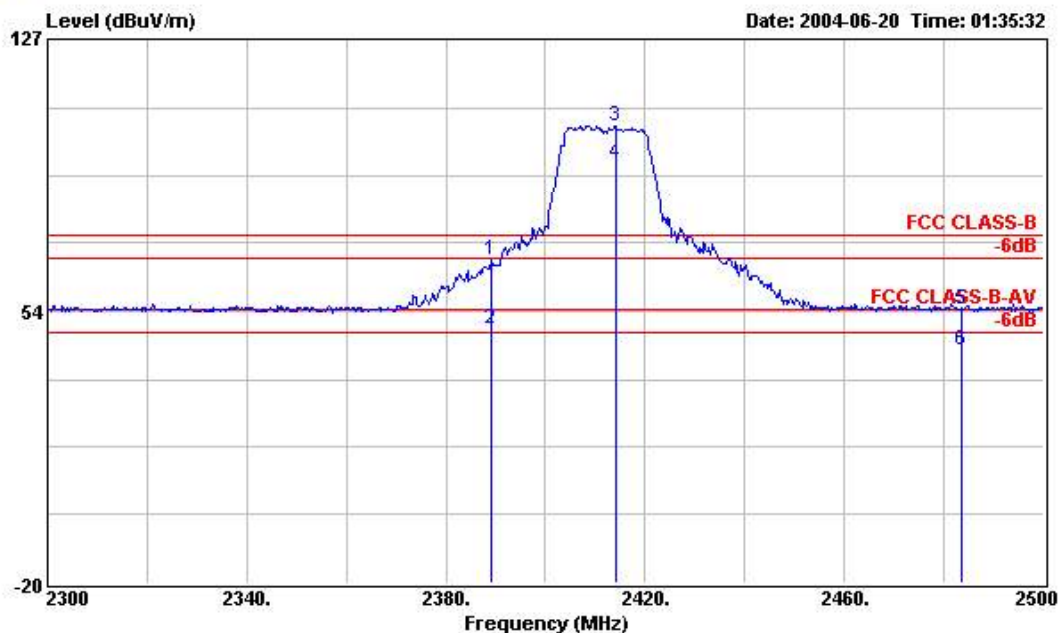
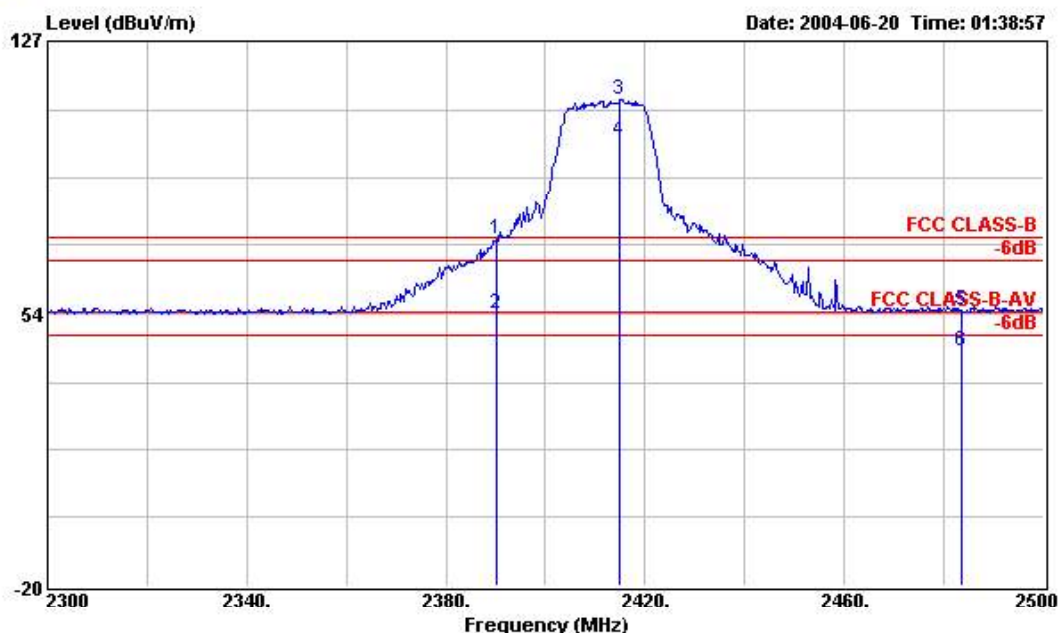




Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:01;2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2389.200	67.34	-6.66	74.00	37.48	28.14	1.72	0.00	Peak	---	---
2	! 2389.200	48.92	-5.08	54.00	19.06	28.14	1.72	0.00	Average	100	265
3	X 2414.000	103.84			73.89	28.21	1.74	0.00	Peak	---	---
4	X 2414.000	93.64			63.69	28.21	1.74	0.00	Average	100	265
5	2483.500	54.16	-19.84	74.00	23.98	28.39	1.79	0.00	Peak	---	---
6	2483.500	43.22	-10.78	54.00	13.04	28.39	1.79	0.00	Average	100	265

Remark: The "X" represent a fundamental frequency.



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:01;2412MHz

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
			dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1 !	2390.000	73.42	-0.58	74.00	43.56	28.14	1.72	0.00	Peak	---	---
2 !	2390.000	53.39	-0.61	54.00	23.53	28.14	1.72	0.00	Average	100	163
3 X	2415.000	111.30	---	---	81.35	28.21	1.74	0.00	Peak	---	---
4 X	2415.000	100.19	---	---	70.24	28.21	1.74	0.00	Average	100	163
5	2483.500	54.33	-19.67	74.00	24.15	28.39	1.79	0.00	Peak	---	---
6	2483.500	43.41	-10.59	54.00	13.23	28.39	1.79	0.00	Average	100	163

Remark: The "X" represent a fundamental frequency.

■ Field strength of fundamental and harmonics

Frequency (MHz)	Polarity	Antenna Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp Factor (dB)	Limits (dBuV/m)	Emission (dBuV/m)	Margin (dB)	Detect Mode
2414.000	H	28.21	1.74	73.89	0.00	-	103.84	-	Peak
2414.000	H	28.21	1.74	63.69	0.00	-	93.64	-	Av
2415.000	V	28.21	1.74	81.35	0.00	-	111.30	-	Peak
2415.000	V	28.21	1.74	70.24	0.00	-	100.19	-	Av
4822.000	H	33.23	2.47	11.23	42.37	74.00	46.93	-27.07	Peak
4822.000	H	33.23	2.47	-1.10	42.37	54.00	34.60	-19.40	Av
7238.000	H	36.09	2.93	18.28	42.70	74.00	57.30	-16.70	Peak
7238.000	H	36.09	2.93	-3.04	42.70	54.00	35.98	-18.02	Av
4822.000	V	33.23	2.47	14.40	42.37	74.00	50.10	-23.90	Peak
4822.000	V	33.23	2.47	2.07	42.37	54.00	37.77	-16.23	Av
7238.000	V	36.09	2.93	18.60	42.70	74.00	57.62	-16.38	Peak
7238.000	V	36.09	2.93	-3.72	42.70	54.00	35.30	-18.70	Av
12058.000	V	39.25	4.38	8.22	39.76	74.00	51.85	-22.15	Peak
12058.000	V	39.25	4.38	-4.64	39.76	54.00	38.99	-15.01	Av
9648.000	V/H	-	-	-	-	-	-	-	AV/Peak
12060.000	H	-	-	-	-	-	-	-	AV/Peak
14472.000	V/H	-	-	-	-	-	-	-	AV/Peak
16884.000	V/H	-	-	-	-	-	-	-	AV/Peak
19296.000	V/H	-	-	-	-	-	-	-	AV/Peak
21708.000	V/H	-	-	-	-	-	-	-	AV/Peak
24120.000	V/H	-	-	-	-	-	-	-	AV/Peak

Remark:

1. The emission emitted by the EUT is too low to be measured except the emission listed above,
2. Reading = Reading on SA-Preamp Factor

Test Engineer :

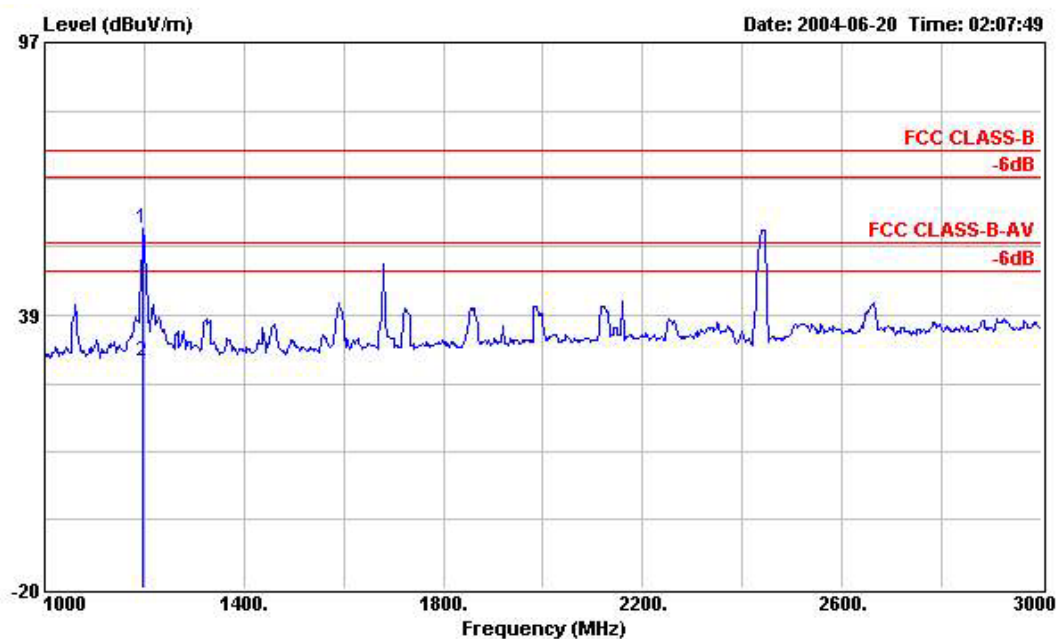


Jay

7.4.5 Test Mode: Mode 5 (11g TX CH06)

- Test Distance : 3 m
- Temperature : 26°C
- Relative Humidity :53%
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

■ The test that passed at minimum margin was marked by the frame in the following table.

