



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

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

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

§ 15.209 (b) In the emission table above, the tighter limit applies at the band edges.

**TEST EQUIPMENTS**

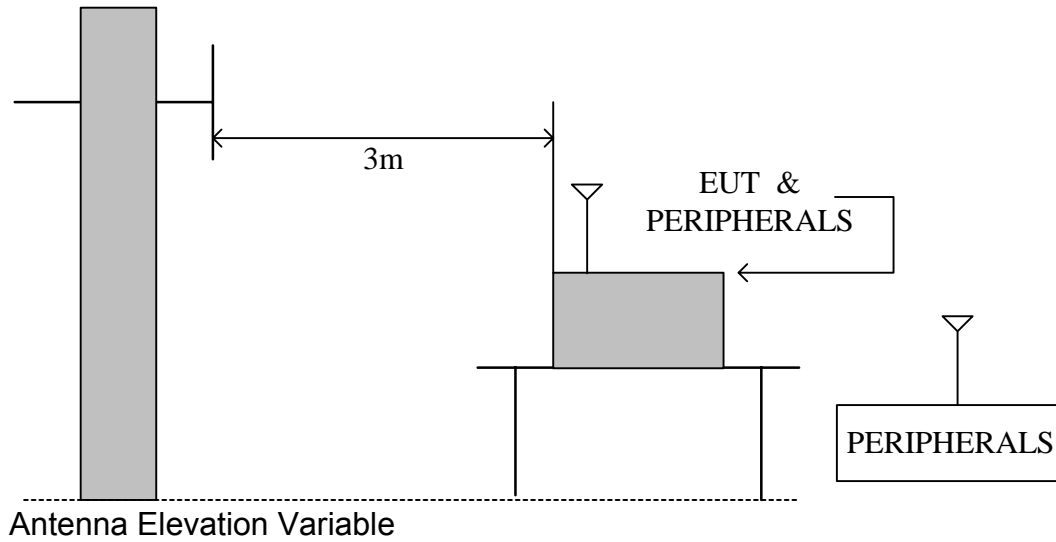
The following test equipments are utilized in making the measurements contained in this report.

Open Area Test Site # 6				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
TYPE N COAXIAL CABLE	SUHNER	CHA9513	6	NOV. 17, 2011
BI-LOG Antenna	Sunol	JB1	A070506-2	OCT. 4, 2011
LOOP ANTENNA	EMCO	6502	8905-2356	JUN. 10, 2012
Pre-Amplifier	HP	8447F	2944A03817	NOV. 23, 2011
EMI Receiver	R&S	ESVS10	833206/012	MAY 10, 2012
RF Cable	SUHNER	SUCOFLEX104PEA	20520/4PEA	NOV. 10, 2011
Horn Antenna	Com-Power	AH-118	071032	DEC. 27, 2011
Spectrum Analyzer	R&S	FSEK 30	835253/002	JUL. 14, 2012
Pre-Amplifier	MITEQ	AFS44-00108650-42-10P-44	1205908	NOV. 23, 2011
Turn Table	Yo Chen	001	-----	N.C.R.
Antenna Tower	AR	TP1000A	309874	N.C.R.
Controller	CT	SC101	-----	N.C.R.
RF Swicth	E-INSTRUMENT TELH LTD	ERS-180A	EC1204141	N.C.R
Test S/W	e-3 (5.04303e)			

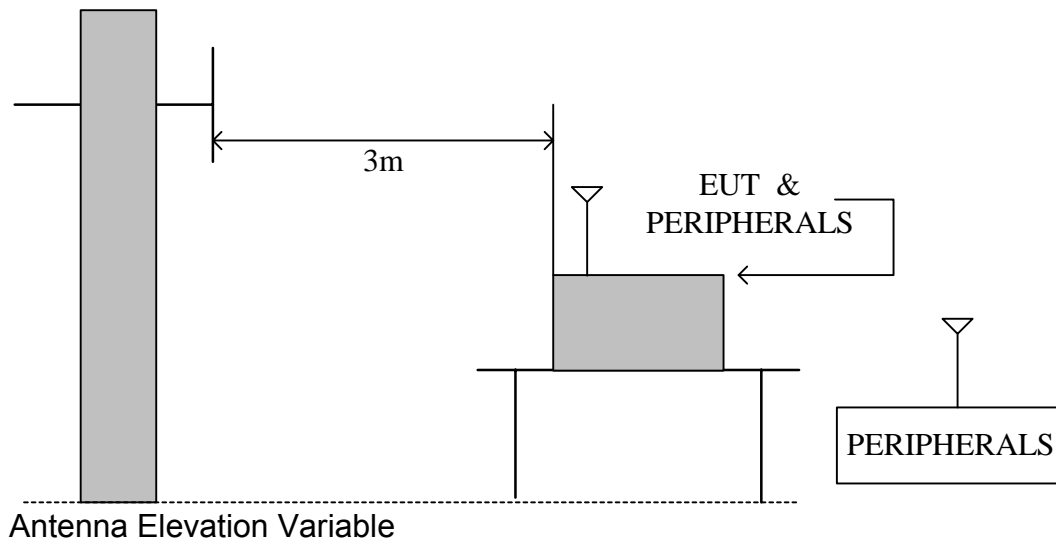


**TEST SETUP**

The diagram below shows the test setup that is utilized to make the measurements for emission from 30 to 1GHz.



The diagram below shows the test setup that is utilized to make the measurements for emission above 1GHz.





## TEST PROCEDURE

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. While measuring the radiated emission below 1GHz, the EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. While measuring the radiated emission above 1GHz, the EUT was set 3 meters away from the interference-receiving antenna
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarization of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

### **NOTE :**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection and frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.
4. **No emission is found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz)**

## TEST RESULTS

No non-compliance noted.



### 8.6.2 WORST-CASE RADIATED EMISSION BELOW 1 GHz

<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/17
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	Hong Tsai
<b>Test Mode</b>	Normal operating	<b>TEMP&amp; Humidity</b>	20.2 , 53%

Horizontal

Freq.	Reading	Antenna	Cable	Measure	Limit	Over	Detector
MHz	Level	Factor	Loss	Level	dBuV/m	Limit	
	dBuV	dB/m	dB	dBuV/m	dBuV/m	dBuV/m	
125.00	2.33	13.93	2.75	19.01	30.00	-11.00	QP
250.00	12.21	12.21	4.00	28.42	37.00	-8.58	QP
375.00	3.59	14.97	5.33	23.89	37.00	-13.11	QP
400.00	9.21	15.51	5.60	30.32	37.00	-6.68	QP
500.00	0.91	17.80	5.90	24.61	37.00	-12.39	QP
625.00	1.70	19.17	7.09	27.97	37.00	-9.03	QP
750.00	0.79	20.87	7.95	29.61	37.00	-7.39	QP

Vertical

Freq.	Reading	Antenna	Cable	Measure	Limit	Over	Detector
MHz	Level	Factor	Loss	Level	dBuV/m	Limit	
	dBuV	dB/m	dB	dBuV/m	dBuV/m	dBuV/m	
54.00	10.92	7.88	1.72	20.52	30.00	-9.48	QP
125.00	11.03	13.93	2.75	27.71	30.00	-2.30	QP
158.00	2.25	12.29	3.08	17.62	30.00	-12.38	QP
250.00	15.36	12.21	4.00	31.57	37.00	-5.43	QP
400.00	8.81	15.51	5.60	29.92	37.00	-7.08	QP
500.00	2.53	17.80	5.90	26.23	37.00	-10.77	QP
749.98	0.87	20.87	7.95	29.69	37.00	-7.31	QP

**REMARK:** Emission level (dBuV/m) =Antenna Factor (dB/m) + Cable loss (dB) + Meter Reading (dBuV).



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/17
<b>Model</b>	CDE570AM-U02	<b>Test By</b>	Hong Tsai
<b>Test Mode</b>	Normal operating	<b>TEMP&amp; Humidity</b>	26.3 , 60%

Horizontal

Freq.	Reading	Antenna	Cable	Measure	Limit	Over	Detector
MHz	Level	Factor	Loss	Level		Limit	
	dBuV	dB/m	dB	dBuV/m	dBuV/m	dBuV/m	
77.25	2.42	7.69	2.15	12.26	30.00	-17.74	QP
125.00	2.60	13.93	2.75	19.28	30.00	-10.73	QP
250.00	0.81	12.21	4.00	17.02	37.00	-19.98	QP
264.50	3.70	12.67	4.15	20.52	37.00	-16.48	QP
375.00	5.57	14.97	5.33	25.87	37.00	-11.13	QP
397.01	5.60	15.45	5.57	26.61	37.00	-10.39	QP
500.01	1.77	17.80	5.90	25.47	37.00	-11.53	QP
625.00	1.90	19.17	7.09	28.17	37.00	-8.83	QP
750.00	0.23	20.87	7.95	29.04	37.00	-7.96	QP

Vertical

Freq.	Reading	Antenna	Cable	Measure	Limit	Over	Detector
MHz	Level	Factor	Loss	Level		Limit	
	dBuV	dB/m	dB	dBuV/m	dBuV/m	dBuV/m	
54.45	8.42	7.88	1.72	18.02	30.00	-11.98	QP
85.81	8.49	7.76	2.20	18.45	30.00	-11.55	QP
125.00	11.31	13.93	2.75	27.99	30.00	-2.01	QP
250.00	6.87	12.21	4.00	23.08	37.00	-13.92	QP
264.36	9.55	12.67	4.15	26.37	37.00	-10.63	QP
375.01	5.83	14.97	5.33	26.13	37.00	-10.87	QP
500.00	1.37	17.80	5.90	25.07	37.00	-11.93	QP
625.00	1.77	19.17	7.09	28.04	37.00	-8.96	QP
750.00	1.30	20.87	7.95	30.12	37.00	-6.88	QP

REMARK: Emission level (dBuV/m) =Antenna Factor (dB/m) + Cable loss (dB) + Meter Reading (dBuV).



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/17
<b>Model</b>	CDE570AM-002	<b>Test By</b>	Hong Tsai
<b>Test Mode</b>	Normal operating	<b>TEMP&amp; Humidity</b>	26.3 , 60%

Horizontal

Freq.	Reading	Antenna	Cable	Measure	Limit	Over	Detector
MHz	Level	Factor	Loss	Level	dBuV/m	Limit	
	dBuV	dB/m	dB	dBuV/m	dBuV/m	dBuV/m	
75.02	0.66	7.81	2.09	10.56	30.00	-19.44	QP
125.00	0.68	13.93	2.75	17.36	30.00	-12.65	QP
250.00	2.95	12.21	4.00	19.16	37.00	-17.84	QP
375.00	4.89	14.97	5.33	25.19	37.00	-11.81	QP
400.01	4.66	15.51	5.60	25.77	37.00	-11.23	QP
500.01	0.64	17.80	5.90	24.34	37.00	-12.66	QP
625.00	2.36	19.17	7.09	28.63	37.00	-8.37	QP
750.00	0.32	20.87	7.95	29.14	37.00	-7.86	QP

Vertical

Freq.	Reading	Antenna	Cable	Measure	Limit	Over	Detector
MHz	Level	Factor	Loss	Level	dBuV/m	Limit	
	dBuV	dB/m	dB	dBuV/m	dBuV/m	dBuV/m	
54.45	11.66	7.88	1.72	21.26	30.00	-8.74	QP
85.81	7.34	7.76	2.20	17.30	30.00	-12.70	QP
125.00	12.11	13.93	2.75	28.79	30.00	-1.22	QP
250.00	5.09	12.21	4.00	21.30	37.00	-15.70	QP
266.66	3.92	12.76	4.17	20.84	37.00	-16.16	QP
375.01	6.46	14.97	5.33	26.76	37.00	-10.24	QP
400.01	4.08	15.51	5.60	25.19	37.00	-11.81	QP
500.00	2.37	17.80	5.90	26.07	37.00	-10.93	QP
625.00	1.72	19.17	7.09	27.99	37.00	-9.01	QP
750.00	0.59	20.87	7.95	29.41	37.00	-7.59	QP

REMARK: Emission level (dBuV/m) =Antenna Factor (dB/m) + Cable loss (dB) + Meter Reading (dBuV).



8.6.3 TRANSMITTER RADIATED EMISSION ABOVE 1 GHz

<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11b TX (CH Low)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Horizontal

TX / IEEE 802.11b mode / CH Low				Measurement Distance at 3m				Horizontal polarity		
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark	
(MHz)	(dBµV)	(dB/m)	(dB)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(P/Q/A)	
* 1608.00	58.10	27.42	2.23	41.57	0.84	47.02	74.00	-26.98	P	
* 1608.00	53.82	27.42	2.23	41.57	0.84	42.74	54.00	-11.26	A	
3216.00	57.24	30.14	3.00	41.19	1.26	50.45	74.00	-23.55	P	
3216.00	51.55	30.14	3.00	41.19	1.26	44.76	54.00	-9.24	A	
* 4823.98	55.75	33.17	3.73	42.38	0.69	50.96	74.00	-23.04	P	
* 4823.98	47.58	33.17	3.73	42.38	0.69	42.79	54.00	-11.21	A	
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P	
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A	

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11b TX (CH Low)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Vertical

TX / IEEE 802.11b mode / CH Low				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBµV)	(dB/m)	(dB)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(P/Q/A)
* 1607.99	55.24	27.42	2.23	41.57	0.84	44.16	74.00	-29.84	P
* 1607.99	49.42	27.42	2.23	41.57	0.84	38.34	54.00	-15.66	A
3215.96	56.72	30.14	3.00	41.19	1.26	49.93	74.00	-24.07	P
3215.96	52.13	30.14	3.00	41.19	1.26	45.34	54.00	-8.66	A
* 4823.98	58.93	33.17	3.73	42.38	0.69	54.14	74.00	-19.86	P
* 4823.98	55.08	33.17	3.73	42.38	0.69	50.29	54.00	-3.71	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.





<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11b TX (CH Middle)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Horizontal

TX / IEEE 802.11b mode / CH Middle				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBµV)	(dB/m)	(dB)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(P/Q/A)
* 1624.65	57.84	27.55	2.23	41.55	0.85	46.93	74.00	-27.07	P
* 1624.65	53.62	27.55	2.23	41.55	0.85	42.71	54.00	-11.29	A
3249.33	56.02	30.15	3.02	41.20	1.22	49.21	74.00	-24.79	P
3249.33	50.41	30.15	3.02	41.20	1.22	43.60	54.00	-10.40	A
* 4873.98	55.15	33.32	3.74	42.43	0.71	50.49	74.00	-23.51	P
* 4873.98	47.09	33.32	3.74	42.43	0.71	42.43	54.00	-11.57	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11b TX (CH Middle)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Vertical

TX / IEEE 802.11b mode / CH Middle				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBµV)	(dB/m)	(dB)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(P/Q/A)
* 1624.62	55.32	27.55	2.23	41.55	0.85	44.41	74.00	-29.59	P
* 1624.62	48.99	27.55	2.23	41.55	0.85	38.08	54.00	-15.92	A
3249.31	55.78	30.15	3.02	41.20	1.22	48.97	74.00	-25.03	P
3249.31	51.64	30.15	3.02	41.20	1.22	44.83	54.00	-9.17	A
* 4873.97	58.23	33.32	3.74	42.43	0.71	53.57	74.00	-20.43	P
* 4873.97	54.41	33.32	3.74	42.43	0.71	49.75	54.00	-4.25	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11b TX (CH High)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Horizontal

TX / IEEE 802.11b mode / CH High				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
1641.33	57.23	27.67	2.24	41.52	0.86	46.48	74.00	-27.52	P
1641.33	53.50	27.67	2.24	41.52	0.86	42.75	54.00	-11.25	A
3282.66	57.30	30.16	3.05	41.21	1.17	50.47	74.00	-23.53	P
3282.66	51.43	30.16	3.05	41.21	1.17	44.60	54.00	-9.40	A
* 4863.99	55.02	33.29	3.74	42.42	0.71	50.34	74.00	-23.66	P
* 4863.99	47.32	33.29	3.74	42.42	0.71	42.64	54.00	-11.36	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11b TX (CH High)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Vertical

TX / IEEE 802.11b mode / CH High				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
1641.30	54.29	27.67	2.24	41.52	0.86	43.54	74.00	-30.46	P
1641.30	48.03	27.67	2.24	41.52	0.86	37.28	54.00	-16.72	A
3282.65	55.17	30.16	3.05	41.21	1.17	48.34	74.00	-25.66	P
3282.65	51.80	30.16	3.05	41.21	1.17	44.97	54.00	-9.03	A
* 4864.02	58.36	33.29	3.74	42.42	0.71	53.68	74.00	-20.32	P
* 4864.02	54.27	33.29	3.74	42.42	0.71	49.59	54.00	-4.41	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11g TX (CH Low)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Horizontal

TX / IEEE 802.11g mode / CH Low				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
* 1607.94	57.26	27.42	2.23	41.57	0.84	46.18	74.00	-27.82	P
* 1607.94	53.47	27.42	2.23	41.57	0.84	42.39	54.00	-11.61	A
3215.92	56.59	30.14	3.00	41.19	1.26	49.80	74.00	-24.20	P
3215.92	51.33	30.14	3.00	41.19	1.26	44.54	54.00	-9.46	A
* 4823.99	54.96	33.17	3.73	42.38	0.69	50.17	74.00	-23.83	P
* 4823.99	46.84	33.17	3.73	42.38	0.69	42.05	54.00	-11.95	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11g TX (CH Low)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Vertical

TX / IEEE 802.11g mode / CH Low				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBµV)	(dB/m)	(dB)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(P/Q/A)
* 1607.99	55.03	27.42	2.23	41.57	0.84	43.95	74.00	-30.05	P
* 1607.99	49.11	27.42	2.23	41.57	0.84	38.03	54.00	-15.97	A
3216.00	56.47	30.14	3.00	41.19	1.26	49.68	74.00	-24.32	P
3216.00	52.33	30.14	3.00	41.19	1.26	45.54	54.00	-8.46	A
* 4823.94	59.64	33.17	3.73	42.38	0.69	54.85	74.00	-19.15	P
* 4823.94	55.03	33.17	3.73	42.38	0.69	50.24	54.00	-3.76	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11g TX (CH Middle)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Horizontal

	TX / IEEE 802.11g mode / CH Middle				Measurement Distance at 3m				Horizontal polarity	
	Freq. (MHz)	Reading (dBµV)	AF (dB/m)	Cable Loss (dB)	Pre-amp (dB)	Filter (dB)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Mark (P/Q/A)
*	1624.59	56.23	27.55	2.23	41.55	0.85	45.32	74.00	-28.68	P
*	1624.59	51.39	27.55	2.23	41.55	0.85	40.48	54.00	-13.52	A
	3249.26	56.74	30.15	3.02	41.20	1.22	49.93	74.00	-24.07	P
	3249.26	50.47	30.15	3.02	41.20	1.22	43.66	54.00	-10.34	A
*	4873.94	54.99	33.32	3.74	42.43	0.71	50.33	74.00	-23.67	P
*	4873.94	47.60	33.32	3.74	42.43	0.71	42.94	54.00	-11.06	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11g TX (CH Middle)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Vertical

TX / IEEE 802.11g mode / CH Middle				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
* 1624.64	55.14	27.55	2.23	41.55	0.85	44.23	74.00	-29.77	P
* 1624.64	49.22	27.55	2.23	41.55	0.85	38.31	54.00	-15.69	A
3249.36	56.04	30.15	3.02	41.20	1.22	49.23	74.00	-24.77	P
3249.36	51.85	30.15	3.02	41.20	1.22	45.04	54.00	-8.96	A
* 4873.93	58.31	33.32	3.74	42.43	0.71	53.65	74.00	-20.35	P
* 4873.93	54.29	33.32	3.74	42.43	0.71	49.63	54.00	-4.37	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.





