

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2011-5-10 20:24:29
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/system32/spool/drivers/.../10.05.11-6500K-sRGB-120cd.icc
Created: 2011-5-10 20:17
Measurement device: DTP94-LCD mode (Wide Gamut S-PVA (generic))

Summary

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

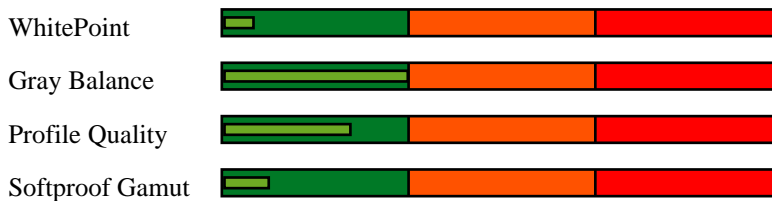
Calibration

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:	112.83 118.93 129.33
XYZ (normalized):	94.88 100.00 108.74
Luminance:	118.9 Cd/m2
Next Temperature:	6513 Kelvin
Assumed Target Whitepoint:	6500 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:	0.1 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	8494	0.11	0.81	0.30	
5	6723	0.58	4.44	1.00	1.86
10	6591	1.27	9.56	0.15	2.01
15	6413	2.52	16.09	0.76	2.06
20	6337	4.11	21.77	1.01	2.10
25	6344	6.25	27.46	0.60	2.14
30	6491	8.93	32.93	0.28	2.16
35	6491	12.01	38.02	0.09	2.19
40	6519	16.07	43.52	0.27	2.19
45	6447	20.32	48.36	0.77	2.21
50	6424	25.52	53.45	0.58	2.22
55	6489	31.76	58.70	0.73	2.22
60	6456	38.67	63.76	0.49	2.21
65	6509	45.16	68.00	0.12	2.25
70	6501	53.37	72.81	0.09	2.25
75	6517	62.52	77.62	0.14	2.24
80	6514	72.46	82.34	0.78	2.24
85	6540	82.42	86.65	0.99	2.28
90	6533	94.20	91.33	0.66	2.24
95	6502	106.36	95.76	0.48	2.23
100	6513	118.93	100.00	0.00	
Average	6480			0.47	2.18
Range				1.98	
Max				1.01	

Tone values = 95.2%

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	0.8 -0.1 -0.3	-0.8 0.1 0.3	0.9
0 0 128	14.0 31.3 -63.6	0.2 -2.7 0.7	2.8
0 0 255	35.8 44.0 -103.4	-1.4 3.6 -1.4	4.1
0 128 0	43.3 -74.9 45.5	-0.0 1.6 -0.4	1.7
0 128 128	45.7 -50.2 -13.9	0.1 -0.3 1.0	1.1
0 170 255	64.9 -37.4 -56.1	-0.7 1.9 -0.3	2.0
0 255 0	82.6 -122.4 77.7	0.2 0.2 -2.4	2.4
0 255 170	84.3 -103.9 18.5	0.2 -0.9 0.4	1.0
0 255 255	87.1 -84.2 -21.8	-0.1 0.0 0.2	0.2
85 85 85	36.7 -0.0 -0.0	-0.5 0.0 0.0	0.5
128 0 0	30.9 56.4 46.9	-0.4 -0.3 1.6	1.7
128 0 128	34.8 59.9 -28.4	-0.3 -1.8 -0.1	1.9
128 128 0	52.0 -8.0 57.6	-0.3 0.8 -0.2	0.9
128 128 128	54.0 0.6 -0.3	-0.4 -0.6 0.3	0.8
128 128 255	61.0 18.3 -61.7	-1.1 0.8 -0.9	1.7
128 255 128	86.9 -76.7 43.5	0.1 -1.6 0.2	1.6
170 0 255	53.1 73.8 -73.9	-1.0 1.3 -0.7	1.8
170 170 170	70.0 -0.4 0.3	-0.4 0.4 -0.3	0.7
170 255 0	88.7 -61.5 86.4	0.2 -0.0 -2.2	2.2
170 255 255	92.8 -40.0 -12.2	-0.2 -0.7 -0.1	0.8
255 0 0	61.6 93.9 87.3	0.0 -0.5 0.1	0.5
255 0 170	64.3 95.8 -4.6	0.1 -1.0 0.1	1.0
255 0 255	68.5 95.9 -47.5	-0.4 0.9 0.0	1.0
255 128 128	73.2 61.3 31.2	-0.3 0.9 0.4	1.0
255 170 0	79.4 36.8 88.7	-0.4 1.6 -1.5	2.2
255 170 255	84.2 45.8 -23.7	-0.8 2.1 -0.5	2.3
255 255 0	96.6 -11.9 98.2	0.1 -0.2 -2.5	2.5
255 255 170	97.9 -6.2 40.8	0.2 -0.7 -0.1	0.7
255 255 255	100.0 0.0 0.0	0.0 0.0 0.0	0.0
170 85 85	50.4 44.4 22.3	-0.5 0.6 0.3	0.8
85 170 85	60.7 -57.2 31.7	-0.5 0.6 -0.1	0.8
85 85 170	41.1 14.5 -45.0	-0.5 -0.8 -0.3	0.9
85 170 170	62.8 -42.2 -11.7	-0.4 -0.1 -0.3	0.5
170 85 170	53.3 49.3 -24.4	-0.4 -0.0 -0.2	0.5
170 170 85	68.2 -7.7 43.6	-0.5 0.9 -0.1	1.0
Average			1.3
Maximum			4.1

