CERTIFICATION TEST REPORT

FOR THE

VANTAGE PRO CONSOLE, 6310W

FCC PART 15 SUBPART C

COMPLIANCE

DATE OF ISSUE: DECEMBER 2, 1999

PREPARED FOR:

Davis Intruments
3465 Diablo Ave
Hayward, CA 94545

P.O. No:
W.O. No: 73018

Report No: FC99-033

PREPARED BY:

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CKC Laboratories, Inc.
5473A Clouds Rest
Mariposa, CA 95338

Date of test: November 15-17, 1999

DOCUMENTATION CONTROL:

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APPROVED BY:

Dennis Ward
Director of Laboratories
CKC Laboratories, Inc.

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ADMINISTRATIVE INFORMATION

DATE OF TEST:	November 15-17, 1999
PURPOSE OF TEST:	To demonstrate the compliance of the Vantage Pro Console, 6310W, with the requirements for FCC Part 15 Subpart C devices.
MANUFACTURER:	Davis Intruments 3465 Diablo Ave Hayward, CA 94545
REPRESENTATIVE:	Brett Preston
TEST LOCATION:	CKC Laboratories, Inc. 5473A Clouds Rest Mariposa, CA 95338
TEST PERSONNEL:	D.Oaks
TEST METHOD:	ANSI C63.4 1992
FREQUENCY RANGE TESTED:	450 kHz – 10 GHz
EQUIPMENT UNDER TEST:	**Weather Station** Manuf: Davis Instruments Model: 6310W Serial: N/A FCC ID: IR2DWW6310 (pending)

SUMMARY OF RESULTS

The Davis Intruments Vantage Pro Console, 6310W, was tested in accordance with ANSI C63.4 1992 for compliance with FCC Part 15 Subpart C devices.

As received, the above equipment was found to be fully compliant with the limits of FCC Part 15 Subpart C devices. The results in this report apply only to the items tested, as identified herein.

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

Wireless weather station for home or commercial use. Telemetry is OOK at 916.5 MHz.

MEASUREMENT UNCERTAINTY

Associated with data in this report is a ±4dB measurement uncertainty.

EUT OPERATING FREQUENCY

The EUT was operating at 916.5 MHz.

TEMPERATURE AND HUMIDITY DURING TESTING

The temperature during testing was within +15°C and + 35°C.
The relative humidity was between 20% and 75%.

PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

Portable Laptop
Manuf: Toshiba
Model: T3200SXC
Serial: 04113358
FCC ID: CJ6UN560

REPORT OF MEASUREMENTS

The following tables report the highest worst case levels recorded during the tests performed on the Vantage Pro Console, 6310W. All readings taken are peak readings unless otherwise noted by a "Q" or "A". The data sheets from which these tables were compiled are contained in Appendix B.

Table 1: Fundamental Emission Levels - FCC Part 15.249

FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS Ant dB	Amp dB	Cable dB	Dist dB	CORRECTED READING dBµV/m	SPEC LIMIT dBµV/m	MARGIN dB	NOTES
916.496	89.0	23.5	-27.3	6.8		92.0	93.9	-1.9	H
916.498	89.3	23.5	-27.3	6.8		92.3	93.9	-1.6	V

Test Method: ANSI C63.4 1992
Spec Limit : FCC Part 15.249
Test Distance: 3 Meters

NOTES:
H = Horizontal Polarization
V = Vertical Polarization
N = No Polarization
D = Dipole Reading
Q = Quasi Peak Reading
A = Average Reading

COMMENTS: EUT operating in a normal configuration, receiving and processing data. EUT operating on 120VAC. Vantage Link installed on EUT and connected to the Portable computer.

Table 2: Six Highest Radiated Emission Levels - FCC 15.205/15.209/15.249									
	METER	CORRECTION FACTORS				CORRECTED	SPEC		
FREQUENCY MHz	READING dBµV	Ant dB	Amp dB	Cable dB	Dist dB	READING dBµV/m	LIMIT dBµV/m	MARGIN dB	NOTES
38.796	46.1	11.0	-27.1	0.7		30.7	40.0	-9.3	V
42.464	50.3	10.8	-27.0	0.8		34.9	40.0	-5.1	VQ
44.266	48.6	10.7	-27.0	0.8		33.1	40.0	-6.9	V
46.138	45.8	10.6	-27.0	0.8		30.2	40.0	-9.8	V
49.807	47.5	10.4	-26.9	0.9		31.9	40.0	-8.1	V
4582.479	32.6	32.9	-32.6	14.6		47.5	54.0	-6.5	H

Test Method: ANSI C63.4 1992
Spec Limit : FCC Part 15.205/15.209/15.249
Test Distance: 3 Meters

NOTES: H = Horizontal Polarization
V = Vertical Polarization
N = No Polarization
D = Dipole Reading
Q = Quasi Peak Reading
A = Average Reading

COMMENTS: EUT operating in a normal configuration, receiving and processing data. EUT operating on 120VAC. Vantage Link installed on EUT and connected to the Portable computer.
FCC 15.35 = 20Log(on time/100ms), where "on time" ≅ 12.5ms
= 20Log(12.5ms/100ms)
= 20Log(0.125)
= 20(-0.903)
= -18.0617
Therefore, -18dB was the factor used.

