



8.8.2 WORST-CASE RADIATED EMISSION BELOW 1 GHz

Product Name	1 In Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	Normal operating (worst case)	TEMP& Humidity	27.5°C, 52%

Adapter Number: AMS2-0501500FU

Horizontal

Frequency	Meter Reading	Antenna Factor	Cable Loss	Emission Level	Limits	Margin	Detector Mode
(MHz)	(dBμV)	(dB/M)	(dB)	(dBμV/M)	(dB μ V/M)	(dB)	PK/QP
67.35	20.57	7.75	1.52	29.84	40.00	-10.16	QP
125.00	19.65	13.67	2.12	35.44	43.50	-8.06	QP
250.00	25.67	12.37	3.04	41.07	46.00	-4.93	QP
375.00	15.74	15.59	3.68	35.01	46.00	-11.00	QP
500.00	18.58	18.01	4.49	41.08	46.00	-4.92	QP
750.00	12.84	21.20	5.71	39.75	46.00	-6.25	QP
875.00	13.54	22.52	6.25	42.31	46.00	-3.70	QP
N/A	-----	-----	-----	-----	-----	-----	-----

Vertical

Frequency	Meter Reading	Antenna Factor	Cable Loss	Emission Level	Limits	Margin	Detector Mode
(MHz)	(dBμV)	(dB/M)	(dB)	(dBμV/M)	(dB μ V/M)	(dB)	PK/QP
55.98	23.65	7.91	1.43	32.99	40.00	-7.01	QP
125.00	16.54	13.67	2.12	32.33	43.50	-11.17	QP
250.00	23.54	12.37	3.04	38.94	46.00	-7.06	QP
375.00	12.75	15.59	3.68	32.02	46.00	-13.99	QP
500.00	19.58	18.01	4.49	42.08	46.00	-3.92	QP
750.00	12.64	21.20	5.71	39.55	46.00	-6.45	QP
875.00	10.47	22.52	6.25	39.24	46.00	-6.77	QP
N/A	-----	-----	-----	-----	-----	-----	-----

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



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	Normal operating (worst case)	TEMP& Humidity	27.5°C, 52%

Adapter Number: M2-12USG05R-A

Horizontal

Frequency	Meter Reading	Antenna Factor	Cable Loss	Emission Level	Limits	Margin	Detector Mode
(MHz)	(dB μ V)	(dB/M)	(dB)	(dB μ V/M)	(dB μ V/M)	(dB)	PK/QP
49.35	18.72	8.52	1.38	28.62	40.00	-11.38	QP
125.00	18.64	13.67	2.12	34.43	43.50	-9.07	QP
250.00	24.31	12.37	3.04	39.71	46.00	-6.29	QP
375.00	16.84	15.59	3.68	36.11	46.00	-9.90	QP
500.00	17.85	18.01	4.49	40.35	46.00	-5.65	QP
750.00	13.11	21.20	5.71	40.02	46.00	-5.98	QP
875.00	12.64	22.52	6.25	41.41	46.00	-4.60	QP
N/A	-----	-----	-----	-----	-----	-----	-----

Vertical

Frequency	Meter Reading	Antenna Factor	Cable Loss	Emission Level	Limits	Margin	Detector Mode
(MHz)	(dB μ V)	(dB/M)	(dB)	(dB μ V/M)	(dB μ V/M)	(dB)	PK/QP
81.33	20.71	7.74	1.79	30.24	40.00	-9.76	QP
125.00	15.82	13.67	2.12	31.61	43.50	-11.89	QP
250.00	22.70	12.37	3.04	38.10	46.00	-7.90	QP
375.00	12.50	15.59	3.68	31.77	46.00	-14.24	QP
500.00	18.40	18.01	4.49	40.90	46.00	-5.10	QP
750.00	12.69	21.20	5.71	39.60	46.00	-6.40	QP
875.00	11.38	22.52	6.25	40.15	46.00	-5.86	QP
N/A	-----	-----	-----	-----	-----	-----	-----

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



8.8.3 TRANSMITTER RADIATED EMISSION ABOVE 1 GHz

Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11b TX (CH Low)	TEMP& Humidity	25.3°C, 44%

Horizontal

	TX / IEEE 802.11b 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)
*	4824.61	51.24	32.81	3.71	41.34	0.69	47.12	74.00	-26.88	P
*	4824.61	43.66	32.81	3.71	41.34	0.69	39.54	54.00	-14.46	A
	7234.16	48.52	38.83	4.93	41.43	1.43	52.28	74.00	-21.72	P
	7234.16	40.62	38.83	4.93	41.43	1.43	44.38	54.00	-9.62	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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:

$$\text{Level} = \text{Reading} + \text{AF} + \text{Cable} - \text{Preamp} + \text{Filter} - \text{Dist}, \text{Margin} = \text{Level} - \text{Limit}$$
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11b TX (CH Low)	TEMP& Humidity	25.3°C, 44%

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)
*	4823.87	56.32	32.81	3.70	41.34	0.69	52.19	74.00	-21.81	P
*	4823.87	48.72	32.81	3.70	41.34	0.69	44.59	54.00	-9.41	A
	7234.55	51.24	38.83	4.93	41.43	1.43	55.00	74.00	-19.00	P
	7234.55	43.62	38.83	4.93	41.43	1.43	47.38	54.00	-6.62	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11b TX (CH Middle)	TEMP& Humidity	25.3°C, 44%

Horizontal

	TX / IEEE 802.11b 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)
*	4875.26	49.86	32.93	3.73	41.41	0.71	45.82	74.00	-28.18	P
*	4875.26	41.11	32.93	3.73	41.41	0.71	37.07	54.00	-16.93	A
*	7312.62	48.72	38.94	4.96	41.32	1.60	52.90	74.00	-21.10	P
*	7312.62	40.62	38.94	4.96	41.32	1.60	44.80	54.00	-9.20	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11b TX (CH Middle)	TEMP& Humidity	25.3°C, 44%

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)
* 4872.58	53.62	32.92	3.73	41.41	0.71	49.57	74.00	-24.43	P
* 4872.58	44.71	32.92	3.73	41.41	0.71	40.66	54.00	-13.34	A
* 7314.26	50.24	38.94	4.96	41.31	1.60	54.43	74.00	-19.57	P
* 7314.26	43.26	38.94	4.96	41.31	1.60	47.45	54.00	-6.55	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11b TX (CH High)	TEMP& Humidity	25.3°C, 44%

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)
* 4923.55	50.24	33.03	3.76	41.49	0.73	46.28	74.00	-27.72	P
* 4923.55	40.16	33.03	3.76	41.49	0.73	36.20	54.00	-17.80	A
* 7383.22	49.65	39.04	4.99	41.22	1.75	54.21	74.00	-19.79	P
* 7383.22	41.25	39.04	4.99	41.22	1.75	45.81	54.00	-8.19	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11b TX (CH High)	TEMP& Humidity	25.3°C, 44%

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)
* 4923.57	53.26	33.03	3.76	41.49	0.73	49.30	74.00	-24.70	P
* 4923.57	45.68	33.03	3.76	41.49	0.73	41.72	54.00	-12.28	A
* 7384.69	51.24	39.04	4.99	41.21	1.75	55.81	74.00	-18.19	P
* 7384.69	44.62	39.04	4.99	41.21	1.75	49.19	54.00	-4.81	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11g TX (CH Low)	TEMP& Humidity	25.3°C, 44%

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)
* 4824.65	50.24	32.81	3.71	41.34	0.69	46.12	74.00	-27.88	P
* 4824.65	42.61	32.81	3.71	41.34	0.69	38.49	54.00	-15.51	A
7237.53	50.41	38.83	4.93	41.42	1.44	54.19	74.00	-19.81	P
7237.53	42.69	38.83	4.93	41.42	1.44	46.47	54.00	-7.53	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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:

$$\text{Level} = \text{Reading} + \text{AF} + \text{Cable} - \text{Preamp} + \text{Filter} - \text{Dist}, \text{Margin} = \text{Level} - \text{Limit}$$
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11g TX (CH Low)	TEMP& Humidity	25.3°C, 44%

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)	
*	4823.55	53.62	32.81	3.70	41.34	0.69	49.49	74.00	-24.51	P
*	4823.55	45.71	32.81	3.70	41.34	0.69	41.58	54.00	-12.42	A
	7235.89	51.42	38.83	4.93	41.43	1.43	55.19	74.00	-18.81	P
	7235.89	44.68	38.83	4.93	41.43	1.43	48.45	54.00	-5.55	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11g TX (CH Middle)	TEMP& Humidity	25.3°C, 44%

Horizontal

	TX / IEEE 802.11g 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)
*	4872.69	50.64	32.92	3.73	41.41	0.71	46.59	74.00	-27.41	P
*	4872.69	42.33	32.92	3.73	41.41	0.71	38.28	54.00	-15.72	A
*	7315.82	49.66	38.94	4.96	41.31	1.61	53.86	74.00	-20.14	P
*	7315.82	42.27	38.94	4.96	41.31	1.61	46.47	54.00	-7.53	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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:

$$\text{Level} = \text{Reading} + \text{AF} + \text{Cable} - \text{Preamp} + \text{Filter} - \text{Dist}, \text{Margin} = \text{Level} - \text{Limit}$$
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11g TX (CH Middle)	TEMP& Humidity	25.3°C, 44%

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)
* 4873.25	53.65	32.92	3.73	41.41	0.71	49.60	74.00	-24.40	P
* 4873.25	44.71	32.92	3.73	41.41	0.71	40.66	54.00	-13.34	A
* 7315.46	52.26	38.94	4.96	41.31	1.61	56.46	74.00	-17.54	P
* 7315.46	43.61	38.94	4.96	41.31	1.61	47.81	54.00	-6.19	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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:

$$\text{Level} = \text{Reading} + \text{AF} + \text{Cable} - \text{Preamp} + \text{Filter} - \text{Dist}, \text{Margin} = \text{Level} - \text{Limit}$$
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11g TX (CH High)	TEMP& Humidity	25.3°C, 44%

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)
* 4925.83	50.41	33.04	3.76	41.49	0.73	46.45	74.00	-27.55	P
* 4925.83	42.68	33.04	3.76	41.49	0.73	38.72	54.00	-15.28	A
* 7387.29	50.19	39.04	4.99	41.21	1.76	54.77	74.00	-19.23	P
* 7387.29	41.72	39.04	4.99	41.21	1.76	46.30	54.00	-7.70	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11g TX (CH High)	TEMP& Humidity	25.3°C, 44%

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)
* 4923.55	53.62	33.03	3.76	41.49	0.73	49.66	74.00	-24.34	P
* 4923.55	44.75	33.03	3.76	41.49	0.73	40.79	54.00	-13.21	A
* 7386.42	51.89	39.04	4.99	41.21	1.76	56.47	74.00	-17.53	P
* 7386.42	42.67	39.04	4.99	41.21	1.76	47.25	54.00	-6.75	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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:

$$\text{Level} = \text{Reading} + \text{AF} + \text{Cable} - \text{Preamp} + \text{Filter} - \text{Dist}, \text{Margin} = \text{Level} - \text{Limit}$$
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11n HT20 TX (CH Low)	TEMP& Humidity	25.3°C, 44%

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)
*	4823.16	49.72	32.81	3.70	41.33	0.69	45.59	74.00	-28.41	P
*	4823.16	41.58	32.81	3.70	41.33	0.69	37.45	54.00	-16.55	A
	7235.29	50.46	38.83	4.93	41.43	1.43	54.23	74.00	-19.77	P
	7235.29	42.83	38.83	4.93	41.43	1.43	46.60	54.00	-7.40	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11n HT20 TX (CH Low)	TEMP& Humidity	25.3°C, 44%

Vertical

	TX / IEEE 802.11n HT20 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)
*	4825.61	52.87	32.82	3.71	41.34	0.69	48.75	74.00	-25.25	P
*	4825.61	43.61	32.82	3.71	41.34	0.69	39.49	54.00	-14.51	A
	7234.65	52.81	38.83	4.93	41.43	1.43	56.57	74.00	-17.43	P
	7234.65	42.66	38.83	4.93	41.43	1.43	46.42	54.00	-7.58	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11n HT20 TX (CH Middle)	TEMP& Humidity	25.3°C, 44%

Horizontal

	TX / IEEE 802.11n HT20 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)
*	4871.53	49.58	32.92	3.73	41.41	0.71	45.53	74.00	-28.47	P
*	4871.53	42.16	32.92	3.73	41.41	0.71	38.11	54.00	-15.89	A
*	7316.24	50.82	38.94	4.96	41.31	1.61	55.02	74.00	-18.98	P
*	7316.24	42.67	38.94	4.96	41.31	1.61	46.87	54.00	-7.13	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11n HT20 TX (CH Middle)	TEMP& Humidity	25.3°C, 44%

Vertical

TX / IEEE 802.11n HT20 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)
* 4872.16	53.62	32.92	3.73	41.41	0.71	49.57	74.00	-24.43	P
* 4872.16	44.58	32.92	3.73	41.41	0.71	40.53	54.00	-13.47	A
* 7316.24	52.11	38.94	4.96	41.31	1.61	56.31	74.00	-17.69	P
* 7316.24	42.76	38.94	4.96	41.31	1.61	46.96	54.00	-7.04	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11n HT20 TX (CH High)	TEMP& Humidity	25.3°C, 44%

