

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2010-4-18 18:36:47
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY2
Profile: C:/Windows/system32/.../20100418-PA241W-5800K-18-120cd-trc.icc
Created: 2010-4-18 18:30
Measurement device: DTP94-LCD mode (Wide Gamut S-IPS (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:	114.17 119.53 117.26
XYZ (normalized):	95.51 100.00 98.10
Luminance:	119.5 Cd/m2
Next Temperature:	5821 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.5 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:	2.5 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	18381	0.24	1.78	2.53	
5	7085	0.84	6.38	1.91	1.78
10	6033	2.14	14.34	0.56	1.81
15	5688	4.18	21.94	0.75	1.80
20	5776	6.93	28.89	0.20	1.80
25	5903	9.97	34.69	0.40	1.81
30	5839	13.76	40.43	0.12	1.81
35	5866	18.20	45.94	0.27	1.81
40	5839	23.13	51.10	0.18	1.80
45	5839	28.26	55.73	0.22	1.82
50	5812	34.29	60.51	0.08	1.81
55	5798	40.82	65.08	0.24	1.81
60	5829	48.04	69.60	0.39	1.80
65	5829	55.00	73.55	0.35	1.81
70	5847	62.94	77.67	0.41	1.81
75	5821	71.38	81.68	0.22	1.80
80	5812	80.24	85.57	0.25	1.80
85	5821	88.76	89.05	0.12	1.84
90	5803	98.54	92.77	0.23	1.85
95	5812	108.92	96.46	0.28	1.85
100	5821	119.53	100.00	0.00	
Average	5831			0.28	1.81
Range				1.16	
Max				0.75	

Tone values = 97.8%

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	1.8 -0.3 -2.5	-1.8 0.3 2.5	3.1
0 0 128	14.4 44.5 -73.9	-0.5 1.7 -1.4	2.2
0 0 255	29.2 70.3 -114.2	0.1 -0.5 0.3	0.6
0 128 0	50.5 -88.9 51.1	0.4 0.1 1.8	1.8
0 128 128	52.6 -60.5 -13.0	0.1 0.9 -0.2	0.9
0 170 255	67.9 -45.8 -51.0	-0.0 1.0 0.0	1.0
0 255 0	84.8 -136.3 79.9	0.3 1.9 0.1	2.0
0 255 170	86.3 -112.6 14.9	0.2 1.9 -0.1	1.9
0 255 255	87.8 -91.6 -20.1	0.2 1.4 0.2	1.5
85 85 85	44.3 0.0 0.0	-0.3 -0.0 0.0	0.3
128 0 0	34.5 66.6 50.9	-0.4 1.1 2.9	3.1
128 0 128	37.7 73.4 -34.9	-0.2 0.6 -0.3	0.8
128 128 0	59.1 -10.0 64.6	0.1 -0.6 0.6	0.8
128 128 128	60.8 0.0 0.0	-0.1 -0.0 -0.0	0.1
128 128 255	64.4 21.0 -56.1	-0.2 -0.1 0.1	0.2
128 255 128	89.8 -75.0 39.8	0.1 0.5 -0.1	0.5
170 0 255	51.2 94.9 -76.9	-0.1 -0.2 0.3	0.4
170 170 170	75.2 -0.6 0.1	-0.2 0.6 -0.1	0.6
170 255 0	91.3 -60.6 90.2	0.2 0.2 -0.7	0.8
170 255 255	94.1 -36.8 -10.0	0.1 0.1 0.2	0.3
255 0 0	60.2 102.0 87.9	-0.4 0.4 -1.8	1.9
255 0 170	62.6 107.1 -16.4	-0.3 0.1 -0.3	0.5
255 0 255	65.1 112.2 -53.4	-0.2 -0.1 -0.0	0.3
255 128 128	75.5 58.3 24.3	-0.3 0.1 -0.3	0.4
255 170 0	81.9 30.7 91.1	-0.2 -0.1 -1.6	1.6
255 170 255	85.2 45.1 -22.2	-0.3 0.5 -0.2	0.6
255 255 0	97.6 -16.0 100.0	0.1 -0.0 -1.5	1.5
255 255 170	98.8 -8.0 34.9	-0.0 -0.0 -0.0	0.0
255 255 255	100.0 0.0 -0.0	0.0 -0.0 0.0	0.0
170 85 85	55.8 45.8 19.0	-0.3 0.3 -0.1	0.4
85 170 85	67.1 -59.2 31.4	-0.2 0.6 -0.1	0.6
85 85 170	47.1 16.4 -43.9	-0.2 0.1 -0.1	0.3
85 170 170	68.6 -43.7 -10.7	-0.2 0.6 -0.1	0.7
170 85 170	57.8 53.3 -25.9	-0.3 0.2 -0.1	0.4
170 170 85	73.9 -9.3 42.3	-0.3 0.6 -0.3	0.7
Average			0.9
Maximum			3.1

