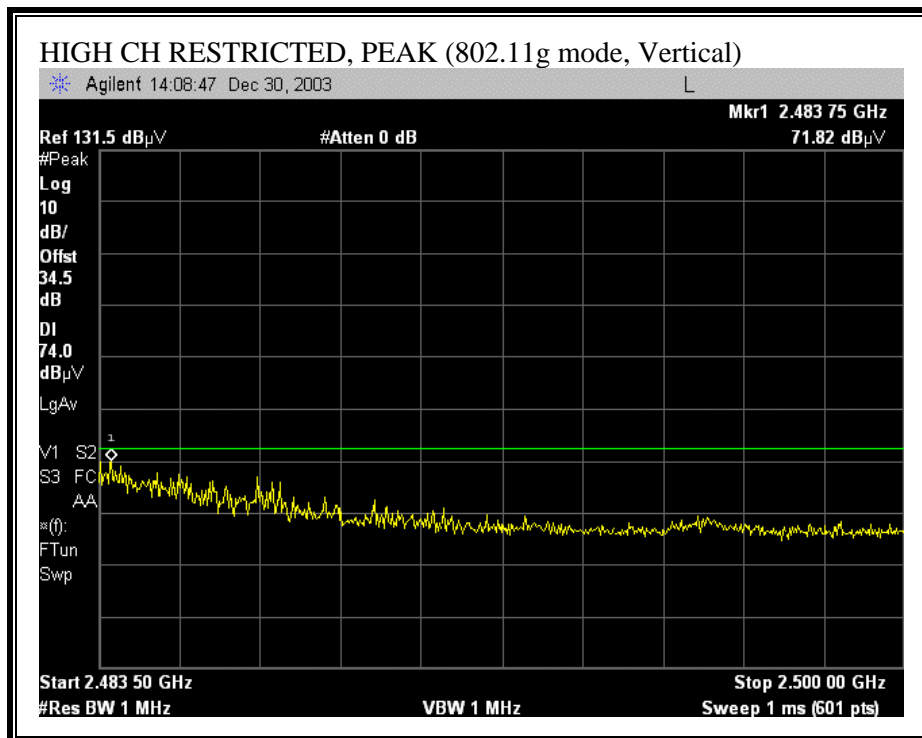
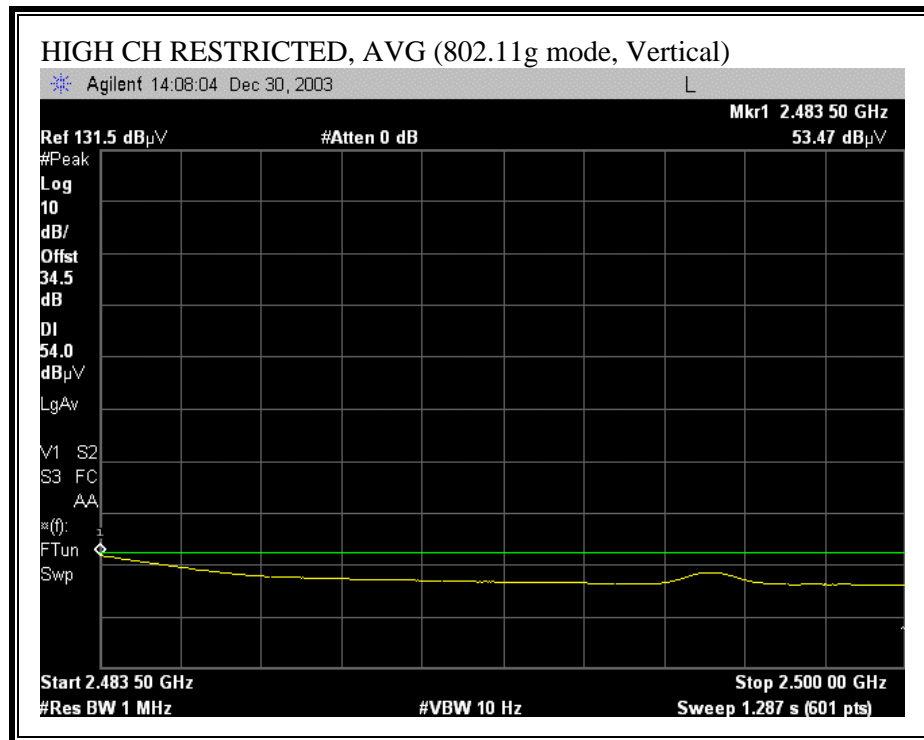


RESTRICTED BANDEDGE (g MODE, HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS (g MODE)

