

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2011-5-9 22:46:58
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 22:41
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:	114.00 120.12 130.82
XYZ (normalized):	94.91 100.00 108.90
Luminance:	120.1 Cd/m2
Next Temperature:	6520 Kelvin
Assumed Target Whitepoint:	6500 Kelvin
Distance to assumed Target Whitepoint:	0.2 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:	0.2 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	6916	0.12	0.88	0.18	
5	6583	0.55	4.17	0.16	1.88
10	6504	1.25	9.34	0.93	2.02
15	6758	2.44	15.65	0.72	2.08
20	6343	4.04	21.44	0.79	2.12
25	6583	5.92	26.53	0.38	2.19
30	6486	8.77	32.48	0.26	2.18
35	6492	11.97	37.78	0.23	2.21
40	6504	16.04	43.29	0.08	2.20
45	6415	20.26	48.09	0.65	2.23
50	6507	25.55	53.25	0.38	2.24
55	6523	31.66	58.37	0.21	2.23
60	6506	38.46	63.35	0.55	2.23
65	6543	45.41	67.87	0.42	2.25
70	6473	53.98	72.85	0.41	2.25
75	6490	62.99	77.54	0.51	2.26
80	6527	72.52	82.04	0.15	2.26
85	6457	82.26	86.25	0.62	2.33
90	6505	94.69	91.16	0.26	2.28
95	6507	107.06	95.63	0.37	2.22
100	6520	120.12	100.00	0.00	
Average	6507			0.42	2.19
Range				1.53	
Max				0.93	

Tone values = 94.5%

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	0.9 0.1 -0.1	-0.9 -0.1 0.1	0.9
0 0 128	13.8 30.6 -62.7	0.9 -2.6 0.4	2.8
0 0 255	35.9 43.4 -103.1	-0.6 3.2 -0.7	3.3
0 128 0	43.2 -74.3 45.7	-0.1 1.0 0.8	1.3
0 128 128	45.6 -50.4 -13.0	0.2 0.4 0.1	0.5
0 170 255	64.5 -36.3 -56.8	-0.1 1.4 0.5	1.5
0 255 0	82.6 -121.7 78.0	0.0 -0.5 -0.5	0.7
0 255 170	84.3 -103.4 18.6	0.1 -0.9 0.6	1.1
0 255 255	87.1 -83.8 -21.6	-0.1 0.5 0.2	0.5
85 85 85	35.9 0.0 -0.5	0.3 -0.0 0.5	0.6
128 0 0	30.4 55.8 46.2	0.2 -0.1 1.6	1.7
128 0 128	34.2 59.1 -28.0	0.4 -1.7 -0.6	1.8
128 128 0	51.6 -8.5 57.4	-0.1 1.2 0.9	1.5
128 128 128	53.6 0.0 0.3	-0.0 -0.0 -0.3	0.3
128 128 255	60.8 18.0 -62.2	-0.6 1.2 -0.3	1.3
128 255 128	86.9 -77.3 44.5	-0.0 -0.8 -0.0	0.8
170 0 255	53.0 73.3 -73.9	-0.4 0.7 -0.3	0.9
170 170 170	69.4 0.7 -0.6	0.2 -0.7 0.6	1.0
170 255 0	88.7 -61.4 86.7	-0.0 -0.1 -0.5	0.5
170 255 255	92.9 -40.1 -12.2	-0.2 -0.3 0.0	0.4
255 0 0	61.5 94.1 87.2	0.2 -1.3 -2.0	2.4
255 0 170	64.2 95.8 -5.0	0.3 -1.8 0.1	1.9
255 0 255	68.6 95.9 -47.8	-0.1 -0.1 0.2	0.3
255 128 128	73.0 61.9 32.0	-0.1 -0.1 -0.7	0.7
255 170 0	78.9 38.1 88.7	-0.1 0.0 -0.8	0.8
255 170 255	83.7 46.9 -24.3	-0.1 0.7 0.0	0.7
255 255 0	96.5 -11.7 98.4	0.1 -0.4 -1.1	1.2
255 255 170	97.8 -6.1 40.7	0.2 -0.9 0.3	1.0
