PEAK	VERTICAL	

Item 1, 2 are the fundamental frequency at 5270 MHz.

### Channel 62

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		Line	dB			dB	dB	dB/m	deg	cm		
1 @	5301.600	103.58			65.49	4.14	0.00	33.94	299	102 AVERAGE	VERTICAL	
2 @	5308.000	115.64			77.56	4.14	0.00	33.94	299	102 PEAK	VERTICAL	
3 @	5350.000	59.57	60.00	-0.43	21.37	4.17	0.00	34.03	299	102 AVERAGE	VERTICAL	
4 @	5352.800	75.08	80.00	-4.92	36.88	4.17	0.00	34.03	299	102 PEAK	VERTICAL	

Item 1, 2 are the fundamental frequency at 5310 MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 40MHz Ch 102, 110, 134 / Ant. 1
<b>Test Date</b>	Sep. 10, 2009		

**Channel 102**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
			MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm
1	5456.800	68.98	80.00	-11.02	30.55	4.23	0.00	34.21	75	138	PEAK	VERTICAL
2 @	5460.000	57.29	60.00	-2.71	18.85	4.23	0.00	34.21	75	138	AVERAGE	VERTICAL
3 @	5470.000	73.64	74.30	-0.66	35.16	4.24	0.00	34.24	75	138	PEAK	VERTICAL
4 @	5522.000	99.53			60.95	4.27	0.00	34.30	75	138	AVERAGE	VERTICAL
5 @	5527.600	111.62			73.05	4.27	0.00	34.30	75	138	PEAK	VERTICAL

Item 4, 5 are the fundamental frequency at 5510MHz.

**Channel 110**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
			MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm
1 @	5460.000	70.90	80.00	-9.10	32.47	4.23	0.00	34.21	27	100	PEAK	VERTICAL
2 @	5460.000	58.70	60.00	-1.30	20.26	4.23	0.00	34.21	27	100	AVERAGE	VERTICAL
3 @	5470.000	73.30	74.30	-1.00	34.82	4.24	0.00	34.24	27	100	PEAK	VERTICAL
4 @	5539.600	111.30			72.73	4.27	0.00	34.31	27	100	AVERAGE	VERTICAL
5 @	5554.000	124.23			85.63	4.29	0.00	34.31	27	100	PEAK	VERTICAL

Item 4, 5 are the fundamental frequency at 5550 MHz.

**Channel 134**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
			MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm
1 @	5661.600	104.05			65.37	4.35	0.00	34.33	207	105	AVERAGE	VERTICAL
2 @	5664.400	116.88			78.21	4.35	0.00	34.33	207	105	PEAK	VERTICAL
3 @	5727.000	74.02	74.30	-0.28	35.29	4.39	0.00	34.34	207	105	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

**Note:**

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

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11a Ch 60, 64 / Ant. 1
Test Date	Sep. 10, 2009		

**Channel 60**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		Line	MHz	dBuV/m	dBuV/m	dB	dB	dB	dB/m	Pos	Pos	
1 @	5299.200	126.16			88.08	4.14	0.00	33.94	330	100	PEAK	VERTICAL
2 @	5299.200	116.14			78.05	4.14	0.00	33.94	330	100	AVERAGE	VERTICAL
3 @	5350.000	56.30	60.00	-3.70	18.10	4.17	0.00	34.03	330	100	AVERAGE	VERTICAL
4 @	5358.400	70.19	80.00	-9.81	31.98	4.17	0.00	34.03	330	100	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

**Channel 64**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		Line	MHz	dBuV/m	dBuV/m	dB	dB	dB	dB/m	Pos	Pos	
1 @	5317.400	124.13			86.00	4.16	0.00	33.97	360	100	PEAK	VERTICAL
2 @	5317.400	113.29			75.16	4.16	0.00	33.97	360	100	AVERAGE	VERTICAL
3 @	5351.800	58.86	60.00	-1.14	20.66	4.17	0.00	34.03	360	100	AVERAGE	VERTICAL
4 @	5351.800	76.49	80.00	-3.51	38.29	4.17	0.00	34.03	360	100	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11a Ch 100, 140 / Ant. 1
<b>Test Date</b>	Sep. 10, 2009		

### Channel 100

Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Pol/Phase
		Line	Limit	Level	Loss	Factor	Factor	Pos	Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm
1	5460.000	68.81	80.00	-11.19	30.37	4.23	0.00	34.21	43	105 PEAK VERTICAL
2 @	5460.000	56.49	60.00	-3.51	18.05	4.23	0.00	34.21	43	105 AVERAGE VERTICAL
3 @	5470.007	73.54	74.30	-0.76	35.06	4.24	0.00	34.24	43	105 PEAK VERTICAL
4 @	5505.000	110.47			71.93	4.26	0.00	34.28	43	105 AVERAGE VERTICAL
5 @	5505.400	121.17			82.63	4.26	0.00	34.28	43	105 PEAK VERTICAL

Item 4, 5 are the fundamental frequency at 5500 MHz.

### Channel 140

Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Pol/Phase
		Line	Limit	Level	Loss	Factor	Factor	Pos	Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm
1 @	5694.600	108.28			69.58	4.36	0.00	34.34	10	100 AVERAGE VERTICAL
2 @	5694.800	118.73			80.03	4.36	0.00	34.34	10	100 PEAK VERTICAL
3 @	5725.800	73.99	74.30	-0.31	35.25	4.39	0.00	34.34	10	100 PEAK VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

#### Note:

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

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

**<For Antenna 2>:**

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 20MHz Ch 60, 64 / Ant. 2
<b>Test Date</b>	Sep. 02, 2009		

**Channel 60**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		Line	dB			dBuV	dB	dB	dB/m	deg		
1	5302.800	114.20			76.11	4.14	0.00	33.94	170	142	PEAK	VERTICAL
2	5303.200	103.97			65.88	4.14	0.00	33.94	170	142	AVERAGE	VERTICAL
3 !	5350.000	55.73	60.00	-4.27	17.52	4.17	0.00	34.03	170	142	AVERAGE	VERTICAL
4	5350.000	65.96	80.00	-14.04	27.76	4.17	0.00	34.03	170	142	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

**Channel 64**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		Line	dB			dBuV	dB	dB	dB/m	deg		
1	5323.800	104.11			65.98	4.16	0.00	33.97	170	142	AVERAGE	VERTICAL
2	5327.000	116.31			78.18	4.16	0.00	33.97	170	142	PEAK	VERTICAL
3 !	5350.000	58.57	60.00	-1.43	20.37	4.17	0.00	34.03	170	142	AVERAGE	VERTICAL
4	5350.000	72.33	80.00	-7.67	34.13	4.17	0.00	34.03	170	142	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11n MCS8 20MHz Ch 100, 140 / Ant. 2
Test Date	Sep. 02, 2009		

**Channel 100**

Seq	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm	
1	5455.600	69.48	80.00	-10.52	31.05	4.23	0.00	34.21	160	139	PEAK VERTICAL
2 !	5460.000	55.80	60.00	-4.20	17.37	4.23	0.00	34.21	160	139	AVERAGE VERTICAL
3 !	5470.000	73.28	74.30	-1.02	34.80	4.24	0.00	34.24	160	139	PEAK VERTICAL
4	5502.200	117.61			79.07	4.26	0.00	34.28	160	139	PEAK VERTICAL
5	5502.200	105.28			66.74	4.26	0.00	34.28	160	139	AVERAGE VERTICAL

Item 4, 5 are the fundamental frequency at 5500 MHz.