Table 3: Six Highest Conducted Emission Levels - FCC Part 15.207									
FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS Lisn dB	dB	dB	dB	CORRECTED READING dBµV	SPEC LIMIT dBµV	MARGIN dB	NOTES
3.849333	34.1	0.1				34.2	48.0	-13.8	B
11.475810	33.6	0.2				33.8	48.0	-14.2	B
15.455810	33.5	0.3				33.8	48.0	-14.2	W
19.114060	33.9	0.3				34.2	48.0	-13.8	W
22.736790	33.5	0.3				33.8	48.0	-14.2	W
23.944360	33.5	0.4				33.9	48.0	-14.1	W

Test Method: ANSI C63.4 1992
Spec Limit : FCC Part 15.207

NOTES: Q = Quasi Peak Reading
A = Average Reading
B = Black Lead
W = White Lead

COMMENTS: EUT operating in a normal configuration, receiving and processing data. EUT operating on 120VAC. Vantage Link installed on EUT and connected to the Portable computer.

TABLE A

LIST OF TEST EQUIPMENT

Barn Lab

1. Spectrum Analyzer, Hewlett Packard, Model No. 8566B, CKC 1, S/N 2403A08241 (Display Unit), S/N 2209A01404 (rf Unit). Calibration date: July 7, 1999. Calibration due date: July 7, 2000.

2. Preamp (1-26.5GHz), Hewlett Packard, Model No. 8449B, S/N 3008A00301. Calibration date: October 27, 1999. Calibration due date: October 27, 2000.

3. Preamp, Hewlett Packard, Model No. 8447D, S/N 1937A02604. Calibration Date: April 28, 1999. Calibration Due: April 28, 2000.

4. Quasi-Peak Adapter, Hewlett Packard, Model No. 85650A, S/N 2811A01267. Calibration Date: July 7, 1999. Calibration Due; July 7, 2000.

5. Biconical Antenna, A & H Systems, Model No. SAS-200/542, S/N 156. Calibration Date: May 20, 1999. Calibration Due: May 20, 2000.

6. Log Periodic Antenna, A & H Systems, Model No. SAS-200/512, S/N 154. Calibration Date: May 20, 1999. Calibration Due: May 20, 2000.

7. Horn Antenna, EMCO, Model No. 3115, S/N 4085. Calibration date: February 17, 1999. Calibration due date: February 17, 2000.

8. LISN (FCC), Solar Electronics, S/N 855996, 992. Calibration date: June 4, 1999. Calibration due date: June 4, 2000.

9. Mariposa Site B (Barn). Calibration date: July 6, 1999. Calibration due date: July 6, 2000.

10. Test software, EMI Test 3.08.

EUT SETUP

The equipment under test (EUT) and the peripheral(s) listed were set up in a manner that represented their normal use. Any special conditions required for the EUT to operate normally are identified in the comments that accompany Tables 1 for fundamental emissions, Table 2 for radiated emissions and Table 3 for conducted emissions. Additionally, a complete description of all the ports and I/O cables is included on the information sheets contained in Appendix A.

During radiated emissions testing, the EUT was mounted on a nonconductive, rotating table 80 cm above the conductive grid. The nonconductive table dimensions were 1 meter by 1.5 meters. This configuration is typical for radiated emissions testing of table top devices.

I/O cables were connected to the EUT and peripheral in the manner required for normal operation of the system. Excess cabling was bundled in the center in a serpentine fashion using 30-40 centimeter lengths.

During conducted emissions testing, the EUT was located on a wooden table measuring approximately 80 cm high, 1 meter deep, and 1.5 meters in length. One wall of the room where the EUT is located, has a minimum 2 meter by 2 meter conductive plane. The EUT was mounted on the wooden table 40 cm away from the conductive plane, and 80 cm from any other conductive surface.

The vertical metal plane used for conducted emissions was grounded to the earth. Power to the EUT was provided through a LISN. The LISN was grounded to the ground plane. All other objects were kept a minimum of 80 cm away from the EUT during the conducted test. Conducted emissions tests required the use of the LISN's listed in Table A.

TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed in Table A were used to collect both the radiated and conducted emissions data for the Vantage Pro Console, 6310W. For radiated measurements below 300 MHz, the biconical antenna was used. For frequencies from 300 to 1000 MHz, the log periodic antenna was used. Frequencies over 1000 MHz were scanned using a horn antenna. All antennas were located at a distance of 3 meters from the edge of the EUT. Conducted emissions tests required the use of the FCC type LISN's.