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	97 %
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	55.8 -33.3 -49.2	3.9
66.9 -24.7 -37.1	67.7 -24.8 -36.8	0.9
79.7 -12.5 -21.8	80.4 -13.1 -21.7	0.9
48.0 74.0 -3.0	48.1 75.0 -3.1	1.1
60.8 50.6 -6.7	61.1 50.4 -6.8	0.3
76.4 25.8 -6.9	76.8 24.6 -6.3	1.3
89.0 -5.0 93.0	89.4 -6.8 91.9	2.1
90.3 -4.7 62.6	90.3 -4.9 63.0	0.5
92.2 -3.5 31.1	92.2 -3.6 31.4	0.3
53.1 37.7 28.9	53.6 37.1 28.9	0.8
41.5 22.7 16.8	41.9 22.1 16.1	1.0
31.9 40.0 24.0	32.7 39.4 23.3	1.1
32.5 44.4 -1.8	33.0 44.5 -1.9	0.5
51.3 1.3 44.5	51.8 0.3 44.8	1.1
34.6 -36.4 13.9	35.3 -37.1 14.3	1.1
36.0 -26.2 -20.9	36.3 -26.0 -20.7	0.5
20.9 9.6 -23.6	21.7 9.7 -23.1	1.0
89.0 0.0 -1.8	89.4 -0.4 -1.8	0.6
82.8 0.0 -1.7	83.2 -0.8 -1.5	0.9
69.3 0.0 -1.4	69.9 0.4 -1.1	0.8
54.1 0.0 -1.0	54.4 0.9 -1.2	1.0
36.6 -0.0 -0.5	37.2 0.2 -0.7	0.6
16.0 0.0 0.0	16.9 0.6 -0.1	1.1
24.0 22.0 -46.0	24.3 23.2 -45.6	1.3
40.9 17.9 -36.6	41.2 19.0 -36.5	1.2
63.7 10.3 -23.8	64.2 9.7 -23.2	0.9
47.0 68.0 48.0	47.4 67.6 46.9	1.3
58.5 47.1 37.9	58.9 46.2 37.7	1.1
74.2 22.9 21.4	74.5 21.9 21.5	1.1
50.0 -65.0 27.0	50.5 -65.8 27.4	1.0
62.1 -39.8 21.0	62.6 -39.9 21.0	0.4
77.0 -19.1 11.0	77.4 -19.5 11.4	0.7
71.2 18.8 17.3	71.6 18.9 17.1	0.4
71.2 22.2 73.1	71.7 20.2 73.4	2.0
47.7 71.2 16.2	48.0 71.3 16.5	0.4
38.0 55.4 -20.9	38.3 55.9 -20.6	0.7
73.7 -22.8 67.6	74.1 -24.2 68.2	1.6
52.3 -52.3 -20.2	52.6 -52.3 -20.4	0.3
43.3 -17.0 -48.6	43.5 -16.4 -48.8	0.6
95.0 0.0 -2.0	95.4 -0.7 -1.7	0.9
88.5 -0.4 -3.1	89.0 -0.9 -3.1	0.7
82.0 -0.9 -4.1	82.4 -1.3 -3.8	0.7
67.7 -2.0 -4.4	68.3 -1.5 -3.5	1.1
52.2 -2.5 -3.5	52.5 -2.7 -3.6	0.4
37.5 -3.9 -3.1	37.8 -3.4 -3.1	0.6
26.3 -6.8 -3.4	26.8 -5.9 -4.0	1.2
Average		1.0
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	112.83 118.93 129.33	85 85 170	17.46 14.64 48.01
0 0 0	0.10 0.11 0.14	85 170 170	24.71 37.88 51.94
12 12 12	0.53 0.58 0.61	170 85 170	38.66 25.30 48.58
25 25 25	1.20 1.27 1.39	170 170 85	39.07 45.12 16.68
38 38 38	2.36 2.52 2.65	0 146 217	21.79 29.28 84.00
51 51 51	3.97 4.11 4.48	103 174 228	36.74 45.67 96.30
63 63 63	5.94 6.25 6.64	170 204 237	60.65 69.04 107.49
76 76 76	8.50 8.93 9.74	187 13 123	38.70 19.54 24.01
89 89 89	11.40 12.01 13.04	199 106 161	50.35 34.47 44.33
102 102 102	15.28 16.07 17.56	216 171 202	69.10 60.62 74.49