**Channel 140**

Seq	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm	
1	5699.000	104.39			65.68	4.38	0.00	34.34	173	139	AVERAGE VERTICAL
2	5703.000	116.74			78.02	4.38	0.00	34.34	173	139	PEAK VERTICAL
3 !	5725.000	73.91	74.30	-0.39	35.18	4.39	0.00	34.34	173	139	PEAK VERTICAL

Item 1, 2 are the fundamental frequency at 5700MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 40MHz Ch 54, 62 / Ant. 2
<b>Test Date</b>	Sep. 02, 2009		

### Channel 54

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		Line	dB			Loss	Factor	Factor	Pos	Pos		
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB	dB/m	deg	cm		
1	5276.800	104.38			66.37	4.13	0.00	33.88	158	135	AVERAGE	VERTICAL
2	5277.200	115.17			77.16	4.13	0.00	33.88	158	135	PEAK	VERTICAL
3	5350.000	67.93	80.00	-12.07	29.73	4.17	0.00	34.03	158	135	PEAK	VERTICAL
4 !	5350.000	57.44	60.00	-2.56	19.24	4.17	0.00	34.03	158	135	AVERAGE	VERTICAL

Item 1, 2 are the fundamental frequency at 5270 MHz.

### Channel 62

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		Line	dB			dBuV	dB	dB	dB/m	deg		
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB	dB/m	deg	cm		
1	5318.000	110.36			72.23	4.16	0.00	33.97	148	135	PEAK	VERTICAL
2	5322.800	98.72			60.60	4.16	0.00	33.97	148	135	AVERAGE	VERTICAL
3 !	5350.000	59.01	60.00	-0.99	20.81	4.17	0.00	34.03	148	135	AVERAGE	VERTICAL
4 !	5352.000	79.07	80.00	-0.93	40.87	4.17	0.00	34.03	148	135	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5310 MHz.



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11n MCS8 40MHz Ch 102, 110, 134 / Ant. 2
Test Date	Sep. 02, 2009		

**Channel 102**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
1	5457.200	71.10	80.00	-8.90	32.66	4.23	0.00	34.21	159	138	PEAK	VERTICAL
2 !	5460.000	56.83	60.00	-3.17	18.39	4.23	0.00	34.21	159	138	AVERAGE	VERTICAL
3 !	5470.000	73.96	74.30	-0.34	35.48	4.24	0.00	34.24	159	138	PEAK	VERTICAL
4	5501.600	98.13			59.59	4.26	0.00	34.28	159	138	AVERAGE	VERTICAL
5	5505.200	110.94			72.40	4.26	0.00	34.28	159	138	PEAK	VERTICAL

Item 4, 5 are the fundamental frequency at 5510MHz.

**Channel 110**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
1	5459.200	68.51	80.00	-11.49	30.07	4.23	0.00	34.21	144	128	PEAK	VERTICAL
2 !	5460.000	55.67	60.00	-4.33	17.23	4.23	0.00	34.21	144	128	AVERAGE	VERTICAL
3 !	5468.000	68.33	74.30	-5.97	29.84	4.24	0.00	34.24	144	128	PEAK	VERTICAL
4	5541.200	102.38			63.80	4.27	0.00	34.31	144	128	AVERAGE	VERTICAL
5	5562.800	114.98			76.38	4.29	0.00	34.31	144	128	PEAK	VERTICAL

Item 4, 5 are the fundamental frequency at 5550 MHz.

**Channel 134**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
1	5676.000	113.81			75.12	4.36	0.00	34.33	144	128	PEAK	VERTICAL
2	5682.800	101.09			62.39	4.36	0.00	34.33	144	128	AVERAGE	VERTICAL
3 !	5725.000	73.37	74.30	-0.93	34.63	4.39	0.00	34.34	144	128	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

**Note:**

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

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11a Ch 60, 64 / Ant. 2
Test Date	Sep. 02, 2009		

**Channel 60**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm	
1	5302.000	106.65			68.56	4.14	0.00	33.94	159	137	AVERAGE	VERTICAL
2	5302.000	117.04			78.96	4.14	0.00	33.94	159	137	PEAK	VERTICAL
3	5350.000	67.19	80.00	-12.81	28.99	4.17	0.00	34.03	159	137	PEAK	VERTICAL
4 !	5350.000	55.19	60.00	-4.81	16.99	4.17	0.00	34.03	159	137	AVERAGE	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

**Channel 64**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm	
1	5321.600	116.29			78.16	4.16	0.00	33.97	169	135	PEAK	VERTICAL
2	5321.600	105.78			67.65	4.16	0.00	33.97	169	135	AVERAGE	VERTICAL
3 !	5352.000	56.27	60.00	-3.73	18.07	4.17	0.00	34.03	169	135	AVERAGE	VERTICAL
4	5352.200	69.90	80.00	-10.10	31.70	4.17	0.00	34.03	169	135	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11a Ch 100, 140 / Ant. 2
<b>Test Date</b>	Sep. 02, 2009		

**Channel 100**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamplifier	Antenna	Table	Ant	Remark	Pol/Phase
		Line	dB			dB	dB	dB/m	deg	cm		
1	5456.800	68.68	80.00	-11.32	30.25	4.23	0.00	34.21	169	136	PEAK	VERTICAL
2 !	5460.000	55.20	60.00	-4.80	16.76	4.23	0.00	34.21	169	136	AVERAGE	VERTICAL
3 !	5467.800	73.65	74.30	-0.65	35.19	4.23	0.00	34.24	169	136	PEAK	VERTICAL
4	5502.600	106.26			67.72	4.26	0.00	34.28	169	136	AVERAGE	VERTICAL
5	5503.000	117.24			78.70	4.26	0.00	34.28	169	136	PEAK	VERTICAL

Item 4, 5 are the fundamental frequency at 5500 MHz.

**Channel 140**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamplifier	Antenna	Table	Ant	Remark	Pol/Phase
		Line	dB			dB	dB	dB/m	deg	cm		
1	5694.000	115.14			76.44	4.36	0.00	34.34	64	104	PEAK	VERTICAL
2	5699.000	105.20			66.49	4.38	0.00	34.34	64	104	AVERAGE	VERTICAL
3 !	5728.600	72.89	74.30	-1.41	34.15	4.39	0.00	34.34	64	104	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

**Note:**

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

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

**<For Antenna 3>:**

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 20MHz Ch 60, 64 / Ant. 3
<b>Test Date</b>	Sep. 07, 2009		

**Channel 60**

Freq	Level	Over Limit	Limit Line	Read		Antenna	Preamplifier	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
				dBuV	dB/m							
1	5302.000	112.31		74.23	33.94	0.00	4.14	AVERAGE	HORIZONTAL	316	113	
2 @	5302.400	123.89		85.80	33.94	0.00	4.14	PERK	HORIZONTAL	316	113	
3 !	5350.000	56.89	-3.11	60.00	18.69	34.03	0.00	4.17	AVERAGE	HORIZONTAL	316	113
4	5354.400	71.57	-8.43	80.00	33.37	34.03	0.00	4.17	PERK	HORIZONTAL	316	113

Item 1, 2 are the fundamental frequency at 5300 MHz.

**Channel 64**

Freq	Level	Limit	Over	Read	Cable	Preamplifier	Antenna	Table	Ant	Pos	Remark	Pol/Phase
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm			
1 @	5321.400	120.85		82.73	4.16	0.00	33.97	309	116	PERK	HORIZONTAL	
2	5322.400	109.34		71.21	4.16	0.00	33.97	309	116	AVERAGE	HORIZONTAL	
3 !	5350.000	59.76	60.00	-0.24	21.56	4.17	0.00	34.03	309	116	AVERAGE	HORIZONTAL
4 !	5351.000	74.70	80.00	-5.30	36.49	4.17	0.00	34.03	309	116	PERK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5320 MHz.