<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11g TX (CH High)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

### Horizontal

TX / IEEE 802.11g mode / CH High				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
1641.26	58.31	27.67	2.24	41.52	0.86	47.56	74.00	-26.44	P
1641.26	53.45	27.67	2.24	41.52	0.86	42.70	54.00	-11.30	A
3282.58	57.03	30.16	3.05	41.21	1.17	50.20	74.00	-23.80	P
3282.58	51.49	30.16	3.05	41.21	1.17	44.66	54.00	-9.34	A
* 4863.97	55.36	33.29	3.74	42.42	0.71	50.68	74.00	-23.32	P
* 4863.97	47.42	33.29	3.74	42.42	0.71	42.74	54.00	-11.26	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

### REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11g TX (CH High)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

**Vertical**

TX / IEEE 802.11g mode / CH High				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
1641.31	55.03	27.67	2.24	41.52	0.86	44.28	74.00	-29.72	P
1641.31	48.37	27.67	2.24	41.52	0.86	37.62	54.00	-16.38	A
3282.60	55.62	30.16	3.05	41.21	1.17	48.79	74.00	-25.21	P
3282.60	51.71	30.16	3.05	41.21	1.17	44.88	54.00	-9.12	A
* 4864.00	59.04	33.29	3.74	42.42	0.71	54.36	74.00	-19.64	P
* 4864.00	54.22	33.29	3.74	42.42	0.71	49.54	54.00	-4.46	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**REMARK:**

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11n HT20 TX (CH Low)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Horizontal

	TX / IEEE 802.11n HT20 mode / CH Low				Measurement Distance at 3m				Horizontal polarity	
	Freq. (MHz)	Reading (dBµV)	AF (dB/m)	Cable Loss (dB)	Pre-amp (dB)	Filter (dB)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Mark (P/Q/A)
*	1608.01	57.32	27.42	2.23	41.57	0.84	46.24	74.00	-27.76	P
*	1608.01	52.99	27.42	2.23	41.57	0.84	41.91	54.00	-12.09	A
	3215.97	56.71	30.14	3.00	41.19	1.26	49.92	74.00	-24.08	P
	3215.97	51.26	30.14	3.00	41.19	1.26	44.47	54.00	-9.53	A
*	4823.96	54.39	33.17	3.73	42.38	0.69	49.60	74.00	-24.40	P
*	4823.96	47.08	33.17	3.73	42.38	0.69	42.29	54.00	-11.71	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11n HT20 TX (CH Low)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Vertical

	TX / IEEE 802.11n HT20 mode / CH Low				Measurement Distance at 3m				Vertical polarity	
	Freq. (MHz)	Reading (dBµV)	AF (dB/m)	Cable Loss (dB)	Pre-amp (dB)	Filter (dB)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Mark (P/Q/A)
*	1607.99	54.49	27.42	2.23	41.57	0.84	43.41	74.00	-30.59	P
*	1607.99	48.82	27.42	2.23	41.57	0.84	37.74	54.00	-16.26	A
	3215.95	55.64	30.14	3.00	41.19	1.26	48.85	74.00	-25.15	P
	3215.95	51.37	30.14	3.00	41.19	1.26	44.58	54.00	-9.42	A
*	4824.00	57.23	33.17	3.73	42.38	0.69	52.44	74.00	-21.56	P
*	4824.00	54.01	33.17	3.73	42.38	0.69	49.22	54.00	-4.78	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11n HT20 TX (CH Middle)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Horizontal

TX / IEEE 802.11n HT20 mode / CH Middle				Measurement Distance at 3m				Horizontal polarity		
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark	
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)	
* 1624.61	59.03	27.55	2.23	41.55	0.85	48.12	74.00	-25.88	P	
* 1624.61	52.14	27.55	2.23	41.55	0.85	41.23	54.00	-12.77	A	
3249.35	56.00	30.15	3.02	41.20	1.22	49.19	74.00	-24.81	P	
3249.35	51.37	30.15	3.02	41.20	1.22	44.56	54.00	-9.44	A	
* 4873.99	55.62	33.32	3.74	42.43	0.71	50.96	74.00	-23.04	P	
* 4873.99	46.98	33.32	3.74	42.43	0.71	42.32	54.00	-11.68	A	
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P	
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A	

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11n HT20 TX (CH Middle)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

### Vertical

	TX / IEEE 802.11n HT20 mode / CH Middle				Measurement Distance at 3m				Vertical polarity	
	Freq. (MHz)	Reading (dBμV)	AF (dB/m)	Cable Loss (dB)	Pre-amp (dB)	Filter (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Mark (P/Q/A)
*	1624.65	54.39	27.55	2.23	41.55	0.85	43.48	74.00	-30.52	P
*	1624.65	48.89	27.55	2.23	41.55	0.85	37.98	54.00	-16.02	A
	3249.32	57.02	30.15	3.02	41.20	1.22	50.21	74.00	-23.79	P
	3249.32	52.74	30.15	3.02	41.20	1.22	45.93	54.00	-8.07	A
*	4873.98	57.95	33.32	3.74	42.43	0.71	53.29	74.00	-20.71	P
*	4873.98	54.16	33.32	3.74	42.43	0.71	49.50	54.00	-4.50	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

### REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11n HT20 TX (CH High)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

### Horizontal

TX / IEEE 802.11n HT20 mode / CH High				Measurement Distance at 3m				Horizontal polarity		
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark	
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)	
1641.28	57.66	27.67	2.24	41.52	0.86	46.91	74.00	-27.09	P	
1641.28	52.91	27.67	2.24	41.52	0.86	42.16	54.00	-11.84	A	
3282.57	56.34	30.16	3.05	41.21	1.17	49.51	74.00	-24.49	P	
3282.57	50.41	30.16	3.05	41.21	1.17	43.58	54.00	-10.42	A	
* 4863.97	54.39	33.29	3.74	42.42	0.71	49.71	74.00	-24.29	P	
* 4863.97	46.62	33.29	3.74	42.42	0.71	41.94	54.00	-12.06	A	
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P	
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A	

### REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11n HT20 TX (CH High)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

**Vertical**

TX / IEEE 802.11n HT20 mode / CH High				Measurement Distance at 3m				Vertical	polarity
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
1641.33	54.23	27.67	2.24	41.52	0.86	43.48	74.00	-30.52	P
1641.33	48.75	27.67	2.24	41.52	0.86	38.00	54.00	-16.00	A
3282.67	55.69	30.16	3.05	41.21	1.17	48.86	74.00	-25.14	P
3282.67	51.23	30.16	3.05	41.21	1.17	44.40	54.00	-9.60	A
* 4863.98	57.82	33.29	3.74	42.42	0.71	53.14	74.00	-20.86	P
* 4863.98	54.06	33.29	3.74	42.42	0.71	49.38	54.00	-4.62	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**REMARK:**

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.





<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11n HT40 TX (CH Low)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

### Horizontal

	TX / IEEE 802.11n HT40 mode / CH Low				Measurement Distance at 3m				Horizontal polarity	
	Freq. (MHz)	Reading (dBμV)	AF (dB/m)	Cable Loss (dB)	Pre-amp (dB)	Filter (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Mark (P/Q/A)
*	1614.65	57.12	27.47	2.23	41.56	0.85	46.11	74.00	-27.89	P
*	1614.65	52.95	27.47	2.23	41.56	0.85	41.94	54.00	-12.06	A
	3229.32	56.02	30.15	3.01	41.19	1.24	49.22	74.00	-24.78	P
	3229.32	50.74	30.15	3.01	41.19	1.24	43.94	54.00	-10.06	A
*	4843.97	54.36	33.23	3.74	42.40	0.70	49.62	74.00	-24.38	P
*	4843.97	46.28	33.23	3.74	42.40	0.70	41.54	54.00	-12.46	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

### REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11n HT40 TX (CH Low)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Vertical

	TX / IEEE 802.11n HT40 mode / CH Low				Measurement Distance at 3m				Vertical polarity	
	Freq. (MHz)	Reading (dBµV)	AF (dB/m)	Cable Loss (dB)	Pre-amp (dB)	Filter (dB)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Mark (P/Q/A)
*	1614.62	54.32	27.47	2.23	41.56	0.85	43.31	74.00	-30.69	P
*	1614.62	48.93	27.47	2.23	41.56	0.85	37.92	54.00	-16.08	A
	3229.29	55.47	30.15	3.01	41.19	1.24	48.67	74.00	-25.33	P
	3229.29	51.06	30.15	3.01	41.19	1.24	44.26	54.00	-9.74	A
*	4843.99	57.54	33.23	3.74	42.40	0.70	52.81	74.00	-21.19	P
*	4843.99	54.23	33.23	3.74	42.40	0.70	49.50	54.00	-4.50	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11n HT40 TX (CH Middle)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Horizontal

TX / IEEE 802.11n HT40 mode / CH Middle				Measurement Distance at 3m				Horizontal polarity		
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark	
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)	
* 1624.65	57.47	27.55	2.23	41.55	0.85	46.56	74.00	-27.44	P	
* 1624.65	52.45	27.55	2.23	41.55	0.85	41.54	54.00	-12.46	A	
3249.33	56.66	30.15	3.02	41.20	1.22	49.85	74.00	-24.15	P	
3249.33	50.03	30.15	3.02	41.20	1.22	43.22	54.00	-10.78	A	
* 4874.00	54.29	33.32	3.74	42.43	0.71	49.63	74.00	-24.37	P	
* 4874.00	46.71	33.32	3.74	42.43	0.71	42.05	54.00	-11.95	A	
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P	
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A	

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11n HT40 TX (CH Middle)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

Vertical

	TX / IEEE 802.11n HT40 mode / CH Middle				Measurement Distance at 3m				Vertical polarity	
	Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
	(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
*	1624.68	54.76	27.55	2.23	41.55	0.85	43.85	74.00	-30.15	P
*	1624.68	48.32	27.55	2.23	41.55	0.85	37.41	54.00	-16.59	A
	3249.30	55.14	30.15	3.02	41.20	1.22	48.33	74.00	-25.67	P
	3249.30	51.06	30.15	3.02	41.20	1.22	44.25	54.00	-9.75	A
*	4874.02	57.70	33.32	3.74	42.43	0.71	53.04	74.00	-20.96	P
*	4874.02	54.27	33.32	3.74	42.43	0.71	49.61	54.00	-4.39	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11n HT40 TX (CH High)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

### Horizontal

TX / IEEE 802.11n HT40 mode / CH High				Measurement Distance at 3m				Horizontal polarity	
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
1641.29	57.06	27.67	2.24	41.52	0.86	46.31	74.00	-27.69	P
1641.29	52.57	27.67	2.24	41.52	0.86	41.82	54.00	-12.18	A
3282.59	56.14	30.16	3.05	41.21	1.17	49.31	74.00	-24.69	P
3282.59	50.36	30.16	3.05	41.21	1.17	43.53	54.00	-10.47	A
* 4863.99	54.92	33.29	3.74	42.42	0.71	50.24	74.00	-23.76	P
* 4863.99	46.08	33.29	3.74	42.42	0.71	41.40	54.00	-12.60	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

### REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/19
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	John Chen
<b>Test Mode</b>	IEEE 802.11n HT40 TX (CH High)	<b>TEMP&amp; Humidity</b>	31.3 , 52%

**Vertical**

TX / IEEE 802.11n HT40 mode / CH High				Measurement Distance at 3m				Vertical polarity	
Freq.	Reading	AF	Cable Loss	Pre-amp	Filter	Level	Limit	Margin	Mark
(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	(P/Q/A)
1641.33	54.81	27.67	2.24	41.52	0.86	44.06	74.00	-29.94	P
1641.33	49.31	27.67	2.24	41.52	0.86	38.56	54.00	-15.44	A
3282.66	55.28	30.16	3.05	41.21	1.17	48.45	74.00	-25.55	P
3282.66	51.33	30.16	3.05	41.21	1.17	44.50	54.00	-9.50	A
* 4863.96	57.06	33.29	3.74	42.42	0.71	52.38	74.00	-21.62	P
* 4863.96	53.97	33.29	3.74	42.42	0.71	49.29	54.00	-4.71	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

**REMARK:**

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: Band-rejection Filter Insertion Loss
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:  
Level = Reading + AF + Cable – Preamp + Filter – Dist, Margin = Level-Limit
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



### 8.6.4 RESTRICTED BAND EDGES

#### 802.11b Mode

Channel	Polarity	Freq.(MHz)	Level(dBuV)	Limit(dBuV)	Margin(dB)	Detector
LOW	H	2390.00	59.59	74	-14.41	Peak
	H	2390.00	46.97	54	-7.03	Average
	V	2390.00	59.12	74	-14.88	Peak
	V	2390.00	47.43	54	-6.57	Average
HIGH	H	2483.50	60.08	74	-13.92	Peak
	H	2483.50	46.69	54	-7.31	Average
	V	2483.50	59.02	74	-14.98	Peak
	V	2483.50	46.83	54	-7.17	Average

#### 802.11g Mode

Channel	Polarity	Freq.(MHz)	Level(dBuV)	Limit(dBuV)	Margin(dB)	Detector
LOW	H	2390.00	59.69	74	-14.31	Peak
	H	2390.00	46.93	54	-7.07	Average
	V	2390.00	60.25	74	-13.75	Peak
	V	2390.00	47.1	54	-6.90	Average
HIGH	H	2483.50	58.88	74	-15.12	Peak
	H	2483.50	46.66	54	-7.34	Average
	V	2483.50	60.06	74	-13.94	Peak
	V	2483.50	46.83	54	-7.17	Average

#### 802.11n HT-20 Mode

Channel	Polarity	Freq.(MHz)	Level(dBuV)	Limit(dBuV)	Margin(dB)	Detector
LOW	H	2390.00	59.22	74	-14.78	Peak
	H	2390.00	46.91	54	-7.09	Average
	V	2390.00	59.73	74	-14.27	Peak
	V	2390.00	47.58	54	-6.42	Average
HIGH	H	2483.50	59.55	74	-14.45	Peak
	H	2483.50	46.68	54	-7.32	Average
	V	2483.50	59.19	74	-14.81	Peak
	V	2483.50	47.06	54	-6.94	Average

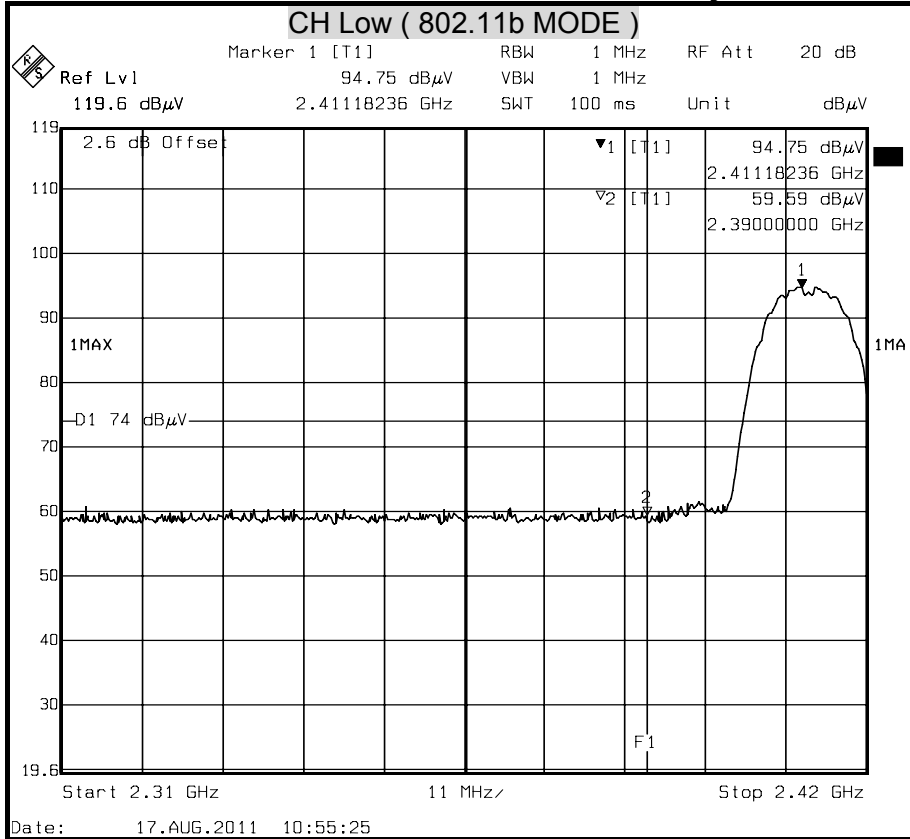
#### 802.11n HT-40 Mode

Channel	Polarity	Freq.(MHz)	Level(dBuV)	Limit(dBuV)	Margin(dB)	Detector
LOW	H	2390.00	59.09	74	-14.91	Peak
	H	2390.00	47	54	-7.00	Average
	V	2390.00	59.83	74	-14.17	Peak
	V	2390.00	48.17	54	-5.83	Average
HIGH	H	2483.50	59.4	74	-14.60	Peak
	H	2483.50	46.74	54	-7.26	Average
	V	2483.50	59.29	74	-14.71	Peak
	V	2483.50	47.1	54	-6.90	Average



