Product Name	Wireless Broadband Router	Test Date	2011/3/23
Model	BR486n	Test By	John Chen
Test Mode	IEEE 802.11g TX (CH High)	TEMP& Humidity	24.8℃, 55%

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)
*	1406.20	59.63	26.21	2.14	41.73	0.77	47.02	74.00	-26.98	P
*	1406.20	57.44	26.21	2.14	41.73	0.77	44.83	54.00	-9.17	A
*	4923.95	67.26	33.47	3.76	42.48	0.73	62.74	74.00	-11.26	P
*	4923.95	55.87	33.47	3.76	42.48	0.73	51.35	54.00	-2.65	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	Wireless Broadband Router	Test Date	2011/3/23
Model	BR486n	Test By	John Chen
Test Mode	IEEE 802.11n HT20 TX (CH Low)	TEMP& Humidity	24.8℃, 55%

Horizontal

	TX / IEEE 802.11n HT20 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)
*	1406.22	61.60	26.21	2.14	41.73	0.77	48.99	74.00	-25.01	P
*	1406.22	58.97	26.21	2.14	41.73	0.77	46.36	54.00	-7.64	A
*	4823.97	57.63	33.17	3.73	42.38	0.69	52.84	74.00	-21.16	P
*	4823.97	52.28	33.17	3.73	42.38	0.69	47.49	54.00	-6.51	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	Wireless Broadband Router	Test Date	2011/3/23
Model	BR486n	Test By	John Chen
Test Mode	IEEE 802.11n HT20 TX (CH Low)	TEMP& Humidity	24.8℃, 55%

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)
*	1406.20	60.13	26.21	2.14	41.73	0.77	47.52	74.00	-26.48	P
*	1406.20	57.48	26.21	2.14	41.73	0.77	44.87	54.00	-9.13	A
*	4823.98	67.63	33.17	3.73	42.38	0.69	62.84	74.00	-11.16	P
*	4823.98	55.43	33.17	3.73	42.38	0.69	50.64	54.00	-3.36	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	Wireless Broadband Router	Test Date	2011/3/23
Model	BR486n	Test By	John Chen
Test Mode	IEEE 802.11n HT20 TX (CH Middle)	TEMP& Humidity	24.8℃, 55%

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)
*	1406.17	61.36	26.21	2.14	41.73	0.77	48.75	74.00	-25.25	P
*	1406.17	58.14	26.21	2.14	41.73	0.77	45.53	54.00	-8.47	A
*	4873.95	56.95	33.32	3.74	42.43	0.71	52.29	74.00	-21.71	P
*	4873.95	50.17	33.32	3.74	42.43	0.71	45.51	54.00	-8.49	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	Wireless Broadband Router	Test Date	2011/3/23
Model	BR486n	Test By	John Chen
Test Mode	IEEE 802.11n HT20 TX (CH Middle)	TEMP& Humidity	24.8℃, 55%

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)
*	1406.16	59.63	26.21	2.14	41.73	0.77	47.02	74.00	-26.98	P
*	1406.16	57.19	26.21	2.14	41.73	0.77	44.58	54.00	-9.42	A
*	4873.92	68.17	33.32	3.74	42.43	0.71	63.51	74.00	-10.49	P
*	4873.92	56.43	33.32	3.74	42.43	0.71	51.77	54.00	-2.23	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	Wireless Broadband Router	Test Date	2011/3/23
Model	BR486n	Test By	John Chen
Test Mode	IEEE 802.11n HT20 TX (CH High)	TEMP& Humidity	24.8℃, 55%

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)
*	1406.18	63.65	26.21	2.14	41.73	0.77	51.04	74.00	-22.96	P
*	1406.18	60.14	26.21	2.14	41.73	0.77	47.53	54.00	-6.47	A
*	4923.96	58.49	33.47	3.76	42.48	0.73	53.97	74.00	-20.03	P
*	4923.96	52.36	33.47	3.76	42.48	0.73	47.84	54.00	-6.16	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	Wireless Broadband Router	Test Date	2011/3/23
Model	BR486n	Test By	John Chen
Test Mode	IEEE 802.11n HT20 TX (CH High)	TEMP& Humidity	24.8℃, 55%

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)
*	1406.22	60.36	26.21	2.14	41.73	0.77	47.75	74.00	-26.25	P
*	1406.22	59.14	26.21	2.14	41.73	0.77	46.53	54.00	-7.47	A
*	4923.95	68.47	33.47	3.76	42.48	0.73	63.95	74.00	-10.05	P
*	4923.95	57.13	33.47	3.76	42.48	0.73	52.61	54.00	-1.39	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	Wireless Broadband Router	Test Date	2011/3/23
Model	BR486n	Test By	John Chen
Test Mode	IEEE 802.11n HT40 TX (CH Low)	TEMP& Humidity	24.8℃, 55%

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)
*	1406.19	61.36	26.21	2.14	41.73	0.77	48.75	74.00	-25.25	P
*	1406.19	58.74	26.21	2.14	41.73	0.77	46.13	54.00	-7.87	A
*	4843.98	56.93	33.23	3.74	42.40	0.70	52.19	74.00	-21.81	P
*	4843.98	51.47	33.23	3.74	42.40	0.70	46.73	54.00	-7.27	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	Wireless Broadband Router	Test Date	2011/3/23
Model	BR486n	Test By	John Chen
Test Mode	IEEE 802.11n HT40 TX (CH Low)	TEMP& Humidity	24.8℃, 55%

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)
*	1406.20	59.63	26.21	2.14	41.73	0.77	47.02	74.00	-26.98	P
*	1406.20	57.14	26.21	2.14	41.73	0.77	44.53	54.00	-9.47	A
*	4843.91	57.63	33.23	3.74	42.40	0.70	52.89	74.00	-21.11	P
*	4843.91	55.85	33.23	3.74	42.40	0.70	51.11	54.00	-2.89	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	Wireless Broadband Router	Test Date	2011/3/23
Model	BR486n	Test By	John Chen
Test Mode	IEEE 802.11n HT40 TX (CH Middle)	TEMP& Humidity	24.8℃, 55%

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)
*	1406.22	61.39	26.21	2.14	41.73	0.77	48.78	74.00	-25.22	P
*	1406.22	58.41	26.21	2.14	41.73	0.77	45.80	54.00	-8.20	A
*	4873.95	56.70	33.32	3.74	42.43	0.71	52.04	74.00	-21.96	P
*	4873.95	50.98	33.32	3.74	42.43	0.71	46.32	54.00	-7.68	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	Wireless Broadband Router	Test Date	2011/3/23
Model	BR486n	Test By	John Chen
Test Mode	IEEE 802.11n HT40 TX (CH Middle)	TEMP& Humidity	24.8℃, 55%

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)
*	1406.18	60.04	26.21	2.14	41.73	0.77	47.43	74.00	-26.57	P
*	1406.18	57.48	26.21	2.14	41.73	0.77	44.87	54.00	-9.13	A
*	4873.97	67.62	33.32	3.74	42.43	0.71	62.96	74.00	-11.04	P
*	4873.97	55.26	33.32	3.74	42.43	0.71	50.60	54.00	-3.40	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	Wireless Broadband Router	Test Date	2011/3/23
Model	BR486n	Test By	John Chen
Test Mode	IEEE 802.11n HT40 TX (CH High)	TEMP& Humidity	24.8℃, 55%

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)
*	1406.17	61.95	26.21	2.14	41.73	0.77	49.34	74.00	-24.66	P
*	1406.17	59.05	26.21	2.14	41.73	0.77	46.44	54.00	-7.56	A
*	4903.99	56.48	33.41	3.75	42.46	0.72	51.90	74.00	-22.10	P
*	4903.99	50.67	33.41	3.75	42.46	0.72	46.09	54.00	-7.91	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	Wireless Broadband Router	Test Date	2011/3/23
Model	BR486n	Test By	John Chen
Test Mode	IEEE 802.11n HT40 TX (CH High)	TEMP& Humidity	24.8℃, 55%

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)
*	1406.18	59.24	26.21	2.14	41.73	0.77	46.63	74.00	-27.37	P
*	1406.18	57.39	26.21	2.14	41.73	0.77	44.78	54.00	-9.22	A
*	4904.01	68.14	33.41	3.75	42.46	0.72	63.56	74.00	-10.44	P
*	4904.01	56.28	33.41	3.75	42.46	0.72	51.70	54.00	-2.30	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.

8.7.4 RESTRICTED BAND EDGES

802.11b Mode

Channel	Polarity	Freq.(MHz)	Level(dBuV)	Limit(dBuV)	Margin(dB)	Detector
	H	2390.00	57.18	74	-16.82	Peak
	H	2390.00	45.14	54	-8.86	Average
	V	2390.00	59.10	74	-14.90	Peak
LOW	V	2390.00	46.39	54	-7.61	Average
	H	2483.50	57.68	74	-16.32	Peak
	H	2483.50	44.92	54	-9.08	Average
	V	2483.50	50.7	74	-23.30	Peak
HIGH	V	2483.50	47.21	54	-6.79	Average

802.11g Mode

Channel	Polarity	Freq.(MHz)	Level(dBuV)	Limit(dBuV)	Margin(dB)	Detector
	H	2390.00	57.14	74	-16.86	Peak
	H	2390.00	45.35	54	-8.65	Average
	V	2390.00	62.84	74	-11.16	Peak
LOW	V	2390.00	47.95	54	-6.05	Average
	H	2483.50	59.8	74	-14.20	Peak
	H	2483.50	46.14	54	-7.86	Average
	V	2483.50	69.85	74	-4.15	Peak
HIGH	V	2483.50	53.18	54	-0.82	Average

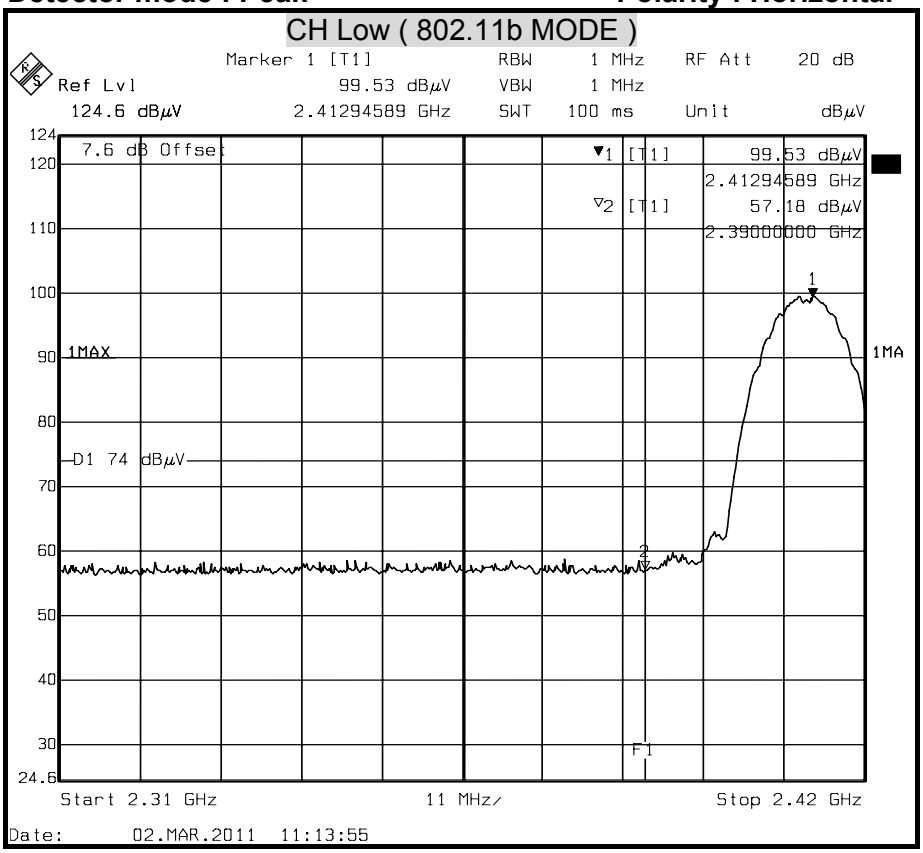
802.11n HT-20 Mode

Channel	Polarity	Freq.(MHz)	Level(dBuV)	Limit(dBuV)	Margin(dB)	Detector
	H	2390.00	57.98	74	-16.02	Peak
	H	2390.00	45.4	54	-8.60	Average
	V	2390.00	53.32	74	-20.68	Peak
LOW	V	2390.00	48.46	54	-5.54	Average
	H	2483.50	58.28	74	-15.72	Peak
	H	2483.50	45.14	54	-8.86	Average
	V	2483.50	64.98	74	-9.02	Peak
HIGH	V	2483.50	48.96	54	-5.04	Average