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)
*	4927.65	50.18	33.04	3.76	41.49	0.73	46.22	74.00	-27.78	P
*	4927.65	42.61	33.04	3.76	41.49	0.73	38.65	54.00	-15.35	A
*	7383.46	51.13	39.04	4.99	41.22	1.75	55.69	74.00	-18.31	P
*	7383.46	41.16	39.04	4.99	41.22	1.75	45.72	54.00	-8.28	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11n HT20 TX (CH High)	TEMP& Humidity	25.3°C, 44%

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)
* 4926.57	53.62	33.04	3.76	41.49	0.73	49.66	74.00	-24.34	P
* 4926.57	44.57	33.04	3.76	41.49	0.73	40.61	54.00	-13.39	A
* 7383.69	52.28	39.04	4.99	41.22	1.75	56.84	74.00	-17.16	P
* 7383.69	42.36	39.04	4.99	41.22	1.75	46.92	54.00	-7.08	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11n HT40 TX (CH Low)	TEMP& Humidity	25.3°C, 44%

Horizontal

TX / IEEE 802.11n HT40 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)	
* 4839.65	48.75	32.85	3.71	41.36	0.70	44.65	74.00	-29.35	P	
* 4839.65	39.85	32.85	3.71	41.36	0.70	35.75	54.00	-18.25	A	
* 7264.33	49.82	38.87	4.94	41.38	1.50	53.74	74.00	-20.26	P	
* 7264.33	38.65	38.87	4.94	41.38	1.50	42.57	54.00	-11.43	A	
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P	
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A	

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11n HT40 TX (CH Low)	TEMP& Humidity	25.3°C, 44%

Vertical

TX / IEEE 802.11n HT40 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)	
* 4841.27	52.61	32.85	3.71	41.36	0.70	48.51	74.00	-25.49	P	
* 4841.27	43.18	32.85	3.71	41.36	0.70	39.08	54.00	-14.92	A	
* 7263.64	51.19	38.87	4.94	41.39	1.49	55.11	74.00	-18.89	P	
* 7263.64	40.52	38.87	4.94	41.39	1.49	44.44	54.00	-9.56	A	
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P	
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A	

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11n HT40 TX (CH Middle)	TEMP& Humidity	25.3°C, 44%

Horizontal

	TX / IEEE 802.11n HT40 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)
*	4873.62	48.72	32.92	3.73	41.41	0.71	44.68	74.00	-29.32	P
*	4873.62	38.26	32.92	3.73	41.41	0.71	34.22	54.00	-19.78	A
*	7292.36	48.65	38.91	4.95	41.34	1.56	52.72	74.00	-21.28	P
*	7292.36	39.11	38.91	4.95	41.34	1.56	43.18	54.00	-10.82	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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:

$$\text{Level} = \text{Reading} + \text{AF} + \text{Cable} - \text{Preamp} + \text{Filter} - \text{Dist}, \text{Margin} = \text{Level} - \text{Limit}$$
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11n HT40 TX (CH Middle)	TEMP& Humidity	25.3°C, 44%

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)
* 4873.54	49.25	32.92	3.73	41.41	0.71	45.21	74.00	-28.79	P
* 4873.54	39.65	32.92	3.73	41.41	0.71	35.61	54.00	-18.39	A
* 7293.54	50.16	38.91	4.95	41.34	1.56	54.24	74.00	-19.76	P
* 7293.54	41.13	38.91	4.95	41.34	1.56	45.21	54.00	-8.79	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11n HT40 TX (CH High)	TEMP& Humidity	25.3°C, 44%

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)
*	4904.26	48.15	32.99	3.75	41.46	0.72	44.15	74.00	-29.85	P
*	4904.26	38.56	32.99	3.75	41.46	0.72	34.56	54.00	-19.44	A
*	7355.42	48.61	39.00	4.98	41.26	1.69	53.02	74.00	-20.98	P
*	7355.42	39.25	39.00	4.98	41.26	1.69	43.66	54.00	-10.34	A
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
	N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
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.



Product Name	11n Download Server Router	Test Date	2009/1/14
Model	CDR-905	Test By	Eric Yang
Test Mode	IEEE 802.11n HT40 TX (CH High)	TEMP& Humidity	25.3°C, 44%

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)
* 4903.62	51.13	32.99	3.75	41.46	0.72	47.13	74.00	-26.87	P
* 4903.62	42.38	32.99	3.75	41.46	0.72	38.38	54.00	-15.62	A
* 7356.36	51.42	39.00	4.98	41.25	1.69	55.84	74.00	-18.16	P
* 7356.36	42.86	39.00	4.98	41.25	1.69	47.28	54.00	-6.72	A
N/A	-----	-----	-----	-----	-----	-----	-----	-----	P
N/A	-----	-----	-----	-----	-----	-----	-----	-----	A

REMARK:

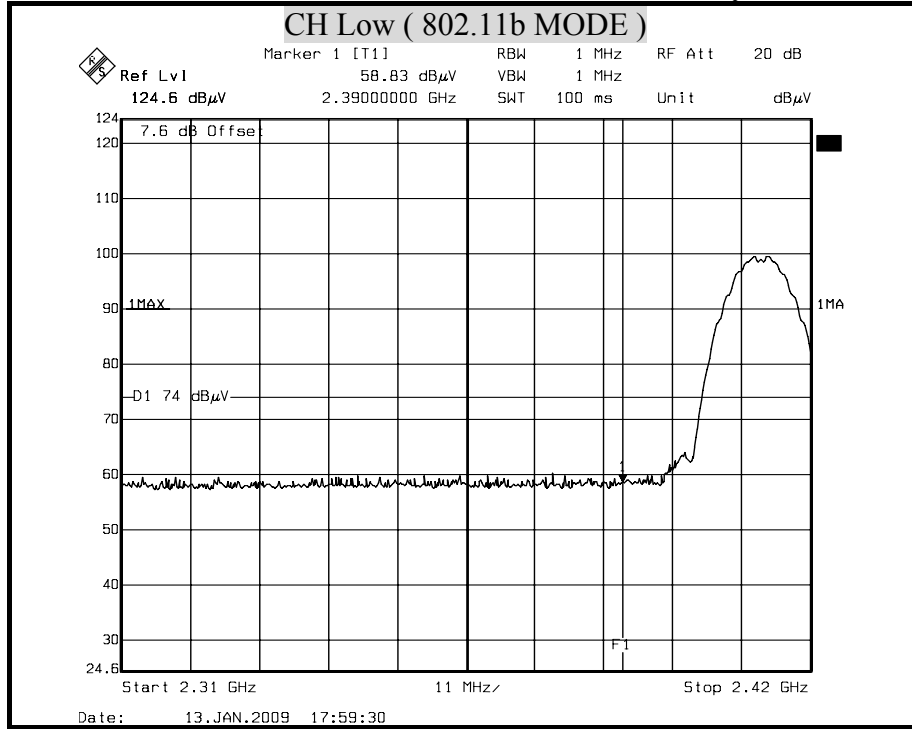
1. AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: High Pass Filter Insertion Loss (3.5GHz)
2. Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz
3. The result basic equation calculation is as follow:

$$\text{Level} = \text{Reading} + \text{AF} + \text{Cable} - \text{Preamp} + \text{Filter} - \text{Dist}, \text{Margin} = \text{Level} - \text{Limit}$$
4. The other emission levels were 20dB below the limit
5. The test limit distance is 3M limit.

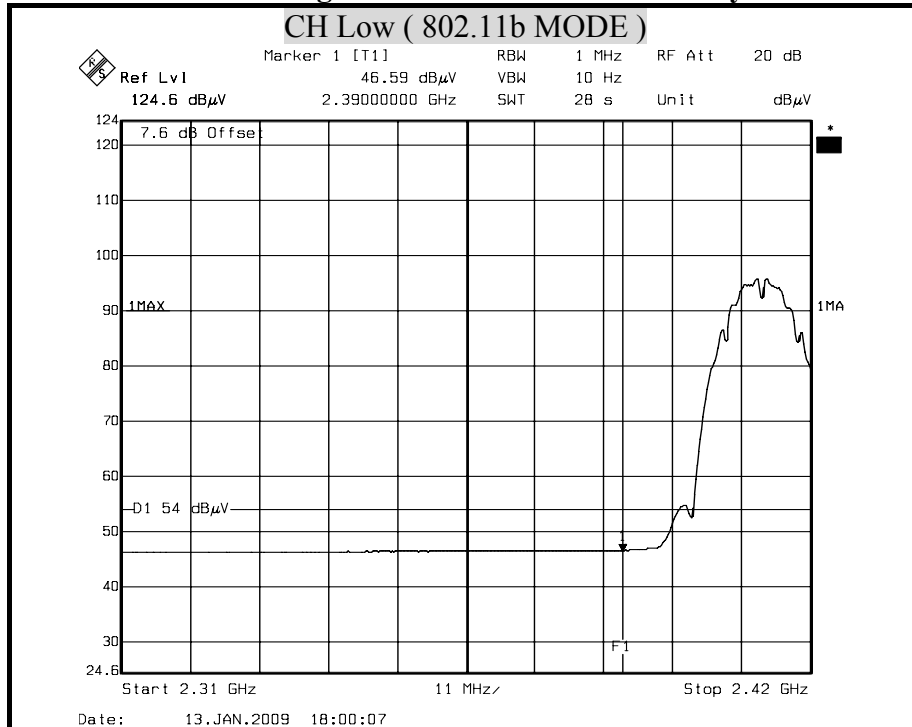


8.8.4 RESTRICTED BAND EDGES

Detector mode : Peak **Polarity : Horizontal**



Detector mode : Average **Polarity : Horizontal**



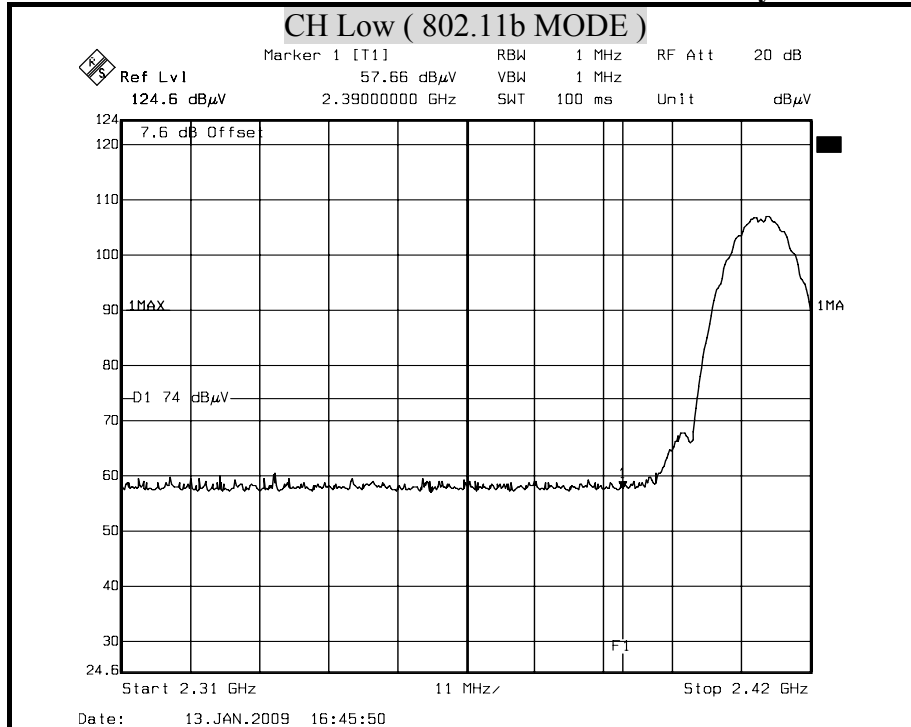
Remark:

1. Display Line = 54/74 dB µ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
3. 2483.5MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.62(dB)



