

# UGRA

## Display Analysis & Certification Tool

### Report

#### Basics

Date: 2011-5-9 19:41:01  
Report-Version: v1.3.1  
Monitor-Name: \\.\DISPLAY1  
Profile: C:/Windows/system32/spool/.../09.05.11-6500K-sRGB-120cd-trc.icc  
Created: 2011-5-9 19:35  
Measurement device: DTP94-LCD mode (Wide Gamut S-PVA (generic))

#### 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:	108.32 114.02 124.07
XYZ (normalized):	95.00 100.00 108.82
Luminance:	114.0 Cd/m2
Next Temperature:	6504 Kelvin
Assumed Target Whitepoint:	6500 Kelvin
Distance to assumed Target Whitepoint:	0.1 deltaE

## Blackpoint

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

Luminance:	0.1 Cd/m2
Chromaticity:	0.3 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	8552	0.10	0.77	0.29	
5	6704	0.54	4.24	0.65	1.87
10	6598	1.20	9.39	0.40	2.02
15	6547	2.27	15.46	0.11	2.09
20	6541	3.73	21.10	0.88	2.13
25	6654	5.68	26.67	0.48	2.18
30	6446	8.34	32.51	0.75	2.19
35	6457	11.49	37.98	0.36	2.20
40	6408	15.05	43.06	0.69	2.21
45	6519	19.09	47.93	0.46	2.24
50	6490	24.03	53.03	0.52	2.25
55	6533	29.79	58.16	0.40	2.24
60	6529	36.16	63.11	0.82	2.24
65	6528	42.82	67.69	0.17	2.27
70	6505	50.71	72.54	0.65	2.29
75	6528	59.09	77.17	0.19	2.28
80	6512	68.99	82.11	0.23	2.26
85	6472	77.81	86.13	0.29	2.35
90	6462	89.25	90.91	0.37	2.35
95	6492	101.32	95.52	0.09	2.31
100	6504	114.02	100.00	0.00	
Average	6512			0.41	2.21
Range				1.63	
Max				0.88	

Tone values = 93.7%

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	0.8 -0.1 -0.3	-0.8 0.1 0.3	0.8
0 0 128	13.8 30.8 -62.9	0.8 -2.6 0.5	2.7
0 0 255	35.7 43.7 -103.1	-0.7 3.4 -0.9	3.5
0 128 0	42.8 -74.2 45.2	0.4 0.8 0.6	1.1
0 128 128	45.2 -49.9 -13.7	0.6 -0.3 0.8	1.0
0 170 255	64.4 -36.6 -56.5	-0.0 1.5 0.2	1.6
0 255 0	82.4 -122.3 77.7	0.2 -0.1 -1.3	1.3
0 255 170	84.1 -104.1 18.9	0.4 -0.5 0.2	0.7
0 255 255	86.9 -84.1 -21.7	0.1 0.4 0.2	0.5
85 85 85	36.2 0.0 -0.3	-0.0 -0.0 0.3	0.3
128 0 0	30.4 55.9 46.2	0.1 -0.1 1.6	1.6
128 0 128	34.3 59.3 -28.2	0.3 -1.6 -0.2	1.7
128 128 0	51.4 -8.2 57.2	0.2 0.9 0.5	1.1
128 128 128	53.4 0.4 -0.2	0.2 -0.4 0.2	0.5
128 128 255	60.6 18.3 -62.2	-0.5 0.9 -0.2	1.1
128 255 128	86.7 -77.4 43.9	0.2 -0.8 0.1	0.9
170 0 255	53.0 73.5 -74.0	-0.5 0.9 -0.3	1.1
170 170 170	69.5 0.2 -0.0	0.1 -0.2 0.0	0.2
170 255 0	88.4 -61.6 86.4	0.3 0.0 -1.2	1.3
170 255 255	92.7 -40.3 -12.2	-0.1 -0.1 -0.0	0.2
255 0 0	61.4 93.9 86.9	0.3 -0.9 -2.0	2.2
255 0 170	64.0 95.6 -4.5	0.5 -1.4 -0.3	1.4
255 0 255	68.4 95.8 -47.5	-0.0 0.3 0.1	0.3
255 128 128	72.8 61.9 31.6	0.1 -0.0 -0.3	0.3
255 170 0	78.9 37.6 88.4	0.0 0.6 -1.3	1.5
255 170 255	83.7 46.5 -23.9	-0.2 1.2 -0.2	1.3
255 255 0	96.3 -11.8 98.1	0.3 -0.4 -1.8	1.9
255 255 170	97.7 -6.3 40.9	0.4 -0.7 -0.1	0.8
255 255 255	100.0 0.0 -0.0	0.0 0.0 0.0	0.0
170 85 85	50.1 44.6 22.1	-0.1 0.2 0.3	0.4
85 170 85	60.1 -56.9 31.4	-0.0 0.3 0.4	0.5
85 85 170	40.6 14.5 -45.1	0.1 -0.8 -0.0	0.8
85 170 170	62.2 -41.7 -12.1	0.2 -0.3 0.2	0.4
170 85 170	53.0 49.3 -24.5	0.1 -0.2 -0.1	0.3
170 170 85	67.7 -7.1 43.3	-0.0 0.3 0.4	0.5
Average			1.0
Maximum			3.5

# Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	96 %
AdobeRGB	94 %
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	55.3 -32.5 -49.5	4.5
66.9 -24.7 -37.1	67.0 -24.6 -37.0	0.2
79.7 -12.5 -21.8	80.0 -13.6 -21.7	1.1
48.0 74.0 -3.0	47.6 75.1 -3.4	1.3
60.8 50.6 -6.7	60.8 51.3 -7.1	0.8
76.4 25.8 -6.9	76.5 25.7 -6.9	0.1
89.0 -5.0 93.0	89.2 -5.0 92.0	1.0
90.3 -4.7 62.6	90.3 -4.3 63.2	0.7
92.2 -3.5 31.1	92.2 -2.7 31.6	0.9
53.1 37.7 28.9	53.2 37.7 28.7	0.2
41.5 22.7 16.8	41.6 22.2 16.8	0.5
31.9 40.0 24.0	32.0 39.8 23.6	0.4
32.5 44.4 -1.8	32.4 44.5 -1.6	0.2
51.3 1.3 44.5	51.4 0.1 44.0	1.3
34.6 -36.4 13.9	34.6 -37.4 13.9	1.0
36.0 -26.2 -20.9	35.8 -26.1 -21.2	0.4
20.9 9.6 -23.6	20.9 9.9 -24.0	0.5
89.0 0.0 -1.8	88.7 0.6 -1.9	0.6
82.8 0.0 -1.7	82.8 -0.5 -1.3	0.7
69.3 0.0 -1.4	69.2 0.3 -1.6	0.4
54.1 0.0 -1.0	53.9 0.6 -1.6	0.9
36.6 -0.0 -0.5	36.7 -0.3 -0.4	0.3
16.0 0.0 0.0	16.1 0.9 -0.8	1.2
24.0 22.0 -46.0	23.8 23.8 -46.2	1.9
40.9 17.9 -36.6	40.9 19.5 -36.6	1.6
63.7 10.3 -23.8	63.7 10.8 -23.7	0.5
47.0 68.0 48.0	46.9 67.9 47.4	0.6
58.5 47.1 37.9	58.6 48.0 38.4	1.0
74.2 22.9 21.4	74.2 23.1 21.5	0.2
50.0 -65.0 27.0	49.8 -65.4 26.6	0.6
62.1 -39.8 21.0	62.2 -40.0 20.9	0.3
77.0 -19.1 11.0	77.0 -19.5 11.0	0.4
71.2 18.8 17.3	71.2 19.1 17.1	0.3
71.2 22.2 73.1	71.0 21.9 73.4	0.4
47.7 71.2 16.2	47.4 71.6 15.9	0.6
38.0 55.4 -20.9	37.6 56.1 -21.3	0.9
73.7 -22.8 67.6	73.5 -22.8 67.6	0.2
52.3 -52.3 -20.2	52.1 -51.8 -20.6	0.8
43.3 -17.0 -48.6	43.1 -16.7 -48.8	0.4
95.0 0.0 -2.0	95.0 0.4 -1.9	0.4
88.5 -0.4 -3.1	88.2 -0.4 -3.2	0.3
82.0 -0.9 -4.1	82.0 -1.0 -3.7	0.4
67.7 -2.0 -4.4	67.8 -2.3 -3.9	0.5
52.2 -2.5 -3.5	52.1 -2.7 -3.4	0.3
37.5 -3.9 -3.1	37.8 -4.3 -2.9	0.6
26.3 -6.8 -3.4	26.5 -6.6 -3.3	0.3
Average		0.7
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	108.32 114.02 124.07	85 85 170	16.38 13.69 45.38
0 0 0	0.09 0.10 0.13	85 170 170	23.22 35.46 49.16
12 12 12	0.49 0.54 0.57	170 85 170	36.59 23.88 46.08
25 25 25	1.12 1.20 1.30	170 170 85	36.95 42.42 15.70
38 38 38	2.16 2.27 2.48	0 146 217	20.66 27.54 79.91
51 51 51	3.59 3.73 4.16	102 174 228	34.48 42.78 90.93
63 63 63	5.36 5.68 6.25	169 204 237	57.23 65.32 101.92
76 76 76	7.86 8.34 8.89	187 9 123	36.44 18.27 22.68
89 89 89	10.89 11.49 12.38	199 106 161	48.16 32.67 42.36
102 102 102	14.41 15.05 16.36	216 171 202	66.20 57.53 71.57