12/29/03 High Frequency Measurement															
Compliance Certification Services, Morgan Hill Open Field Site															
Test Engn: NEELESH RAJ															
Project #: 03U2433															
Company: HEWLETT PACKARD															
EUT Descrip.: 802.11 A/B/G J07H069.01															
EUT M/N: N30100 (HP TRIMAX)															
Test Target: FCC															
Mode Oper: TX (NORMAL)															
Test Equipment:															
EMCO Horn 1-18GHz		Pre-amplifier 1-26GHz		Spectrum Analyzer		Horn > 18GHz		Limit							
T60; S/N: 2238 @3m		T63 Minreq 646456		Agilent E4446A Analyzer				FCC 15.205							
Hi Frequency Cables															
<input type="checkbox"/> (2 ft) <input checked="" type="checkbox"/> (2 ~ 3 ft) <input type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)															
Peak Measurements: 1 MHz Resolution Bandwidth 1 MHz Video Bandwidth															
Average Measurements: 1 MHz Resolution Bandwidth 10 Hz Video Bandwidth															
f	Dist	Read Pk	Read Avg	AF	CL	Amp	D Corr	HPF	Peak	Avg	Pk Lim	Avg Lim	Pk Mar	Avg Mar	Notes
GHz	feet	dBuV	dBuV	dB/m	dB	dB	dB		dBuV/m	dBuV/m	dBuV/m	dBuV/m	dB	dB	
LOW CHANNEL (2412MHz)(G)															
4.824	9.8	42.4	34.0	33.1	2.9	-35.3	0.0	1.0	44.1	35.7	74.0	54.0	-29.9	-18.3	V (NOISE FLOOR)
4.824	9.8	42.9	34.1	33.1	2.9	-35.3	0.0	1.0	44.6	35.8	74.0	54.0	-29.4	-18.2	H (NOISE FLOOR)
12.060	9.8	41.0	31.4	39.3	5.1	-34.9	0.0	1.0	51.5	41.9	74.0	54.0	-22.5	-12.1	V (NOISE FLOOR)
12.060	9.8	40.7	31.5	39.3	5.1	-34.9	0.0	1.0	51.2	42.0	74.0	54.0	-22.8	-12.0	H (NOISE FLOOR)
MIDDLE CHANNEL (2437MHz)(G)															
4.874	9.8	42.4	34.2	33.1	3.0	-35.3	0.0	1.0	44.2	36.0	74.0	54.0	-29.8	-18.0	V (NOISE FLOOR)
4.874	9.8	42.2	34.4	33.1	3.0	-35.3	0.0	1.0	44.0	36.2	74.0	54.0	-30.0	-17.8	H (NOISE FLOOR)
7.311	9.8	38.1	32.0	36.2	3.8	-34.6	0.0	1.0	44.5	38.4	74.0	54.0	-29.5	-15.6	V (NOISE FLOOR)
7.311	9.8	38.9	31.3	36.2	3.8	-34.6	0.0	1.0	45.3	37.7	74.0	54.0	-28.7	-16.3	H (NOISE FLOOR)
12.185	9.8	40.3	31.3	39.4	5.2	-35.1	0.0	1.0	50.7	41.7	74.0	54.0	-23.3	-12.3	V (NOISE FLOOR)
12.185	9.8	40.9	31.4	39.4	5.2	-35.1	0.0	1.0	51.3	41.8	74.0	54.0	-22.7	-12.2	H (NOISE FLOOR)
HIGH CHANNEL (2462MHz)(G)															
4.924	9.8	42.0	34.0	33.2	3.0	-35.3	0.0	1.0	43.8	35.8	74.0	54.0	-30.2	-18.2	V (NOISE FLOOR)
4.924	9.8	42.3	34.4	33.2	3.0	-35.3	0.0	1.0	44.1	36.2	74.0	54.0	-29.9	-17.8	H (NOISE FLOOR)
7.386	9.8	43.0	32.0	36.3	3.8	-34.5	0.0	1.0	49.6	38.6	74.0	54.0	-24.4	-15.4	V (NOISE FLOOR)
7.386	9.8	42.1	31.2	36.3	3.8	-34.5	0.0	1.0	48.7	37.8	74.0	54.0	-25.3	-16.2	H (NOISE FLOOR)
12.310	9.8	38.0	31.0	39.4	5.2	-35.3	0.0	1.0	48.3	41.3	74.0	54.0	-25.7	-12.7	V (NOISE FLOOR)
12.310	9.8	38.0	31.3	39.4	5.2	-35.3	0.0	1.0	48.3	41.6	74.0	54.0	-25.7	-12.4	H (NOISE FLOOR)
NO OTHER SPURIOUS EMISSIONS DETECTED ABOVE THE SYSTEM NOISE FLOOR															
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 (g TURBO MODE)