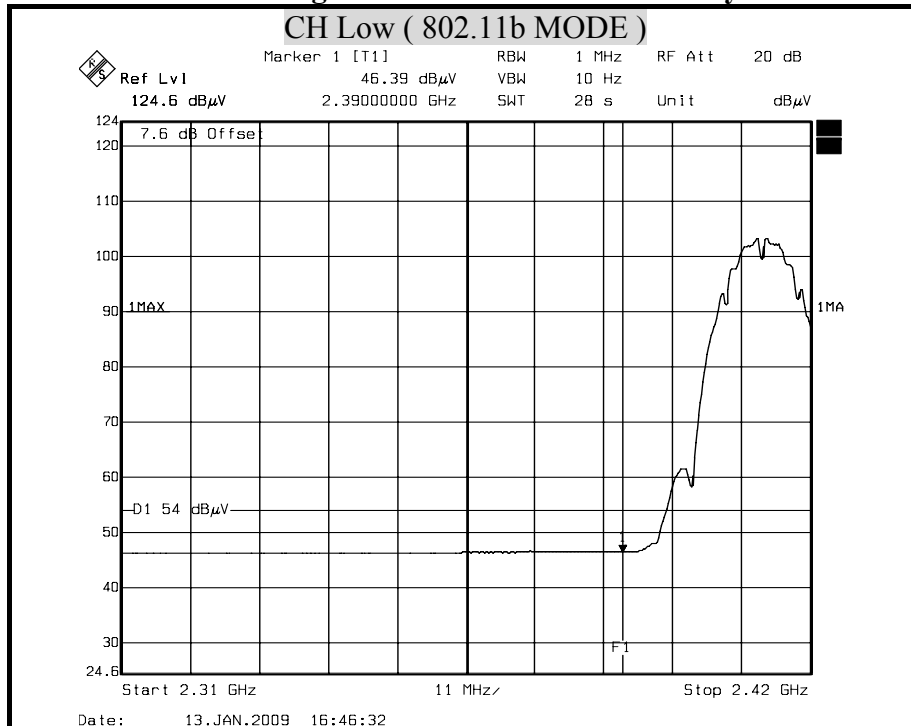
Detector mode : Peak

Polarity : Vertical



Detector mode : Average

Polarity : Vertical



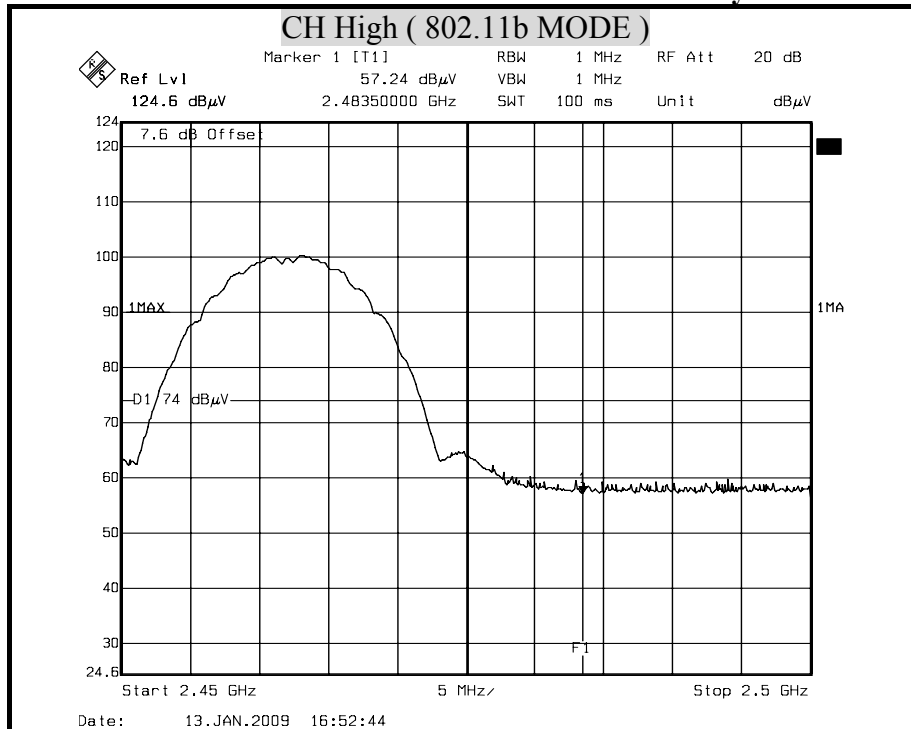
Remark:

1. Display Line = 54/74 dB μ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
3. 2483.5MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.62(dB)



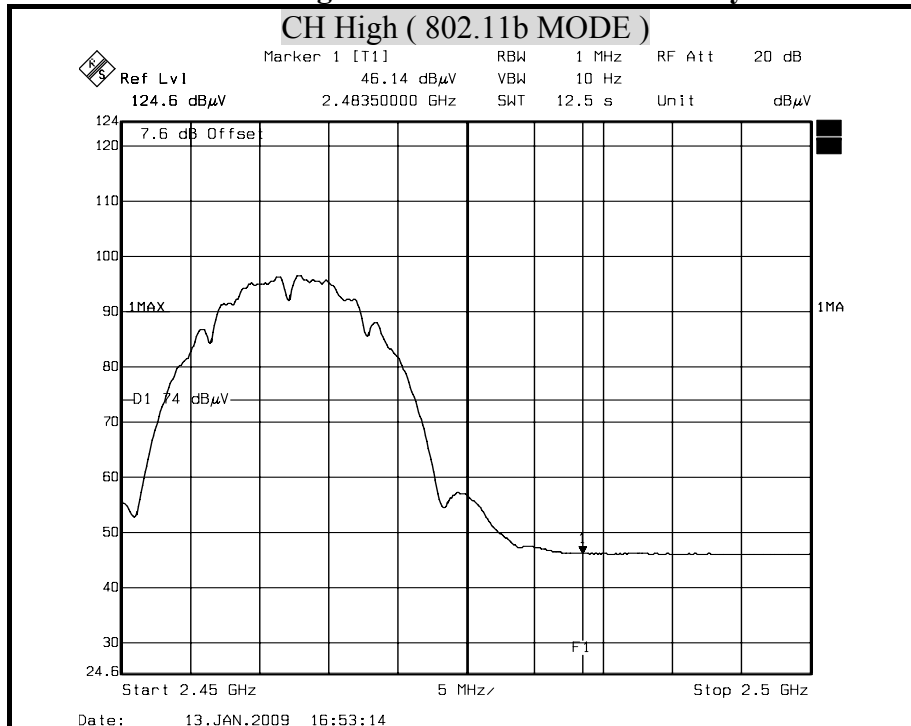
Detector mode : Peak

Polarity : Horizontal



Detector mode : Average

Polarity : Horizontal



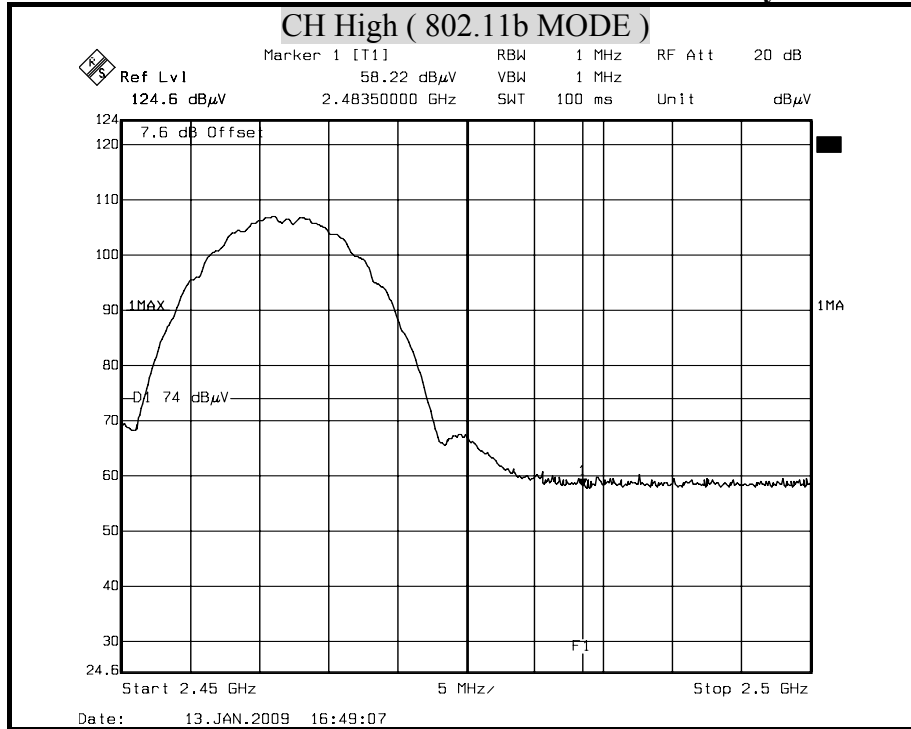
Remark:

1. Display Line = 54/74 dB μ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
3. 2483.5MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.62(dB)



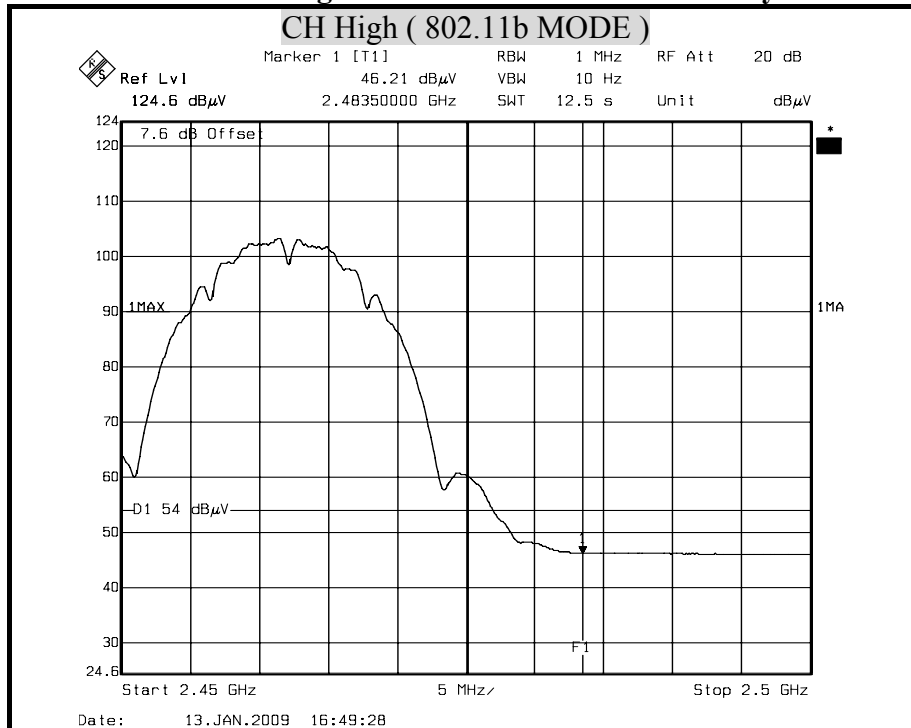
Detector mode : Peak

Polarity : Vertical



Detector mode : Average

Polarity : Vertical

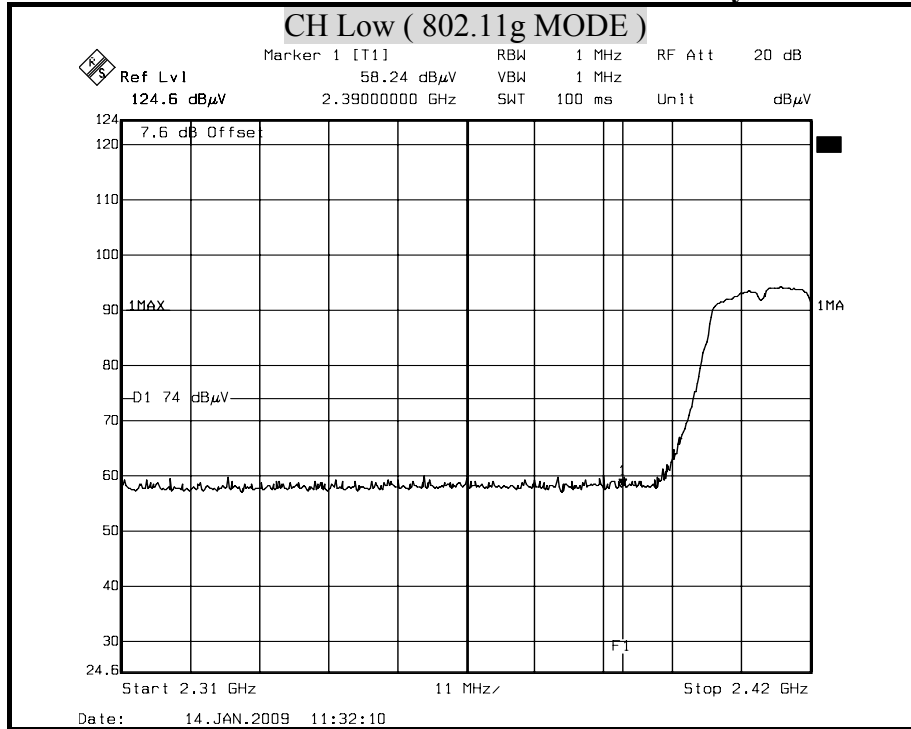


Remark:

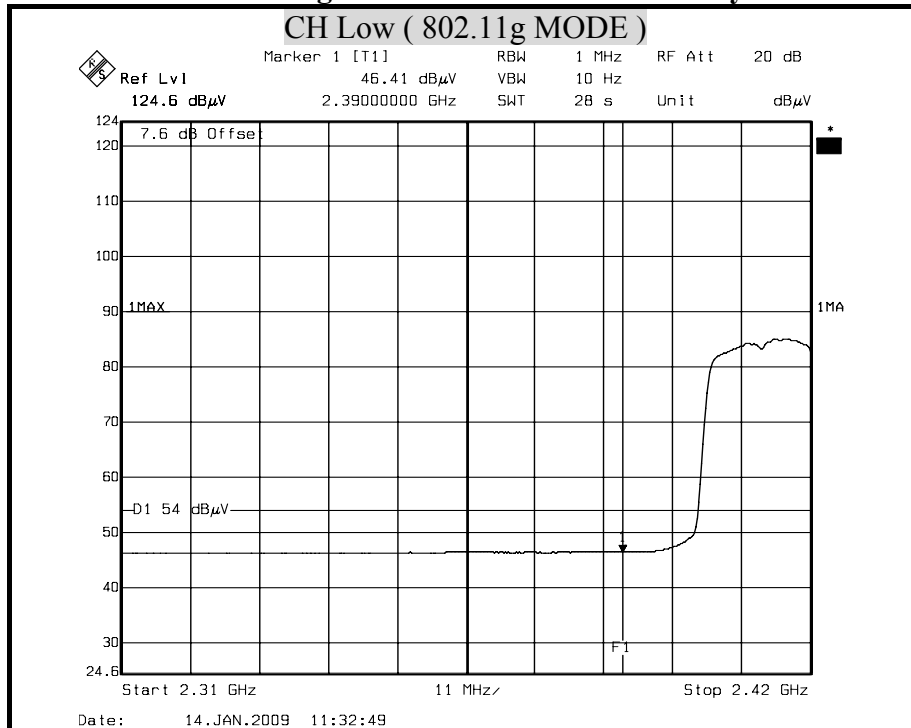
1. Display Line = 54/74 dB μ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
3. 2483.5MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.62(dB)