The HP spectrum analyzer was used for all measurements. Table B shows the analyzer bandwidth settings that were used in designated frequency bands. For conducted emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used. A 10 dB external attenuator was also used during conducted tests, with internal offset correction in the analyzer. During radiated testing, the measurements were made with 0 dB of attenuation, a reference level of 97 dBµV, and a vertical scale of 10 dB per division.

TABLE B : ANALYZER BANDWIDTH SETTINGS PER FREQUENCY RANGE

TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	450 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	10 GHz	1 MHz

SPECTRUM ANALYZER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in Tables 1-3 indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "Peak" mode. Whenever a "Quasi-Peak" or "Average" reading is listed as one of the highest readings, this is indicated as a "Q" or an "A" in the appropriate table. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data for the Vantage Pro Console, 6310W.

Peak

In this mode, the Spectrum Analyzer or test engineer recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature of the analyzer called "peak hold," the analyzer had the ability to measure transients or low duty cycle transient emission peak levels. In this mode the analyzer made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

Quasi-Peak

When the true peak values exceeded or were within 2 dB of the specification limit, quasi-peak measurements were taken using the HP Quasi-Peak Adapter for the HP Spectrum Analyzer. The detailed procedure for making quasi peak measurements contained in the HP Quasi-Peak Adapter manual were followed.

Average

When the frequencies exceed 1 GHz, average measurements may be made using the spectrum analyzer. To make these measurements, the test engineer reduces the video bandwidth on the analyzer until the modulation of the signal is filtered out. At this point the analyzer is set into the linear mode and the scan time is reduced.

TEST METHODS

The radiated and conducted emissions data of the Vantage Pro Console, 6310W, was taken with the HP Spectrum Analyzer. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in the "Sample Calculations". The corrected data was then compared to the FCC Part 15, Subpart C, Section B emissions limits to determine compliance.

Preliminary and final measurements were taken in order to better ensure that all emissions from the EUT were found and maximized.

Radiated Emissions Testing

During the preliminary radiated scan, the EUT was powered up and operating in its defined FCC test mode with the I/O cables and line cords facing the antenna. The frequency range of 30 MHz - 88 MHz was then scanned with the biconical antenna located about 1.5 meter above the ground plane in the vertical configuration. During this scan, the turntable was rotated and all peaks which were at or near the limit were recorded. The frequency range of 100 - 300 MHz was scanned with the biconical antenna in the same manner, and the peaks recorded. Lastly, a scan of the FM band from 88 - 110 MHz was made, using a reduced resolution bandwidth and a reduced frequency span. The biconical antenna was changed to the horizontal polarity and the above steps were repeated. After changing to the log periodic antenna in the horizontal configuration, the frequency range of 300 - 1000 MHz was scanned. The log periodic antenna was changed to the vertical polarity and the frequency range of 300 - 1000 MHz was again scanned. Frequencies over 1000 MHz were scanned using a horn antenna. Care was taken to ensure that no frequencies were missed within the FM and TV bands. An analysis was performed to determine if the signals that were at or near the limit were caused by an ambient transmission. If unable to determine by analysis, the equipment was powered down to make the final determination if the EUT was the source of the emission.

For the final radiated scan, the equipment was again positioned with its I/O and power cables facing the antenna. A thorough scan of all frequencies was manually made using a small frequency span, rotating the turntable as needed. Comparison with the previously recorded measurements was then made.

Using the peak readings from both scans as a guide, the test engineer then maximized the readings with respect to the table rotation, antenna height and configuration of the peripheral(s) and cables. Maximizing of the cables was achieved by monitoring the spectrum analyzer on a closed circuit television monitor while the EUT cables were being moved and rearranged on the EUT table for maximum emissions. Photographs showing the final worst case configuration of the EUT are contained in Appendix A.

Conducted Emissions Testing

For conducted emissions testing, a 30 to 50 second sweep time was used for automated measurements in the frequency bands of 450 kHz to 1.705 MHz, 1.705 MHz to 3 MHz, and 3 MHz to 30 MHz. All readings within 20 dB of the limit were recorded. At frequencies where the recorded emissions were close to the limit, further investigation was performed manually at a slower sweep rate.

TRANSMITTER CHARACTERISTICS

Occupied Bandwidth Measurements

The fundamental frequency was kept within the permitted band 902 – 928 MHz. Refer to Appendix B for the occupied bandwidth plots.

SAMPLE CALCULATIONS

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in Tables 1-3. For radiated emissions in dBµV/m, the spectrum analyzer reading in dBµV was corrected by using the following formula:

Meter reading (dBµV)
+ Antenna Factor (dB)
+ Cable Loss (dB)
- Distance Correction (dB)
- Pre-amplifier Gain (dB)

= Corrected Reading (dBµV/m)

This reading was then compared to the applicable specification limit to determine compliance.

