Appendix 4

Channel Expansion – MIMO mode / Chain 0:

Channel	Frequency (MHz)	6 dB Bandwidth (kHz)	Minimum Limit (kHz)	Margin (kHz)
Low	2422	30000	500.00	29500
Middle	2447	27733		27233
High	2452	30133		29633

Channel	Frequency (MHz)	99% Bandwidth (kHz)
Low	2422	32.49
Middle	2447	32.581
High	2452	32.534

Channel	Frequency (MHz)	Peak Power (dBm)	Peak Power (W)	Limit (dBm)	Margin (dB)
Low	2422	15.69	0.037	30.00	-29.96
Middle	2447	17.05	0.051		-29.95
High	2452	15.20	0.033		-29.97

Channel	Frequency (MHz)	Average Power (dBm)	Average Power (W)
Low	2422	13.30	0.021
Middle	2447	14.41	0.028
High	2452	12.70	0.019

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2422	-4.38	8.00	-12.38
Middle	2447	-3.08		-11.08
High	2452	-4.71		-12.71

Channel Expansion – MIMO mode / Chain 1:

Channel	Frequency (MHz)	6 dB Bandwidth (kHz)	Minimum Limit (kHz)	Margin (kHz)
Low	2422	27600	500.00	27100
Middle	2447	27600		27100
High	2452	27600		27100

Channel	Frequency (MHz)	99% Bandwidth (kHz)
Low	2422	32.49
Middle	2447	32.581
High	2452	32.534

Channel	Frequency (MHz)	Peak Power (dBm)	Peak Power (W)	Limit (dBm)	Margin (dB)
Low	2422	15.09	0.032	30.00	-29.97
Middle	2447	17.08	0.051		-29.95
High	2452	15.13	0.033		-29.97

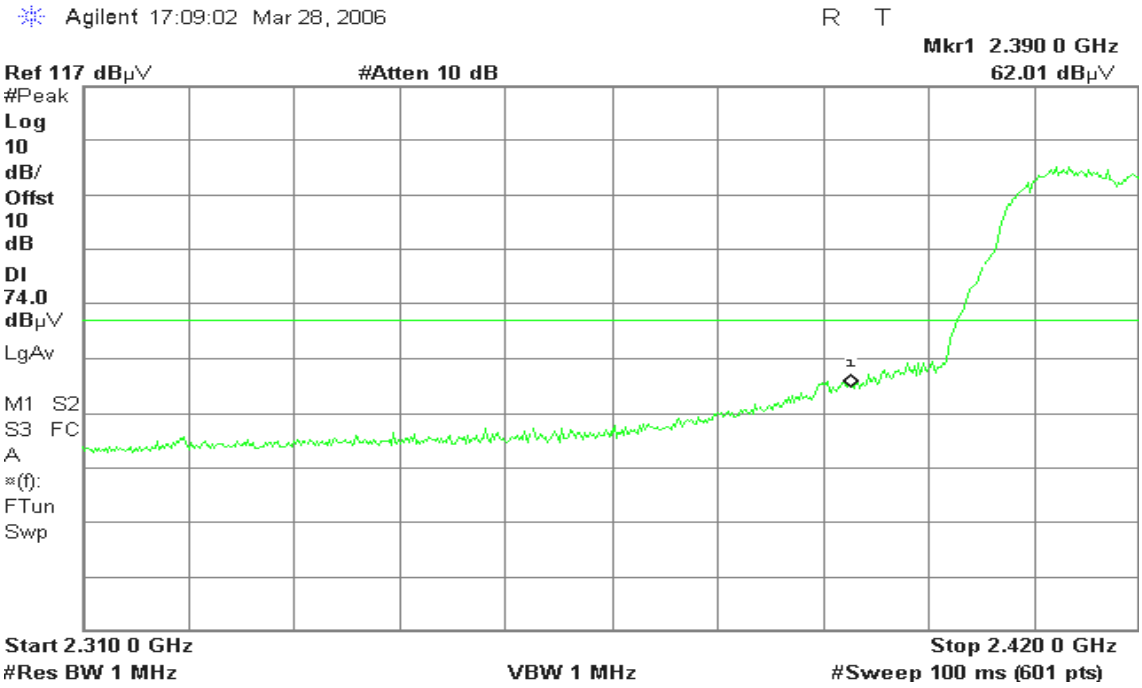
Channel	Frequency (MHz)	Average Power (dBm)	Average Power (W)
Low	2422	12.42	0.017
Middle	2447	14.46	0.028
High	2452	12.32	0.017