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11n MCS8 20MHz Ch 100, 140 / Ant. 3
Test Date	Sep. 06, 2009		

**Channel 100**

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	5460.000	67.99	80.00	-12.01	29.57	4.23	0.00	34.19	314	115	PEAK	HORIZONTAL
2 !	5460.000	55.20	60.00	-4.80	16.78	4.23	0.00	34.19	314	115	AVERAGE	HORIZONTAL
3 !	5469.400	74.07	74.30	-0.23	35.62	4.24	0.00	34.21	314	115	PEAK	HORIZONTAL
4 @	5494.600	121.27			82.78	4.26	0.00	34.23	314	115	PEAK	HORIZONTAL
5	5497.600	108.79			70.30	4.26	0.00	34.23	314	115	AVERAGE	HORIZONTAL

Item 4, 5 are the fundamental frequency at 5500 MHz.

**Channel 140**

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	5695.200	117.57			78.87	4.36	0.00	34.34	40	114	PEAK	HORIZONTAL
2	5696.800	104.90			66.20	4.36	0.00	34.34	40	114	AVERAGE	HORIZONTAL
3 !	5725.400	73.84	74.30	-0.46	35.11	4.39	0.00	34.34	40	114	PEAK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 40MHz Ch 54, 62 / Ant. 3
<b>Test Date</b>	Sep. 06, 2009		

### Channel 54

	<b>Freq</b>	<b>Level</b>	<b>Limit</b>	<b>Over</b>	<b>Read</b>	Cable	Preamp	Antenna	Table	<b>Ant</b>	<b>Pol/Phase</b>
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm	
1	5263.600	118.24			80.23	4.13	0.00	33.88	48	119 PEAK	HORIZONTAL
2	5264.800	106.37			68.36	4.13	0.00	33.88	48	119 AVERAGE	HORIZONTAL
3 !	5350.000	59.00	60.00	-1.00	20.80	4.17	0.00	34.03	48	119 AVERAGE	HORIZONTAL
4	5354.400	73.50	80.00	-6.50	35.30	4.17	0.00	34.03	48	119 PEAK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5270 MHz.

### Channel 62

	<b>Freq</b>	<b>Level</b>	<b>Limit</b>	<b>Over</b>	<b>Read</b>	Cable	Preamp	Antenna	Table	<b>Ant</b>	<b>Pol/Phase</b>
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm	
1	5299.200	114.04			75.96	4.14	0.00	33.94	64	113 PEAK	HORIZONTAL
2	5314.400	102.26			64.14	4.14	0.00	33.97	64	113 AVERAGE	HORIZONTAL
3 !	5350.000	59.91	60.00	-0.09	21.70	4.17	0.00	34.03	64	113 AVERAGE	HORIZONTAL
4 !	5350.000	79.12	80.00	-0.88	40.91	4.17	0.00	34.03	64	113 PEAK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5310 MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 40MHz Ch 102, 110, 134 / Ant. 3
<b>Test Date</b>	Sep. 06, 2009		

**Channel 102**

	Freq	Level	Limit	Over	Read	Cable	Preamplifier	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
			MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm
1	5457.200	69.09	80.00	-10.91	30.68	4.23	0.00	34.19	71	114	PEAK	HORIZONTAL
2 !	5460.000	56.32	60.00	-3.68	17.91	4.23	0.00	34.19	71	114	AVERAGE	HORIZONTAL
3 !	5468.400	73.78	74.30	-0.52	35.33	4.24	0.00	34.21	71	114	PEAK	HORIZONTAL
4	5494.400	109.19			70.70	4.26	0.00	34.23	71	114	PEAK	HORIZONTAL
5	5521.200	100.08			61.54	4.27	0.00	34.27	71	114	AVERAGE	HORIZONTAL

Item 4, 5 are the fundamental frequency at 5510MHz.

**Channel 110**

	Freq	Level	Over	Limit	Read	Antenna	Preamplifier	Cable	Remark	Pol/Phase	Table Pos	Ant Pos
			Limit	Line	Level	Factor	Factor	Loss				
			MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m				
1	5458.800	71.95	-8.05	80.00	33.53	34.19	0.00	4.23	PERK	HORIZONTAL	321	110
2 !	5460.000	56.85	-3.15	60.00	18.44	34.19	0.00	4.23	AVERAGE	HORIZONTAL	321	110
3 !	5468.800	73.36	-0.94	74.30	34.91	34.21	0.00	4.24	AVERAGE	HORIZONTAL	321	110
4 @	5544.000	120.25			81.69	34.29	0.00	4.27	PERK	HORIZONTAL	321	110
5	5554.800	107.29			68.69	34.31	0.00	4.29	AVERAGE	HORIZONTAL	321	110

Item 4, 5 are the fundamental frequency at 5550 MHz.

**Channel 134**

	Freq	Level	Limit	Over	Read	Cable	Preamplifier	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
			MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		
1	5662.000	100.87			62.20	4.35	0.00	34.33	46	135	AVERAGE	HORIZONTAL
2	5664.400	114.72			76.05	4.35	0.00	34.33	46	135	PERK	HORIZONTAL
3 !	5727.000	73.77	74.30	-0.53	35.04	4.39	0.00	34.34	46	135	PERK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

**Note:**

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

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11a Ch 60, 64 / Ant. 3
<b>Test Date</b>	Sep. 06, 2009		

### Channel 60

Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Pol/Phase	
		Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
MHz	dBuV/m	dBuV/m		dB	dBuV		dB	dB/m	deg	cm	
1 @	5296.400	123.44	74.30			4.14	0.00	33.91	49	141 PEAK	HORIZONTAL
2	5296.800	113.30	74.30			4.14	0.00	33.94	49	141 PEAK	HORIZONTAL
3 !	5351.200	74.43	80.00	-5.57	36.23	4.17	0.00	34.03	49	141 PEAK	HORIZONTAL
4	5351.600	56.89	80.00	-23.11	18.69	4.17	0.00	34.03	49	141 PEAK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

### Channel 64

Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Pol/Phase	
		Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
MHz	dBuV/m	dBuV/m		dB	dBuV		dB	dB/m	deg	cm	
1	5321.600	111.84			73.71	4.16	0.00	33.97	56	116 AVERAGE	HORIZONTAL
2 @	5322.400	121.88			83.75	4.16	0.00	33.97	56	116 PEAK	HORIZONTAL
3 !	5351.200	59.27	60.00	-0.73	21.07	4.17	0.00	34.03	56	116 AVERAGE	HORIZONTAL
4 !	5351.600	77.42	80.00	-2.58	39.22	4.17	0.00	34.03	56	116 PEAK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11a Ch 100, 140 / Ant. 3
<b>Test Date</b>	Sep. 06, 2009		

### Channel 100

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	5459.000	68.82	80.00	-11.18	30.40	4.23	0.00	34.19	328	111	PEAK	HORIZONTAL
2 !	5460.000	55.04	60.00	-4.96	16.62	4.23	0.00	34.19	328	111	AVERAGE	HORIZONTAL
3 !	5469.800	74.25	74.30	-0.05	35.80	4.24	0.00	34.21	328	111	PEAK	HORIZONTAL
4	5504.800	118.11			79.61	4.26	0.00	34.25	328	111	PEAK	HORIZONTAL
5	5505.200	109.05			70.55	4.26	0.00	34.25	328	111	AVERAGE	HORIZONTAL

Item 4, 5 are the fundamental frequency at 5500 MHz.