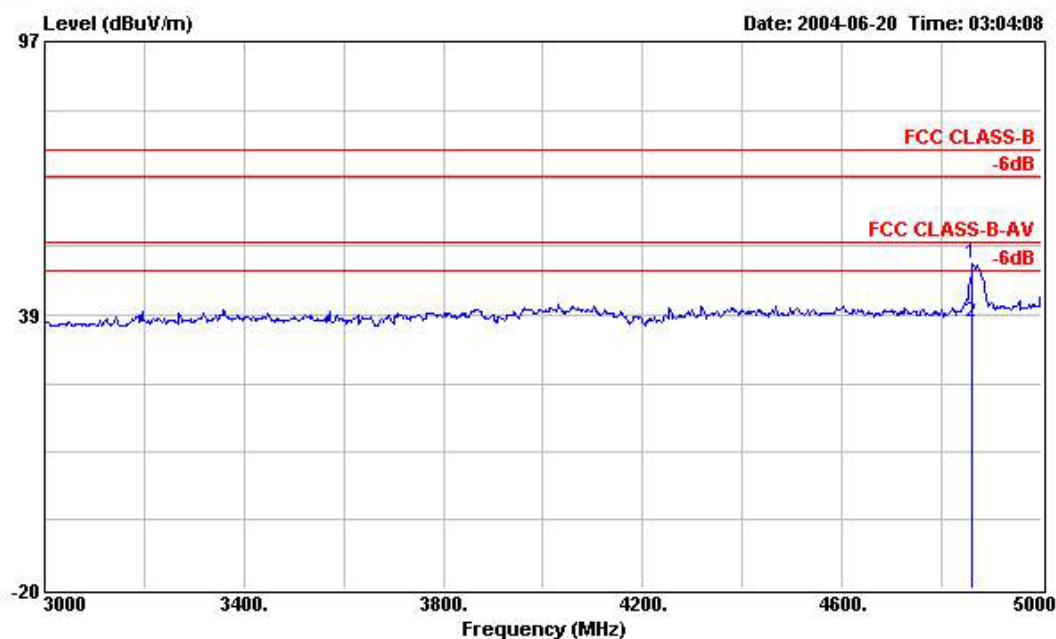


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:06;2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	1198.000	57.10	-16.90	74.00	71.81	24.38	1.22	40.31	Peak	---	---
2	1198.000	28.80	-25.20	54.00	43.51	24.38	1.22	40.31	Average	100	101

FCC TEST REPORT

Report No. :F461101



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:06;2437MHz

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp	Remark	Ant	Table
			Limit	Line							Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4862.000	49.57	-24.43	74.00	56.14	33.32	2.53	42.42	Peak	---	---
2	4862.000	37.00	-17.00	54.00	43.57	33.32	2.53	42.42	Average	100	344

SPORTON International Inc.

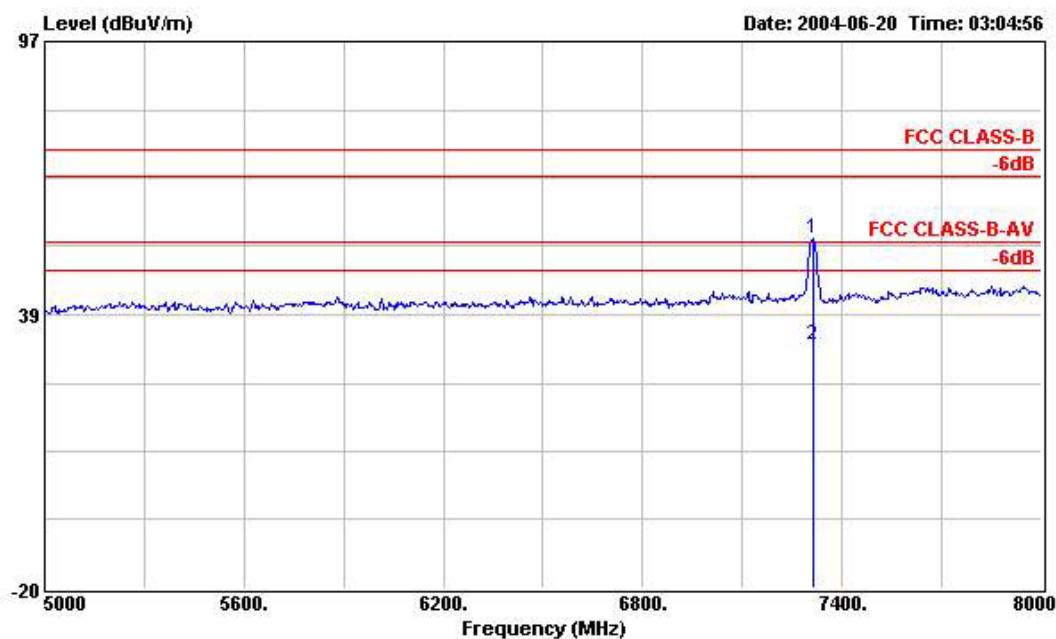
TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

FCC ID : NDD9573170407

Page No. : 101 of 132

Issued Date : June 21, 2004

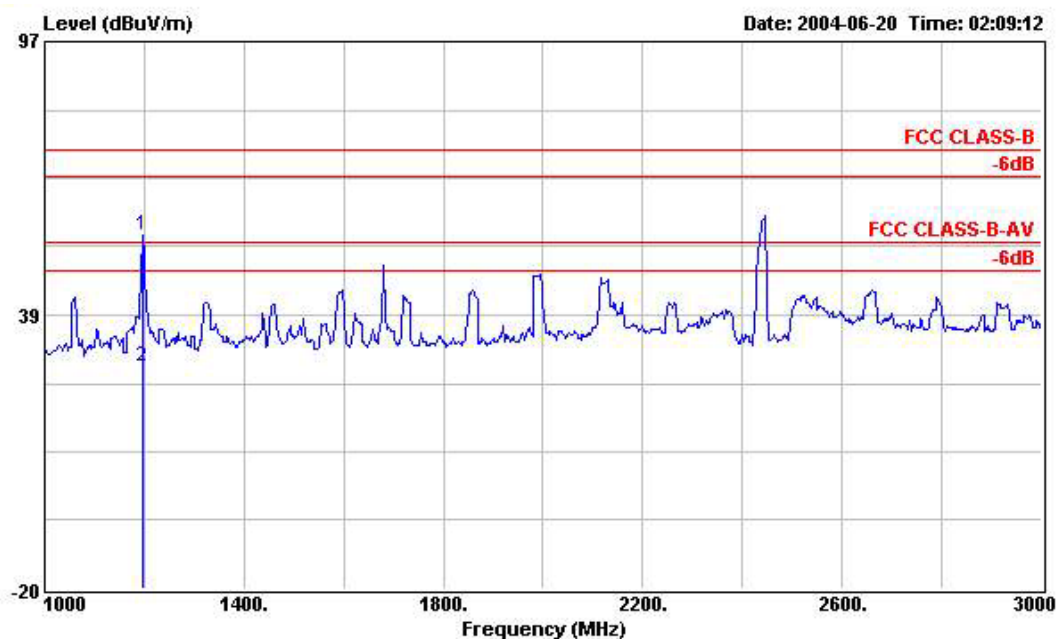


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:06;2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7313.000	54.76	-19.24	74.00	57.99	36.28	3.10	42.61	Peak	---	---
2	7313.000	32.00	-22.00	54.00	35.23	36.28	3.10	42.61	Average	100	205

Mark:

Frequency from 7313MHz to 25000MHz, the emission emitted by the EUT is too low to be measured.

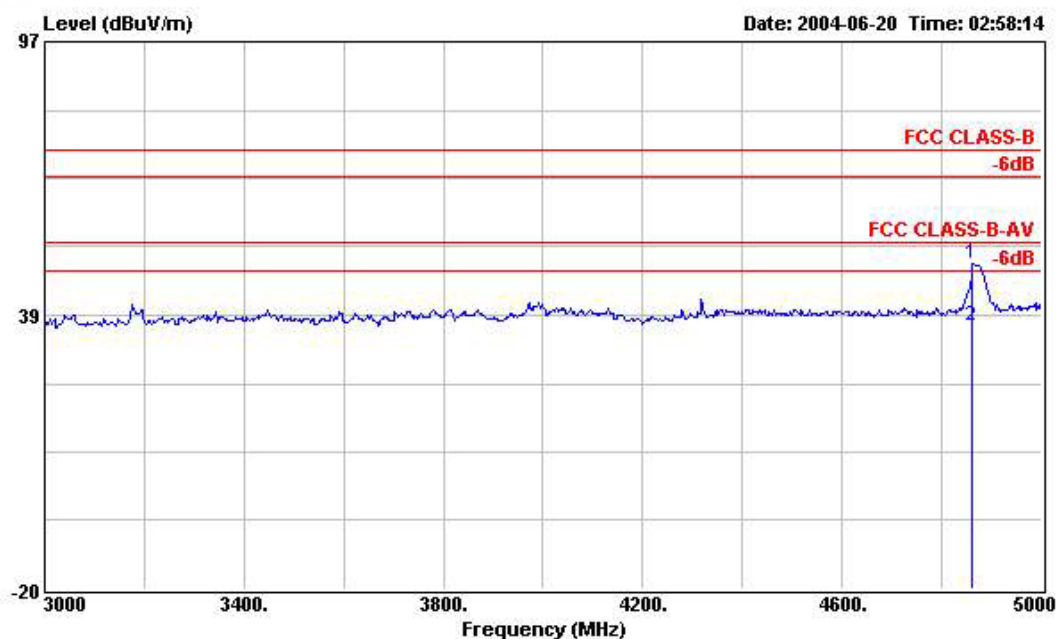


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:06;2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	1198.000	55.70	-18.30	74.00	70.41	24.38	1.22	40.31	Peak	---	---
2	1198.000	27.40	-26.60	54.00	42.11	24.38	1.22	40.31	Average	100	203