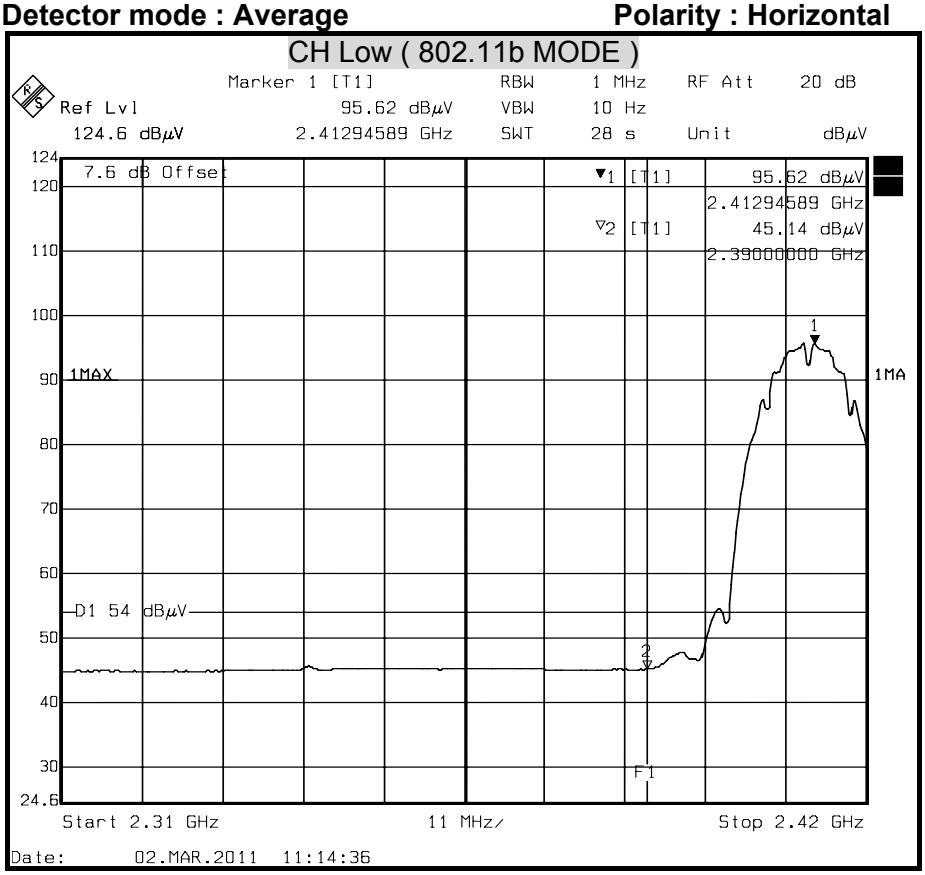
802.11n HT-40 Mode

Channel	Polarity	Freq.(MHz)	Level(dBuV)	Limit(dBuV)	Margin(dB)	Detector
	H	2390.00	57.87	74	-16.13	Peak
	H	2390.00	45.65	54	-8.35	Average
	V	2390.00	66.1	74	-7.90	Peak
LOW	V	2390.00	51.02	54	-2.98	Average
	H	2483.50	58.74	74	-15.26	Peak
	H	2483.50	45.49	54	-8.51	Average
	V	2483.50	68.44	74	-5.56	Peak
HIGH	V	2483.50	51.22	54	-2.78	Average

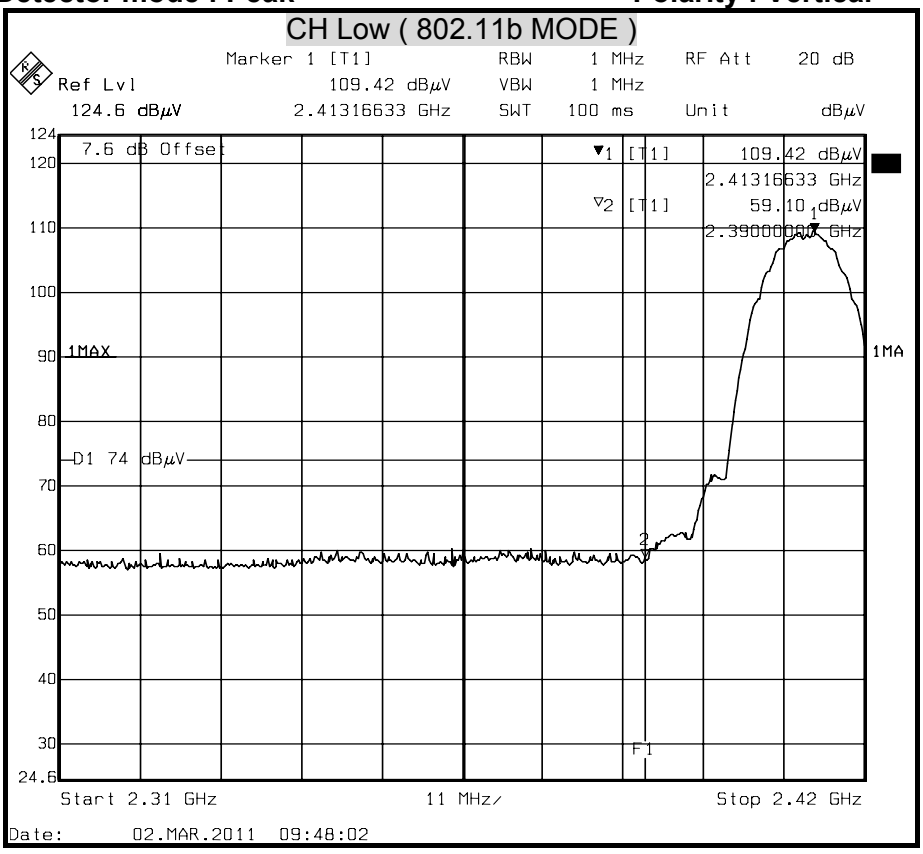
Detector mode : Peak **Polarity : Horizontal**



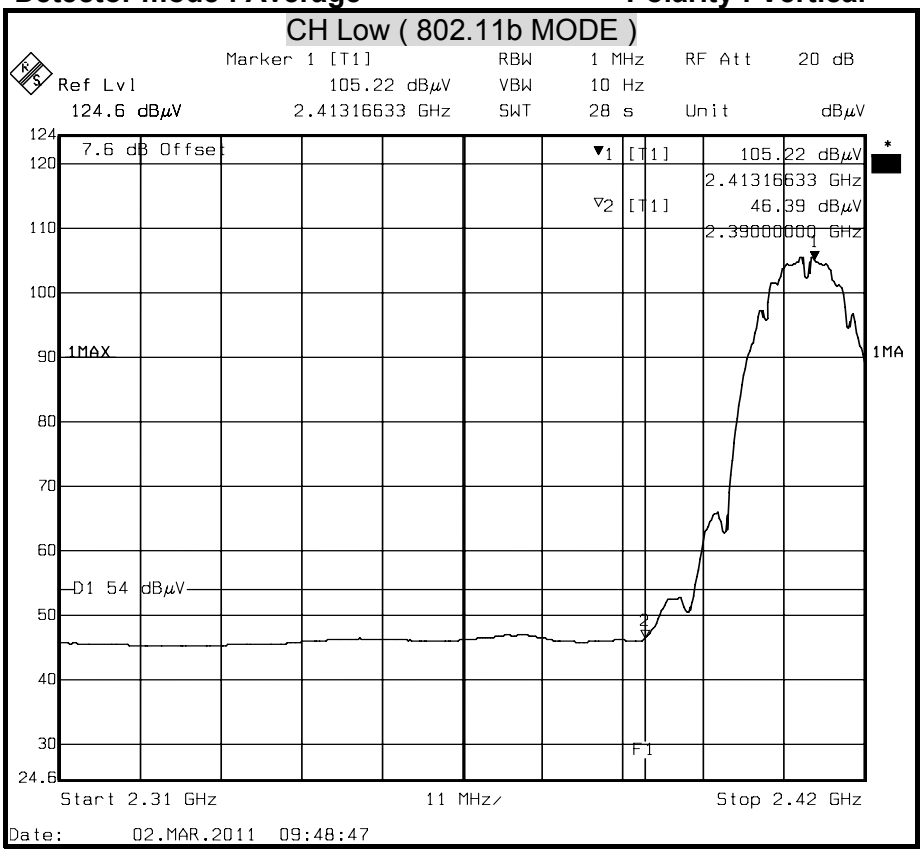
Detector mode : Average **Polarity : Horizontal**



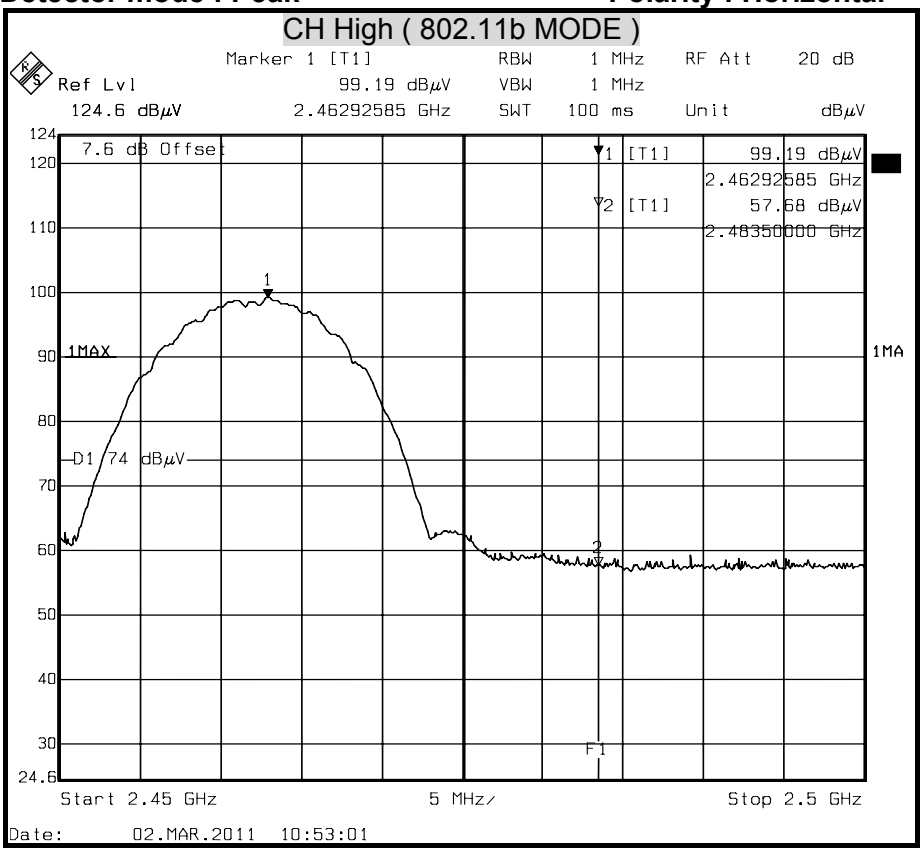
Detector mode : Peak **Polarity : Vertical**



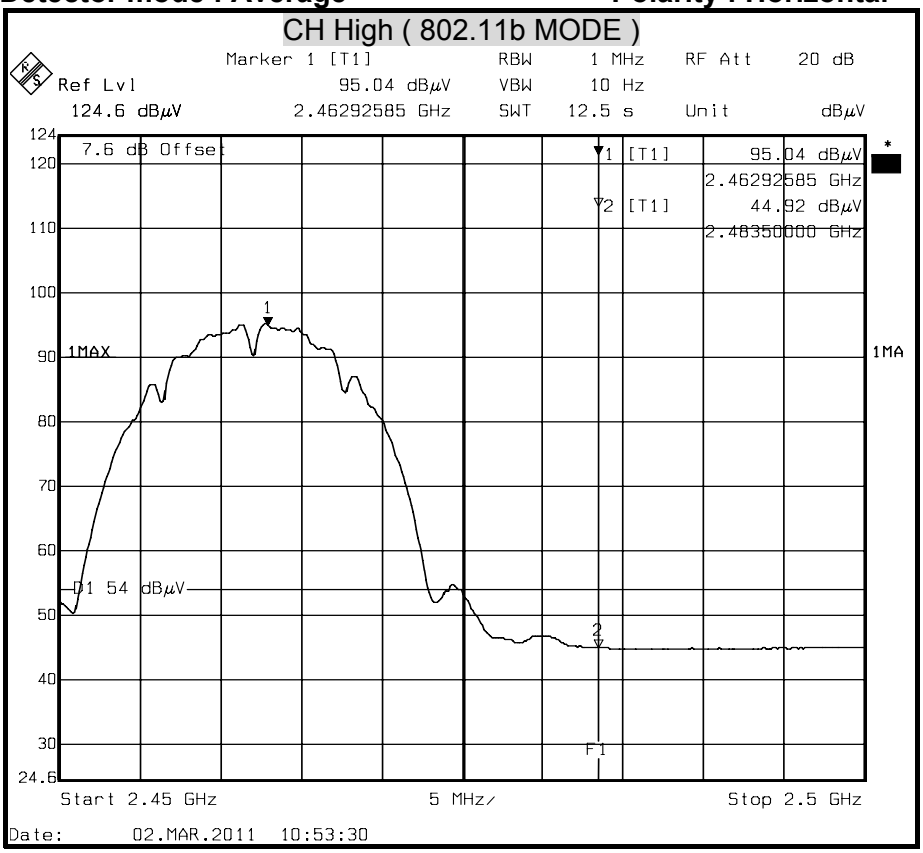
Detector mode : Average **Polarity : Vertical**