Detector mode : Peak Polarity : Horizontal



Detector mode : Average Polarity : Horizontal



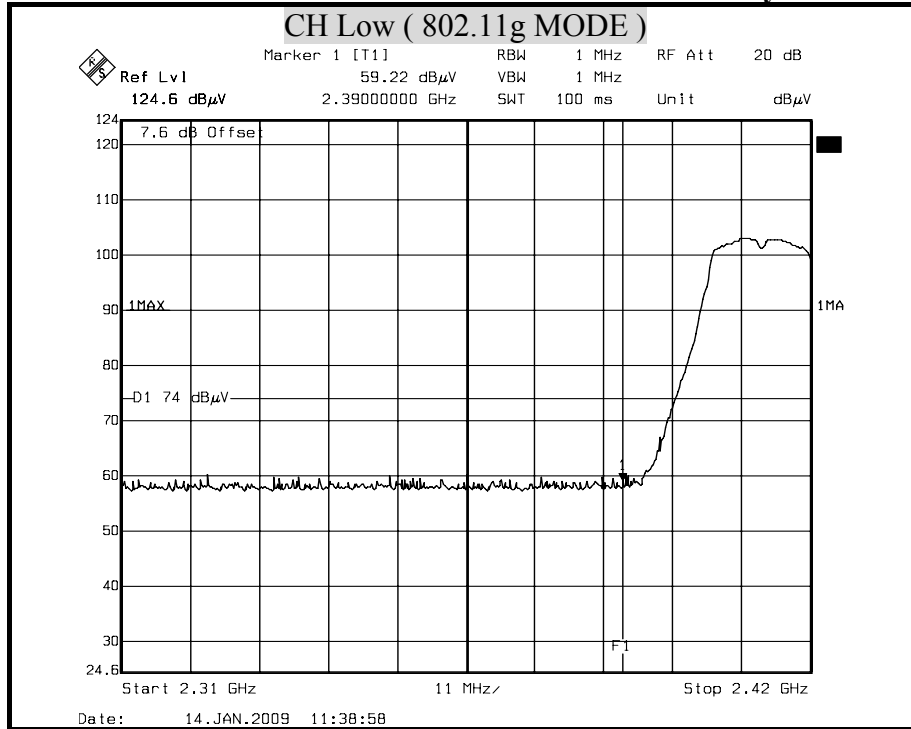
Remark:

1. Display Line = 54/74 dB μ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
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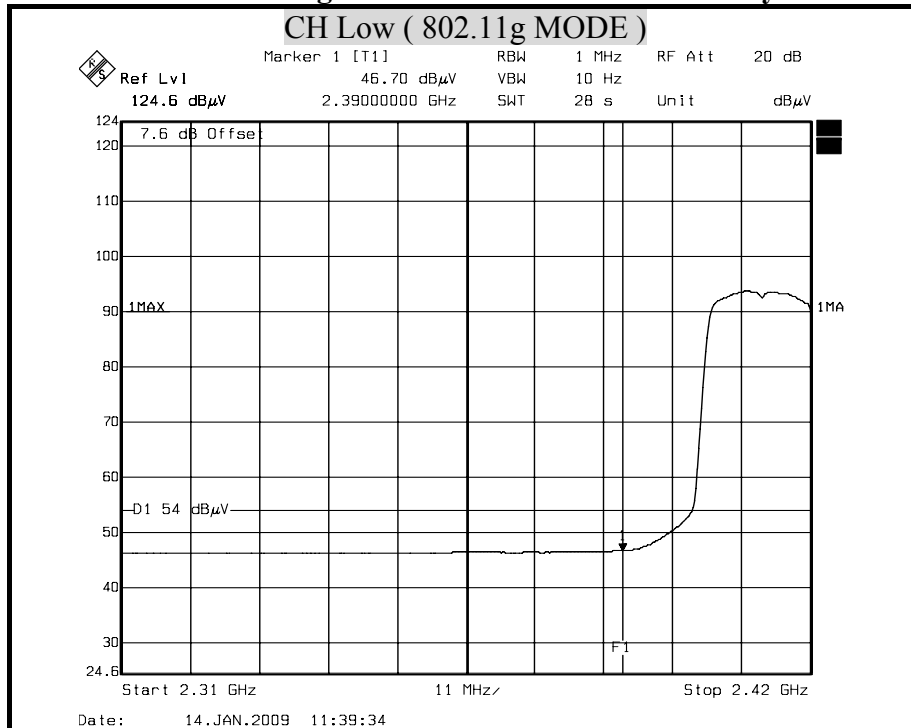
Detector mode : Peak

Polarity : Vertical



Detector mode : Average

Polarity : Vertical



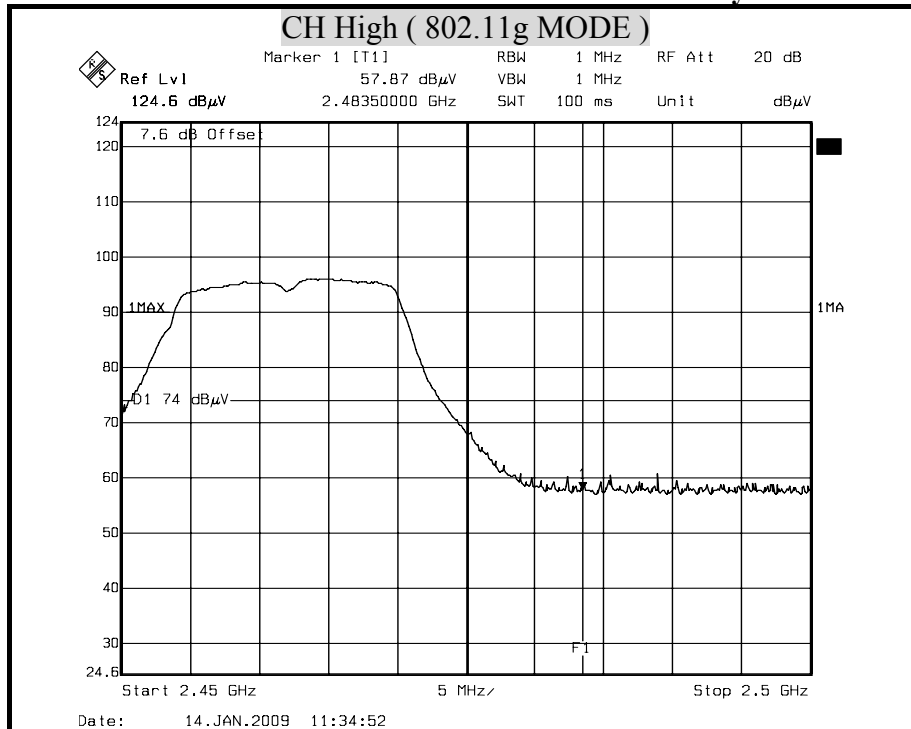
Remark:

1. Display Line = 54/74 dB μ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
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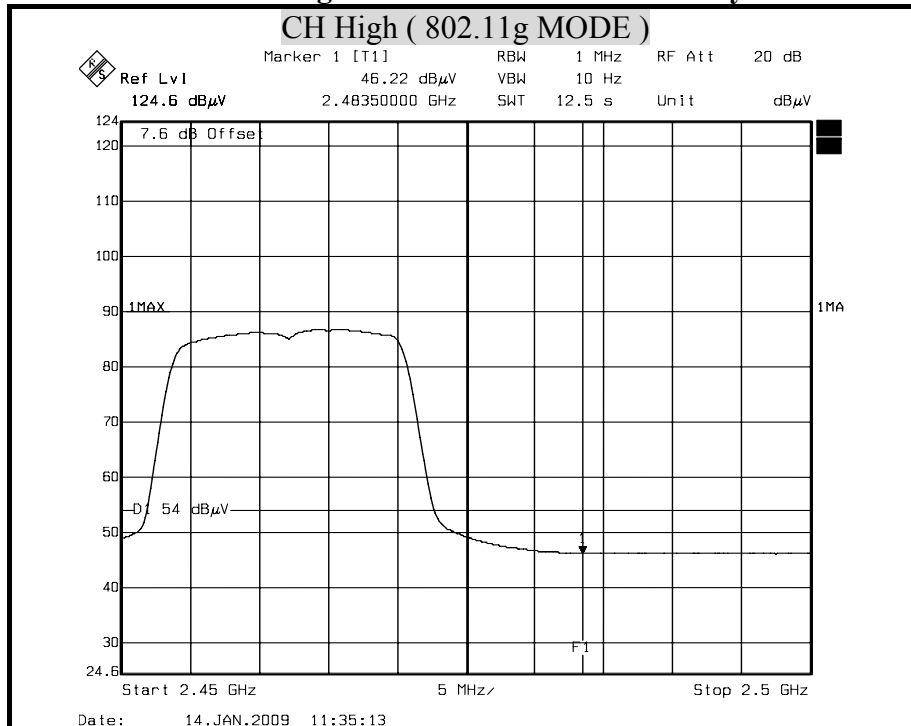
Detector mode : Peak

Polarity : Horizontal



Detector mode : Average

Polarity : Horizontal



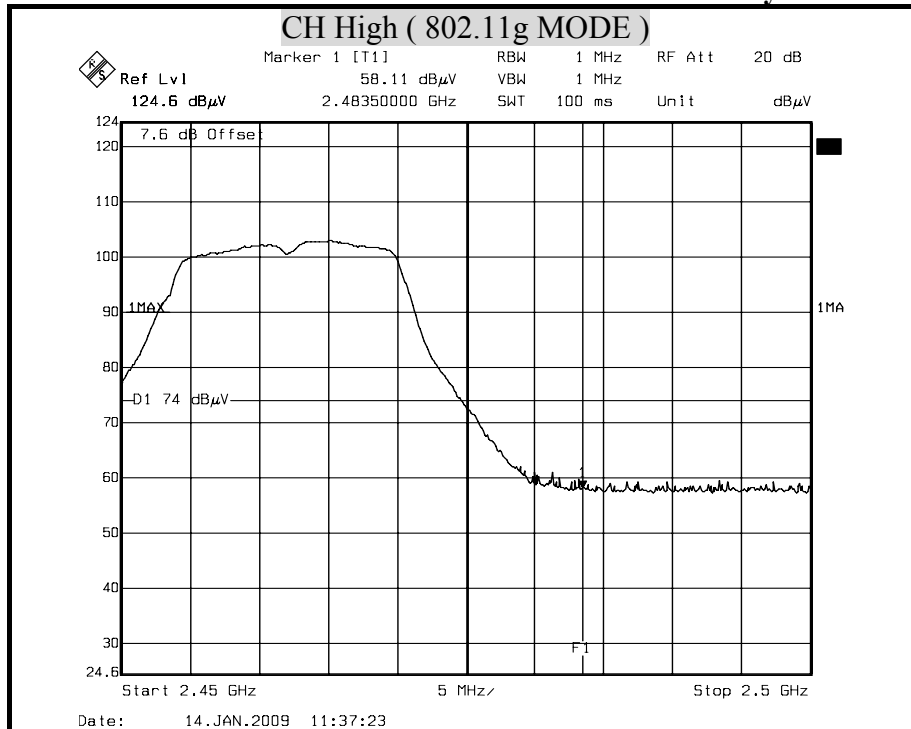
Remark:

1. Display Line = 54/74 dB μ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
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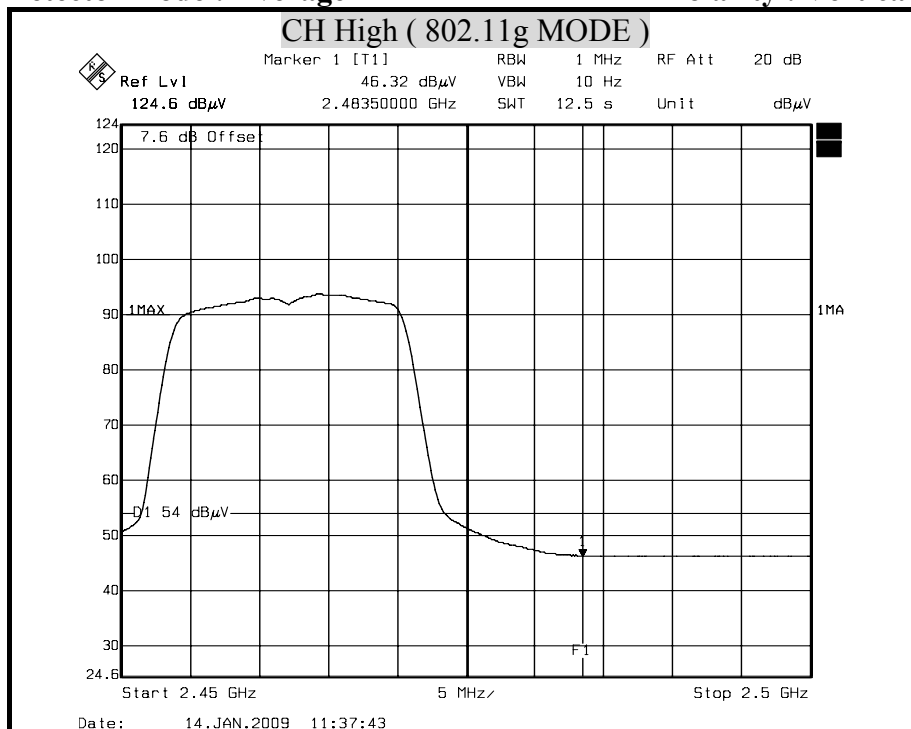
Detector mode : Peak

