

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2009-3-17 17:58:22
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
EDID-Name:
EDID-Serial:
Profile: C:/WINDOWS/System32/spool/.../17.03.09-5800K-18-120cd-trc.icc
Created: 2009-3-17 17:29
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	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:	126.34 132.40 129.64
XYZ (normalized):	95.42 100.00 97.92
Luminance:	132.4 Cd/m2
Next Temperature:	5821 Kelvin
Assumed Target Whitepoint:	5800 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:	0.2 Cd/m2
Chromaticity:	1.3 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	13477	0.16	1.09	1.34	
5	6714	0.68	4.64	1.30	1.85
10	6068	2.18	13.51	0.78	1.82
15	5894	4.43	21.38	0.63	1.81
20	5869	7.44	28.43	0.61	1.80
25	5861	10.88	34.43	0.33	1.81
30	5842	15.24	40.43	0.39	1.80
35	5850	20.27	46.06	0.21	1.79
40	5818	25.71	51.17	0.38	1.79
45	5823	31.39	55.79	0.51	1.80
50	5849	38.03	60.54	0.19	1.80
55	5792	45.06	64.99	0.91	1.80
60	5809	53.08	69.53	0.54	1.79
65	5809	60.91	73.55	0.61	1.80
70	5809	69.48	77.57	0.64	1.80
75	5814	78.71	81.54	0.74	1.80
80	5813	88.52	85.43	0.44	1.80
85	5827	98.39	89.07	0.38	1.82
90	5822	109.03	92.73	0.35	1.83
95	5813	120.39	96.38	0.37	1.83
100	5821	132.40	100.00	0.00	
Average	5842			0.47	1.81
Range				0.96	
Max				0.91	

Tone values = 100.0%

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	1.1 -0.0 -1.3	-1.1 0.0 1.3	1.7
0 0 128	13.8 48.4 -76.0	0.1 -2.4 0.1	2.4
0 0 255	28.7 74.3 -115.8	0.6 -4.7 1.0	4.8
0 128 0	51.1 -84.1 53.4	0.2 -1.6 2.0	2.6
0 128 128	53.2 -56.3 -12.8	0.1 -1.6 0.2	1.7
0 170 255	68.2 -41.4 -50.7	0.3 -2.3 0.1	2.3
0 255 0	85.7 -128.2 82.5	0.1 -1.5 1.2	1.9
0 255 170	87.0 -105.6 16.4	0.3 -1.7 -0.1	1.7
0 255 255	88.5 -85.3 -19.1	0.3 -2.3 0.1	2.3
85 85 85	44.3 0.3 -0.2	-0.3 -0.3 0.2	0.5
128 0 0	33.7 66.4 52.2	-0.5 2.7 2.6	3.7
128 0 128	36.9 74.2 -37.0	-0.3 1.0 -0.0	1.0
128 128 0	59.2 -10.7 66.2	-0.1 0.2 1.5	1.5
128 128 128	60.9 0.1 -0.3	-0.2 -0.1 0.3	0.4
128 128 255	64.4 21.7 -56.4	-0.1 -0.9 -0.3	1.0
128 255 128	90.2 -71.7 40.6	0.1 -1.4 0.7	1.5
170 0 255	50.5 96.2 -78.8	-0.1 -0.3 0.0	0.4
170 170 170	75.1 0.6 -0.2	-0.2 -0.6 0.2	0.6
170 255 0	91.9 -58.8 92.4	-0.0 -0.7 0.9	1.2
170 255 255	94.3 -34.2 -9.4	0.1 -1.8 0.0	1.8
255 0 0	59.1 101.0 89.8	-0.7 3.4 2.4	4.2
255 0 170	61.6 106.9 -19.2	-0.5 2.1 0.1	2.2
255 0 255	64.0 112.4 -55.8	-0.4 1.3 -0.3	1.4
255 128 128	75.1 56.8 23.1	-0.4 2.0 0.3	2.1
255 170 0	81.5 29.2 92.2	-0.2 1.3 0.9	1.6
255 170 255	84.6 45.0 -23.1	-0.1 0.7 -0.3	0.7