FCC TEST REPORT

Report No. :F461101

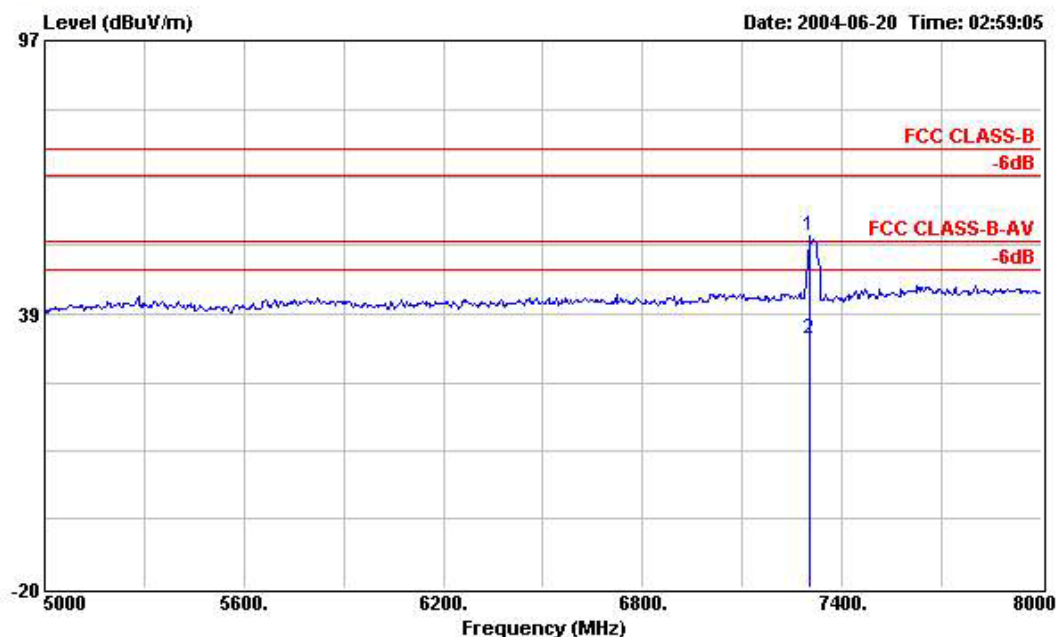


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:06;2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4862.000	49.52	-24.48	74.00	56.09	33.32	2.53	42.42	Peak	---	---
2	4862.000	36.09	-17.91	54.00	42.66	33.32	2.53	42.42	Average	100	218

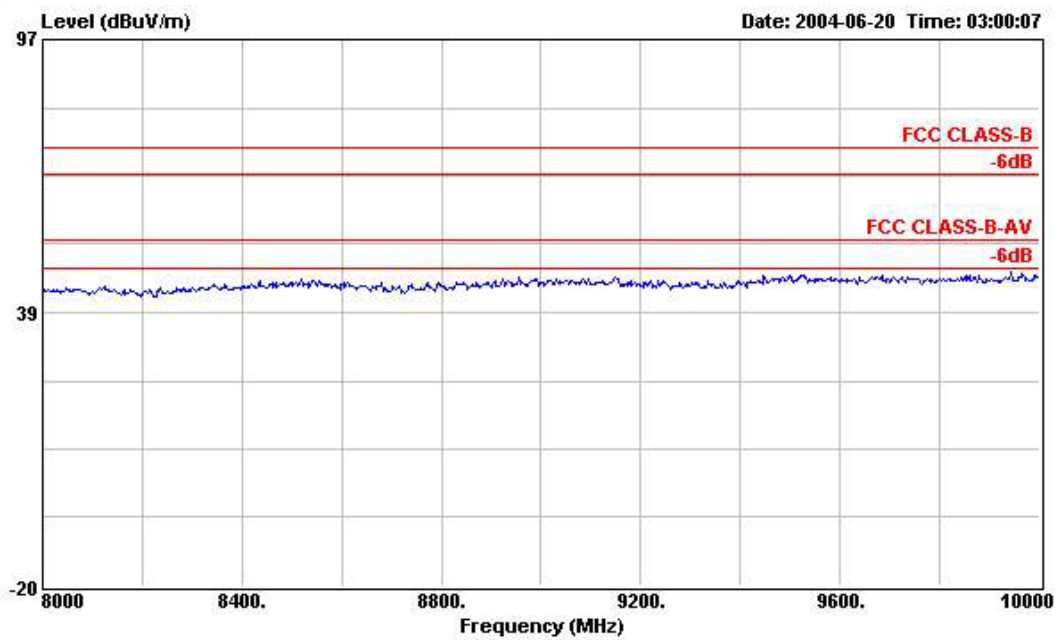
FCC TEST REPORT

Report No. :F461101

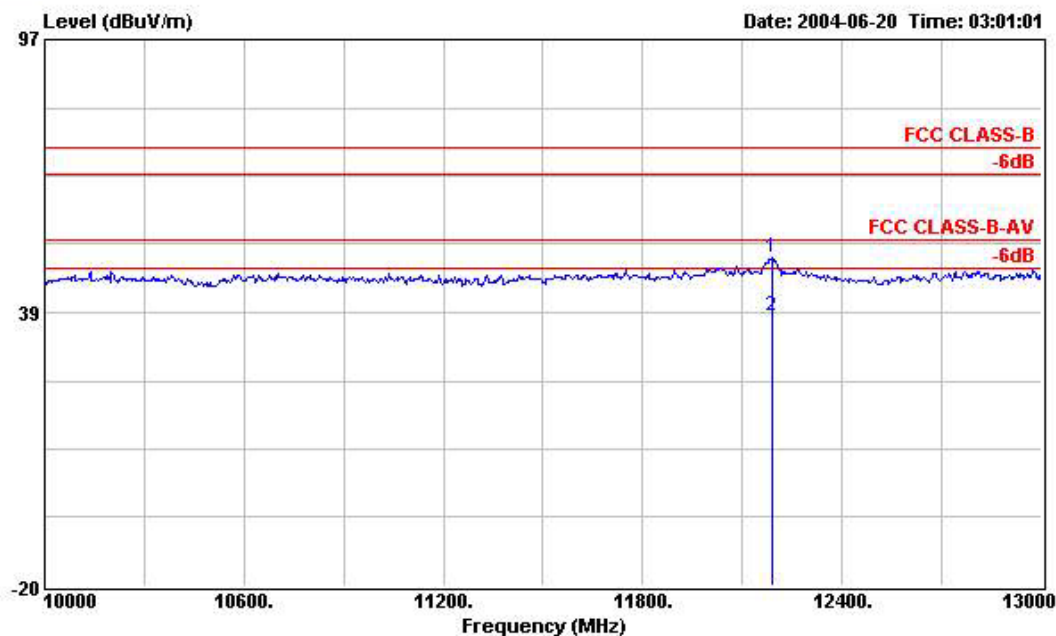


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:06;2437MHz

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
			dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7301.000	55.08	-18.92	74.00	58.16	36.24	3.30	42.62	Peak	---	---
2	7301.000	33.16	-20.84	54.00	36.24	36.24	3.30	42.62	Average	100	217



Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
EUT : EW-7317UHG, GWU-07HG
Power : 120Vac/60Hz
Model : EW-7317UHG, GWU-07HG
Memo : 11g TX_CH:06;2437MHz



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:06,2437MHz

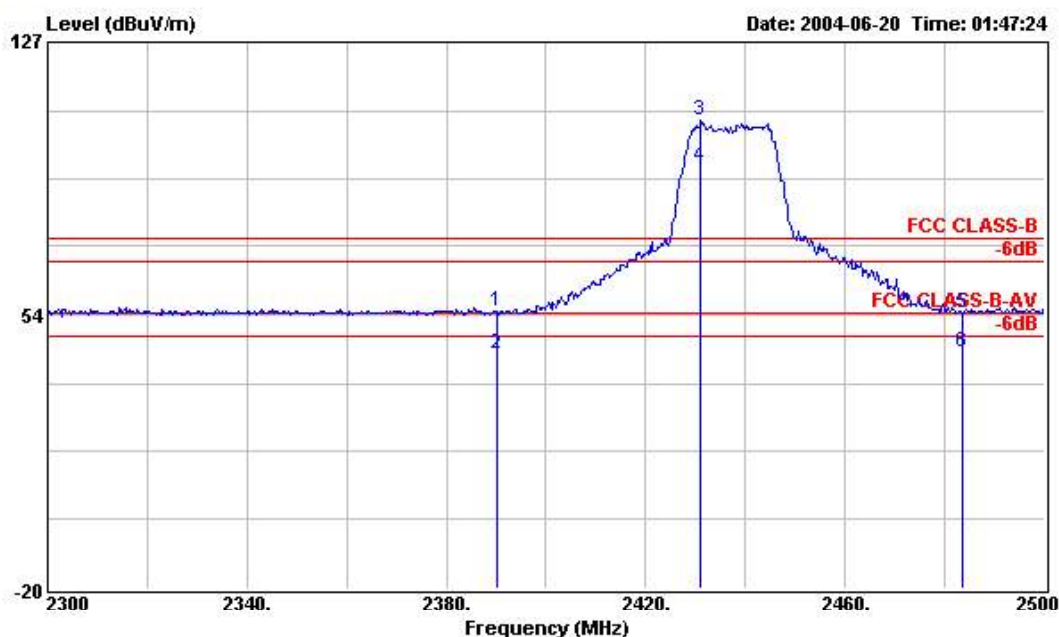
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	12190.000	50.15	-23.85	74.00	46.74	39.14	4.35	40.08	Peak	---	---
2	12190.000	37.74	-16.26	54.00	34.33	39.14	4.35	40.08	Average	100	133

Mark:

Frequency from 12190MHz to 25000MHz, the emission emitted by the EUT is too low to be measured.

