

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2008-10-4 2:04:46
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
EDID-Name: VP2650wb
EDID-Serial: QV0081200160
Profile: C:/.../vp2650wb_kalibration_UGRA_04.10.08-5800K-18-120cd-trc.icc
Created: 2008-10-4 1:58
Measurement device: eye-one display 2

Summary

The monitor has not passed the certification according to the UGRA DACT specifications.

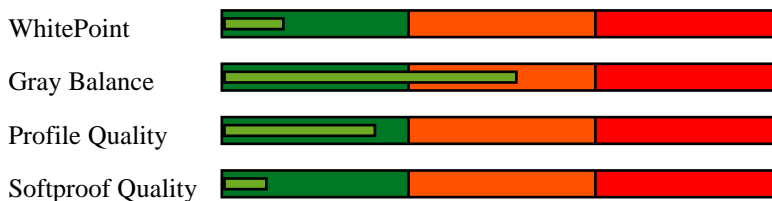
Calibration

White Point	yes
Gray balance	no
Profile quality	yes

Softproofing

MultiColor, HighBody	no
Offset/Gravure Paper Type 1/2	no
Offset on uncoated paper	no
Newspaper Printing	no
sRGB	no
AdobeRGB	no
ECI-RGB	no

Diagram



Whitepoint

The whitepoint should be as close as possible to the black body curve and the calibration target. The maximum allowed distance to the target whitepoint is DeltaE 2.0.

XYZ:	112.83 117.83 114.96
XYZ (normalized):	95.76 100.00 97.57
Luminance:	117.8 Cd/m ²
Next Temperature:	5768 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.6 deltaE

Blackpoint

The blackpoint is not defined in ISO 12646. Therefore UDACT does only measure but not assess it.

Luminance:	0.1 Cd/m ²
Chromaticity:	1.7 Chroma (Lab)

Gray balance

Average and maximum calculation will respect measurements with 1% minimum luminance only. The maximum allowed deviations to comply with this test are an average of DeltaC 1.0 and a range of DeltaC 2.0.

%	Kelvin	Cd/m ²	L	Chroma	Gamma
0	21138	0.14	1.10	1.67	
5	6252	0.56	4.29	0.53	1.91
10	5673	1.86	13.09	0.30	1.85
15	5659	3.82	20.99	0.38	1.83
20	5604	6.32	27.75	0.75	1.84
25	5814	9.21	33.60	0.21	1.85
30	5809	13.07	39.73	0.76	1.84
35	5746	17.21	45.09	0.19	1.84
40	5755	21.99	50.29	0.11	1.84
45	5773	27.09	55.06	0.40	1.85
50	5760	32.98	59.88	0.18	1.84
55	5721	39.32	64.46	0.44	1.85
60	5742	46.19	68.90	0.28	1.84
65	5776	52.86	72.80	0.33	1.87
70	5731	61.02	77.15	0.41	1.86
75	5753	69.32	81.20	0.29	1.84
80	5765	78.66	85.38	0.53	1.83
85	5774	87.34	88.98	0.69	1.87
90	5780	97.24	92.81	1.04	1.87
95	5749	108.20	96.75	0.20	1.67
100	5768	117.83	100.00	0.00	
Average	5745			0.39	1.84
Range				1.60	
Max				1.04	

Tone values = 90.7%

Through the calibration of a display tone values can be lost. A display for the printing industry should show at least 95% of the incoming tone values.

Profile Quality

This test displays and measures RGB values and compares them with the transformation of the profile. The maximum allowed deviations to comply with this test are an average of DeltaE 3.0 and a maximum of DeltaE 6.0.

