

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2009-5-6 11:43:20
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
EDID-Name:
EDID-Serial:
Profile: C:/WINDOWS/System32/spool/.../06.05.09-5800K-18-150cd-trc.icc
Created: 2009-5-6 11:28
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:	142.68 149.70 146.63
XYZ (normalized):	95.31 100.00 97.95
Luminance:	149.7 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:	1.6 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	13033	0.20	1.21	1.56	
5	6799	0.80	4.83	1.12	1.86
10	5781	2.50	13.65	0.74	1.83
15	5737	5.10	21.60	0.89	1.82
20	5833	8.40	28.41	0.24	1.81
25	5833	12.30	34.43	0.27	1.82
30	5833	17.10	40.28	0.30	1.82
35	5883	22.40	45.58	0.32	1.82
40	5786	28.90	51.04	0.63	1.81
45	5883	34.80	55.33	0.37	1.83
50	5786	42.80	60.42	0.72	1.82
55	5883	51.00	65.02	0.42	1.80
60	5837	59.90	69.48	0.46	1.79
65	5837	68.90	73.56	0.49	1.80
70	5837	78.70	77.62	0.51	1.80
75	5835	89.40	81.69	0.00	1.80
80	5835	101.20	85.81	0.00	1.76
85	5835	111.00	88.99	0.00	1.84
90	5833	124.20	93.00	0.59	1.80
95	5881	137.90	96.87	0.54	1.60
100	5835	149.70	100.00	0.00	
Average	5831			0.39	1.80
Range				1.38	
Max				0.89	

Tone values = 98.2%

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	1.2 0.2 -1.5	-1.2 -0.2 1.5	2.0
0 0 128	13.3 48.2 -75.4	-0.2 0.8 -1.6	1.8
0 0 255	28.2 75.5 -116.5	-0.2 -1.3 0.1	1.3
0 128 0	51.3 -83.1 53.0	0.1 -0.3 1.2	1.3
0 128 128	53.2 -56.2 -12.2	-0.0 0.2 -0.4	0.5
0 170 255	68.1 -41.2 -50.8	-0.1 -0.1 0.0	0.1
0 255 0	85.9 -126.5 82.0	0.0 0.3 0.1	0.3
0 255 170	87.1 -104.8 16.1	0.0 0.6 -0.0	0.6
0 255 255	88.5 -84.6 -18.8	0.0 -0.1 -0.3	0.3
85 85 85	43.9 -0.0 -0.3	0.1 0.0 0.3	0.3
128 0 0	33.7 65.9 52.0	-0.3 1.0 1.2	1.6
128 0 128	36.8 73.9 -36.4	-0.2 0.3 -0.4	0.6
128 128 0	59.2 -10.8 65.3	0.1 -0.1 0.7	0.7
128 128 128	60.9 -0.3 0.7	-0.2 0.3 -0.7	0.7
128 128 255	64.2 22.0 -56.9	-0.3 -0.4 0.2	0.5
128 255 128	90.4 -71.7 41.2	-0.0 0.2 -0.3	0.4
170 0 255	50.1 96.0 -79.2	-0.2 0.1 0.3	0.3
170 170 170	75.1 0.4 -0.3	-0.2 -0.4 0.3	0.5
170 255 0	92.0 -58.5 91.7	-0.0 -0.2 -0.6	0.6
170 255 255	94.4 -34.8 -9.5	-0.1 -0.1 0.1	0.2
255 0 0	59.0 100.2 90.0	-0.2 1.0 -4.0	4.1
255 0 170	61.3 106.7 -20.2	-0.1 0.1 1.3	1.4
255 0 255	63.6 112.2 -56.5	-0.1 0.1 0.8	0.8
255 128 128	74.9 56.3 23.9	-0.1 0.7 -0.6	1.0
255 170 0	81.5 28.7 91.3	0.0 0.3 -1.1	1.1
255 170 255	84.5 44.8 -23.5	-0.1 0.2 0.2	0.3
255 255 0	97.8 -16.9 101.2	0.0 0.4 -1.4	1.4
255 255 170	98.9 -9.0 35.0	-0.0 0.7 0.3	0.8