FCC TEST REPORT

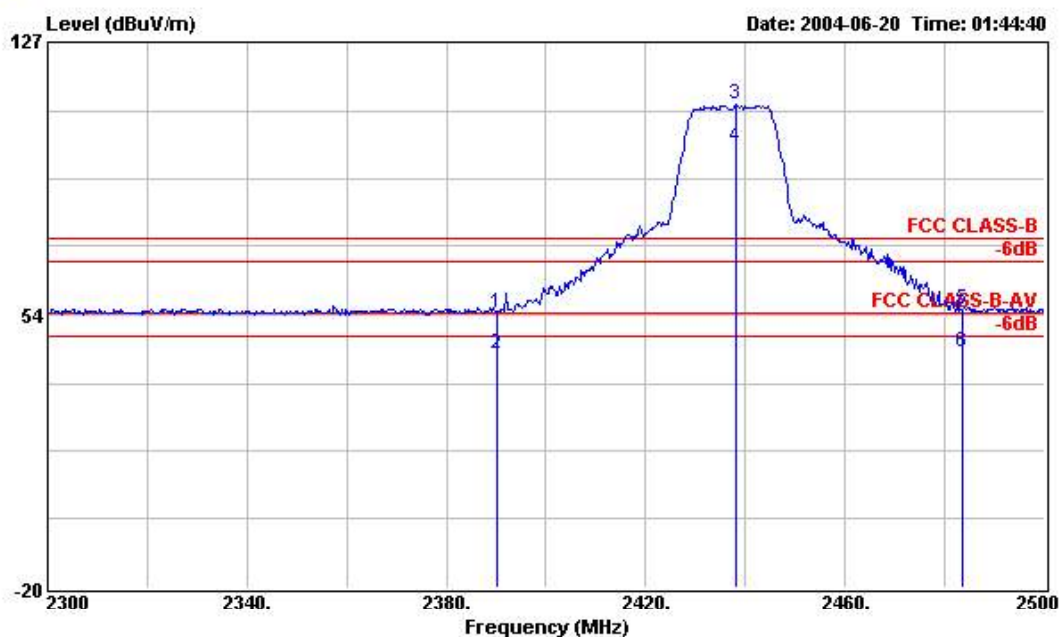
Report No. :F461101



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:06,2437MHz

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	54.54	-19.46	74.00	24.68	28.14	1.72	0.00	Peak	---	---
2	2390.000	42.97	-11.03	54.00	13.11	28.14	1.72	0.00	Average	100	266
3 X	2431.000	105.92			75.91	28.25	1.76	0.00	Peak	---	---
4 X	2431.000	93.76			63.75	28.25	1.76	0.00	Average	100	266
5	2483.500	54.09	-19.91	74.00	23.91	28.39	1.79	0.00	Peak	---	---
6	2483.500	43.32	-10.68	54.00	13.14	28.39	1.79	0.00	Average	100	266

Remark: The "X" represent a fundamental frequency.



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:06;2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	53.99	-20.01	74.00	24.13	28.14	1.72	0.00	Peak	---	---
2	2390.000	43.03	-10.97	54.00	13.17	28.14	1.72	0.00	Average	100	165
3 X	2438.000	110.28			80.25	28.27	1.76	0.00	Peak	---	---
4 X	2438.000	99.06			69.03	28.27	1.76	0.00	Average	100	165
5	2483.500	54.85	-19.15	74.00	24.67	28.39	1.79	0.00	Peak	---	---
6	2483.500	43.62	-10.38	54.00	13.44	28.39	1.79	0.00	Average	100	165

Remark: The "X" represent a fundamental frequency.

■ Field strength of fundamental and harmonics

Frequency (MHz)	Polarity	Antenna Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp Factor (dB)	Limits (dBuV/m)	Emission (dBuV/m)	Margin (dB)	Detect Mode
2431.000	H	28.25	1.76	75.91	0.00	-	105.92	-	Peak
2431.000	H	28.25	1.76	63.75	0.00	-	93.76	-	Av
2438.000	V	28.27	1.76	80.25	0.00	-	110.28	-	Peak
2438.000	V	28.27	1.76	69.03	0.00	-	99.06	-	Av
4862.000	H	33.32	2.53	13.72	42.42	74.00	49.57	-24.43	Peak
4862.000	H	33.32	2.53	1.15	42.42	54.00	37.00	-17.00	Av
7313.000	H	36.28	3.10	15.38	42.61	74.00	54.76	-19.24	Peak
7313.000	H	36.28	3.10	-7.38	42.61	54.00	32.00	-22.00	Av
4862.000	V	33.32	2.53	13.67	42.42	74.00	49.52	-24.48	Peak
4862.000	V	33.32	2.53	0.24	42.42	54.00	36.09	-17.91	Av
7301.000	V	36.24	3.30	15.54	42.62	74.00	55.08	-18.92	Peak
7301.000	V	36.24	3.30	-6.38	42.62	54.00	33.16	-20.84	Av
12190.000	V	33.14	4.35	12.66	40.08	74.00	50.15	-23.85	Peak
12190.000	V	33.14	4.35	0.25	40.08	54.00	37.74	-16.26	Av
9648.000	V/H	-	-	-	-	-	-	-	AV/Peak
12060.000	H	-	-	-	-	-	-	-	AV/Peak
14472.000	V/H	-	-	-	-	-	-	-	AV/Peak
16884.000	V/H	-	-	-	-	-	-	-	AV/Peak
19296.000	V/H	-	-	-	-	-	-	-	AV/Peak
21708.000	V/H	-	-	-	-	-	-	-	AV/Peak
24120.000	V/H	-	-	-	-	-	-	-	AV/Peak

Remark:

1. The emission emitted by the EUT is too low to be measured except the emission listed above,
2. Reading = Reading on SA-Preamp Factor

Test Engineer :

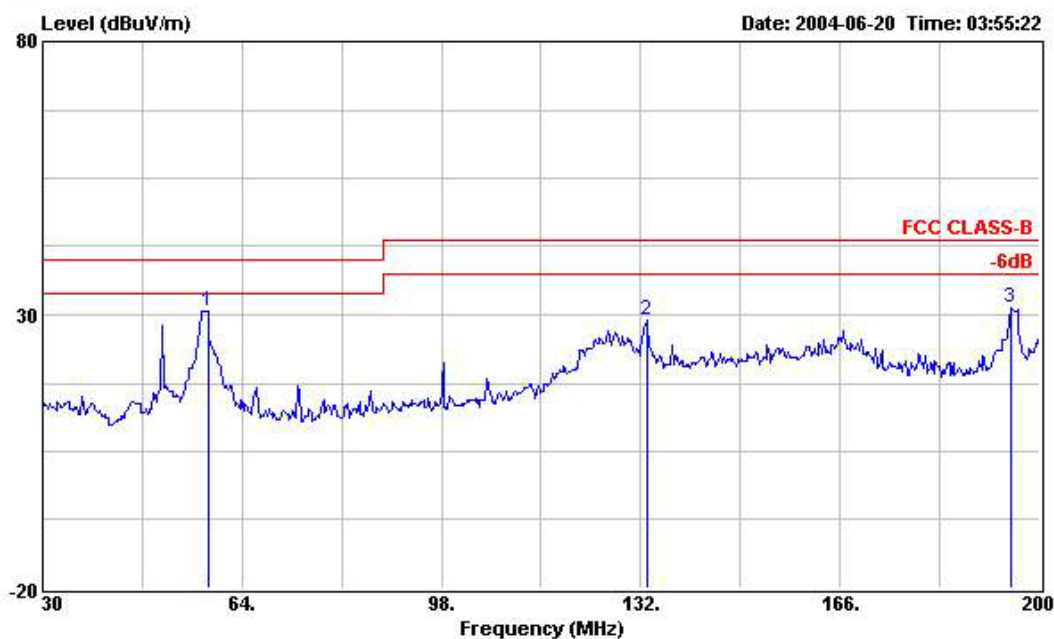


Jay

7.4.6 Test Mode: Mode 6 (11g TX CH11)

- Test Distance : 3 m
- Temperature : 26°C
- Relative Humidity :53%
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

■ The test that passed at minimum margin was marked by the frame in the following table.

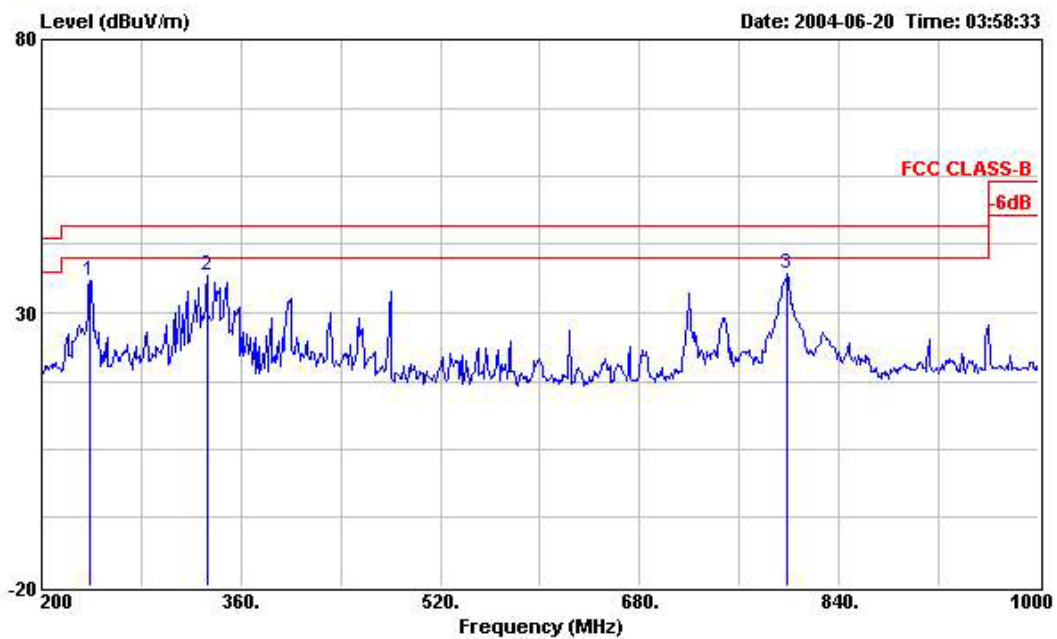


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m BIC-9124--301 HORIZONTAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Memo : EW-7317UHG, GWU-07HG
 : 11g TX_CH11;2462MHz