A typical data sheet will display the following in column format:

#	Freq MHz	Rdng dBuV	Cable	Amp.	Bicon	Horn	Log	Dist	Corr dBuV/m	Spec	Margin	Polar
	LISN	FCC 15.35										

means reading number
Freq MHz is the frequency in MHz of the obtained reading.
Rdng dBuV is the reading obtained on the spectrum analyzer in dBµV.
Amp. is short for the preamplifier factor or gain in dB.
Bicon is the biconical antenna factor in dB.
Log is the log periodic antenna factor in dB.
Horn is the horn antenna factor in dB.
Cable is the cable loss in dB of the coaxial cable on the OATS.
Dist is the distance factor (in dB). It is used when testing at a different test distance than the one stated in the spec.
Corr dBµV/m is the corrected reading which is now in dBµV/m (field strength).
Spec is the specification limit (dB) stated in the agency's regulations.
Margin is the closeness to the specified limit in dB; + is over and - is under the limit.
Polar is the Polarity of the antenna with respect to earth.
LISN is the listen factor in dB.
FCC 15.35 is the average correction called in FCC Part 15.35.

APPENDIX A

INFORMATION ABOUT THE EQUIPMENT UNDER TEST

INFORMATION ABOUT THE EQUIPMENT UNDER TEST	
Test Software/Firmware:	
CRT was displaying:	
Power Supply Manufacturer:	Ablex in Hong Kong
Power Supply Part Number:	118F-3-200D
AC Line Filter Manufacturer:	
AC Line Filter Part Number:	
Line voltage used during testing:	120 VAC

I/O PORTS	
Type	#
RS232 to PC	1

CRYSTAL OSCILLATORS	
Type	Freq In MHz
Console uP	1.8
Console Realtime Clock	.032

PRINTED CIRCUIT BOARDS				
Function	Model & Rev	Clocks, MHz	Layers	Location
Console Board	Rev P	1.8, .032	2	
LCD Driver Board	Rev P	.002	2	
VantageLink Board	Rev P		2	

CABLE INFORMATION

Not provided by customer.