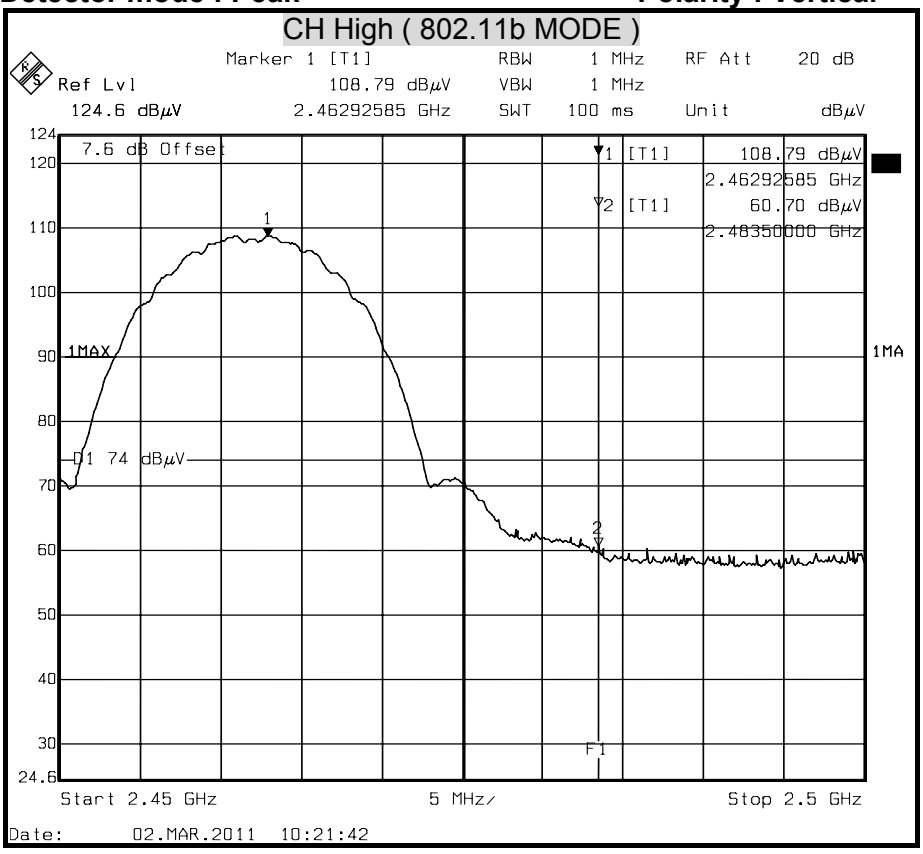
Detector mode : Peak **Polarity : Horizontal**



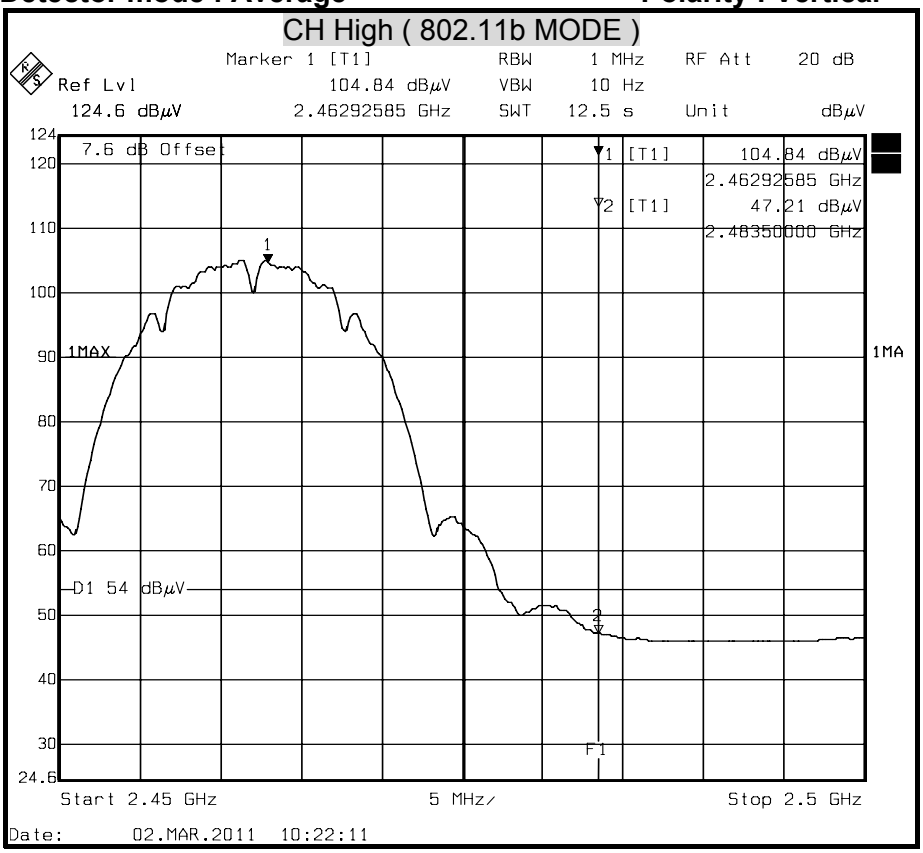
Detector mode : Average **Polarity : Horizontal**



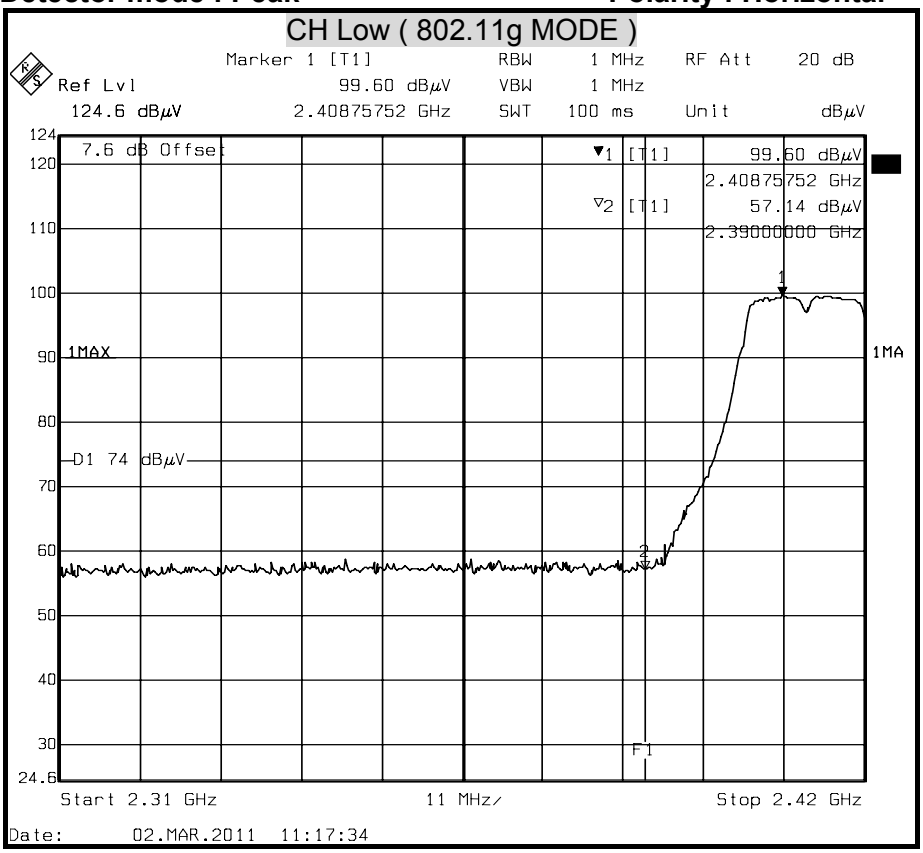
Detector mode : Peak **Polarity : Vertical**



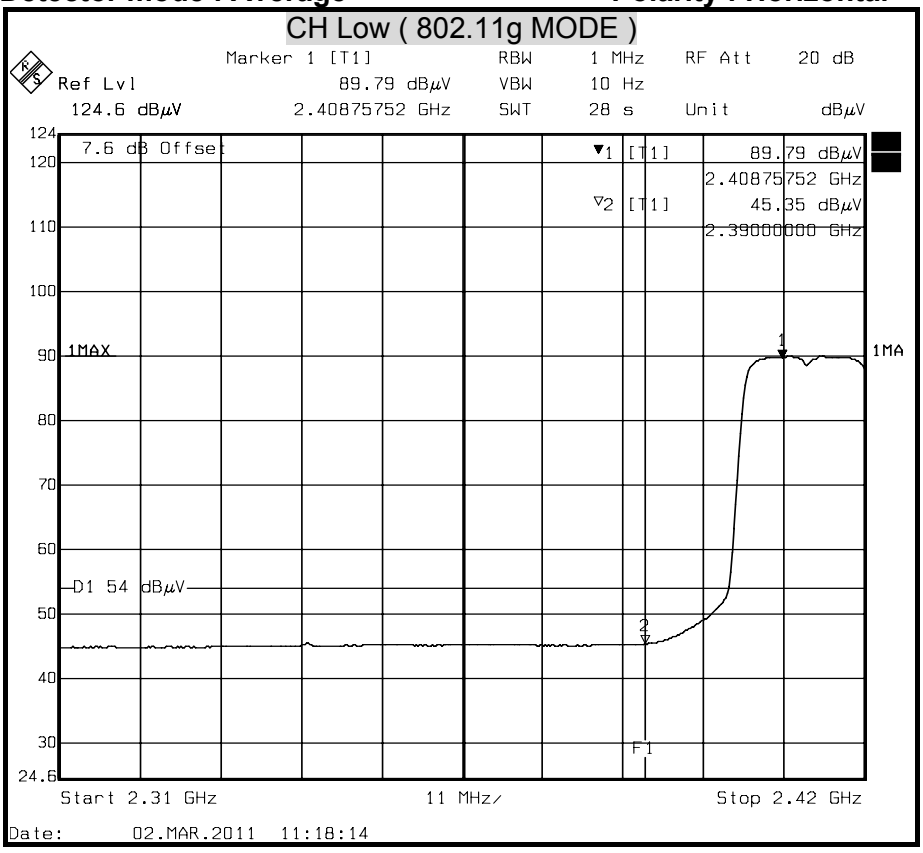
Detector mode : Average **Polarity : Vertical**



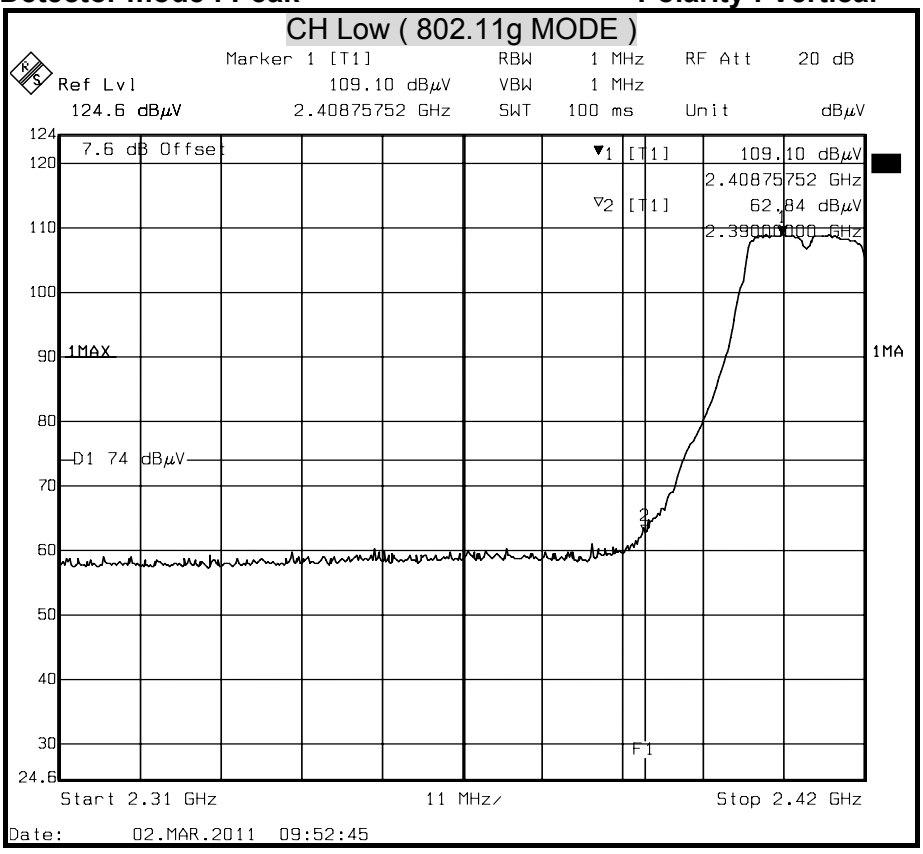
Detector mode : Peak **Polarity : Horizontal**