Polarity : Vertical



Detector mode : Average

Polarity : Vertical

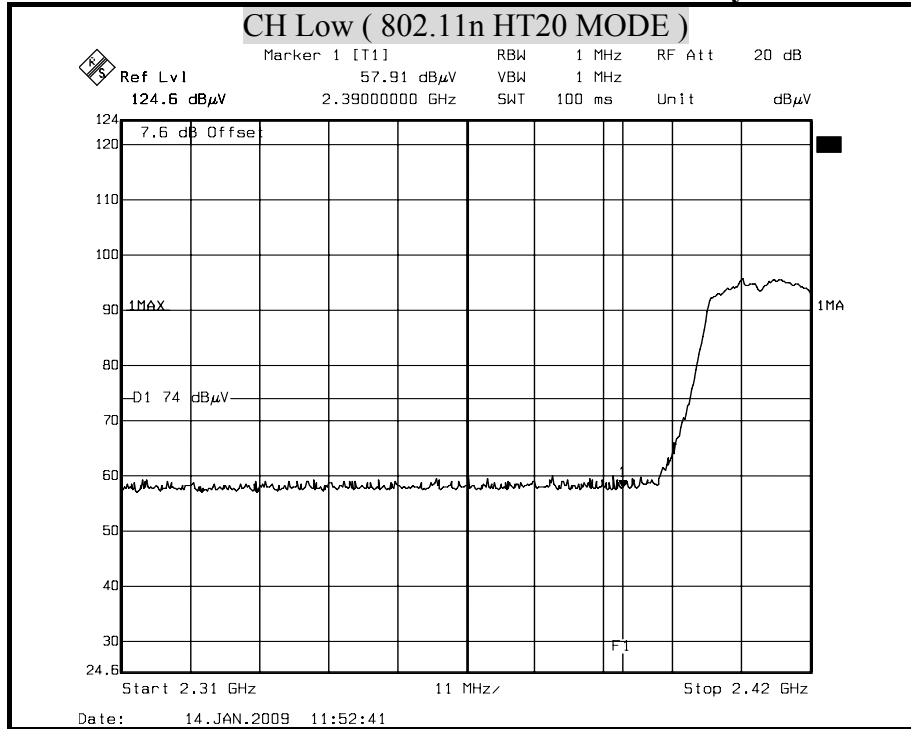


Remark:

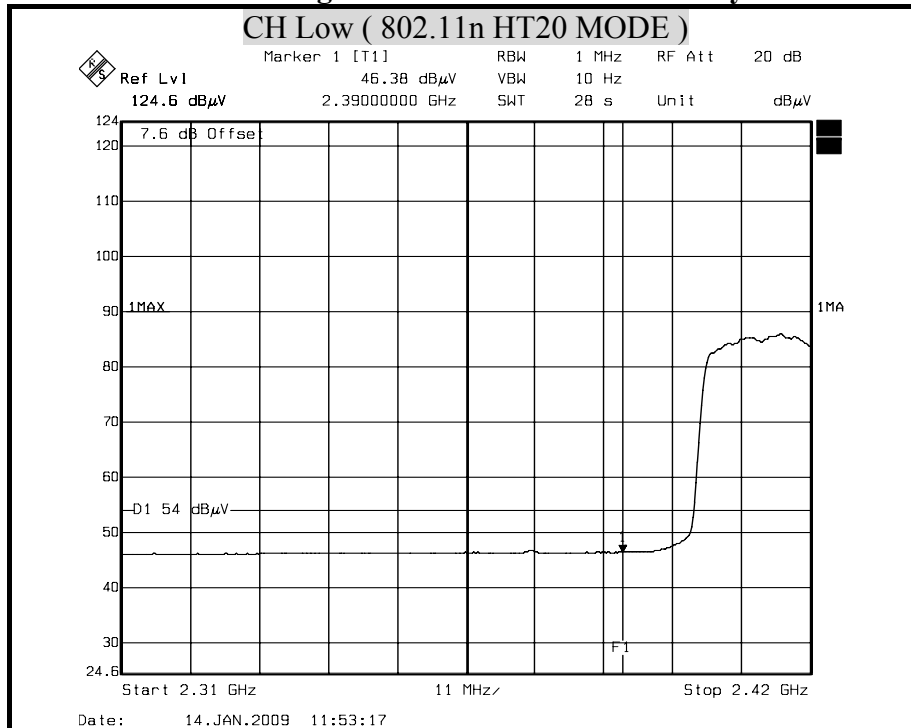
1. Display Line = 54/74 dB µ V/m.
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Detector mode : Peak Polarity : Horizontal



Detector mode : Average Polarity : Horizontal

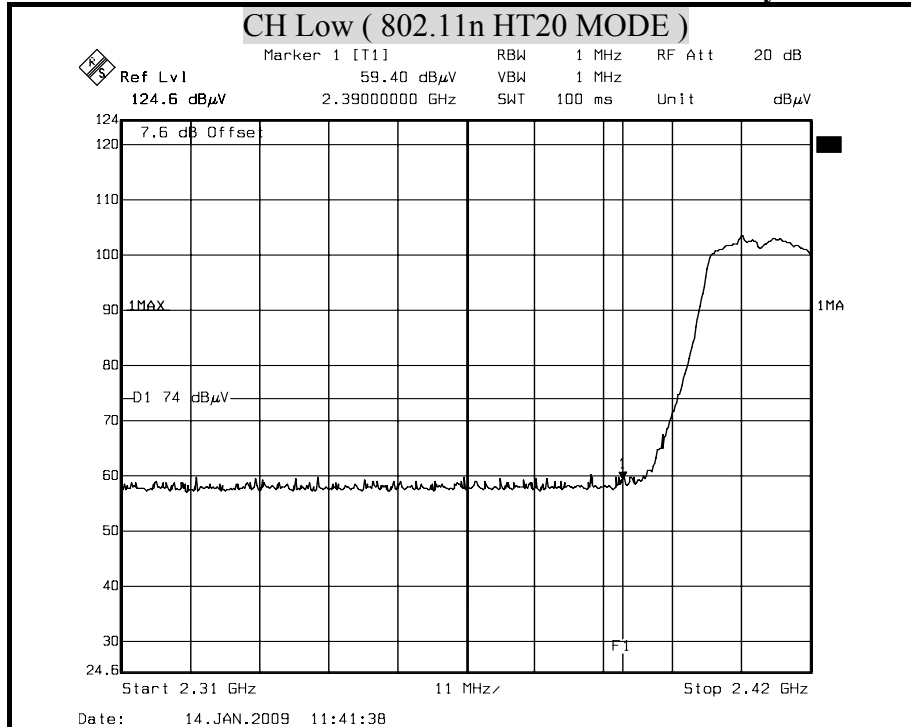


Remark:

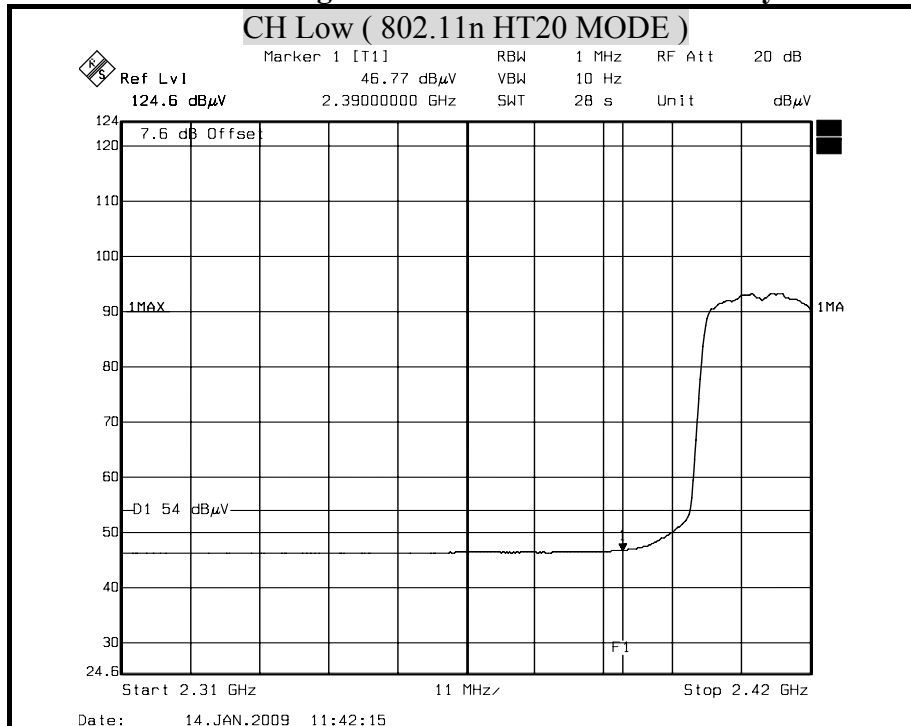
1. Display Line = 54/74 dB μ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
3. 2483.5MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.62(dB)



Detector mode : Peak Polarity : Vertical



Detector mode : Average Polarity : Vertical

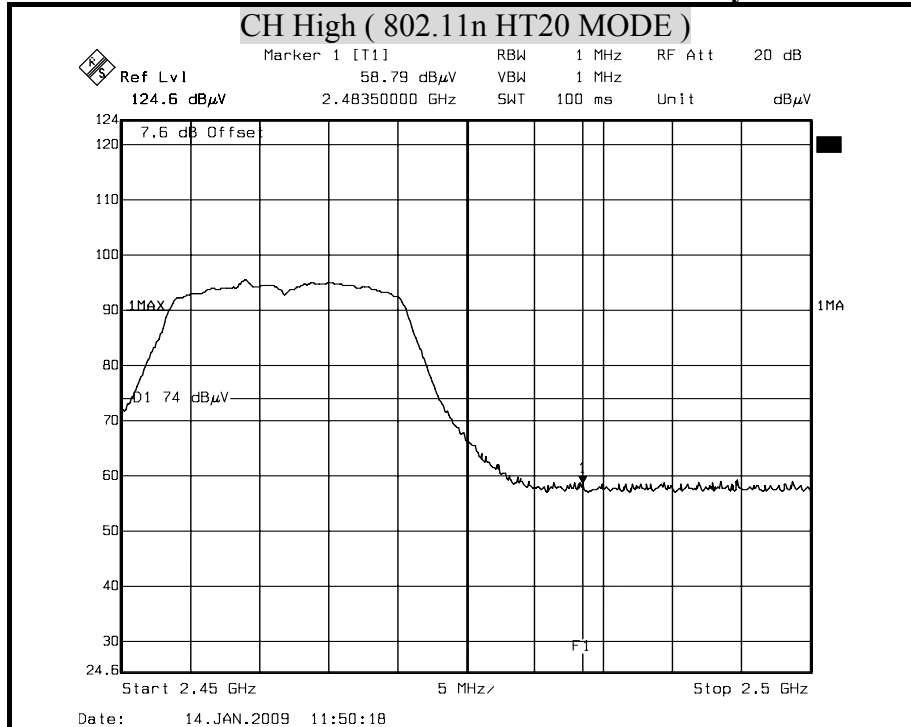


Remark:

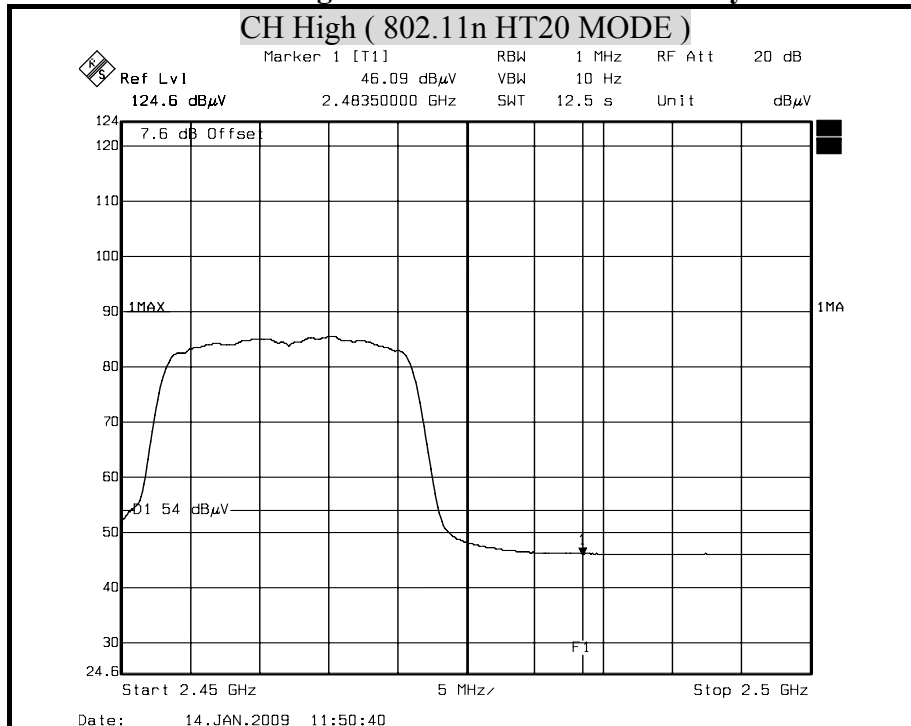
1. Display Line = 54/74 dB μ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
3. 2483.5MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.62(dB)