REQUIRED EUT CHANGES TO COMPLY:
None

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Front View

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Back View

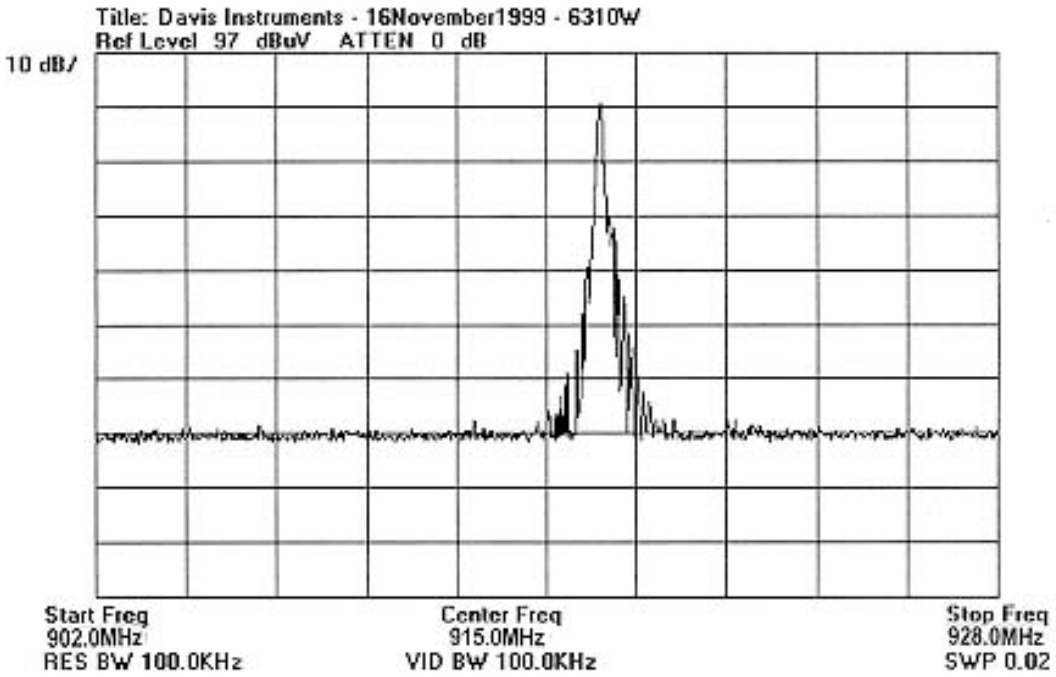
PHOTOGRAPH SHOWING CONDUCTED EMISSIONS

Conducted Emissions - Front View

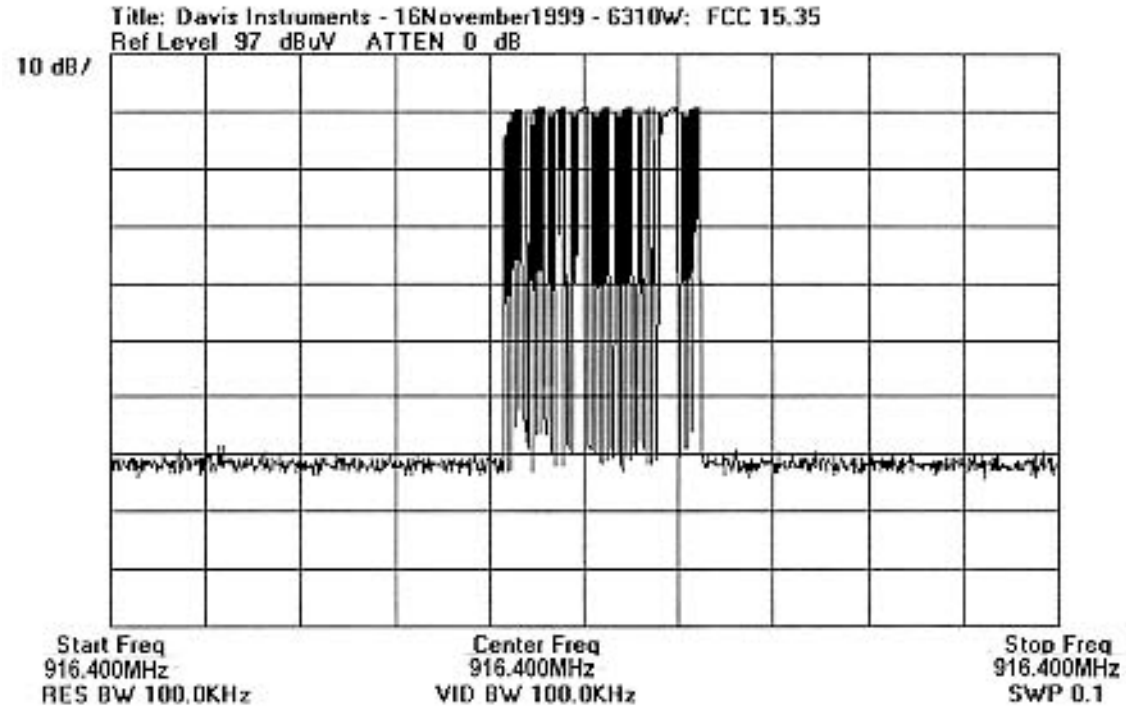
APPENDIX B

MEASUREMENT DATA SHEETS

Occupied Bandwidth Plot



FCC Part 15.35 Averaging Plot



FCC 15.35 = 20Log(on time/100ms), where "on time" ≅ 12.5ms
= 20Log(12.5ms/100ms)
= 20Log(0.125)
= 20(-0.903)
= -18.0617
Therefore, -18dB was the factor used.

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338

Customer: **Davis Instruments**
Specification: **FCC 15.249 (a)**
Work Order #: **73018** Date: Tue Nov-16-1999
Test Type: **Maximized Emissions** Time: 16:32:56
Equipment: **Weather Station** Sequence#: 16
Manufacturer: Davis Instruments Tested By: D.Oaks
Model: 6310W
S/N: N/A

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Weather Station*	Davis Instruments	6310W	N/A

Support Devices:

Function	Manufacturer	Model #	S/N
Portable Laptop	Toshiba	T3200SXC	04113358

Test Conditions / Notes:

EUT operating in a normal configuration, receiving and processing data. EUT operating on 120VAC. Vantage Link installed on EUT and connected to the Portable computer.

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	Amp dB	Log dB	Cable dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	916.498M	89.3	-27.3	+23.5	+6.8		+0.0	92.3	93.9	-1.6	Vert
2	916.496M	89.0	-27.3	+23.5	+6.8		+0.0	92.0	93.9	-1.9	Horiz

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338

Customer: **Davis Instruments**
Specification: **FCC 15.205/15.209/15.249**
Work Order #: **73018** Date: Tue Nov-16-1999
Test Type: **Maximized Emissions** Time: 17:14:48
Equipment: **Weather Station** Sequence#: 5
Manufacturer: Davis Instruments Tested By: D.Oaks
Model: 6310W
S/N: N/A

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Weather Station*	Davis Instruments	6310W	N/A

Support Devices:

Function	Manufacturer	Model #	S/N
Portable Laptop	Toshiba	T3200SXC	04113358

Test Conditions / Notes:

EUT operating in a normal configuration, receiving and processing data. EUT operating on 120VAC. Vantage Link installed on EUT and connected to the Portable computer.

FCC 15.35 = 20Log(on time/100ms), where "on time" ≅ 12.5ms
= 20Log(12.5ms/100ms)
= 20Log(0.125)
= 20(-0.903)
= -18.0617
Therefore, -18dB was the factor used.