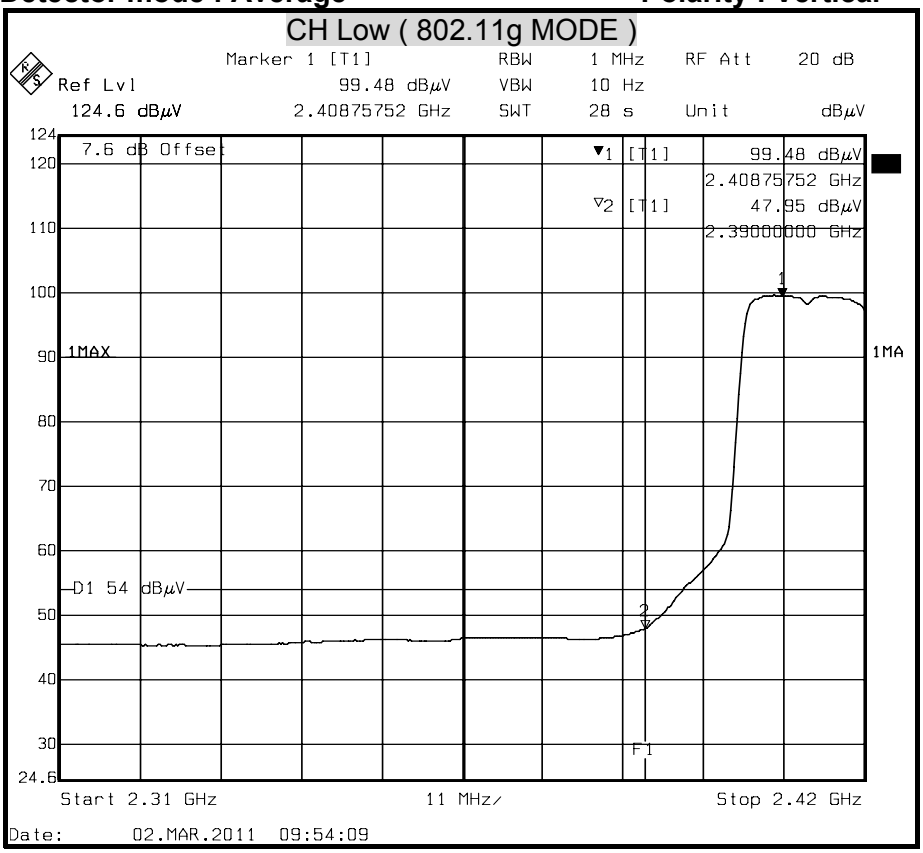
Detector mode : Average **Polarity : Horizontal**



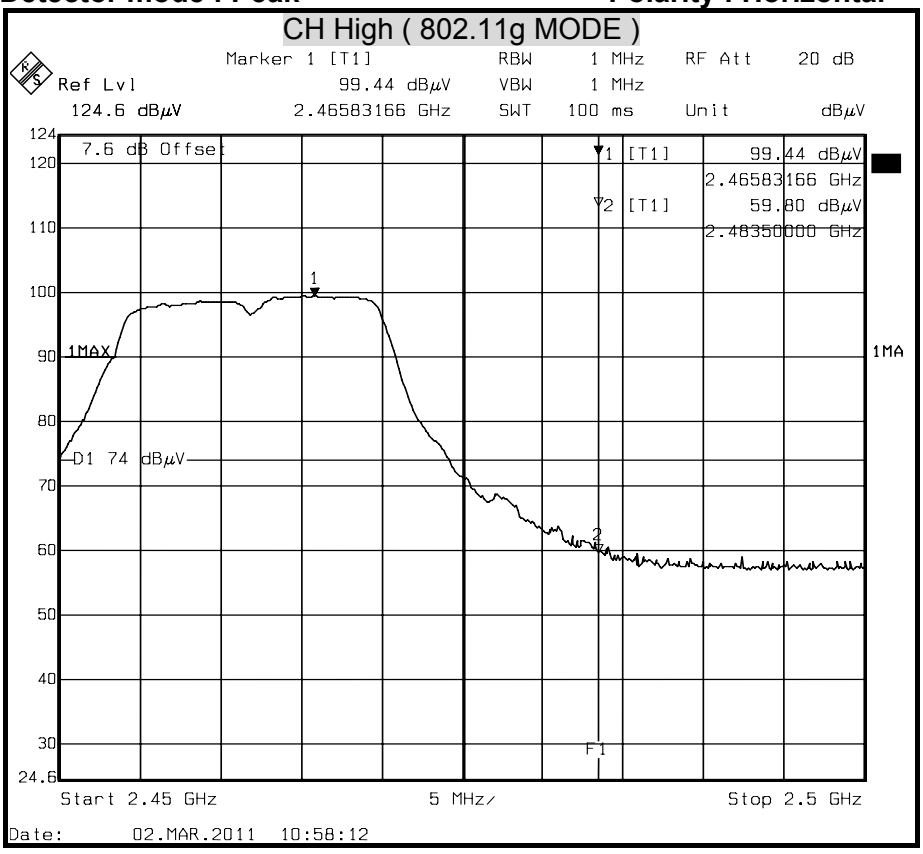
Detector mode : Peak **Polarity : Vertical**



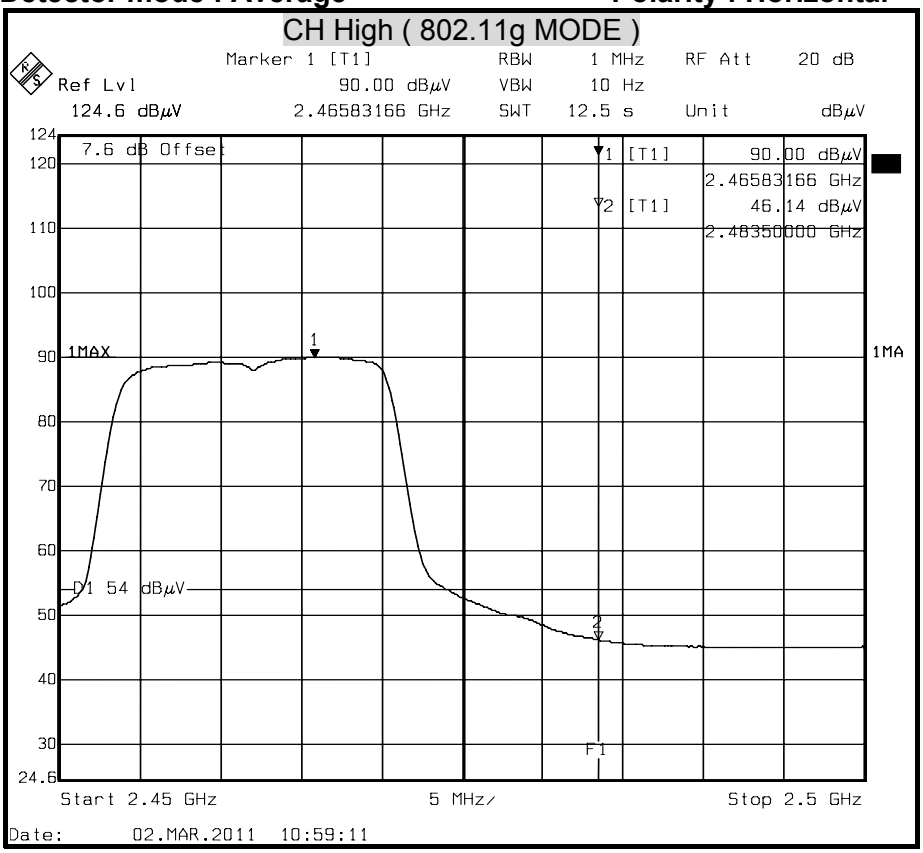
Detector mode : Average **Polarity : Vertical**



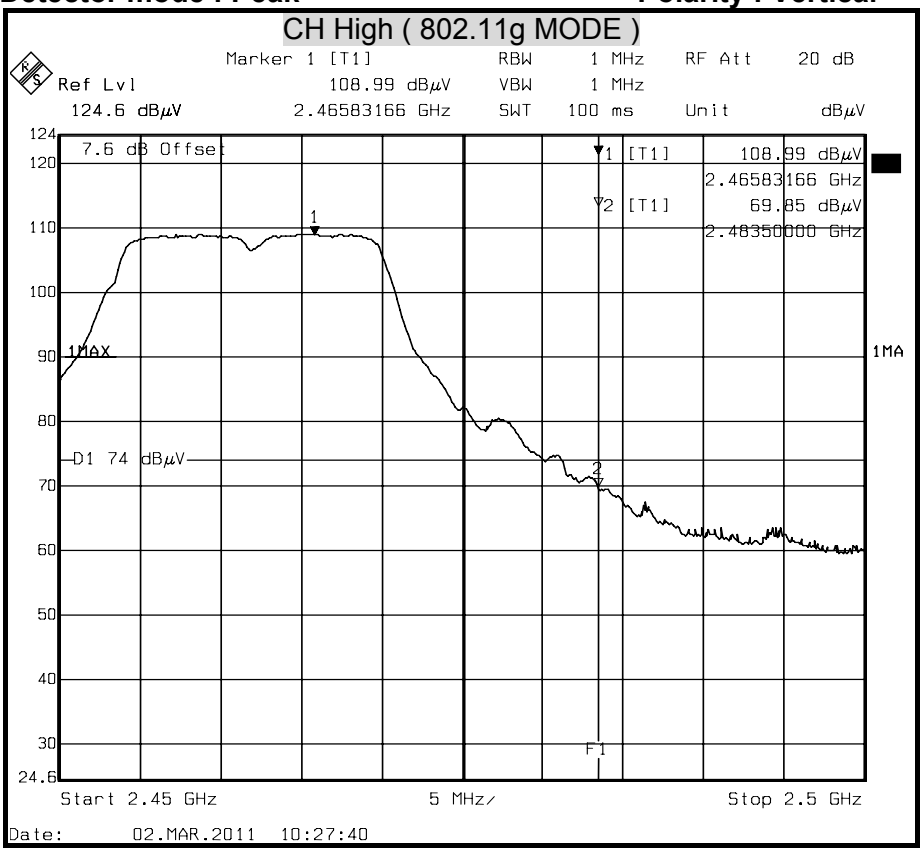
Detector mode : Peak **Polarity : Horizontal**



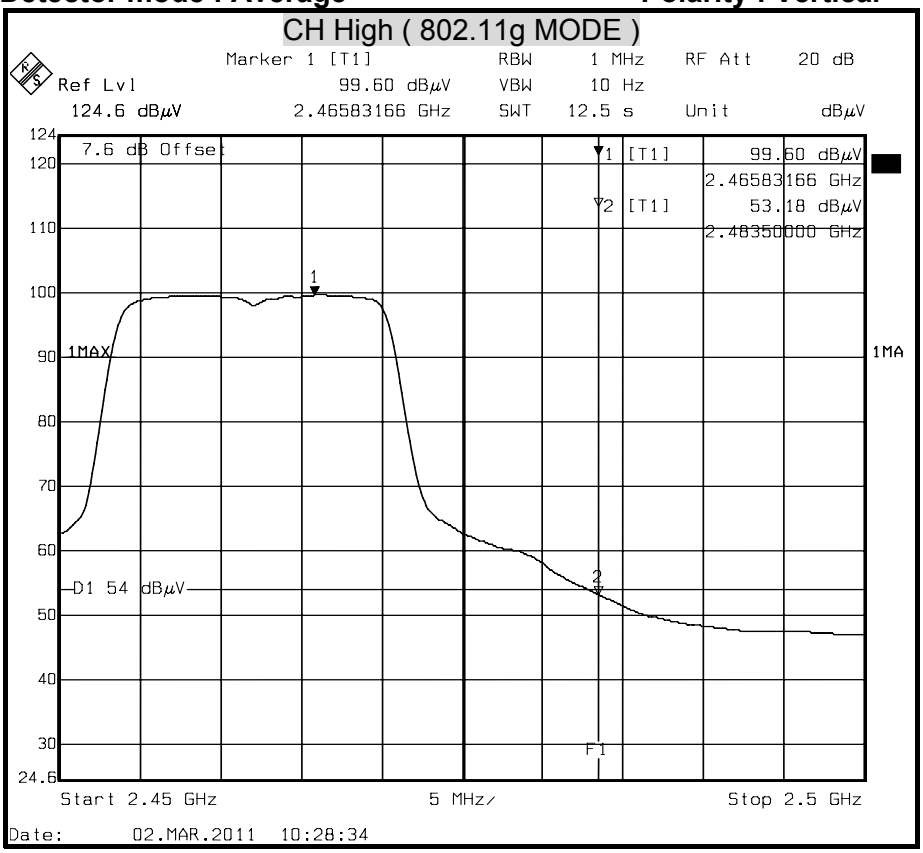
Detector mode : Average **Polarity : Horizontal**



