UGRA
Display Analysis & Certification Tool
Report

Basics

Date:	2009-10-9 3:34:59
Report-Version:	v1.3.1
Monitor-Name:	\\.\DISPLAY1
EDID-Name:	
EDID-Serial:	
Profile:	C:/WINDOWS/System32/spool/.../COLOR/09.10.09-ugra-trc.icc
Created:	2009-10-9 3:28
Measurement device:	DTP94-LCD mode

Summary

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

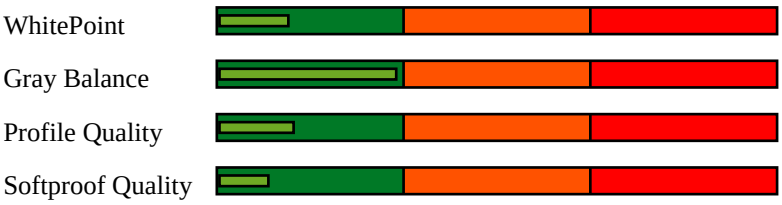
Calibration

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	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:	114.73 120.81 117.70
XYZ (normalized):	94.97 100.00 97.43
Luminance:	120.8 Cd/m2
Next Temperature:	5842 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.7 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:	1.5 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	13562	0.16	1.20	1.53	
5	6824	0.63	4.71	1.57	1.85
10	5793	1.95	13.32	1.52	1.83
15	5698	3.97	21.16	1.42	1.82
20	5692	6.68	28.19	1.39	1.81
25	5843	9.63	33.92	0.74	1.83
30	5823	13.50	39.87	0.80	1.83
35	5751	17.95	45.44	0.57	1.83
40	5756	22.98	50.71	0.60	1.82
45	5776	28.35	55.55	0.56	1.83
50	5785	34.34	60.27	0.47	1.83
55	5791	40.86	64.82	0.37	1.82
60	5796	47.88	69.21	0.37	1.82
65	5816	55.01	73.24	0.60	1.82
70	5812	63.00	77.37	0.71	1.82
75	5802	71.61	81.44	0.77	1.81
80	5816	80.63	85.37	0.74	1.80
85	5815	89.23	88.86	0.55	1.86
90	5804	98.80	92.48	1.29	1.87
95	5815	109.54	96.27	0.49	1.89
100	5842	120.81	100.00	0.00	
Average	5791			0.74	1.83
Range				1.91	
Max				1.52	

Tone values = 98.3%

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 0.1 -1.5	-1.2 -0.1 1.5	1.9
0 0 128	13.3 49.6 -76.5	-0.1 -0.0 -0.2	0.3
0 0 255	27.8 76.5 -116.9	0.3 -1.5 0.9	1.8
0 128 0	51.7 -81.7 54.4	-0.1 0.4 0.7	0.8
0 128 128	53.4 -55.0 -11.7	0.0 0.6 -0.2	0.7
0 170 255	68.2 -39.8 -50.2	0.2 0.2 0.4	0.4
0 255 0	86.4 -124.2 83.6	-0.1 1.2 -0.2	1.2
0 255 170	87.6 -102.4 17.1	-0.0 1.0 -0.0	1.0
0 255 255	88.9 -83.0 -18.1	0.0 0.7 0.1	0.7
85 85 85	43.7 0.5 0.2	0.3 -0.5 -0.2	0.6
128 0 0	33.1 67.2 48.5	-0.2 -0.0 1.3	1.4
128 0 128	36.0 75.3 -37.8	0.1 -0.6 0.0	0.6
128 128 0	59.3 -11.1 65.5	-0.0 -0.1 -0.2	0.2
128 128 128	60.6 0.1 0.4	0.1 -0.1 -0.4	0.5
128 128 255	63.8 22.4 -56.6	0.2 -0.4 0.2	0.5
128 255 128	90.6 -70.7 42.1	0.0 0.4 -0.6	0.7
170 0 255	49.3 98.0 -79.8	0.2 -1.3 0.2	1.3
170 170 170	74.8 0.7 -0.1	0.2 -0.7 0.1	0.7
170 255 0	92.1 -57.8 91.9	0.0 -0.5 -0.7	0.8
170 255 255	94.5 -34.0 -8.8	0.1 -0.2 -0.1	0.3
255 0 0	58.1 101.9 80.3	-0.1 -0.3 -2.4	2.4
255 0 170	60.4 108.0 -20.4	-0.0 -0.6 -0.1	0.6
255 0 255	62.8 114.0 -57.3	0.1 -1.0 0.2	1.0
255 128 128	74.4 57.0 22.9	0.1 -0.3 -1.0	1.0
255 170 0	81.2 29.1 89.1	0.1 -0.6 -1.3	1.5
255 170 255	84.0 45.6 -23.6	0.2 -0.8 -0.1	0.8
255 255 0	97.7 -16.7 99.7	0.1 -0.1 -1.0	1.0
255 255 170	98.8 -8.4 35.2	0.0 -0.0 -0.2	0.2
255 255 255	100.0 0.0 -0.0	0.0 0.0 0.0	0.0
170 85 85	54.7 45.6 18.1	0.1 -1.0 -0.7	1.2
85 170 85	67.4 -55.7 33.2	0.1 0.4 -0.6	0.7
85 85 170	46.3 18.4 -45.2	0.3 -1.1 0.8	1.3
85 170 170	68.8 -39.9 -10.1	0.2 -0.0 0.4	0.4
170 85 170	56.5 54.3 -28.1	0.2 -1.3 0.5	1.4
170 170 85	73.7 -8.8 43.0	0.1 -0.4 -0.8	0.9
Average			0.9
Maximum			2.4

