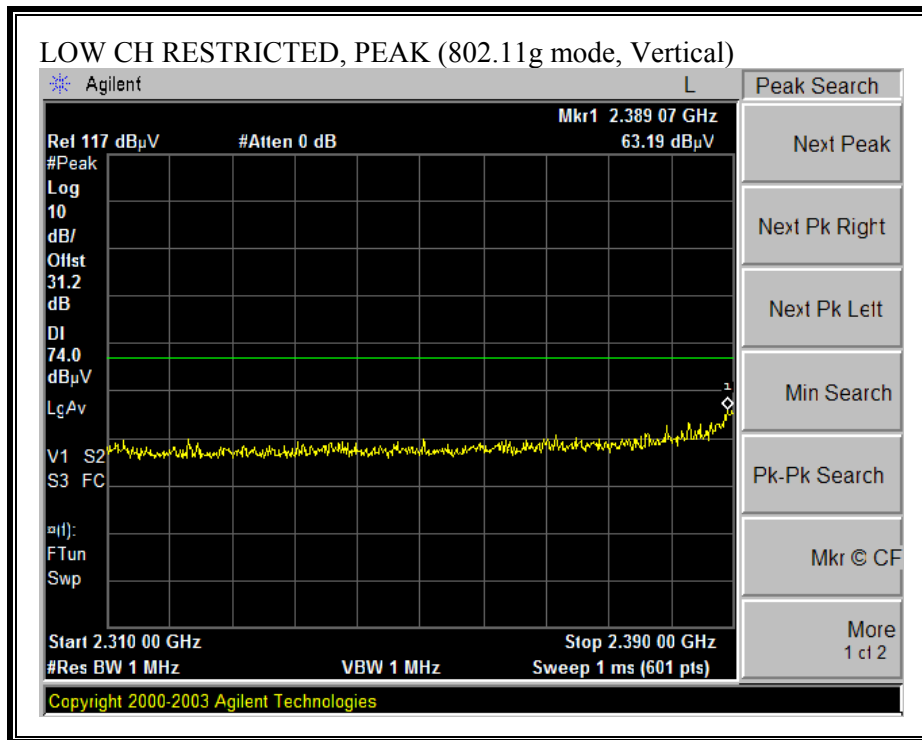
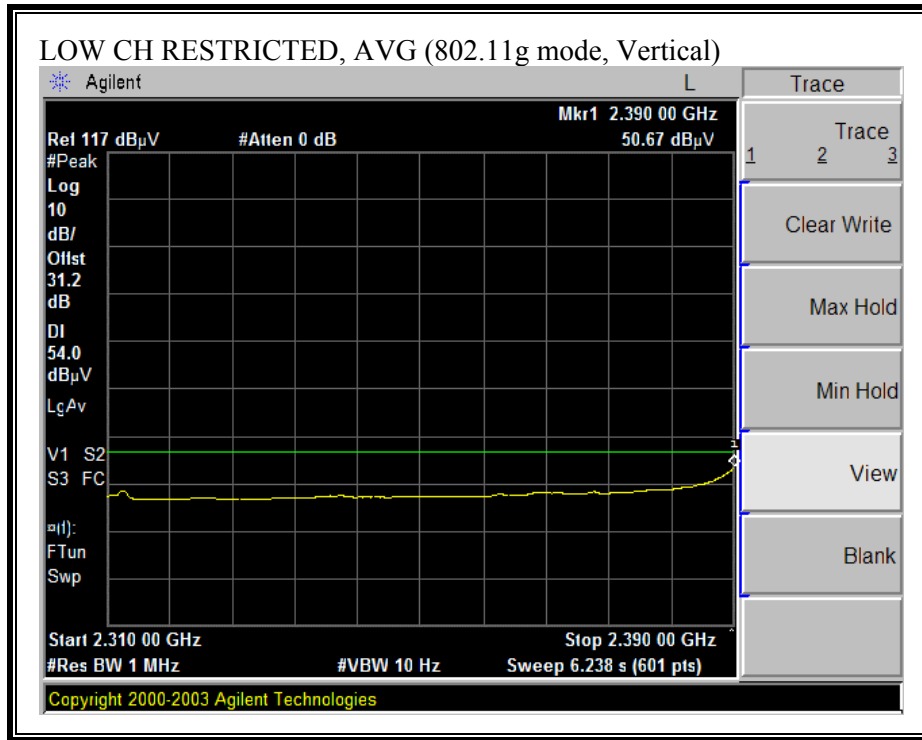
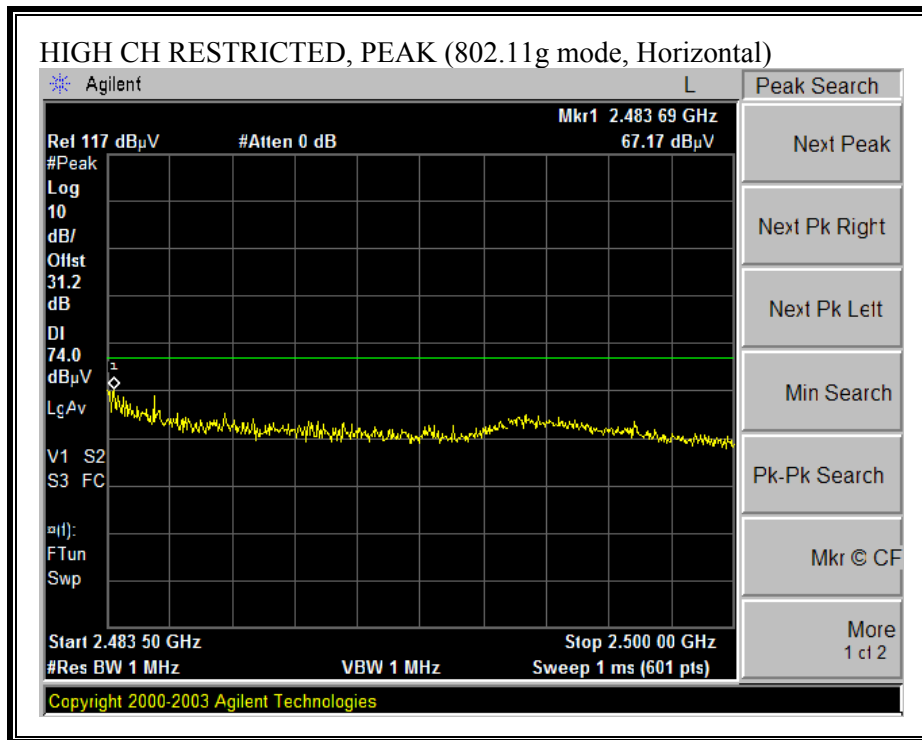


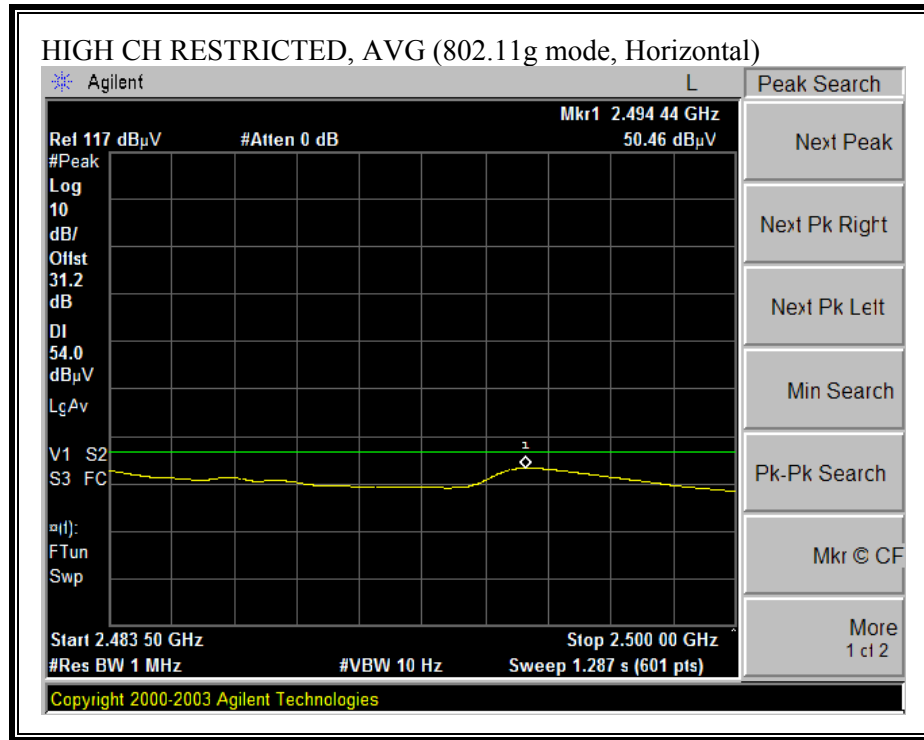
RESTRICTED BANDEDGE (g MODE, LOW CHANNEL, VERTICAL)



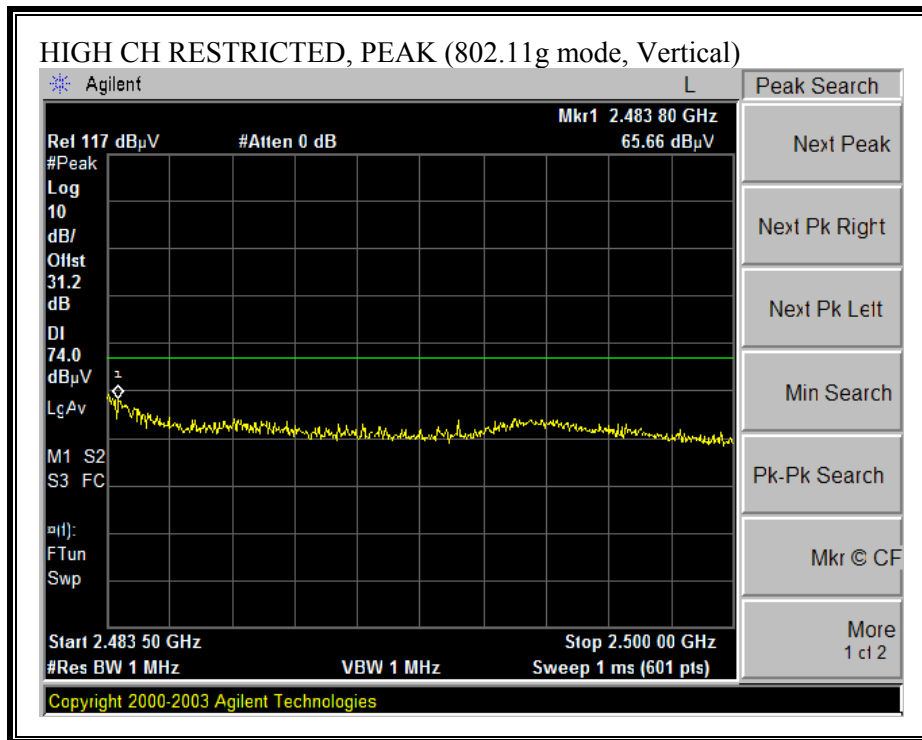


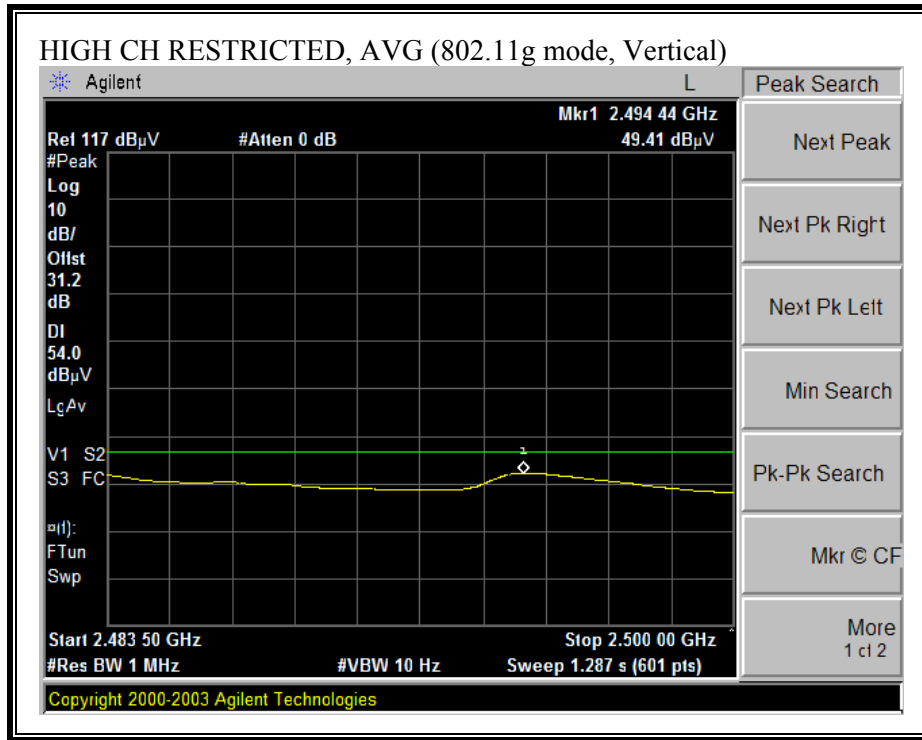
RESTRICTED BANDEDGE (g MODE, HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (g MODE, HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS (g MODE)

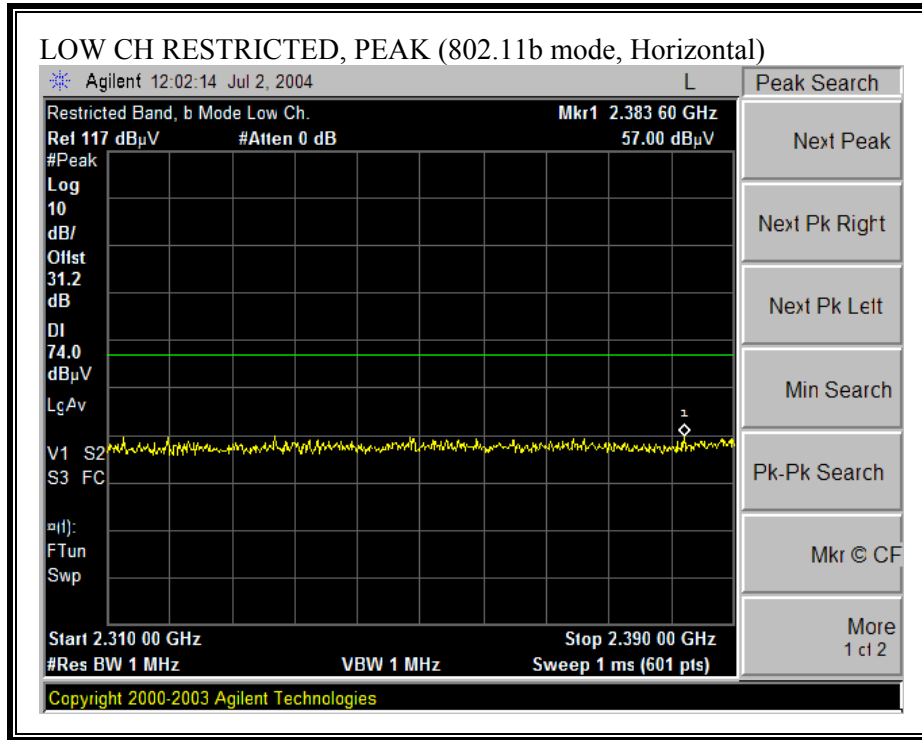
07/06/04 High Frequency Measurement Compliance Certification Services, Morgan Hill Open Field Site															
Test Engr: VIEN TRAN Project #: 04U2790 Company: INTEL EUT Descrip.: 802.11abg DELL LAPTOP_INSPIRON 300M_WNC ANTENNA AT BASE_LAPTOP UNDOCK (worstcase) EUT M/N: WM3A2195ABG INTEL CARD Test Target: FCC15.247 Mode Oper: TX_11g_LOW / MID / HI CHANNELS_HARMONIC SPUR															
Test Equipment:															
EMCO Horn 1-18GHz T60; S/N: 2238 @3m		Spectrum Analyzer Agilent E4446A Analyzer		Pre-amplifier 1-26GHz T87 Miteq 924342		Pre-amplifier 26-40GHz		Horn > 18GHz							
Hi Frequency Cables <input checked="" type="checkbox"/> (2 ft) <input type="checkbox"/> (2 ~ 3 ft) <input type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)				Limit FCC 15.205		Peak Measurements: 1 MHz Resolution Bandwidth 1MHz Video Bandwidth				Average Measurements: 1 MHz Resolution Bandwidth 10Hz Video Bandwidth					
f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes
LOW CH 2.412GHz															
4.824	9.8	55.3	42.1	33.1	2.9	-44.7	0.0	1.0	47.6	34.4	74.0	54.0	-26.4	-19.6	V
4.824	9.8	53.6	41.5	33.1	2.9	-44.7	0.0	1.0	45.9	33.8	74.0	54.0	-28.1	-20.2	H
MID CH 2.437GHz															
4.874	9.8	46.4	33.9	33.1	2.9	-44.7	0.0	1.0	38.7	26.2	74.0	54.0	-35.3	-27.8	V
7.311	9.8	43.8	33.0	36.2	3.8	-44.5	0.0	1.0	40.3	29.5	74.0	54.0	-33.7	-24.5	V
4.874	9.8	47.7	35.2	33.1	2.9	-44.7	0.0	1.0	40.0	27.5	74.0	54.0	-34.0	-26.5	H
7.311	9.8	45.4	33.7	36.2	3.8	-44.5	0.0	1.0	41.9	30.2	74.0	54.0	-32.1	-23.8	H
HI CH 2.462GHz															
4.924	9.8	45.6	38.0	33.2	2.9	-44.8	0.0	1.0	37.9	30.3	74.0	54.0	-36.1	-23.7	V
7.386	9.8	45.0	34.8	36.3	3.9	-44.5	0.0	1.0	41.7	31.5	74.0	54.0	-32.3	-22.5	V
4.924	9.8	45.6	37.2	33.2	2.9	-44.8	0.0	1.0	37.9	29.5	74.0	54.0	-36.1	-24.5	H
7.386	9.8	44.0	33.2	36.3	3.9	-44.5	0.0	1.0	40.7	29.9	74.0	54.0	-33.3	-24.1	H
NO OTHER RADIATED EMISSION WERE DETECTED UP TO 10TH HARMONIC															
f	Measurement Frequency		Amp	Preamp Gain		Avg Lim	Average Field Strength Limit								
Dist	Distance to Antenna		D Corr	Distance Correct to 3 meters		Pk Lim	Peak Field Strength Limit								
Read	Analyzer Reading		Avg	Average Field Strength @ 3 m		Avg Mar	Margin vs. Average Limit								
AF	Antenna Factor		Peak	Calculated Peak Field Strength		Pk Mar	Margin vs. Peak Limit								
CL	Cable Loss		HPF	High Pass Filter											

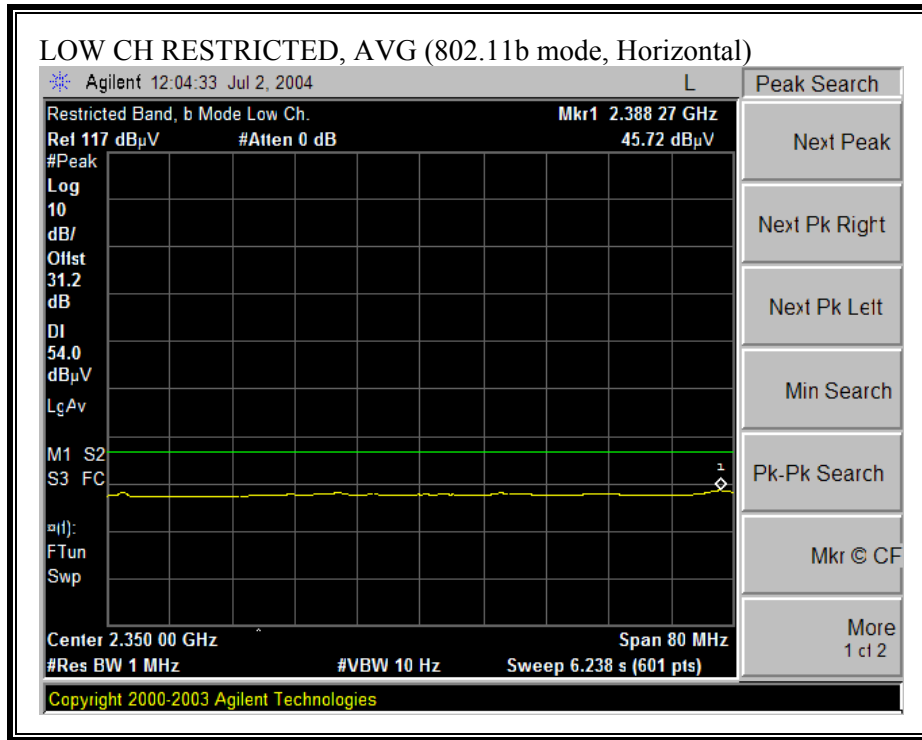
HARMONICS AND SPURIOUS EMISSIONS (a MODE)

