

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2009-5-6 10:29:29
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
EDID-Name:
EDID-Serial:
Profile: C:/WINDOWS/System32/spool/.../06.05.09-5800K-18-120cd-trc.icc
Created: 2009-5-6 10:21
Measurement device: DTP94-LCD mode

Summary

The monitor has passed the certification according to the UGRA DACT specifications.

Calibration

White Point	yes
Gray balance	yes
Profile quality	yes

Softproofing

MultiColor, HighBody	yes
Offset/Gravure Paper Type 1/2	yes
Offset on uncoated paper	yes
Newspaper Printing	yes
sRGB	yes
AdobeRGB	yes
ECI-RGB	yes

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:	114.18 119.80 117.34
XYZ (normalized):	95.31 100.00 97.95
Luminance:	119.8 Cd/m2
Next Temperature:	5835 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.3 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:	2.1 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	13615	0.20	1.51	2.07	
5	7616	0.60	4.52	2.81	1.89
10	5782	2.00	13.65	0.58	1.84
15	5694	4.10	21.66	0.72	1.82
20	5973	6.70	28.36	0.63	1.81
25	5924	9.80	34.36	0.66	1.83
30	5839	13.50	40.03	0.61	1.82
35	5930	17.90	45.55	0.51	1.82
40	5876	23.00	50.92	0.92	1.82
45	5837	27.90	55.37	0.39	1.83
50	5786	34.30	60.45	0.72	1.82
55	5786	40.80	65.01	0.76	1.82
60	5835	47.90	69.46	0.00	1.80
65	5835	55.10	73.54	0.00	1.81
70	5837	62.90	77.58	0.51	1.80
75	5835	71.70	81.76	0.00	1.79
80	5835	81.10	85.85	0.00	1.75
85	5831	90.00	89.45	1.14	1.80
90	5787	100.00	93.22	0.56	1.75
95	5787	109.80	96.68	0.58	1.76
100	5835	119.80	100.00	0.00	
Average	5834			0.49	1.81
Range				1.75	
Max				1.14	

Tone values = 97.8%

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	1.5 0.3 -2.0	-1.5 -0.3 2.0	2.5
0 0 128	13.5 48.5 -75.9	0.1 0.3 -0.4	0.5
0 0 255	28.1 75.3 -116.3	0.6 -1.6 0.9	1.9
0 128 0	51.3 -83.3 53.3	-0.1 -1.3 1.2	1.8
0 128 128	53.2 -56.4 -12.0	-0.1 0.2 -0.6	0.7
0 170 255	68.2 -41.2 -50.8	0.0 0.2 0.1	0.2
0 255 0	85.8 -127.1 82.1	-0.1 -0.8 0.4	0.9
0 255 170	87.2 -105.3 16.6	-0.1 0.2 -0.6	0.6
0 255 255	88.5 -84.6 -18.8	-0.0 -0.4 -0.3	0.5
85 85 85	43.9 -0.3 -0.4	0.1 0.3 0.4	0.5
128 0 0	33.7 66.1 51.5	-0.2 0.9 1.6	1.8
128 0 128	36.7 73.9 -36.4	0.0 0.4 -0.3	0.5
128 128 0	59.3 -10.6 65.8	-0.1 -0.6 0.4	0.7
128 128 128	60.9 -0.3 0.7	-0.2 0.3 -0.7	0.7
128 128 255	64.3 22.0 -56.9	-0.1 -0.1 0.4	0.5
128 255 128	90.4 -71.7 41.2	-0.1 -0.5 -0.3	0.6
170 0 255	50.0 96.9 -79.7	0.3 -0.8 1.3	1.5
170 170 170	75.1 0.0 0.0	-0.1 0.0 -0.0	0.1
170 255 0	92.0 -58.7 92.2	-0.1 -0.7 -0.7	1.0
170 255 255	94.4 -34.8 -9.5	-0.0 -0.2 0.1	0.3
255 0 0	59.0 100.6 88.7	-0.2 0.7 -3.2	3.2
255 0 170	61.3 107.0 -20.0	0.0 -0.0 1.3	1.3
255 0 255	63.7 112.7 -56.4	0.1 -0.2 0.9	0.9
255 128 128	75.0 56.3 23.9	-0.1 0.8 -0.6	1.1
255 170 0	81.5 29.0 91.9	-0.0 0.0 -1.5	1.5
255 170 255	84.5 45.3 -23.3	-0.0 -0.1 0.1	0.2
255 255 0	97.8 -16.9 101.2	-0.1 0.0 -1.1	1.1
255 255 170	98.9 -8.5 35.2	-0.1 0.1 0.0	0.1
255 255 255	100.0 0.0 -0.0	-0.0 0.0 -0.0	0.0
170 85 85	55.2 45.3 18.5	-0.0 -0.3 -0.2	0.3
85 170 85	67.4 -57.1 32.2	-0.1 0.3 0.0	0.3
85 85 170	46.5 17.2 -45.2	0.2 0.1 0.7	0.7
85 170 170	68.8 -41.2 -10.7	-0.1 0.2 0.4	0.5
170 85 170	57.1 53.9 -27.4	-0.0 -0.7 0.4	0.8
170 170 85	73.8 -9.1 42.4	-0.1 -0.1 0.1	0.2
Average			0.9
Maximum			3.2