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	98 %
sRGB	100 %
AdobeRGB	99 %
ECI-RGB v1.0	88 %

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	55.9 -28.8 -48.9	8.3
66.9 -24.7 -37.1	66.7 -24.9 -37.5	0.5
79.7 -12.5 -21.8	79.6 -12.2 -21.6	0.4
48.0 74.0 -3.0	47.9 75.0 -2.2	1.3
60.8 50.6 -6.7	60.8 51.7 -6.4	1.2
76.4 25.8 -6.9	76.3 26.5 -7.0	0.7
89.0 -5.0 93.0	89.0 -4.3 92.9	0.7
90.3 -4.7 62.6	90.4 -4.4 64.0	1.5
92.2 -3.5 31.1	91.9 -2.2 31.0	1.4
53.1 37.7 28.9	53.0 38.3 29.2	0.7
41.5 22.7 16.8	41.3 23.6 16.4	1.0
31.9 40.0 24.0	32.0 40.4 24.2	0.5
32.5 44.5 -1.8	32.3 45.2 -1.8	0.8
51.3 1.3 44.5	51.0 1.9 44.8	0.8
34.6 -36.4 13.9	34.4 -35.6 13.6	0.9
36.0 -26.2 -20.9	35.8 -25.9 -21.0	0.4
20.9 9.6 -23.6	20.8 11.2 -24.2	1.7
89.0 0.0 -1.9	88.9 0.8 -1.9	0.8
82.8 0.0 -1.7	82.6 0.7 -2.0	0.8
69.3 0.0 -1.4	69.1 0.1 -0.8	0.6
54.1 0.0 -1.0	53.8 0.9 -1.0	1.0
36.6 0.0 -0.5	36.3 0.8 -1.1	1.1
16.0 0.0 0.0	16.4 1.2 -0.5	1.4
24.0 22.0 -46.0	23.9 22.4 -45.7	0.6
40.9 17.9 -36.6	40.5 18.7 -36.8	1.0
63.7 10.3 -23.8	63.6 10.7 -24.0	0.4
47.0 68.0 48.0	46.9 68.9 48.8	1.3
58.5 47.1 37.9	58.4 48.1 38.7	1.3
74.2 22.9 21.4	74.0 23.4 21.8	0.7
50.0 -65.0 27.0	50.1 -65.2 27.0	0.2
62.1 -39.8 21.0	62.0 -39.8 21.4	0.4
77.0 -19.1 11.0	76.8 -18.9 11.4	0.4
71.2 18.9 17.3	71.2 19.6 18.0	1.1
71.2 22.1 73.1	71.3 22.8 74.0	1.1
47.7 71.2 16.2	47.6 72.2 16.6	1.1
38.0 55.4 -20.9	37.9 56.2 -20.7	0.9
73.7 -22.8 67.6	73.5 -22.7 68.1	0.5
52.3 -52.3 -20.1	52.7 -49.3 -19.0	3.2
43.3 -17.0 -48.6	43.1 -15.8 -49.0	1.3
95.0 0.0 -2.0	95.0 0.7 -1.9	0.7
88.5 -0.4 -3.1	88.4 0.1 -3.0	0.5
82.0 -0.9 -4.1	81.8 -0.0 -4.2	0.9
67.7 -2.0 -4.4	67.5 -1.6 -4.4	0.4
52.2 -2.5 -3.5	52.1 -2.2 -3.0	0.6
37.5 -3.9 -3.1	37.3 -3.5 -3.6	0.6
26.3 -6.8 -3.4	26.4 -5.9 -4.0	1.0
Average		1.1
Gamut-Volume		98 %