12/29/03 High Frequency Measurement																
Compliance Certification Services, Morgan Hill Open Field Site																
Test Engr: NEELESH RAJ																
Project #: 03U2433																
Company: HEWLETT PACKARD																
EUT Descrip.: 802.11 A/B/G J07H069.01																
EUT M/N: NX9100 (HP TRUMAN)																
Test Target: FCC																
Mode Oper: TX(NORMAL)																
Test Equipment:																
EMCO Horn 1-18GHz		Pre-amplifier 1-26GHz		Spectrum Analyzer		Horn > 18GHz		Limit								
T60; S/N: 2238 @3m		T63 Miteq 646456		Agilent E4446A Analyzer				FCC 15.205								
Hi Frequency Cables																
<input type="checkbox"/> (2 ft) <input checked="" type="checkbox"/> (2 ~ 3 ft) <input type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)																
Peak Measurements: Average Measurements:																
1 MHz Resolution Bandwidth 1 MHz Resolution Bandwidth																
1MHz Video Bandwidth 10Hz Video Bandwidth																
f	Dist	Read Pk	Read Avg	AF	CL	Amp	D Corr	HPF	Peak	Avg	Pk Lim	Avg Lim	Pk Mar	Avg Mar	Notes	
GHz	feet	dBuV	dBuV	dB/m	dB	dB	dB		dBuV/m	dBuV/m	dBuV/m	dBuV/m	dB	dB		
MIDDLE CHANNEL (2437MHz)(G TURBO)																
4.874	9.8	43.7	34.0	33.1	3.0	-35.3	0.0	1.0	45.4	35.8	74.0	54.0	-28.6	-18.2	V(NOISE FLOOR)	
4.874	9.8	42.1	34.7	33.1	3.0	-35.3	0.0	1.0	43.9	36.5	74.0	54.0	-30.1	-17.5	H(NOISE FLOOR)	
7.311	9.8	39.3	31.2	36.2	3.8	-34.6	0.0	1.0	45.7	37.6	74.0	54.0	-28.3	-16.4	V(NOISE FLOOR)	
7.311	9.8	39.7	31.5	36.2	3.8	-34.6	0.0	1.0	46.1	37.9	74.0	54.0	-27.9	-16.1	H(NOISE FLOOR)	
12.185	9.8	41.2	30.9	39.4	5.2	-35.1	0.0	1.0	51.6	41.3	74.0	54.0	-22.4	-12.7	V(NOISE FLOOR)	
12.185	9.8	41.4	31.0	39.4	5.2	-35.1	0.0	1.0	51.8	41.4	74.0	54.0	-22.2	-12.6	H(NOISE FLOOR)	
NO OTHER SPURIOUS EMISSIONS DETECTED ABOVE THE SYSTEM NOISE FLOOR																
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)

