

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2008-8-19 22:40:41
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY2
EDID-Name: VLED221WM
EDID-Serial: QWN080500110
Profile: C:/WINDOWS/System32/spool/DRIVERS/COLOR/new_ugra.icc
Created: 2008-8-19 22:34
Measurement device: DTP94-CRT mode

Summary

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

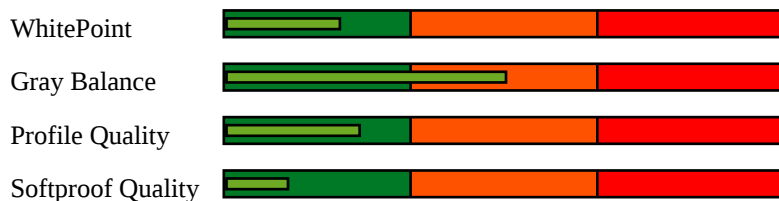
Calibration

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:	129.34 136.50 132.12
XYZ (normalized):	94.75 100.00 96.79
Luminance:	136.5 Cd/m2
Next Temperature:	5831 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	1.2 deltaE

Blackpoint

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

Luminance:	0.2 Cd/m2
Chromaticity:	2.6 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/m2	L	Chroma	Gamma
0	29508	0.20	1.32	2.59	
5	6477	0.80	5.29	1.59	1.83
10	5965	2.30	13.74	0.52	1.83
15	5831	4.50	21.20	0.00	1.83
20	5833	7.70	28.49	0.24	1.81
25	6010	11.20	34.41	1.12	1.82
30	5968	15.40	40.05	0.80	1.83
35	5876	20.70	45.86	0.29	1.81
40	5787	26.20	50.91	0.59	1.81
45	5789	31.70	55.30	0.98	1.83
50	5829	38.80	60.27	0.41	1.83
55	5881	46.40	64.96	0.76	1.80
60	5876	54.80	69.57	0.41	1.79
65	5835	62.30	73.31	0.97	1.81
70	5831	71.40	77.46	0.00	1.82
75	5835	80.80	81.40	1.06	1.81
80	5833	91.30	85.45	0.55	1.79
85	5876	100.90	88.88	0.50	1.86
90	5829	112.40	92.73	0.59	1.88
95	5876	123.90	96.31	0.53	1.89
100	5831	136.50	100.00	0.00	
Average	5862			0.54	1.83
Range				2.03	
Max				1.12	

Tone values = 91.1%

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	1.3 0.4 -2.5	-1.3 -0.4 2.5	2.9
0 0 128	14.9 39.8 -68.5	0.6 1.8 -1.3	2.3
0 0 255	30.7 60.2 -104.7	0.9 2.7 -0.7	2.9
0 128 0	49.1 -98.4 40.7	1.0 -0.3 2.4	2.6
0 128 128	51.3 -65.3 -14.7	1.1 -0.4 1.4	1.8
0 170 255	66.8 -51.2 -50.5	1.1 0.6 2.1	2.5
0 255 0	83.3 -148.9 65.5	0.7 -0.3 -0.2	0.8
0 255 170	84.9 -121.9 9.9	0.8 -0.1 1.4	1.6
0 255 255	86.7 -99.7 -21.4	0.8 0.4 1.2	1.5
85 85 85	44.0 -0.3 -0.1	-0.0 0.3 0.1	0.3
128 0 0	34.6 68.9 46.6	0.2 1.2 4.2	4.3
128 0 128	38.4 74.2 -29.1	0.1 0.4 -2.0	2.0
128 128 0	58.5 -11.9 53.7	0.4 1.8 1.5	2.4
128 128 128	60.5 0.0 0.0	0.2 0.0 -0.0	0.2
128 128 255	64.6 18.7 -52.6	0.3 1.0 0.6	1.1
128 255 128	89.0 -80.3 34.8	0.1 0.4 -0.7	0.8
170 0 255	52.6 92.7 -67.9	0.2 0.9 -1.8	2.1
170 170 170	74.9 0.7 -0.6	0.1 -0.7 0.6	1.0
170 255 0	90.6 -64.9 75.7	0.2 1.5 -1.0	1.8
170 255 255	93.9 -39.6 -9.7	0.0 0.1 -0.1	0.2
255 0 0	59.9 106.2 80.2	0.8 -0.2 -2.6	2.7
255 0 170	63.1 110.5 -11.0	0.4 -1.1 -1.4	1.8
255 0 255	65.9 113.4 -45.6	0.5 -0.6 -1.4	1.6
255 128 128	75.4 62.0 24.4	0.4 -0.6 -0.6	0.9
255 170 0	81.1 31.9 78.3	0.6 1.6 -0.9	1.9
255 170 255	85.1 46.4 -19.6	0.3 0.6 -0.1	0.7
255 255 0	96.8 -17.3 85.3	0.4 2.0 -1.8	2.7
255 255 170	98.4 -7.5 31.6	0.2 -0.1 -0.1	0.2
255 255 255	100.0 0.0 -0.0	0.0 0.0 -0.0	0.0
170 85 85	55.9 48.7 19.2	-0.0 -0.4 -0.4	0.6
85 170 85	66.2 -63.2 26.5	0.3 0.3 0.4	0.6
85 85 170	47.1 15.5 -41.8	0.2 0.0 0.8	0.9
85 170 170	67.9 -47.4 -11.8	0.3 0.7 1.0	1.2
170 85 170	58.1 55.3 -23.3	0.1 -0.5 0.4	0.7
170 170 85	73.3 -8.2 37.5	0.1 -0.2 0.0	0.2
Average			1.5
Maximum			4.3