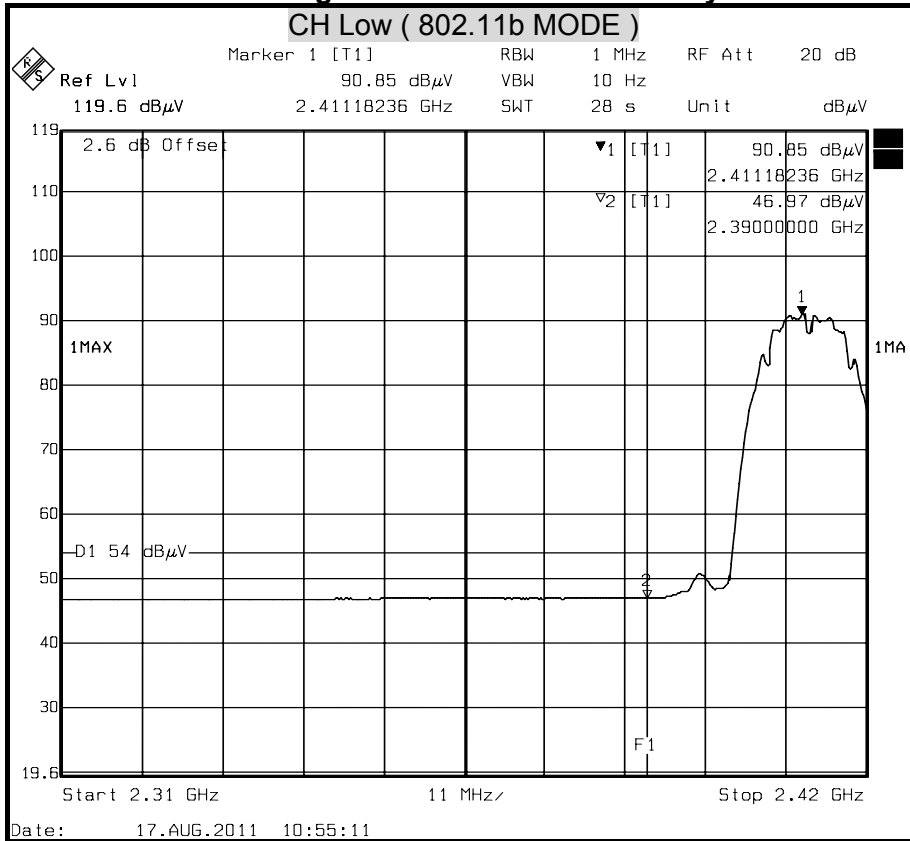
Detector mode : Peak

Polarity : Horizontal



Detector mode : Average

Polarity : Horizontal

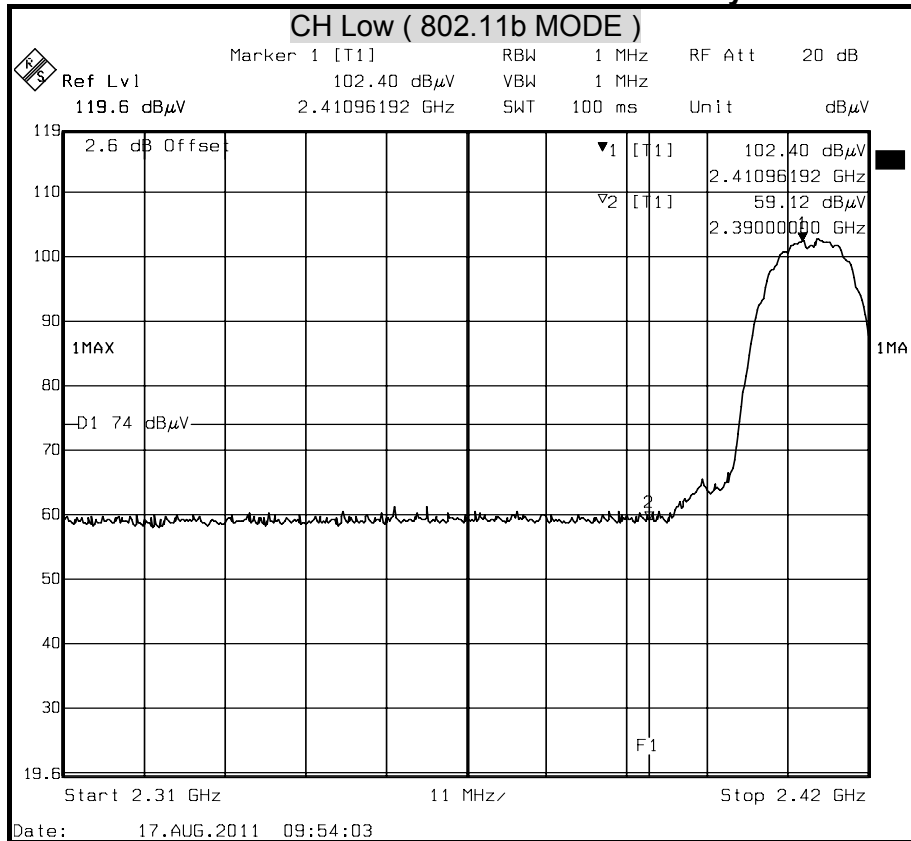






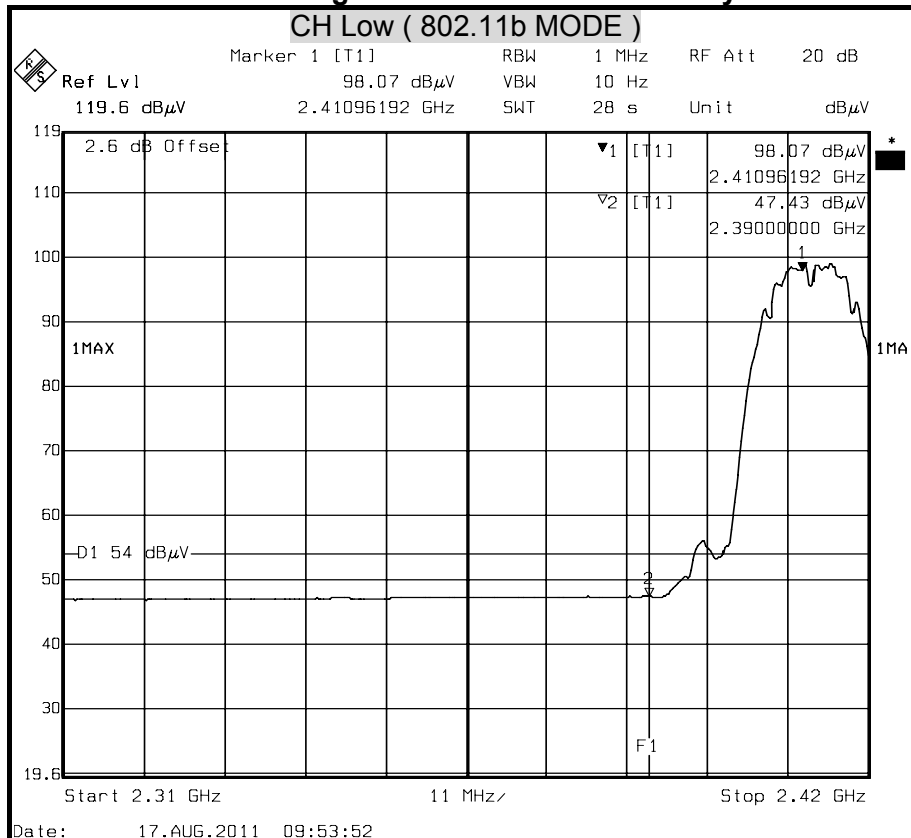
Detector mode : Peak

Polarity : Vertical



Detector mode : Average

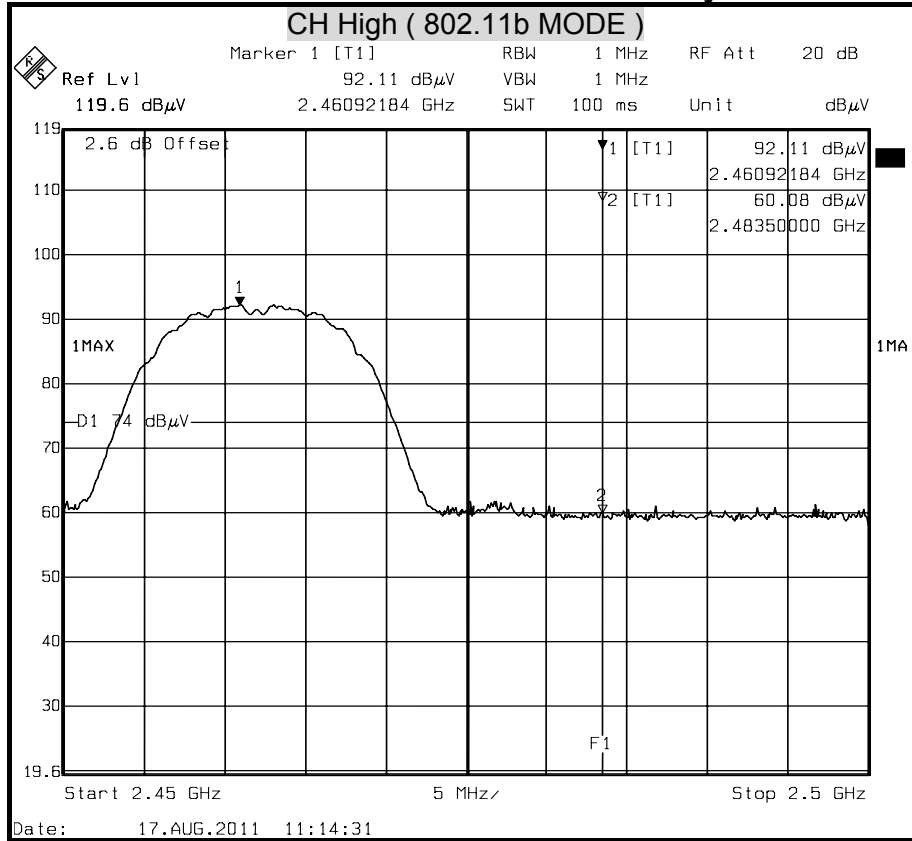
Polarity : Vertical





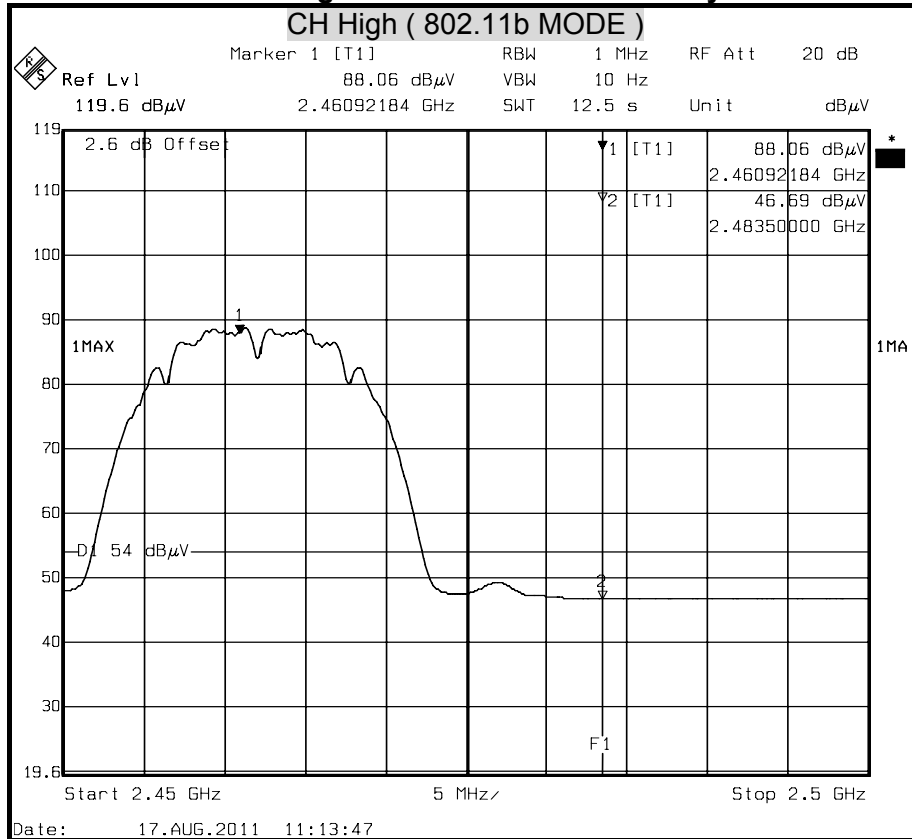
Detector mode : Peak

Polarity : Horizontal



Detector mode : Average

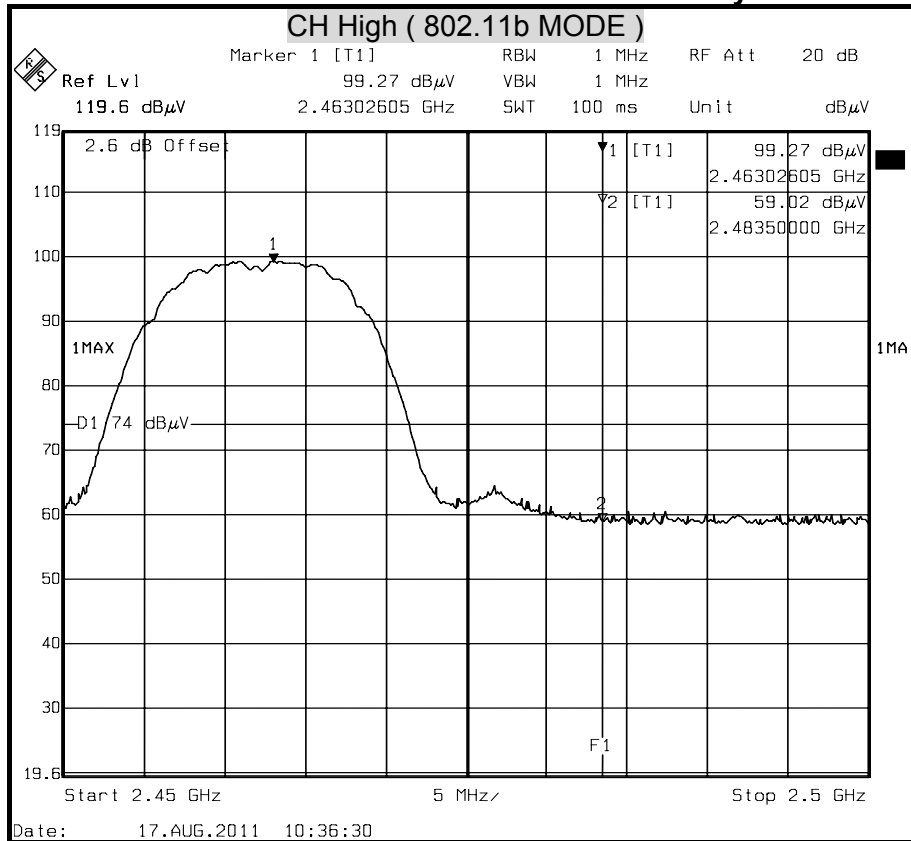
Polarity : Horizontal





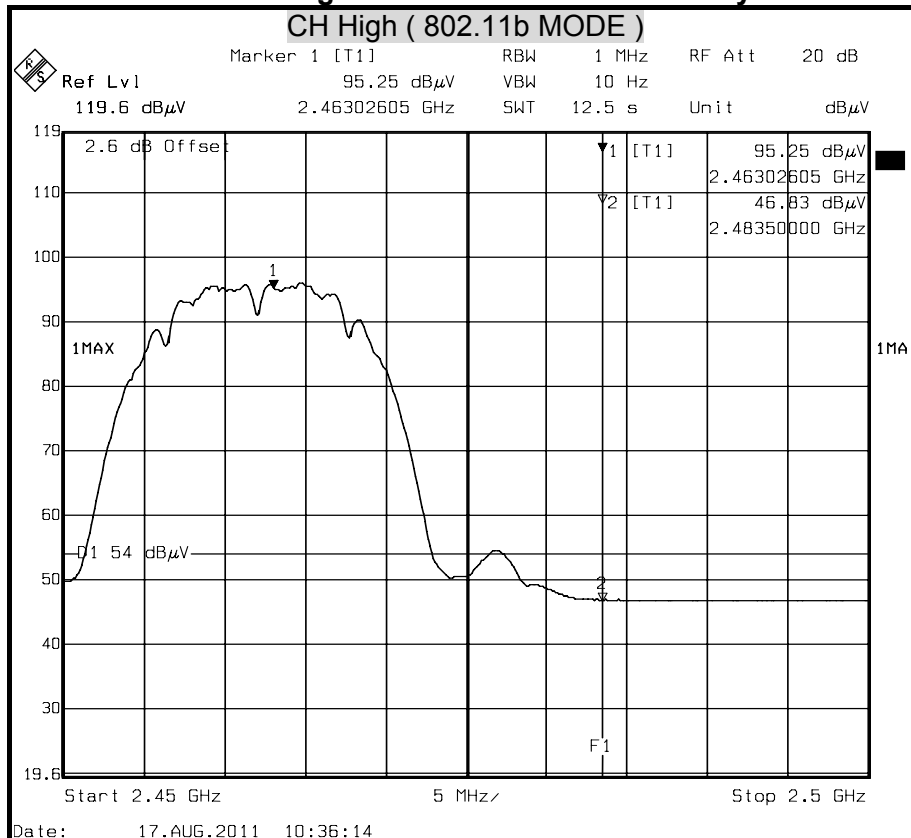
Detector mode : Peak

Polarity : Vertical



Detector mode : Average

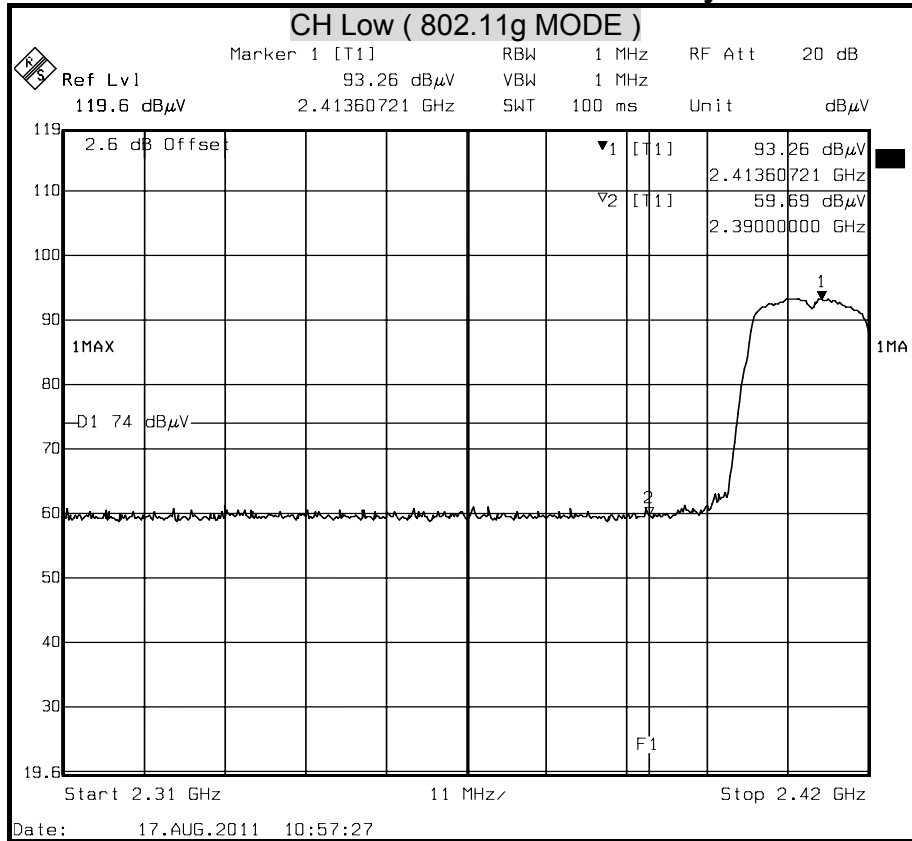
Polarity : Vertical





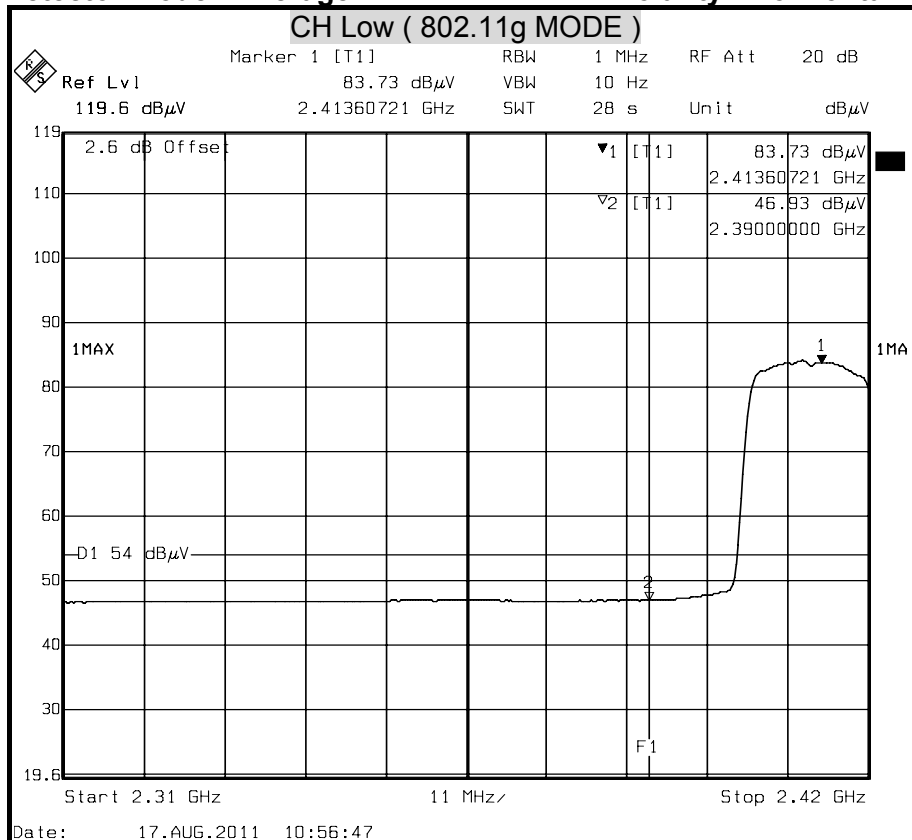
Detector mode : Peak

Polarity : Horizontal



Detector mode : Average

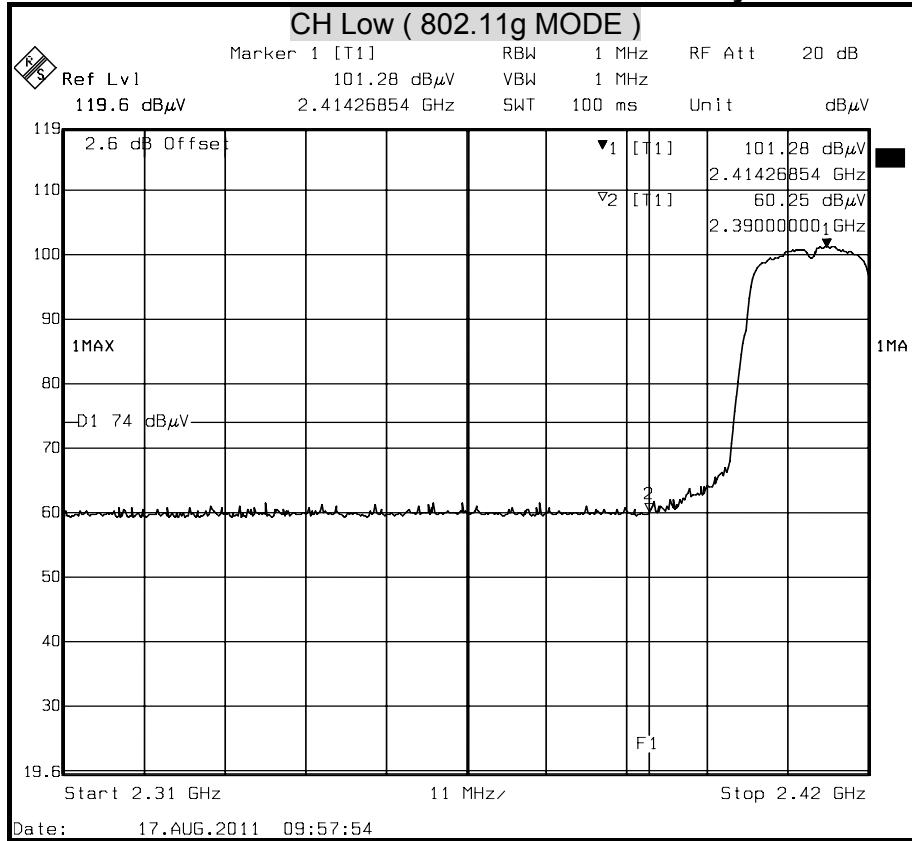
Polarity : Horizontal





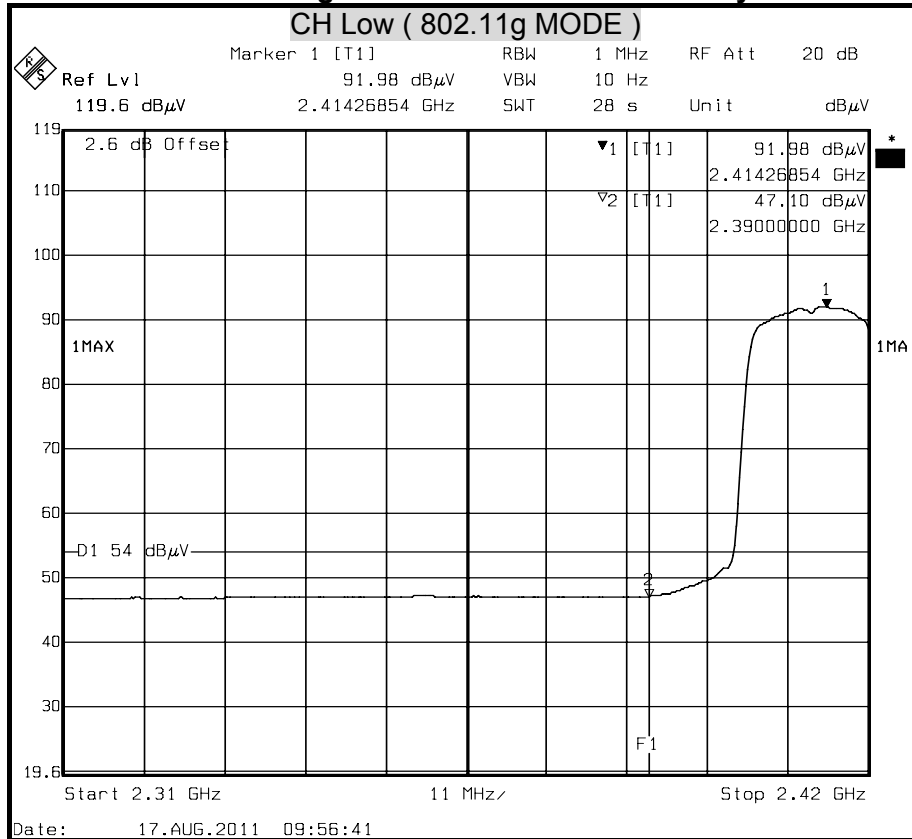