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	114.73 120.81 117.70	85 85 170	22.66 18.97 52.42
0 0 0	0.16 0.16 0.27	85 170 170	32.19 47.56 56.13
12 12 12	0.61 0.63 0.73	170 85 170	45.83 29.42 53.05
25 25 25	1.91 1.95 1.99	170 170 85	48.41 55.49 20.23
38 38 38	3.87 3.97 3.95	0 129 208	22.01 29.45 76.30
51 51 51	6.48 6.68 6.59	77 159 221	34.98 44.47 86.24
63 63 63	9.22 9.63 9.53	151 193 232	59.61 67.97 95.27
76 76 76	12.93 13.50 13.32	176 40 102	39.28 19.83 21.04
89 89 89	17.15 17.95 17.37	190 97 143	51.41 34.78 39.51
102 102 102	21.95 22.98 22.26	208 159 190	70.18 60.68 67.57
114 114 114	26.91 28.35 27.24	238 217 0	80.34 88.83 9.68
127 127 127	32.62 34.34 33.10	238 222 87	83.93 92.50 24.70
140 140 140	38.87 40.86 39.54	237 228 158	89.80 96.79 54.61
153 153 153	45.59 47.88 46.45	159 86 63	34.19 25.10 10.67
165 165 165	52.48 55.01 53.78	107 68 56	17.90 14.38 8.22
178 178 178	60.14 63.00 61.61	99 38 30	13.62 8.38 2.96
191 191 191	68.38 71.61 69.95	100 36 63	14.88 8.61 9.12
204 204 204	76.94 80.63 78.88	116 101 33	22.00 23.08 5.13
216 216 216	85.05 89.23 87.09	31 74 44	5.43 9.93 5.73
229 229 229	94.56 98.80 96.97	21 76 98	7.39 10.91 19.76
242 242 242	104.35 109.54 106.78	36 35 67	4.67 3.90 9.93
0 0 128	5.81 2.17 30.23	215 216 220	85.25 89.24 89.77
0 0 255	19.99 7.29 105.27	194 195 199	70.89 74.21 74.91
0 128 0	8.11 24.10 3.37	152 153 155	45.40 47.76 47.27
0 128 128	13.77 26.17 33.30	110 110 112	25.20 26.28 26.23
0 170 255	33.23 47.21 110.08	68 68 69	10.62 11.05 11.16
0 255 0	27.88 83.37 11.15	30 30 30	2.57 2.63 2.63
0 255 170	37.41 86.76 61.57	38 37 107	7.24 5.05 22.15
0 255 255	47.72 90.51 115.87	78 71 138	17.16 14.10 35.62
85 85 85	15.74 16.48 15.96	137 132 183	41.33 39.21 61.78
128 0 0	19.44 8.83 0.68	174 43 27	35.28 18.69 3.15
128 0 128	25.03 10.79 30.62	189 92 61	45.10 31.30 10.57
128 128 0	27.44 32.80 3.76	208 153 127	63.19 56.07 34.90
128 128 128	33.06 34.79 33.55	25 120 55	9.53 22.46 9.54
128 128 255	47.22 39.95 108.28	89 148 93	23.66 36.84 21.13
128 255 128	52.92 93.94 41.40	154 186 153	50.53 61.88 48.20
170 0 255	52.21 21.77 105.19	192 147 126	56.19 51.00 34.13
170 170 170	55.24 57.87 56.55	208 144 23	56.78 50.78 6.43
170 255 0	60.39 97.65 11.84	176 42 72	37.64 19.46 11.96
170 255 255	80.12 104.93 116.38	120 39 105	22.17 11.99 21.68
255 0 0	67.05 30.34 1.69	157 176 35	42.72 55.25 9.18
255 0 170	76.67 33.82 52.26	0 125 140	14.41 25.49 38.29
255 0 255	87.03 37.54 106.59	0 92 167	13.68 16.43 50.79
255 128 128	80.62 56.30 34.57	236 237 242	101.09 105.91 106.25
255 170 0	80.38 70.10 6.91	212 215 221	83.84 88.14 90.18
255 170 255	100.12 77.27 111.14	189 193 201	68.86 72.40 75.90
255 255 0	94.56 113.03 12.62	143 149 156	42.40 45.15 48.12
255 255 170	104.29 116.83 63.21	101 107 111	22.77 24.48 25.72
170 85 85	38.91 26.93 16.49	65 72 75	10.70 11.77 12.86
85 170 85	25.27 45.05 19.69	40 50 52	5.10 5.91 6.72