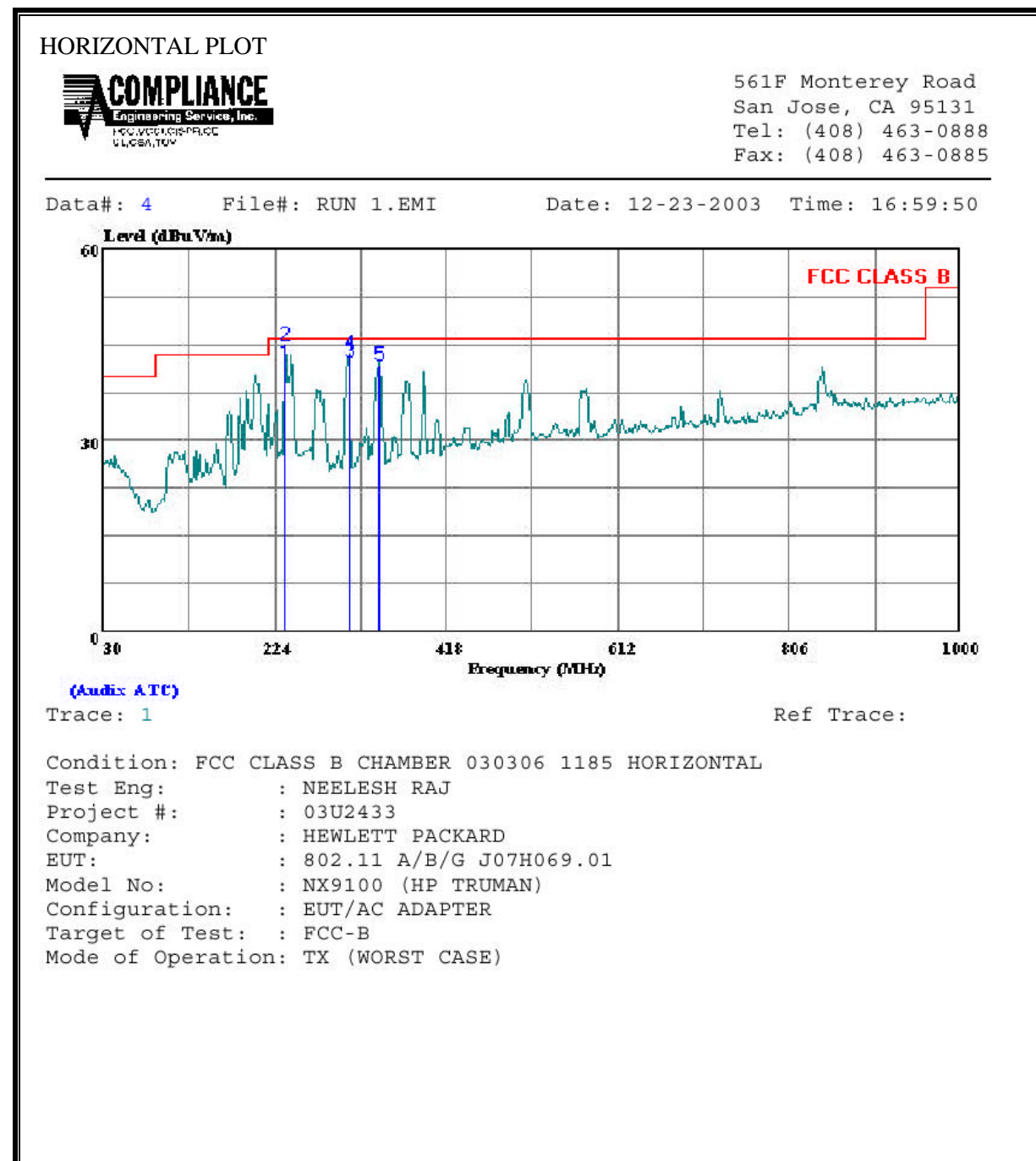
12/29/03 High Frequency Measurement															
Compliance Certification Services, Morgan Hill Open Field Site															
Test Engr: NEELESH RAJ															
Project #: 03U2433															
Company: HEWLETT PACKARD															
EUT Descrip.: 802.11 A/B/G J07H069.01															
EUT M/N: NX9100 (HP TRUMAN)															
Test Target: FCC															
Mode Oper: TX (NORMAL)															
Test Equipment:															
EMCO Horn 1-18GHz		Pre-amplifier 1-26GHz		Spectrum Analyzer		Horn > 18GHz		Limit							
T60; S/N: 2238 @3m		T63 Miteq 646456		Agilent E4446A Analyzer				FCC 15.205							
Hi Frequency Cables															
<input type="checkbox"/> (2 ft) <input checked="" type="checkbox"/> (2 ~ 3 ft) <input type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)															
Peak Measurements: Average Measurements:															
1 MHz Resolution Bandwidth 1 MHz Resolution Bandwidth															
1MHz Video Bandwidth 10Hz Video Bandwidth															
f	Dist	Read Pk	Read Avg	AF	CL	Amp	D Corr	HPF	Peak	Avg	Pk Lim	Avg Lim	Pk Mar	Avg Mar	Notes
GHz	feet	dBuV	dBuV	dB/m	dB	dB	dB		dBuV/m	dBuV/m	dBuV/m	dBuV/m	dB	dB	
LOW CHANNEL (5745MHz)															
11.490	9.8	49.7	35.7	38.7	5.0	-34.2	0.0	1.0	60.2	46.1	74.0	54.0	-13.8	-7.9	V
11.490	9.8	53.1	41.0	38.7	5.0	-34.2	0.0	1.0	63.6	51.4	74.0	54.0	-10.4	-2.6	H
MIDDLE CHANNEL (5785MHz)															
11.570	9.8	50.0	34.0	38.8	5.0	-34.3	0.0	1.0	60.5	44.5	74.0	54.0	-13.5	-9.5	V
11.570	9.8	53.3	39.9	38.8	5.0	-34.3	0.0	1.0	63.7	50.4	74.0	54.0	-10.3	-3.6	H
HIGH CHANNEL (5825MHz)															
11.650	9.8	50.3	35.3	38.9	5.0	-34.4	0.0	1.0	60.8	45.8	74.0	54.0	-13.2	-8.2	V
11.650	9.8	52.7	39.6	38.9	5.0	-34.4	0.0	1.0	63.2	50.1	74.0	54.0	-10.8	-3.9	H
NO OTHER SPURIOUS EMISSIONS DETECTED ABOVE THE SYSTEM NOISE FLOOR															
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 TURBO MODE)