Detector mode : Peak Polarity : Horizontal



Detector mode : Average Polarity : Horizontal

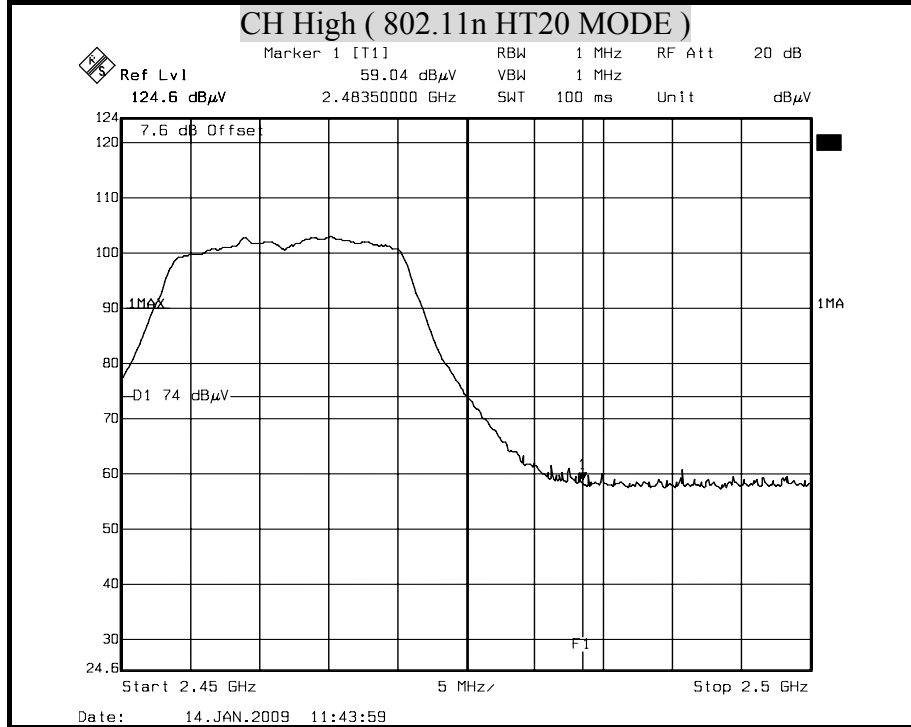


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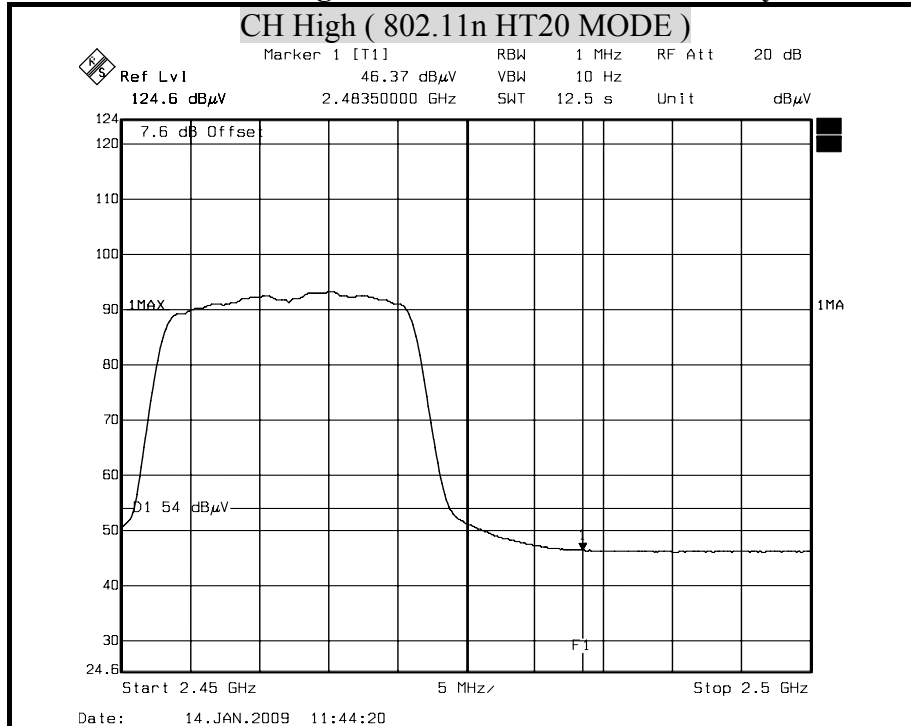
1. Display Line = 54/74 dB μ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
3. 2483.5MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.62(dB)



Detector mode : Peak Polarity : Vertical



Detector mode : Average Polarity : Vertical

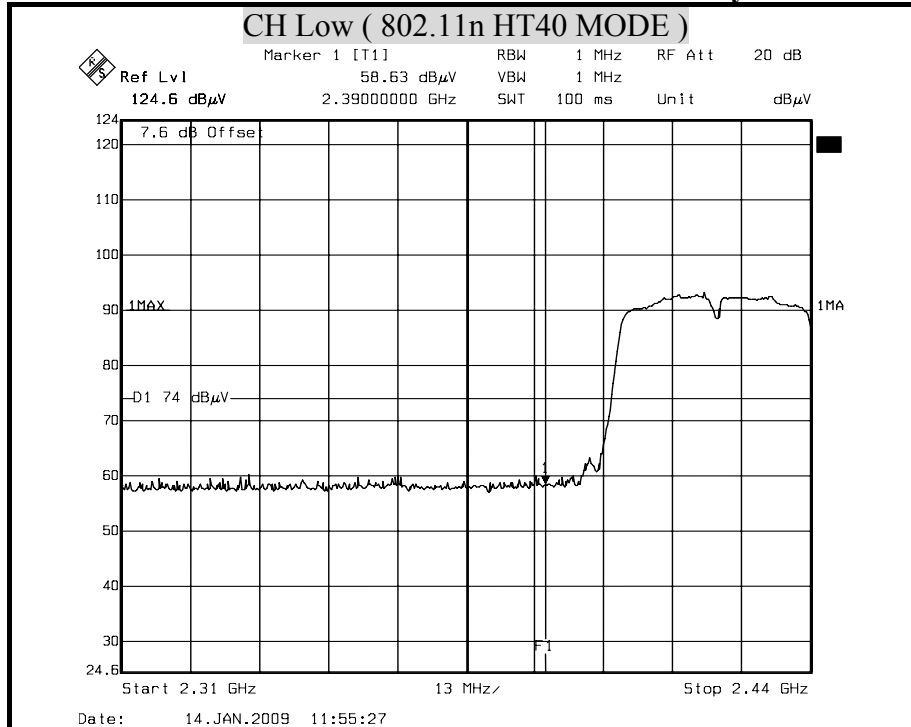


Remark:

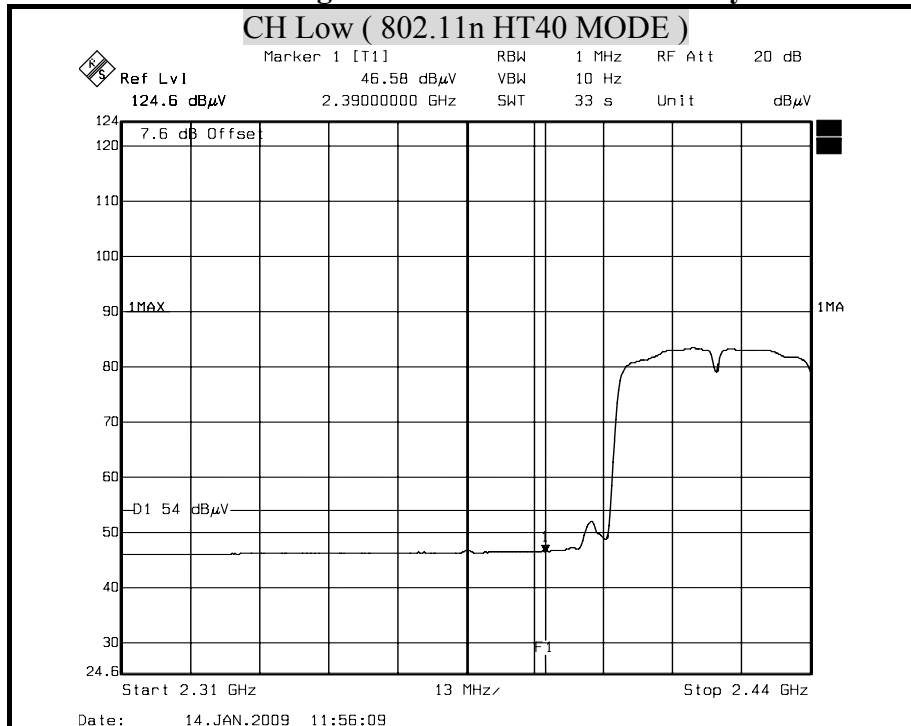
1. Display Line = 54/74 dB µ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
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Detector mode : Peak Polarity : Horizontal



Detector mode : Average Polarity : Horizontal

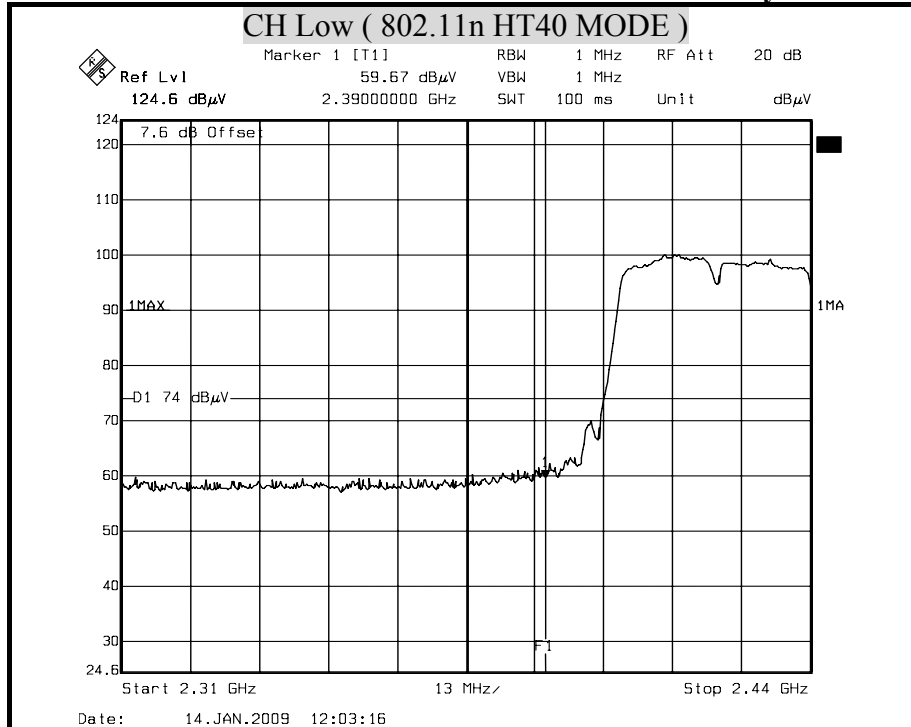


Remark:

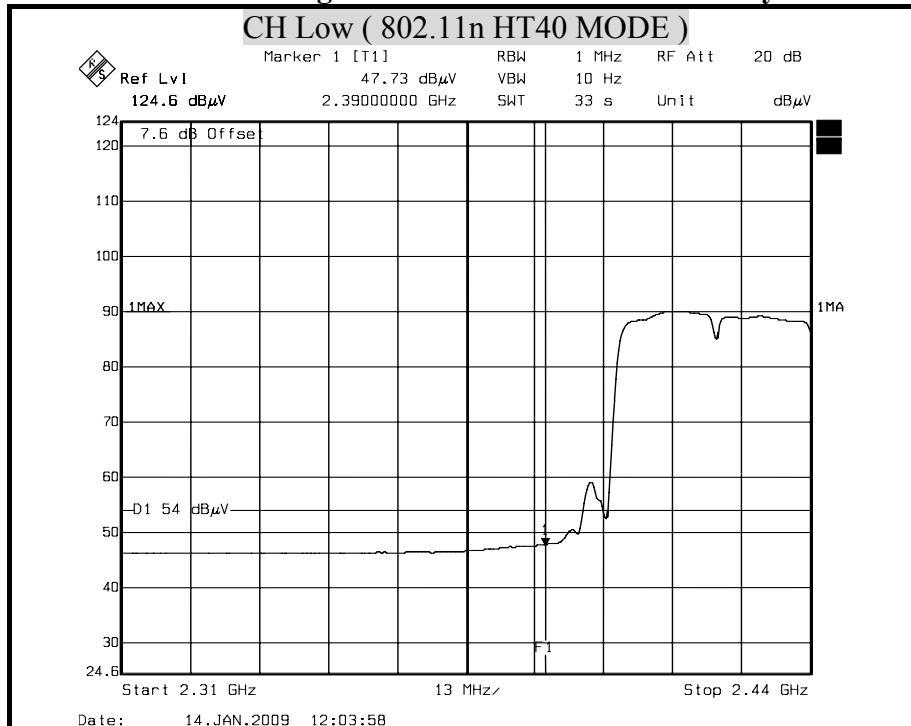
1. Display Line = 54/74 dB µ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
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Detector mode : Peak Polarity : Vertical