255 255 255	100.0 0.0 0.0	-0.0 -0.0 0.0	0.0
170 85 85	49.9 45.2 22.3	0.0 -0.5 0.1	0.5
85 170 85	59.9 -56.7 31.2	0.2 0.2 0.8	0.9
85 85 170	40.6 14.8 -46.0	0.3 -1.1 0.9	1.5
85 170 170	62.2 -41.5 -12.8	0.2 -0.4 0.9	1.0
170 85 170	52.9 49.9 -25.1	0.1 -1.1 0.4	1.1
170 170 85	67.6 -6.6 43.4	0.1 -0.3 0.5	0.6
Average			1.1
Maximum			3.3

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	96 %
AdobeRGB	95 %
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	55.2 -32.1 -49.6	4.9
66.9 -24.7 -37.1	66.9 -24.7 -37.4	0.3
79.7 -12.5 -21.8	79.9 -13.2 -21.6	0.7
48.0 74.0 -3.0	47.7 75.6 -3.1	1.6
60.8 50.6 -6.7	61.1 50.9 -6.5	0.5
76.4 25.8 -6.9	76.2 26.8 -7.3	1.1
89.0 -5.0 93.0	89.2 -5.0 92.2	0.8
90.3 -4.7 62.6	90.5 -4.4 62.7	0.4
92.2 -3.5 31.1	92.2 -2.1 30.8	1.5
53.1 37.7 28.9	53.2 38.4 29.1	0.8
41.5 22.7 16.8	41.3 23.1 15.9	0.9
31.9 40.0 24.0	32.4 39.5 23.5	0.8
32.5 44.4 -1.8	32.5 45.1 -1.4	0.8
51.3 1.3 44.5	51.4 1.0 44.4	0.3
34.6 -36.4 13.9	34.7 -36.4 13.6	0.3
36.0 -26.2 -20.9	35.7 -25.4 -21.1	0.8
20.9 9.6 -23.6	21.3 9.5 -23.1	0.7
89.0 0.0 -1.8	88.8 0.8 -2.2	0.8
82.8 0.0 -1.7	82.8 -0.3 -1.6	0.3
69.3 0.0 -1.4	69.1 1.1 -2.3	1.4
54.1 0.0 -1.0	54.0 0.1 -1.2	0.3
36.6 -0.0 -0.5	36.4 0.3 -1.2	0.8
16.0 0.0 0.0	16.5 0.5 0.2	0.7
24.0 22.0 -46.0	24.0 22.9 -45.6	1.0
40.9 17.9 -36.6	40.5 19.4 -37.3	1.7
63.7 10.3 -23.8	63.6 11.0 -23.6	0.6
47.0 68.0 48.0	47.3 68.0 48.3	0.4
58.5 47.1 37.9	58.7 47.3 38.1	0.4
74.2 22.9 21.4	74.5 23.5 21.6	0.7
50.0 -65.0 27.0	49.9 -65.1 25.7	1.3
62.1 -39.8 21.0	62.0 -40.0 20.9	0.3
77.0 -19.1 11.0	77.0 -18.9 10.8	0.3
71.2 18.8 17.3	71.3 18.8 17.2	0.1
71.2 22.2 73.1	71.7 22.1 73.4	0.5
47.7 71.2 16.2	47.8 72.5 16.8	1.4
38.0 55.4 -20.9	37.7 56.7 -21.0	1.3
73.7 -22.8 67.6	73.9 -22.3 67.5	0.6
52.3 -52.3 -20.2	52.0 -51.2 -20.7	1.3
43.3 -17.0 -48.6	43.1 -16.4 -49.3	1.0
95.0 0.0 -2.0	95.0 0.7 -1.8	0.7
88.5 -0.4 -3.1	88.3 -0.5 -3.5	0.5
82.0 -0.9 -4.1	82.1 -0.7 -3.9	0.3
67.7 -2.0 -4.4	67.9 -1.8 -4.3	0.3
52.2 -2.5 -3.5	52.1 -2.1 -3.8	0.5
37.5 -3.9 -3.1	37.5 -3.4 -3.0	0.5
26.3 -6.8 -3.4	26.4 -6.0 -3.8	0.9
Average		0.8
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	114.00 120.12 130.82	85 85 170	17.30 14.39 48.67
0 0 0	0.11 0.12 0.14	85 170 170	24.49 37.34 52.53
12 12 12	0.52 0.55 0.60	170 85 170	38.70 25.11 49.08
25 25 25	1.21 1.25 1.41	170 170 85	38.85 44.45 16.38
38 38 38	2.28 2.44 2.68	0 146 217	21.75 28.90 84.15
51 51 51	3.89 4.04 4.39	101 174 228	36.08 44.82 96.14
63 63 63	5.58 5.92 6.44	169 204 237	60.17 68.53 106.96