The assumed chromatic adaptation is: Bradford

RGB	Lab	deltaLab	deltaE
0 0 0	1.1 -0.3 -1.7	-1.1 0.3 1.7	2.0
0 0 128	15.6 32.9 -70.2	1.1 -1.9 -0.7	2.3
0 0 255	33.4 45.5 -106.3	0.2 1.4 -1.0	1.7
0 128 0	47.1 -90.8 48.7	1.1 -1.4 2.5	3.1
0 128 128	50.2 -63.9 -14.8	0.7 0.5 -1.5	1.7
0 170 255	66.3 -53.3 -52.6	0.1 1.7 -0.9	2.0
0 255 0	80.1 -137.6 77.6	0.8 -1.8 -0.1	2.0
0 255 170	82.6 -115.6 12.0	0.4 -0.0 -2.3	2.3
0 255 255	85.0 -96.3 -23.5	0.1 0.5 -1.1	1.2
85 85 85	43.5 -0.7 -0.0	0.5 0.7 0.0	0.8
128 0 0	36.7 59.7 53.0	0.7 1.6 4.6	4.9
128 0 128	40.2 63.2 -30.2	1.0 0.4 0.8	1.4
128 128 0	57.7 -6.1 64.1	0.9 -1.4 2.2	2.8
128 128 128	60.2 0.1 0.3	0.5 -0.1 -0.3	0.6
128 128 255	65.2 13.6 -54.9	0.1 1.0 0.2	1.1
128 255 128	86.9 -72.3 37.7	0.3 -0.6 -1.1	1.3
170 0 255	55.6 76.4 -70.1	0.6 1.7 1.3	2.2
170 170 170	74.5 -0.2 0.2	0.4 0.2 -0.2	0.5
170 255 0	88.5 -54.4 89.8	0.7 -1.5 -0.4	1.7
170 255 255	92.7 -37.4 -11.8	0.0 0.4 -0.1	0.4
255 0 0	64.8 92.8 92.7	0.0 -0.1 -3.2	3.2
255 0 170	67.4 95.3 -8.2	0.3 -1.0 -0.3	1.0
255 0 255	70.6 95.9 -44.7	-0.0 0.2 0.2	0.3
255 128 128	77.5 56.0 28.3	0.3 -0.9 -0.4	1.0
255 170 0	82.2 33.8 93.9	0.7 -1.9 -1.2	2.3
255 170 255	86.9 41.1 -19.7	0.0 0.2 0.2	0.2
255 255 0	96.3 -9.6 102.1	0.6 -1.8 -1.9	2.7
255 255 170	98.2 -4.9 35.5	0.2 -0.8 -0.7	1.1
255 255 255	100.0 0.0 0.0	0.0 0.0 -0.0	0.0
170 85 85	57.1 43.0 22.1	0.4 0.4 -0.1	0.6
85 170 85	64.4 -58.1 29.0	0.5 0.7 -0.2	0.9
85 85 170	46.9 11.8 -43.2	0.7 -0.2 0.1	0.7
85 170 170	66.5 -44.7 -12.8	0.5 0.5 -0.3	0.8
170 85 170	59.5 47.4 -22.4	0.5 0.2 0.0	0.6
170 170 85	72.8 -6.5 42.3	0.4 0.2 -0.2	0.5
Average			1.5
Maximum			4.9

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	96 %
AdobeRGB	95 %
ECI-RGB v1.0	96 %

ISO-Gamut

This test displays and measures Lab values and compares them with the reference. The maximum allowed deviations to comply with this test are an average of DeltaE 4.0 and a minimum Gamut volume of 90% for ISOcoated.