114 114 114	19.43 20.32 22.17	239 229 0	76.89 87.92 10.99
127 127 127	24.35 25.52 27.64	240 232 104	80.82 90.55 27.57
140 140 140	29.99 31.76 34.15	239 236 173	87.47 95.96 60.08
153 153 153	36.64 38.67 41.62	173 101 81	33.49 25.10 12.20
165 165 165	42.88 45.16 49.15	125 84 73	17.63 14.53 9.48
178 178 178	50.63 53.37 57.93	117 44 42	13.49 8.51 3.61
191 191 191	59.26 62.52 67.93	118 38 82	14.96 8.80 10.53
204 204 204	68.42 72.46 78.23	134 123 43	21.63 23.41 5.91
216 216 216	77.71 82.42 89.10	44 96 57	5.52 10.32 6.48
229 229 229	89.01 94.20 102.08	34 95 117	7.76 11.19 22.09
242 242 242	100.69 106.36 115.08	49 44 85	4.92 4.18 11.13
0 0 128	4.77 2.37 25.01	223 223 227	84.65 89.35 100.03
0 0 255	21.98 12.01 116.49	205 206 209	70.30 74.42 83.08
0 128 0	4.94 15.98 2.72	169 169 172	46.02 48.32 53.71
0 128 128	9.71 18.26 28.11	129 129 131	25.50 26.61 29.82
0 170 255	31.22 41.87 121.40	86 86 87	10.92 11.46 12.75
0 255 0	23.14 73.31 11.64	40 40 40	2.60 2.71 2.96
0 255 170	32.07 77.75 58.89	53 39 127	7.77 5.25 24.89
0 255 255	45.05 85.16 128.16	98 83 156	17.97 14.54 40.11
85 85 85	10.57 11.14 12.12	155 147 196	41.59 39.55 68.26
128 0 0	15.00 7.51 0.58	185 39 41	34.42 18.63 4.02
128 0 128	19.95 9.91 25.45	198 106 80	43.86 31.24 12.39
128 128 0	19.84 23.60 3.21	215 168 145	61.76 55.84 39.29
128 128 128	24.94 26.12 28.59	40 144 68	9.40 22.51 10.46
128 128 255	42.49 35.91 119.66	109 169 111	23.63 37.02 23.94
128 255 128	43.20 83.32 38.04	171 201 169	50.40 62.17 54.06
170 0 255	49.94 25.91 117.28	202 163 145	55.24 50.73 38.78
170 170 170	45.88 48.54 52.49	214 162 29	54.52 50.44 7.37
170 255 0	50.46 87.05 12.46	187 30 92	36.81 19.28 13.53
170 255 255	73.05 99.21 128.86	137 32 125	22.20 12.06 24.32
255 0 0	68.09 33.91 1.80	172 195 40	41.43 55.15 10.19
255 0 170	76.80 38.26 47.82	0 146 157	14.09 25.13 43.05
255 0 255	89.82 45.73 117.68	23 108 182	14.42 16.76 56.37
255 128 128	77.75 52.79 29.94	240 241 244	99.52 105.26 117.41
255 170 0	77.46 64.52 6.73	220 222 228	83.37 88.22 100.86
255 170 255	99.64 76.62 123.32	201 204 211	68.47 72.64 84.29
255 255 0	91.05 107.32 13.35	161 166 172	43.00 45.77 53.43
255 255 170	100.04 111.79 60.36	120 126 130	22.76 24.58 29.21
170 85 85	31.78 21.82 12.73	83 90 93	10.87 11.92 14.29
85 170 85	17.83 34.41 16.07	54 65 67	5.20 6.00 7.61