255 255 0	97.7 -16.5 101.7	-0.1 0.5 0.8	0.9
255 255 170	98.8 -8.0 35.0	0.0 0.0 0.6	0.6
255 255 255	100.0 0.0 -0.0	0.0 -0.0 -0.0	0.0
170 85 85	55.4 45.0 18.2	-0.5 1.3 0.3	1.4
85 170 85	67.3 -56.3 31.8	0.1 -1.3 0.8	1.5
85 85 170	47.0 17.5 -44.5	-0.2 -1.1 -0.1	1.2
85 170 170	68.7 -40.4 -10.7	0.1 -1.8 0.4	1.9
170 85 170	57.4 53.4 -26.9	-0.3 0.5 -0.3	0.7
170 170 85	73.8 -8.6 42.2	-0.2 -0.1 0.8	0.9
Average			1.6
Maximum			4.8

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	100 %
AdobeRGB	100 %
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 -30.0 -48.8	7.1
66.9 -24.7 -37.1	67.0 -22.8 -37.3	1.9
79.7 -12.5 -21.8	79.6 -11.1 -21.9	1.4
48.0 74.0 -3.0	48.6 72.6 -2.8	1.5
60.8 50.6 -6.7	61.2 49.7 -6.3	1.0
76.4 25.8 -6.9	76.6 26.0 -6.8	0.3
89.0 -5.0 93.0	89.2 -5.9 92.2	1.2
90.3 -4.7 62.6	90.6 -5.5 61.7	1.2
92.2 -3.5 31.1	92.3 -4.1 30.7	0.7
53.1 37.7 28.9	53.5 37.1 28.2	1.1
41.5 22.7 16.8	42.0 21.6 16.4	1.3
31.9 40.0 24.0	32.5 38.3 23.0	2.0
32.5 44.5 -1.8	33.1 43.4 -1.9	1.2
51.3 1.3 44.5	51.6 1.0 43.4	1.2
34.6 -36.4 13.9	34.6 -36.0 13.2	0.8
36.0 -26.2 -20.9	36.0 -24.7 -21.1	1.5
20.9 9.6 -23.6	21.2 10.7 -24.9	1.7
89.0 0.0 -1.9	89.0 0.3 -2.4	0.6
82.8 0.0 -1.7	82.7 0.5 -2.8	1.2
69.3 0.0 -1.4	69.5 0.5 -1.7	0.6
54.1 0.0 -1.0	54.3 0.9 -1.9	1.3
36.6 0.0 -0.5	36.8 0.8 -1.5	1.3
16.0 0.0 0.0	16.6 0.2 -0.8	1.0
24.0 22.0 -46.0	24.2 22.9 -46.3	1.0
40.9 17.9 -36.6	41.2 17.7 -36.0	0.6
63.7 10.3 -23.8	63.7 11.4 -24.2	1.1
47.0 68.0 48.0	47.6 66.1 47.0	2.2
58.5 47.1 37.9	59.0 45.7 37.2	1.6
74.2 22.9 21.4	74.4 22.1 21.1	0.9
50.0 -65.0 27.0	49.9 -64.1 26.0	1.4
62.1 -39.8 21.0	62.1 -38.9 20.5	1.1
77.0 -19.1 11.0	77.0 -18.7 11.0	0.4
71.2 18.9 17.3	71.4 18.3 17.1	0.6
71.2 22.1 73.1	71.4 21.2 72.1	1.3
47.7 71.2 16.2	48.3 69.4 16.0	1.9
38.0 55.4 -20.9	38.4 54.8 -21.1	0.7
73.7 -22.8 67.6	73.8 -23.0 66.6	1.0
52.3 -52.3 -20.1	52.2 -50.2 -20.0	2.1
43.3 -17.0 -48.6	43.5 -15.6 -48.7	1.5
95.0 0.0 -2.0	94.9 0.2 -2.7	0.8
88.5 -0.4 -3.1	88.5 -0.2 -3.5	0.4
82.0 -0.9 -4.1	81.9 -0.2 -4.8	1.0
67.7 -2.0 -4.4	67.7 -1.8 -5.4	1.1
52.2 -2.5 -3.5	52.3 -2.0 -4.6	1.2
37.5 -3.9 -3.1	37.9 -4.5 -4.0	1.1
26.3 -6.8 -3.4	26.9 -8.0 -3.5	1.4
Average		1.3
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	126.34 132.40 129.64	85 85 170	25.48 21.49 58.32
0 0 0	0.15 0.16 0.27	85 170 170	35.26 51.98 62.43
12 12 12	0.65 0.68 0.77	170 85 170	51.51 33.43 58.78
25 25 25	2.08 2.18 2.23	170 170 85	53.76 61.20 23.00
38 38 38	4.25 4.43 4.45	0 128 206	23.48 31.64 82.68
51 51 51	7.14 7.44 7.43	83 158 220	39.59 49.13 95.35