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2422	-2.83	8.00	-10.83
Middle	2447	-0.72		-8.72
High	2452	-2.61		-10.61

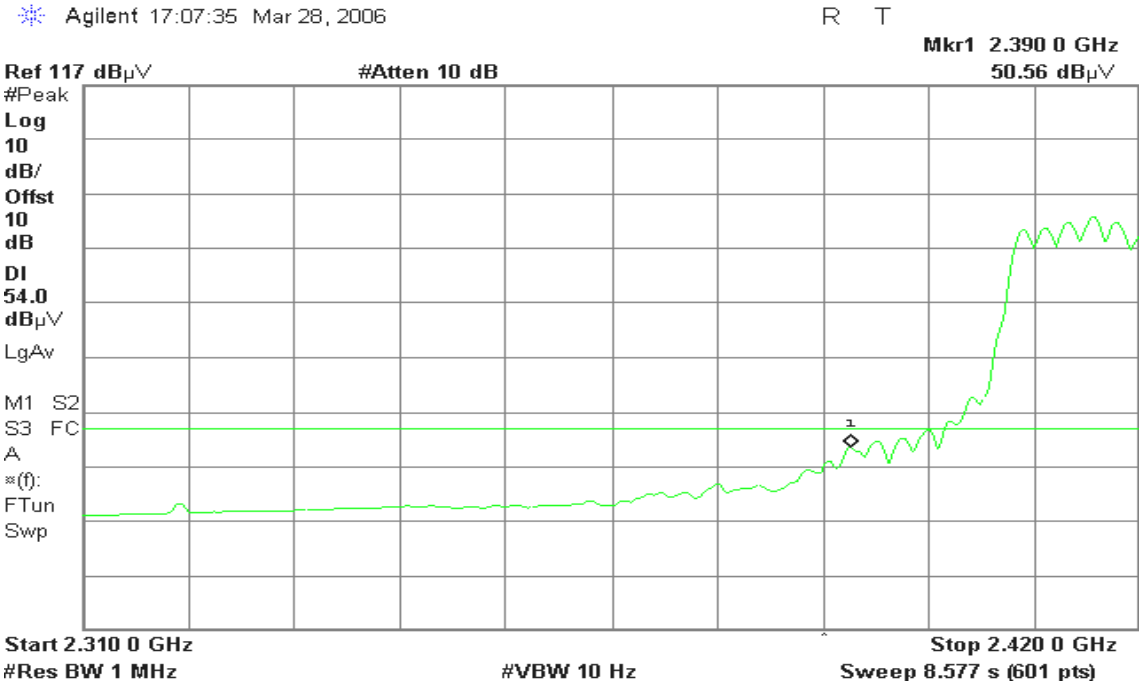
BAND EDGES MEASUREMENT