07/06/04 High Frequency Measurement Compliance Certification Services, Morgan Hill Open Field Site															
Test Engr: VIEN TRAN Project #: 04U2790 Company: INTEL EUT Descrip.: 802.11abg DELL LAPTOP_INSPIRON 300M_WNC ANTENNA AT BASE_LAPTOP UNDOCK (worstcase) EUT M/N: WM3A2195ABG INTEL CARD Test Target: FCC15.247 Mode Oper: TX_11a 5.8GHZ _ LOW / MID / HI CHANNELS_HARMONIC SPUR															
Test Equipment:															
EMCO Horn 1-18GHz T60; S/N: 2238 @3m		Spectrum Analyzer Agilent E4446A Analyzer		Pre-amplifier 1-26GHz T87 Miteq 924342		Pre-amplifier 26-40GHz		Horn > 18GHz							
Hi Frequency Cables <input checked="" type="checkbox"/> (2 ft) <input type="checkbox"/> (2 ~ 3 ft) <input type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)				Limit FCC 15.205		Peak Measurements: 1 MHz Resolution Bandwidth 1MHz Video Bandwidth				Average Measurements: 1 MHz Resolution Bandwidth 10Hz Video Bandwidth					
f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes
LOW CH 5.745GHz															
11.490	9.8	45.2	33.5	38.7	6.1	-41.5	0.0	1.0	49.4	37.7	74.0	54.0	-24.6	-16.3	V
11.490	9.8	44.0	33.1	38.7	6.1	-41.5	0.0	1.0	48.2	37.3	74.0	54.0	-25.8	-16.7	H
MID CH 5.785GHz															
11.570	9.8	46.0	34.3	38.8	6.1	-41.6	0.0	1.0	50.3	38.6	74.0	54.0	-23.7	-15.4	V
11.570	9.8	44.0	33.0	38.8	6.1	-41.6	0.0	1.0	48.3	37.3	74.0	54.0	-25.7	-16.7	H
HI CH 5.825GHz															
11.650	9.8	43.0	32.6	38.9	6.1	-41.7	0.0	1.0	47.3	36.9	74.0	54.0	-26.7	-17.1	V
11.650	9.8	42.0	32.0	38.9	6.1	-41.7	0.0	1.0	46.3	36.2	74.0	54.0	-27.7	-17.8	H
NO OTHER RADIATED EMISSION WERE DETECTED UP TO 10TH HARMONIC															
f	Measurement Frequency			Amp	Preamp Gain			Avg Lim	Average Field Strength Limit						
Dist	Distance to Antenna			D Corr	Distance Correct to 3 meters			Pk Lim	Peak Field Strength Limit						
Read	Analyzer Reading			Avg	Average Field Strength @ 3 m			Avg Mar	Margin vs. Average Limit						
AF	Antenna Factor			Peak	Calculated Peak Field Strength			Pk Mar	Margin vs. Peak Limit						
CL	Cable Loss			HPF	High Pass Filter										

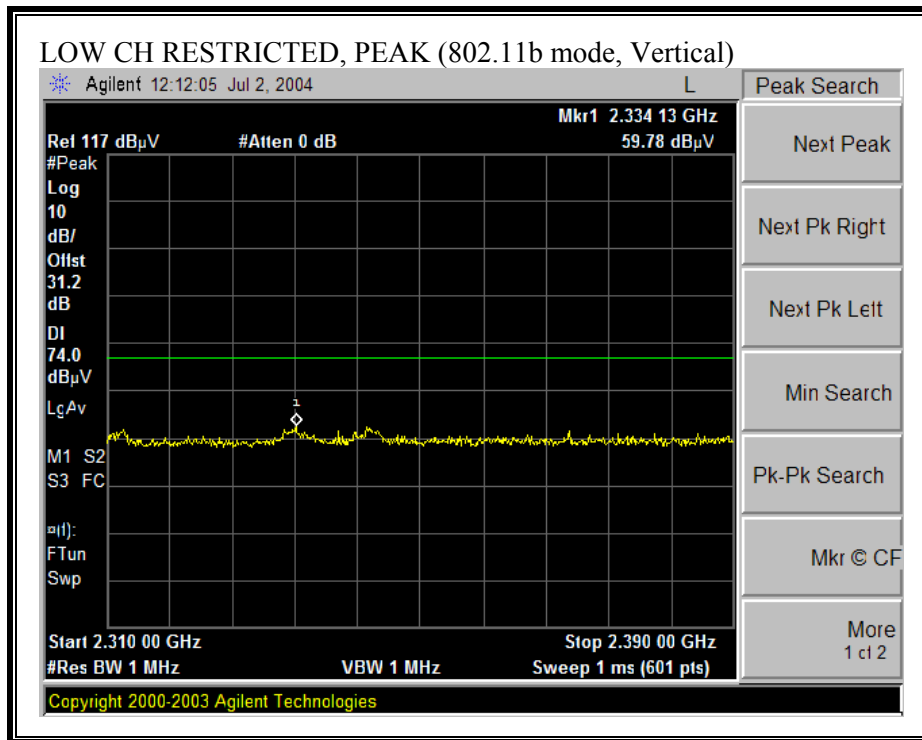
7.8.6. TRANSMITTER RADIATED EMISSIONS ABOVE 1 GHz, INSPIRON 300M LAPTOP WITH HITACHI ANTENNA SET

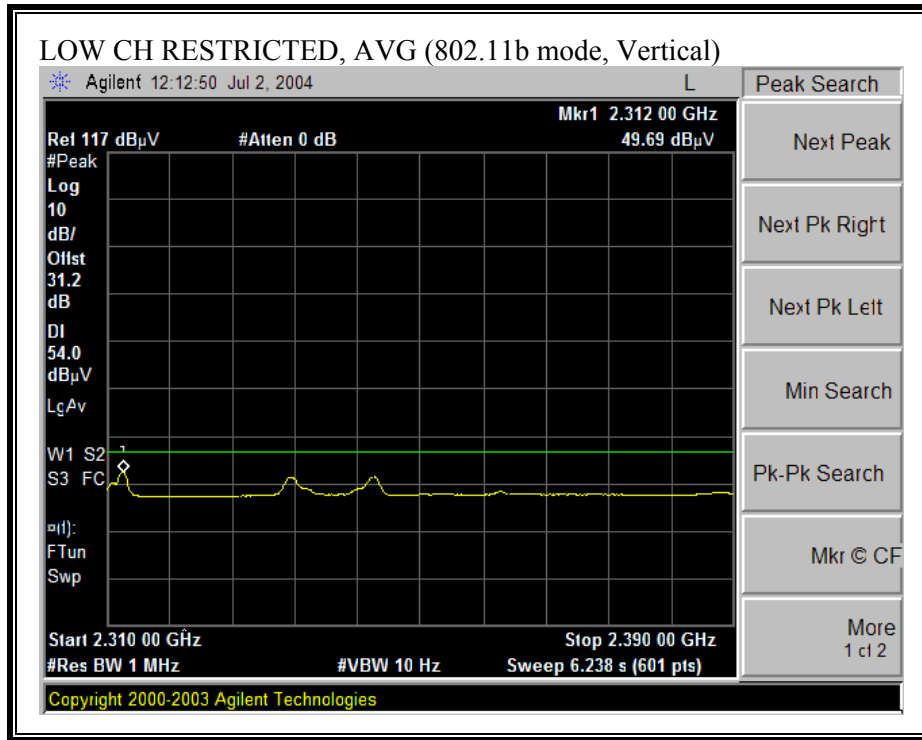
RESTRICTED BANDEDGE (b MODE, LOW CHANNEL, HORIZONTAL)



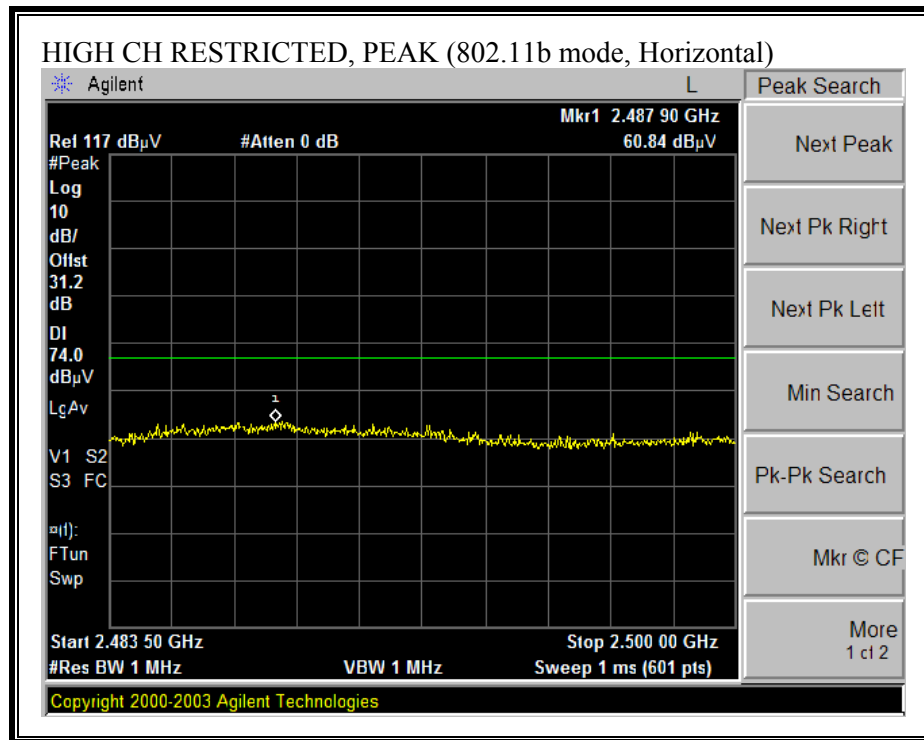


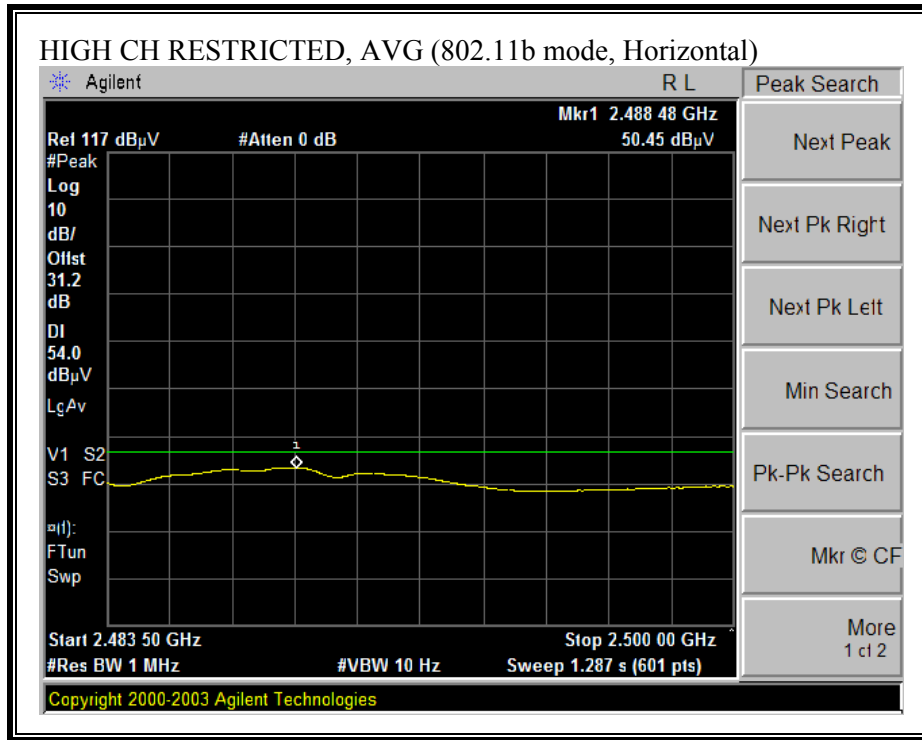
RESTRICTED BANDEDGE (b MODE, LOW CHANNEL, VERTICAL)



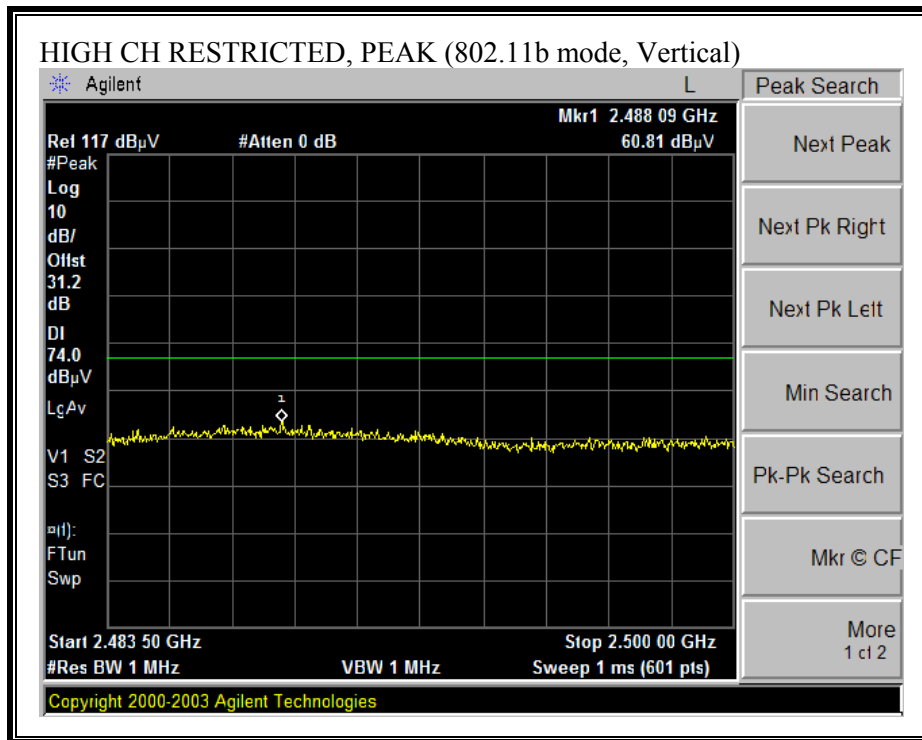


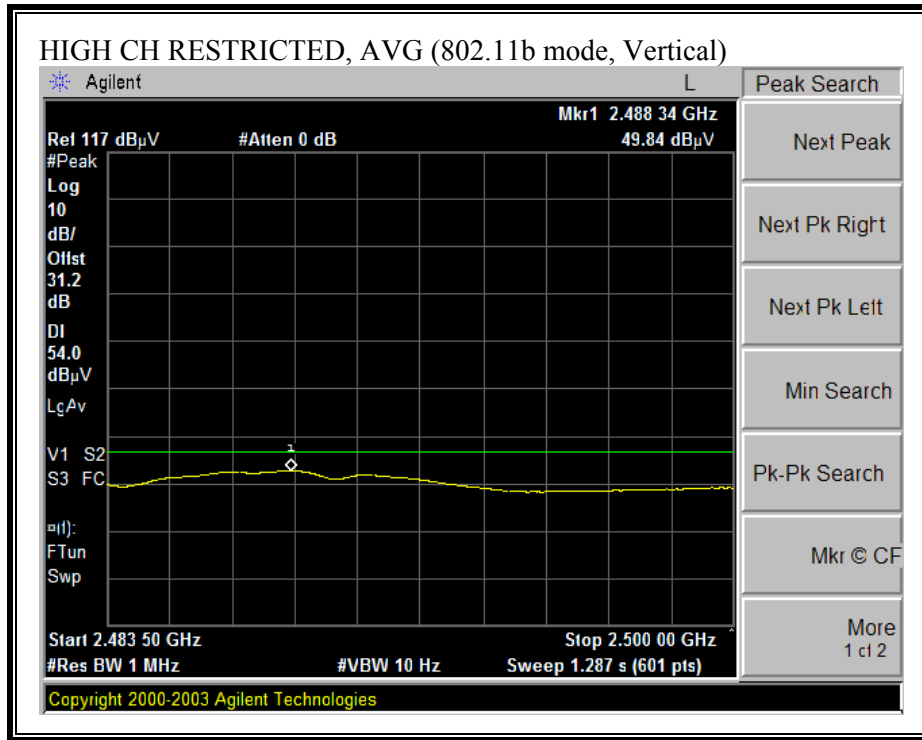
RESTRICTED BANDEDGE (b MODE, HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (b MODE, HIGH CHANNEL, VERTICAL)

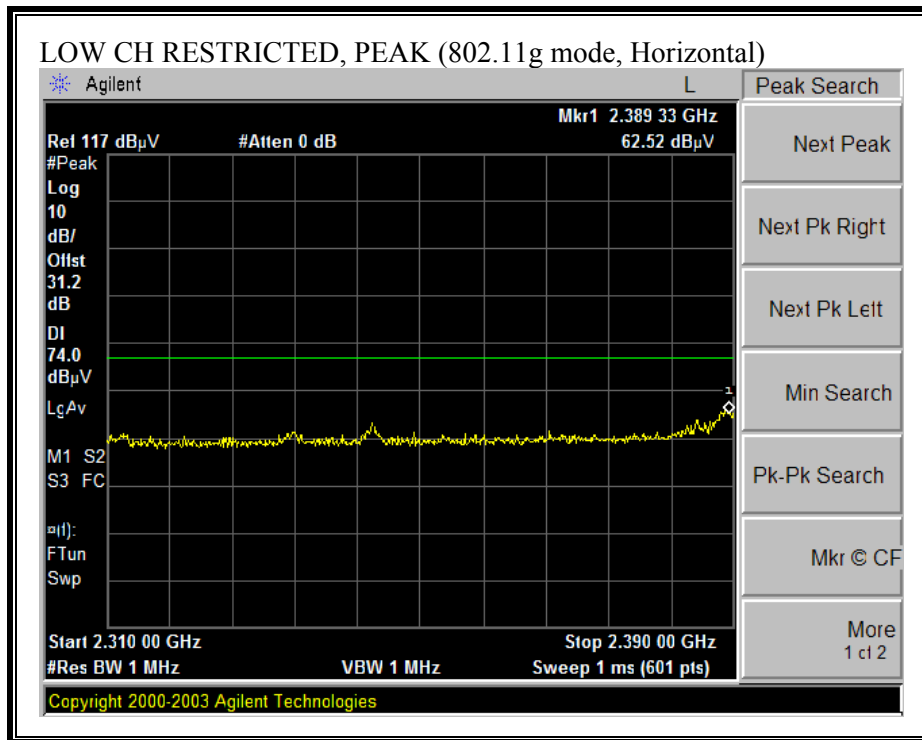


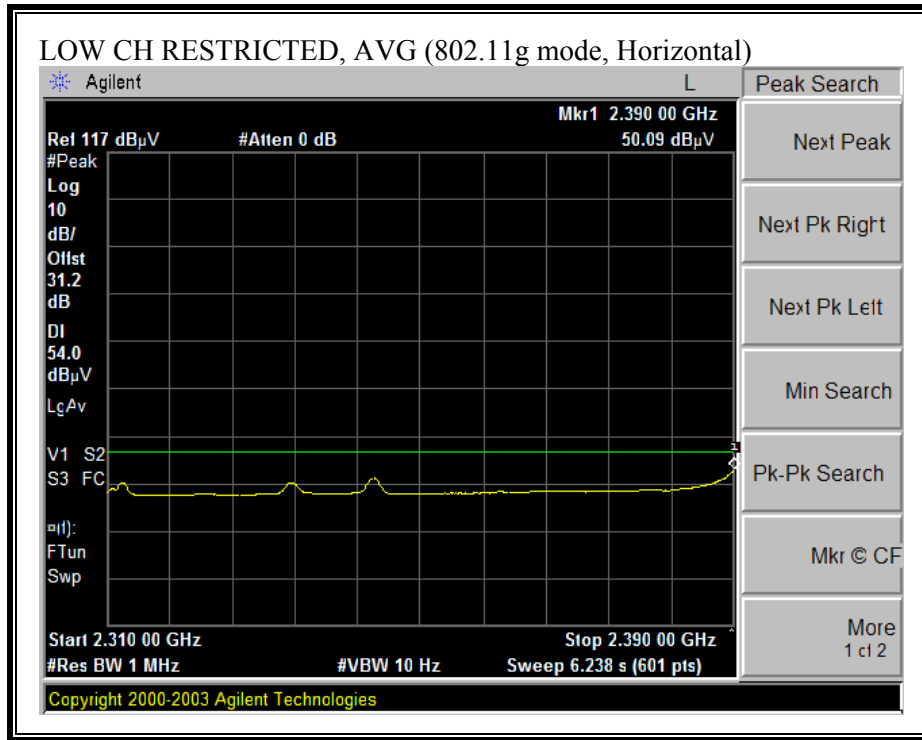


HARMONICS AND SPURIOUS EMISSIONS (b MODE)