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	96 %
sRGB	97 %
AdobeRGB	91 %
ECI-RGB v1.0	85 %

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	54.2 -34.7 -51.2	2.7
66.9 -24.7 -37.1	66.4 -25.7 -37.4	1.1
79.7 -12.5 -21.8	79.5 -13.0 -21.8	0.6
48.0 74.0 -3.0	47.9 74.6 -2.2	1.0
60.8 50.6 -6.7	60.7 51.7 -6.5	1.1
76.4 25.8 -6.9	76.0 26.3 -6.9	0.6
89.0 -5.0 93.0	88.7 -5.7 79.5	13.5
90.3 -4.7 62.6	90.2 -5.6 63.8	1.5
92.2 -3.5 31.1	92.0 -3.4 30.7	0.5
53.1 37.7 28.9	53.0 38.1 29.9	1.0
41.5 22.7 16.8	41.5 21.6 16.6	1.1
31.9 40.0 24.0	31.9 39.6 24.3	0.5
32.5 44.5 -1.8	32.8 43.9 -1.5	0.7
51.3 1.3 44.5	51.1 0.7 44.4	0.6
34.6 -36.4 13.9	34.5 -36.4 13.3	0.5
36.0 -26.2 -20.9	35.6 -26.0 -21.2	0.5
20.9 9.6 -23.6	21.0 9.5 -23.7	0.1
89.0 0.0 -1.9	88.7 -0.2 -1.6	0.4
82.8 0.0 -1.7	82.5 0.2 -1.9	0.4
69.3 0.0 -1.4	69.2 -0.2 -1.8	0.4
54.1 0.0 -1.0	53.5 0.8 -1.4	1.1
36.6 0.0 -0.5	36.3 -0.8 -1.1	1.0
16.0 0.0 0.0	16.5 0.3 -0.2	0.6
24.0 22.0 -46.0	23.9 21.1 -45.2	1.2
40.9 17.9 -36.6	40.4 17.5 -36.9	0.7
63.7 10.3 -23.8	63.2 9.7 -24.3	1.0
47.0 68.0 48.0	46.9 68.5 48.5	0.8
58.5 47.1 37.9	58.2 47.9 38.3	1.0
74.2 22.9 21.4	73.9 22.5 21.6	0.5
50.0 -65.0 27.0	49.5 -65.3 26.5	0.8
62.1 -39.8 21.0	61.8 -39.7 20.6	0.5
77.0 -19.1 11.0	76.7 -20.2 11.1	1.2
71.2 18.9 17.3	71.0 19.6 17.6	0.8
71.2 22.1 73.1	70.6 21.1 67.5	5.7
47.7 71.2 16.2	47.7 71.7 17.3	1.2
38.0 55.4 -20.9	37.8 55.5 -20.2	0.8
73.7 -22.8 67.6	73.2 -24.6 64.3	3.8
52.3 -52.3 -20.1	51.5 -53.3 -20.9	1.5
43.3 -17.0 -48.6	42.6 -17.6 -49.7	1.4
95.0 0.0 -2.0	94.6 -0.7 -1.9	0.8
88.5 -0.4 -3.1	88.1 -1.7 -3.2	1.4
82.0 -0.9 -4.1	81.6 -0.4 -4.0	0.6
67.7 -2.0 -4.4	67.3 -2.4 -5.0	0.9
52.2 -2.5 -3.5	51.4 -1.0 -4.4	1.9
37.5 -3.9 -3.1	37.3 -4.4 -3.2	0.6
26.3 -6.8 -3.4	26.4 -7.3 -3.5	0.5
Average		1.3
Gamut-Volume		96 %