Channel Expansion – MIMO mode / Ch Low

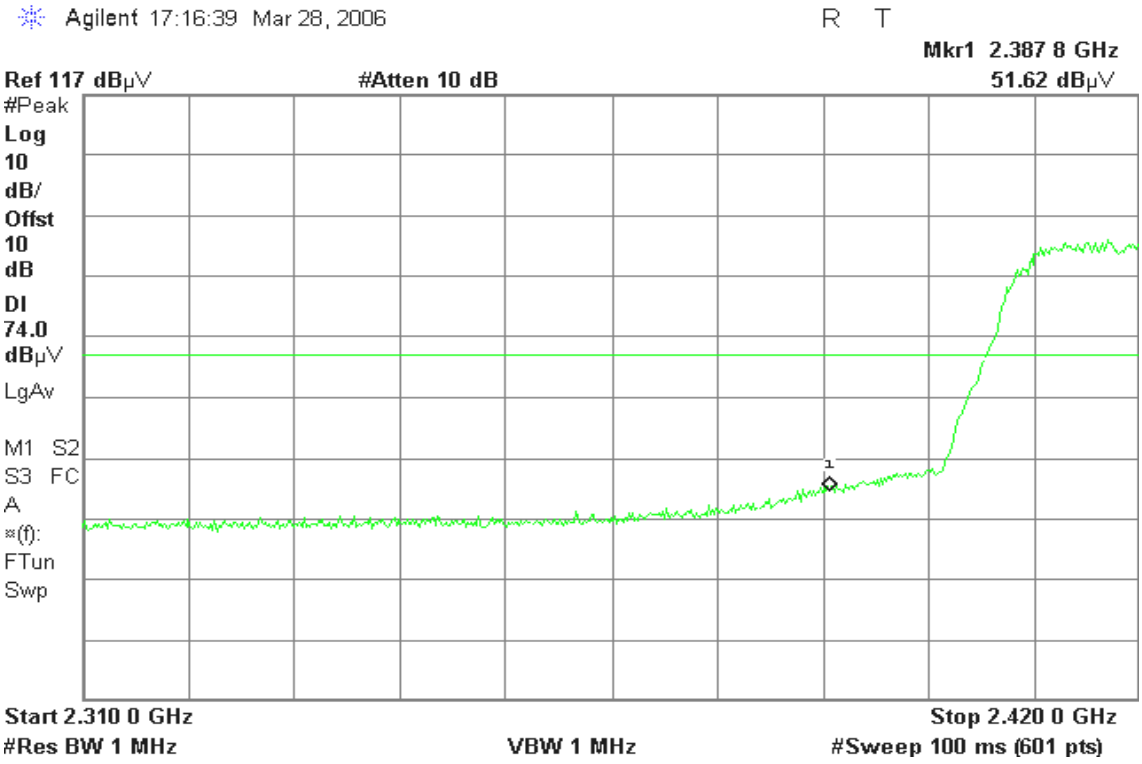
Detector mode: Peak Polarity: Vertical



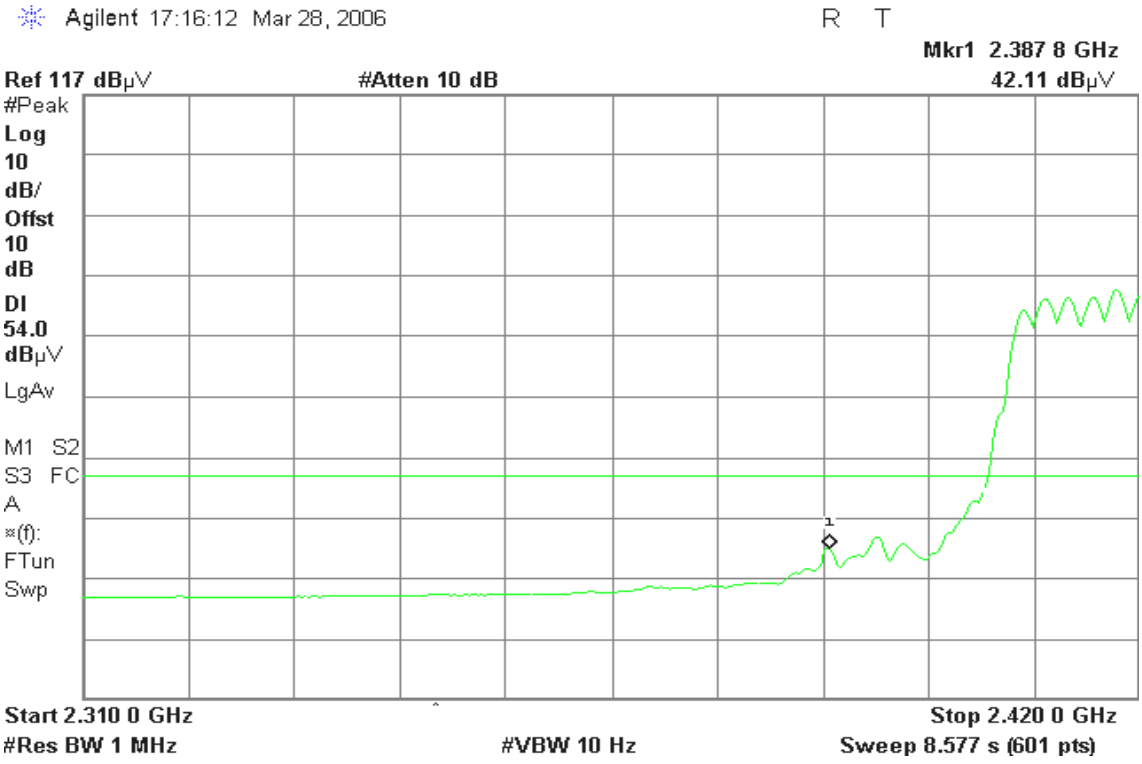
Detector mode: Average Polarity: Vertical