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	Amp	Bicon	Log	Cable	Dist	Corr	Spec	Margin	Polar
				Horn	Cable	FCC 15.35					
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	42.464M	50.3	-27.0	+10.8	+0.0	+0.8	+0.0	34.9	40.0	-5.1	Vert
	QP		+0.0	+0.0	+0.0	+0.0					
^	42.486M	53.6	-27.0	+10.8	+0.0	+0.8	+0.0	38.2	40.0	-1.8	Vert
			+0.0	+0.0	+0.0	+0.0					
3	4582.479M	32.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.5	54.0	-6.5	Horiz
			-32.6	+32.9	+14.6	+0.0					
4	44.266M	48.6	-27.0	+10.7	+0.0	+0.8	+0.0	33.1	40.0	-6.9	Vert
			+0.0	+0.0	+0.0	+0.0					
5	49.807M	47.5	-26.9	+10.4	+0.0	+0.9	+0.0	31.9	40.0	-8.1	Vert
			+0.0	+0.0	+0.0	+0.0					
6	38.796M	46.1	-27.1	+11.0	+0.0	+0.7	+0.0	30.7	40.0	-9.3	Vert
			+0.0	+0.0	+0.0	+0.0					
7	46.138M	45.8	-27.0	+10.6	+0.0	+0.8	+0.0	30.2	40.0	-9.8	Vert
			+0.0	+0.0	+0.0	+0.0					
8	2749.484M	53.0	+0.0	+0.0	+0.0	+0.0	+0.0	43.7	54.0	-10.3	Vert
	Ave		-32.5	+31.0	+10.2	-18.0					
^	2749.484M	53.0	+0.0	+0.0	+0.0	+0.0	+0.0	61.7	54.0	+7.7	Vert
			-32.5	+31.0	+10.2	+0.0					
10	47.968M	45.1	-26.9	+10.5	+0.0	+0.9	+0.0	29.6	40.0	-10.4	Vert
	QP		+0.0	+0.0	+0.0	+0.0					

^	48.007M	50.0	-26.9 +0.0	+10.5 +0.0	+0.0 +0.0	+0.9 +0.0	+0.0	34.5	40.0	-5.5	Vert
12	40.594M	44.3	-27.1 +0.0	+10.9 +0.0	+0.0 +0.0	+0.7 +0.0	+0.0	28.8	40.0	-11.2	Vert
13	3665.994M	31.2	+0.0 -33.1	+0.0 +32.4	+0.0 +11.6	+0.0 +0.0	+0.0	42.1	54.0	-11.9	Horiz
14	204.408M	37.4	-26.5 +0.0	+18.2 +0.0	+0.0 +0.0	+2.3 +0.0	+0.0	31.4	43.5	-12.1	Vert
15	1832.988M Ave	60.8	+0.0 -35.4	+0.0 +27.3	+0.0 +6.3	+0.0 -18.0	+0.0	41.0	54.0	-13.0	Vert
^	1832.984M	60.8	+0.0 -35.4	+0.0 +27.3	+0.0 +6.3	+0.0 +0.0	+0.0	59.0	54.0	+5.0	Vert
17	68.299M	44.2	-26.8 +0.0	+8.1 +0.0	+0.0 +0.0	+1.0 +0.0	+0.0	26.5	40.0	-13.5	Vert
18	1832.982M Ave	60.2	+0.0 -35.4	+0.0 +27.3	+0.0 +6.3	+0.0 -18.0	+0.0	40.4	54.0	-13.6	Horiz
^	1832.982M	60.2	+0.0 -35.4	+0.0 +27.3	+0.0 +6.3	+0.0 +0.0	+0.0	58.4	54.0	+4.4	Horiz
20	53.544M	41.8	-26.9 +0.0	+10.0 +0.0	+0.0 +0.0	+0.9 +0.0	+0.0	25.8	40.0	-14.2	Vert
21	3665.974M Ave	40.3	+0.0 -33.1	+0.0 +32.4	+0.0 +11.6	+0.0 -18.0	+0.0	33.2	54.0	-20.8	Vert
^	3665.980M	40.3	+0.0 -33.1	+0.0 +32.4	+0.0 +11.6	+0.0 +0.0	+0.0	51.2	54.0	-2.8	Vert
23	2749.481M Ave	41.9	+0.0 -32.5	+0.0 +31.0	+0.0 +10.2	+0.0 -18.0	+0.0	32.6	54.0	-21.4	Horiz
^	2749.508M	41.9	+0.0 -32.5	+0.0 +31.0	+0.0 +10.2	+0.0 +0.0	+0.0	50.6	54.0	-3.4	Horiz
25	5498.976M Ave	28.5	+0.0 -32.2	+0.0 +34.5	+0.0 +18.4	+0.0 -18.0	+0.0	31.2	54.0	-22.8	Vert
^	5498.976M	28.5	+0.0 -32.2	+0.0 +34.5	+0.0 +18.4	+0.0 +0.0	+0.0	49.2	54.0	-4.8	Vert
27	4582.486M Ave	34.0	+0.0 -32.6	+0.0 +32.9	+0.0 +14.6	+0.0 -18.0	+0.0	30.9	54.0	-23.1	Vert
^	4582.486M	34.0	+0.0 -32.6	+0.0 +32.9	+0.0 +14.6	+0.0 +0.0	+0.0	48.9	54.0	-5.1	Vert