### Channel 140

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	5702.200	107.32			68.61	4.38	0.00	34.34	328	112	AVERAGE	HORIZONTAL
2	5702.600	117.69			78.98	4.38	0.00	34.34	328	112	PEAK	HORIZONTAL
3 !	5726.600	73.37	74.30	-0.93	34.63	4.39	0.00	34.34	328	112	PERK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

#### Note:

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

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].



&lt;For Antenna 4&gt;:

Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11n MCS8 20MHz Ch 60, 64 / Ant. 4
Test Date	Sep. 08, 2009		

## Channel 60

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		MHz	dBuV/m	Line	dB	dBuV	dB	dB	dB/m	deg	cm	
1 @	5298.000	125.13			87.05	4.14	0.00	33.94	170	114	PEAK	VERTICAL
2	5302.000	112.72			74.63	4.14	0.00	33.94	170	114	AVERAGE	VERTICAL
3 !	5350.000	57.28	60.00	-2.72	19.08	4.17	0.00	34.03	170	114	AVERAGE	VERTICAL
4	5350.800	73.12	80.00	-6.88	34.92	4.17	0.00	34.03	170	114	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

## Channel 64

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		MHz	dBuV/m	Line	dB	dBuV	dB	dB	dB/m	deg	cm	
1	5317.200	110.31			72.18	4.16	0.00	33.97	113	100	AVERAGE	VERTICAL
2 @	5318.000	123.07			84.94	4.16	0.00	33.97	113	100	PEAK	VERTICAL
3 !	5350.000	59.63	60.00	-0.37	21.43	4.17	0.00	34.03	113	100	AVERAGE	VERTICAL
4 !	5350.000	75.69	80.00	-4.31	37.49	4.17	0.00	34.03	113	100	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 20MHz Ch 100,140 / Ant. 4
<b>Test Date</b>	Sep. 08, 2009		

**Channel 100**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		Line	dB			dBuV	dB	dB	dB/m	deg		
1	5460.000	68.22	80.00	-11.78	29.78	4.23	0.00	34.21	149	100 PEAK	VERTICAL	
2 !	5460.000	56.08	60.00	-3.92	17.64	4.23	0.00	34.21	149	100 AVERAGE	VERTICAL	
3 !	5469.200	74.11	74.30	-0.19	35.63	4.24	0.00	34.24	149	100 PEAK	VERTICAL	
4	5505.800	108.52			69.98	4.26	0.00	34.28	149	100 AVERAGE	VERTICAL	
5	5506.600	120.83			82.29	4.26	0.00	34.28	149	100 PEAK	VERTICAL	

Item 4, 5 are the fundamental frequency at 5500 MHz.

**Channel 140**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		Line	dB			dBuV	dB	dB	dB/m	deg		
1	5705.800	117.53			78.81	4.38	0.00	34.34	314	100 PEAK	VERTICAL	
2	5706.000	104.98			66.26	4.38	0.00	34.34	314	100 AVERAGE	VERTICAL	
3 !	5725.000	73.43	74.30	-0.87	34.70	4.39	0.00	34.34	314	100 PEAK	VERTICAL	

Item 1, 2 are the fundamental frequency at 5700 MHz.



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11n MCS8 40MHz Ch 54, 62 / Ant. 4
Test Date	Sep. 08, 2009		

**Channel 54**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		Line	dBuV/m			Loss	Factor	Factor	Pos	Pos		
1	5278.800	117.77			79.76	4.13	0.00	33.88	105	103	PERK	VERTICAL
2	5284.800	107.47			69.43	4.13	0.00	33.91	105	103	AVERAGE	VERTICAL
3 !	5350.000	59.08	60.00	-0.92	20.87	4.17	0.00	34.03	105	103	AVERAGE	VERTICAL
4	5350.000	73.62	80.00	-6.38	35.41	4.17	0.00	34.03	105	103	PERK	VERTICAL

Item 1, 2 are the fundamental frequency at 5270 MHz.

**Channel 62**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		Line	dBuV/m			Loss	Factor	Factor	Pos	Pos		
1	5296.800	103.95			65.86	4.14	0.00	33.94	105	103	AVERAGE	VERTICAL
2	5300.000	116.30			78.22	4.14	0.00	33.94	105	103	PEAK	VERTICAL
3 !	5350.000	59.83	60.00	-0.17	21.63	4.17	0.00	34.03	105	103	AVERAGE	VERTICAL
4 !	5350.000	78.49	80.00	-1.51	40.29	4.17	0.00	34.03	105	103	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5310 MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 40MHz Ch 102, 110, 134 / Ant. 4
<b>Test Date</b>	Sep. 08, 2009		

**Channel 102**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
	MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm	
1	5460.000	67.42	80.00	-12.58	28.99	4.23	0.00	34.21	328	100	PEAK	VERTICAL
2 !	5460.000	56.34	60.00	-3.66	17.90	4.23	0.00	34.21	328	100	AVERAGE	VERTICAL
3 !	5470.000	73.24	74.30	-1.06	34.76	4.24	0.00	34.24	328	100	PEAK	VERTICAL
4	5522.400	113.58			75.01	4.27	0.00	34.30	328	100	PEAK	VERTICAL
5	5522.400	100.95			62.38	4.27	0.00	34.30	328	100	AVERAGE	VERTICAL

Item 4, 5 are the fundamental frequency at 5510MHz.

**Channel 110**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
	MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm	
1	5457.600	70.29	80.00	-9.71	31.86	4.23	0.00	34.21	148	100	PEAK	VERTICAL
2 !	5460.000	56.80	60.00	-3.20	18.36	4.23	0.00	34.21	148	100	AVERAGE	VERTICAL
3 !	5469.200	73.25	74.30	-1.05	34.77	4.24	0.00	34.24	148	100	PEAK	VERTICAL
4	5561.200	106.02			67.43	4.29	0.00	34.31	148	100	AVERAGE	VERTICAL
5	5564.400	119.19			80.60	4.29	0.00	34.31	148	100	PEAK	VERTICAL

Item 4, 5 are the fundamental frequency at 5550 MHz.

**Channel 134**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
	MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm	
1	5653.600	118.33			79.66	4.35	0.00	34.33	126	105	PEAK	VERTICAL
2	5667.600	105.29			66.61	4.35	0.00	34.33	126	105	AVERAGE	VERTICAL
3 !	5727.000	73.69	74.30	-0.61	34.96	4.39	0.00	34.34	126	105	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

**Note:**

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

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11a Ch 60, 64 / Ant. 4
Test Date	Sep. 07, 2009		

**Channel 60**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamplifier	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	
1	5302.000	117.57			79.49	4.14	0.00	33.94	106	106	AVERAGE	VERTICAL
2 @	5302.400	127.88			89.79	4.14	0.00	33.94	106	106	PEAK	VERTICAL
3 !	5350.800	75.95	80.00	-4.05	37.75	4.17	0.00	34.03	106	106	PEAK	VERTICAL
4 !	5351.200	58.65	60.00	-1.35	20.44	4.17	0.00	34.03	106	106	AVERAGE	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

**Channel 64**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamplifier	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	
1 @	5313.600	123.33			85.24	4.14	0.00	33.94	106	105	PEAK	VERTICAL
2	5317.400	112.51			74.38	4.16	0.00	33.97	106	105	AVERAGE	VERTICAL
3 !	5351.700	59.25	60.00	-0.75	21.05	4.17	0.00	34.03	106	105	AVERAGE	VERTICAL
4 !	5351.800	77.59	80.00	-2.41	39.39	4.17	0.00	34.03	106	105	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11a Ch 100, 140 / Ant. 4
<b>Test Date</b>	Sep. 07, 2009		