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	58.220	30.77	-9.23	40.00	48.01	10.34	0.40	27.98	Peak	---	---
2	133.020	28.90	-14.60	43.50	44.59	11.48	0.66	27.83	Peak	---	---
3	195.070	31.36	-12.14	43.50	43.58	14.69	0.80	27.71	Peak	---	---

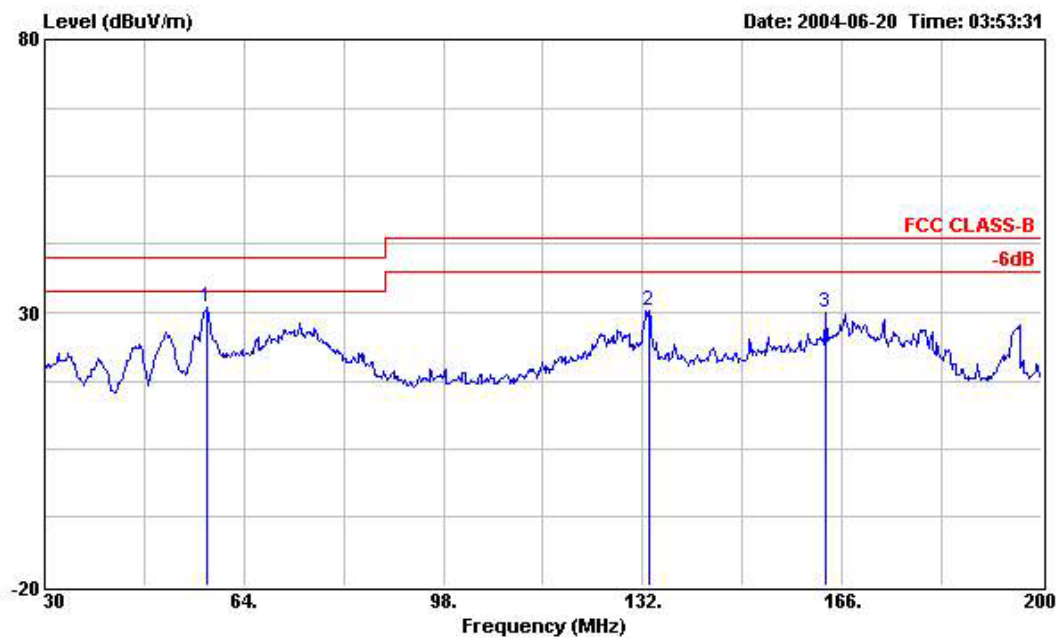
FCC TEST REPORT

Report No. :F461101



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m LOG-9111-221 HORIZONTAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Memo : EW-7317UHG, GWU-07HG
 : 11g TX_CH:11;2462MHz

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	238.400	35.75	-10.25	46.00	49.26	12.95	1.09	27.55	Peak	---	---
2	332.800	36.89	-9.11	46.00	48.27	14.97	1.11	27.46	Peak	---	---
3	797.600	37.05	-8.95	46.00	43.79	20.36	1.70	28.80	Peak	---	---

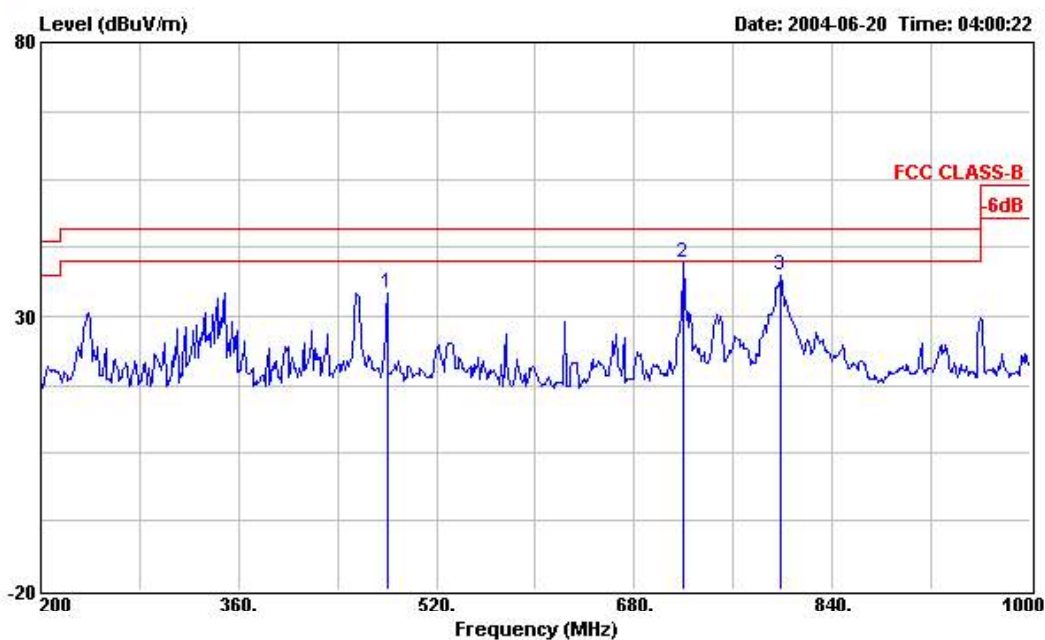


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m BIC-9124--301 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Memo : EW-7317UHG, GWU-07HG
 : 11g TX_CH:11,2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	57.540	30.88	-9.12	40.00	48.14	10.39	0.33	27.98	Peak	---	---
2	133.190	30.43	-13.07	43.50	46.11	11.49	0.66	27.83	Peak	---	---
3	163.110	29.85	-13.65	43.50	44.02	12.86	0.74	27.77	Peak	---	---

FCC TEST REPORT

Report No. :F461101



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m LOG-9111-221 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Memo : EW-7317UHG, GWU-07HG
 : 11g TX_CH:11;2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamplifier	Remark	Ant Pos	Table Pos
	MHz	dBuV/m		dBuV/m	dBuV	dB	dB	dB		cm	deg
1	480.000	34.16	-11.84	46.00	44.27	17.08	1.33	28.52	Peak	---	---
2	720.000	39.71	-6.29	46.00	47.03	19.88	1.52	28.72	Peak	---	---
3	797.600	37.31	-8.69	46.00	44.05	20.36	1.70	28.80	Peak	---	---

SPORTON International Inc.

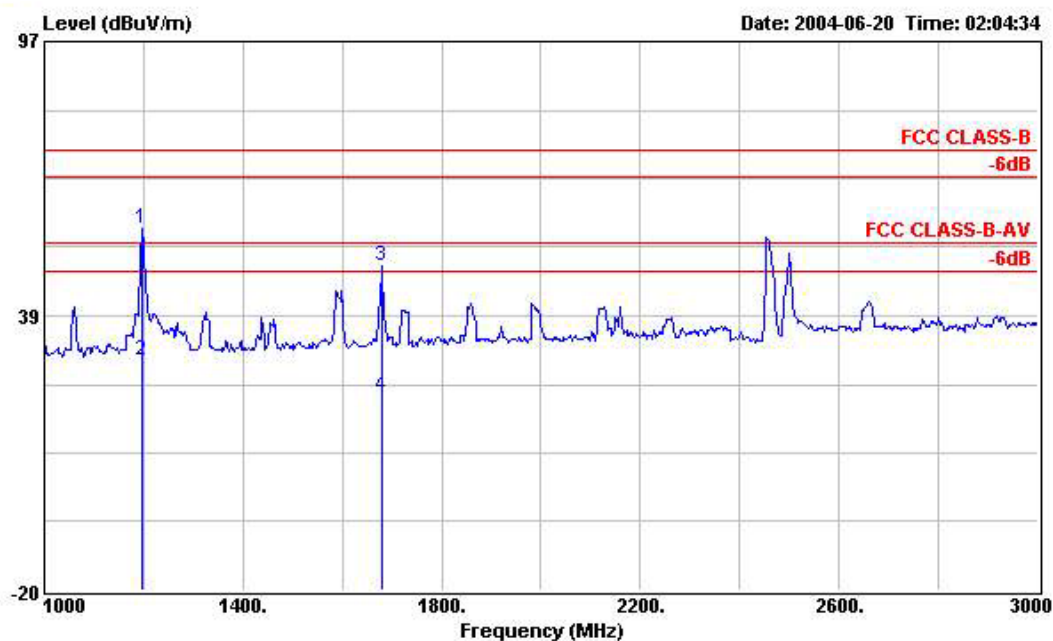
TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

FCC ID : NDD9573170407

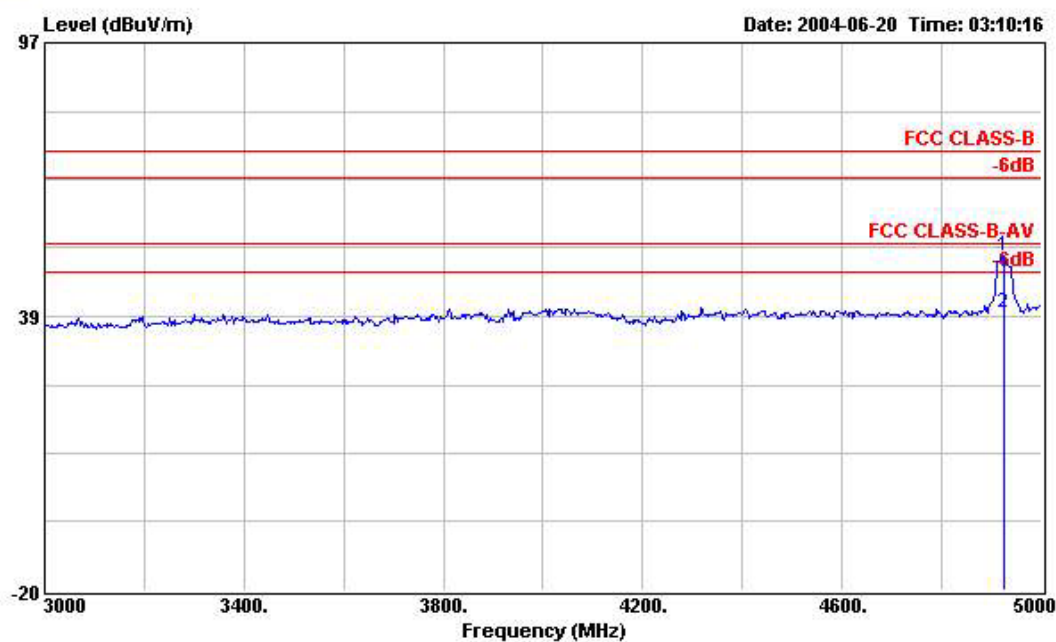
Page No. : 114 of 132

Issued Date : June 21, 2004



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:11;2462MHz

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	1198.000	57.26	-16.74	74.00	71.97	24.38	1.22	40.31	Peak	---	---
2	1198.000	28.96	-25.04	54.00	43.67	24.38	1.22	40.31	Average	100	102
3	1678.000	49.04	-24.96	74.00	62.28	25.92	1.55	40.71	Peak	---	---
4	1678.000	21.23	-32.77	54.00	34.47	25.92	1.55	40.71	Average	100	85