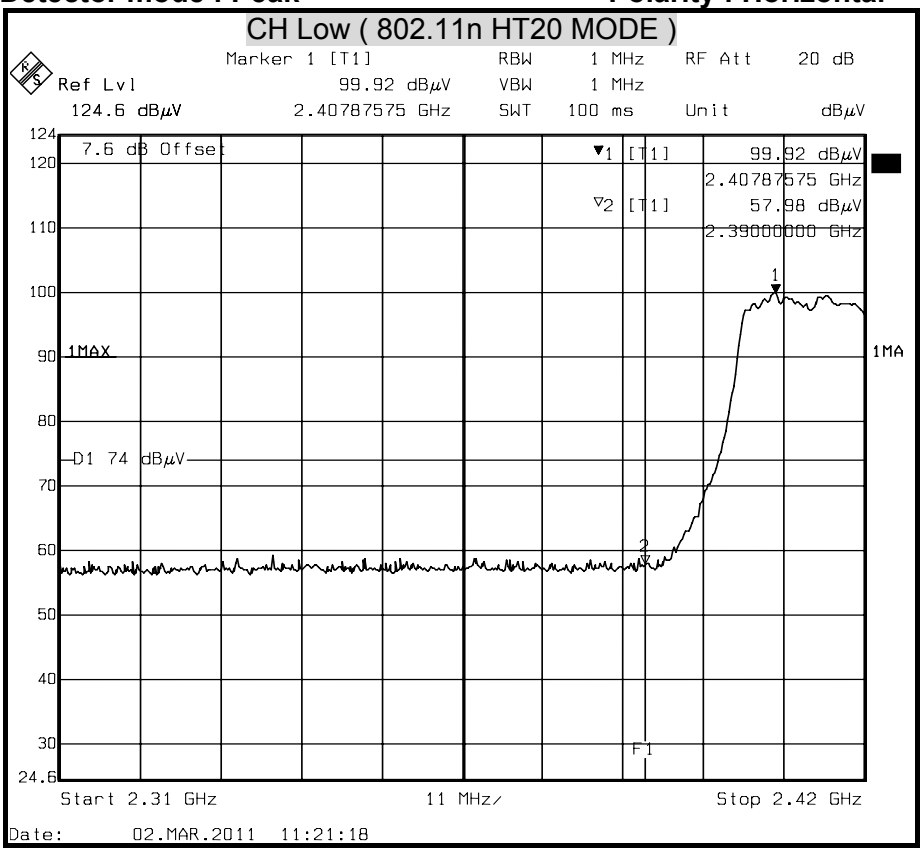
Detector mode : Peak **Polarity : Vertical**



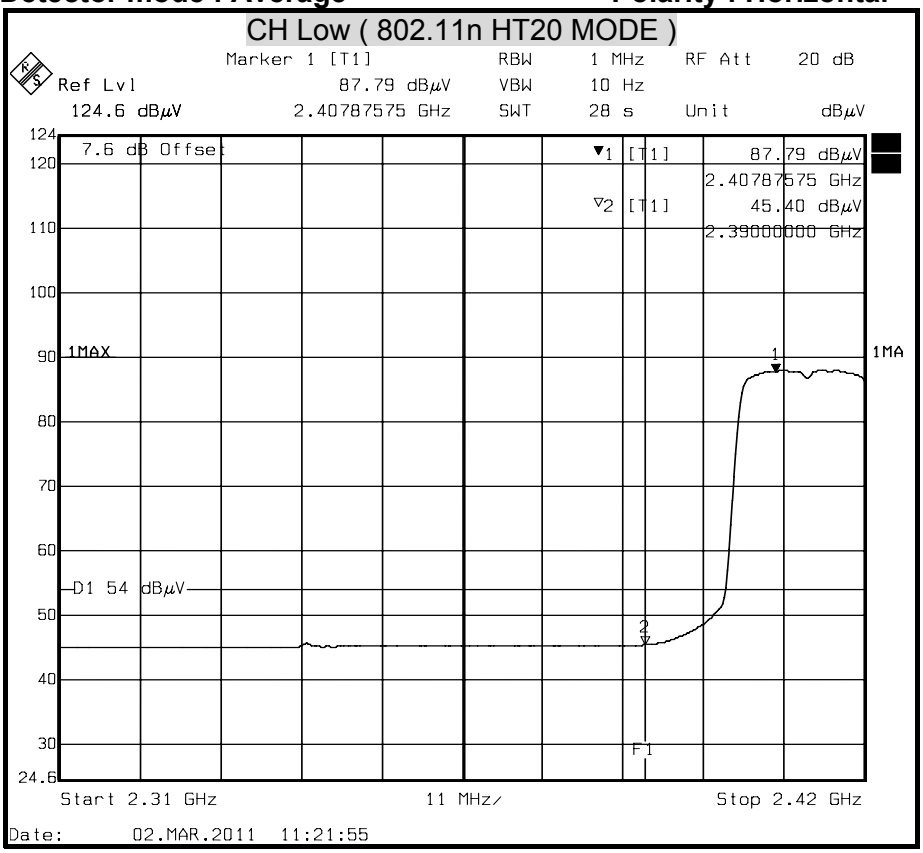
Detector mode : Average **Polarity : Vertical**



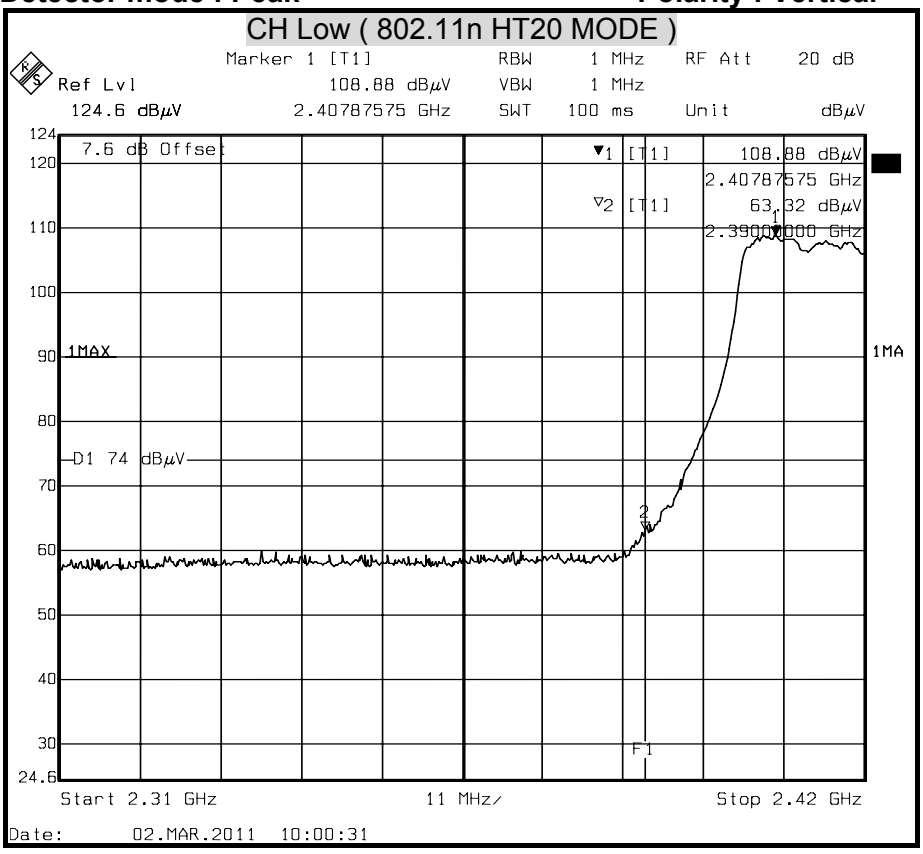
Detector mode : Peak **Polarity : Horizontal**



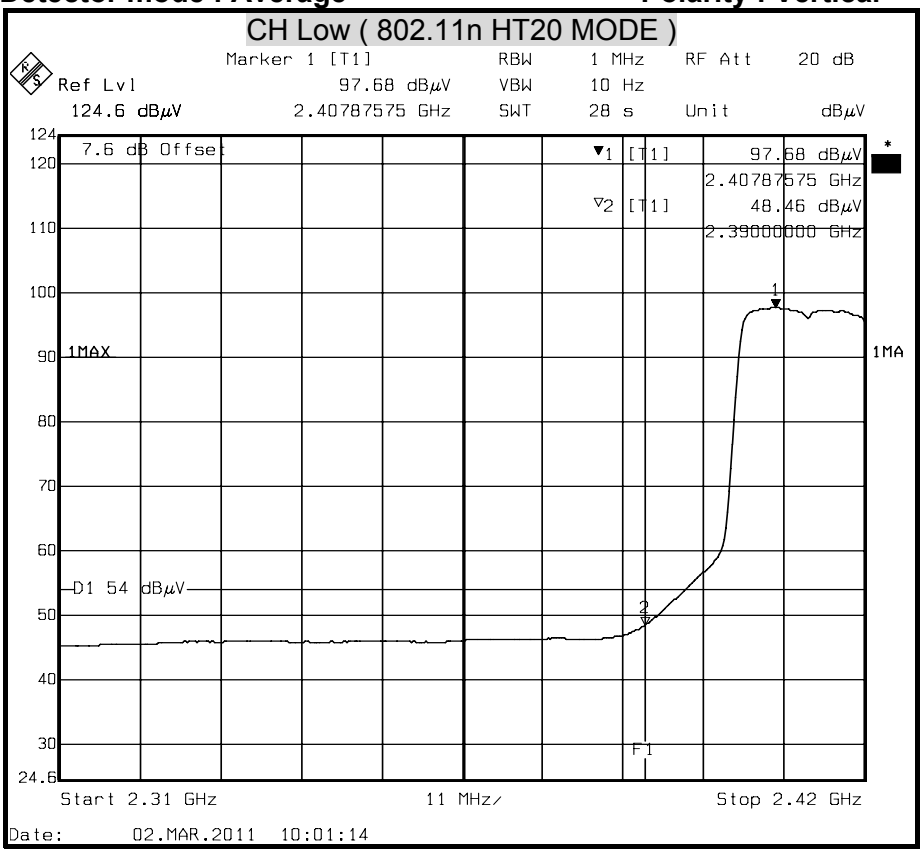
Detector mode : Average **Polarity : Horizontal**



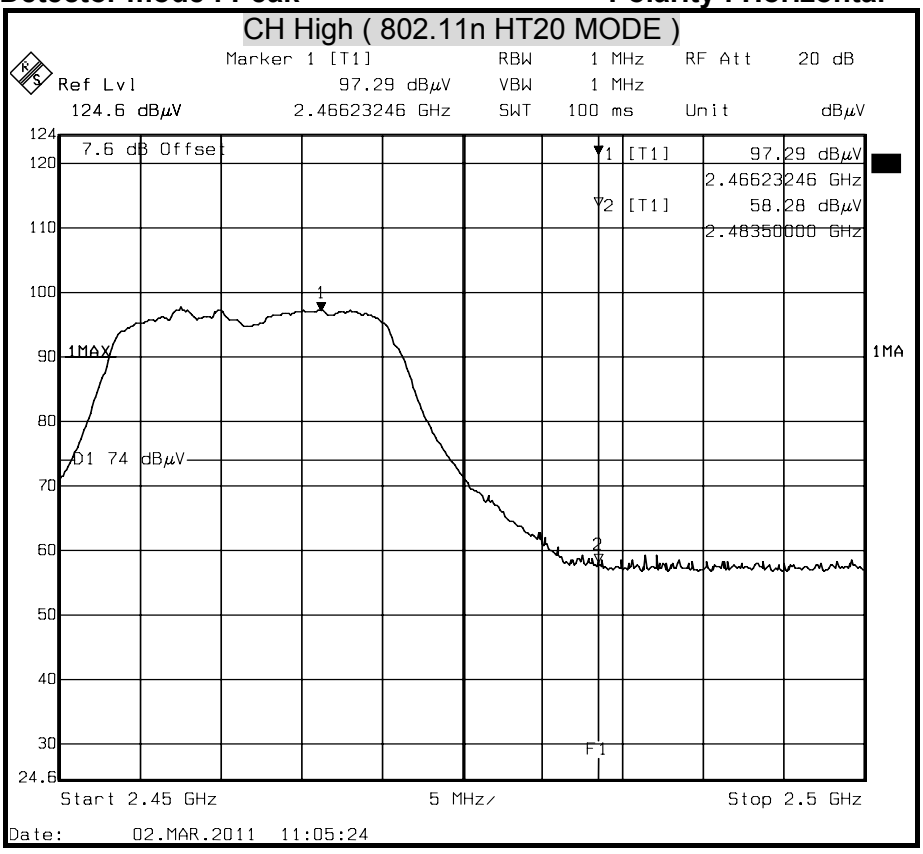
Detector mode : Peak **Polarity : Vertical**