### Channel 100

	<b>Freq</b>	<b>Level</b>	<b>Limit</b>	<b>Over</b>	<b>Read</b>	<b>Cable</b>	<b>Preamp</b>	<b>Antenna</b>	<b>Table</b>	<b>Ant</b>	<b>Pol/Phase</b>
			<b>Line</b>	<b>Limit</b>	<b>Level</b>	<b>Loss</b>	<b>Factor</b>	<b>Factor</b>	<b>Table Pos</b>	<b>Ant Pos</b>	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm	
1	5460.000	68.77	80.00	-11.23	30.34	4.23	0.00	34.21	133	110	PEAK VERTICAL
2 !	5460.000	55.23	60.00	-4.77	16.80	4.23	0.00	34.21	133	110	AVERAGE VERTICAL
3 !	5466.600	74.10	74.30	-0.20	35.66	4.23	0.00	34.21	133	110	PEAK VERTICAL
4	5495.600	112.81			74.29	4.26	0.00	34.26	133	110	AVERAGE VERTICAL
5 @	5495.800	123.13			84.61	4.26	0.00	34.26	133	110	PEAK VERTICAL

Item 4, 5 are the fundamental frequency at 5500 MHz.

### Channel 140

	<b>Freq</b>	<b>Level</b>	<b>Limit</b>	<b>Over</b>	<b>Read</b>	<b>Cable</b>	<b>Preamp</b>	<b>Antenna</b>	<b>Table</b>	<b>Ant</b>	<b>Pol/Phase</b>
			<b>Line</b>	<b>Limit</b>	<b>Level</b>	<b>Loss</b>	<b>Factor</b>	<b>Factor</b>	<b>Table Pos</b>	<b>Ant Pos</b>	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm	
1	5698.600	111.17			72.46	4.38	0.00	34.34	306	110	AVERAGE VERTICAL
2 @	5704.200	122.66			83.95	4.38	0.00	34.34	306	110	PEAK VERTICAL
3 !	5725.000	73.97	74.30	-0.33	35.23	4.39	0.00	34.34	306	110	PEAK VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

### Note:

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

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

**<For Antenna 5>:**

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 20MHz Ch 60, 64 / Ant. 5
<b>Test Date</b>	Sep. 03, 2009		

**Channel 60**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	
1 @	5297.600	112.84			74.76	4.14	0.00	33.94	336	122	AVERAGE	VERTICAL
2 @	5303.600	124.44			86.36	4.14	0.00	33.94	336	122	PEAK	VERTICAL
3 @	5350.000	70.67	80.00	-9.33	32.46	4.17	0.00	34.03	336	122	PEAK	VERTICAL
4 @	5350.000	57.16	60.00	-2.84	18.95	4.17	0.00	34.03	336	122	AVERAGE	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

**Channel 64**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	
1 @	5319.000	123.06			84.94	4.16	0.00	33.97	13	116	PERK	VERTICAL
2 @	5322.400	110.53			72.40	4.16	0.00	33.97	13	116	AVERAGE	VERTICAL
3 @	5350.000	59.73	60.00	-0.27	21.52	4.17	0.00	34.03	13	116	AVERAGE	VERTICAL
4 @	5350.400	76.53	80.00	-3.47	38.33	4.17	0.00	34.03	13	116	PERK	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11n MCS8 20MHz Ch 100, 140 / Ant. 5
Test Date	Sep. 03, 2009		

**Channel 100**

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm	
1	5458.600	69.86	80.00	-10.14	31.42	4.23	0.00	34.21	339	116	PEAK	VERTICAL
2 @	5460.000	56.19	60.00	-3.81	17.75	4.23	0.00	34.21	339	116	AVERAGE	VERTICAL
3 @	5470.000	74.11	74.30	-0.19	35.63	4.24	0.00	34.24	339	116	PEAK	VERTICAL
4 @	5494.400	122.99			84.47	4.26	0.00	34.26	339	116	PEAK	VERTICAL
5 @	5504.600	109.80			71.26	4.26	0.00	34.28	339	116	AVERAGE	VERTICAL

Item 4, 5 are the fundamental frequency at 5500 MHz.

**Channel 140**

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm	
1 @	5698.000	118.20			79.48	4.38	0.00	34.34	10	117	PEAK	VERTICAL
2 @	5701.400	105.91			67.19	4.38	0.00	34.34	10	117	AVERAGE	VERTICAL
3 @	5725.000	73.59	74.30	-0.71	34.86	4.39	0.00	34.34	10	117	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11n MCS8 40MHz Ch 54, 62 / Ant. 5
Test Date	Sep. 03, 2009		

**Channel 54**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Pol/Phase
		Line	dBuV/m			Loss	Factor	Factor	Pos	Pos	
1 @	5265.200	121.48			83.47	4.13	0.00	33.88	5	107 PEAK	VERTICAL
2 @	5286.400	108.48			70.44	4.13	0.00	33.91	5	107 AVERAGE	VERTICAL
3 @	5350.000	59.96	60.00	-0.04	21.75	4.17	0.00	34.03	5	107 AVERAGE	VERTICAL
4 @	5353.200	74.81	80.00	-5.19	36.61	4.17	0.00	34.03	5	107 PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5270 MHz.

**Channel 62**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Pol/Phase
		Line	dBuV/m			Loss	Factor	Factor	Pos	Pos	
1 @	5321.600	103.09			64.96	4.16	0.00	33.97	4	111 AVERAGE	VERTICAL
2 @	5323.200	115.92			77.79	4.16	0.00	33.97	4	111 PEAK	VERTICAL
3 @	5350.000	59.54	60.00	-0.46	21.34	4.17	0.00	34.03	4	111 AVERAGE	VERTICAL
4 @	5350.000	77.34	80.00	-2.66	39.14	4.17	0.00	34.03	4	111 PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5310 MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 40MHz Ch 102, 110, 134 / Ant. 5
<b>Test Date</b>	Sep. 03, 2009		

**Channel 102**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	5460.000	69.52	80.00	-10.48	31.08	4.23	0.00	34.21	338	118	PEAK	VERTICAL
2 @	5460.000	57.33	60.00	-2.67	18.89	4.23	0.00	34.21	338	118	AVERAGE	VERTICAL
3 @	5470.000	73.57	74.30	-0.73	35.09	4.24	0.00	34.24	338	118	PEAK	VERTICAL
4 @	5497.200	114.29			75.77	4.26	0.00	34.26	338	118	PEAK	VERTICAL
5 @	5502.800	102.58			64.04	4.26	0.00	34.28	338	118	AVERAGE	VERTICAL

Item 4, 5 are the fundamental frequency at 5510MHz.

**Channel 110**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	5460.000	69.51	80.00	-10.49	31.07	4.23	0.00	34.21	8	117	PEAK	VERTICAL
2 @	5460.000	56.99	60.00	-3.01	18.55	4.23	0.00	34.21	8	117	AVERAGE	VERTICAL
3 @	5466.000	73.54	74.30	-0.76	35.10	4.23	0.00	34.21	8	117	PEAK	VERTICAL
4 @	5536.400	108.79			70.21	4.27	0.00	34.31	8	117	AVERAGE	VERTICAL
5 @	5541.600	122.03			83.45	4.27	0.00	34.31	8	117	PEAK	VERTICAL

Item 4, 5 are the fundamental frequency at 5550 MHz.