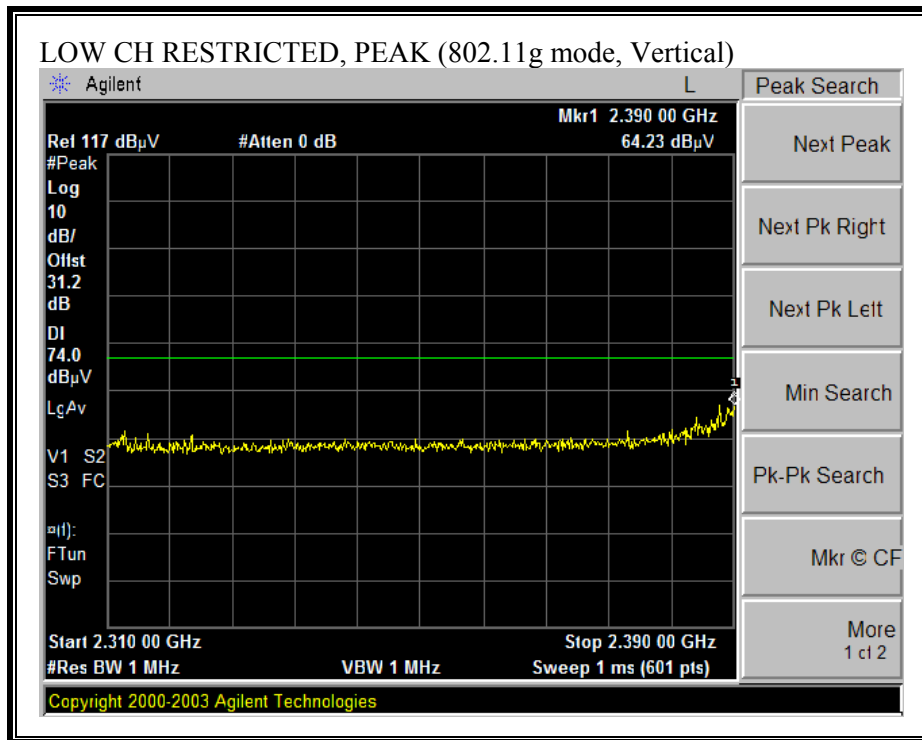
07/02/04 High Frequency Measurement Compliance Certification Services, Morgan Hill Open Field Site															
Test Engr: VIEN TRAN Project #: 04U2790 Company: INTEL EUT Descrip.: 802.11abg DELL LAPTOP_INSPIRON 330M_HITACHI ANTENNA AT BASE_LAPTOP UNDOCK (worstcase) EUT M/N: WM3A2195ABG INTEL CARD Test Target: FCC15.247 Mode Oper: TX_11b_LOW / MID / HI CHANNELS_HARMONIC SPUR															
Test Equipment:															
EMCO Horn 1-18GHz T60; S/N: 2238 @3m		Spectrum Analyzer Agilent E4446A Analyzer		Pre-amplifier 1-26GHz T87 Miteq 924342		Pre-amplifier 26-40GHz		Horn > 18GHz							
Hi Frequency Cables <input checked="" type="checkbox"/> (2 ft) <input type="checkbox"/> (2 ~ 3 ft) <input type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)				Limit FCC 15.205		Peak Measurements: 1 MHz Resolution Bandwidth 1MHz Video Bandwidth				Average Measurements: 1 MHz Resolution Bandwidth 10Hz Video Bandwidth					
f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes
LOW CH 2.412GHz															
4.824	9.8	46.7	34.9	33.1	2.9	-44.7	0.0	1.0	39.0	27.2	74.0	54.0	-35.0	-26.8	V
4.824	9.8	48.0	37.3	33.1	2.9	-44.7	0.0	1.0	40.3	29.6	74.0	54.0	-33.7	-24.4	H
MID CH 2.437GHz															
4.874	9.8	47.8	38.9	33.1	2.9	-44.7	0.0	1.0	40.1	31.2	74.0	54.0	-33.9	-22.8	V
7.311	9.8	46.4	34.4	36.2	3.8	-44.5	0.0	1.0	42.9	30.9	74.0	54.0	-31.1	-23.1	V
4.874	9.8	48.1	40.1	33.1	2.9	-44.7	0.0	1.0	40.4	32.4	74.0	54.0	-33.6	-21.6	H
7.311	9.8	47.4	36.0	36.2	3.8	-44.5	0.0	1.0	43.9	32.5	74.0	54.0	-30.1	-21.5	H
HI CH 2.462GHz															
4.924	9.8	57.5	54.4	33.2	2.9	-44.8	0.0	1.0	49.8	46.7	74.0	54.0	-24.2	-7.3	V
7.386	9.8	45.4	35.1	36.3	3.9	-44.5	0.0	1.0	42.1	31.8	74.0	54.0	-31.9	-22.2	V
4.924	9.8	60.0	57.0	33.2	2.9	-44.8	0.0	1.0	52.3	49.3	74.0	54.0	-21.7	-4.7	H
7.386	9.8	47.3	36.0	36.3	3.9	-44.5	0.0	1.0	44.0	32.7	74.0	54.0	-30.0	-21.3	H
NO OTHER RADIATED EMISSION WERE DETECTED UP TO 10TH HARMONIC															
f	Measurement Frequency		Amp	Preamp Gain		Avg Lim	Average Field Strength Limit								
Dist	Distance to Antenna		D Corr	Distance Correct to 3 meters		Pk Lim	Peak Field Strength Limit								
Read	Analyzer Reading		Avg	Average Field Strength @ 3 m		Avg Mar	Margin vs. Average Limit								
AF	Antenna Factor		Peak	Calculated Peak Field Strength		Pk Mar	Margin vs. Peak Limit								
CL	Cable Loss		HPF	High Pass Filter											

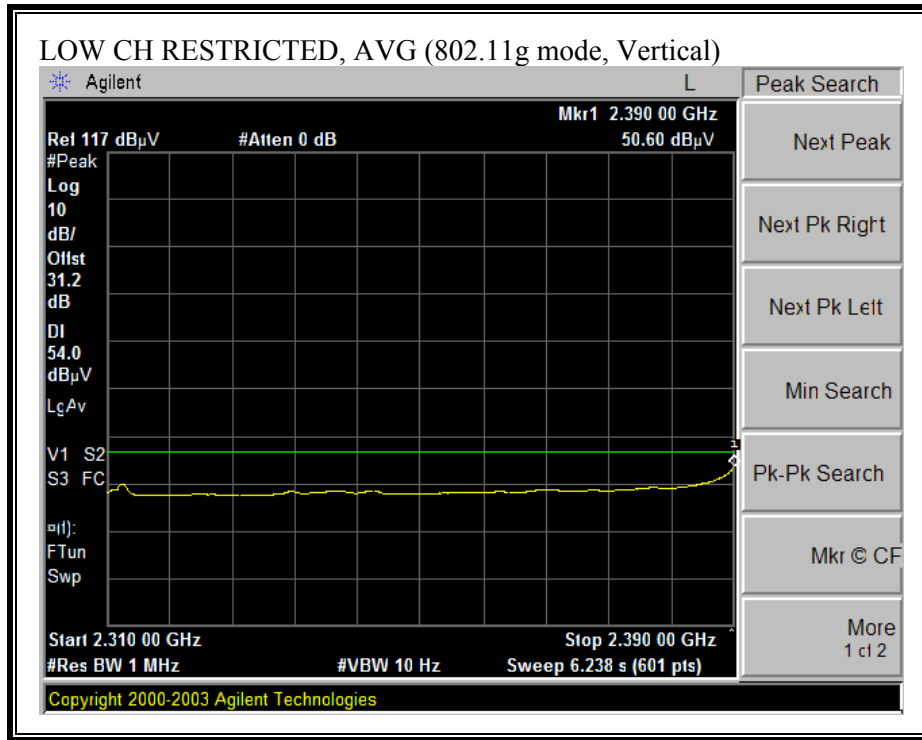
RESTRICTED BANDEDGE (g MODE, LOW CHANNEL, HORIZONTAL)



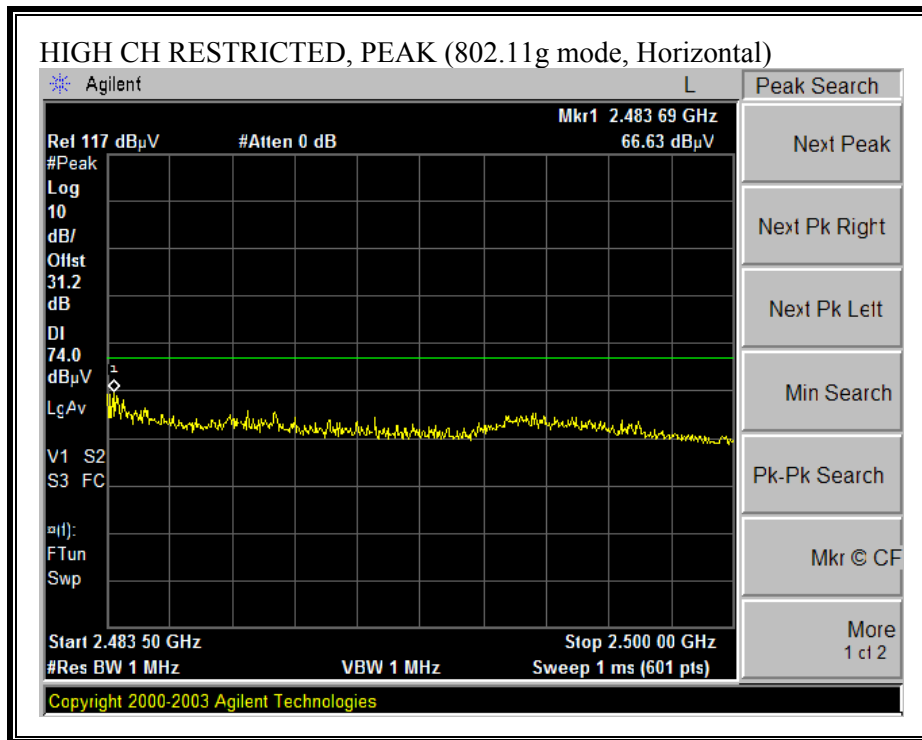


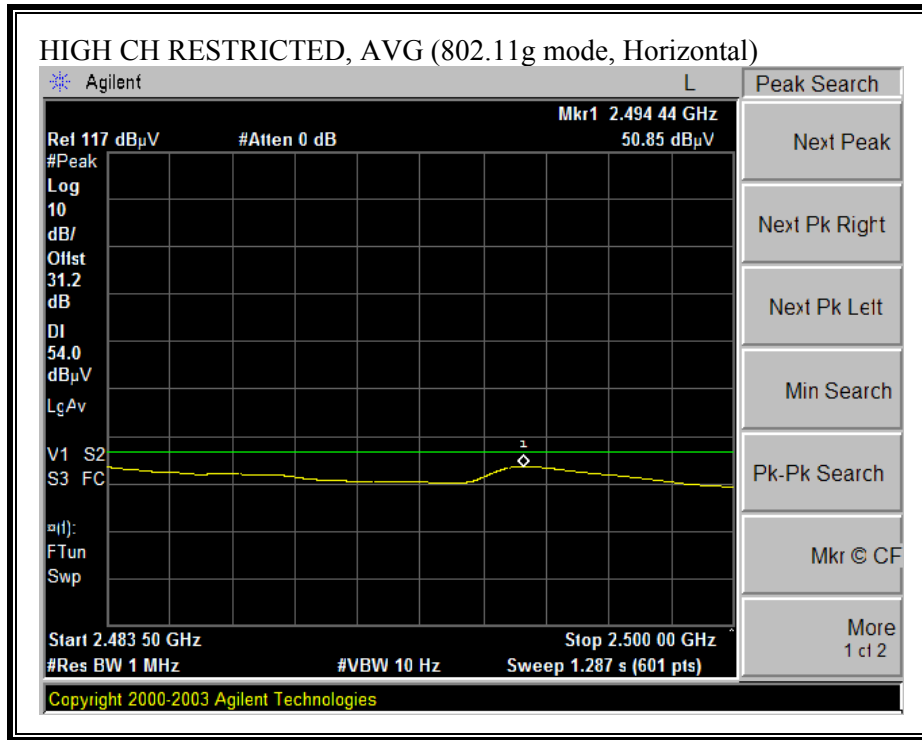
RESTRICTED BANDEDGE (g MODE, LOW CHANNEL, VERTICAL)



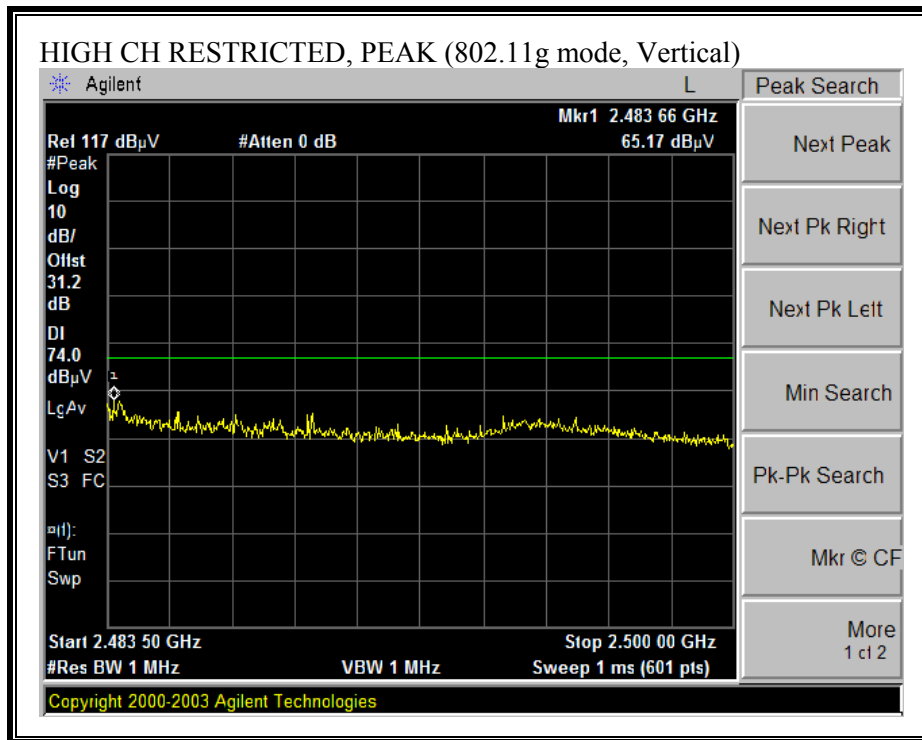


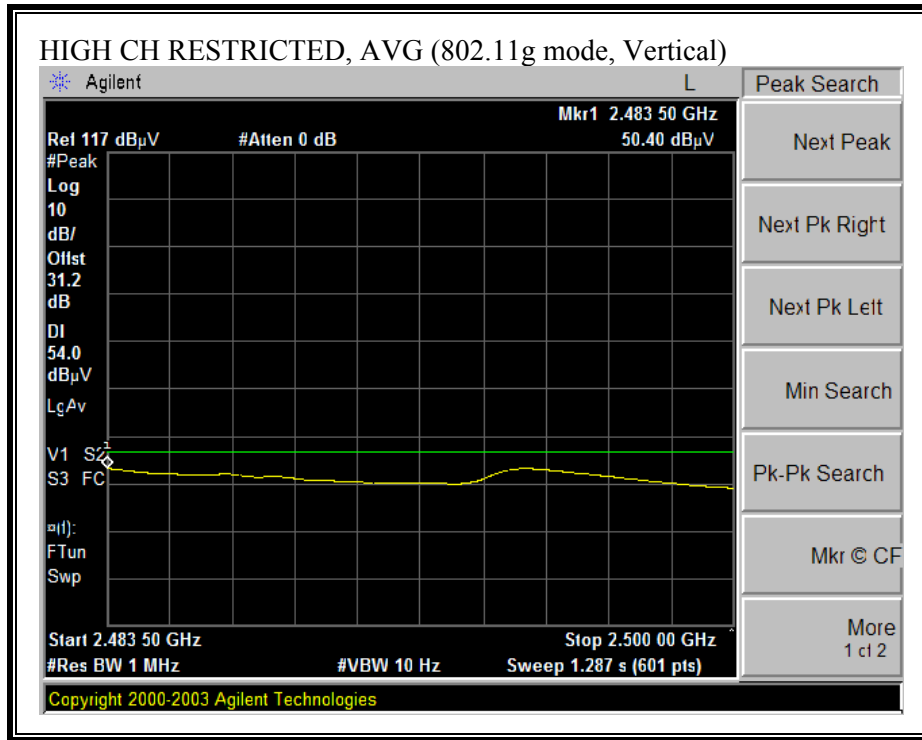
RESTRICTED BANDEDGE (g MODE, HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (g MODE, HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS (g MODE)

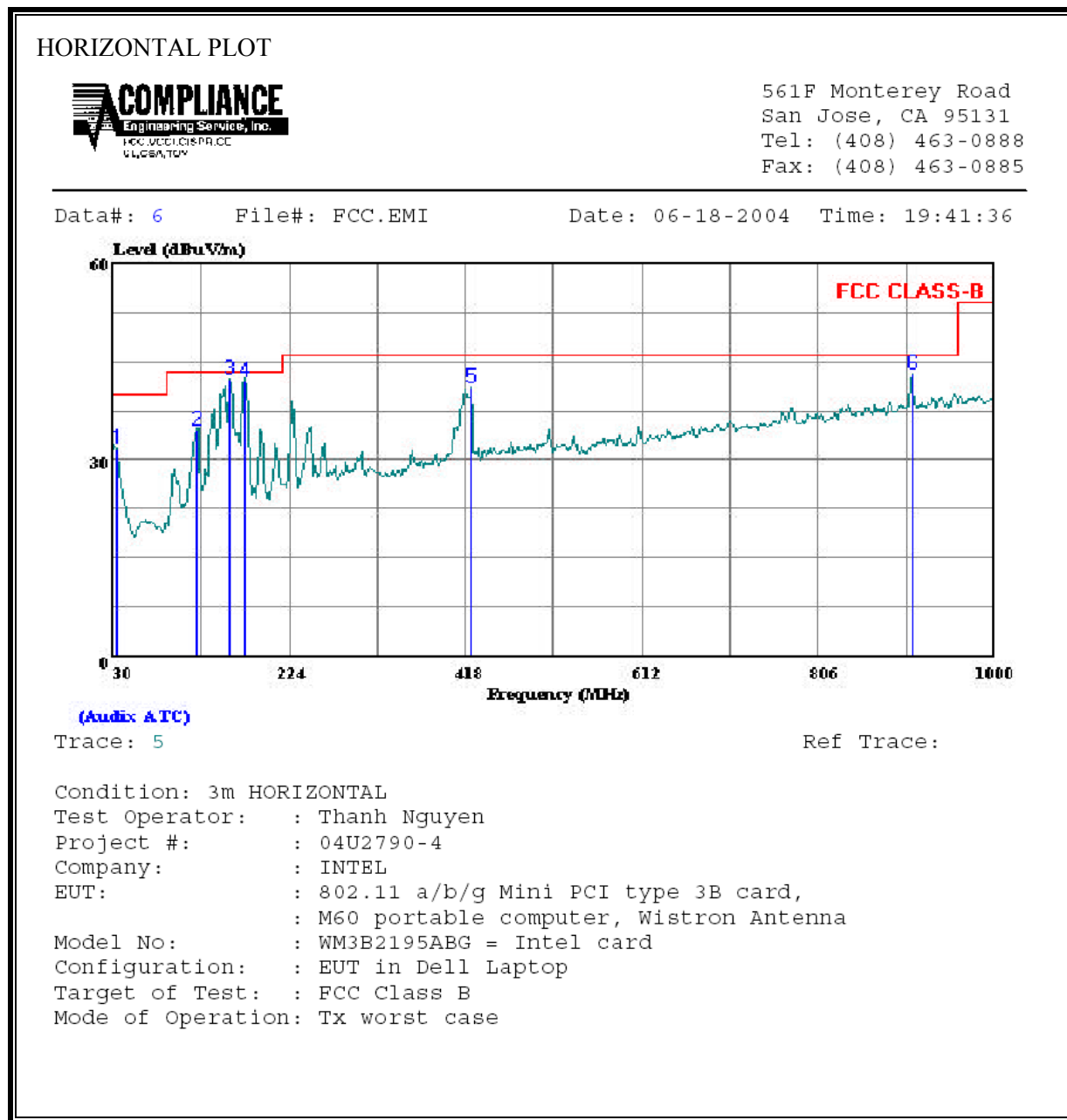
07/02/04 High Frequency Measurement Compliance Certification Services, Morgan Hill Open Field Site															
Test Engr: VIEN TRAN Project #: 04U2790 Company: INTEL EUT Descrip.: 802.11abg DELL LAPTOP_INSPIRON 330M_HITACHI ANTENNA AT BASE_LAPTOP UNDOCK (worstcase) EUT M/N: WM3A2195ABG INTEL CARD Test Target: FCC15.247 Mode Oper: TX_11g_LOW / MID / HI CHANNELS_HARMONIC SPUR															
Test Equipment:															
EMCO Horn 1-18GHz T60; S/N: 2238 @3m		Spectrum Analyzer Agilent E4446A Analyzer		Pre-amplifier 1-26GHz T87 Miteq 924342		Pre-amplifier 26-40GHz		Horn > 18GHz							
Hi Frequency Cables <input checked="" type="checkbox"/> (2 ft) <input type="checkbox"/> (2 ~ 3 ft) <input type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)				Limit FCC 15.205		Peak Measurements: 1 MHz Resolution Bandwidth 1MHz Video Bandwidth				Average Measurements: 1 MHz Resolution Bandwidth 10Hz Video Bandwidth					
f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes
LOW CH 2.412GHz															
4.824	9.8	45.8	33.5	33.1	2.9	-44.7	0.0	1.0	38.1	25.8	74.0	54.0	-35.9	-28.2	V
4.824	9.8	45.0	33.0	33.1	2.9	-44.7	0.0	1.0	37.3	25.3	74.0	54.0	-36.7	-28.7	H
MID CH 2.437GHz															
4.874	9.8	45.8	33.4	33.1	2.9	-44.7	0.0	1.0	38.1	25.7	74.0	54.0	-35.9	-28.3	V
7.311	9.8	46.4	34.5	36.2	3.8	-44.5	0.0	1.0	42.9	31.0	74.0	54.0	-31.1	-23.0	V
4.874	9.8	44.9	32.0	33.1	2.9	-44.7	0.0	1.0	37.2	24.3	74.0	54.0	-36.8	-29.7	H
7.311	9.8	45.4	33.7	36.2	3.8	-44.5	0.0	1.0	41.9	30.2	74.0	54.0	-32.1	-23.8	H
HI CH 2.462GHz															
4.924	9.8	54.0	40.2	33.2	2.9	-44.8	0.0	1.0	46.3	32.5	74.0	54.0	-27.7	-21.5	V
7.386	9.8	47.0	34.8	36.3	3.9	-44.5	0.0	1.0	43.7	31.5	74.0	54.0	-30.3	-22.5	V
4.924	9.8	53.6	39.8	33.2	2.9	-44.8	0.0	1.0	45.9	32.1	74.0	54.0	-28.1	-21.9	H
7.386	9.8	46.0	34.6	36.3	3.9	-44.5	0.0	1.0	42.7	31.3	74.0	54.0	-31.3	-22.7	H
NO OTHER RADIATED EMISSION WERE DETECTED UP TO 10TH HARMONIC															
f	Measurement Frequency		Amp	Preamp Gain		Avg Lim	Average Field Strength Limit								
Dist	Distance to Antenna		D Corr	Distance Correct to 3 meters		Pk Lim	Peak Field Strength Limit								
Read	Analyzer Reading		Avg	Average Field Strength @ 3 m		Avg Mar	Margin vs. Average Limit								
AF	Antenna Factor		Peak	Calculated Peak Field Strength		Pk Mar	Margin vs. Peak Limit								
CL	Cable Loss		HPF	High Pass Filter											