Detector mode : Peak

Polarity : Vertical



Detector mode : Average

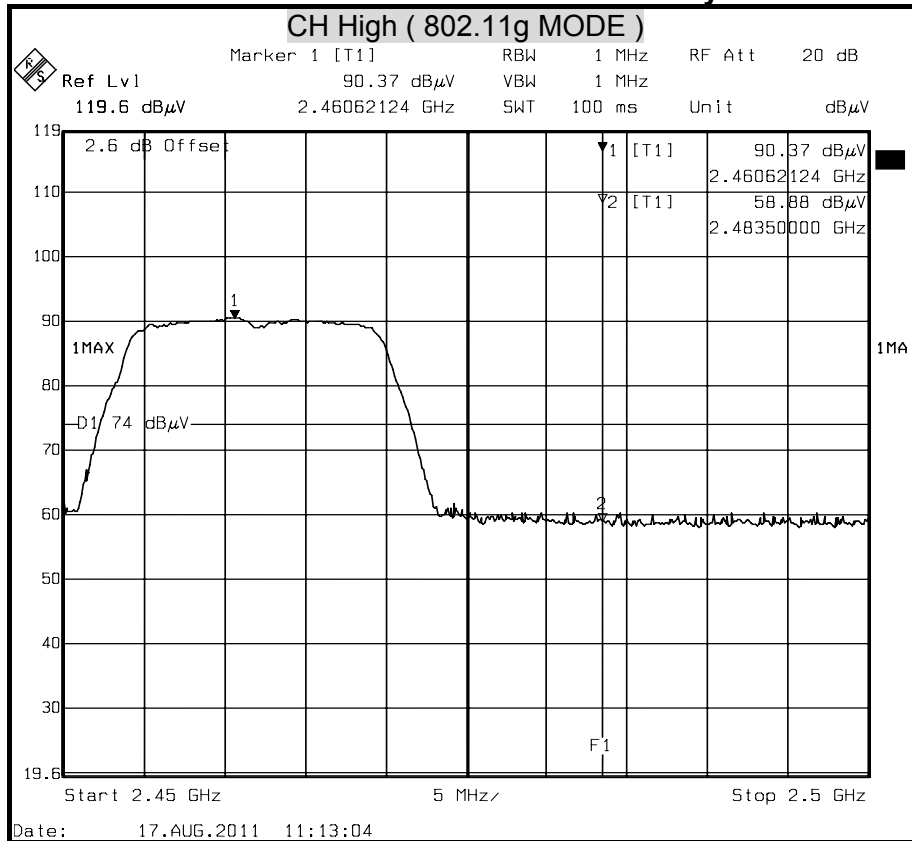
Polarity : Vertical





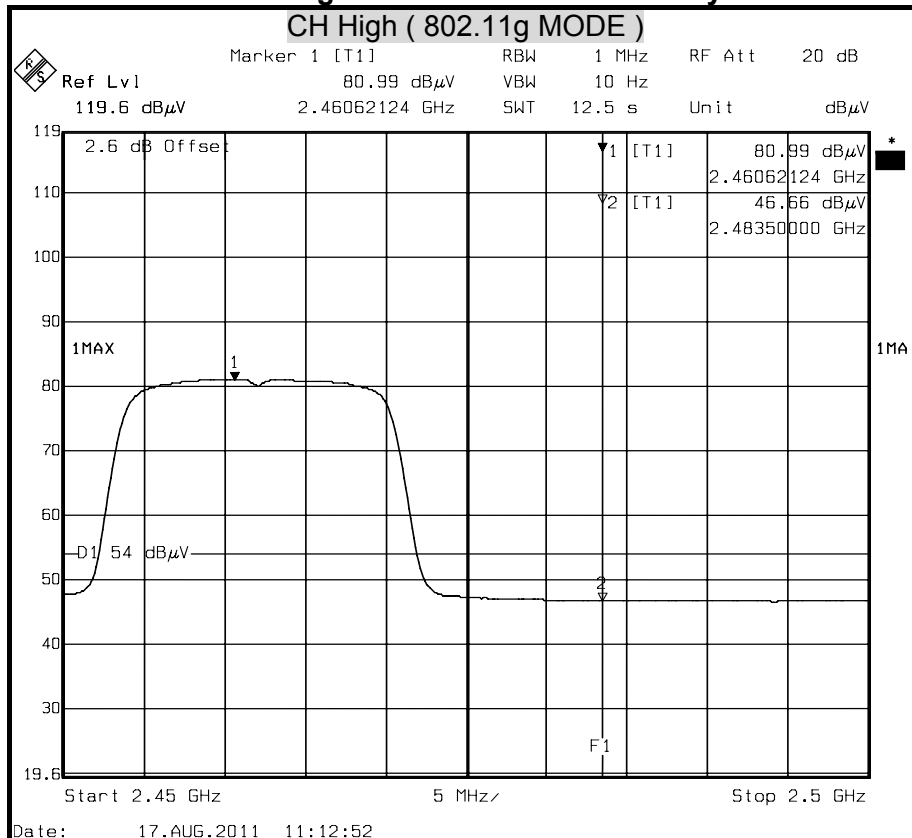
Detector mode : Peak

Polarity : Horizontal



Detector mode : Average

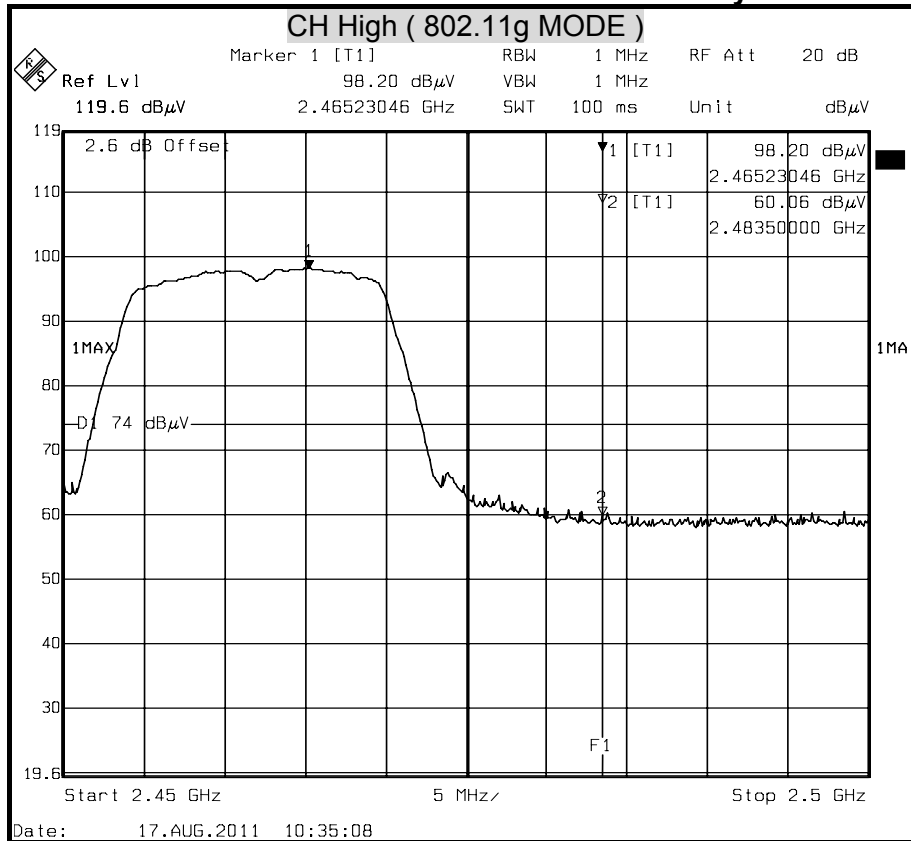
Polarity : Horizontal





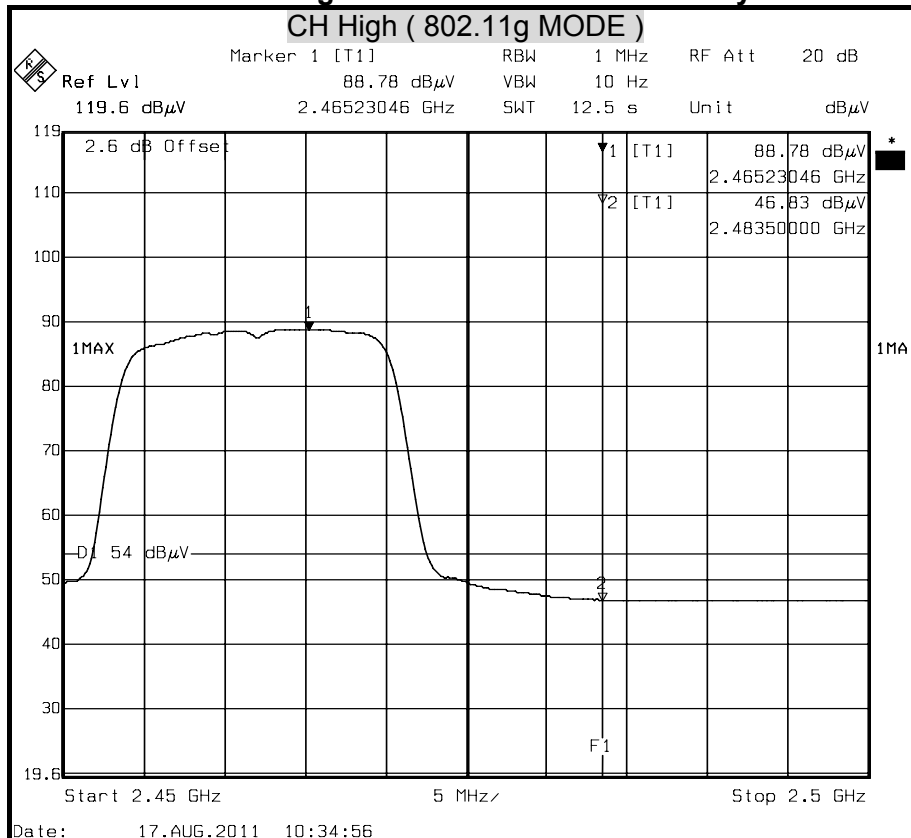
Detector mode : Peak

Polarity : Vertical



Detector mode : Average

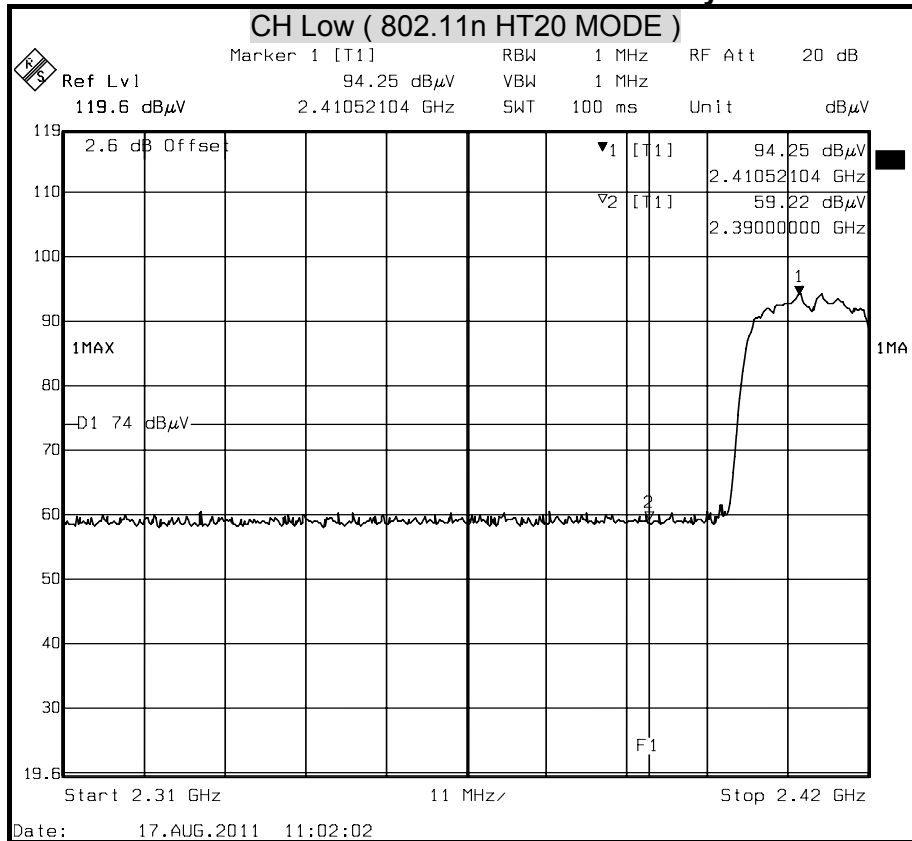
Polarity : Vertical





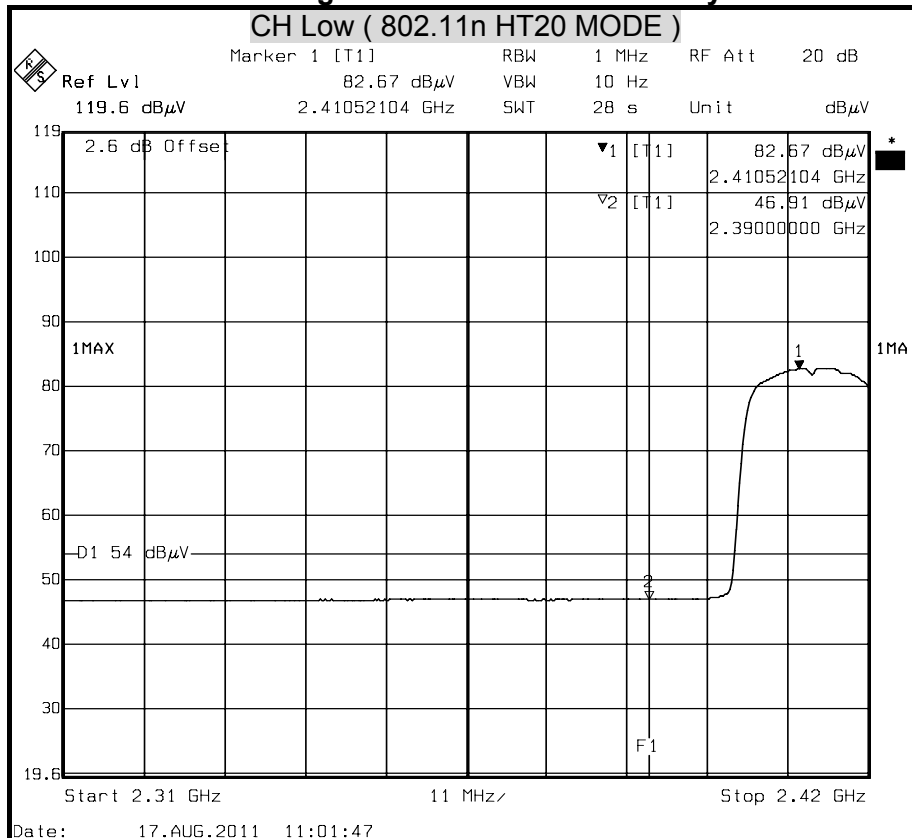
Detector mode : Peak

Polarity : Horizontal



Detector mode : Average

Polarity : Horizontal

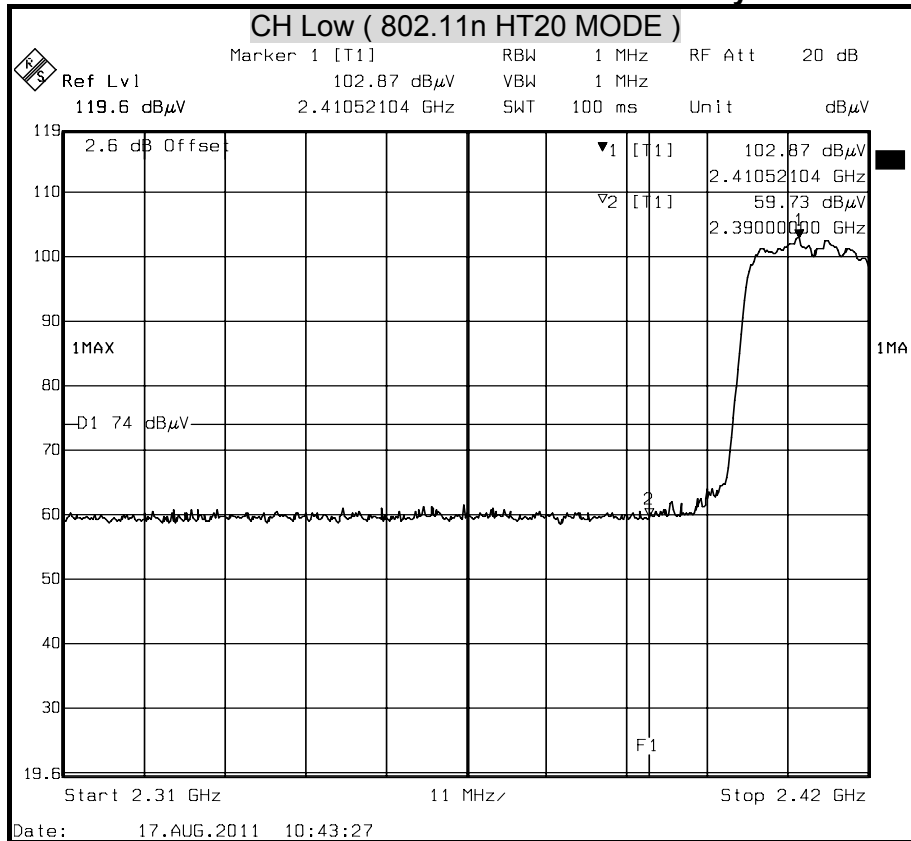






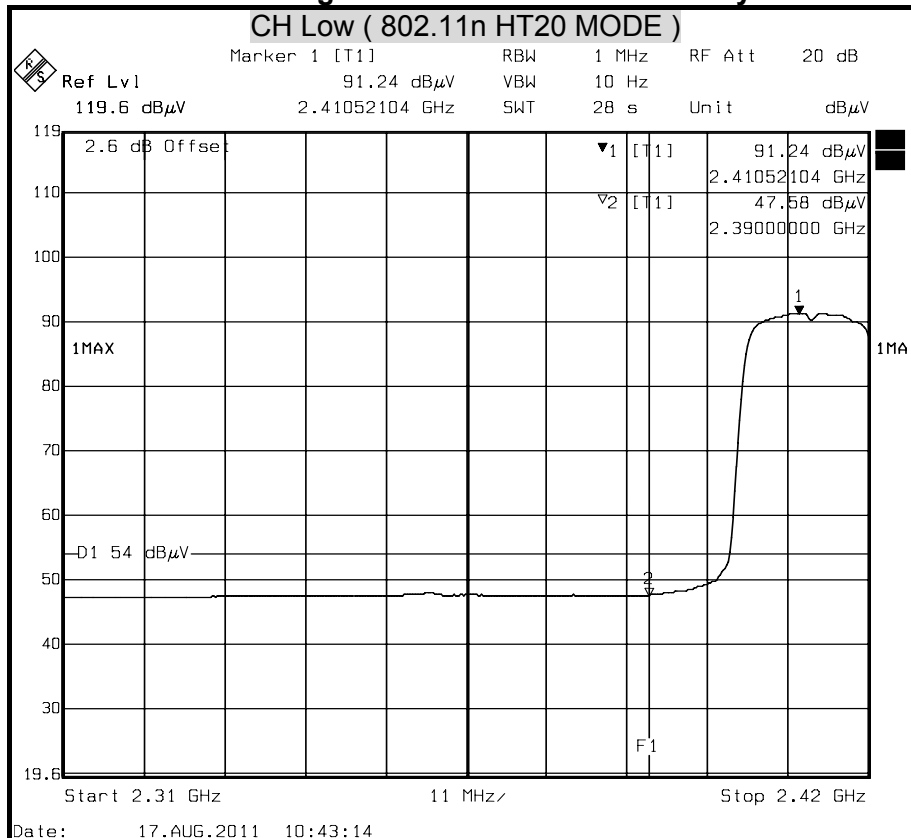
Detector mode : Peak

Polarity : Vertical



Detector mode : Average

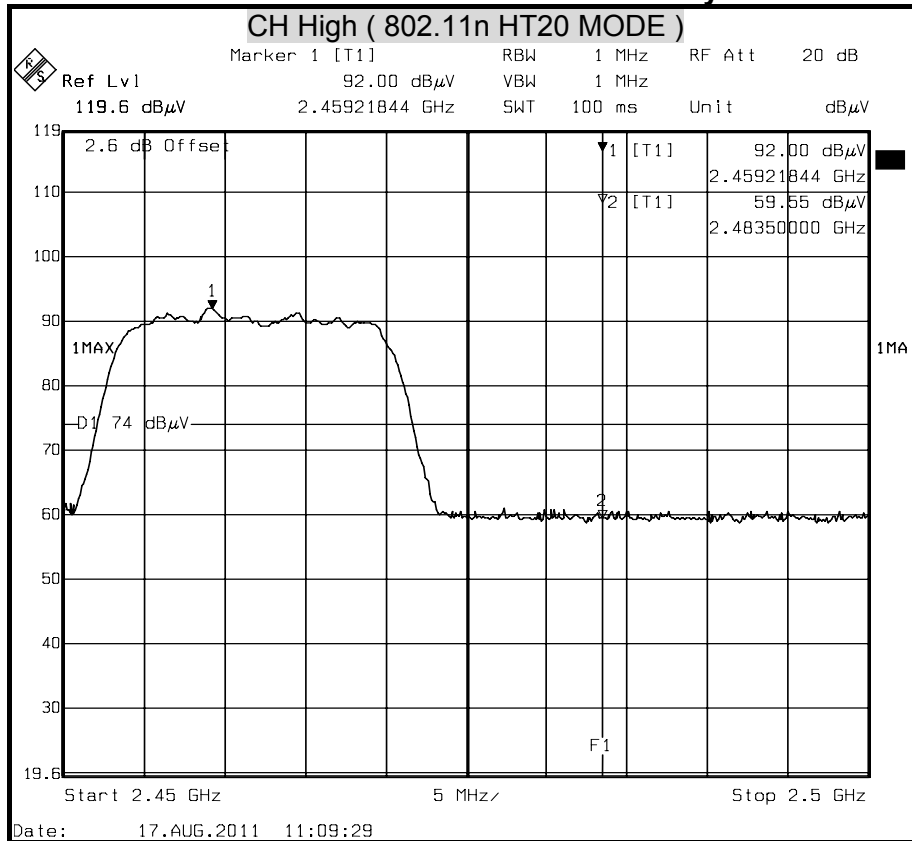
Polarity : Vertical





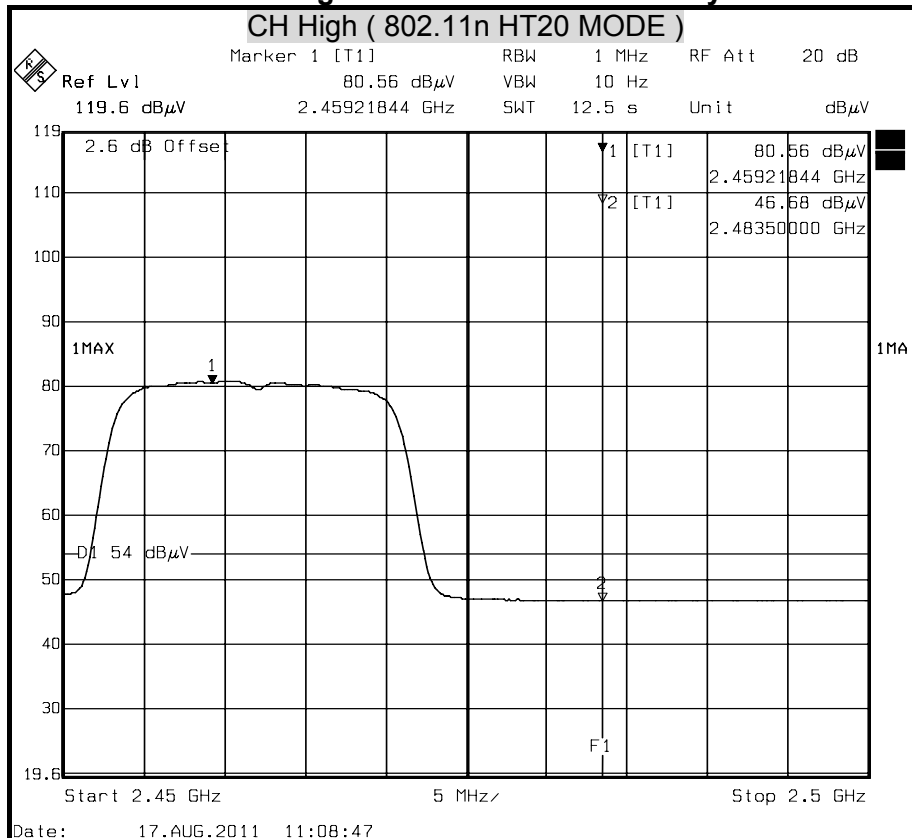
Detector mode : Peak

Polarity : Horizontal