Detector mode: Peak **Polarity: Horizontal**

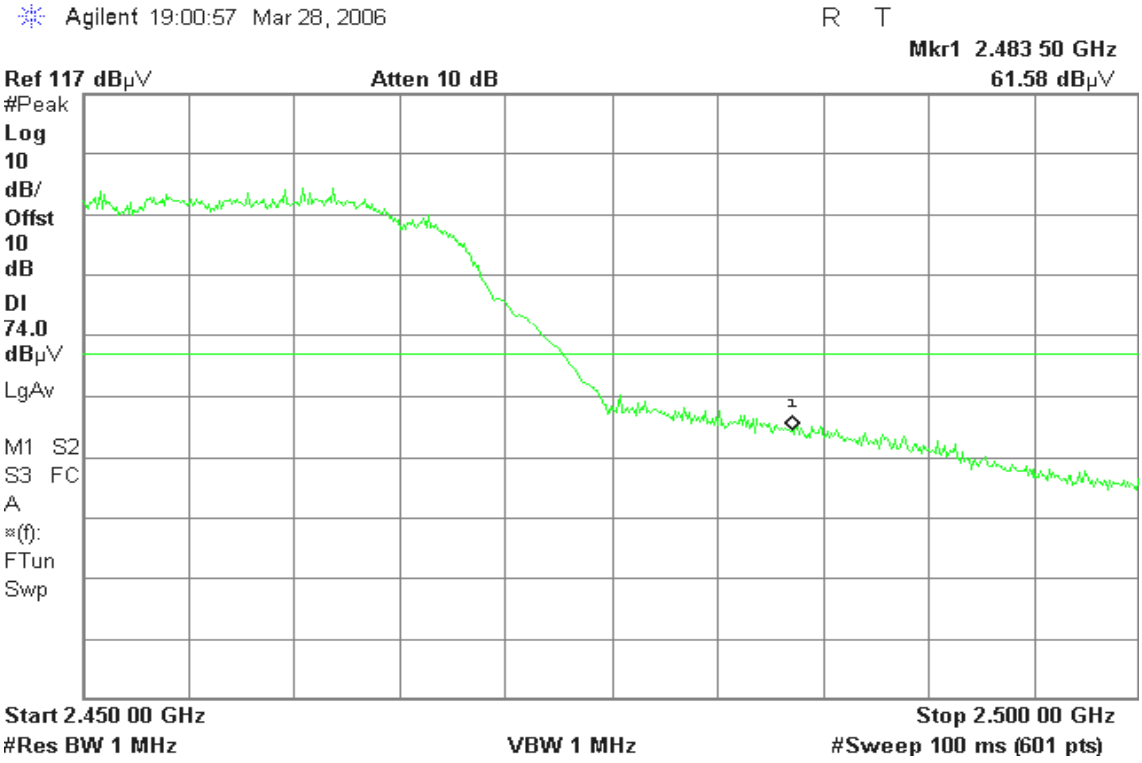


Detector mode: Average **Polarity: Horizontal**

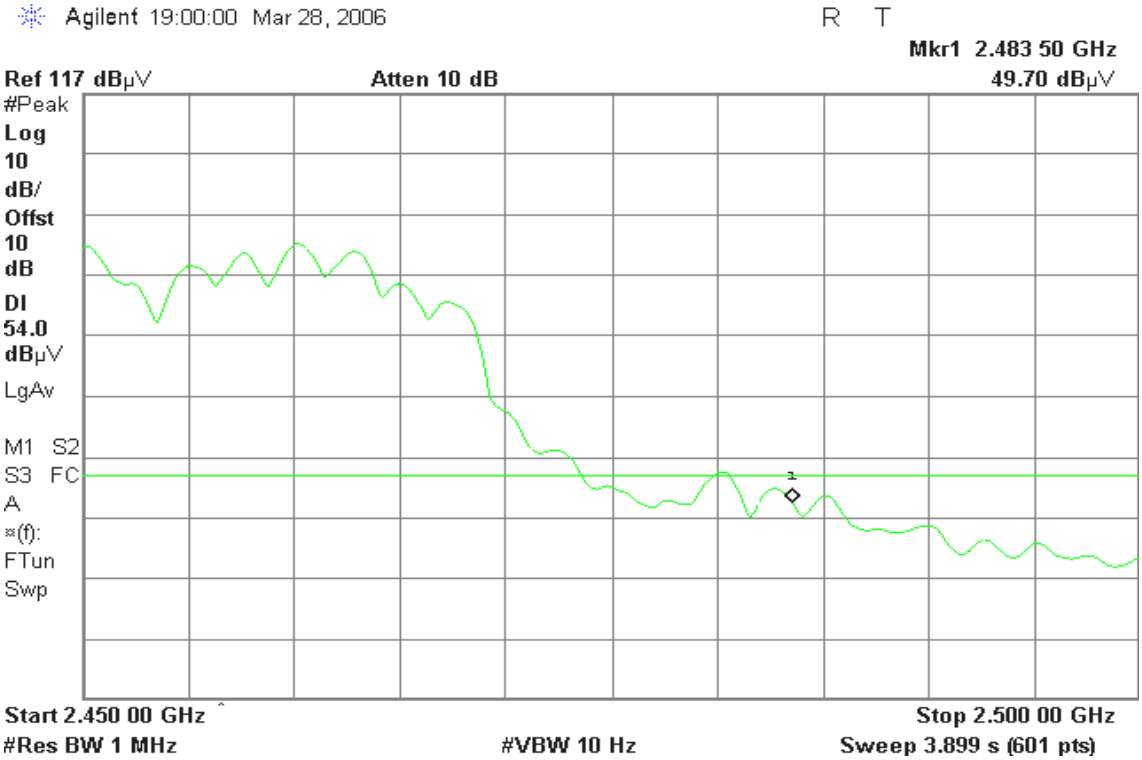


Channel Expansion – MIMO mode / Ch High

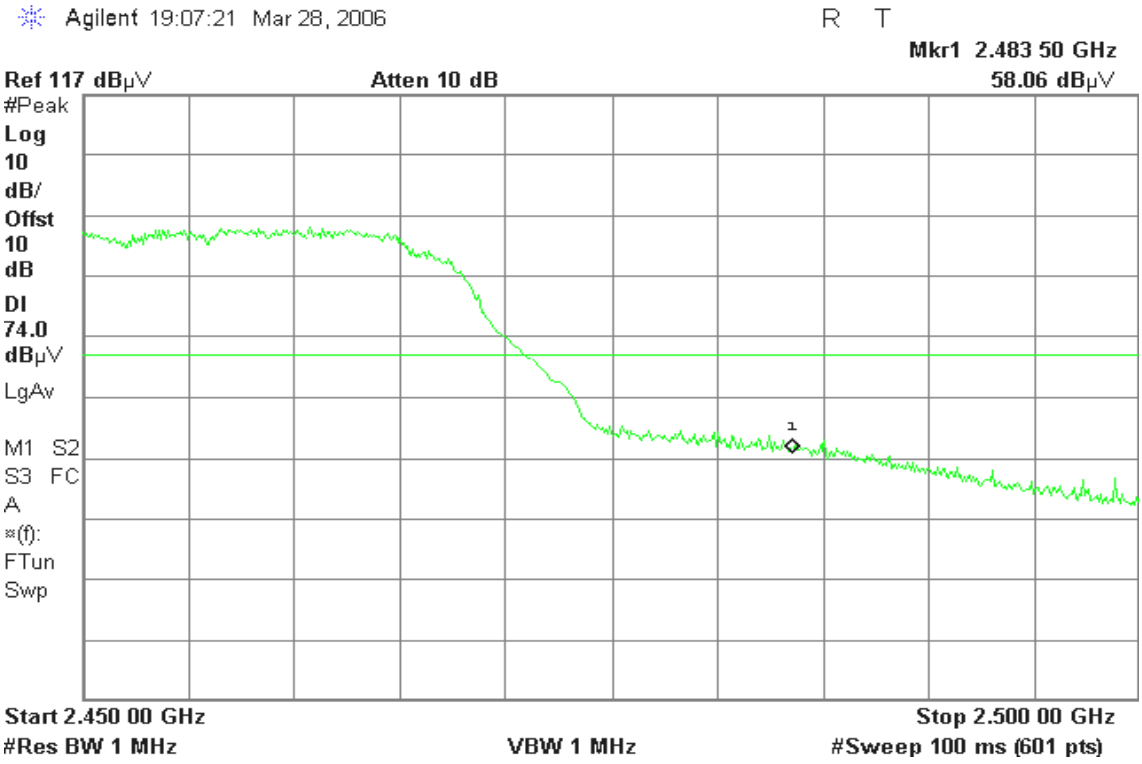
Detector mode: Peak Polarity: Vertical



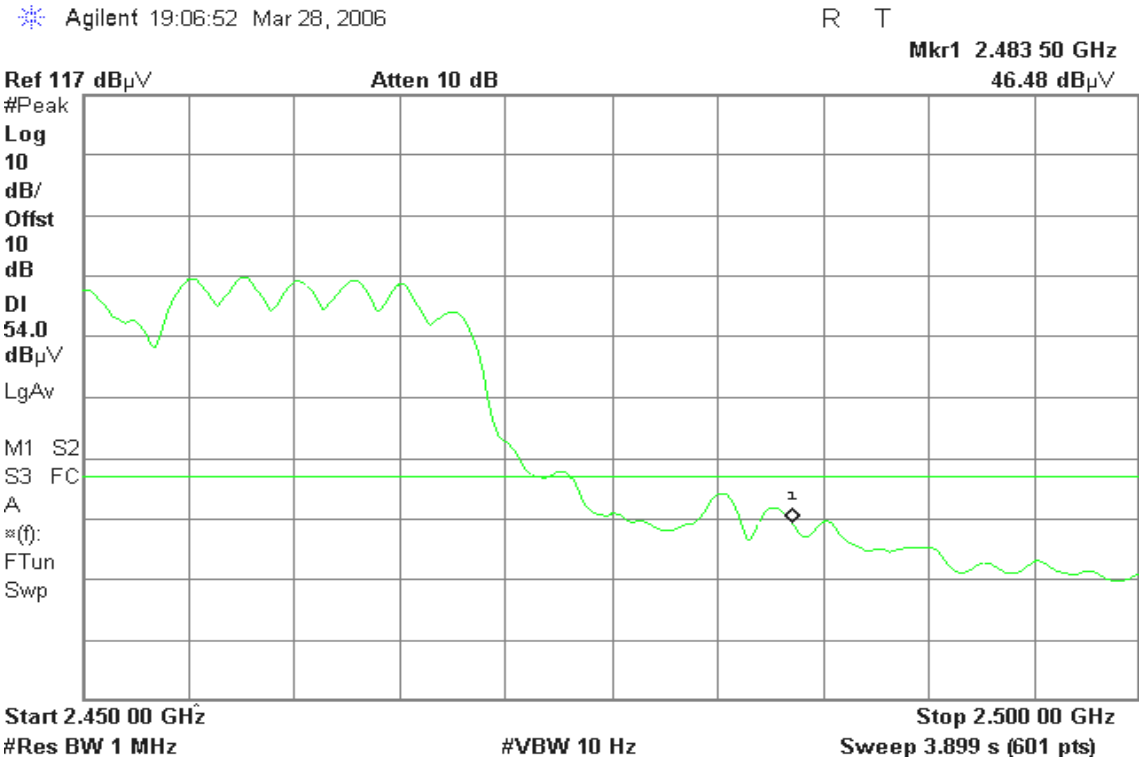
Detector mode: Average Polarity: Vertical



Detector mode: Peak **Polarity: Horizontal**



Detector mode: Average **Polarity: Horizontal**



RADIATED EMISSIONS

Operation Mode: Channel Expansion – MIMO mode / CH Low **Test Date:** March 28, 2006

Temperature: 20°C **Tested by:** Chris Hsieh