Reference	Lab	deltaLab
55.0 -37.0 -50.0	54.4 -36.8 -50.0	0.6
66.9 -24.7 -37.1	66.6 -25.6 -37.1	0.9
79.7 -12.5 -21.8	79.6 -12.8 -22.1	0.5
48.0 74.0 -3.0	47.4 71.7 -2.9	2.3
60.8 50.6 -6.7	60.4 50.3 -6.2	0.8
76.4 25.8 -6.9	76.2 25.9 -6.5	0.5
89.0 -5.0 93.0	88.7 -4.1 94.2	1.5
90.3 -4.7 62.6	90.3 -5.6 64.0	1.7
92.2 -3.5 31.1	92.1 -4.4 31.7	1.1
53.1 37.7 28.9	52.6 37.7 29.6	0.8
41.5 22.7 16.8	41.0 22.1 17.0	0.9
31.9 40.0 24.0	31.6 38.9 23.9	1.1
32.5 44.5 -1.8	31.8 43.6 -1.6	1.1
51.3 1.3 44.5	50.7 1.6 43.3	1.4
34.6 -36.4 13.9	34.3 -36.0 14.1	0.6
36.0 -26.2 -20.9	35.5 -25.3 -20.0	1.4
20.9 9.6 -23.6	20.7 9.9 -22.3	1.4
89.0 0.0 -1.9	88.9 -0.9 -1.8	0.9
82.8 0.0 -1.7	82.6 -0.5 -1.1	0.8
69.3 0.0 -1.4	68.8 -0.5 -1.0	0.8
54.1 0.0 -1.0	53.5 -0.1 -0.7	0.7
36.6 0.0 -0.5	36.1 -0.8 0.0	1.1
16.0 0.0 0.0	16.0 0.3 0.0	0.3
24.0 22.0 -46.0	23.3 22.9 -45.5	1.2
40.9 17.9 -36.6	40.0 17.8 -36.8	0.9
63.7 10.3 -23.8	63.0 10.8 -24.2	0.9
47.0 68.0 48.0	46.7 67.5 47.9	0.6
58.5 47.1 37.9	58.5 47.3 38.7	0.9
74.2 22.9 21.4	73.6 22.9 21.7	0.7
50.0 -65.0 27.0	49.5 -65.2 27.5	0.8
62.1 -39.8 21.0	61.6 -40.2 21.1	0.6
77.0 -19.1 11.0	76.5 -19.7 11.4	0.8
71.2 18.9 17.3	70.9 18.7 17.5	0.4
71.2 22.1 73.1	70.8 22.1 73.3	0.5
47.7 71.2 16.2	47.1 70.5 16.0	1.0
38.0 55.4 -20.9	37.3 55.2 -21.0	0.8
73.7 -22.8 67.6	73.1 -22.6 67.5	0.6
52.3 -52.3 -20.1	51.9 -52.6 -18.9	1.3
43.3 -17.0 -48.6	42.6 -15.9 -48.7	1.3
95.0 0.0 -2.0	95.1 -0.6 -2.1	0.6
88.5 -0.4 -3.1	88.3 -1.4 -3.1	1.1
82.0 -0.9 -4.1	81.7 -1.2 -3.6	0.6
67.7 -2.0 -4.4	67.0 -2.0 -4.3	0.7
52.2 -2.5 -3.5	51.9 -3.0 -2.8	1.0
37.5 -3.9 -3.1	37.0 -3.9 -3.2	0.5
26.3 -6.8 -3.4	25.6 -6.5 -3.0	0.9
Average		0.9
Gamut-Volume		100 %

Measurement Data

This table lists all RGB measurements. The XYZ values represent the values from the measurement device.

RGB	XYZ	RGB	XYZ
255 255 255	112.83 117.83 114.96	85 85 170	21.40 19.11 50.34
0 0 0	0.13 0.14 0.26	85 170 170	27.70 42.66 53.50
12 12 12	0.53 0.56 0.58	170 85 170	47.02 32.38 51.14
25 25 25	1.79 1.86 1.80	170 170 85	47.17 52.58 19.38
38 38 38	3.68 3.82 3.69	21 129 207	18.69 26.97 72.52
51 51 51	6.12 6.32 6.10	93 159 220	33.96 43.06 83.29
63 63 63	8.81 9.21 9.05	158 193 232	58.41 66.29 93.90
76 76 76	12.40 13.07 12.64	166 0 103	36.76 18.95 20.43
89 89 89	16.51 17.21 16.79	181 85 143	49.23 33.45 37.85
102 102 102	21.08 21.99 21.45	204 154 190	68.44 59.03 65.23
114 114 114	25.85 27.09 26.29	233 222 9	78.36 85.81 8.81
127 127 127	31.55 32.98 32.07	234 226 89	81.74 90.01 23.98
140 140 140	37.65 39.32 38.00	234 231 159	87.49 94.90 52.89
153 153 153	44.22 46.19 44.81	152 80 64	32.85 24.07 10.03
165 165 165	50.50 52.86 51.43	103 66 56	17.10 13.87 7.71
178 178 178	58.43 61.02 59.08	94 31 31	12.87 8.00 2.84
191 191 191	66.52 69.32 67.70	95 26 64	13.97 8.17 8.57
204 204 204	75.12 78.66 76.29	114 103 35	21.33 22.26 5.23
216 216 216	83.31 87.34 84.68	37 78 44	5.27 9.60 5.43
229 229 229	92.58 97.24 94.07	33 77 97	7.18 10.44 18.52
242 242 242	103.70 108.20 105.35	37 33 67	4.42 3.76 9.03
0 0 128	5.12 2.61 28.07	215 216 220	82.96 87.10 87.46
0 0 255	18.24 9.92 101.35	194 195 199	69.16 72.44 72.06
0 128 0	5.11 18.97 2.93	152 153 155	43.89 46.02 45.83
0 128 128	10.28 22.15 30.78	110 110 112	24.30 25.39 25.20
0 170 255	27.02 43.03 106.11	68 68 69	10.09 10.66 10.39
0 255 0	18.25 67.24 9.24	30 30 30	2.38 2.47 2.41
0 255 170	27.09 72.92 56.34	41 30 107	6.89 4.72 21.00
0 255 255	36.91 78.69 110.85	79 66 138	16.31 13.43 34.18
85 85 85	15.11 15.90 15.53	138 128 183	39.82 37.43 59.49
128 0 0	20.81 10.78 0.78	164 21 31	34.04 18.20 3.19
128 0 128	26.00 13.37 29.71	180 84 63	44.21 30.73 10.37
128 128 0	26.57 30.01 3.46	202 150 127	60.94 53.87 33.53
128 128 128	31.95 33.35 32.33	42 127 54	9.07 21.26 8.82
128 128 255	45.31 40.98 106.70	96 154 93	22.82 35.36 20.44
128 255 128	45.57 82.40 38.79	157 190 153	49.03 59.84 46.58
170 0 255	53.38 28.06 104.64	186 145 127	54.26 49.22 33.25
170 170 170	53.52 55.99 54.44	200 143 27	54.78 48.86 6.27
170 255 0	54.36 85.90 10.06	166 11 74	35.75 18.63 11.59
170 255 255	73.36 97.58 113.65	114 20 105	20.96 11.34 20.76
255 0 0	75.56 38.80 1.54	157 182 36	41.39 53.01 8.89
255 0 170	84.41 43.22 50.87	31 129 139	13.04 23.88 36.10
255 0 255	94.17 48.90 105.62	32 90 167	13.04 15.58 48.38
255 128 128	86.04 61.03 33.79	236 237 242	98.98 103.64 104.48
255 170 0	83.98 70.63 5.98	212 215 221	81.28 85.59 87.80
255 170 255	103.10 82.09 110.19	189 193 201	67.07 70.54 73.29
255 255 0	93.72 106.13 10.51	144 149 156	40.74 43.19 46.04
255 255 170	103.03 111.94 60.14	102 107 111	21.96 23.62 24.72
170 85 85	40.80 29.13 16.14	66 72 75	10.25 11.23 12.13
85 170 85	21.38 39.31 18.72	41 50 51	4.69 5.45 6.00