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	100 %
AdobeRGB	99 %
ECI-RGB v1.0	93 %

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	55.5 -33.9 -49.1	3.3
66.9 -24.7 -37.1	66.9 -25.1 -37.1	0.4
79.7 -12.5 -21.8	79.9 -13.2 -21.1	0.9
48.0 74.0 -3.0	48.5 73.3 -2.3	1.1
60.8 50.6 -6.7	61.2 49.8 -5.9	1.2
76.4 25.8 -6.9	76.8 25.2 -6.2	1.0
89.0 -5.0 93.0	89.1 -4.7 93.3	0.4
90.3 -4.7 62.6	90.4 -4.4 63.2	0.7
92.2 -3.5 31.1	92.3 -3.8 31.4	0.4
53.1 37.7 28.9	53.3 37.4 28.2	0.8
41.5 22.7 16.8	41.8 21.9 16.5	1.0
31.9 40.0 24.0	32.3 39.0 23.1	1.3
32.5 44.4 -1.8	33.1 43.8 -2.1	0.9
51.3 1.3 44.5	51.6 1.3 44.1	0.5
34.6 -36.4 13.9	35.1 -35.2 13.6	1.4
36.0 -26.2 -20.9	36.4 -26.2 -20.1	0.9
20.9 9.6 -23.6	21.9 9.3 -22.7	1.4
89.0 0.0 -1.8	89.0 -0.5 -1.7	0.5
82.8 0.0 -1.7	82.8 -0.2 -1.6	0.2
69.3 0.0 -1.4	69.6 -0.5 -0.8	0.8
54.1 0.0 -1.0	54.3 -0.0 -1.0	0.2
36.6 -0.0 -0.5	37.0 0.1 -0.6	0.4
16.0 0.0 0.0	17.5 0.0 0.1	1.5
24.0 22.0 -46.0	24.9 21.4 -44.4	2.0
40.9 17.9 -36.6	41.0 17.7 -36.1	0.6
63.7 10.3 -23.8	63.7 10.5 -23.6	0.2
47.0 68.0 48.0	47.4 67.3 47.8	0.9
58.5 47.1 37.9	58.8 47.3 38.0	0.4
74.2 22.9 21.4	74.4 22.2 21.8	0.9
50.0 -65.0 27.0	50.2 -64.3 26.6	0.8
62.1 -39.8 21.0	62.3 -40.3 21.2	0.5
77.0 -19.1 11.0	77.1 -19.4 11.0	0.4
71.2 18.8 17.3	71.5 18.4 17.7	0.7
71.2 22.2 73.1	71.3 21.9 73.7	0.7
47.7 71.2 16.2	48.1 70.5 16.6	0.9
38.0 55.4 -20.9	38.5 54.9 -20.5	0.8
73.7 -22.8 67.6	73.8 -23.5 68.0	0.8
52.3 -52.3 -20.2	52.3 -53.1 -19.8	0.8
43.3 -17.0 -48.6	43.4 -17.5 -48.1	0.7
95.0 0.0 -2.0	95.1 -0.2 -1.7	0.4
88.5 -0.4 -3.1	88.6 -1.2 -2.6	1.0
82.0 -0.9 -4.1	82.0 -1.4 -3.7	0.7
67.7 -2.0 -4.4	67.8 -2.4 -4.1	0.6
52.2 -2.5 -3.5	52.6 -3.4 -3.2	1.1
37.5 -3.9 -3.1	37.9 -4.3 -3.2	0.6
26.3 -6.8 -3.4	27.3 -6.2 -3.5	1.1
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	114.17 119.53 117.26	85 85 170	22.84 19.49 52.33
0 0 0	0.22 0.24 0.42	85 170 170	30.85 46.80 56.25
12 12 12	0.78 0.84 0.96	170 85 170	47.24 30.75 52.93
25 25 25	2.03 2.14 2.16	170 170 85	48.39 55.33 20.77
38 38 38	4.05 4.18 4.10	0 129 208	20.49 28.62 75.29
51 51 51	6.64 6.93 6.77	84 158 221	35.04 44.28 85.83
63 63 63	9.48 9.97 9.85	154 193 232	59.58 67.97 95.08
76 76 76	13.12 13.76 13.51	171 38 103	39.31 20.21 21.57
89 89 89	17.34 18.20 17.92	185 96 143	51.04 35.03 39.57
102 102 102	22.05 23.13 22.69	206 159 190	70.17 61.03 67.34