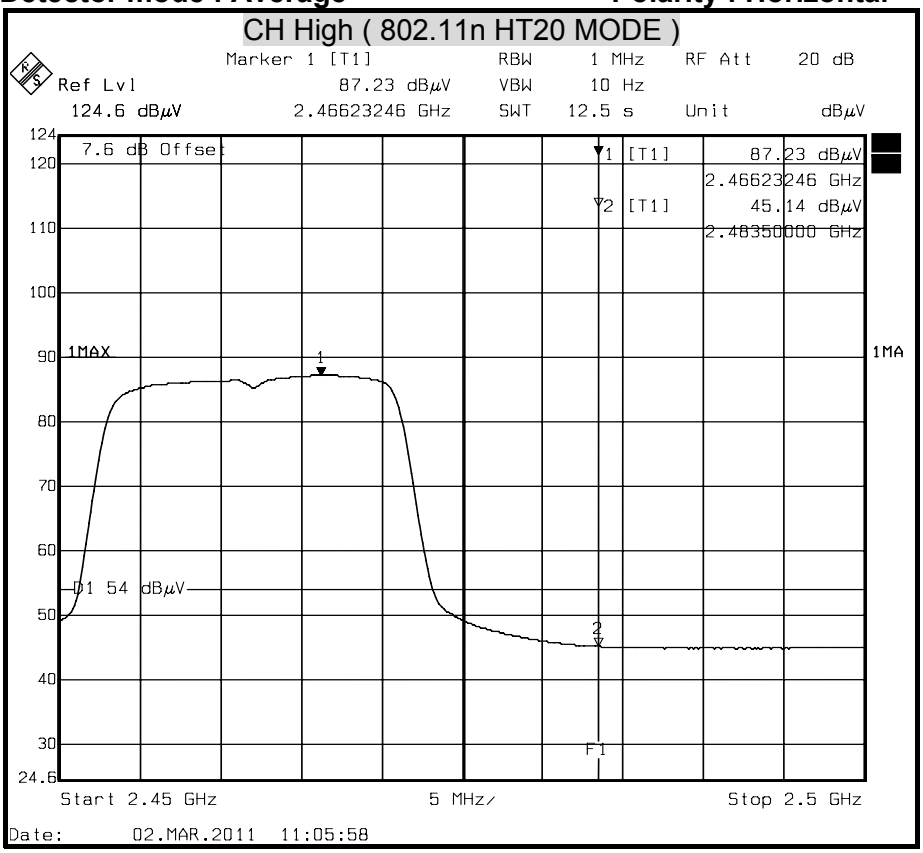
Detector mode : Average **Polarity : Vertical**



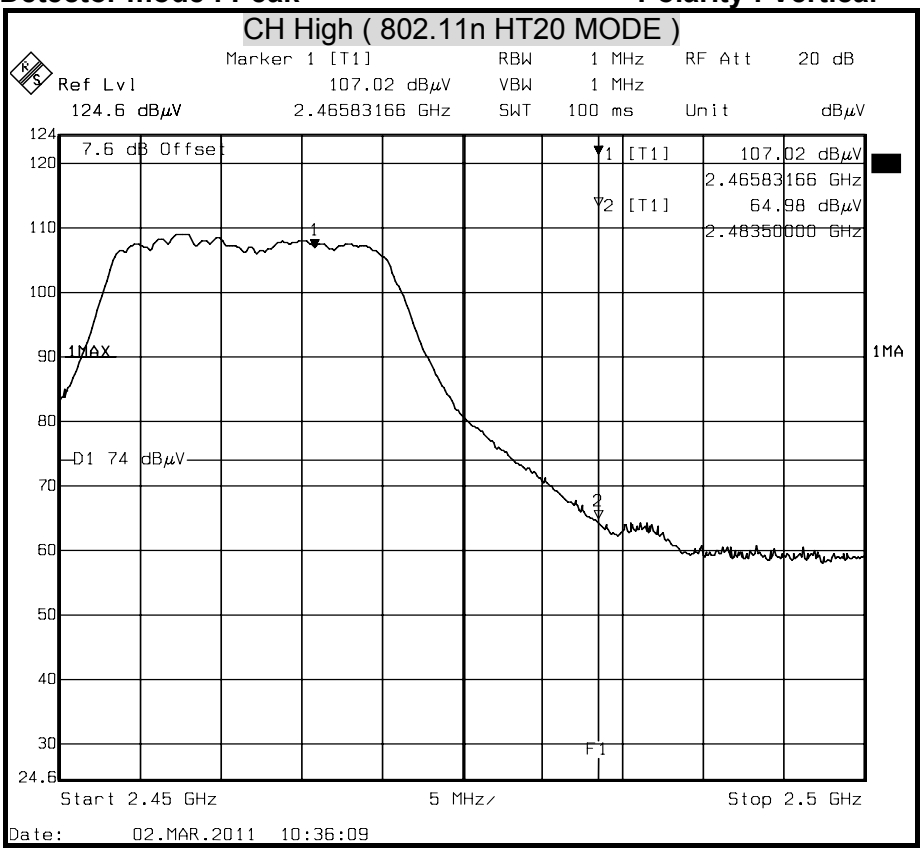
Detector mode : Peak **Polarity : Horizontal**



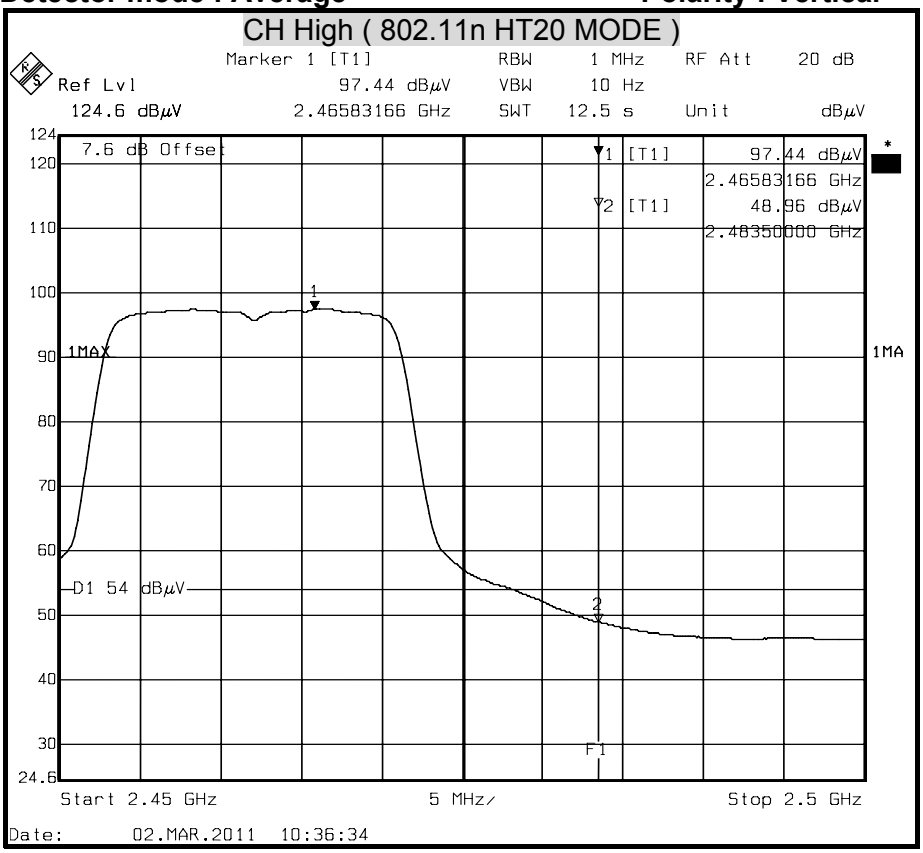
Detector mode : Average **Polarity : Horizontal**



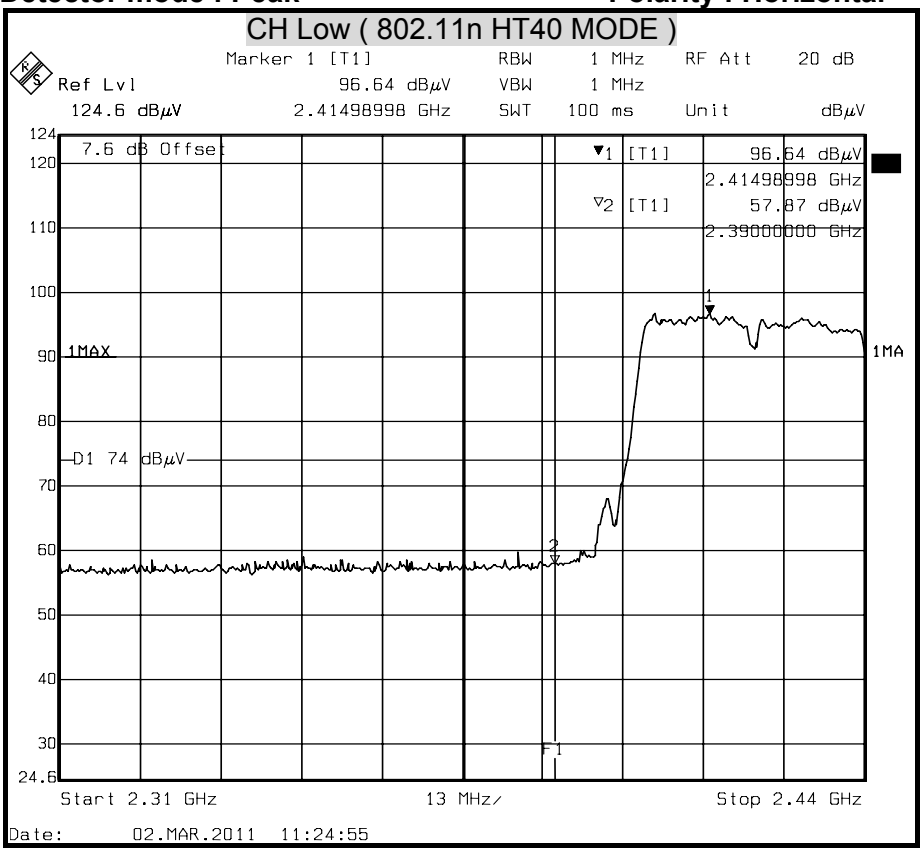
Detector mode : Peak **Polarity : Vertical**



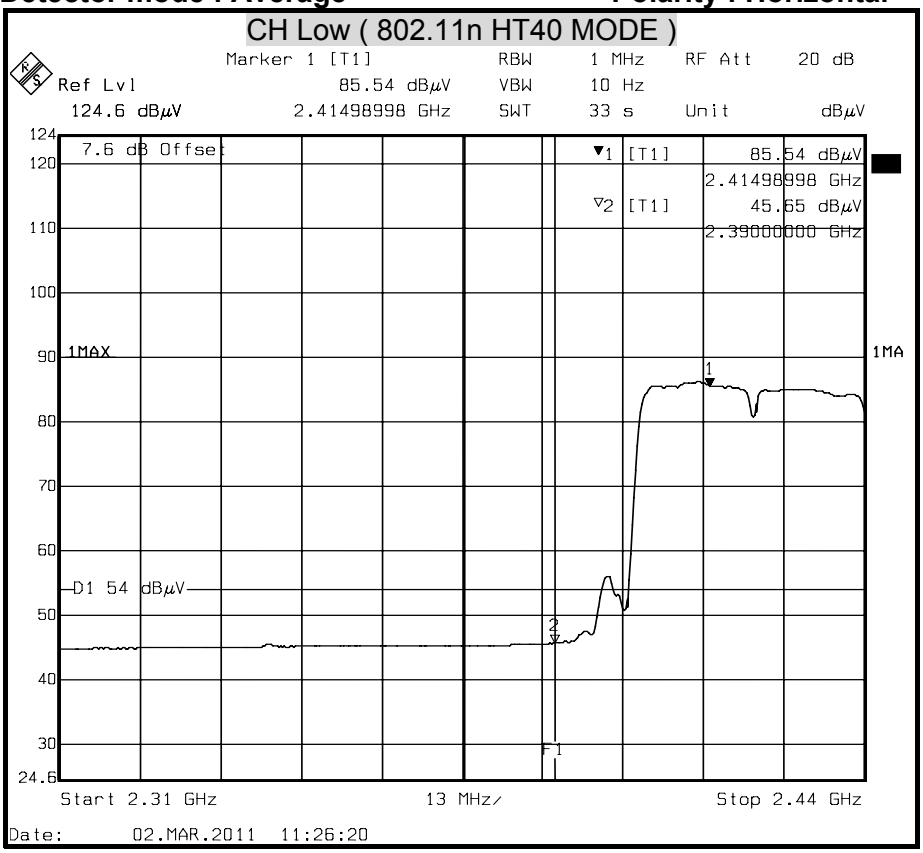
Detector mode : Average **Polarity : Vertical**