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338

Customer: **Davis Instruments**
Specification: **15.205/15.209/15.249**
Work Order #: **73018** Date: Mon Nov-15-1999
Test Type: **Conducted Emissions** Time: 17:03:24
Equipment: **Weather Station** Sequence#: 6
Manufacturer: Davis Instruments Tested By: D.Oaks
Model: 6310W
S/N: N/A

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Weather Station*	Davis Instruments	6310W	N/A

Support Devices:

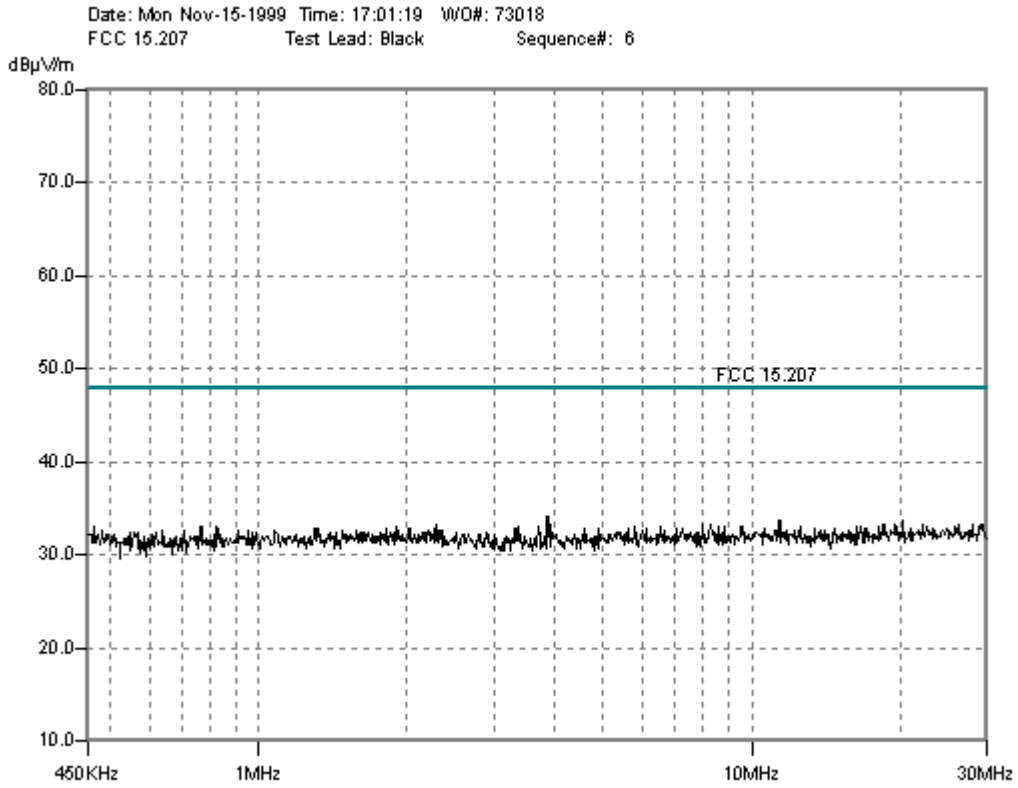
Function	Manufacturer	Model #	S/N
Portable Laptop	Toshiba	T3200SXC	04113358

Test Conditions / Notes:

EUT operating in a normal configuration, receiving and processing data. EUT operating on 120VAC. Vantage Link installed on EUT and connected to the Portable computer.

Measurement Data: Reading listed by margin. Test Lead: Black

#	Freq MHz	Rdng dBµV	LISN dB	dB	dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	3.849M	34.1	+0.1				+0.0	34.2	48.0	-13.8	Black
2	11.476M	33.6	+0.2				+0.0	33.8	48.0	-14.2	Black
3	20.393M	33.4	+0.3				+0.0	33.7	48.0	-14.3	Black
4	11.347M	33.5	+0.2				+0.0	33.7	48.0	-14.3	Black
5	29.307M	33.0	+0.3				+0.0	33.3	48.0	-14.7	Black
6	22.275M	33.0	+0.3				+0.0	33.3	48.0	-14.7	Black
7	8.005M	33.1	+0.2				+0.0	33.3	48.0	-14.7	Black
8	2.285M	33.2	+0.1				+0.0	33.3	48.0	-14.7	Black
9	8.272M	33.0	+0.2				+0.0	33.2	48.0	-14.8	Black
10	3.919M	33.1	+0.1				+0.0	33.2	48.0	-14.8	Black