12/29/03 High Frequency Measurement																
Compliance Certification Services, Morgan Hill Open Field Site																
Test Engr: NEELESH RAJ Project #: 03U2433 Company: HEWLETT PACKARD EUT Descr.: 802.11 A/B/G J07H069.01 EUT M/N: NX9100 (HP TRUMAN) Test Target: FCC Mode Oper: TX (NORMAL)																
Test Equipment:																
EMCO Horn 1-18GHz		Pre-amplifier 1-26GHz		Spectrum Analyzer		Horn > 18GHz		Limit								
T60; S/N: 2238 @3m		T63 Miteq 646456		Agilent E4446A Analyzer				FCC 15.205								
<input type="checkbox"/> Hi Frequency Cables <input type="checkbox"/> (2 ft) <input checked="" type="checkbox"/> (2 ~ 3 ft) <input type="checkbox"/> (4 ~ 6 ft) <input checked="" type="checkbox"/> (12 ft)																
Peak Measurements: 1 MHz Resolution Bandwidth 1 MHz Video Bandwidth Average Measurements: 1 MHz Resolution Bandwidth 10 Hz Video Bandwidth																
f	Dist	Read Pk	Read Avg	AF	CL	Amp	D Corr	HPF	Peak	Avg	Pk Lim	Avg Lim	Pk Mar	Avg Mar	Notes	
GHz	feet	dBuV	dBuV	dB/m	dB	dB	dB		dBuV/m	dBuV/m	dBuV/m	dBuV/m	dB	dB		
LOW CHANNEL (5760MHz)																
11.520	9.8	44.0	33.1	38.7	5.0	-34.2	0.0	1.0	54.5	43.6	74.0	54.0	-19.5	-10.4	V	
11.520	9.8	52.3	37.3	38.7	5.0	-34.2	0.0	1.0	62.8	47.8	74.0	54.0	-11.2	-6.2	H	
HIGH CHANNEL (5800MHz)																
11.600	9.8	45.3	34.1	38.8	5.0	-34.3	0.0	1.0	55.8	44.6	74.0	54.0	-18.2	-9.4	V	
11.600	9.8	51.2	36.6	38.8	5.0	-34.3	0.0	1.0	61.7	47.0	74.0	54.0	-12.3	-7.0	H	
NO OTHER SPURIOUS EMISSIONS DETECTED ABOVE THE SYSTEM NOISE FLOOR																
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									