114 114 114	26.93 28.26 27.70	237 218 0	79.85 88.09 9.52
127 127 127	32.76 34.29 33.58	237 222 87	83.56 91.59 25.11
140 140 140	38.97 40.82 39.84	236 229 158	89.52 96.97 54.73
153 153 153	45.76 48.04 46.95	155 85 64	34.02 25.13 11.14
165 165 165	52.40 55.00 53.79	105 68 56	17.96 14.69 8.45
178 178 178	59.93 62.94 61.70	96 37 31	13.51 8.46 3.20
191 191 191	68.09 71.38 69.85	98 35 64	15.11 8.95 9.60
204 204 204	76.57 80.24 78.43	116 102 34	22.33 23.46 5.48
216 216 216	84.73 88.76 86.97	35 75 44	5.72 10.22 6.01
229 229 229	94.12 98.54 96.32	27 76 97	7.59 11.15 19.72
242 242 242	103.94 108.92 106.46	36 35 67	4.88 4.22 10.06
0 0 128	5.76 2.39 29.74	215 216 220	84.41 88.62 89.41
0 0 255	19.91 7.91 104.52	194 195 199	70.56 73.95 74.61
0 128 0	6.72 22.54 3.55	152 153 155	45.68 47.99 47.88
0 128 128	12.40 25.05 33.13	110 110 112	25.45 26.64 26.75
0 170 255	31.07 46.15 109.91	68 68 69	10.89 11.39 11.39
0 255 0	23.07 78.64 11.41	30 30 30	2.74 2.87 2.80
0 255 170	32.58 82.63 61.26	39 36 107	7.56 5.38 22.33
0 255 255	42.89 86.72 115.61	78 70 138	17.35 14.38 35.73
85 85 85	16.01 16.76 16.44	137 131 183	41.24 38.98 61.40
128 0 0	20.52 9.57 0.68	169 42 30	35.30 19.06 3.47
128 0 128	26.21 11.79 30.59	185 91 62	45.28 31.60 11.04
128 128 0	27.33 32.16 3.84	205 153 127	62.98 56.18 35.29
128 128 128	33.15 34.71 34.02	36 121 54	9.67 22.26 9.67
128 128 255	47.44 40.44 108.66	93 149 92	23.75 36.84 21.45
128 255 128	49.63 90.75 41.96	156 186 153	50.63 61.79 48.83
170 0 255	54.05 23.60 105.67	189 147 126	55.86 50.96 34.51
170 170 170	55.18 58.02 56.78	204 144 24	56.15 50.35 6.49
170 255 0	57.38 94.38 11.85	171 40 73	37.55 19.79 12.26
170 255 255	77.46 102.64 116.72	117 37 105	22.31 12.29 22.09
255 0 0	71.18 32.88 1.34	158 177 34	42.68 55.18 9.30
255 0 170	80.65 36.55 51.84	12 125 140	13.48 24.75 38.17
255 0 255	90.96 40.58 106.26	17 91 167	13.54 16.48 50.14
255 128 128	83.64 58.02 35.02	236 237 242	100.19 104.97 105.69
255 170 0	82.38 70.86 6.65	212 215 221	83.14 87.68 89.79
255 170 255	102.31 79.16 111.71	189 193 201	68.39 72.23 75.59
255 255 0	94.15 111.42 12.32	143 149 156	42.35 45.16 48.08
255 255 170	103.93 115.46 63.22	101 107 111	22.87 24.75 26.25
170 85 85	40.37 28.00 16.90	65 72 75	10.89 12.03 13.05
85 170 85	24.02 44.04 20.31	41 50 52	5.39 6.22 6.97