76 76 76	8.36 8.77 9.56	187 7 123	38.64 19.33 23.84
89 89 89	11.34 11.97 12.95	200 106 161	51.14 34.88 44.63
102 102 102	15.24 16.04 17.45	216 170 202	69.69 60.10 75.39
114 114 114	19.36 20.26 21.97	240 229 0	78.27 88.37 10.89
127 127 127	24.18 25.55 27.66	240 232 106	82.38 91.95 28.34
140 140 140	30.10 31.66 34.58	240 236 174	89.09 96.69 61.33
153 153 153	36.66 38.46 42.09	173 100 81	33.74 24.94 12.00
165 165 165	43.19 45.41 49.79	125 84 73	17.53 14.26 9.32
178 178 178	51.39 53.98 58.68	117 44 42	13.46 8.45 3.54
191 191 191	59.65 62.99 68.07	118 37 81	14.80 8.59 10.13
204 204 204	68.87 72.52 79.15	134 123 44	21.61 23.21 5.90
216 216 216	78.39 82.26 89.35	44 96 58	5.42 10.07 6.50
229 229 229	89.78 94.69 102.75	33 95 117	7.62 10.91 21.96
242 242 242	101.83 107.06 116.78	49 44 85	4.80 4.08 10.98
0 0 128	4.69 2.35 24.50	223 223 227	84.72 88.70 100.07
0 0 255	22.21 12.23 117.66	205 206 209	70.30 74.16 82.98
0 128 0	5.00 16.04 2.70	169 169 172	45.54 47.48 54.12
0 128 128	9.68 18.31 27.59	129 129 131	25.12 26.42 29.65
0 170 255	31.48 41.74 122.85	86 86 87	10.56 11.06 12.54
0 255 0	23.51 73.94 11.64	40 40 40	2.52 2.63 2.83
0 255 170	32.48 78.41 59.29	53 39 127	7.65 5.16 24.74
0 255 255	45.65 85.98 129.33	97 83 156	17.70 14.21 40.26
85 85 85	10.21 10.75 11.92	155 147 196	41.63 39.14 68.36
128 0 0	14.65 7.33 0.56	186 38 40	34.69 18.68 3.75
128 0 128	19.49 9.69 24.84	199 105 80	44.38 31.26 12.22
128 128 0	19.61 23.45 3.17	216 168 146	63.05 56.29 39.64
128 128 128	24.63 25.95 28.06	39 145 70	9.32 22.20 10.89
128 128 255	42.57 36.01 121.23	109 170 111	23.27 36.60 23.73
128 255 128	43.25 83.95 37.51	171 201 169	50.44 61.93 54.53
170 0 255	50.19 26.10 118.51	202 163 145	55.24 50.73 38.70
170 170 170	45.83 47.98 52.93	215 162 31	55.78 50.84 7.44
170 255 0	50.94 87.86 12.47	188 27 92	37.23 19.25 13.40
170 255 255	73.82 100.28 130.45	137 30 125	22.07 11.81 24.22
255 0 0	68.58 34.07 1.81	173 195 44	42.27 55.35 10.44
255 0 170	77.45 38.54 48.57	0 146 157	14.02 24.78 42.99
255 0 255	90.92 46.29 119.70	19 108 182	14.32 16.59 56.78
255 128 128	78.40 52.96 29.42	240 240 244	100.57 105.39 117.98
255 170 0	77.84 64.17 6.61	220 222 228	82.99 87.51 100.96
255 170 255	99.91 76.16 124.13	201 204 211	68.84 72.68 84.74
255 255 0	91.68 107.97 13.34	161 166 172	42.69 45.49 53.97
255 255 170	100.79 112.52 60.93	120 126 130	22.69 24.33 29.10
170 85 85	31.69 21.54 12.55	83 90 93	10.79 11.84 14.14
85 170 85	17.45 33.68 15.81	54 65 67	5.10 5.90 7.44