Detector mode : Average

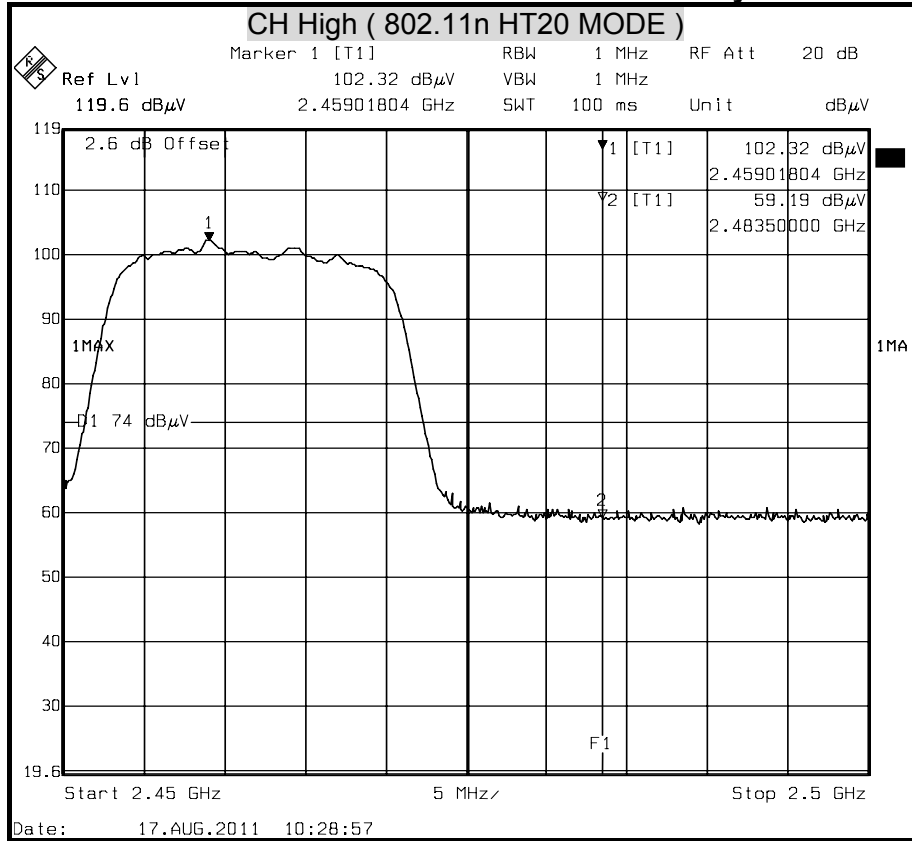
Polarity : Horizontal





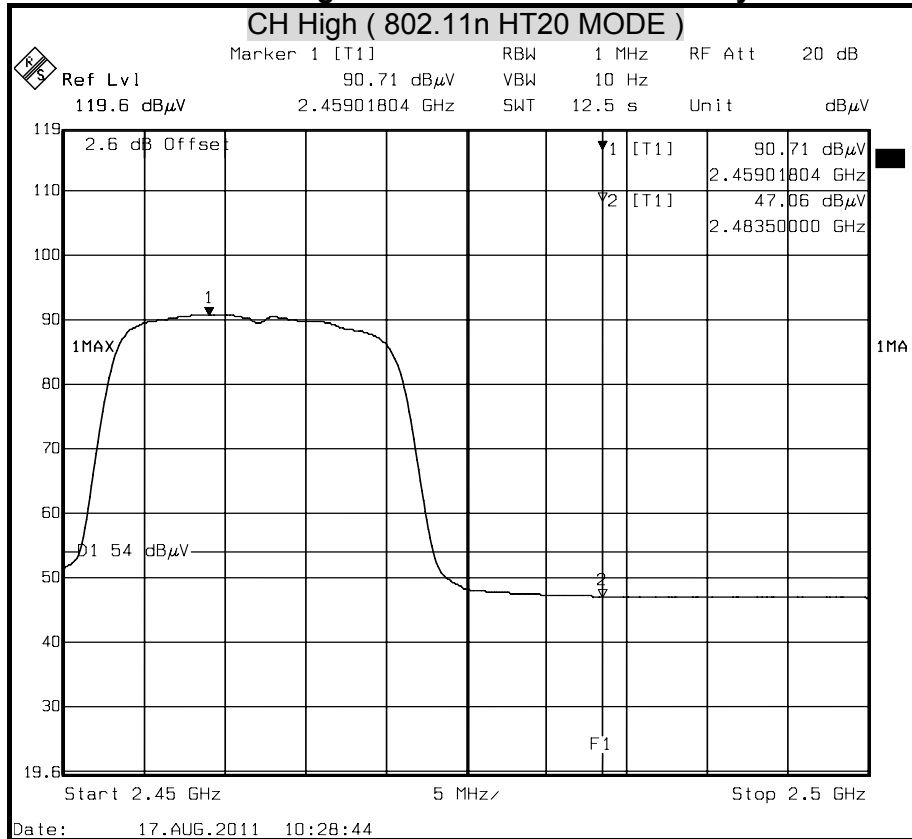
Detector mode : Peak

Polarity : Vertical



Detector mode : Average

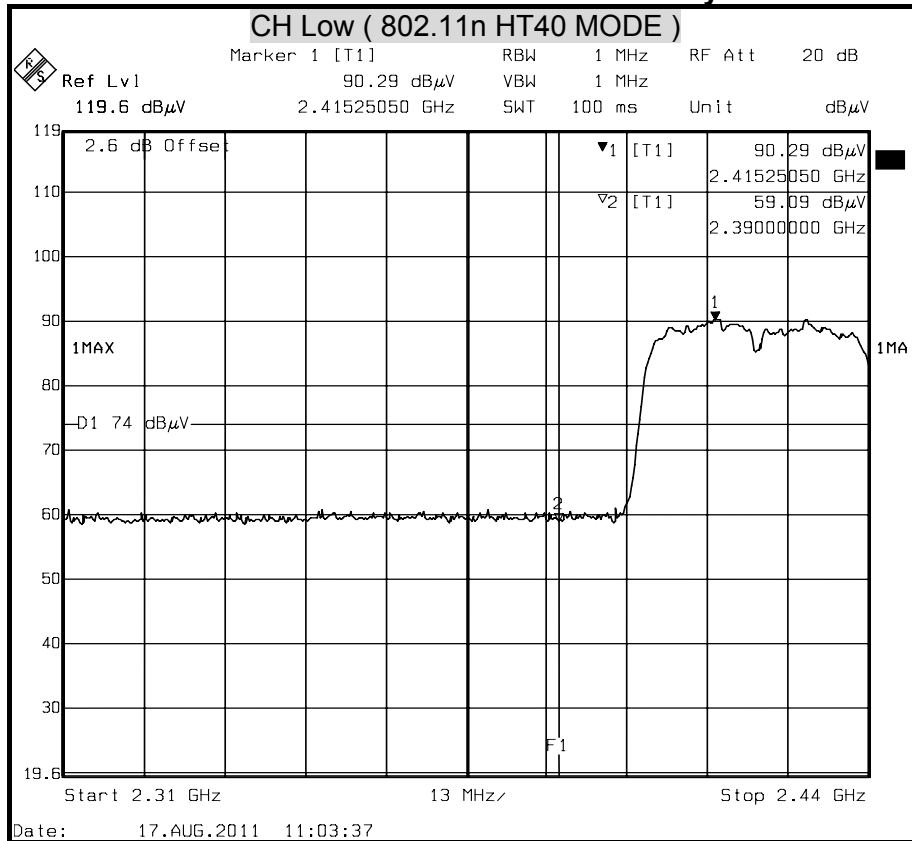
Polarity : Vertical





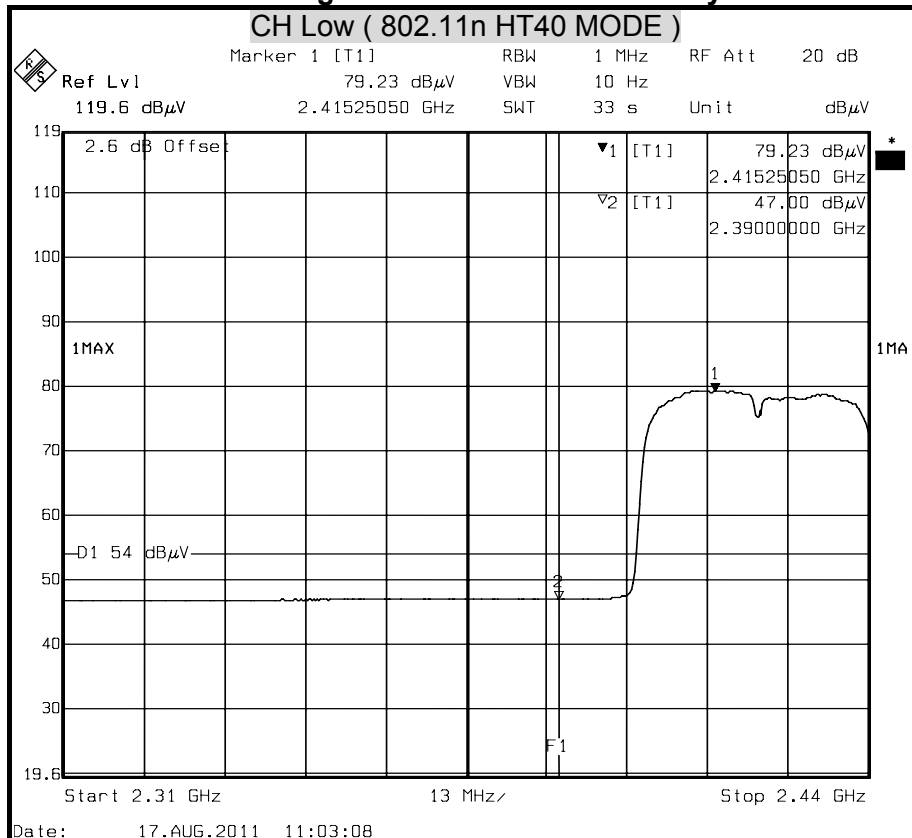
Detector mode : Peak

Polarity : Horizontal



Detector mode : Average

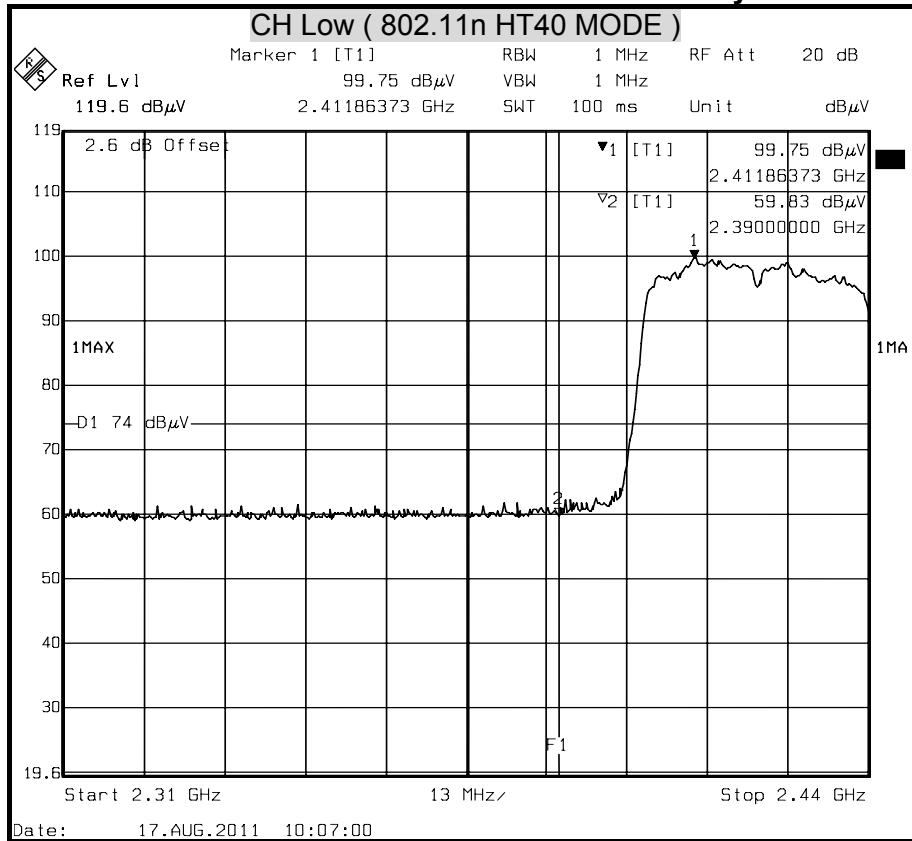
Polarity : Horizontal





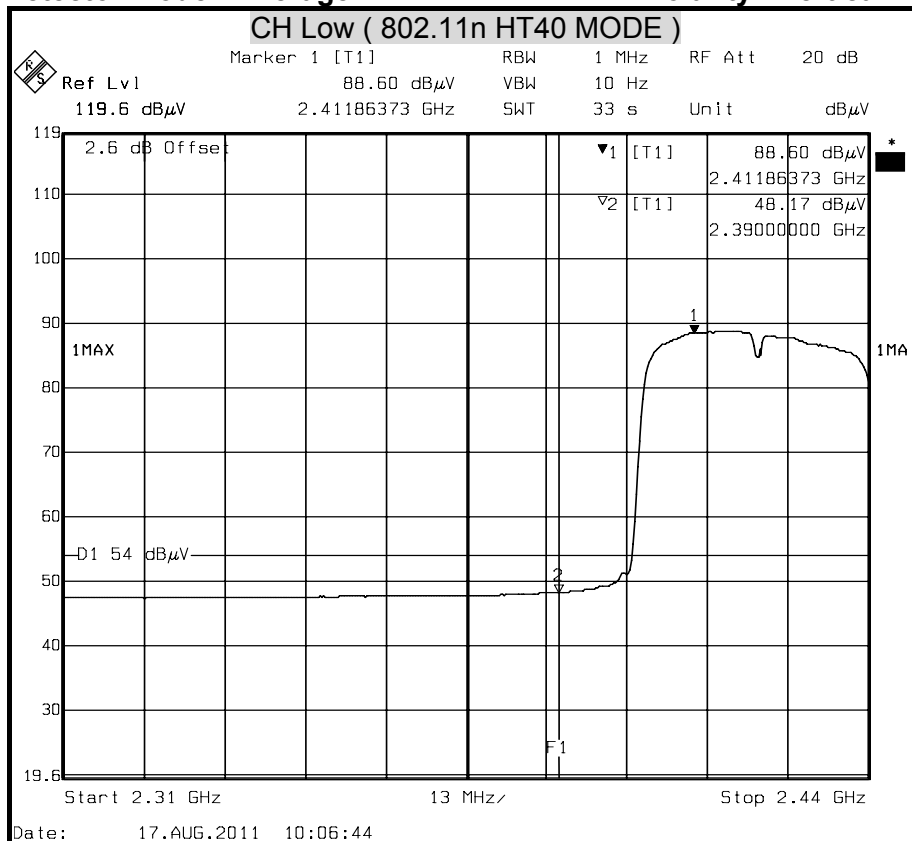
Detector mode : Peak

Polarity : Vertical



Detector mode : Average

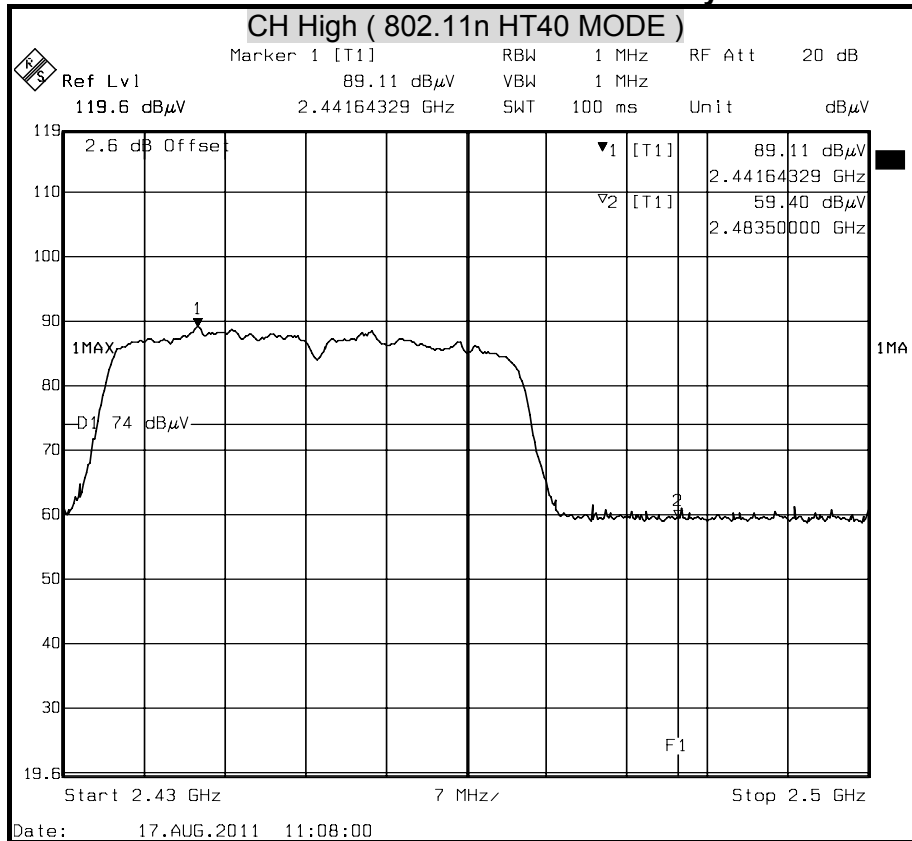
Polarity : Vertical





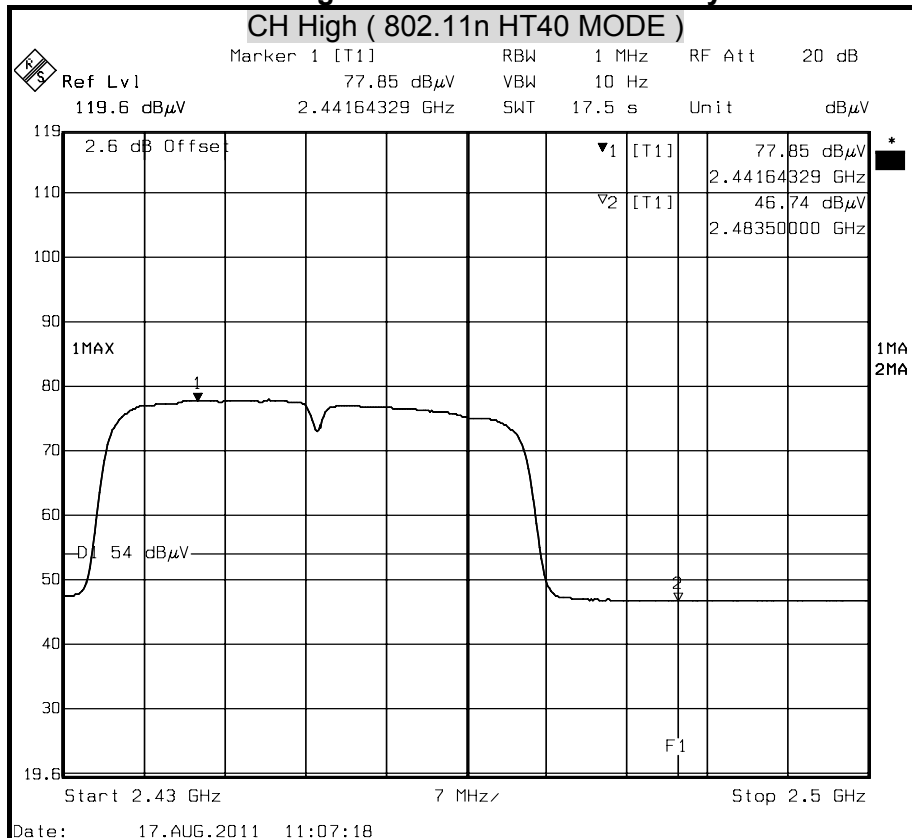
Detector mode : Peak

Polarity : Horizontal



Detector mode : Average

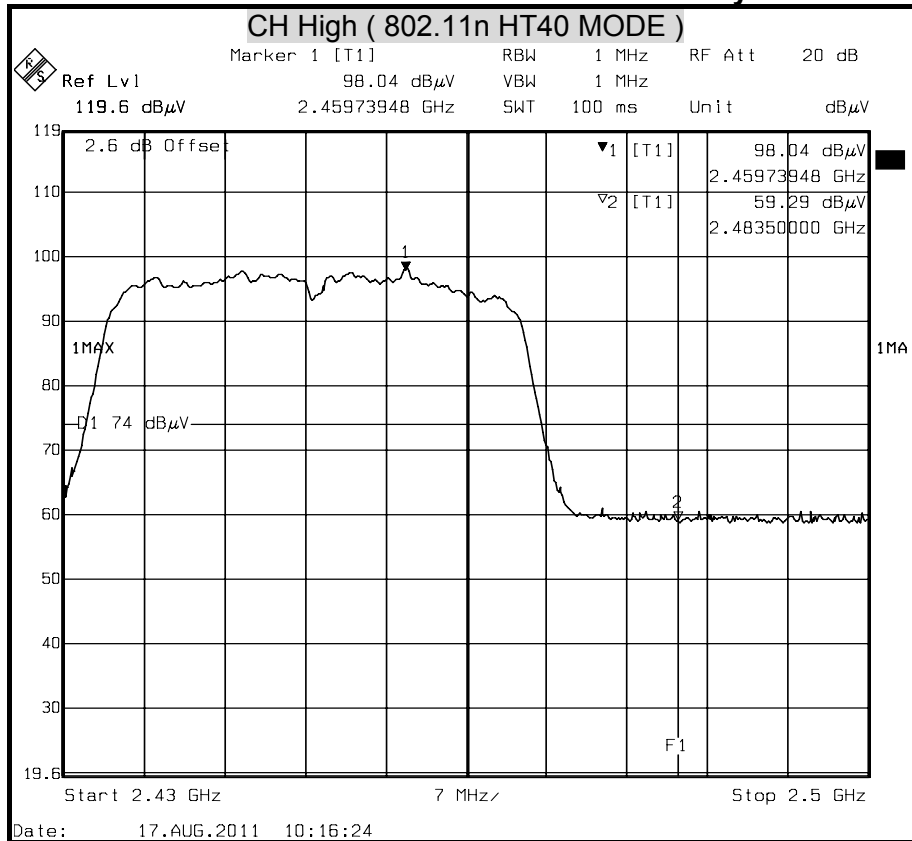
Polarity : Horizontal





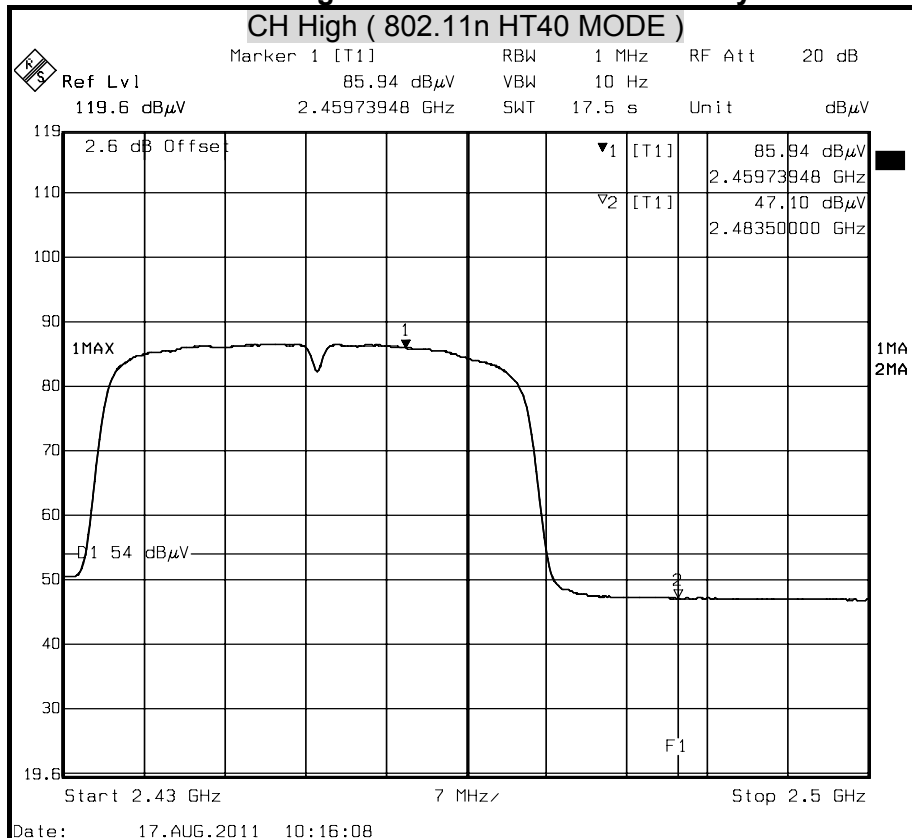
Detector mode : Peak

Polarity : Vertical



Detector mode : Average

Polarity : Vertical