HARMONICS AND SPURIOUS EMISSIONS (a MODE)

07/02/04 High Frequency Measurement Compliance Certification Services, Morgan Hill Open Field Site Test Engr: VIEN TRAN Project #: 04U2790 Company: INTEL EUT Descrip.: 802.11abg DELL LAPTOP_INSPIRON 330M_HITACHI ANTENNA AT BASE_LAPTOP UNDOCK (worstcase) EUT M/N: WM3A2195ABG INTEL CARD Test Target: FCC15.247 Mode Oper: TX_11a 5.8GHz_LOW / MID / HI CHANNELS_HARMONIC SPUR Test Equipment: <table border="1"><tr><td>EMCO Horn 1-18GHz T60; S/N: 2238 @3m</td><td>Spectrum Analyzer Agilent E4446A Analyzer</td><td>Pre-amplifier 1-26GHz T87 Miteq 924342</td><td>Pre-amplifier 26-40GHz</td><td>Horn > 18GHz</td></tr></table> <table border="1"><tr><td>Hi Frequency Cables <input checked="" type="checkbox"/> (2 ft) <input type="checkbox"/> (2 ~ 3 ft) <input type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)</td><td>Limit FCC 15.205</td><td>Peak Measurements: 1 MHz Resolution Bandwidth 1 MHz Video Bandwidth</td><td>Average Measurements: 1 MHz Resolution Bandwidth 10 Hz Video Bandwidth</td></tr></table>																	EMCO Horn 1-18GHz T60; S/N: 2238 @3m	Spectrum Analyzer Agilent E4446A Analyzer	Pre-amplifier 1-26GHz T87 Miteq 924342	Pre-amplifier 26-40GHz	Horn > 18GHz	Hi Frequency Cables <input checked="" type="checkbox"/> (2 ft) <input type="checkbox"/> (2 ~ 3 ft) <input type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)	Limit FCC 15.205	Peak Measurements: 1 MHz Resolution Bandwidth 1 MHz Video Bandwidth	Average Measurements: 1 MHz Resolution Bandwidth 10 Hz Video Bandwidth
EMCO Horn 1-18GHz T60; S/N: 2238 @3m	Spectrum Analyzer Agilent E4446A Analyzer	Pre-amplifier 1-26GHz T87 Miteq 924342	Pre-amplifier 26-40GHz	Horn > 18GHz																					
Hi Frequency Cables <input checked="" type="checkbox"/> (2 ft) <input type="checkbox"/> (2 ~ 3 ft) <input type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)	Limit FCC 15.205	Peak Measurements: 1 MHz Resolution Bandwidth 1 MHz Video Bandwidth	Average Measurements: 1 MHz Resolution Bandwidth 10 Hz Video Bandwidth																						
f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes										
LOW CH 5.745GHz																									
11.490	9.8	53.1	40.8	38.7	6.1	-41.5	0.0	1.0	57.3	45.0	74.0	54.0	-16.7	-9.0	V										
11.490	9.8	51.0	38.3	38.7	6.1	-41.5	0.0	1.0	55.2	42.5	74.0	54.0	-18.8	-11.5	H										
MID CH 5.785GHz																									
11.570	9.8	51.8	39.0	38.8	6.1	-41.6	0.0	1.0	56.1	43.3	74.0	54.0	-17.9	-10.7	V										
11.570	9.8	49.4	36.4	38.8	6.1	-41.6	0.0	1.0	53.7	40.7	74.0	54.0	-20.3	-13.3	H										
HI CH 5.825GHz																									
11.650	9.8	54.6	41.6	38.9	6.1	-41.7	0.0	1.0	58.9	45.9	74.0	54.0	-15.1	-8.1	V										
11.650	9.8	53.5	40.0	38.9	6.1	-41.7	0.0	1.0	57.8	44.3	74.0	54.0	-16.2	-9.7	H										
NO OTHER RADIATED EMISSION WERE DETECTED UP TO 10TH HARMONIC																									
f	Measurement Frequency		Amp	Preamp Gain		Avg Lim	Average Field Strength Limit																		
Dist	Distance to Antenna		D Corr	Distance Correct to 3 meters		Pk Lim	Peak Field Strength Limit																		
Read	Analyzer Reading		Avg	Average Field Strength @ 3 m		Avg Mar	Margin vs. Average Limit																		
AF	Antenna Factor		Peak	Calculated Peak Field Strength		Pk Mar	Margin vs. Peak Limit																		
CL	Cable Loss		HPF	High Pass Filter																					

7.8.7. WORST-CASE RADIATED EMISSIONS BELOW 1 GHz, PRECISION M60 LAPTOP WITH WISTRON ANTENNA SET

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)



HORIZONTAL DATA

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
1	33.880	Peak	11.10	20.70	31.80	40.00	-8.20
2	122.150	Peak	19.52	15.14	34.66	43.50	-8.84
3	158.040	Peak	28.32	13.90	42.22	43.50	-1.28
4	175.500	Peak	29.03	13.10	42.13	43.50	-1.37
5	424.790	Peak	22.12	18.82	40.94	46.00	-5.06
6	909.790	Peak	16.74	26.42	43.16	46.00	-2.84

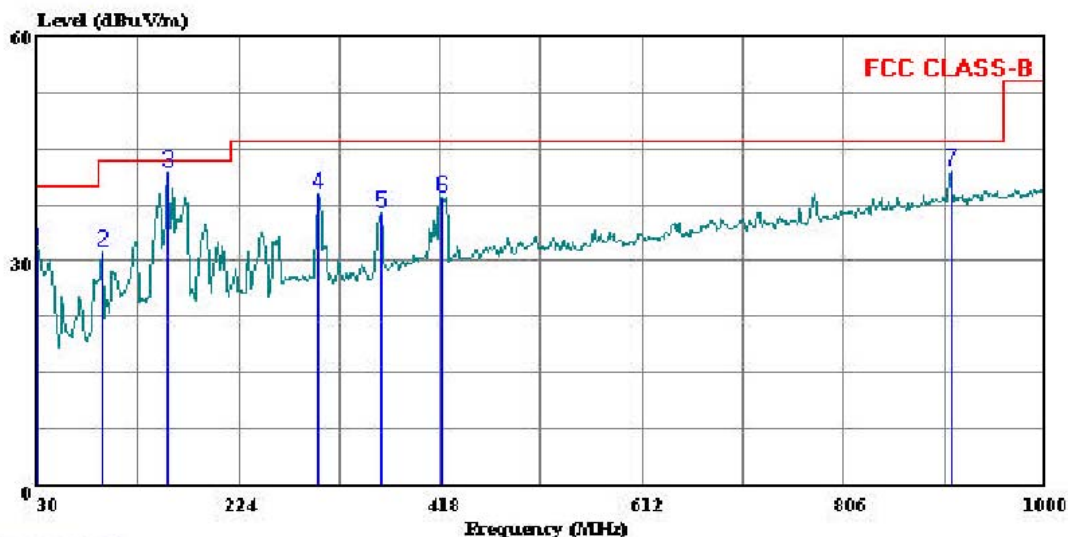
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)

VERTICAL PLOT



561F Monterey Road
San Jose, CA 95131
Tel: (408) 463-0888
Fax: (408) 463-0885

Data#: 4 File#: FCC.EMI Date: 06-18-2004 Time: 19:30:39



(Audio: ATC)

Trace: 3

Ref Trace:

Condition: 3m VERTICAL

Test Operator: : Thanh Nguyen

Project #: : 04U2790-4

Company: : INTEL

EUT: : 802.11 a/b/g Mini PCI type 3B card,
: M60 portable computer, Wistron Antenna

Model No: : WM3B2195ABG = Intel card

Configuration: : EUT in Dell Laptop

Target of Test: : FCC Class B

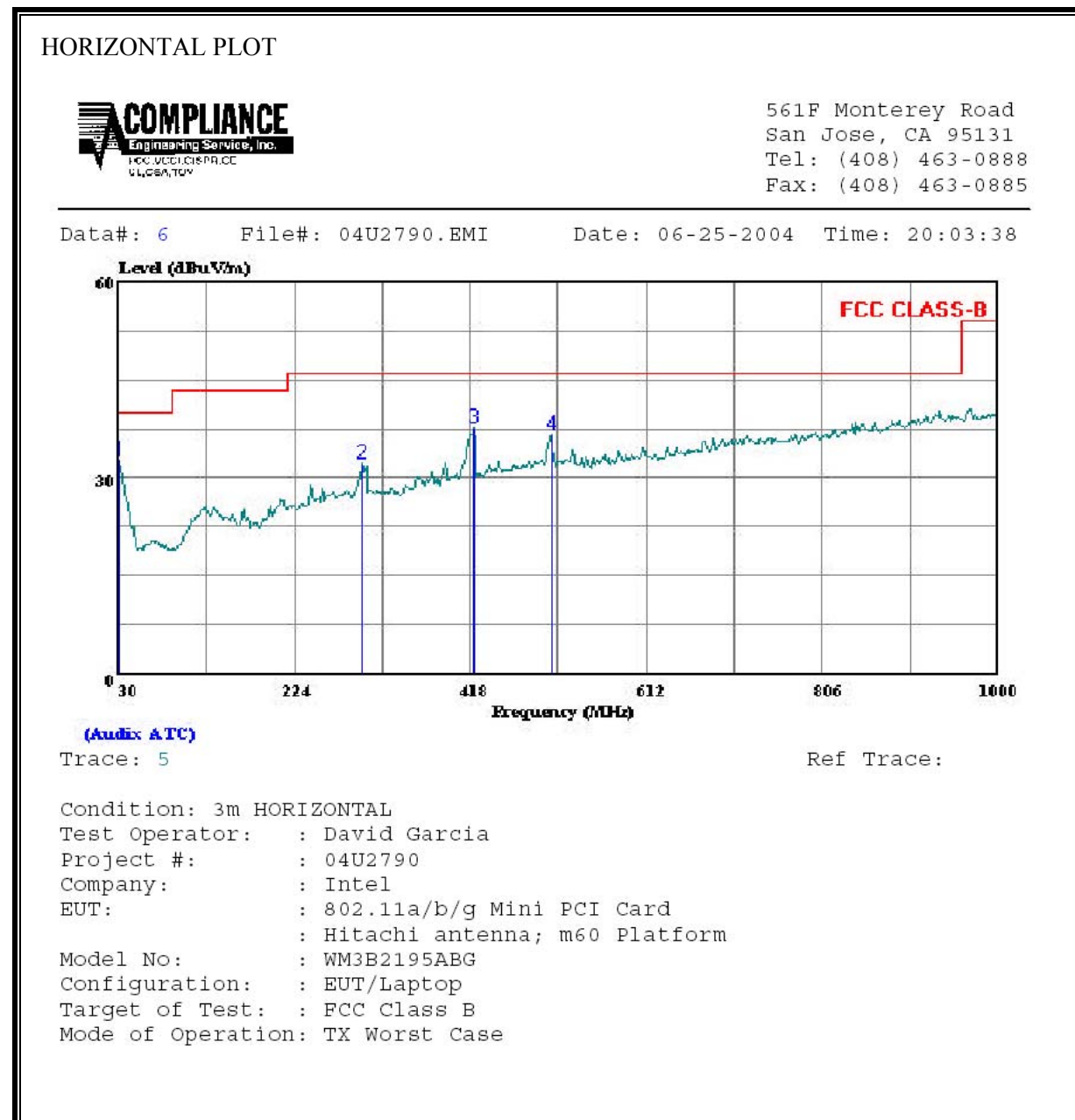
Mode of Operation: TX Worst Case

VERTICAL DATA

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
1	30.000	Peak	8.40	22.95	31.35	40.00	-8.65
2	92.080	Peak	22.20	9.08	31.28	43.50	-12.22
3	155.130	Peak	27.72	14.03	41.75	43.50	-1.75
4	300.630	Peak	23.16	15.93	39.09	46.00	-6.91
5	361.740	Peak	19.13	17.22	36.35	46.00	-9.65
6	419.940	Peak	19.66	18.69	38.35	46.00	-7.65
7	909.790	Peak	15.69	26.42	42.11	46.00	-3.89

7.8.8. WORST-CASE RADIATED EMISSIONS BELOW 1 GHz, PRECISION M60 LAPTOP WITH HITACHI ANTENNA SET

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)



HORIZONTAL DATA

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
1	30.000	Peak	9.89	22.95	32.84	40.00	-7.16
2	298.690	Peak	16.27	15.91	32.18	46.00	-13.83
3	421.880	Peak	19.02	18.75	37.77	46.00	-8.23
4	507.240	Peak	16.02	20.70	36.72	46.00	-9.28

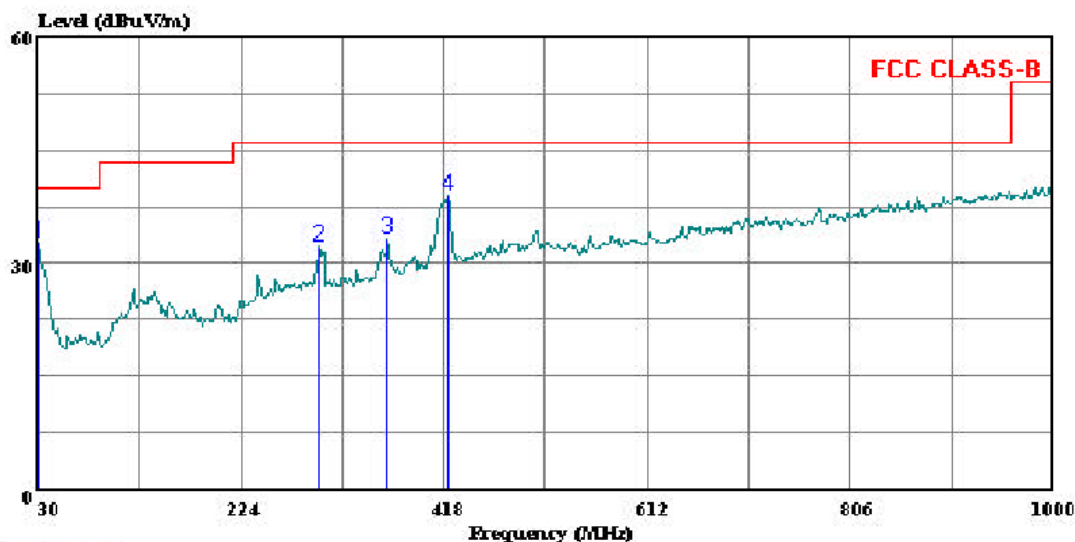
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)

VERTICAL PLOT



561F Monterey Road
San Jose, CA 95131
Tel: (408) 463-0888
Fax: (408) 463-0885

Data#: 4 File#: 04U2790.EMI Date: 06-25-2004 Time: 19:56:51



(Auxiliary ATC)

Trace: 3

Ref Trace:

Condition: 3m VERTICAL

Test Operator: : David Garcia

Project #: : 04U2790

Company: : Intel

EUT: : 802.11a/b/g Mini PCI Card

: Hitachi antenna; m60 Platform

Model No: : WM3B2195ABG

Configuration: : EUT/Laptop

Target of Test: : FCC Class B

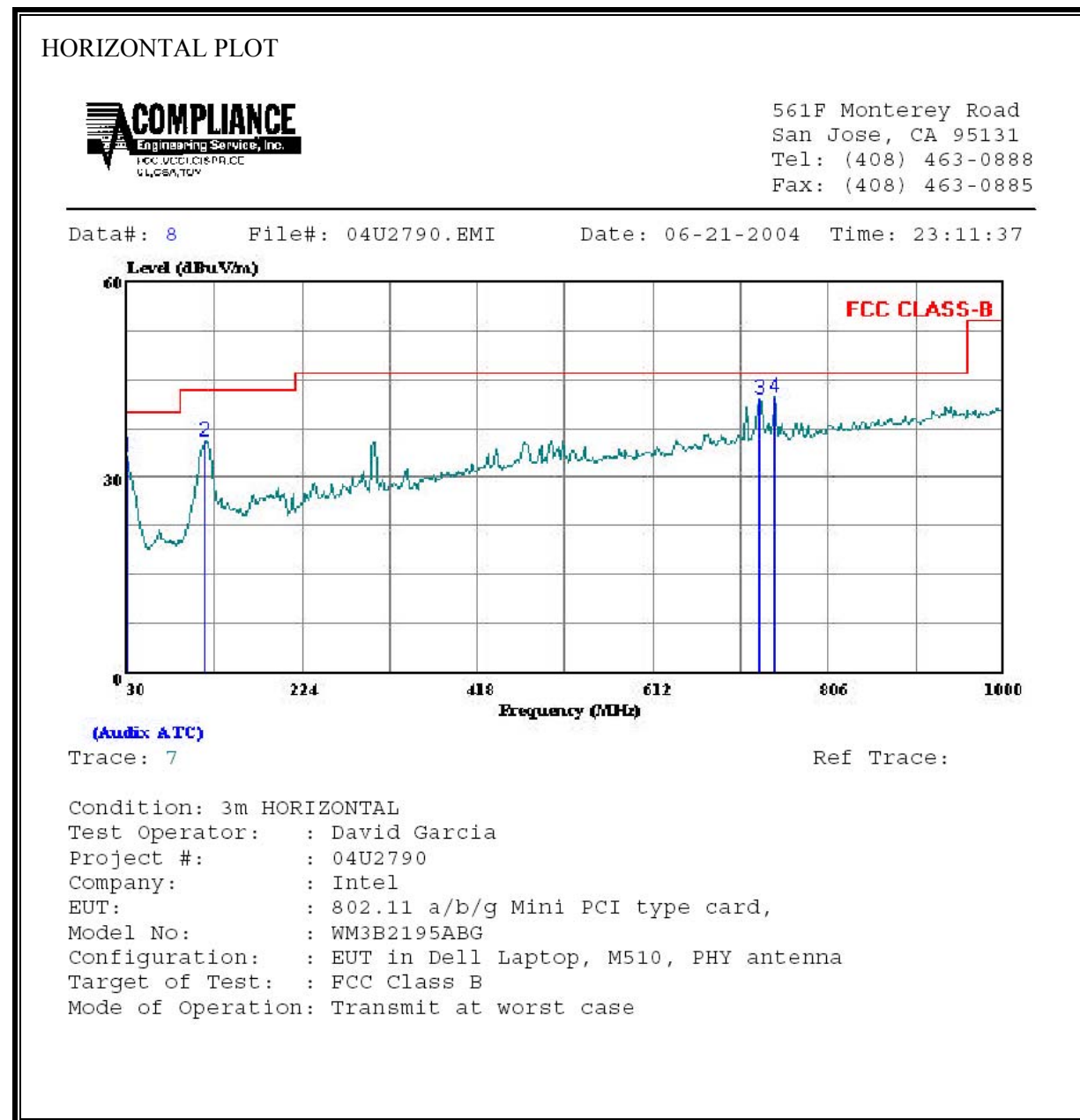
Mode of Operation: TX Worst Case

VERTICAL DATA

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
1	30.000	Peak	9.89	22.95	32.84	40.00	-7.16
2	298.690	Peak	16.30	15.91	32.20	46.00	-13.80
3	363.680	Peak	15.94	17.25	33.19	46.00	-12.81
4	421.880	Peak	20.32	18.75	39.07	46.00	-6.93