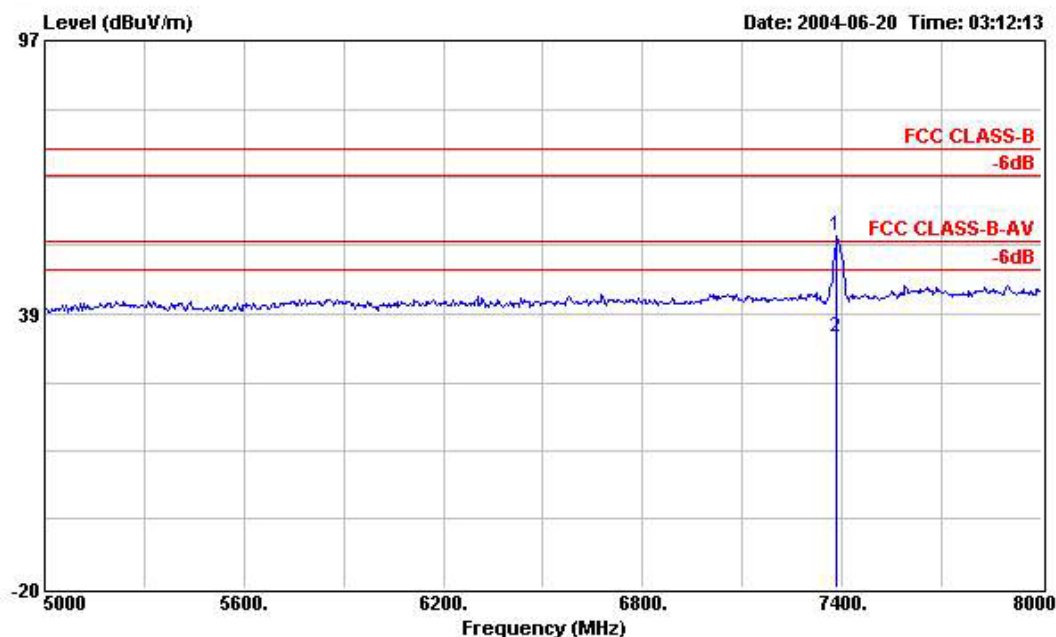


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:11;2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4924.000	51.44	-22.56	74.00	58.02	33.46	2.47	42.51	Peak	---	---
2	4924.000	39.15	-14.85	54.00	45.73	33.46	2.47	42.51	Average	100	342

FCC TEST REPORT

Report No. :F461101

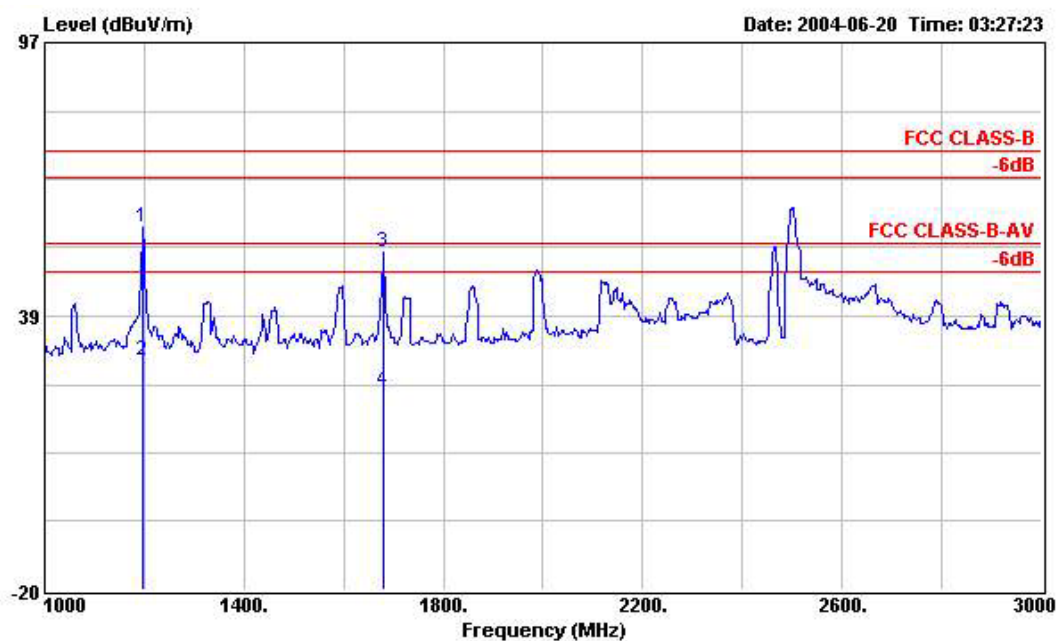


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:11;2462MHz

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
			dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7385.000	55.07	-18.93	74.00	58.35	36.45	2.79	42.52	Peak	---	---
2	7385.000	33.66	-20.34	54.00	36.94	36.45	2.79	42.52	Average	100	207

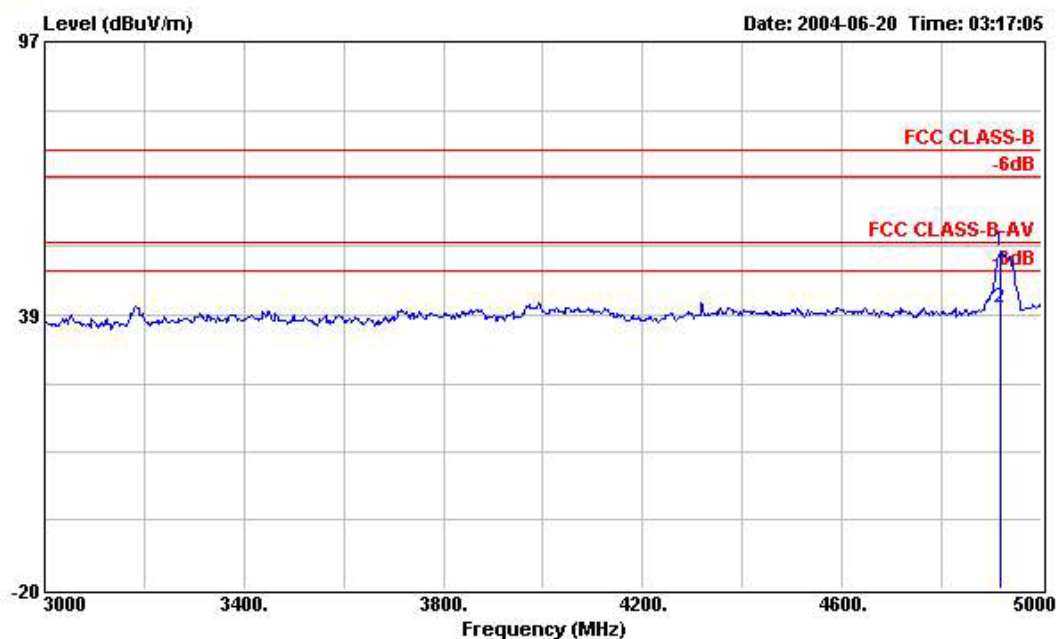
Mark:

Frequency from 7835MHz to 25000MHz, the emission emitted by the EUT is too low to be measured.



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:11;2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m		dBuV/m	dBuV	dB	dB	dB		cm	deg
1	1198.000	57.33	-16.67	74.00	72.04	24.38	1.22	40.31	Peak	---	---
2	1198.000	29.03	-24.97	54.00	43.74	24.38	1.22	40.31	Average	100	199
3	1678.000	52.35	-21.65	74.00	65.59	25.92	1.55	40.71	Peak	---	---
4	1678.000	22.64	-31.36	54.00	35.88	25.92	1.55	40.71	Average	100	83

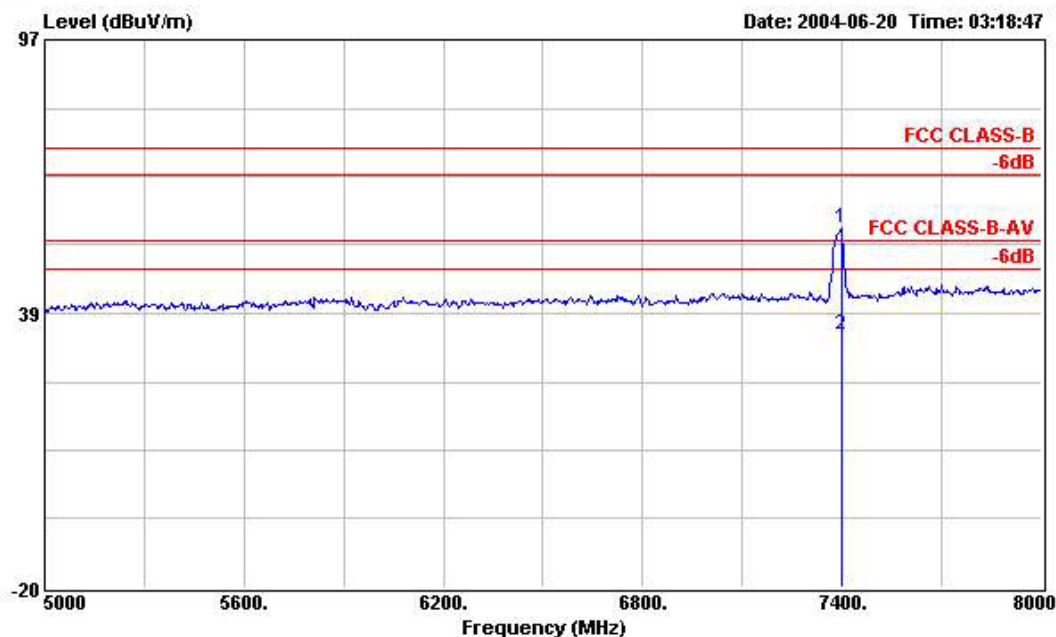


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:11;2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4916.000	52.25	-21.75	74.00	58.83	33.44	2.48	42.50	Peak	---	---
2	4916.000	39.87	-14.13	54.00	46.45	33.44	2.48	42.50	Average	100	216