Humidity: 62% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1840.00	V	57.21	---	-11.87	45.34	---	74.00	54.00	-8.66	Peak
2420.00	V	112.75	---	-10.37	102.38	---	74.00	54.00	48.38	Peak
N/A										
2030.00	H	57.93	---	-10.87	47.06	---	74.00	54.00	-6.94	Peak
2416.67	H	104.31	---	-10.38	93.94	---	74.00	54.00	39.94	Peak
N/A										

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average limit or as required by the applicant.*
4. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
5. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
6. *Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).*

Operation Mode: Channel Expansion – MIMO mode / CH Mid **Test Date:** March 28, 2006

Temperature: 20°C **Tested by:** Chris Hsieh

Humidity: 62% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
2350.00	V	63.84	53.12	-10.46	53.38	42.66	74.00	54.00	-0.62	Peak
2436.67	V	114.74	---	-10.35	104.39	---	74.00	54.00	50.39	Peak
N/A										
1690.00	H	58.17	---	-12.78	45.39	---	74.00	54.00	-8.61	Peak
2443.33	H	106.65	---	-10.34	96.30	---	74.00	54.00	42.30	Peak
N/A										

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average limit or as required by the applicant.*
4. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
5. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
6. *Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).*

Operation Mode: Channel Expansion – MIMO mode / CH High **Test Date:** March 28, 2006

Temperature: 20°C **Tested by:** Chris Hsieh

Humidity: 62% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
1840.00	V	57.21	---	-11.87	45.34	---	74.00	54.00	-8.66	Peak
2420.00	V	112.75	---	-10.37	102.38	---	74.00	54.00	48.38	Peak
N/A										
2030.00	H	57.93	---	-10.87	47.06	---	74.00	54.00	-6.94	Peak
2416.67	H	104.31	---	-10.38	93.94	---	74.00	54.00	39.94	Peak
N/A										

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average limit or as required by the applicant.*
4. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
5. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
6. *Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).*