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	99 %
sRGB	100 %
AdobeRGB	99 %
ECI-RGB v1.0	91 %

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	55.8 -30.1 -49.3	7.0
66.9 -24.7 -37.1	67.0 -25.3 -37.0	0.6
79.7 -12.5 -21.8	79.8 -13.1 -21.9	0.6
48.0 74.0 -3.0	48.3 73.8 -2.6	0.5
60.8 50.6 -6.7	61.0 50.7 -5.9	0.9
76.4 25.8 -6.9	76.6 25.4 -7.0	0.4
89.0 -5.0 93.0	89.2 -5.2 93.9	0.9
90.3 -4.7 62.6	90.7 -4.8 63.2	0.8
92.2 -3.5 31.1	92.5 -3.9 31.1	0.5
53.1 37.7 28.9	53.1 38.0 28.8	0.3
41.5 22.7 16.8	41.6 22.2 16.8	0.5
31.9 40.0 24.0	31.8 39.2 23.3	1.0
32.5 44.5 -1.8	32.4 43.3 -2.3	1.2
51.3 1.3 44.5	51.1 1.5 44.5	0.3
34.6 -36.4 13.9	34.8 -35.8 14.0	0.7
36.0 -26.2 -20.9	35.9 -25.6 -21.1	0.6
20.9 9.6 -23.6	21.2 10.3 -25.0	1.6
89.0 0.0 -1.9	89.4 -0.6 -1.8	0.7
82.8 0.0 -1.7	83.0 0.2 -2.4	0.7
69.3 0.0 -1.4	69.3 -0.9 -1.2	0.9
54.1 0.0 -1.0	54.1 -0.5 -1.6	0.8
36.6 0.0 -0.5	36.6 -0.3 -0.6	0.3
16.0 0.0 0.0	16.8 -0.2 0.6	1.0
24.0 22.0 -46.0	23.8 22.8 -46.0	0.8
40.9 17.9 -36.6	40.9 17.9 -36.5	0.1
63.7 10.3 -23.8	63.9 10.0 -24.1	0.5
47.0 68.0 48.0	47.1 67.9 48.6	0.6
58.5 47.1 37.9	58.6 47.2 37.5	0.4
74.2 22.9 21.4	74.3 22.7 22.0	0.7
50.0 -65.0 27.0	49.9 -63.8 26.2	1.4
62.1 -39.8 21.0	62.1 -39.6 20.6	0.5
77.0 -19.1 11.0	77.0 -19.7 11.0	0.7
71.2 18.9 17.3	71.2 19.4 17.8	0.8
71.2 22.1 73.1	71.4 22.9 74.4	1.5
47.7 71.2 16.2	47.9 70.9 16.9	0.7
38.0 55.4 -20.9	37.8 54.2 -21.2	1.2
73.7 -22.8 67.6	73.8 -23.0 68.3	0.7
52.3 -52.3 -20.1	52.5 -50.7 -19.5	1.7
43.3 -17.0 -48.6	43.4 -17.2 -48.7	0.2
95.0 0.0 -2.0	95.1 0.2 -2.7	0.7
88.5 -0.4 -3.1	88.9 -1.2 -3.1	0.9
82.0 -0.9 -4.1	82.2 -0.5 -5.1	1.1
67.7 -2.0 -4.4	67.5 -2.0 -5.3	1.0
52.2 -2.5 -3.5	52.5 -4.4 -3.7	1.9
37.5 -3.9 -3.1	37.4 -4.7 -4.8	1.9
26.3 -6.8 -3.4	26.7 -9.2 -4.1	2.5
Average		1.0
Gamut-Volume		99 %