**Channel 134**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 @	5664.400	104.47			65.80	4.35	0.00	34.33	8	114	AVERAGE	VERTICAL
2 @	5666.800	118.02			79.35	4.35	0.00	34.33	8	114	PEAK	VERTICAL
3 @	5725.800	73.75	74.30	-0.55	35.02	4.39	0.00	34.34	8	114	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

**Note:**

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

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11a Ch 60, 64 / Ant. 5
Test Date	Sep. 03, 2009		

**Channel 60**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamplifier	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	
1 @	5304.400	127.20			89.12	4.14	0.00	33.94	13	108	PEAK	VERTICAL
2 @	5304.800	116.56			78.47	4.14	0.00	33.94	13	108	AVERAGE	VERTICAL
3 @	5350.000	58.49	60.00	-1.51	20.28	4.17	0.00	34.03	13	108	AVERAGE	VERTICAL
4 @	5354.400	75.94	80.00	-4.06	37.73	4.17	0.00	34.03	13	108	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

**Channel 64**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamplifier	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	
1 @	5324.200	122.92			84.79	4.16	0.00	33.97	7	112	PEAK	VERTICAL
2 @	5324.200	112.33			74.20	4.16	0.00	33.97	7	112	AVERAGE	VERTICAL
3 @	5350.000	59.57	60.00	-0.43	21.37	4.17	0.00	34.03	7	112	AVERAGE	VERTICAL
4 @	5351.000	73.62	80.00	-6.38	35.42	4.17	0.00	34.03	7	112	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5320 MHz.



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11a Ch 100, 140 / Ant. 5
Test Date	Sep. 03, 2009		

**Channel 100**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	5459.600	69.16	80.00	-10.84	30.73	4.23	0.00	34.21	337	118	PEAK	VERTICAL
2 @	5460.000	55.91	60.00	-4.09	17.47	4.23	0.00	34.21	337	118	AVERAGE	VERTICAL
3 @	5468.800	73.64	74.30	-0.66	35.16	4.24	0.00	34.24	337	118	PEAK	VERTICAL
4 @	5503.600	122.16			83.62	4.26	0.00	34.28	337	118	PEAK	VERTICAL
5 @	5503.800	111.81			73.28	4.26	0.00	34.28	337	118	AVERAGE	VERTICAL

Item 4, 5 are the fundamental frequency at 5500 MHz.

**Channel 140**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 @	5699.000	109.14			70.43	4.38	0.00	34.34	6	116	AVERAGE	VERTICAL
2 @	5699.200	117.87			79.16	4.38	0.00	34.34	6	116	PEAK	VERTICAL
3 @	5725.000	73.44	74.30	-0.86	34.70	4.39	0.00	34.34	6	116	PEAK	VERTICAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

**Note:**

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

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

**<For Antenna 6>:**

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 20MHz Ch 60, 64 / Ant. 6
<b>Test Date</b>	Sep. 05, 2009		

**Channel 60**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm
1 @	5295.600	126.93			88.88	4.14	0.00	33.91	47	106	PEAK	HORIZONTAL
2	5300.800	114.65			76.57	4.14	0.00	33.94	47	106	AVERAGE	HORIZONTAL
3 !	5351.200	57.35	60.00	-2.65	19.15	4.17	0.00	34.03	47	106	AVERAGE	HORIZONTAL
4	5351.200	72.04	80.00	-7.96	33.84	4.17	0.00	34.03	47	106	PEAK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

**Channel 64**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m		dB	dBuV	dB	dB	dB/m	deg	cm
1	5322.200	111.83			73.70	4.16	0.00	33.97	296	100	AVERAGE	HORIZONTAL
2 @	5323.400	125.06			86.93	4.16	0.00	33.97	296	100	PEAK	HORIZONTAL
3 !	5350.000	59.61	60.00	-0.39	21.41	4.17	0.00	34.03	296	100	AVERAGE	HORIZONTAL
4	5350.000	73.91	80.00	-6.09	35.71	4.17	0.00	34.03	296	100	PEAK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5320 MHz.



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11n MCS8 20MHz Ch 100, 140 / Ant. 6
Test Date	Sep. 05, 2009		

**Channel 100**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamplifier	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	Line	dB	dBuV	dB	dB	dB/m	deg	cm	
1	5460.000	69.08	80.00	-10.92	30.67	4.23	0.00	34.19	288	100	PEAK	HORIZONTAL
2 !	5460.000	56.32	60.00	-3.68	17.91	4.23	0.00	34.19	288	100	AVERAGE	HORIZONTAL
3 !	5467.000	73.65	74.30	-0.65	35.24	4.23	0.00	34.19	288	100	PEAK	HORIZONTAL
4	5494.400	123.98			85.49	4.26	0.00	34.23	288	100	PEAK	HORIZONTAL
5	5504.200	111.55			73.04	4.26	0.00	34.25	288	100	AVERAGE	HORIZONTAL

Item 4, 5 are the fundamental frequency at 5500 MHz.

**Channel 140**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamplifier	Antenna	Table Pos	Ant Pos	Remark	Pol/Phase
		MHz	dBuV/m	Line	dB	dBuV	dB	dB	dB/m	deg	cm	
1	5696.000	108.68			69.99	4.36	0.00	34.34	32	100	AVERAGE	HORIZONTAL
2	5705.400	121.45			82.74	4.38	0.00	34.34	32	100	PERK	HORIZONTAL
3 !	5725.600	73.47	74.30	-0.83	34.74	4.39	0.00	34.34	32	100	PERK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5700 MHz.



Temperature	21°C	Humidity	56%
Test Engineer	Beck Wu	Configurations	802.11n MCS8 40MHz Ch 54, 62 / Ant. 6
Test Date	Sep. 05, 2009		

**Channel 54**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		MHz	dBuV/m	Line	dB	dBuV	dB	dB	dB/m	Pos	deg	cm
1	5260.800	109.75			71.78	4.12	0.00	33.85	291	100	AVERAGE	HORIZONTAL
2	5276.000	121.83			83.82	4.13	0.00	33.88	291	100	PEAK	HORIZONTAL
3 !	5350.000	59.76	60.00	-0.24	21.56	4.17	0.00	34.03	291	100	AVERAGE	HORIZONTAL
4 !	5350.000	74.40	80.00	-5.60	36.19	4.17	0.00	34.03	291	100	PEAK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5270 MHz.

**Channel 62**

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
		MHz	dBuV/m	Line	dB	dBuV	dB	dB	dB/m	Pos	deg	cm
1	5316.400	103.52			65.39	4.16	0.00	33.97	292	100	AVERAGE	HORIZONTAL
2	5326.400	116.12			78.00	4.16	0.00	33.97	292	100	PEAK	HORIZONTAL
3 !	5350.000	59.36	60.00	-0.64	21.16	4.17	0.00	34.03	292	100	AVERAGE	HORIZONTAL
4	5350.800	73.52	80.00	-6.48	35.32	4.17	0.00	34.03	292	100	PEAK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5310 MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11n MCS8 40MHz Ch 102, 110, 134 / Ant. 6
<b>Test Date</b>	Sep. 05, 2009		

**Channel 102**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	5460.000	68.59	80.00	-11.41	30.17	4.23	0.00	34.19	288	100	PEAK	HORIZONTAL
2 !	5460.000	56.57	60.00	-3.43	18.16	4.23	0.00	34.19	288	100	AVERAGE	HORIZONTAL
3 !	5468.200	73.93	74.30	-0.37	35.48	4.24	0.00	34.21	288	100	PEAK	HORIZONTAL
4	5503.600	102.18			63.68	4.26	0.00	34.25	288	100	AVERAGE	HORIZONTAL
5	5514.000	115.59			77.09	4.26	0.00	34.25	288	100	PEAK	HORIZONTAL

Item 4, 5 are the fundamental frequency at 5510MHz.