7.2.3. WORST-CASE RADIATED EMISSIONS BELOW 1 GHz

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

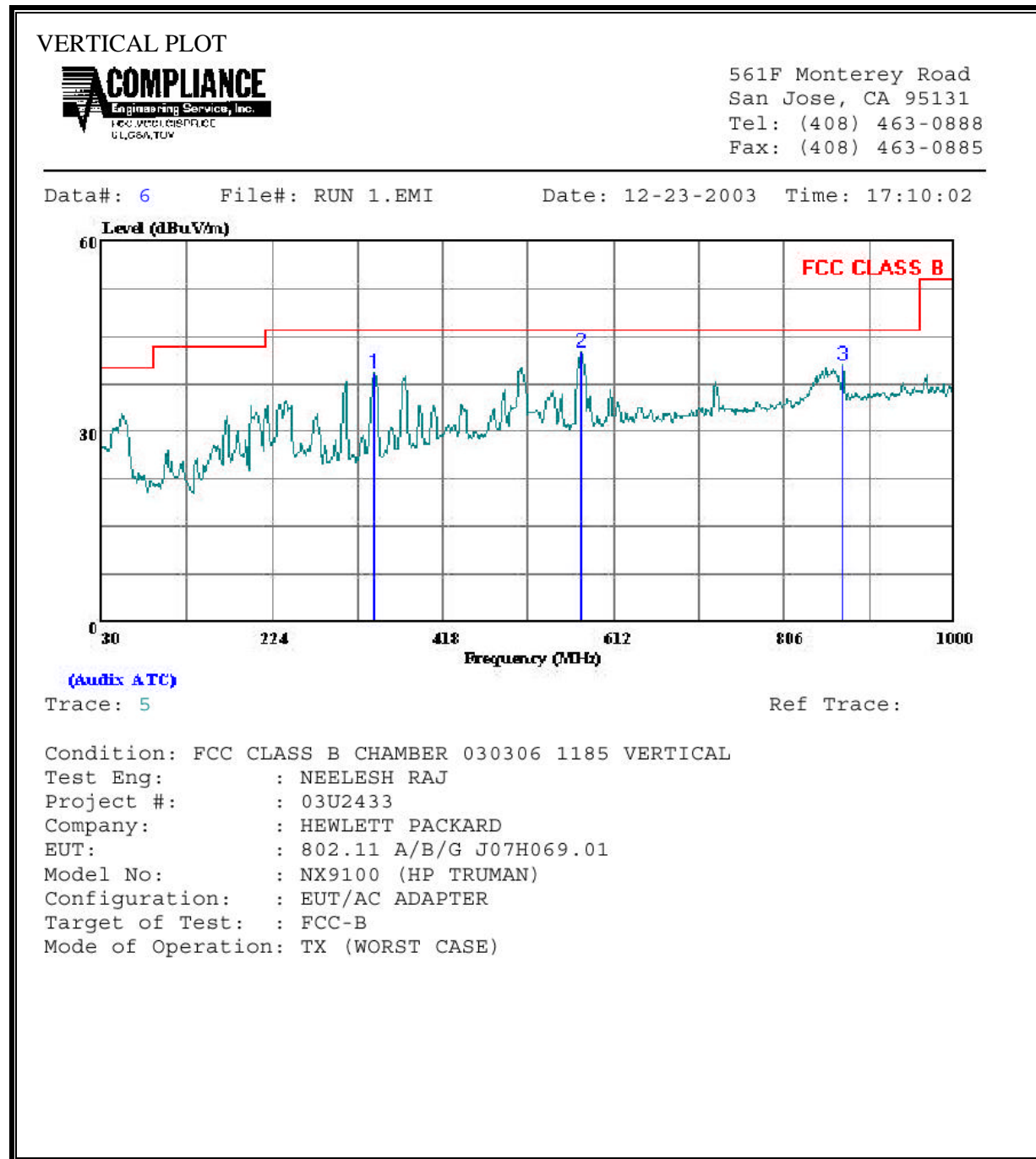


HORIZONTAL DATA

Page: 1

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
1	235.640	QP	29.62	12.46	42.08	46.00	-3.92
2	235.640	Peak	32.51	12.49	45.00	46.00	-1.00
3	308.390	QP	28.27	14.02	42.29	46.00	-3.71
4	308.390	Peak	29.54	14.05	43.59	46.00	-2.41
5	341.370	Peak	26.95	14.97	41.93	46.00	-4.07

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



VERTICAL DATA

Page: 1

	Freq	Remark	Read Level	Factor	Level	Limit Line	Over Limit
	MHz		dBuV	dB	dBuV/m	dBuV/m	dB
1	339.430	Peak	24.20	14.93	39.13	46.00	-6.87
2	575.140	Peak	22.77	19.96	42.73	46.00	-3.27
3	872.930	Peak	16.94	23.53	40.47	46.00	-5.53

7.3. 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.