Detector mode : Average Polarity : Vertical



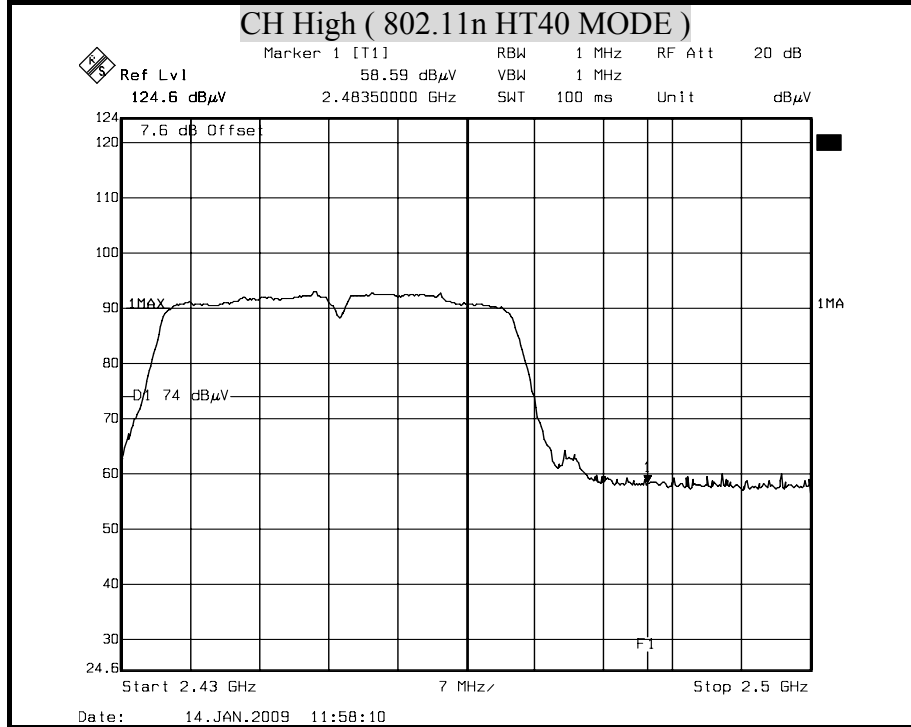
Remark:

1. Display Line = 54/74 dB μ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
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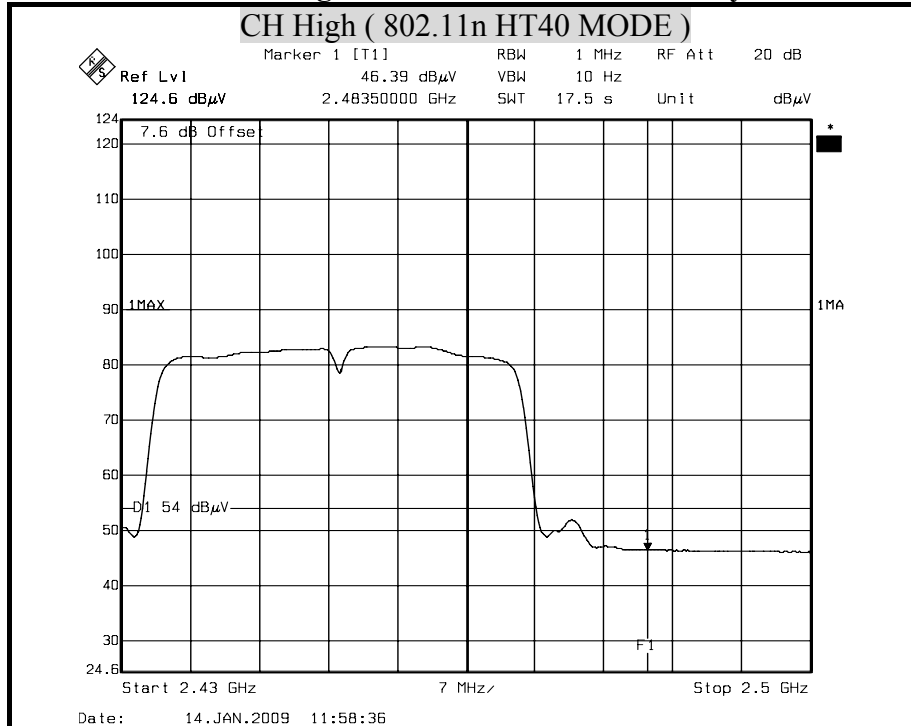
Detector mode : Peak

Polarity : Horizontal



Detector mode : Average

Polarity : Horizontal

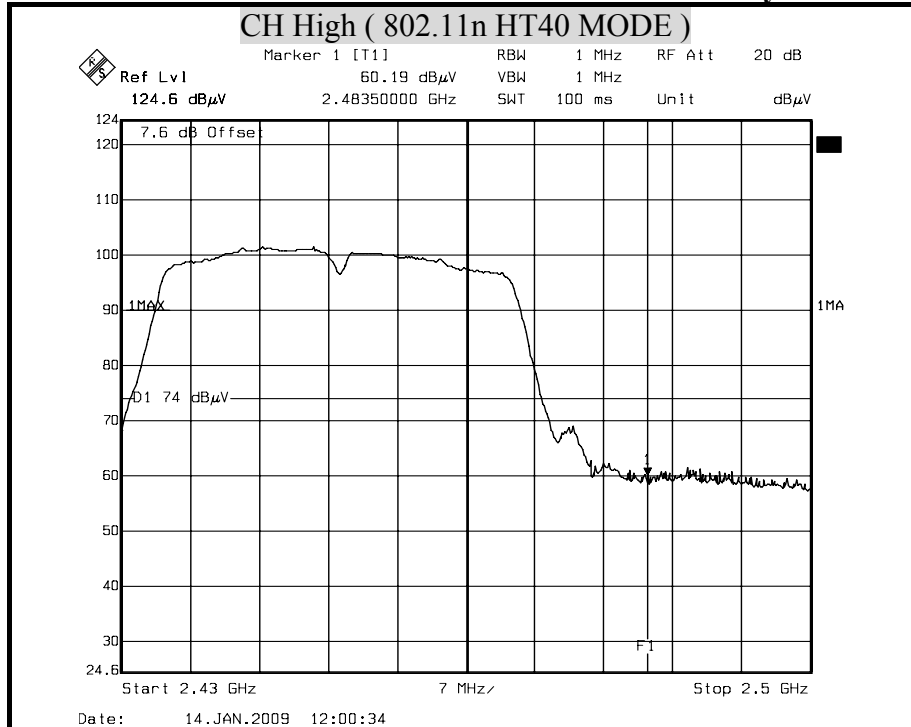


Remark:

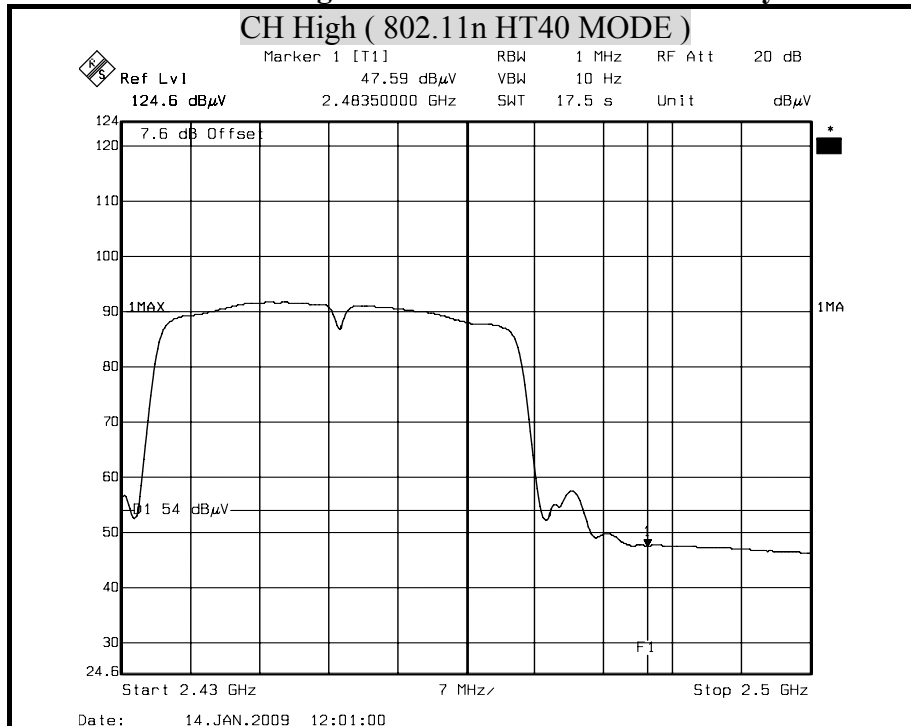
1. Display Line = 54/74 dB μ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
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Detector mode : Peak Polarity : Vertical



Detector mode : Average Polarity : Vertical



Remark:

1. Display Line = 54/74 dB μ V/m.
2. 2390MHz Offset(dB) = Antenna Factor(dB/m) + Cable Loss(dB) - Pre-Amplifier(dB) + Attenuator(dB)=7.6(dB)
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8.9 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 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal.

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

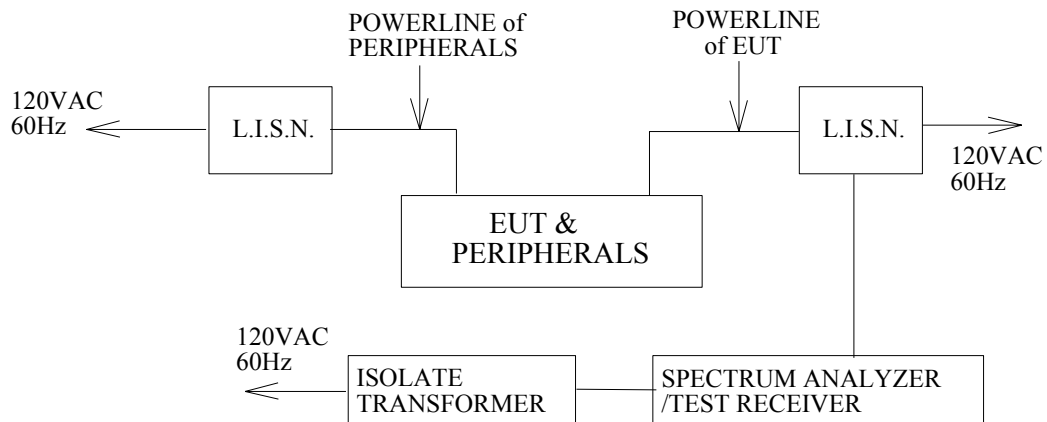
Frequency of Emission (MHz)	Conducted limit (dB μ v)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56	56 to 46
0.5 - 5	56	46
5 - 30	60	50

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	8121-446	NOV. 19, 2009 For Insertion loss
	Rohde & Schwarz	ESH 3-Z5	840062/021	OCT. 05, 2009
TEST RECEIVER	Rohde & Schwarz	ESCS 30	100348	JUL. 02, 2009
TYPE N COAXIAL CABLE	SUHNER	BELDEN991 3	2981	FEB. 26, 2009
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

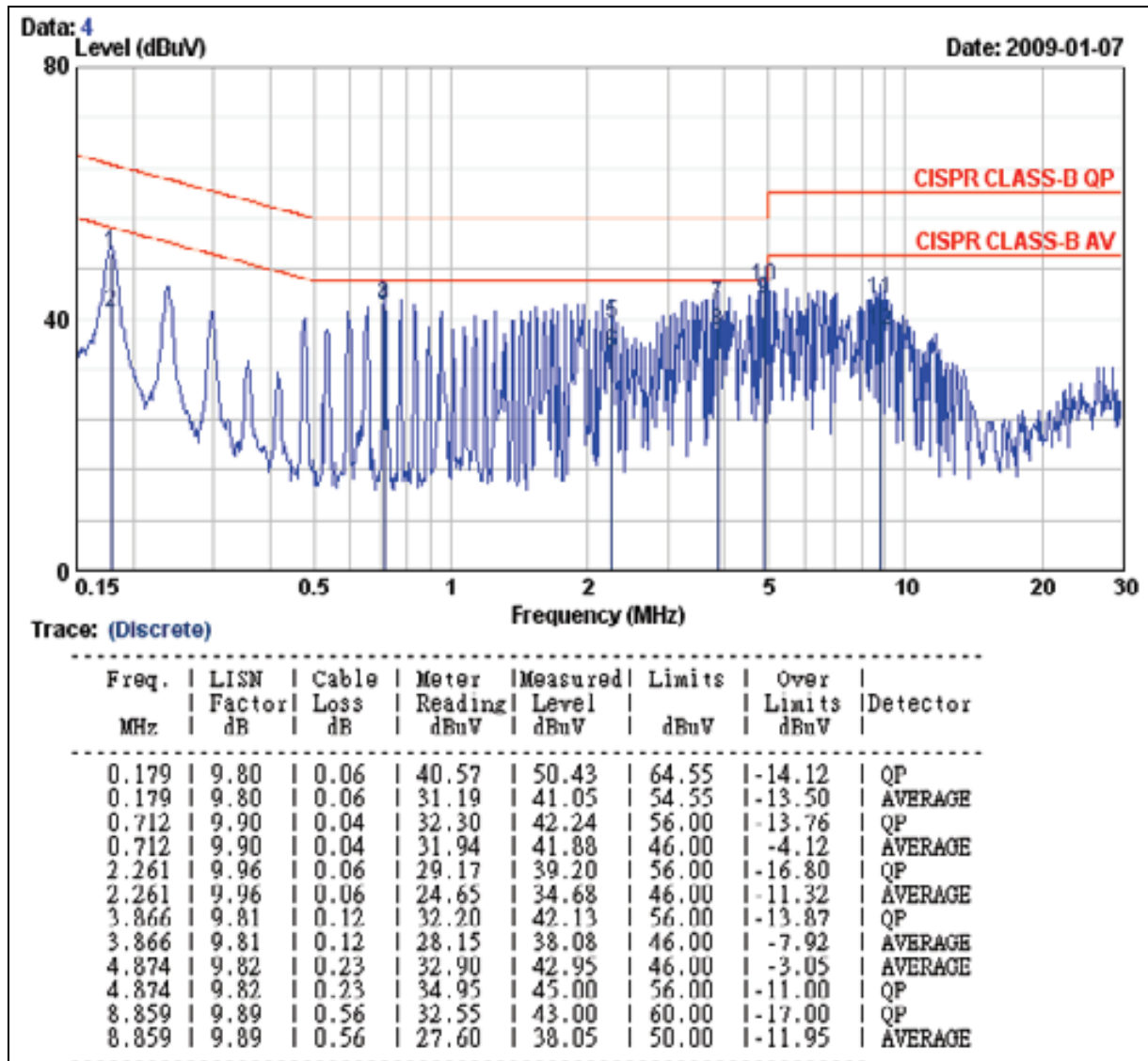
No non-compliance noted.