7.8.9. WORST-CASE RADIATED EMISSIONS BELOW 1 GHz, INSPIRON 510M LAPTOP WITH PHYCOMP ANTENNA SET

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)



HORIZONTAL DATA

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
1	30.000	Peak	10.36	22.95	33.31	40.00	-6.69
2	116.330	Peak	21.06	14.51	35.57	43.50	-7.93
3	730.340	Peak	17.93	24.26	42.19	46.00	-3.81
4	746.830	Peak	18.04	24.30	42.34	46.00	-3.66

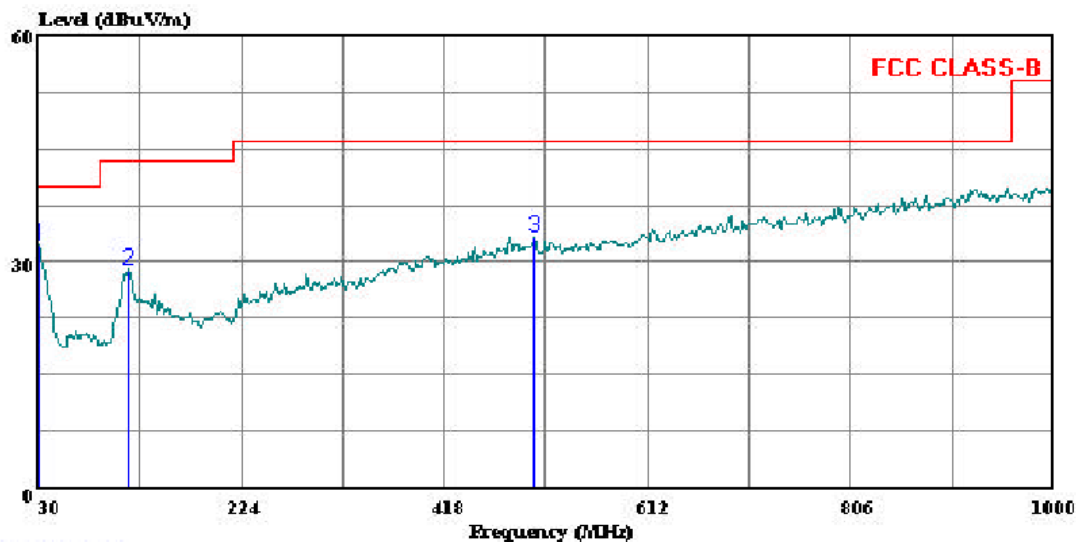
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)

VERTICAL PLOT



561F Monterey Road
San Jose, CA 95131
Tel: (408) 463-0888
Fax: (408) 463-0885

Data#: 10 File#: 04u2790.emi Date: 06-21-2004 Time: 23:16:33



(Auxiliary ATC)

Trace: 9

Ref Trace:

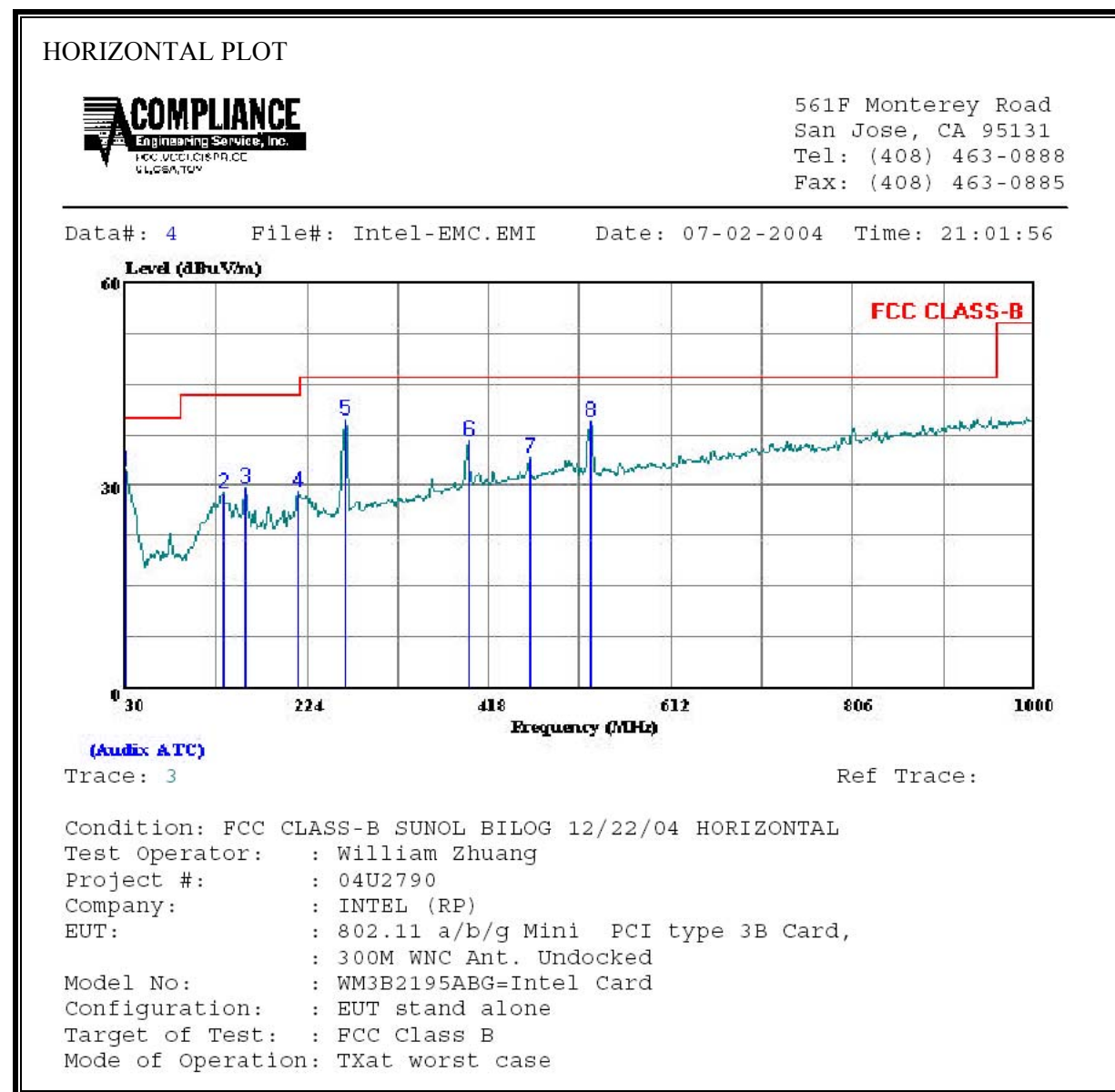
Condition: 3m VERTICAL
Test Operator: : David Garcia
Project #: : 04U2790
Company: : Intel
EUT: : 802.11 a/b/g Mini PCI type card,
Model No: : WM3B2195ABG
Configuration: : EUT in Dell Laptop, M510, PHY antenna
Target of Test: : FCC Class B
Mode of Operation: Transmit at worst case

VERTICAL DATA

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
1	30.970	Peak	9.29	22.95	32.24	40.00	-7.76
2	115.360	Peak	14.46	14.39	28.85	43.50	-14.65
3	504.330	Peak	12.54	20.67	33.21	46.00	-12.79

**7.8.10. WORST-CASE RADIATED EMISSIONS BELOW 1 GHz,
INSPIRON 300M LAPTOP WITH WISTRON ANTENNA SET**

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)



HORIZONTAL DATA

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
1	30.970	Peak	9.23	22.95	32.18	40.00	-7.82
2	133.790	Peak	13.33	15.48	28.81	43.50	-14.69
3	158.040	Peak	15.81	13.90	29.71	43.50	-13.79
4	213.330	Peak	16.14	12.85	28.99	43.50	-14.51
5	264.740	Peak	24.93	14.78	39.71	46.00	-6.29
6	395.690	Peak	18.47	18.12	36.59	46.00	-9.41
7	460.680	Peak	14.34	19.71	34.05	46.00	-11.95

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
8	526.640	Peak	18.45	20.99	39.44	46.00	-6.56

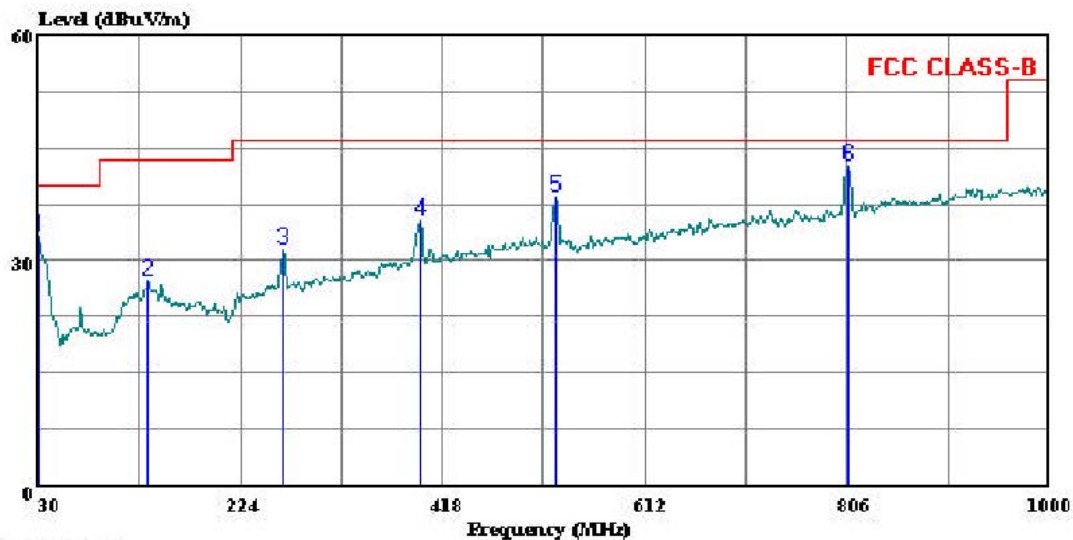
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)

VERTICAL PLOT



561F Monterey Road
San Jose, CA 95131
Tel: (408) 463-0888
Fax: (408) 463-0885

Data#: 2 File#: Intel-EMC.EMI Date: 07-02-2004 Time: 20:50:30



(Auxiliary ATC)

Trace: 1

Ref Trace:

Condition: FCC CLASS-B SUNOL BILOG 12/22/04 VERTICAL
Test Operator: : William Zhuang
Project #: : 04U2790
Company: : INTEL (RP)
EUT: : 802.11 a/b/g Mini PCI type 3B Card,
: 300M WNC Ant. Undocked
Model No: : WM3B2195ABG=Intel Card
Configuration: : EUT stand alone
Target of Test: : FCC Class B
Mode of Operation: TX at worst case

VERTICAL DATA

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
1	30.000	Peak	10.41	22.95	33.36	40.00	-6.64
2	135.730	Peak	11.97	15.39	27.36	43.50	-16.14
3	264.740	Peak	16.68	14.78	31.46	46.00	-14.54
4	396.660	Peak	17.22	18.14	35.35	46.00	-10.65
5	526.640	Peak	17.47	20.99	38.46	46.00	-7.54
6	807.940	Peak	17.59	25.08	42.67	46.00	-3.33

**7.8.11. WORST-CASE RADIATED EMISSIONS BELOW 1 GHz,
INSPIRON 300M LAPTOP WITH HITACHI ANTENNA SET**

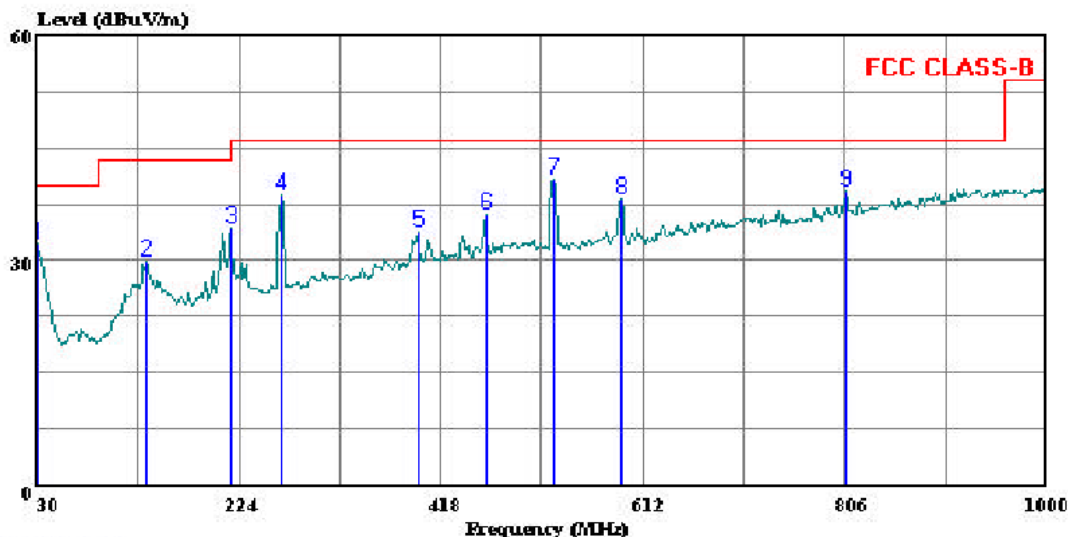
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



561F Monterey Road
San Jose, CA 95131
Tel: (408) 463-0888
Fax: (408) 463-0885

Data#: 6 File#: Intel-EMC.EMI Date: 07-02-2004 Time: 21:16:08



Trace: 5

Ref Trace:

Condition: FCC CLASS-B SUNOL BILOG 12/22/04 HORIZONTAL
Test Operator: : William Zhuang
Project #: : 04U2790
Company: : INTEL (RP)
EUT: : 802.11 a/b/g Mini PCI type 3B Card,
: 300M Hitachi Ant. Undocked
Model No: : WM3B2195ABG=Intel Card
Configuration: : EUT stand alone
Target of Test: : FCC Class B
Mode of Operation: TX at worst case

HORIZONTAL DATA

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
1	30.000	Peak	9.25	22.95	32.20	40.00	-7.80
2	135.730	Peak	14.57	15.39	29.96	43.50	-13.54
3	216.240	Peak	21.43	12.91	34.34	46.00	-11.66
4	264.740	Peak	24.02	14.78	38.80	46.00	-7.20
5	395.690	Peak	15.63	18.12	33.75	46.00	-12.25
6	460.680	Peak	16.32	19.71	36.03	46.00	-9.97
7	525.670	Peak	19.68	20.97	40.66	46.00	-5.34

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
8	590.660	Peak	16.21	21.86	38.07	46.00	-7.93
9	807.940	Peak	14.22	25.08	39.30	46.00	-6.70

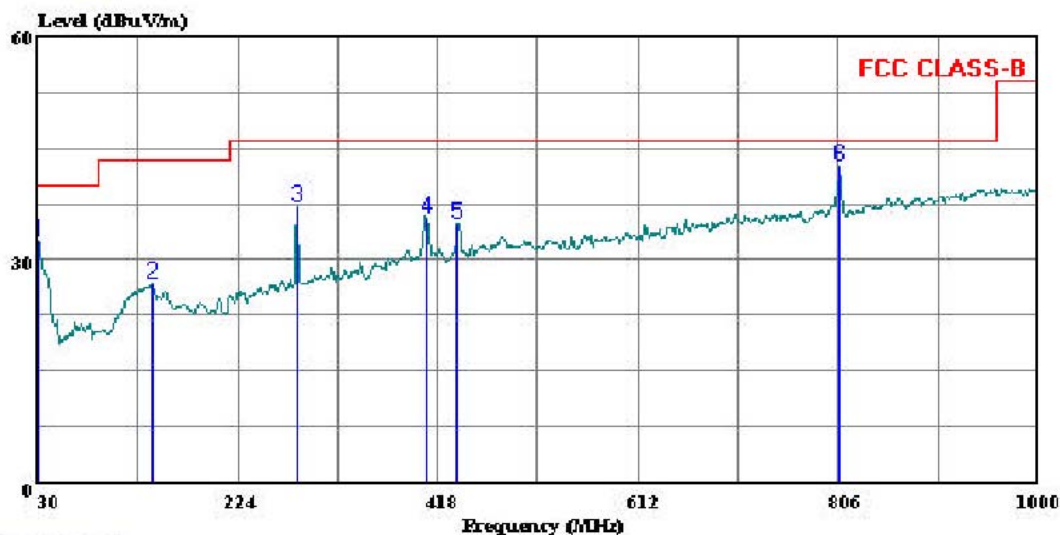
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)

VERTICAL PLOT



561F Monterey Road
San Jose, CA 95131
Tel: (408) 463-0888
Fax: (408) 463-0885

Data#: 8 File#: Intel-EMC.EMI Date: 07-02-2004 Time: 21:25:29



(Auxiliary ATC)

Trace: 7

Ref Trace:

Condition: FCC CLASS-B SUNOL BILOG 12/22/04 VERTICAL
Test Operator: : William Zhuang
Project #: : 04U2790
Company: : INTEL (RP)
EUT: : 802.11 a/b/g Mini PCI type 3B Card,
: 300M Hitachi Ant. Undocked
Model No: : WM3B2195ABG=Intel Card
Configuration: : EUT stand alone
Target of Test: : FCC Class B
Mode of Operation: TX t worst case

VERTICAL DATA

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
1	30.970	Peak	9.55	22.95	32.50	40.00	-7.50
2	140.580	Peak	11.42	15.23	26.65	43.50	-16.85
3	281.230	Peak	21.68	15.47	37.15	46.00	-8.86
4	406.360	Peak	17.24	18.36	35.60	46.00	-10.40
5	437.400	Peak	15.70	19.14	34.84	46.00	-11.16
6	807.940	Peak	17.48	25.08	42.56	46.00	-3.44

7.9. POWERLINE CONDUCTED EMISSIONS

LIMIT

§15.207 (a) Except as shown in paragraphs (b) and (c) of 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 (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm 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 peak detection and quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

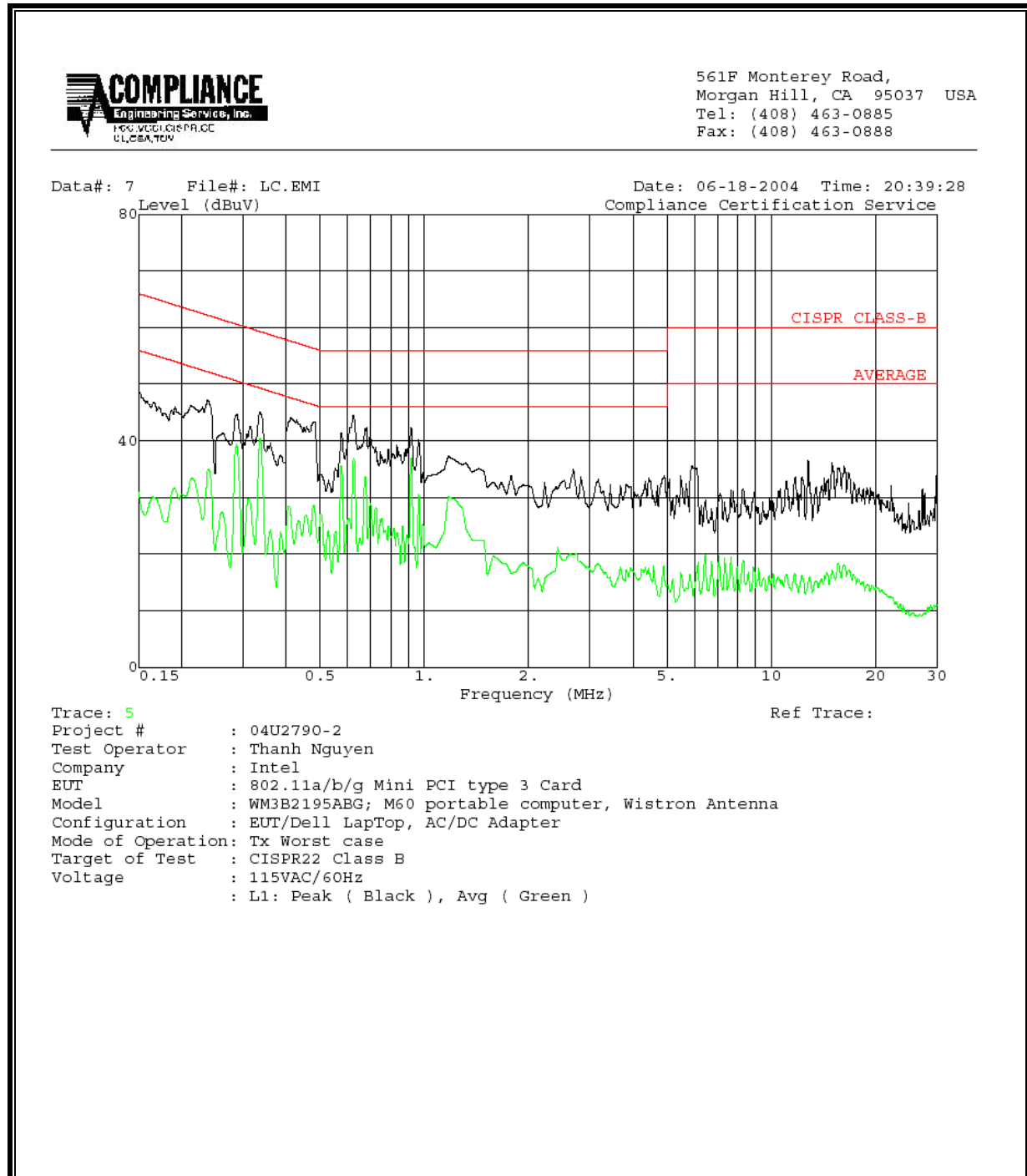
No non-compliance noted:

7.9.1. POWERLINE CONDUCTED EMISSIONS, PRECISION M60 LAPTOP WITH WISTRON ANTENNA SET

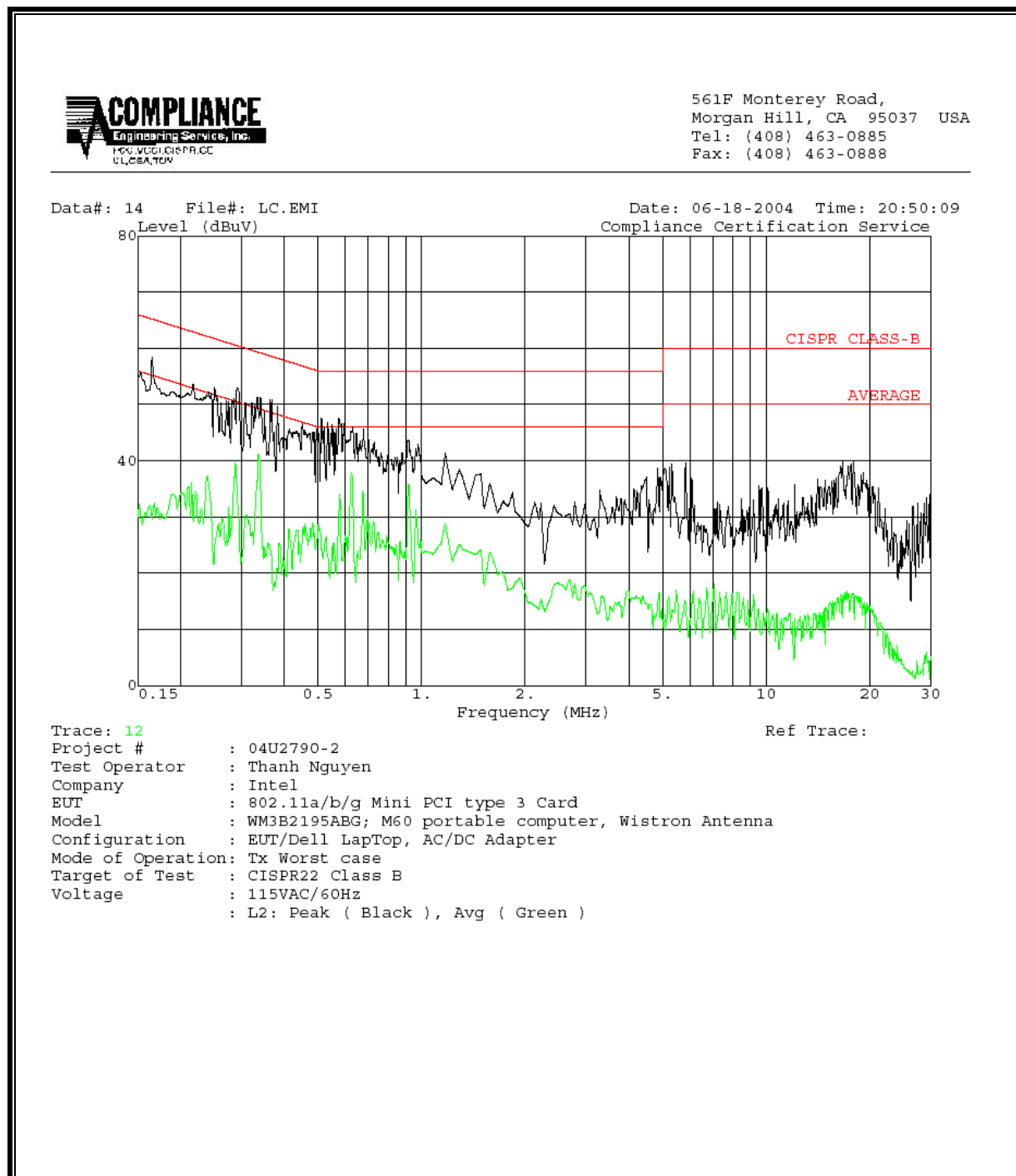
6 WORST EMISSIONS

CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	FCC B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.24	47.30	--	--	0.00	63.49	53.49	-16.19	-6.19	L1
0.62	44.44	--	--	0.00	56.00	46.00	-11.56	-1.56	L1
12.78	36.62	--	--	0.00	60.00	50.00	-23.38	-13.38	L1
0.17	58.38	--	32.51	0.00	65.57	55.57	-7.19	-23.06	L2
0.29	52.91	--	39.61	0.00	61.94	51.94	-9.03	-12.33	L2
0.58	47.52	--	33.94	0.00	56.00	46.00	-8.48	-12.06	L2
6 Worst Data									

LINE 1 RESULTS



LINE 2 RESULTS



7.9.2. POWERLINE CONDUCTED EMISSIONS, PRECISION M60 LAPTOP WITH HITACHI ANTENNA SET

6 WORST EMISSIONS

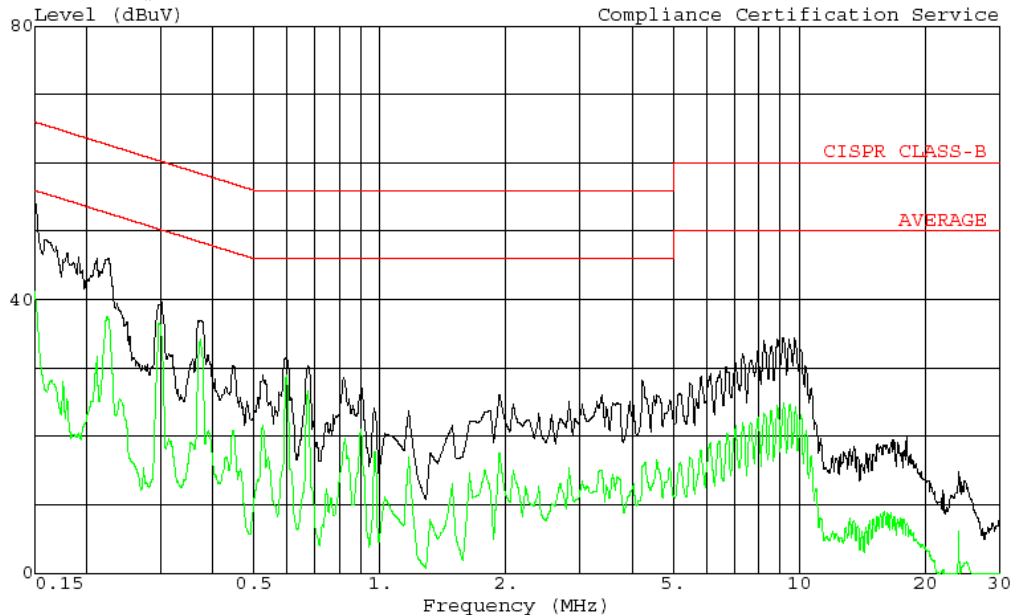
CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	EN B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.16	57.58	--	30.75	0.00	65.74	55.74	-8.16	-24.99	L1
0.60	40.48	--	--	0.00	56.00	46.00	-15.52	-5.52	L1
0.91	36.96	--	--	0.00	56.00	46.00	-19.04	-9.04	L1
0.32	42.40	--	--	0.00	61.20	51.20	-18.80	-8.80	L2
0.60	40.40	--	--	0.00	56.00	46.00	-15.60	-5.60	L2
0.91	38.04	--	--	0.00	56.00	46.00	-17.96	-7.96	L2
6 Worst Data									

LINE 1 RESULTS



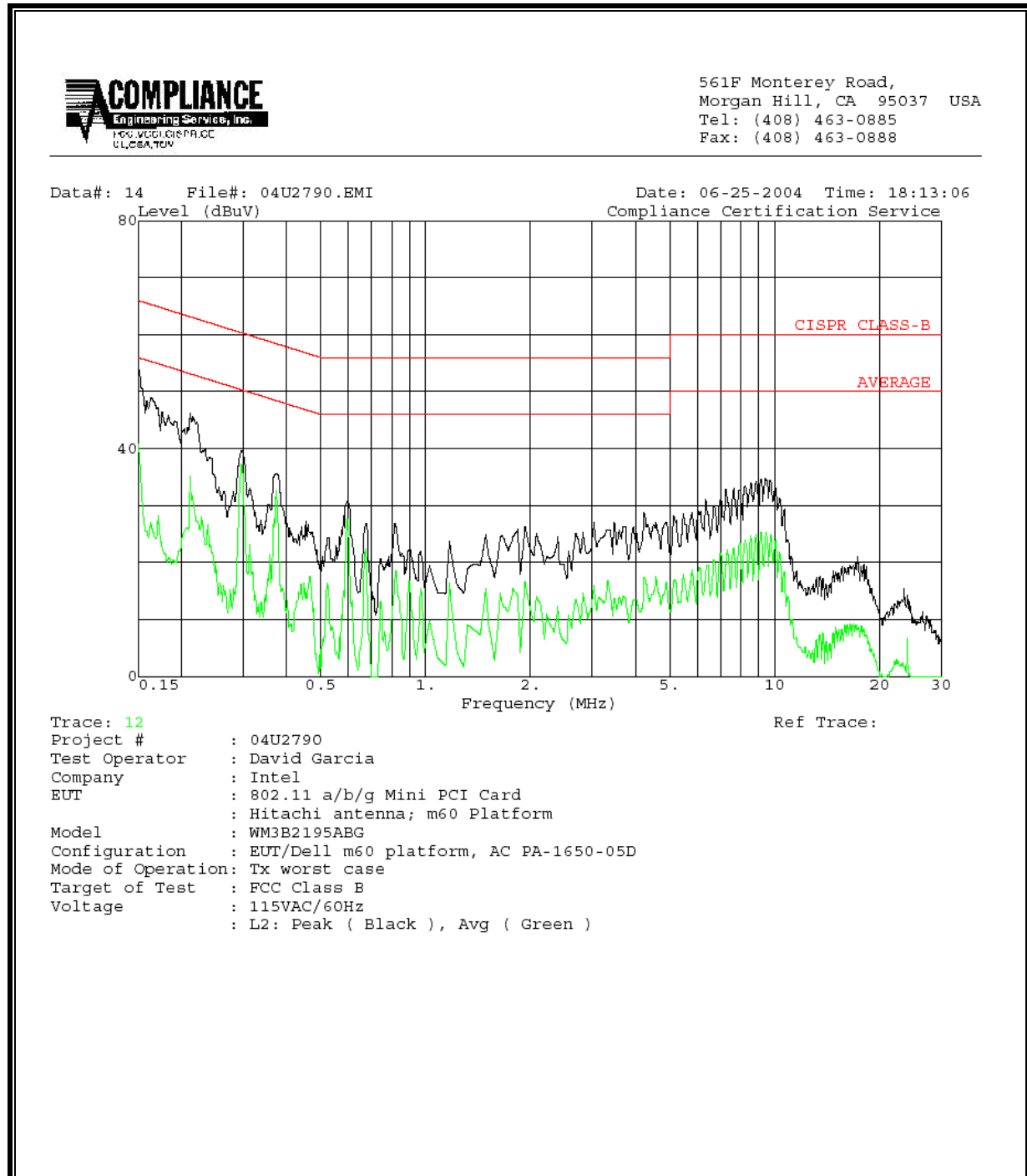
561F Monterey Road,
Morgan Hill, CA 95037 USA
Tel: (408) 463-0885
Fax: (408) 463-0888

Data#: 7 File#: 04U2790.EMI Date: 06-25-2004 Time: 17:57:43
Level (dBuV) Compliance Certification Service



Trace: 5
Project # : 04U2790
Test Operator : David Garcia
Company : Intel
EUT : 802.11 a/b/g Mini PCI Card; Hitachi antenna; m60 Platform
Model : WM3B2195ABG
Configuration : EUT/Dell m60 platform, AC PA-1650-05D
Mode of Operation: Tx worst case
Target of Test : FCC Class B
Voltage : 115VAC/60Hz
Ref Trace:
L1: Peak (Black), Avg (Green)

LINE 2 RESULTS

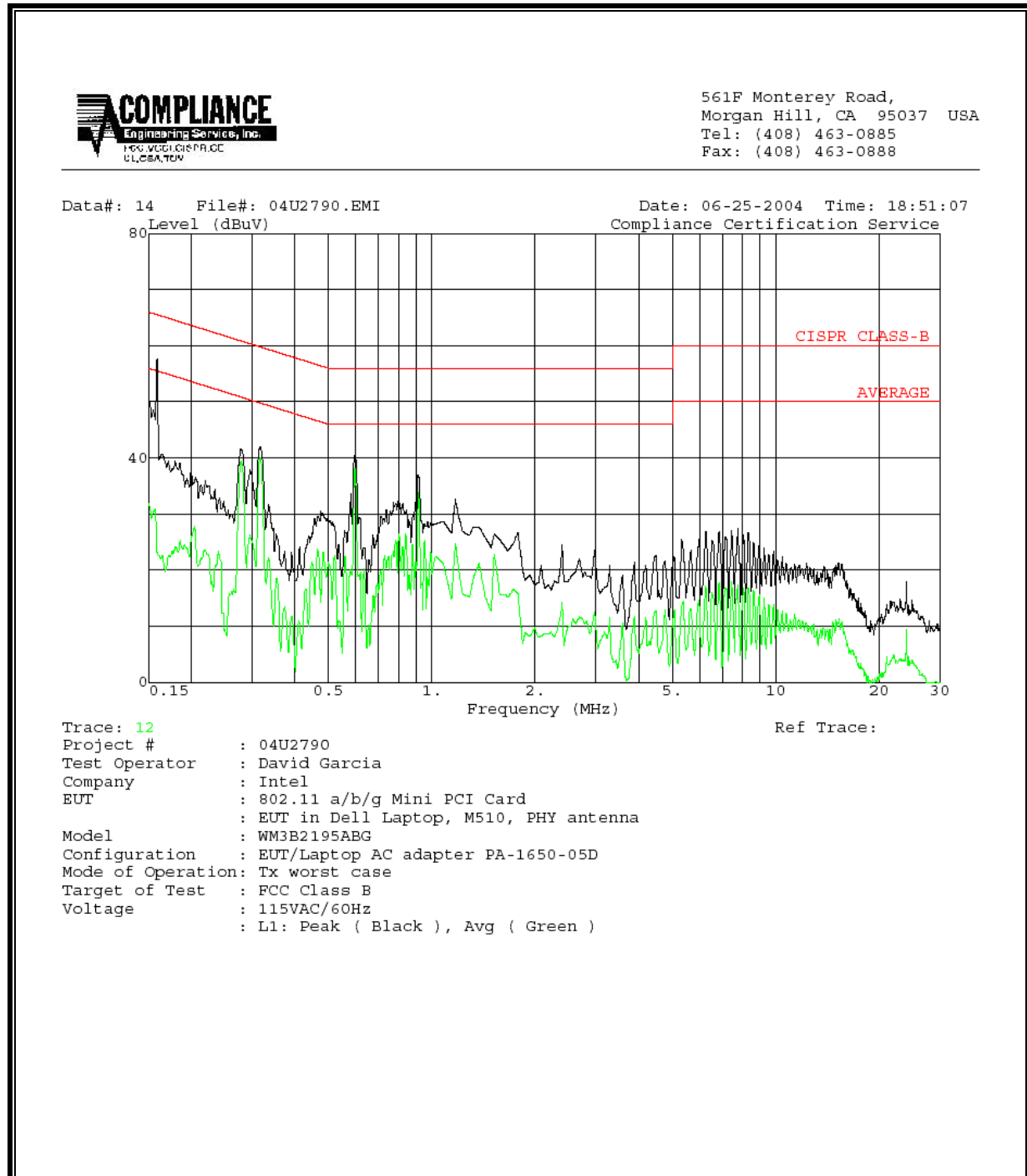


7.9.3. POWERLINE CONDUCTED EMISSIONS, INSPIRON 510M LAPTOP WITH PHYCOMP ANTENNA SET

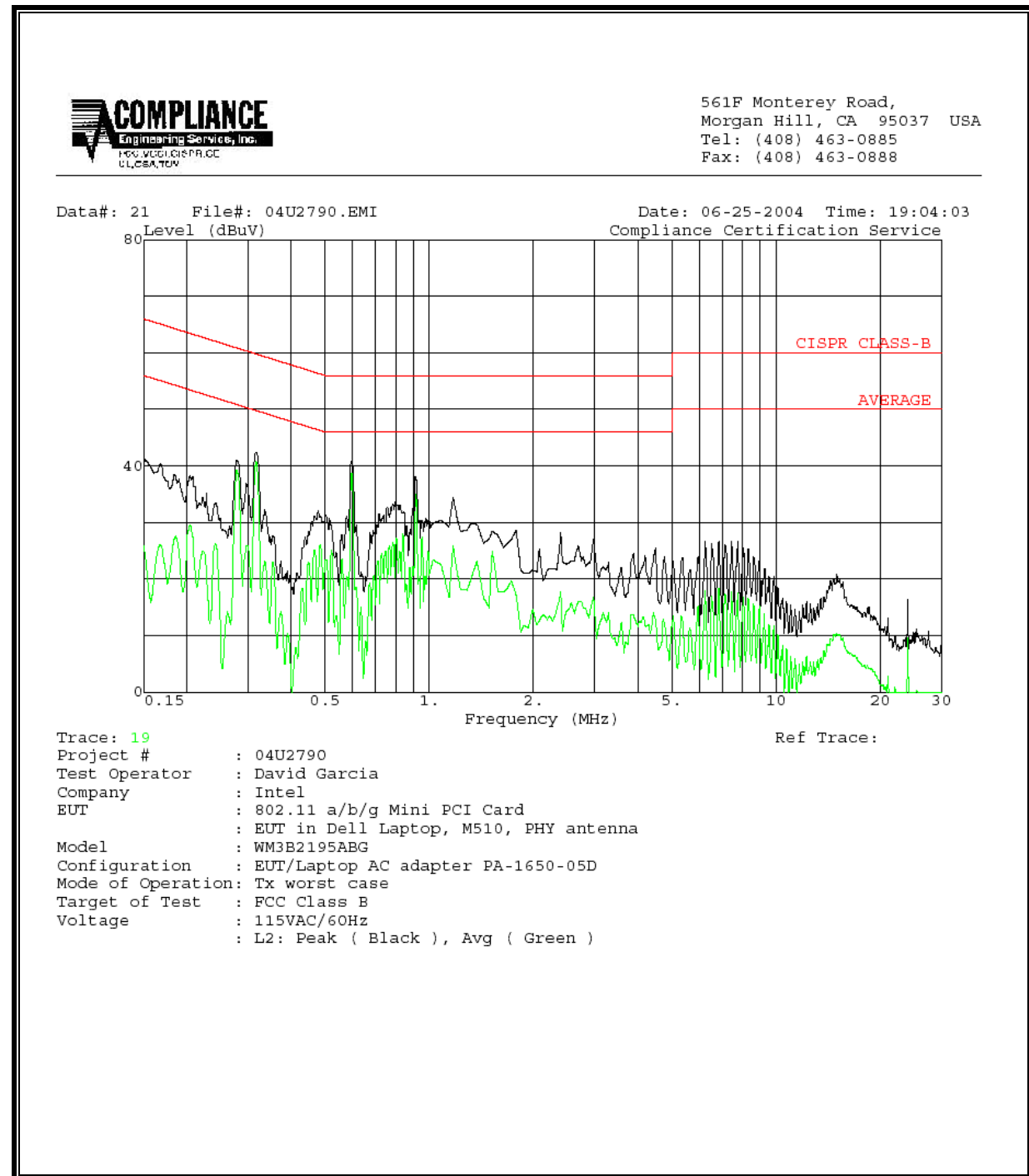
6 WORST EMISSIONS

CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	EN B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.16	57.58	--	30.75	0.00	65.74	55.74	-8.16	-24.99	L1
0.60	40.48	--	--	0.00	56.00	46.00	-15.52	-5.52	L1
0.91	36.96	--	--	0.00	56.00	46.00	-19.04	-9.04	L1
0.32	42.40	--	--	0.00	61.20	51.20	-18.80	-8.80	L2
0.60	40.40	--	--	0.00	56.00	46.00	-15.60	-5.60	L2
0.91	38.04	--	--	0.00	56.00	46.00	-17.96	-7.96	L2
6 Worst Data									