**Channel 110**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 !	5460.000	57.33	60.00	-2.67	18.91	4.23	0.00	34.19	285	100	AVERAGE	HORIZONTAL
2	5460.000	68.92	80.00	-11.08	30.50	4.23	0.00	34.19	285	100	PEAK	HORIZONTAL
3 !	5465.200	73.53	74.30	-0.77	35.11	4.23	0.00	34.19	285	100	PEAK	HORIZONTAL
4	5542.400	110.68			72.12	4.27	0.00	34.29	285	100	AVERAGE	HORIZONTAL
5	5557.200	123.66			85.06	4.29	0.00	34.31	285	100	PEAK	HORIZONTAL

Item 4, 5 are the fundamental frequency at 5550 MHz.

**Channel 134**

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	Table	Ant	Remark	Pol/Phase
			Line	Limit	Level	Loss	Factor	Factor	Pos	Pos		
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	5654.400	119.34			80.66	4.35	0.00	34.33	290	100	PEAK	HORIZONTAL
2	5656.400	106.92			68.24	4.35	0.00	34.33	290	100	AVERAGE	HORIZONTAL
3 !	5727.000	73.56	74.30	-0.74	34.83	4.39	0.00	34.34	290	100	PEAK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5670 MHz.

**Note:**

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

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11a Ch 60, 64 / Ant. 6
<b>Test Date</b>	Sep. 05, 2009		

### Channel 60

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamplifier	Antenna	Table	Ant	Pos	Remark	Pol/Phase
		Line	MHz			dB	dBuV	dB	dB	dB/m	deg		
1 @	5294.400	127.71			89.65	4.14	0.00	33.91	40	101	PEAK		HORIZONTAL
2	5304.400	117.90			79.82	4.14	0.00	33.94	40	101	AVERAGE		HORIZONTAL
3 !	5350.000	75.22	80.00	-4.78	37.02	4.17	0.00	34.03	40	101	PEAK		HORIZONTAL
4 !	5350.000	58.06	60.00	-1.94	19.86	4.17	0.00	34.03	40	101	AVERAGE		HORIZONTAL

Item 1, 2 are the fundamental frequency at 5300 MHz.

### Channel 64

Freq	Level	Limit		Over Limit	Read Level	Cable	Preamplifier	Antenna	Table	Ant	Pos	Remark	Pol/Phase
		Line	MHz			dB	dBuV	dB	dB	dB/m	deg		
1 @	5321.600	125.25			87.12	4.16	0.00	33.97	293	100	PEAK		HORIZONTAL
2	5321.600	114.72			76.59	4.16	0.00	33.97	293	100	AVERAGE		HORIZONTAL
3 !	5351.200	59.32	60.00	-0.68	21.12	4.17	0.00	34.03	293	100	AVERAGE		HORIZONTAL
4 !	5351.600	76.63	80.00	-3.37	38.43	4.17	0.00	34.03	293	100	PEAK		HORIZONTAL

Item 1, 2 are the fundamental frequency at 5320 MHz.

<b>Temperature</b>	21°C	<b>Humidity</b>	56%
<b>Test Engineer</b>	Beck Wu	<b>Configurations</b>	802.11a Ch 100, 140 / Ant. 6
<b>Test Date</b>	Sep. 05, 2009		

### Channel 100

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	5460.000	67.78	80.00	-12.22	29.37	4.23	0.00	34.19	292	100	PEAK	HORIZONTAL
2 !	5460.000	55.71	60.00	-4.29	17.30	4.23	0.00	34.19	292	100	AVERAGE	HORIZONTAL
3 !	5470.000	72.86	74.30	-1.44	34.41	4.24	0.00	34.21	292	100	PEAK	HORIZONTAL
4	5501.000	113.05			74.56	4.26	0.00	34.23	292	100	AVERAGE	HORIZONTAL
5	5501.200	123.61			85.10	4.26	0.00	34.25	292	100	PEAK	HORIZONTAL

Item 4, 5 are the fundamental frequency at 5500 MHz.

### Channel 140

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Table Pos	Ant Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	5701.200	120.88			82.17	4.38	0.00	34.34	296	100	PEAK	HORIZONTAL
2	5701.600	110.17			71.46	4.38	0.00	34.34	296	100	AVERAGE	HORIZONTAL
3 !	5727.000	73.54	74.30	-0.76	34.81	4.39	0.00	34.34	296	100	PEAK	HORIZONTAL

Item 1, 2 are the fundamental frequency at 5700 MHz.

#### Note:

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

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

The limits above 5GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

## 4.8. Frequency Stability Measurement

### 4.8.1. Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emissions is maintained within the band of operation under all conditions of normal operation as specified in the user's manual or  $\pm 20\text{ppm}$  (802.11n specification).

### 4.8.2. Measuring Instruments and Setting

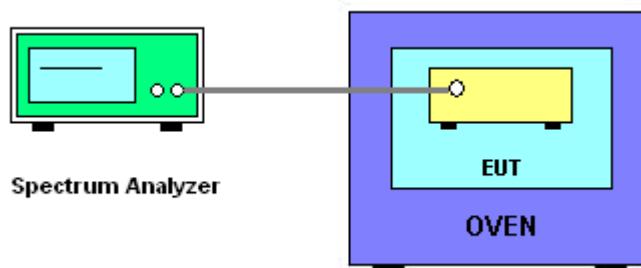
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RB	10 kHz
VB	10 kHz
Sweep Time	Auto

### 4.8.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5. fc is declaring of channel frequency. Then the frequency error formula is  $(f_c - f)/f_c \times 10^6 \text{ ppm}$  and the limit is less than  $\pm 20\text{ppm}$  (802.11n specification).
6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
7. Extreme temperature rule is  $-30^\circ\text{C} \sim 50^\circ\text{C}$ .
8. Measuring multiple antennas, the connector is required to link with spectrum analyzer through a combiner.

### 4.8.4. Test Setup Layout



#### 4.8.5. Test Deviation

There is no deviation with the original standard.

#### 4.8.6. EUT Operation during Test

The EUT was programmed to be in continuously un-modulation transmitting mode.

#### 4.8.7. Test Result of Frequency Stability

<For Antenna 1>:

##### Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5300
126.50	5300.0139
110.00	5300.0238
93.50	5300.0264
Max. Deviation (MHz)	0.026350
Max. Deviation (ppm)	4.97

##### Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)
(°C)	5300
-30	5299.9839
-20	5299.9662
-10	5299.9541
0	5299.9516
10	5299.9544
20	5299.9584
30	5299.9580
40	5299.9528
50	5299.9528
Max. Deviation (MHz)	0.048400
Max. Deviation (ppm)	9.1321

**<For Antenna 2>:**
**Voltage vs. Frequency Stability**

<b>Voltage</b>	<b>Measurement Frequency (MHz)</b>
(V)	<b>5300</b>
126.50	5300.0139
110.00	5300.0238
93.50	5300.0264
Max. Deviation (MHz)	<b>0.026350</b>
Max. Deviation (ppm)	<b>4.97</b>

**Temperature vs. Frequency Stability**

<b>Temperature</b>	<b>Measurement Frequency (MHz)</b>
(°C)	<b>5300</b>
-30	5299.9839
-20	5299.9662
-10	5299.9541
0	5299.9516
10	5299.9544
20	5299.9584
30	5299.9580
40	5299.9528
50	5299.9528
Max. Deviation (MHz)	<b>0.048400</b>
Max. Deviation (ppm)	<b>9.1321</b>