255 255 255	100.0 0.0 0.0	-0.0 0.0 -0.0	0.0
170 85 85	55.3 45.3 18.5	-0.2 -0.4 -0.2	0.5
85 170 85	67.4 -56.9 31.9	-0.0 0.6 0.2	0.7
85 85 170	46.5 17.7 -45.5	0.1 -0.6 0.9	1.1
85 170 170	68.8 -41.0 -11.0	-0.1 0.1 0.7	0.7
170 85 170	57.2 53.6 -27.5	-0.2 -0.6 0.5	0.8
170 170 85	73.8 -8.8 42.7	-0.1 -0.3 -0.2	0.4
Average			0.8
Maximum			4.1

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	55.7 -30.0 -49.2	7.0
66.9 -24.7 -37.1	67.1 -24.3 -37.3	0.5
79.7 -12.5 -21.8	79.9 -12.6 -21.7	0.2
48.0 74.0 -3.0	48.3 73.7 -2.2	1.0
60.8 50.6 -6.7	61.0 50.8 -6.4	0.5
76.4 25.8 -6.9	76.5 25.4 -7.5	0.7
89.0 -5.0 93.0	89.1 -5.2 93.8	0.8
90.3 -4.7 62.6	90.5 -5.4 63.2	1.0
92.2 -3.5 31.1	92.3 -3.9 31.1	0.5
53.1 37.7 28.9	53.2 38.3 29.0	0.6
41.5 22.7 16.8	41.7 22.0 17.0	0.8
31.9 40.0 24.0	32.0 39.7 23.8	0.4
32.5 44.5 -1.8	32.8 43.9 -1.8	0.6
51.3 1.3 44.5	51.1 1.1 44.5	0.3
34.6 -36.4 13.9	34.9 -37.4 14.3	1.1
36.0 -26.2 -20.9	36.2 -26.8 -20.2	0.9
20.9 9.6 -23.6	21.2 10.1 -24.8	1.3
89.0 0.0 -1.9	89.0 -0.2 -2.2	0.4
82.8 0.0 -1.7	82.9 0.2 -2.4	0.7
69.3 0.0 -1.4	69.5 0.2 -1.6	0.4
54.1 0.0 -1.0	53.7 0.7 -2.2	1.4
36.6 0.0 -0.5	36.7 -0.0 -0.3	0.3
16.0 0.0 0.0	16.2 1.6 -0.5	1.7
24.0 22.0 -46.0	24.4 21.7 -45.2	0.9
40.9 17.9 -36.6	41.2 18.3 -36.2	0.7
63.7 10.3 -23.8	63.9 9.9 -24.6	0.9
47.0 68.0 48.0	47.3 67.8 49.1	1.2
58.5 47.1 37.9	58.5 46.8 37.8	0.3
74.2 22.9 21.4	74.2 22.7 22.0	0.7
50.0 -65.0 27.0	49.9 -64.7 26.9	0.4
62.1 -39.8 21.0	62.0 -39.4 20.9	0.4
77.0 -19.1 11.0	77.1 -19.0 10.9	0.2
71.2 18.9 17.3	71.2 19.4 17.8	0.8
71.2 22.1 73.1	71.3 22.6 73.8	0.9
47.7 71.2 16.2	48.0 71.0 16.9	0.7
38.0 55.4 -20.9	38.1 54.8 -20.7	0.6
73.7 -22.8 67.6	73.8 -22.7 67.8	0.3
52.3 -52.3 -20.1	52.5 -50.0 -20.2	2.3
43.3 -17.0 -48.6	43.5 -16.8 -49.1	0.6
95.0 0.0 -2.0	95.3 -0.3 -2.9	1.0
88.5 -0.4 -3.1	88.5 -0.4 -3.8	0.6
82.0 -0.9 -4.1	82.2 -0.5 -5.1	1.1
67.7 -2.0 -4.4	67.5 -2.1 -5.8	1.4
52.2 -2.5 -3.5	52.2 -2.9 -4.1	0.7
37.5 -3.9 -3.1	37.8 -4.9 -4.2	1.5
26.3 -6.8 -3.4	26.7 -9.1 -3.8	2.4
Average		0.9
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	142.68 149.70 146.63	85 85 170	28.30 23.80 66.31
0 0 0	0.20 0.20 0.34	85 170 170	39.79 59.00 71.24
12 12 12	0.74 0.80 0.87	170 85 170	57.95 37.50 66.88
25 25 25	2.36 2.50 2.37	170 170 85	60.65 69.20 25.66
38 38 38	4.82 5.10 4.82	0 129 207	26.87 36.20 95.01
51 51 51	7.98 8.40 8.18	81 159 221	44.35 55.80 108.06
63 63 63	11.69 12.30 11.98	152 193 232	74.74 85.10 120.09
76 76 76	16.25 17.10 16.65	174 39 103	48.99 25.10 26.71