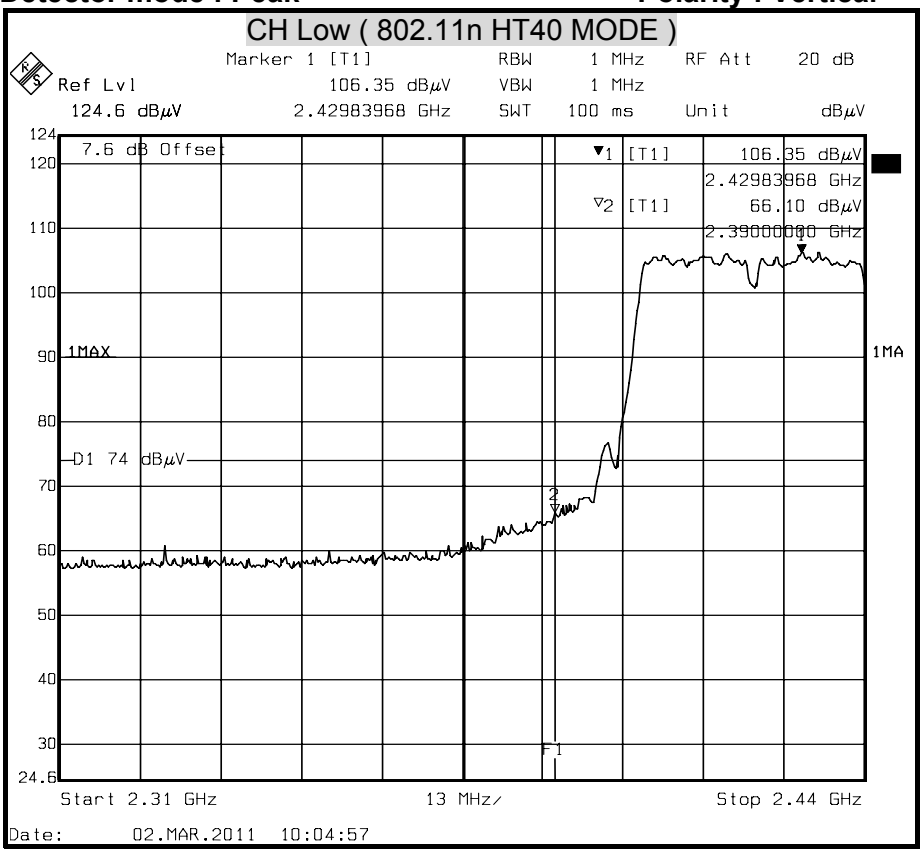
Detector mode : Peak **Polarity : Horizontal**



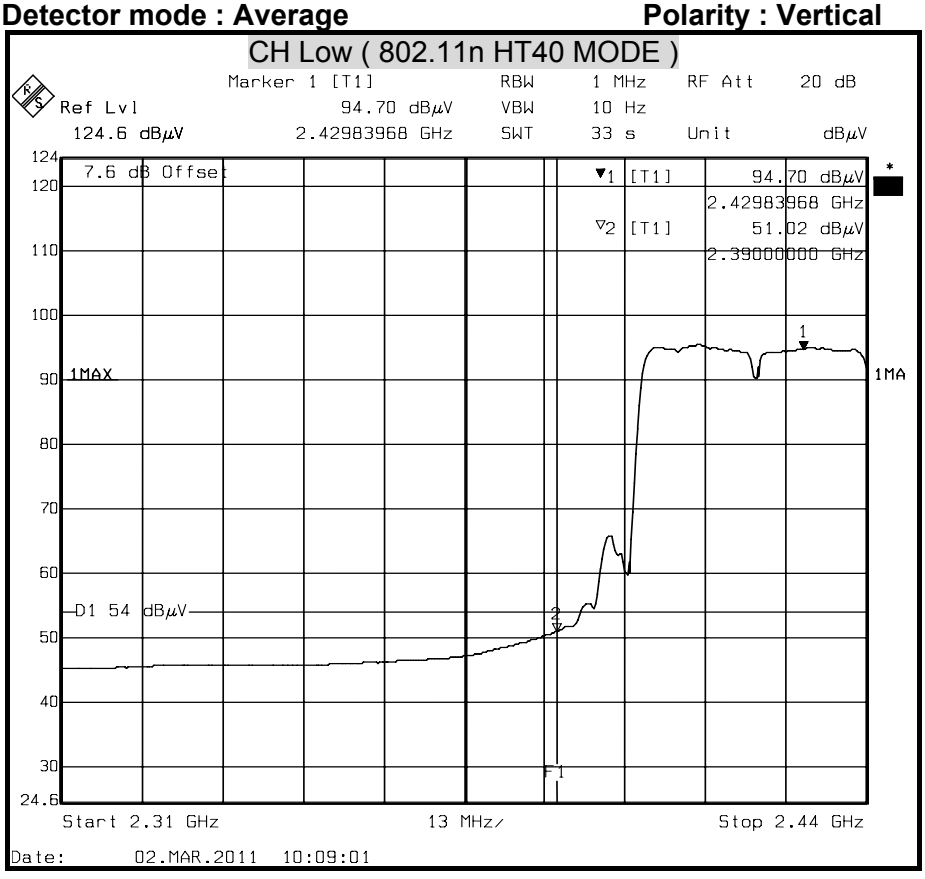
Detector mode : Average **Polarity : Horizontal**



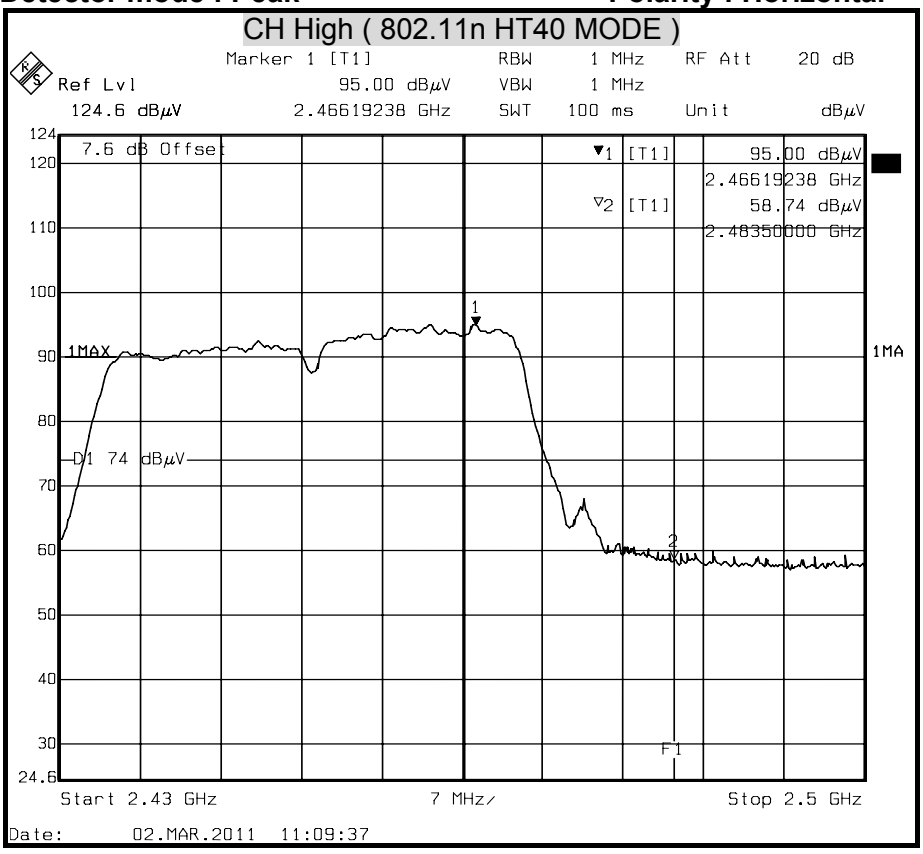
Detector mode : Peak **Polarity : Vertical**



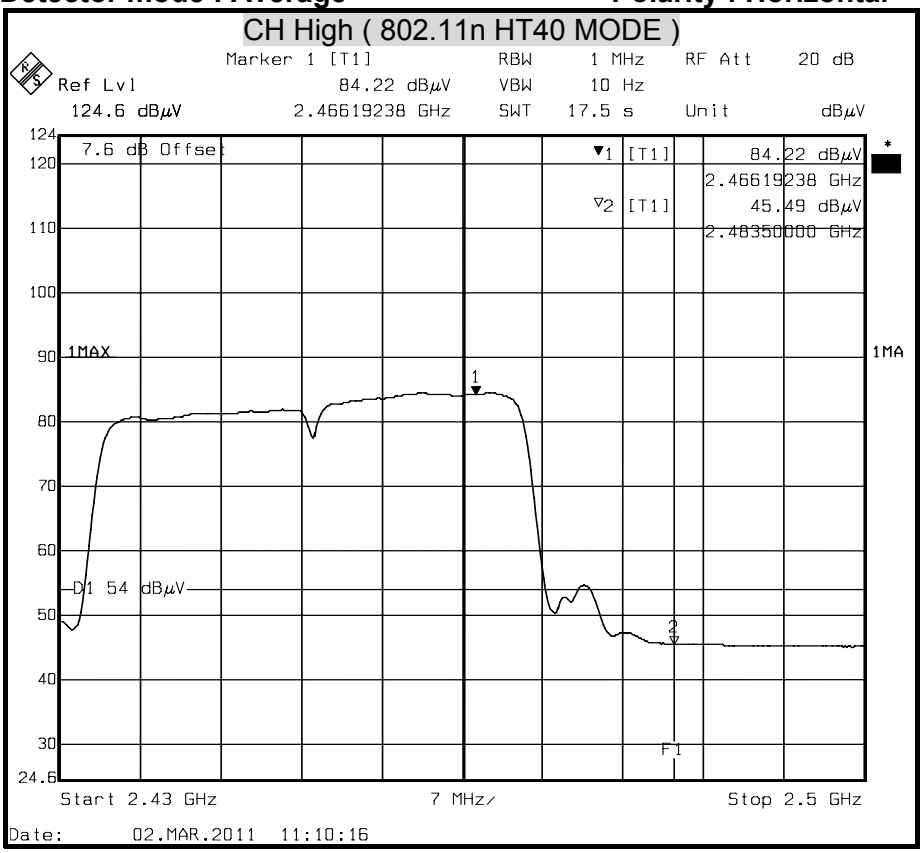
Detector mode : Average **Polarity : Vertical**



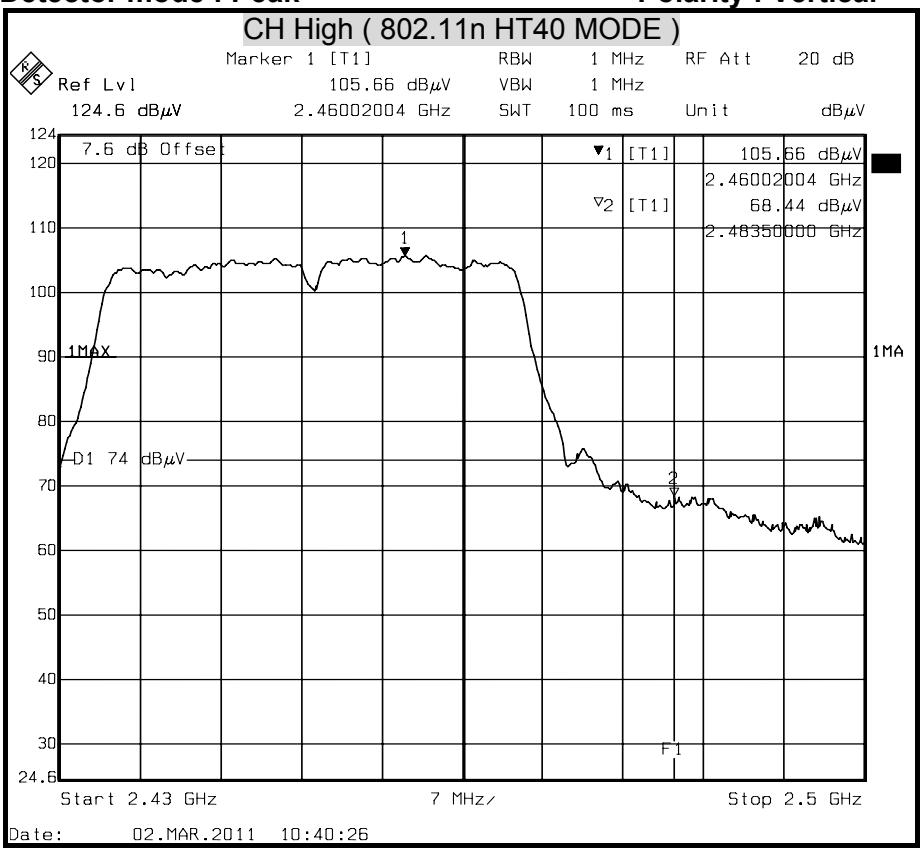
Detector mode : Peak **Polarity : Horizontal**