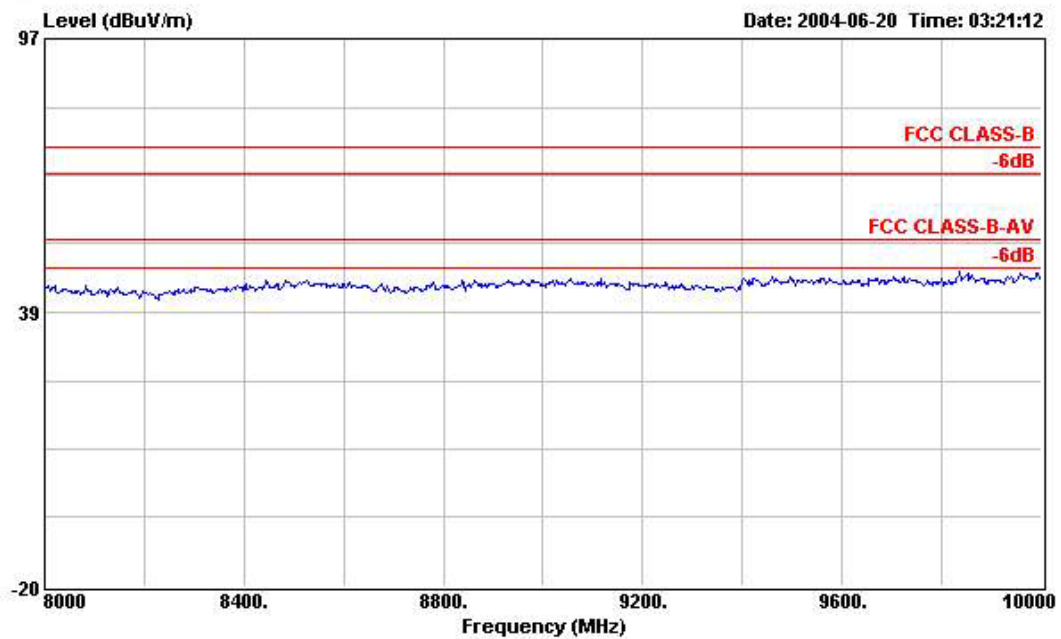
FCC TEST REPORT

Report No. :F461101

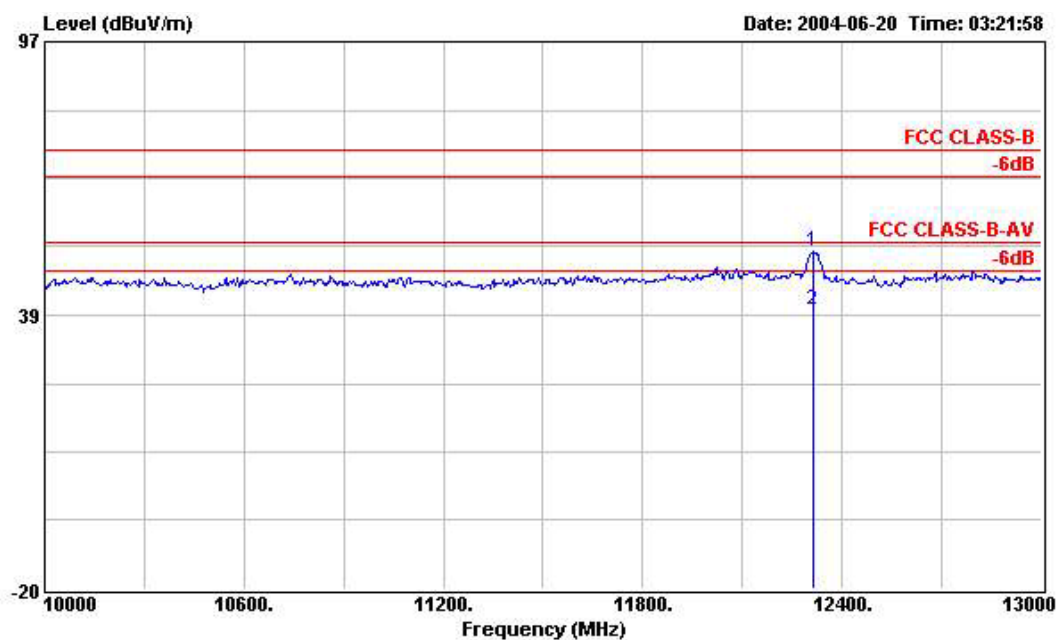


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:11;2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7397.000	56.73	-17.27	74.00	59.93	36.48	2.83	42.51	Peak	---	---
2	7397.000	34.10	-19.90	54.00	37.30	36.48	2.83	42.51	Average	100	216



Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
EUT : EW-7317UHG, GWU-07HG
Power : 120Vac/60Hz
Model : EW-7317UHG, GWU-07HG
Memo : 11g TX_CH:11;2462MHz

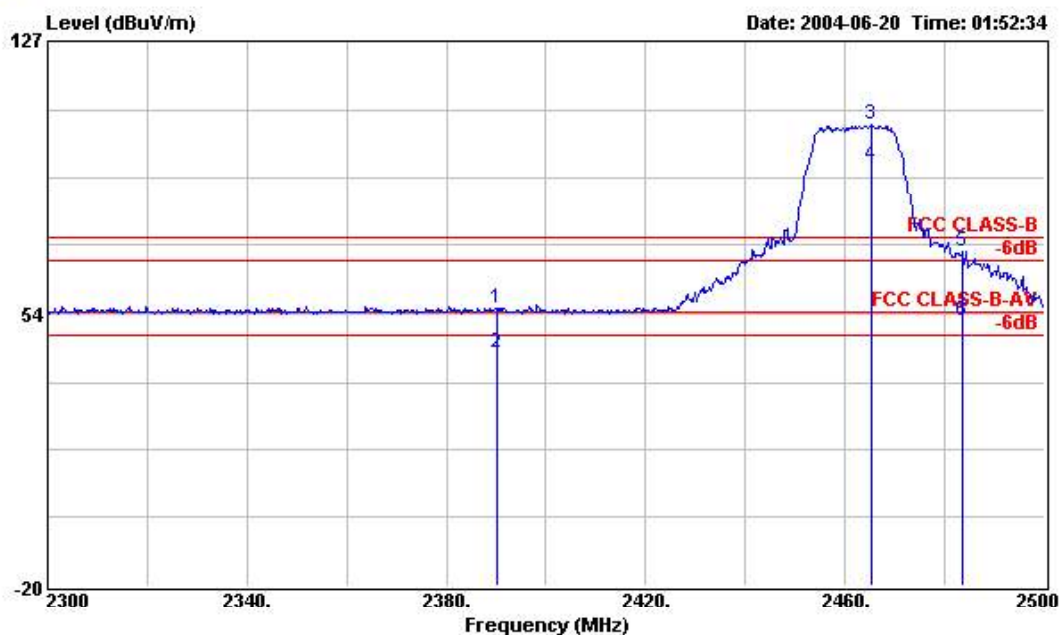


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:11;2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	12313.000	52.13	-21.87	74.00	48.95	39.04	4.52	40.38	Peak	---	---
2	12313.000	39.68	-14.32	54.00	36.50	39.04	4.52	40.38	Average	100	132

Mark:

Frequency from 12313MHz to 25000MHz, the emission emitted by the EUT is too low to be measured.



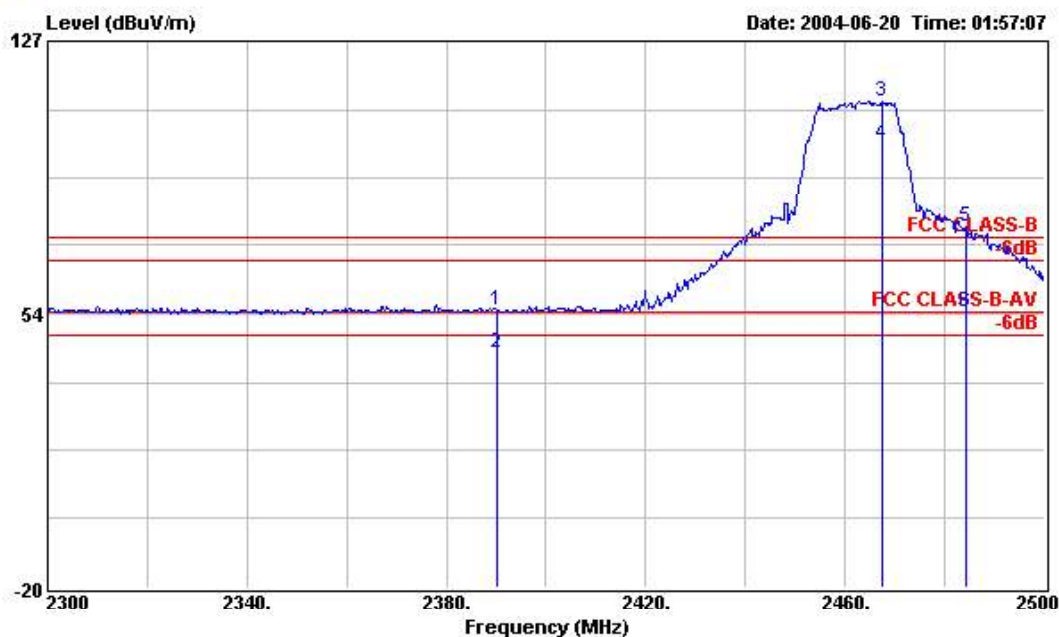
Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:11;2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	54.79	-19.21	74.00	24.93	28.14	1.72	0.00	Peak	---	---
2	2390.000	42.87	-11.13	54.00	13.01	28.14	1.72	0.00	Average	100	266
3 X	2465.400	104.41			74.28	28.34	1.79	0.00	Peak	---	---
4 X	2465.400	93.65			63.52	28.34	1.79	0.00	Average	100	266
5 !	2483.600	70.20	-3.80	74.00	40.02	28.39	1.79	0.00	Peak	---	---
6 !	2483.600	51.46	-2.54	54.00	21.28	28.39	1.79	0.00	Average	100	266

Remark: The "X" represent a fundamental frequency.