### 8.7 POWERLINE CONDUCTED EMISSIONS

#### LIMITS

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

The lower limit applies at the boundary between the frequency ranges.

Frequency of Emission (MHz)	Conducted limit (dBμv)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56	56 to 46
0.5 - 5	56	46
5 - 30	60	50

#### TEST EQUIPMENTS

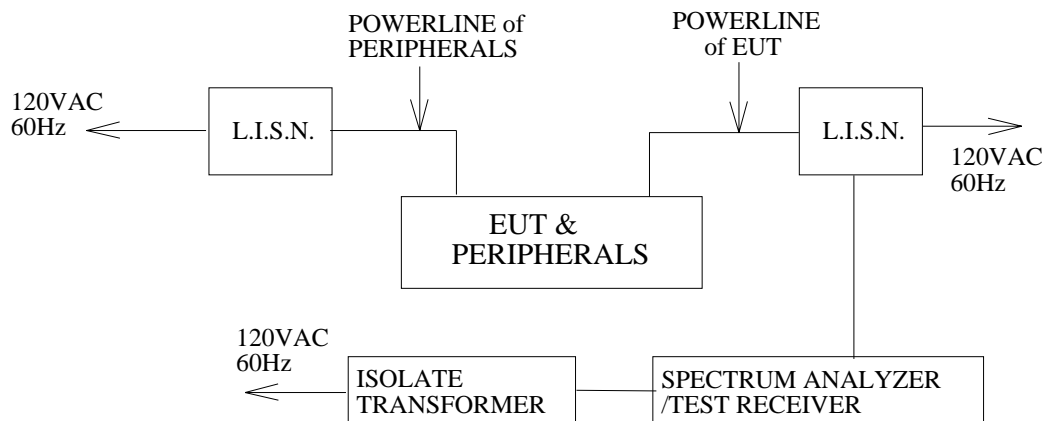
The following test equipments are used during the conducted power line tests :

Conducted Emission room #1				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
L.I.S.N.	SCHWARZBECK	NNLK 8121	8121-308	MAR. 09, 2012
	Rohde & Schwarz	ESH 3-Z5	840062/021	Aug. 02, 2012
TEST RECEIVER	Rohde & Schwarz	ESCS 30	100348	JUL. 03, 2012
TYPE N COAXIAL CABLE	CCS	BNC50	11	OCT. 04, 2011
Test S/W	e-3 (5.04211c) R&S (2.27)			





## TEST SETUP



## TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80cm above the horizontal ground plane. The EUT IS CONFIGURED IN ACCORDANCE WITH ANSI C63.4.

The resolution bandwidth is set to 9 kHz for both quasi-peak detection and average detection measurements.