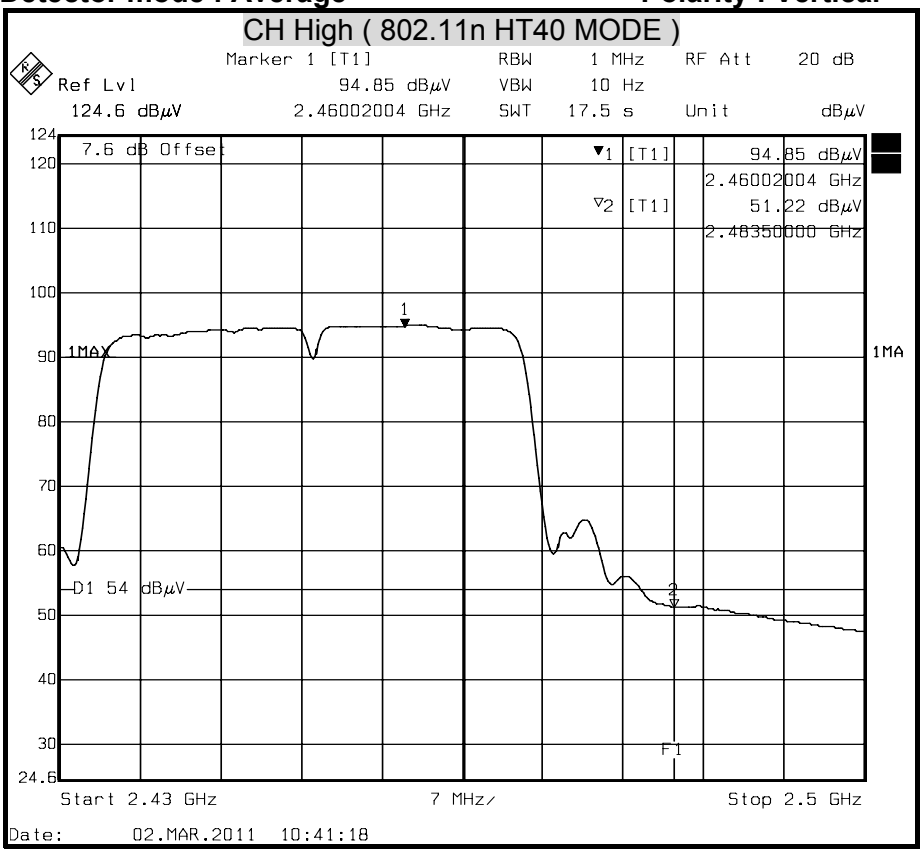
Detector mode : Average **Polarity : Horizontal**



Detector mode : Peak **Polarity : Vertical**



Detector mode : Average **Polarity : Vertical**



8.8 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.

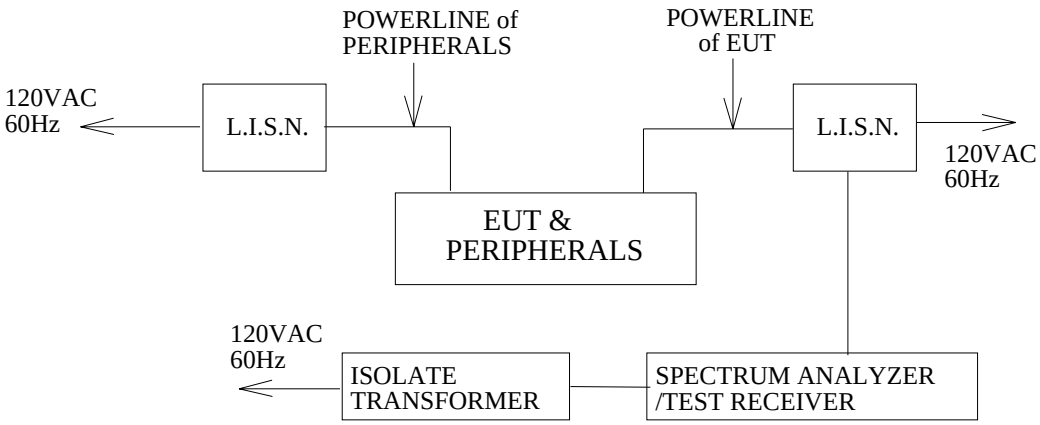
Frequency of Emission (MHz)	Conducted limit (dBμv)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56	56 to 46
0.5 - 5	56	46
5 - 30	60	50

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
TEST RECEIVER	Rohde & Schwarz	ESCS 30	100348	JUL. 13, 2011
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.

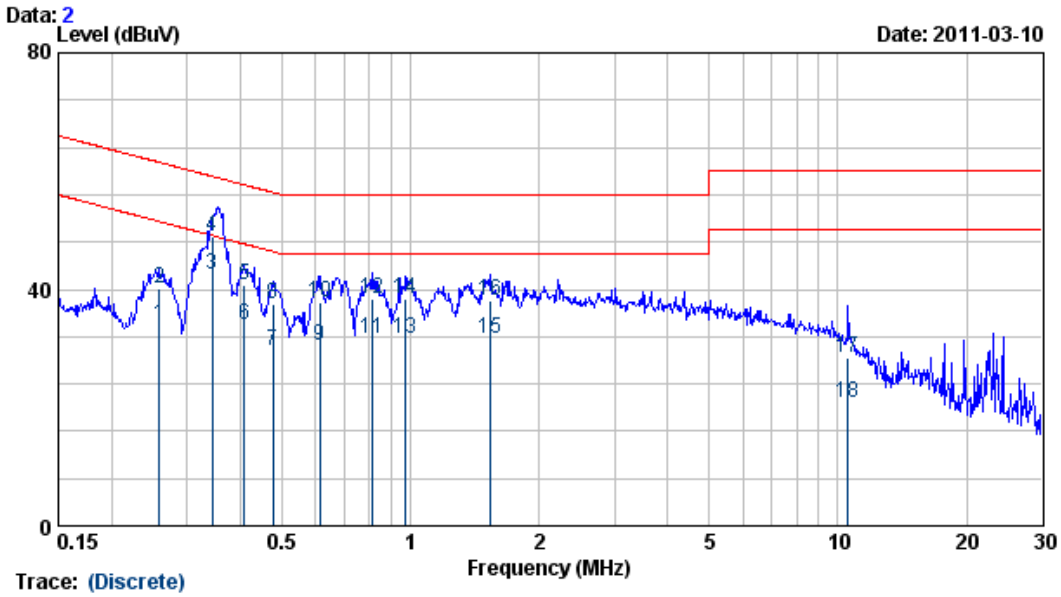
TEST RESULTS

No non-compliance noted.

CONDUCTED RF VOLTAGE MEASUREMENT

Product Name	Wireless Broadband Router	Test Date	2011/3/10
Model	BR486n	Test By	Shiang Su
Test Mode	Normal operating (worst case)	TEMP& Humidity	22°C, 55%
Adapter Model No.	S04-003-0050-00600		

LINE

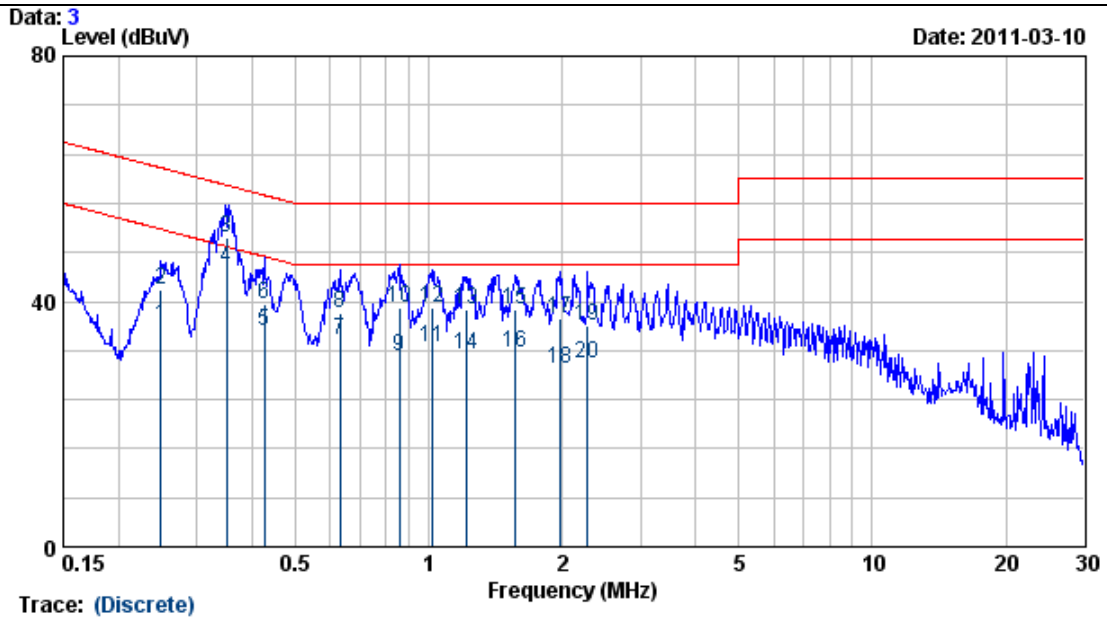


Freq. MHz	LISN Factor dB	Cable Loss dB	Meter Reading dBuV	Measured Level dBuV	Limits dBuV	Over Limits dBuV	Detector
0.259	8.65	0.01	25.35	34.01	51.47	-17.46	AVERAGE
0.259	8.65	0.01	31.36	40.02	61.47	-21.45	QP
0.345	8.65	0.01	33.93	42.59	49.09	-6.50	AVERAGE
0.345	8.65	0.01	40.30	48.96	59.09	-10.13	QP
0.408	8.65	0.01	32.20	40.86	57.68	-16.82	QP
0.408	8.65	0.01	25.26	33.92	47.68	-13.76	AVERAGE
0.476	8.65	0.02	20.88	29.55	46.41	-16.86	AVERAGE
0.476	8.65	0.02	28.96	37.63	56.41	-18.78	QP
0.614	8.64	0.02	21.70	30.36	46.00	-15.64	AVERAGE
0.614	8.64	0.02	29.26	37.92	56.00	-18.08	QP
0.817	8.61	0.02	23.15	31.78	46.00	-14.22	AVERAGE
0.817	8.61	0.02	29.66	38.29	56.00	-17.71	QP
0.974	8.62	0.02	23.07	31.71	46.00	-14.29	AVERAGE
0.974	8.62	0.02	29.62	38.26	56.00	-17.74	QP
1.535	8.63	0.02	22.99	31.64	46.00	-14.36	AVERAGE
1.535	8.63	0.02	29.54	38.19	56.00	-17.81	QP
10.564	8.90	0.07	19.46	28.43	60.00	-31.57	QP
10.564	8.90	0.07	11.84	20.81	50.00	-29.19	AVERAGE

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

Product Name	Wireless Broadband Router	Test Date	2011/3/10
Model	BR486n	Test By	Shiang Su
Test Mode	Normal operating (worst case)	TEMP& Humidity	22°C, 55%
Adapter Model No.	S04-003-0050-00600		

NEUTRAL



Trace: (Discrete)

Freq. MHz	LISN Factor dB	Cable Loss dB	Meter Reading dBuV	Measured Level dBuV	Limits dBuV	Over Limits dBuV	Detector
0.249	8.65	0.01	27.35	36.01	51.78	-15.77	AVERAGE
0.249	8.65	0.01	33.12	41.78	61.78	-20.00	QP
0.351	8.65	0.01	41.76	50.42	58.94	-8.52	QP
0.351	8.65	0.01	36.82	45.48	48.94	-3.46	AVERAGE
0.426	8.65	0.01	26.64	35.30	47.33	-12.03	AVERAGE
0.426	8.65	0.01	30.90	39.56	57.33	-17.77	QP
0.630	8.63	0.02	24.91	33.56	46.00	-12.44	AVERAGE
0.630	8.63	0.02	29.36	38.01	56.00	-17.99	QP
0.857	8.61	0.02	22.33	30.96	46.00	-15.04	AVERAGE
0.857	8.61	0.02	30.30	38.93	56.00	-17.07	QP
1.021	8.62	0.02	23.97	32.61	46.00	-13.39	AVERAGE
1.021	8.62	0.02	30.46	39.10	56.00	-16.90	QP
1.216	8.62	0.02	29.92	38.56	56.00	-17.44	QP
1.216	8.62	0.02	22.75	31.39	46.00	-14.61	AVERAGE
1.568	8.63	0.02	29.90	38.55	56.00	-17.45	QP
1.568	8.63	0.02	23.07	31.72	46.00	-14.28	AVERAGE
1.980	8.63	0.02	28.68	37.33	56.00	-18.67	QP
1.980	8.63	0.02	20.34	28.99	46.00	-17.01	AVERAGE
2.285	8.64	0.02	27.30	35.96	56.00	-20.04	QP
2.285	8.64	0.02	21.23	29.89	46.00	-16.11	AVERAGE

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 used for this product is a PIFA antenna.

The peak Gain of this antennas is 3dBi at 2.4GHz.

The antenna spec. As below:

Two antennas

Dipole Antenna 3dBi (External antenna)