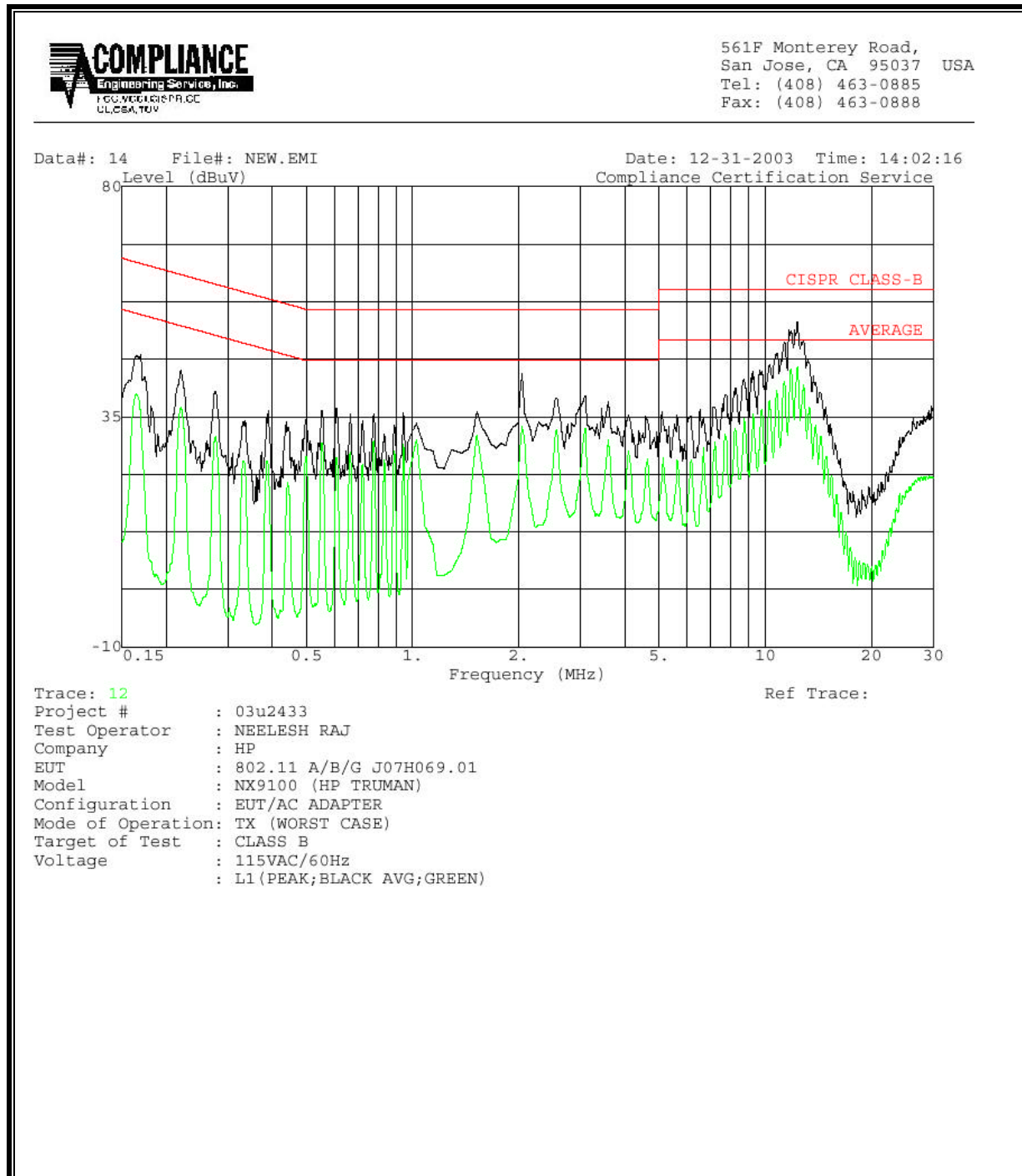
RESULTS

No non-compliance noted:

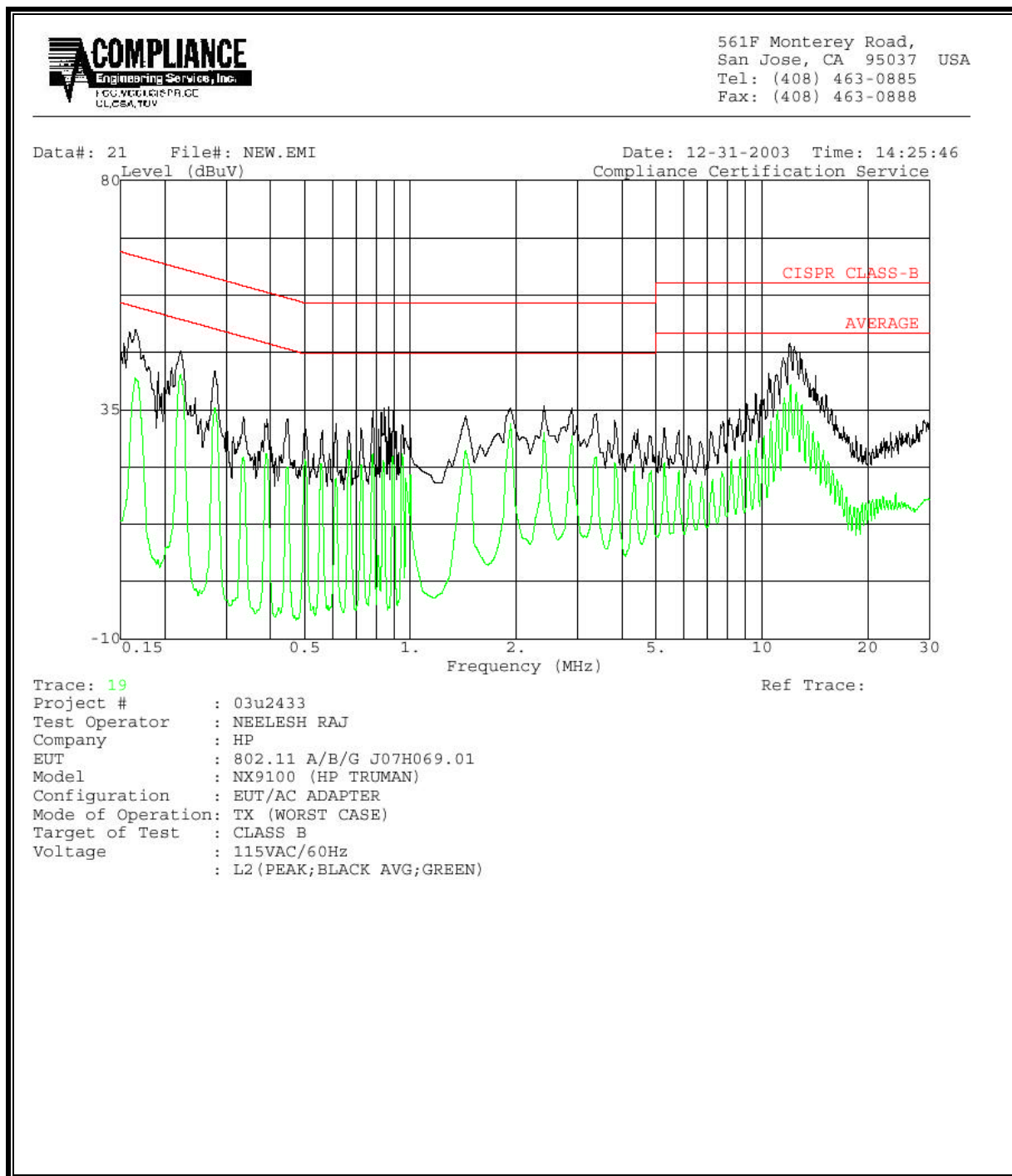
6 WORST EMISSIONS

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
12.32	53.60	--	44.68	0.00	60.00	50.00	-6.40	-5.32	L1
11.68	52.10	--	44.25	0.00	60.00	50.00	-7.90	-5.75	L1
2.04	43.36	--	33.13	0.00	56.00	46.00	-12.64	-12.87	L1
12.00	48.12	--	39.95	0.00	60.00	50.00	-11.88	-10.05	L2
12.38	47.46	--	38.23	0.00	60.00	50.00	-12.54	-11.77	L2
0.17	50.64	--	41.17	0.00	65.57	55.57	-14.93	-14.40	L2
6 Worst Data									

LINE 1 RESULTS

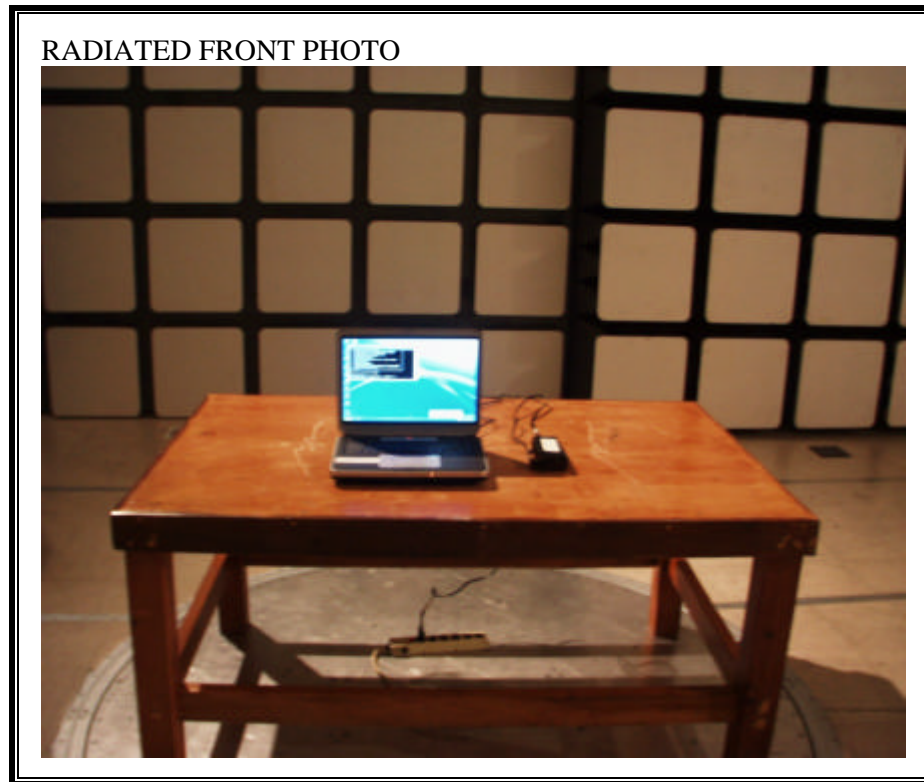


LINE 2 RESULTS



8. SETUP PHOTOS

RADIATED EMISSIONS SETUP



RADIATED BACK PHOTO



POWERLINE CONDUCTED EMISSIONS MEASUREMENT SETUP



LINE CONDUCTED BACK PHOTO



END OF REPORT