LINE 1 RESULTS



LINE 2 RESULTS



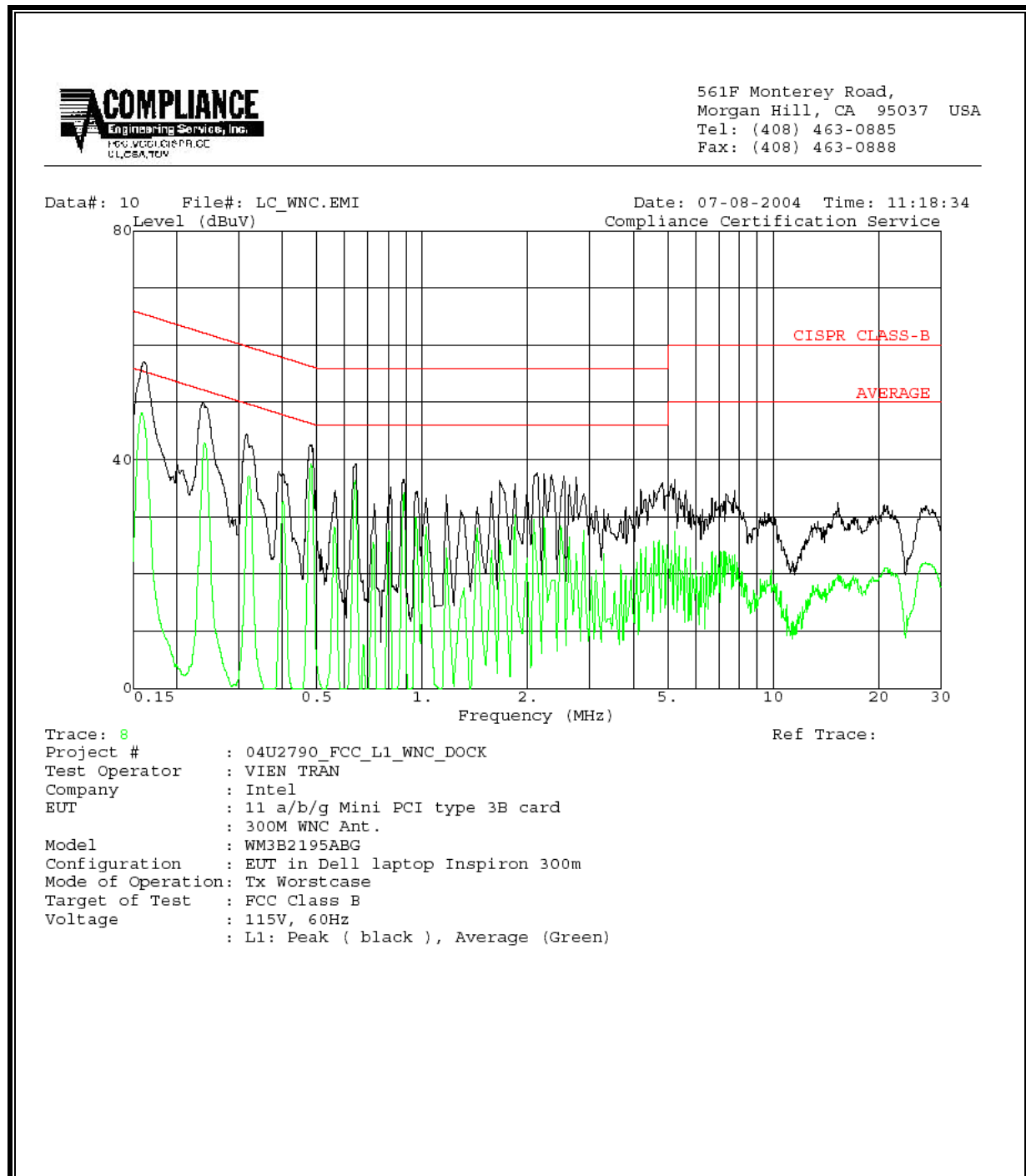
7.9.4. POWERLINE CONDUCTED EMISSIONS, INSPIRON 3000M LAPTOP WITH WISTRON ANTENNA SET

Note: The worst-case configuration is with the EUT docked.

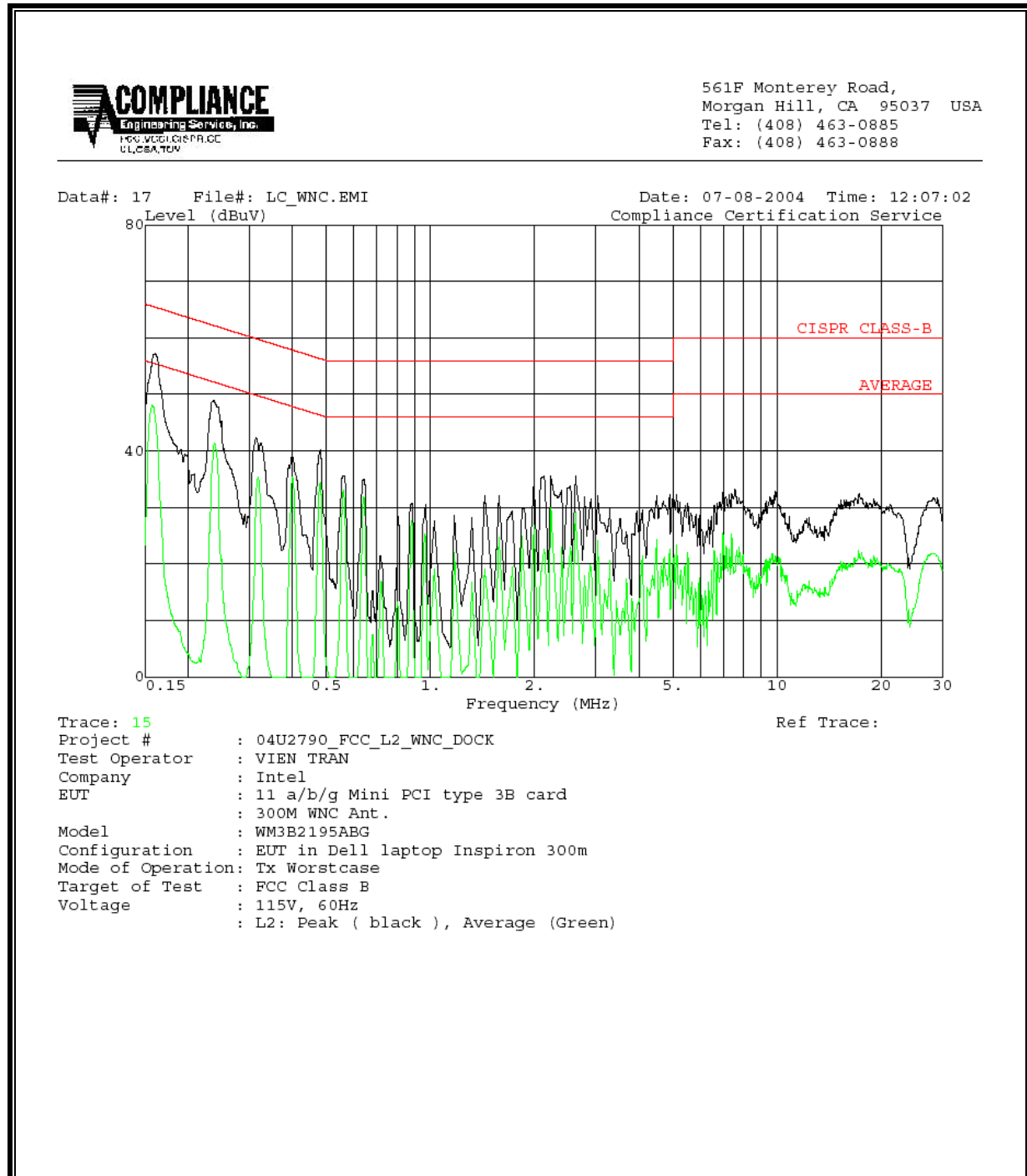
6 WORST EMISSIONS

CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	EN_B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.16	57.14	--	48.24	0.00	65.71	55.71	-8.57	-7.47	L1
0.64	33.22	--	36.37	0.00	56.00	46.00	-22.78	-9.63	L1
5.22	36.76	--	27.35	0.00	60.00	50.00	-23.24	-22.65	L1
0.16	57.18	--	48.03	0.00	65.71	55.71	-8.53	-7.68	L2
2.26	36.18	--	31.03	0.00	56.00	46.00	-19.82	-14.97	L2
7.49	33.42	--	24.40	0.00	60.00	50.00	-26.58	-25.60	L2
6 Worst Data									

LINE 1 RESULTS



LINE 2 RESULTS



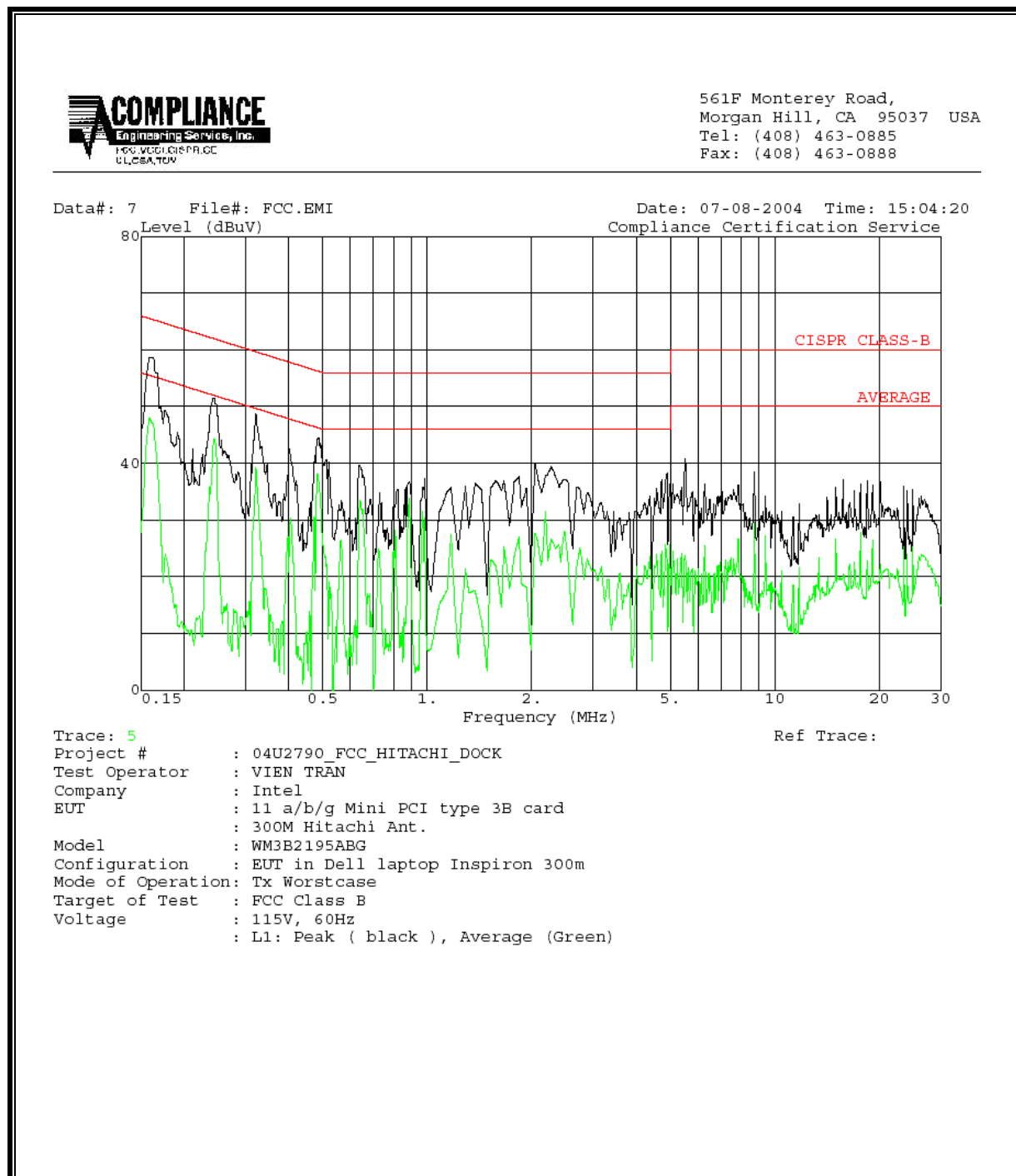
7.9.5. POWERLINE CONDUCTED EMISSIONS, INSPIRON 3000M LAPTOP WITH HITACHI ANTENNA SET

Note: The worst-case configuration is with the EUT undocked.

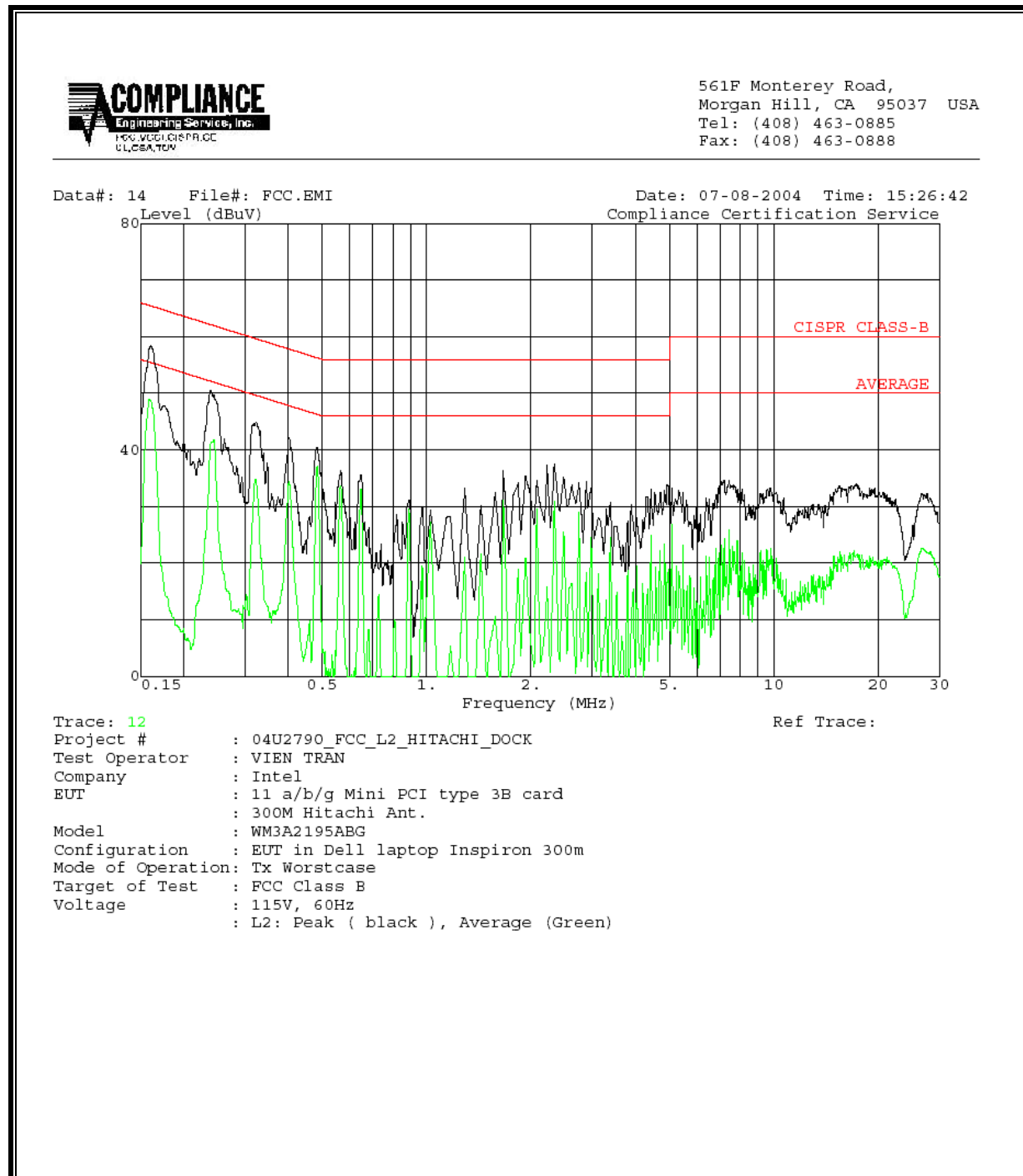
6 WORST EMISSIONS

CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	EN_B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.16	58.64	--	47.92	0.00	65.71	55.71	-7.07	-7.79	L1
0.63	40.00	--	33.47	0.00	56.00	46.00	-16.00	-12.53	L1
8.78	40.76	--	29.24	0.00	60.00	50.00	-19.24	-20.76	L1
0.16	58.46	--	48.94	0.00	65.71	55.71	-7.25	-6.77	L2
2.31	38.96	--	33.80	0.00	56.00	46.00	-17.04	-12.20	L2
8.78	35.66	--	26.80	0.00	60.00	50.00	-24.34	-23.20	L2
6 Worst Data									