114 114 114	18.20 19.09 20.94	240 229 0	74.28 83.76 10.37
127 127 127	22.94 24.03 26.29	240 232 105	77.81 86.72 26.28
140 140 140	28.37 29.79 32.67	240 236 173	84.31 91.82 57.29
153 153 153	34.54 36.16 39.82	173 100 81	31.78 23.64 11.49
165 165 165	40.68 42.82 46.76	125 84 72	16.72 13.74 8.71
178 178 178	47.96 50.71 54.82	117 44 42	12.61 7.86 3.24
191 191 191	56.13 59.09 64.52	118 38 81	13.92 8.13 9.65
204 204 204	65.43 68.99 74.98	134 123 44	20.37 22.06 5.69
216 216 216	74.05 77.81 84.53	44 96 58	5.03 9.51 6.04
229 229 229	84.79 89.25 96.53	33 95 117	7.22 10.42 21.00
242 242 242	96.28 101.32 110.13	49 44 85	4.47 3.75 10.49
0 0 128	4.45 2.22 23.32	223 223 227	80.15 83.96 94.29
0 0 255	20.97 11.49 111.11	205 206 209	66.86 70.58 78.53
0 128 0	4.62 14.91 2.53	169 169 172	43.08 45.19 50.76
0 128 128	9.08 17.08 26.21	129 129 131	23.85 24.93 28.21
0 170 255	29.62 39.39 115.59	86 86 87	10.13 10.69 11.79
0 255 0	22.09 69.86 11.03	40 40 40	2.34 2.41 2.73
0 255 170	30.42 73.94 55.59	53 39 127	7.29 4.85 23.67
0 255 255	42.98 81.13 122.11	98 83 156	17.07 13.72 38.12
85 85 85	9.88 10.39 11.41	155 147 196	39.63 37.29 65.09
128 0 0	13.96 6.98 0.54	186 38 40	32.46 17.42 3.60
128 0 128	18.60 9.24 23.79	199 105 79	42.18 29.51 11.40
128 128 0	18.54 22.08 3.00	216 168 145	59.25 52.99 37.28
128 128 128	23.27 24.40 26.69	40 144 69	8.73 20.91 9.93
128 128 255	40.20 33.89 114.37	109 170 111	22.32 35.02 22.73
128 255 128	40.90 79.36 35.83	171 201 169	47.69 58.77 51.40
170 0 255	47.62 24.70 112.22	202 163 145	52.46 48.03 36.72
170 170 170	43.46 45.68 49.72	214 162 29	51.77 47.16 6.73
170 255 0	47.96 82.79 11.78	187 28 92	34.61 17.95 12.77
170 255 255	69.66 94.72 123.11	137 30 125	20.74 11.15 23.01
255 0 0	64.88 32.25 1.72	173 195 42	39.43 51.85 9.64
255 0 170	73.13 36.40 45.37	0 146 157	13.27 23.58 40.72
255 0 255	85.89 43.70 112.56	20 108 182	13.53 15.75 53.40
255 128 128	74.08 49.95 27.96	240 240 244	95.23 99.88 111.99
255 170 0	73.65 60.86 6.31	220 222 228	78.61 82.81 94.90
255 170 255	94.69 72.33 117.18	201 204 211	65.15 68.87 79.97
255 255 0	86.81 102.15 12.67	161 166 172	40.25 43.03 50.67
255 255 170	95.30 106.41 57.25	120 126 130	21.41 23.10 27.31
170 85 85	30.10 20.58 12.04	83 90 93	10.27 11.39 13.53
85 170 85	16.73 32.26 15.11	54 65 67	4.82 5.63 6.97