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	129.34 136.50 132.12	85 85 170	25.54 22.20 56.49
0 0 0	0.21 0.20 0.41	85 170 170	32.71 52.10 63.20
12 12 12	0.78 0.80 0.90	170 85 170	54.87 35.40 57.23
25 25 25	2.15 2.30 2.23	170 170 85	54.32 62.00 25.88
38 38 38	4.26 4.50 4.36	0 127 213	21.67 31.00 84.50
51 51 51	7.32 7.70 7.50	87 157 225	38.58 49.60 95.53
63 63 63	10.45 11.20 10.91	155 192 235	66.59 76.60 107.14
76 76 76	14.46 15.40 15.04	165 38 105	44.06 22.30 23.56
89 89 89	19.55 20.70 20.10	181 96 145	57.73 39.10 44.32
102 102 102	24.97 26.20 25.43	203 158 192	78.41 68.00 75.09
114 114 114	30.31 31.70 30.96	238 220 0	89.04 99.50 16.62
127 127 127	36.66 38.80 37.33	238 224 70	93.60 104.20 27.74
140 140 140	44.09 46.40 45.58	237 229 152	100.63 109.60 61.73
153 153 153	51.76 54.80 53.20	153 86 60	38.41 28.30 11.68
165 165 165	59.38 62.30 61.02	104 69 55	20.03 16.50 9.30
178 178 178	67.65 71.40 69.11	94 38 29	15.13 9.40 3.28
191 191 191	77.01 80.80 79.14	95 36 65	16.90 10.00 10.41
204 204 204	86.76 91.30 88.90	116 103 23	24.61 26.20 5.90
216 216 216	95.31 100.90 97.96	39 75 42	6.08 11.30 6.56
229 229 229	106.19 112.40 108.15	30 75 99	8.20 12.20 22.10
242 242 242	117.04 123.90 120.29	35 34 69	5.21 4.50 11.13
0 0 128	6.14 2.80 29.94	215 216 220	95.08 100.40 99.81
0 0 255	21.31 9.70 105.61	194 195 199	79.31 83.50 83.50
0 128 0	5.96 24.30 5.85	152 153 156	51.32 54.20 54.36
0 128 128	12.29 27.10 36.95	110 110 112	28.10 29.40 29.49
0 170 255	31.91 50.70 119.38	68 68 69	11.73 12.50 12.54
0 255 0	21.36 86.20 18.83	30 30 30	2.86 3.00 2.94
0 255 170	32.06 90.90 72.52	36 34 111	8.00 5.70 24.56
0 255 255	43.49 96.10 128.85	76 69 142	19.05 15.90 40.05
85 85 85	17.85 18.90 18.35	135 131 187	45.50 43.60 68.88
128 0 0	23.92 10.90 1.15	165 44 24	39.81 21.20 3.62
128 0 128	30.75 13.90 30.90	181 93 58	50.51 35.10 11.90
128 128 0	29.75 35.90 6.73	203 154 124	70.53 63.10 39.24
128 128 128	37.05 39.10 37.85	46 121 48	10.34 24.70 10.53
128 128 255	52.76 46.30 116.29	98 149 88	26.43 41.30 24.05
128 255 128	52.65 101.80 51.21	158 187 150	56.27 69.80 54.29
170 0 255	62.54 28.30 107.07	188 148 124	63.01 57.30 38.41
170 170 170	62.52 65.60 64.25	203 146 0	61.94 56.10 8.88
170 255 0	61.59 105.90 20.28	166 42 73	42.49 22.10 13.23
170 255 255	85.45 116.70 130.33	113 37 108	24.76 13.50 23.95
255 0 0	82.57 36.90 2.31	161 178 0	46.82 61.70 11.52
255 0 170	94.89 42.30 53.35	26 124 141	14.54 27.30 42.68
255 0 255	106.06 47.40 108.42	18 89 172	14.70 18.10 56.81
255 128 128	96.74 65.70 39.10	236 237 242	111.69 118.30 117.95
255 170 0	92.35 79.00 11.52	212 215 222	92.66 98.80 100.85
255 170 255	116.51 90.00 120.76	189 193 202	76.93 81.30 84.45
255 255 0	103.83 124.80 20.97	144 149 157	47.11 50.60 54.25
255 255 170	117.06 130.60 74.81	101 106 112	25.18 26.80 28.99
170 85 85	47.12 32.00 19.04	66 72 75	11.92 13.30 14.25
85 170 85	25.09 48.70 24.99	41 50 52	5.63 6.70 7.43