LINE 1 RESULTS

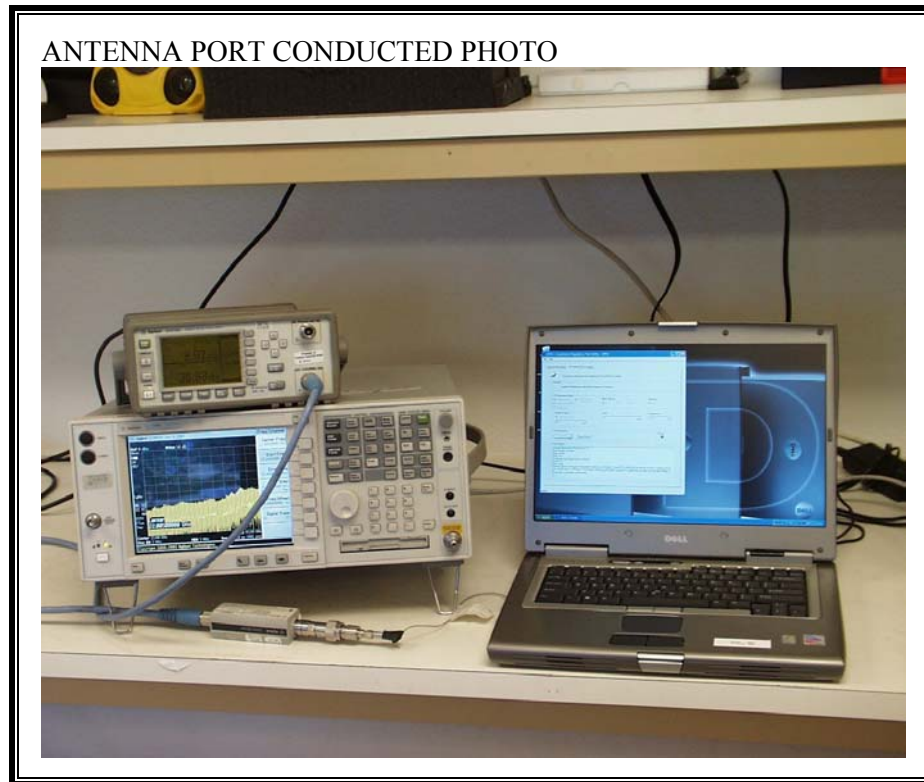


LINE 2 RESULTS



8. SETUP PHOTOS

8.1. ANTENNA PORT CONDUCTED RF MEASUREMENT SETUP



8.2. PRECISION M60 LAPTOP WITH WISTRON ANTENNA SET

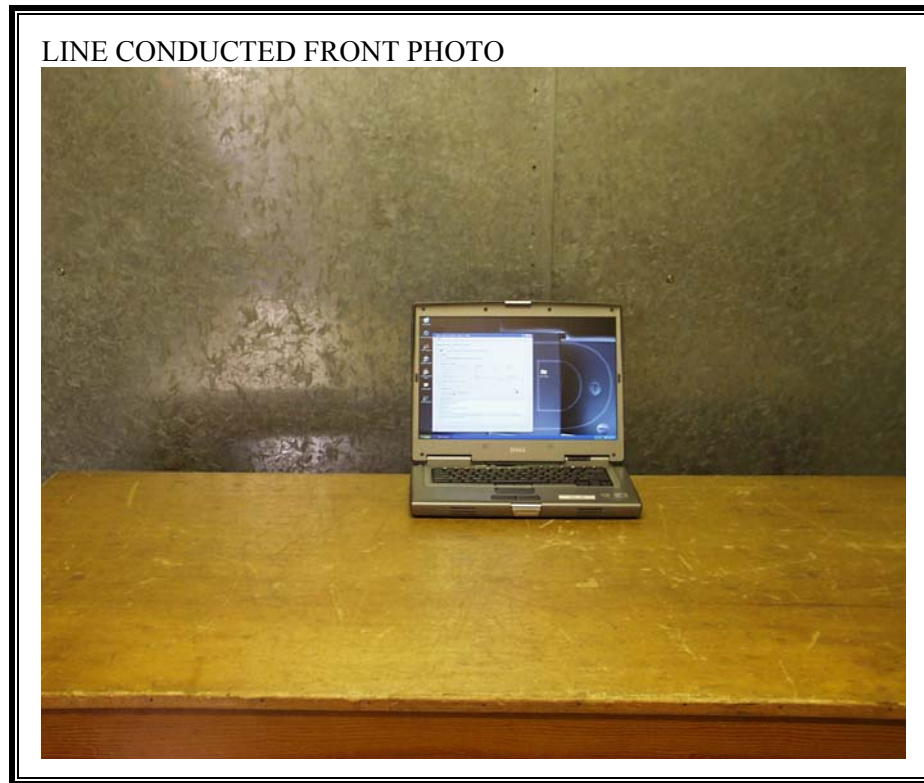
RADIATED RF MEASUREMENT SETUP



RADIATED BACK PHOTO



POWERLINE CONDUCTED EMISSIONS MEASUREMENT SETUP



LINE CONDUCTED BACK PHOTO



8.3. PRECISION M60 LAPTOP WITH HITACHI ANTENNA SET

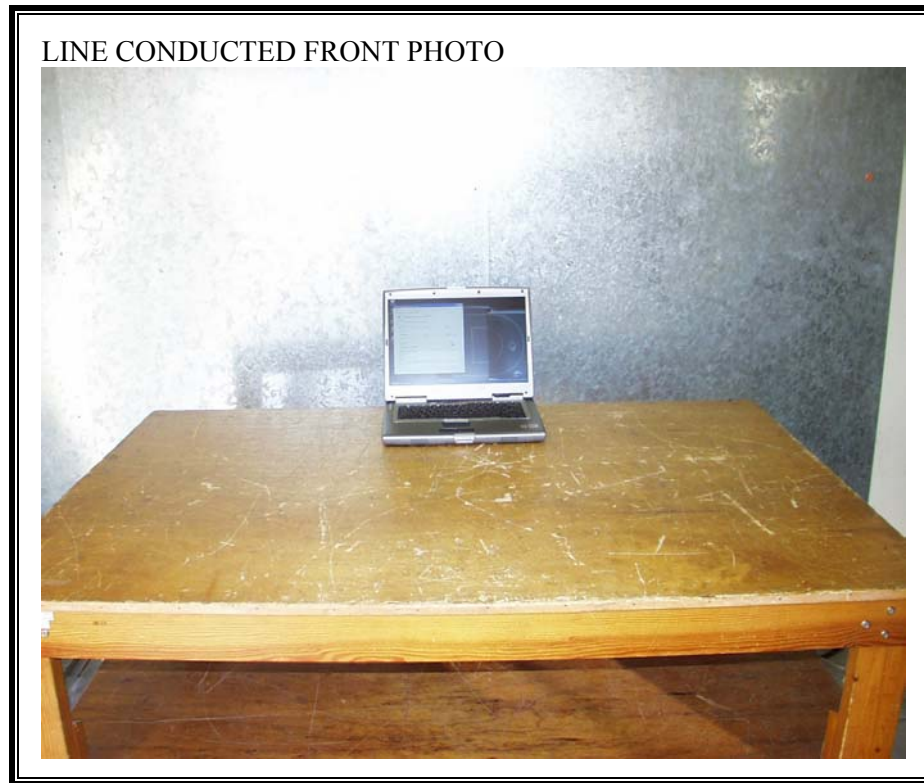
RADIATED RF MEASUREMENT SETUP



RADIATED BACK PHOTO



POWERLINE CONDUCTED EMISSIONS MEASUREMENT SETUP

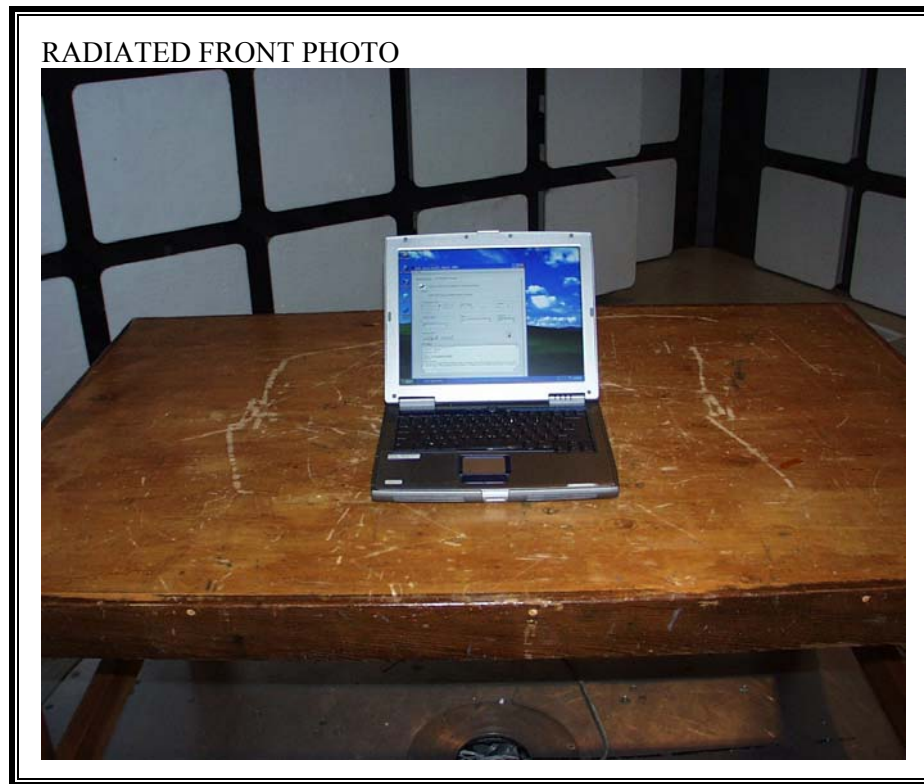


LINE CONDUCTED BACK PHOTO

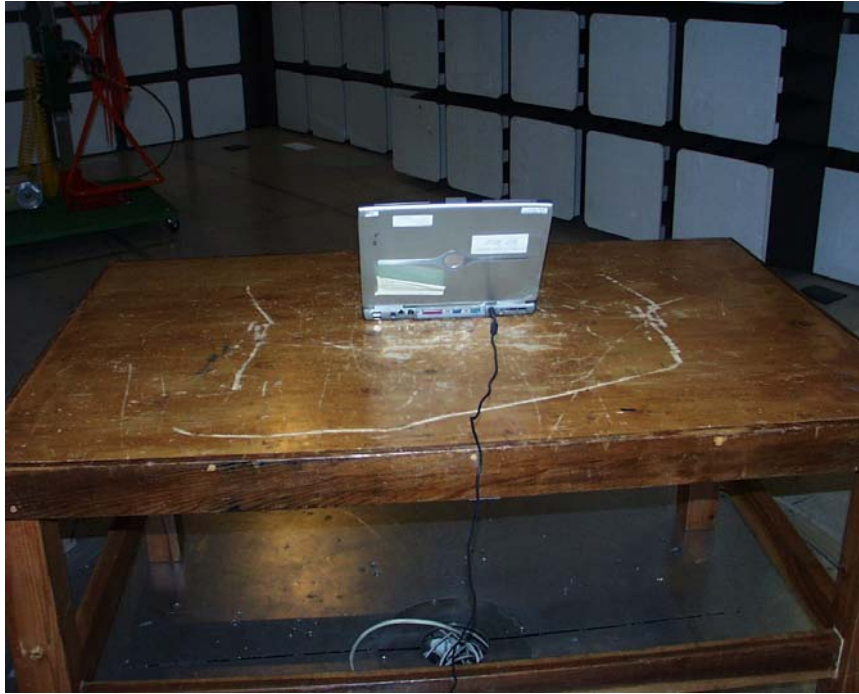


8.4. INSPIRON 510M LAPTOP WITH PHYCOMP ANTENNA SET

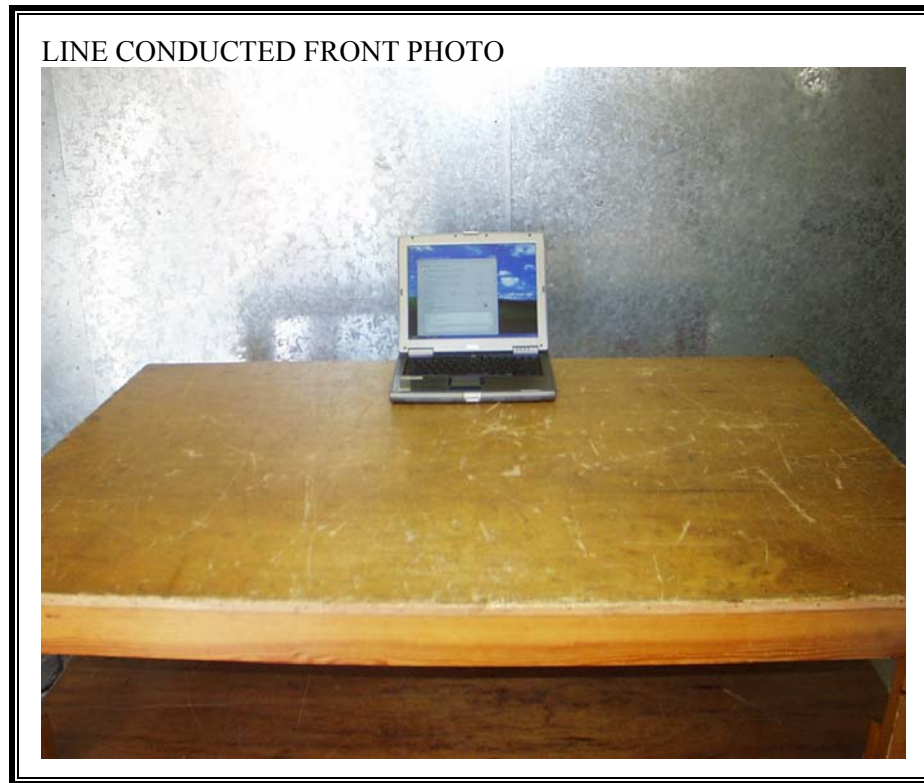
RADIATED RF MEASUREMENT SETUP



RADIATED BACK PHOTO



POWERLINE CONDUCTED EMISSIONS MEASUREMENT SETUP



LINE CONDUCTED BACK PHOTO



8.5. INSPIRON 300M LAPTOP WITH WISTRON ANTENNA SET

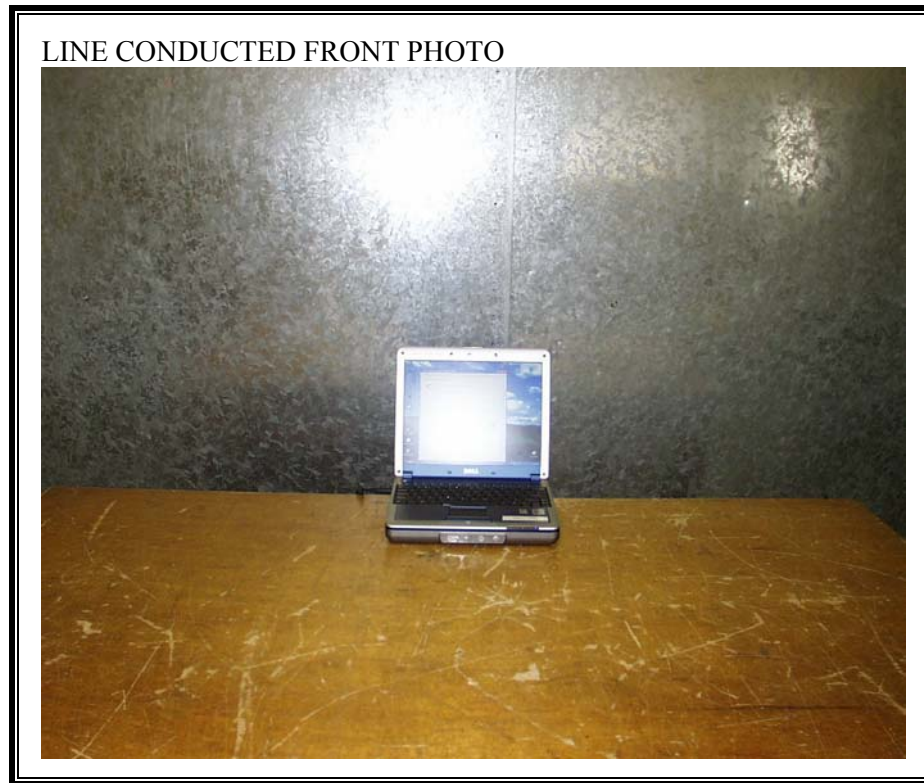
RADIATED RF MEASUREMENT SETUP

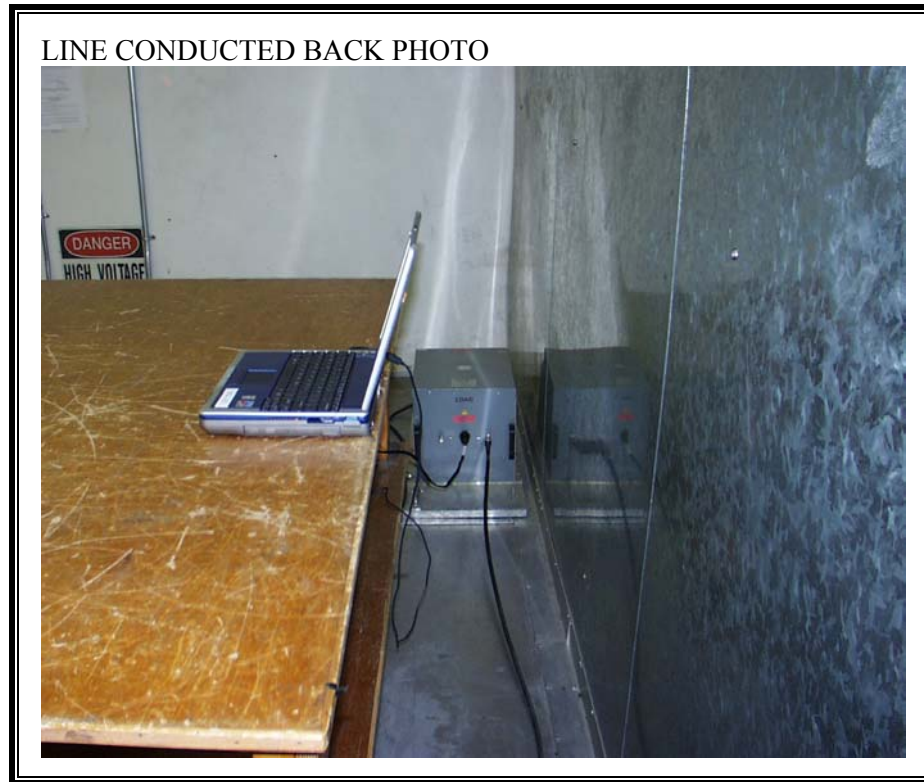


RADIATED BACK PHOTO



POWERLINE CONDUCTED EMISSIONS MEASUREMENT SETUP

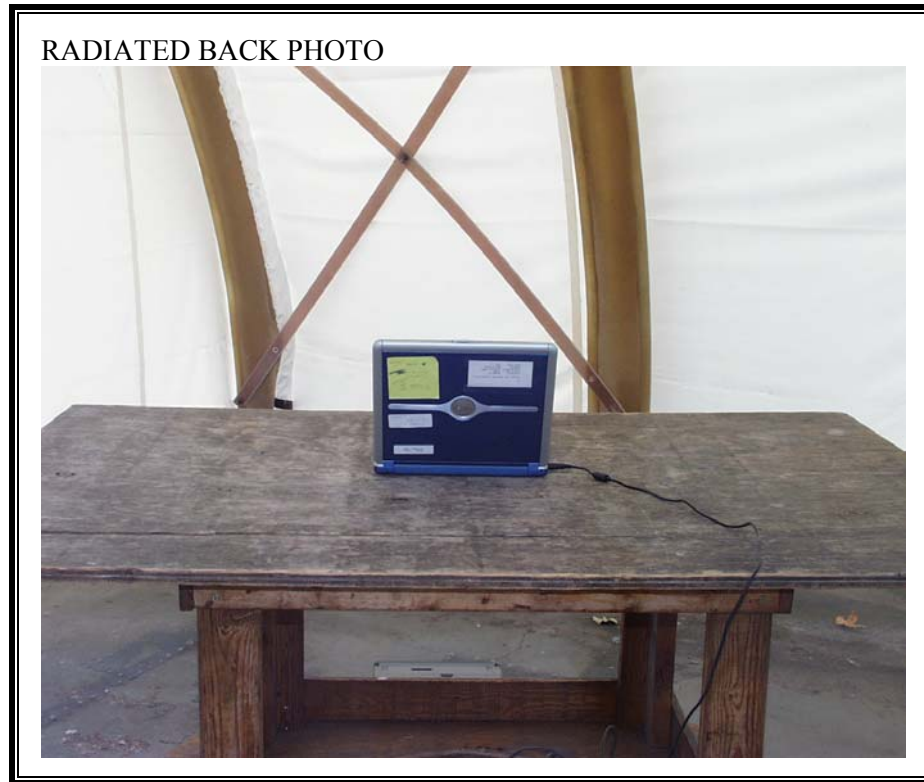




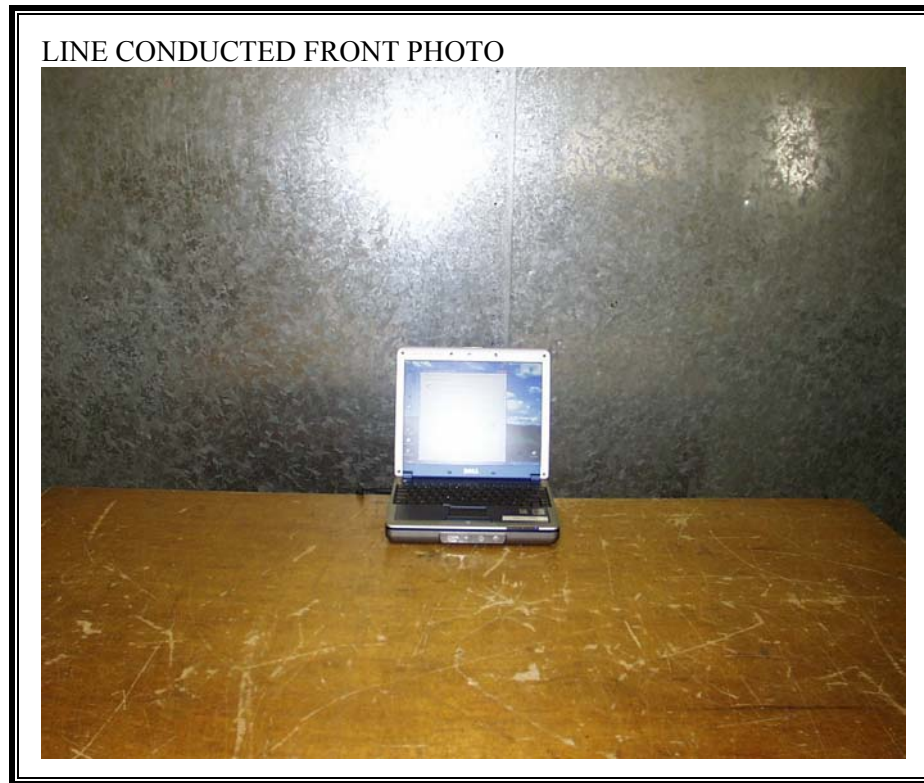
8.6. INSPIRON 300M LAPTOP WITH HITACHI ANTENNA SET

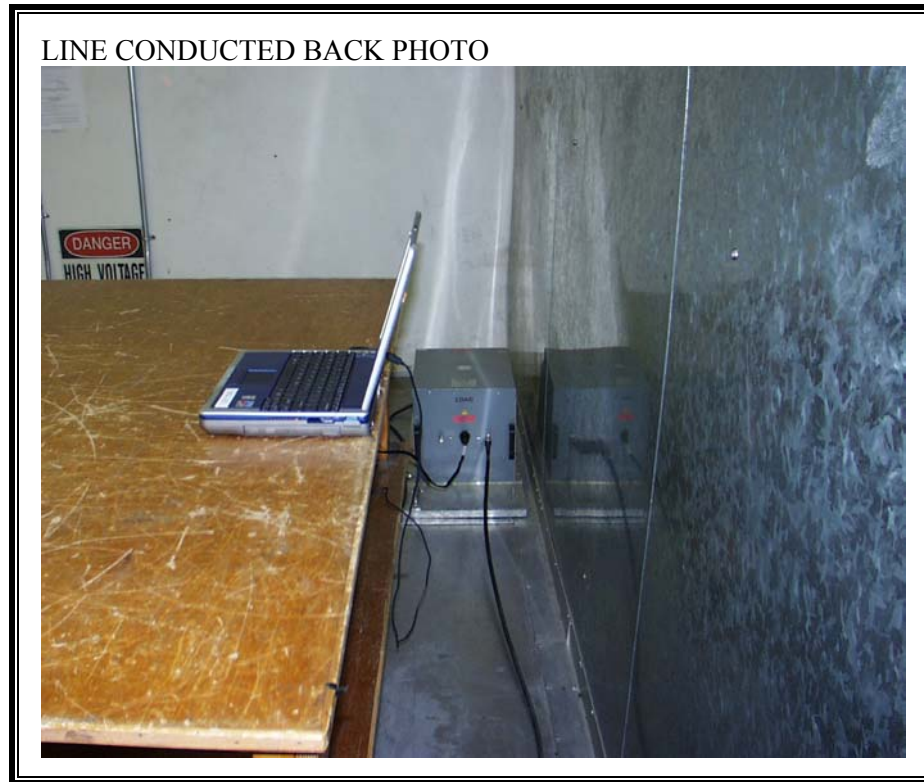
RADIATED RF MEASUREMENT SETUP





POWERLINE CONDUCTED EMISSIONS MEASUREMENT SETUP





END OF REPORT