89 89 89	21.35 22.40 22.14	188 96 143	63.77 43.40 49.51
102 102 102	27.47 28.90 27.89	207 159 190	87.23 75.80 85.49
114 114 114	33.16 34.80 34.39	237 217 2	99.54 110.40 11.75
127 127 127	40.68 42.80 41.30	237 222 88	103.98 115.00 31.57
140 140 140	48.60 51.00 50.40	236 228 158	111.74 121.40 68.85
153 153 153	57.26 59.90 59.02	158 85 64	42.67 31.30 13.46
165 165 165	65.86 68.90 67.89	107 68 56	22.26 18.20 10.24
178 178 178	75.23 78.70 77.54	98 37 31	16.78 10.40 3.78
191 191 191	85.21 89.40 87.56	99 36 64	18.65 11.00 11.70
204 204 204	96.45 101.20 99.12	116 101 34	27.20 28.70 6.49
216 216 216	105.79 111.00 108.72	32 75 44	6.82 12.70 7.22
229 229 229	118.03 124.20 120.93	23 76 97	9.28 13.80 24.51
242 242 242	131.03 137.90 135.47	36 35 67	5.88 5.00 12.93
0 0 128	7.08 2.70 36.78	215 216 220	105.73 111.00 112.65
0 0 255	25.08 9.30 131.69	194 195 199	88.66 92.80 94.73
0 128 0	9.65 29.30 4.33	152 153 155	57.23 59.90 60.61
0 128 128	16.73 32.10 41.59	110 110 112	31.24 32.50 33.57
0 170 255	40.76 58.30 137.93	68 68 69	13.34 14.00 13.84
0 255 0	33.22 101.60 14.15	30 30 30	3.16 3.20 3.22
0 255 170	44.91 106.00 77.05	39 37 107	9.20 6.50 27.92
0 255 255	57.90 110.80 144.29	78 71 138	22.05 18.20 45.20
85 85 85	19.63 20.60 20.36	137 132 183	51.61 49.10 78.49
128 0 0	24.52 11.40 0.62	172 42 30	44.10 23.70 4.02
128 0 128	31.69 14.00 38.14	187 91 63	55.83 39.10 13.69
128 128 0	34.08 40.50 4.68	207 153 127	78.43 69.80 43.53
128 128 128	41.44 43.60 42.07	29 120 54	11.79 27.50 11.73
128 128 255	59.42 50.30 136.85	90 148 93	29.52 45.60 26.67
128 255 128	64.95 115.70 52.15	155 186 153	63.46 77.40 61.23
170 0 255	65.72 28.10 132.80	191 147 126	69.70 63.20 42.66
170 170 170	69.30 72.50 71.43	206 144 26	70.50 63.00 8.07
170 255 0	74.40 120.50 14.67	174 41 73	46.95 24.60 15.07
170 255 255	99.04 129.80 146.31	119 38 105	27.47 15.10 27.33
255 0 0	84.57 39.10 1.25	157 176 36	53.56 69.00 11.68
255 0 170	96.94 43.50 66.70	0 125 140	17.59 31.20 48.40
255 0 255	109.55 48.20 134.38	9 92 167	17.13 20.70 64.14
255 128 128	101.26 71.10 43.09	236 237 242	126.00 132.30 135.45
255 170 0	100.45 87.70 8.04	212 215 221	104.16 109.40 113.99
255 170 255	125.49 97.20 140.00	189 193 201	86.41 90.80 97.11
255 255 0	117.73 140.40 15.02	143 149 156	52.60 56.00 61.62
255 255 170	129.44 145.00 79.22	101 107 111	28.30 30.50 33.07
170 85 85	49.36 34.30 20.91	65 72 75	13.46 15.00 16.72
85 170 85	31.04 55.70 25.33	40 50 52	6.17 7.50 8.52