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	114.18 119.80 117.34	85 85 170	22.48 19.00 52.58
0 0 0	0.20 0.20 0.35	85 170 170	31.74 47.20 56.69
12 12 12	0.60 0.60 0.79	170 85 170	46.34 29.90 53.20
25 25 25	1.89 2.00 1.91	170 170 85	48.34 55.30 20.63
38 38 38	3.90 4.10 3.89	0 129 207	21.53 29.00 76.11
51 51 51	6.33 6.70 6.62	80 159 220	35.07 44.50 85.86
63 63 63	9.26 9.80 9.60	152 193 232	59.50 68.00 96.18
76 76 76	12.94 13.50 13.38	174 39 103	39.11 20.00 21.53
89 89 89	17.00 17.90 17.74	188 96 143	51.07 34.80 39.31
102 102 102	21.73 23.00 22.33	207 159 190	69.94 60.80 67.95
114 114 114	26.67 27.90 27.49	238 217 6	79.97 88.70 9.44
127 127 127	32.60 34.30 33.10	238 222 89	84.11 92.60 25.48
140 140 140	38.78 40.80 39.37	237 228 159	89.92 97.70 55.41
153 153 153	45.65 47.90 46.92	158 85 64	34.01 25.00 10.82
165 165 165	52.51 55.10 53.97	107 68 56	17.78 14.50 8.22
178 178 178	60.12 62.90 61.97	98 37 31	13.18 8.20 3.03
191 191 191	68.34 71.70 70.23	99 36 64	14.54 8.60 9.31
204 204 204	77.29 81.10 79.44	116 101 34	21.90 23.00 5.21
216 216 216	85.28 90.00 87.11	33 75 44	5.55 10.10 5.79
229 229 229	95.32 100.00 97.08	23 76 97	7.46 10.90 19.89
242 242 242	104.66 109.80 106.59	36 35 67	4.73 4.00 10.41
0 0 128	5.77 2.20 29.97	215 216 220	85.28 89.80 90.60
0 0 255	19.95 7.40 104.79	194 195 199	71.08 74.40 75.95
0 128 0	7.73 23.50 3.43	152 153 155	45.17 47.70 47.84
0 128 128	13.36 25.70 33.14	110 110 112	25.16 26.50 26.97
0 170 255	32.65 46.70 110.49	68 68 69	10.64 11.20 11.20
0 255 0	26.43 81.30 11.31	30 30 30	2.56 2.70 2.57
0 255 170	35.81 84.90 61.08	38 36 107	7.24 5.00 22.24
0 255 255	46.35 88.70 115.51	78 71 138	17.27 14.30 35.88
85 85 85	15.68 16.50 16.35	137 132 183	41.30 39.30 62.31
128 0 0	19.63 9.10 0.53	172 42 30	35.09 18.80 3.26
128 0 128	25.35 11.20 30.51	187 91 63	44.81 31.30 11.07
128 128 0	27.41 32.50 3.69	207 153 127	63.04 56.10 34.99
128 128 128	33.17 34.90 33.68	30 120 55	9.60 22.10 9.68
128 128 255	47.61 40.30 109.64	91 148 93	23.66 36.60 21.62
128 255 128	51.98 92.60 41.74	155 186 153	50.37 61.80 48.76
170 0 255	52.81 22.40 106.90	191 147 126	55.80 50.60 34.16
170 170 170	55.28 58.00 56.81	207 144 26	56.74 50.60 6.37
170 255 0	59.35 96.30 11.54	174 41 73	37.41 19.60 12.01
170 255 255	79.20 103.80 117.00	118 38 105	21.59 11.90 21.86
255 0 0	67.92 31.30 1.10	158 176 36	42.84 55.30 9.23
255 0 170	77.72 34.80 53.19	0 125 140	13.97 25.00 38.19
255 0 255	87.96 38.60 107.38	5 92 167	13.59 16.50 50.79
255 128 128	81.18 57.00 34.55	236 237 242	100.50 105.20 107.39
255 170 0	80.57 70.20 6.28	212 215 221	83.85 88.60 91.24
255 170 255	100.86 77.90 111.91	189 193 201	69.19 72.70 77.75
255 255 0	94.25 112.40 12.03	143 149 156	42.08 44.80 48.87
255 255 170	103.83 116.00 63.09	101 107 111	22.56 24.70 26.47
170 85 85	39.29 27.30 16.65	65 72 75	10.53 11.70 13.34
85 170 85	24.81 44.60 20.15	40 50 52	4.93 6.00 6.87