Uniformity

The uniformity test shows the luminance (in %) and the color deviation (in Delta C*) from the centre to the 8 measuring points around it. The maximum deviation for the luminance may be 10%. The average value and the chroma deviations are only informative. This test is not taken in consideration for the UDACT certification.

Results of the white measurements:

Absolute Luminance	117.36 Cd/m2	125.97 Cd/m2	135.06 Cd/m2
Luminance to Centre	100 %	107 %	115 %
Lab-Chroma to Centre	3.18	1.28	3.10
Absolute Luminance	110.46 Cd/m2	117.84 Cd/m2	127.05 Cd/m2
Luminance to Centre	94 %	100 %	108 %
Lab-Chroma to Centre	1.55	0.00	1.19
Absolute Luminance	97.99 Cd/m2	109.76 Cd/m2	118.59 Cd/m2
Luminance to Centre	83 %	93 %	101 %
Lab-Chroma to Centre	1.13	2.20	1.50

Results of the gray measurements:

Absolute Luminance	34.84 Cd/m2	37.06 Cd/m2	39.24 Cd/m2
Luminance to Centre	102 %	109 %	115 %
Lab-Chroma to Centre	0.67	1.46	2.12
Absolute Luminance	32.56 Cd/m2	34.00 Cd/m2	37.87 Cd/m2
Luminance to Centre	96 %	100 %	111 %
Lab-Chroma to Centre	1.01	0.20	1.07
Absolute Luminance	29.09 Cd/m2	33.64 Cd/m2	35.79 Cd/m2
Luminance to Centre	86 %	99 %	105 %
Lab-Chroma to Centre	1.13	0.93	1.00

Results of the dark measurements:

Absolute Luminance	9.86 Cd/m2	10.13 Cd/m2	10.97 Cd/m2
Luminance to Centre	103 %	106 %	115 %
Lab-Chroma to Centre	0.12	0.68	1.10
Absolute Luminance	9.25 Cd/m2	9.52 Cd/m2	10.77 Cd/m2
Luminance to Centre	97 %	100 %	113 %
Lab-Chroma to Centre	1.17	0.45	0.49
Absolute Luminance	8.28 Cd/m2	9.58 Cd/m2	10.26 Cd/m2
Luminance to Centre	87 %	101 %	108 %
Lab-Chroma to Centre	0.91	0.85	1.47

Summary:

	Average	Max
Luminance Deviation	7%	17%
Chroma Deviation	1	3