Line conducted data is recorded for both NEUTRAL and LINE.

## TEST RESULTS

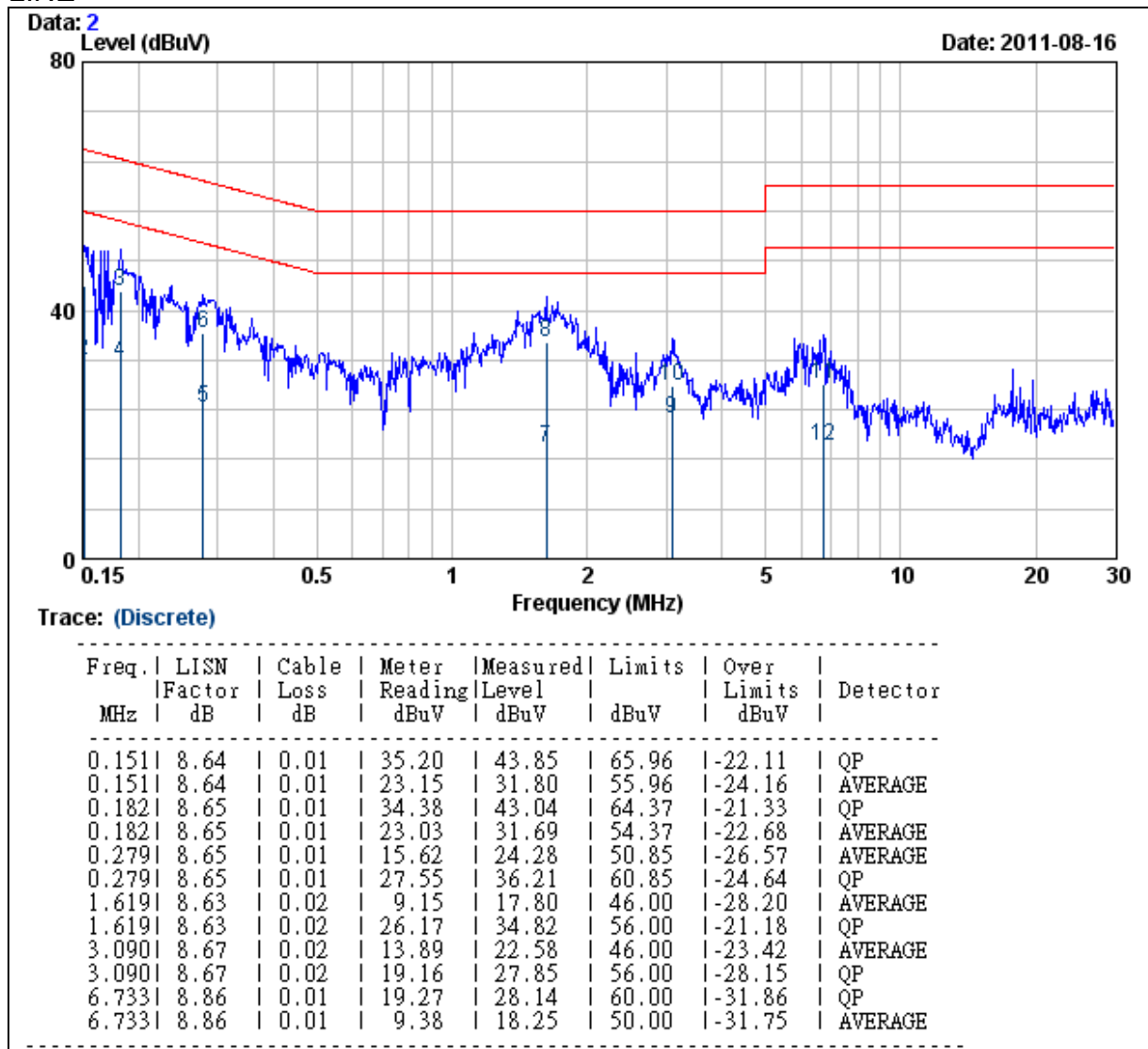
No non-compliance noted.



**CONDUCTED RF VOLTAGE MEASUREMENT**

<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/16
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	Shiang Su
<b>Test Mode</b>	Normal operating	<b>TEMP &amp; Humidity</b>	25.9°C, 53%
<b>Adapter Model No.</b>	AMS9-0502000FU2		

LINE



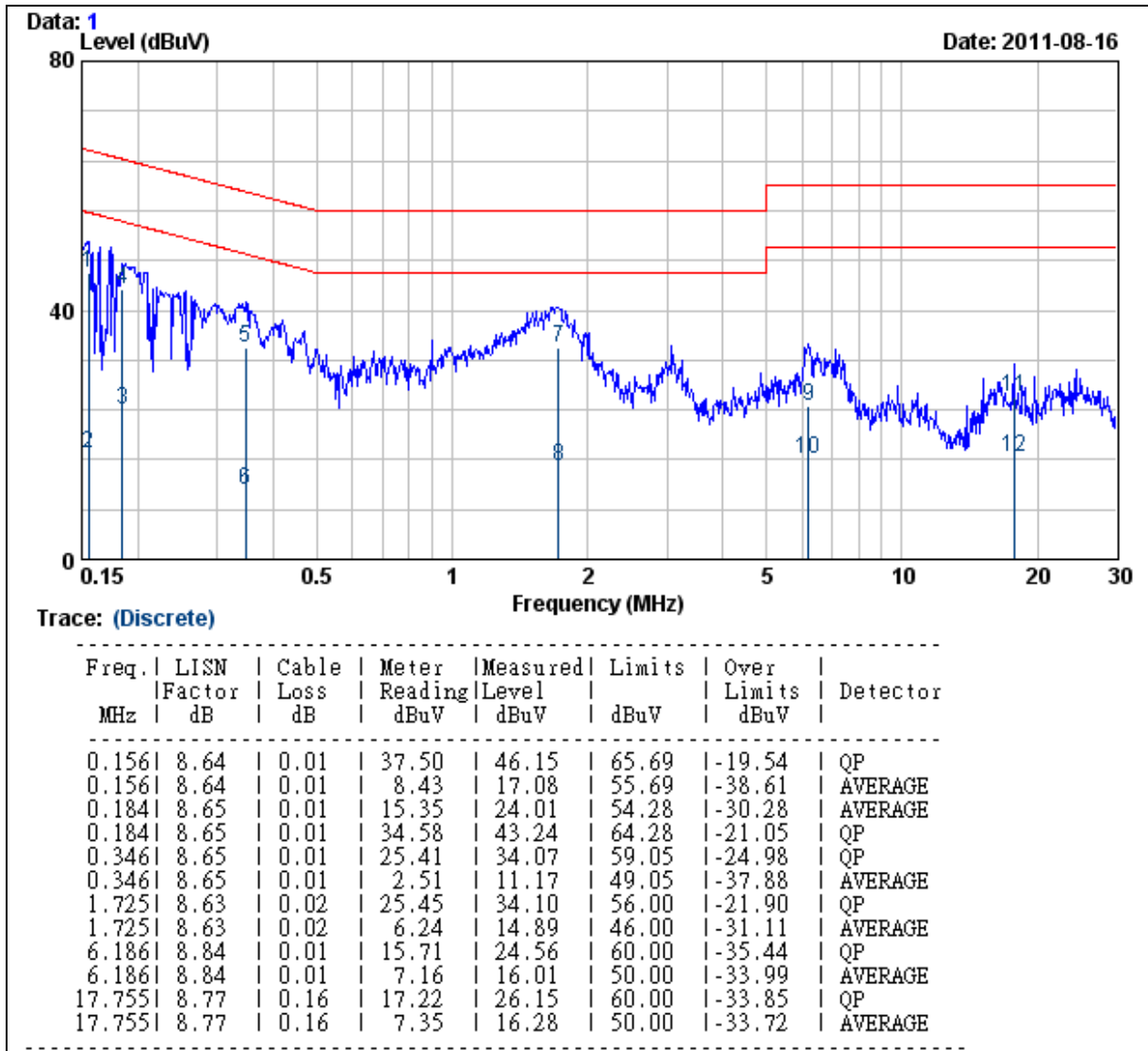
**REMARK:**

1. Correction Factor = Insertion loss + cable loss
2. Margin value = Emission level – Limit value



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/16
<b>Model</b>	CDW571AM-U02	<b>Test By</b>	Shiang Su
<b>Test Mode</b>	Normal operating	<b>TEMP &amp; Humidity</b>	25.9°C, 53%
<b>Adapter Model No.</b>	AMS9-0502000FU2		