CONDUCTED RF VOLTAGE MEASUREMENT

Product Name	11n Download Server Router	Test Date	2009/1/7
Model	CDR-905	Test By	Taiyu Cyu
Test Mode	Normal operating (worst case) Adapter model: AMS2-0501500FU	TEMP & Humidity	24 °C, 59 %

LINE



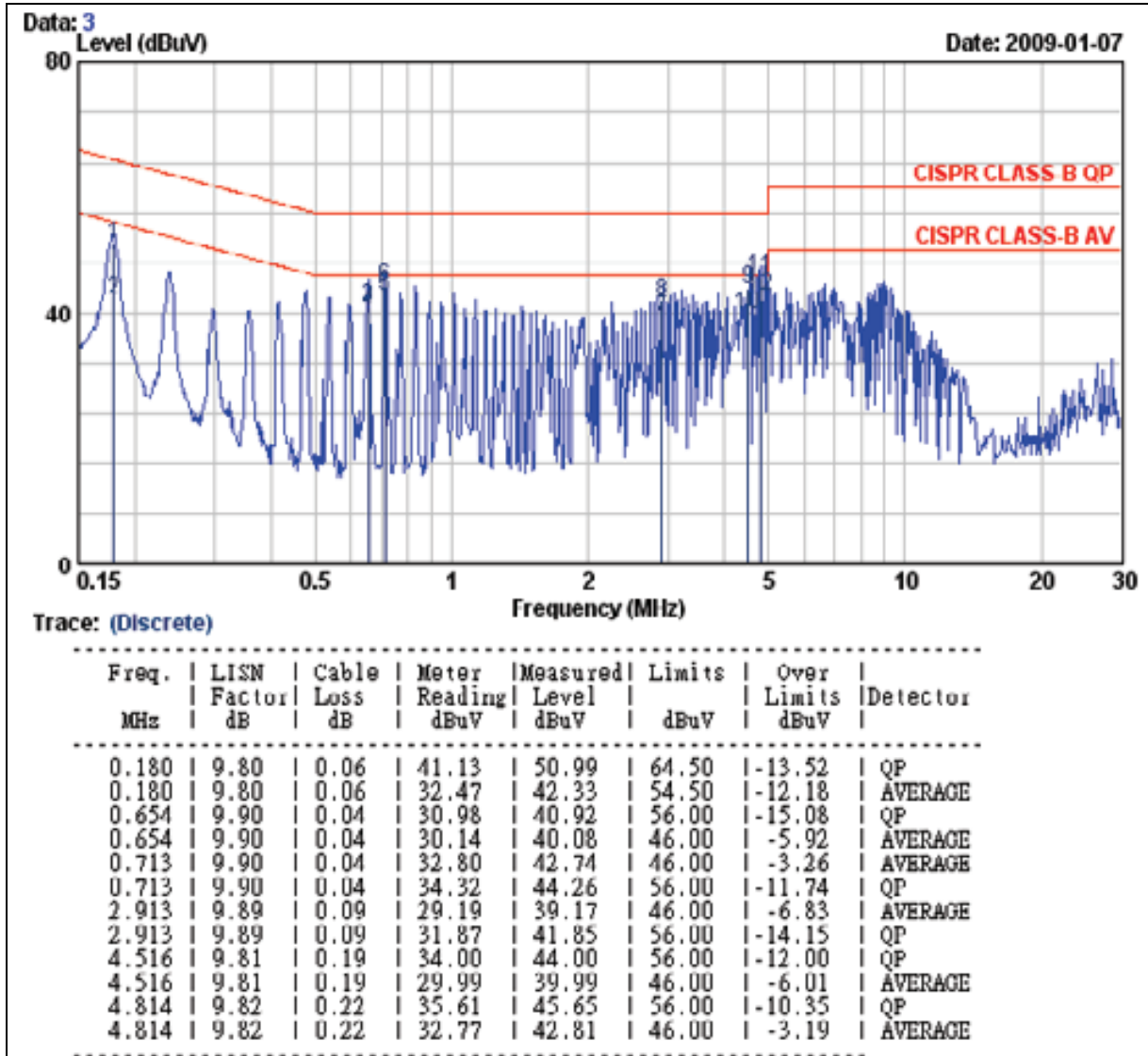
REMARK:

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



Product Name	11n Download Server Router	Test Date	2009/1/7
Model	CDR-905	Test By	Taiyu Cyu
Test Mode	Normal operating (worst case) Adapter model: AMS2-0501500FU	TEMP & Humidity	24 °C, 59 %

NEUTRAL



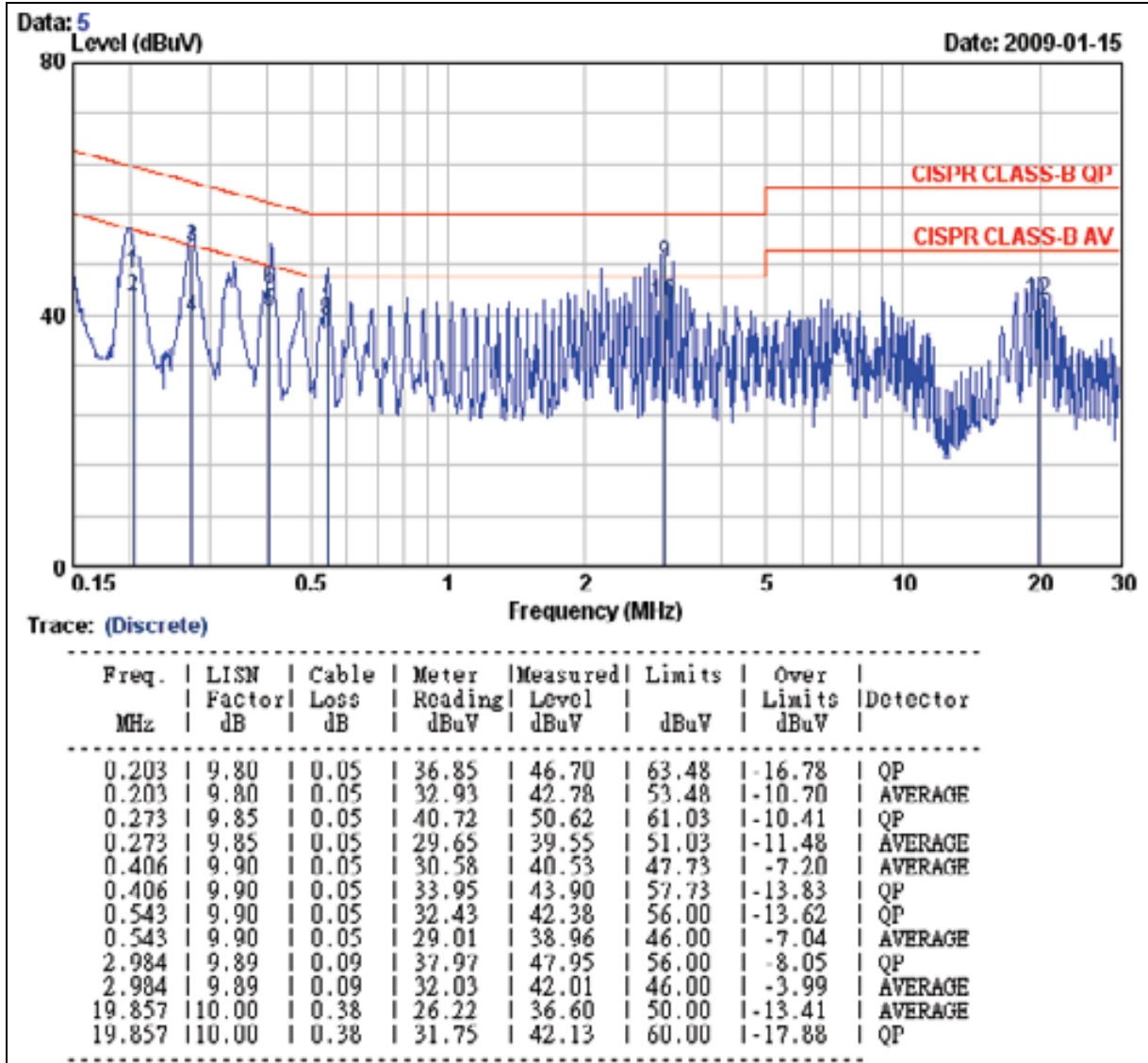
REMARK:

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



Product Name	11n Download Server Router	Test Date	2009/1/15
Model	CDR-905	Test By	John Chen
Test Mode	Normal operating (worst case) Adapter model: M2-12USG05R-A	TEMP & Humidity	20.6 °C, 58 %

LINE



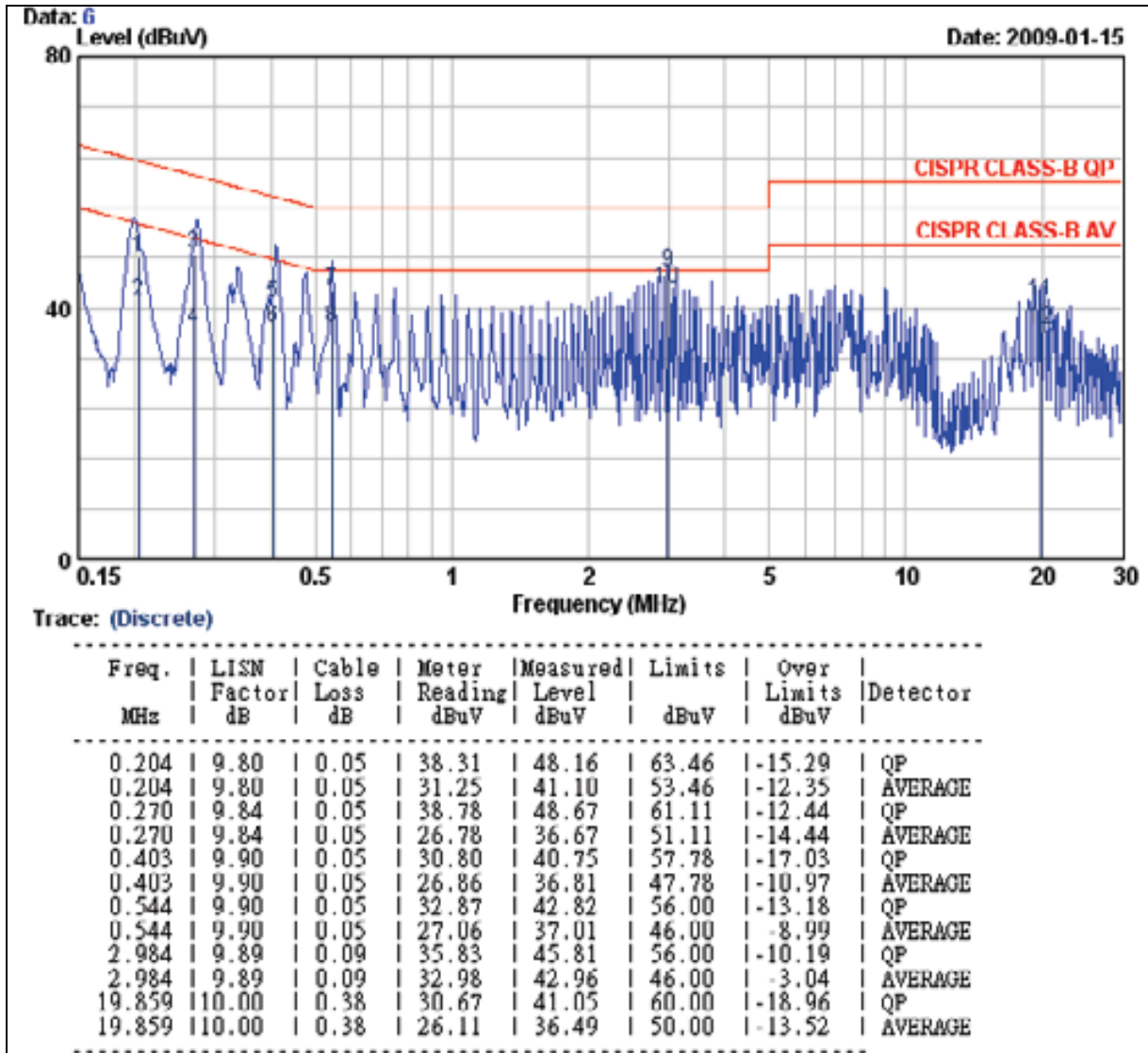
REMARK:

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



Product Name	11n Download Server Router	Test Date	2009/1/15
Model	CDR-905	Test By	John Chen
Test Mode	Normal operating (worst case) Adapter model: M2-12USG05R-A	TEMP & Humidity	20.6 °C, 58 %

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 antennas used for this product are two dipole antennas.

The peak Gain of this antenna is 2.27 dBi at 2.4GHz.

The antenna spec. as below:

Model: WSS006

Connector: RP-SMA(M)(Silver)

Type: Dipole

Antenna Gain: 2.27 dBi