Date: Mon Nov-15-1999 Time: 17:01:19 WO#: 73018
FCC 15.207 Test Lead: Black Sequence#: 6
dBµV/m
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
FCC 15.207
450KHz
1MHz
10MHz
30MHz

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest • Mariposa, CA 95338

Customer: **Davis Instruments**
Specification: **FCC 15.207**
Work Order #: **73018** Date: Mon Nov-15-1999
Test Type: **Conducted Emissions** Time: 17:09:45
Equipment: **Weather Station** Sequence#: 7
Manufacturer: Davis Instruments Tested By: D.Oaks
Model: 6310W
S/N: N/A

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Weather Station*	Davis Instruments	6310W	N/A

Support Devices:

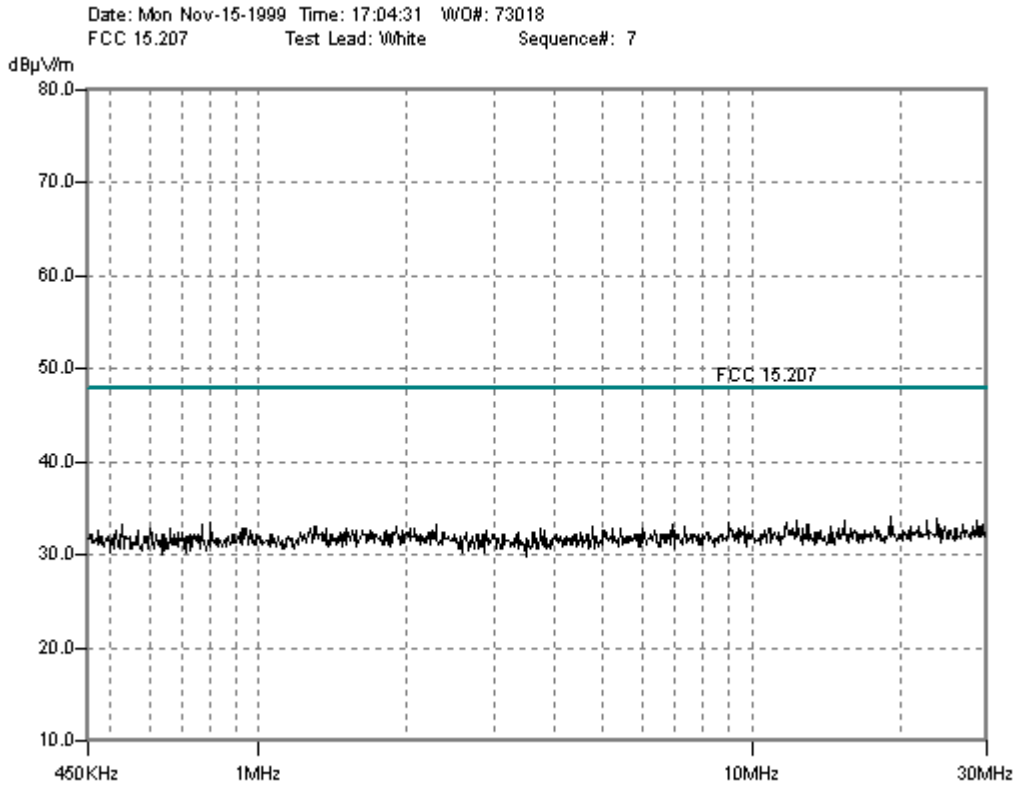
Function	Manufacturer	Model #	S/N
Portable Laptop	Toshiba	T3200SXC	04113358

Test Conditions / Notes:

EUT operating in a normal configuration, receiving and processing data. EUT operating on 120VAC. Vantage Link installed on EUT and connected to the Portable computer.

Measurement Data: Reading listed by margin. Test Lead: White

#	Freq MHz	Rdng dBµV	LISN dB	dB	dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	19.114M	33.9	+0.3				+0.0	34.2	48.0	-13.8	White
2	23.944M	33.5	+0.4				+0.0	33.9	48.0	-14.1	White
3	22.737M	33.5	+0.3				+0.0	33.8	48.0	-14.2	White
4	15.456M	33.5	+0.3				+0.0	33.8	48.0	-14.2	White
5	28.739M	33.2	+0.4				+0.0	33.6	48.0	-14.4	White
6	12.437M	33.4	+0.2				+0.0	33.6	48.0	-14.4	White
7	800.283k	33.4	+0.1				+0.0	33.5	48.0	-14.5	White
8	11.783M	33.2	+0.2				+0.0	33.4	48.0	-14.6	White
9	9.016M	33.2	+0.2				+0.0	33.4	48.0	-14.6	White
10	528.052k	33.2	+0.1				+0.0	33.3	48.0	-14.7	White


Date: Mon Nov-15-1999 Time: 17:04:31 WO#: 73018
FCC 15.207 Test Lead: White Sequence#: 7
dBµV/m
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
FCC 15.207
450KHz
1MHz
10MHz
30MHz