**<For Antenna 3>:**
**Voltage vs. Frequency Stability**

<b>Voltage</b>	<b>Measurement Frequency (MHz)</b>
(V)	<b>5300</b>
126.50	5300.0139
110.00	5300.0238
93.50	5300.0264
Max. Deviation (MHz)	<b>0.026350</b>
Max. Deviation (ppm)	<b>4.97</b>

**Temperature vs. Frequency Stability**

<b>Temperature</b>	<b>Measurement Frequency (MHz)</b>
(°C)	<b>5300</b>
-30	5299.9839
-20	5299.9662
-10	5299.9541
0	5299.9516
10	5299.9544
20	5299.9584
30	5299.9580
40	5299.9528
50	5299.9528
Max. Deviation (MHz)	<b>0.048400</b>
Max. Deviation (ppm)	<b>9.1321</b>

**<For Antenna 4>:**
**Voltage vs. Frequency Stability**

<b>Voltage</b>	<b>Measurement Frequency (MHz)</b>
(V)	<b>5300</b>
126.50	5300.0139
110.00	5300.0238
93.50	5300.0264
Max. Deviation (MHz)	<b>0.026350</b>
Max. Deviation (ppm)	<b>4.97</b>

**Temperature vs. Frequency Stability**

<b>Temperature</b>	<b>Measurement Frequency (MHz)</b>
(°C)	<b>5300</b>
-30	5299.9839
-20	5299.9662
-10	5299.9541
0	5299.9516
10	5299.9544
20	5299.9584
30	5299.9580
40	5299.9528
50	5299.9528
Max. Deviation (MHz)	<b>0.048400</b>
Max. Deviation (ppm)	<b>9.1321</b>

**<For Antenna 5>:**
**Voltage vs. Frequency Stability**

<b>Voltage</b>	<b>Measurement Frequency (MHz)</b>
(V)	<b>5300</b>
126.50	5300.0139
110.00	5300.0238
93.50	5300.0264
Max. Deviation (MHz)	<b>0.026350</b>
Max. Deviation (ppm)	<b>4.97</b>

**Temperature vs. Frequency Stability**

<b>Temperature</b>	<b>Measurement Frequency (MHz)</b>
(°C)	<b>5300</b>
-30	5299.9839
-20	5299.9662
-10	5299.9541
0	5299.9516
10	5299.9544
20	5299.9584
30	5299.9580
40	5299.9528
50	5299.9528
Max. Deviation (MHz)	<b>0.048400</b>
Max. Deviation (ppm)	<b>9.1321</b>

<For Antenna 6>:

**Voltage vs. Frequency Stability**

<b>Voltage</b>	<b>Measurement Frequency (MHz)</b>
(V)	<b>5300</b>
126.50	5300.0139
110.00	5300.0238
93.50	5300.0264
Max. Deviation (MHz)	<b>0.026350</b>
Max. Deviation (ppm)	<b>4.97</b>

**Temperature vs. Frequency Stability**

<b>Temperature</b>	<b>Measurement Frequency (MHz)</b>
(°C)	<b>5300</b>
-30	5299.9839
-20	5299.9662
-10	5299.9541
0	5299.9516
10	5299.9544
20	5299.9584
30	5299.9580
40	5299.9528
50	5299.9528
Max. Deviation (MHz)	<b>0.048400</b>
Max. Deviation (ppm)	<b>9.1321</b>



## 4.9. Antenna Requirements

### 4.9.1. Limit

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

### 4.9.2. Antenna Connector Construction

Please refer to section 3.3 in this test report; antenna connector complied with the requirements.

## 5. LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9kHz – 2.75GHz	Apr. 15, 2009	Conduction (CO04-HY)
LISN	MessTec	NNB-2/16Z	99079	9kHz – 30MHz	Mar. 23, 2009	Conduction (CO04-HY)
LISN (Support Unit)	EMCO	3810/2NM	9703-1839	9kHz – 30MHz	Mar. 22, 2009	Conduction (CO04-HY)
RF Cable-CON	UTIFLEX	3102-26886-4	CB049	9kHz – 30MHz	Apr. 20, 2009	Conduction (CO04-HY)
ISN	SCHAFFNER	ISN T400	21653	9kHz – 30MHz	Jun. 11, 2009	Conduction (CO04-HY)
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	Conduction (CO04-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30 MHz - 1 GHz 3m	Jun. 07, 2009	Radiation (03CH03-HY)
Amplifier	SCHAFFNER	COA9231A	18667	9 kHz - 2 GHz	Jan. 23, 2009	Radiation (03CH03-HY)
Amplifier	Agilent	8449B	3008A02120	1 GHz - 26.5 GHz	Jul. 21, 2009	Radiation (03CH03-HY)
Amplifier	MITEQ	AMF-6F-260400	9121372	26.5 GHz - 40 GHz	Apr. 06, 2009*	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSP30	100305	9 kHz - 40 GHz	Feb. 03, 2009	Radiation (03CH03-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	Jul. 28, 2008*	Radiation (03CH03-HY)
Bilog Antenna	SCHAFFNER	CBL 6112D	22237	30 MHz – 1 GHz	Jul. 18, 2009	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6741	1GHz ~ 18GHz	Apr. 28, 2009	Radiation (03CH03-HY)
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15 GHz - 40 GHz	Jan. 16, 2009	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30 MHz - 1 GHz	Jan. 05, 2009	Radiation (03CH03-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	1 GHz - 40 GHz	Jan. 05, 2009	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)
Spectrum Analyzer	R&S	FSU26.5	100015	20Hz ~ 26.5GHz	Oct. 28, 2008	Conducted (TH01-HY)
Power Meter	R&S	NRVS	100444	DC ~ 40GHz	Jul. 31, 2009	Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z51	100666	DC ~ 30GHz	Aug. 05, 2009	Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z32	100057	30MHz ~ 6GHz	Jul. 31, 2009	Conducted (TH01-HY)
AC Power Source	HPC	HPA-500W	HPA-9100024	AC 0 ~ 300V	Jul. 12, 2009*	Conducted (TH01-HY)
DC Power Source	G.W.	GPC-6030D	C671845	DC 1V ~ 60V	Mar. 13, 2009	Conducted (TH01-HY)
Temp. and Humidity Chamber	Giant Force	GTH-225-20-S	MAB0103-001	N/A	Aug. 06, 2009	Conducted (TH01-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF CABLE-1m	Jye Bao	RG142	CB034-1m	20MHz ~ 7GHz	Dec. 01, 2008	Conducted (TH01-HY)
RF CABLE-2m	Jye Bao	RG142	CB035-2m	20MHz ~ 1GHz	Dec. 01, 2008	Conducted (TH01-HY)
Vector Signal Generator	R&S	SMU200A	102098	100kHz ~ 6GHz	Feb. 13, 2009	Conducted (TH01-HY)
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	Mar. 25, 2009	Conducted (TH01-HY)

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

\* Calibration Interval of instruments listed above is two year.

NCR means Non-Calibration required.



## 6. TEST LOCATION

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

## 7. TAF CERTIFICATE OF ACCREDITATION



Certificate No. : L1190-091230

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

### Certificate of Accreditation

This is to certify that

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

is accredited in respect of laboratory

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

Jay-San Chen  
President, Taiwan Accreditation Foundation  
Date : December 30, 2009

P1, total 22 pages

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