NEUTRAL



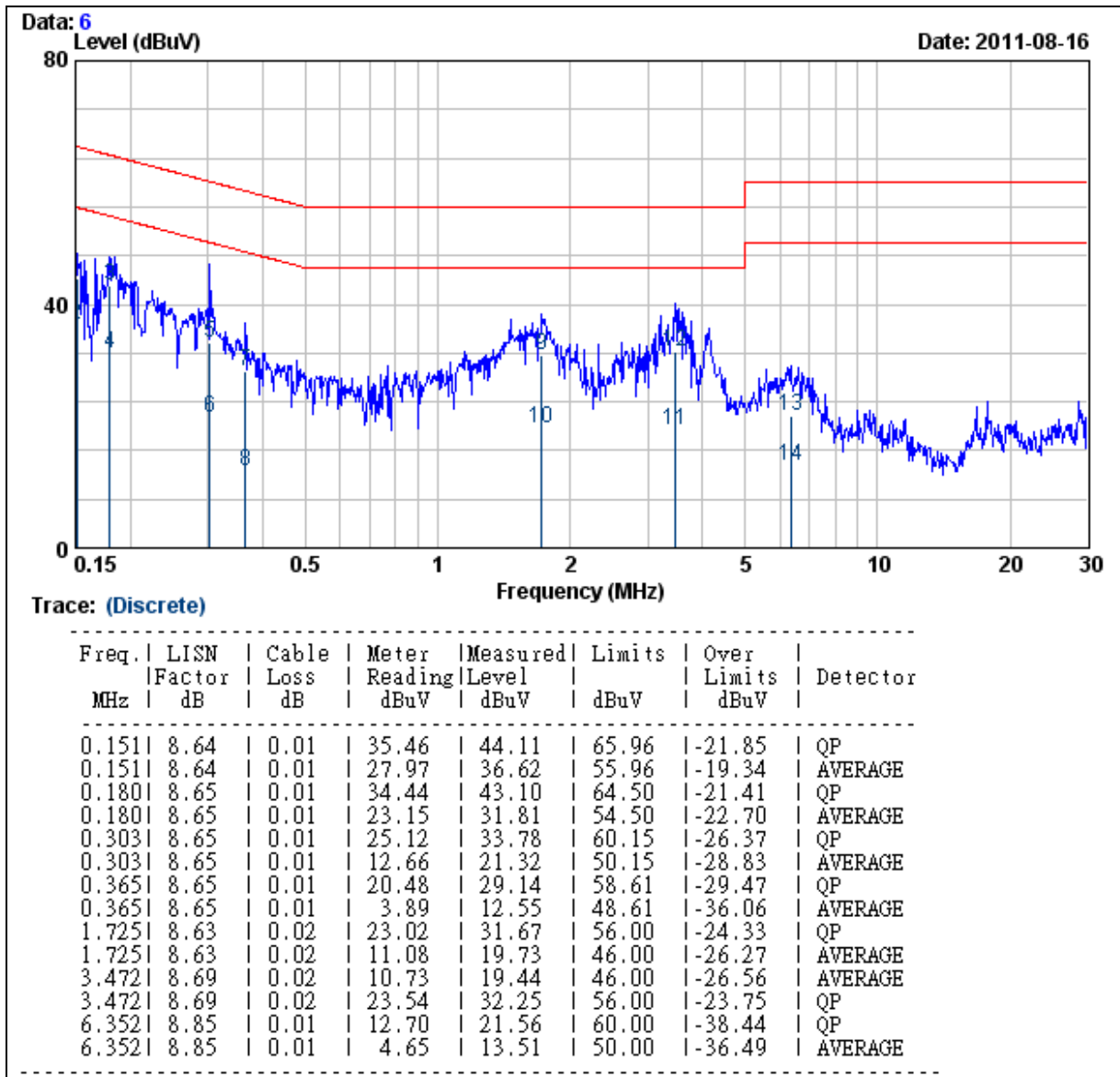
REMARK:

1. Correction Factor = Insertion loss + cable loss
2. Margin value = Emission level – Limit value



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/16
<b>Model</b>	CDE570AM-U02	<b>Test By</b>	Shiang Su
<b>Test Mode</b>	Normal operating	<b>TEMP &amp; Humidity</b>	25.9°C, 53%
<b>Adapter Model No.</b>	AMS9-0502000FU2		

LINE



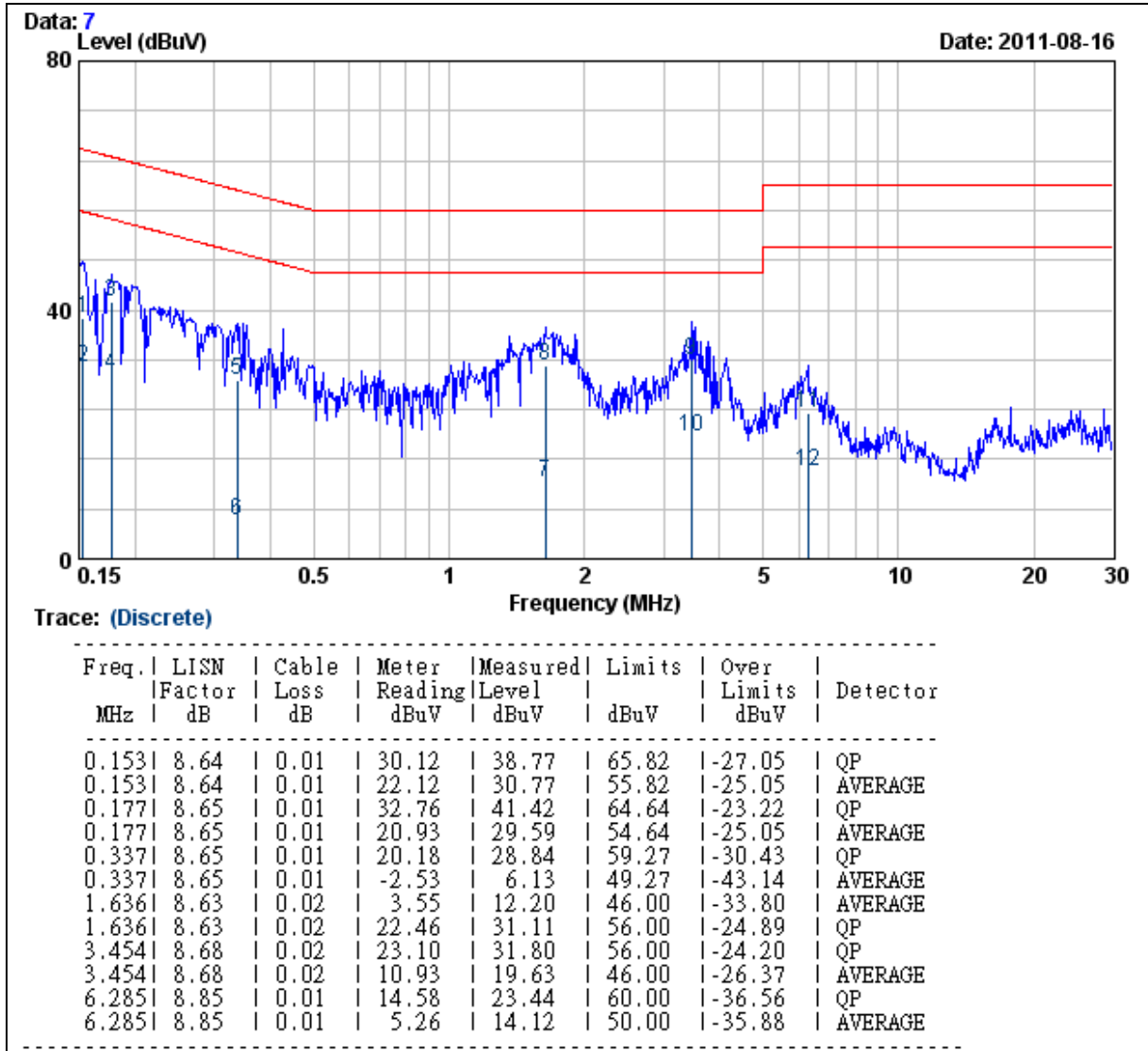
REMARK:

1. Correction Factor = Insertion loss + cable loss
2. Margin value = Emission level – Limit value



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/16
<b>Model</b>	CDE570AM-U02	<b>Test By</b>	Shiang Su
<b>Test Mode</b>	Normal operating	<b>TEMP &amp; Humidity</b>	25.9°C, 53%
<b>Adapter Model No.</b>	AMS9-0502000FU2		

NEUTRAL



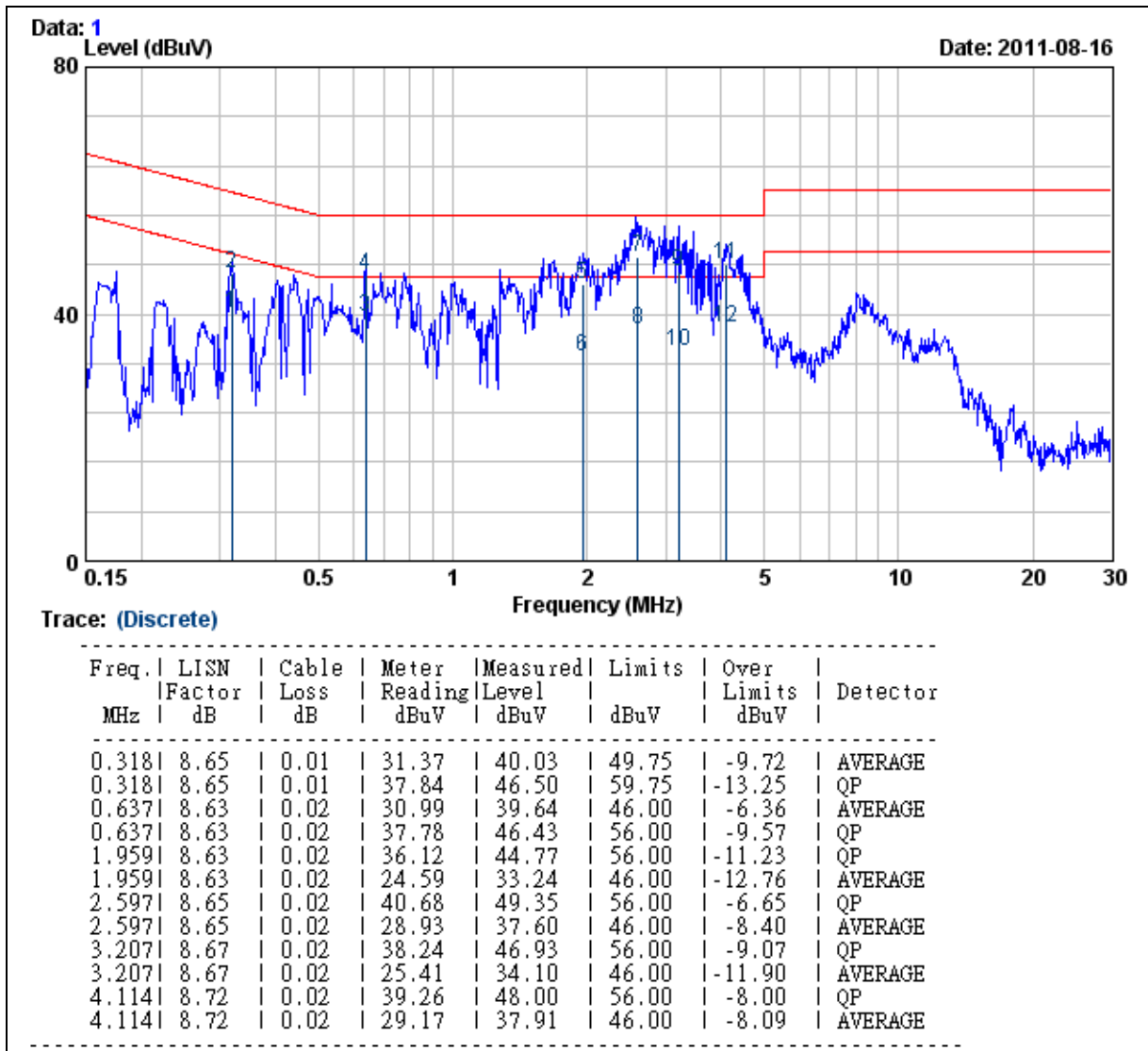
REMARK:

1. Correction Factor = Insertion loss + cable loss
2. Margin value = Emission level – Limit value



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/16
<b>Model</b>	CDE570AM-002	<b>Test By</b>	Shiang Su
<b>Test Mode</b>	Normal operating	<b>TEMP &amp; Humidity</b>	25.9°C, 53%
<b>Adapter Model No.</b>	AMS1-0501200FU		

LINE



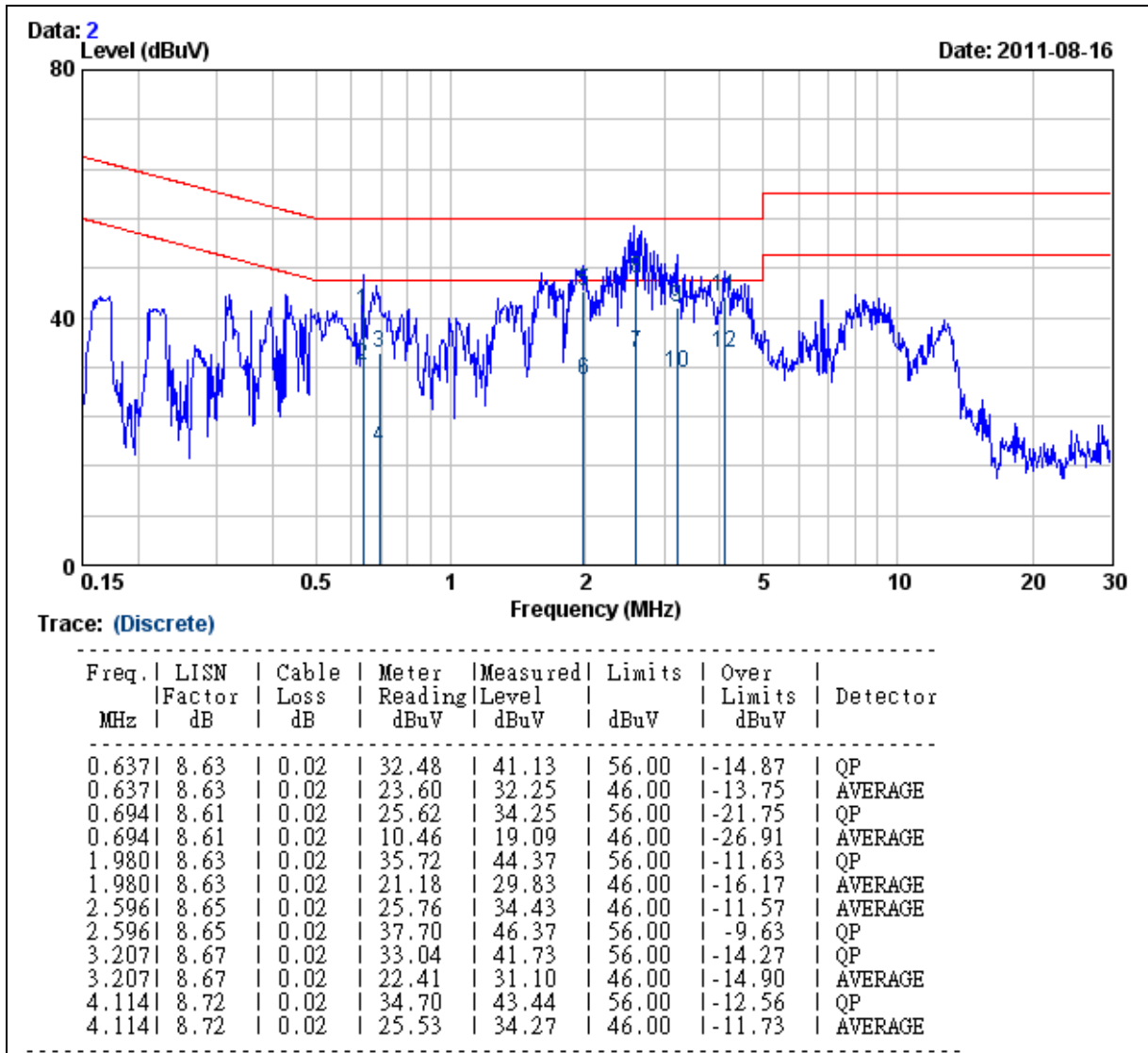
REMARK:

1. Correction Factor = Insertion loss + cable loss
2. Margin value = Emission level – Limit value



<b>Product Name</b>	WiFi Broadband Router	<b>Test Date</b>	2011/08/16
<b>Model</b>	CDE570AM-002	<b>Test By</b>	Shiang Su
<b>Test Mode</b>	Normal operating	<b>TEMP &amp; Humidity</b>	25.9°C, 53%
<b>Adapter Model No.</b>	AMS1-0501200FU		

NEUTRAL



REMARK:

1. Correction Factor = Insertion loss + cable loss
2. Margin value = Emission level – Limit value



## 9. ANTENNA REQUIREMENT

### 9.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, 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.

And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

### 9.2 ANTENNA CONNECTED CONSTRUCTION

The antenna spec. As below:

#### **Replace antenna\*2**

##### **1.Dipole antenna 1 (2T2R)**

Type: Dipole Antenna

Model: GY111HT467-012

Gain: 2.35 dBi

##### **2.Dipole antenna 2 (2T2R)**

Type: Dipole Antenna

Model: C381-510150-A

Gain: 2 dBi