FCC TEST REPORT

Report No. :F461101



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : EW-7317UHG, GWU-07HG
 Power : 120Vac/60Hz
 Model : EW-7317UHG, GWU-07HG
 Memo : 11g TX_CH:11;2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	54.67	-19.33	74.00	24.81	28.14	1.72	0.00	Peak	---	---
2	2390.000	43.04	-10.96	54.00	13.18	28.14	1.72	0.00	Average	100	234
3 X	2467.600	110.81			80.67	28.35	1.79	0.00	Peak	---	---
4 X	2467.600	99.45			69.31	28.35	1.79	0.00	Average	100	234
5 X	2484.400	76.79	2.79	74.00	46.61	28.39	1.79	0.00	Peak	---	---
6 !	2484.400	53.86	-0.14	54.00	23.68	28.39	1.79	0.00	Average	100	234

Remark: The "X" represent a fundamental frequency.

■ Field strength of fundamental and harmonics

Frequency (MHz)	Polarity	Antenna Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp Factor (dB)	Limits (dBuV/m)	Emission (dBuV/m)	Margin (dB)	Detect Mode
2465.400	H	28.34	1.79	74.28	0.00	-	104.41	-	Peak
2465.400	H	28.34	1.79	63.52	0.00	-	93.65	-	Av
2467.600	V	28.35	1.79	80.67	0.00	-	110.81	-	Peak
2467.600	V	28.35	1.79	69.31	0.00	-	99.45	-	Av
4924.000	H	33.46	2.47	15.51	42.51	74.00	51.44	-22.56	Peak
4924.000	H	33.46	2.47	3.22	42.51	54.00	39.15	-14.85	Av
7385.000	H	36.45	2.79	15.83	42.52	74.00	55.07	-18.93	Peak
7385.000	H	36.45	2.79	-5.58	42.52	54.00	33.66	-20.34	Av
4916.000	V	33.44	2.48	16.33	42.50	74.00	52.25	-21.75	Peak
4916.000	V	33.44	2.48	3.95	42.50	54.00	39.87	-14.13	Av
7397.000	V	36.48	2.83	17.42	42.51	74.00	56.73	-17.27	Peak
7397.000	V	36.48	2.83	-5.21	42.51	54.00	34.10	-19.90	Av
12313.000	V	39.04	4.52	8.57	40.38	74.00	52.13	-21.87	Peak
12313.000	V	39.04	4.52	-3.88	40.38	54.00	39.68	-14.32	Av
9648.000	V/H	-	-	-	-	-	-	-	AV/Peak
12060.000	H	-	-	-	-	-	-	-	AV/Peak
14472.000	V/H	-	-	-	-	-	-	-	AV/Peak
16884.000	V/H	-	-	-	-	-	-	-	AV/Peak
19296.000	V/H	-	-	-	-	-	-	-	AV/Peak
21708.000	V/H	-	-	-	-	-	-	-	AV/Peak
24120.000	V/H	-	-	-	-	-	-	-	AV/Peak

Remark:

1. The emission emitted by the EUT is too low to be measured except the emission listed above,
2. Reading = Reading on SA-Preamp Factor

Test Engineer :



Jay

8. Antenna Requirements

The EUT use a 6dBi patch antenna with I-PEX connector. It is considered to meet antenna requirement of FCC.

8.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no other antenna except assembled by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi.

8.2. Antenna Connected Construction

The antenna used in this product is a patch antenna with I-PEX connector.

9. RF Exposure

FCC Rules and Regulations Part 1.1307,1.1310,2.1091,2.1093:

RF Exposure Compliance

9.1. Limit For Maximum Permissible Exposure (MPE)

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

F=frequency in MHz

*Plane-wave equivalent power density

9.2. MPE Calculations

$$\text{Power Density} = P_d \text{ (mW/cm}^2\text{)} = \text{EIRP} / 4 \pi d^2$$

$$\text{EIRP} = P \cdot G$$

P=Peak output power (mW)

G=Antenna numeric gain (numeric)

d=Separation distance (cm)

Because the EUT belongs to General Population/ Uncontrolled Exposure, the limit of power density is 1.0 mW/cm².

802.11b:

Channel NO.	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Calculated RF Exposure at d=20cm (mW/cm ²)	Limit (mW/cm ²)
Channel 01	6.00	3.98	15.60	36.31	0.0288	1.00
Channel 06	6.00	3.98	15.40	34.67	0.0275	1.00
Channel 11	6.00	3.98	15.10	32.36	0.0256	1.00

802.11g:

Channel NO.	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Calculated RF Exposure at d=20cm (mW/cm ²)	Limit (mW/cm ²)
Channel 01	6.00	3.98	15.50	35.48	0.0281	1.00
Channel 06	6.00	3.98	15.20	33.11	0.0262	1.00
Channel 11	6.00	3.98	15.30	33.88	0.0269	1.00

9.3. FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm during normal operation.

10. List of Measuring Equipments Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9 KHz – 2.75 GHz	Feb. 16, 2004	Conduction (CO01-HY)
LISN	MessTec	NNB-2/16Z	2001/008	9 KHz – 30 MHz	May 03, 2004	Conduction (CO01-HY)
LISN (Support Unit)	MessTec	NNB-2/16Z	2001/009	9 KHz – 30 MHz	Apr. 19, 2004	Conduction (CO01-HY)
EMI Filter	LINDGREN	LRE-2060	1004	< 450 Hz	N/A	Conduction (CO01-HY)
EMI Filter	LINDGREN	N6006	201052	0 ~ 60 Hz	N/A	Conduction (CO01-HY)
RF Cable-CON	Suhner Switzerland	RG223/U	CB029	9KHz~30MHz	Dec. 24, 2003	Conduction (CO01-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz~1GHz 3m	Jun. 21, 2003	Radiation (03CH03-HY)
Spectrum analyzer	R&S	FSP40	100004	9KHZ~40GHz	Aug. 23, 2003	Radiation (03CH03-HY)
Amplifier	HP	8447D	2944A09072	100KHz – 1.3GHz	Nov. 05, 2003	Radiation (03CH03-HY)
Biconical Antenna	SCHWARZBECK	VHBB 9124	301	30MHz ~200MHz	Jul. 24, 2003	Radiation (03CH03-HY)
Log Antenna	SCHWARZBECK	VUSLP 9111	221	200MHz -1GHz	Jul. 24, 2003	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30MHz~1GHz	Dec. 03, 2003	Radiation (03CH03-HY)
Amplifier	MITEQ	AFS44	879981	100MHz~26.5GHz	Jul. 23, 2003	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6821	1GHz – 18GHz	Sep. 12, 2003	Radiation (03CH03-HY)
Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	Radiation (03CH03-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	Radiation (03CH03-HY)
Horn Antenna	Schwarzbeck	BBHA9170	154	15GHz~40GHz	Jun. 02, 2003	Radiation (03CH03-HY)
RF Cable-HIGH	Jye Bao	RG142	CB030-HIGH	1GHz~29.5GHz	Dec. 05, 2003	Radiation (03CH03-HY)

※ Calibration Interval of instruments listed above is one year.

11. Uncertainty Measurement

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch Receiver VSWR Γ_1 = LISN VSWR Γ_2 = Uncertainty= $20\log(1-\Gamma_1*\Gamma_2)$	+0.34/-0.35	U-shape	0.24
combined standard uncertainty Uc(y)	1.13		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.26		

$$U = \sqrt{\{(1/2)^2 + (0.3/2)^2 + (2^2 + 0.5^2 + 2^2 + 0.25^2 + 2^2)/3 + (0.54)^2/2\}} = 2.2 \text{ for 10m test distance}$$

$$U = \sqrt{\{(1/2)^2 + (0.3/2)^2 + (2^2 + 3^2 + 2^2 + 0.25^2 + 2^2)/3 + (0.54)^2/2\}} = 2.7 \text{ for 3m test distance}$$

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.15	Normal(k=2)	0.08
Antenna factor calibration	1.12	Normal(k=2)	0.56
Cable loss calibration	0.12	Normal(k=2)	0.06
Pre Amplifier Gain calibration	0.13	Normal(k=2)	0.07
RCV/SPA specification	2.5	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1	Rectangular	0.29
Site imperfection	2.1	Rectangular	1.21
Mismatch Receiver VSWR Γ_1 = 0.20 Antenna VSWR Γ_2 = 0.23 Uncertainty= $20\log(1-\Gamma_1*\Gamma_2)$	+0.39/-0.41	U-shaped	0.28
combined standard uncertainty Uc(y)	1.58		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	3.16		

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Contribution	Uncertainty of x_i		$u(x_i)$	C_i	$C_i * u(x_i)$
	dB	Probability Distribution			
Receiver reading	± 0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	± 1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	± 0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	± 2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	± 1.50	Rectangular	0.87	1	0.87
Site imperfection	± 2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20 \log(1 - \Gamma_1 * \Gamma_2 * \Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty $U_c(y)$	2.36				
Measuring uncertainty for a level of confidence of 95% $U = 2U_c(y)$	4.72				

$$U = \sqrt{\{(0.3/2)^2 + (2^2 + 1.5^2 + 0.2^2)/3 + (0.2)^2/2\}} = 1.66$$