63 63 63	10.40 10.88 10.77	153 192 231	66.29 74.57 105.57
76 76 76	14.58 15.24 15.06	173 41 103	43.46 22.53 24.35
89 89 89	19.35 20.27 19.97	187 97 143	56.30 38.67 44.04
102 102 102	24.61 25.71 25.32	207 159 190	77.66 67.16 74.80
114 114 114	30.07 31.39 30.97	237 218 18	87.90 97.82 11.02
127 127 127	36.25 38.03 37.37	237 223 91	92.38 102.04 29.10
140 140 140	43.31 45.06 44.48	236 229 159	98.74 107.24 61.25
153 153 153	50.85 53.08 52.24	157 86 65	37.95 28.17 12.50
165 165 165	58.36 60.91 59.98	106 69 57	20.00 16.43 9.50
178 178 178	66.58 69.48 68.42	97 39 32	14.99 9.49 3.62
191 191 191	75.44 78.71 77.62	99 37 64	16.67 9.92 10.57
204 204 204	84.70 88.52 86.98	116 102 36	24.72 26.05 6.26
216 216 216	94.05 98.39 96.77	33 74 44	6.06 11.04 6.54
229 229 229	104.22 109.03 107.14	25 75 97	8.40 12.10 22.05
242 242 242	115.12 120.39 118.16	36 35 67	5.28 4.44 11.49
0 0 128	6.53 2.52 33.74	215 216 220	93.98 98.22 100.03
0 0 255	22.45 8.51 117.04	194 195 199	78.17 81.53 83.82
0 128 0	8.32 25.67 3.69	152 153 155	50.78 52.97 53.66
0 128 128	14.83 28.41 37.28	110 110 112	28.37 29.43 30.19
0 170 255	36.08 51.60 121.99	68 68 69	12.07 12.50 12.84
0 255 0	28.77 89.40 12.17	30 30 30	2.81 2.93 2.99
0 255 170	39.27 93.29 67.38	39 36 107	8.19 5.66 25.13
0 255 255	50.93 97.81 128.03	78 71 137	19.33 16.04 39.66
85 85 85	17.81 18.60 18.33	137 131 183	45.96 43.17 68.65
128 0 0	21.79 10.08 0.53	171 45 32	38.90 21.27 4.03
128 0 128	28.33 12.51 34.43	186 93 64	49.76 35.24 12.64
128 128 0	30.23 35.85 3.96	206 154 128	69.77 62.30 39.65
128 128 128	36.90 38.64 38.07	31 120 55	10.60 24.41 10.77
128 128 255	52.69 44.69 120.52	91 148 93	26.37 40.42 23.94
128 255 128	57.13 101.69 46.32	155 186 153	56.17 68.26 53.89
170 0 255	58.99 25.28 117.97	190 148 127	61.75 56.40 38.69
170 170 170	61.48 64.14 63.03	205 145 30	62.07 55.98 7.70
170 255 0	65.47 106.17 12.58	173 44 74	41.49 22.12 13.95
170 255 255	87.77 114.45 128.85	118 39 105	24.64 13.58 24.71
255 0 0	75.72 34.86 1.15	157 177 39	47.35 61.03 10.80
255 0 170	86.57 38.89 58.42	0 124 139	15.34 27.28 42.26
255 0 255	98.02 43.23 118.54	14 91 166	15.38 18.31 56.24
255 128 128	90.41 63.26 39.02	236 237 242	110.79 115.86 118.38
255 170 0	89.35 77.62 6.87	212 215 221	92.37 96.83 100.36
255 170 255	111.54 86.26 123.46	189 193 201	76.16 79.77 84.92
255 255 0	104.25 123.85 12.99	143 149 156	46.99 49.85 54.45
255 255 170	114.85 127.75 69.75	101 106 111	25.40 27.09 29.72
170 85 85	43.84 30.55 18.81	65 72 75	12.00 13.28 14.74
85 170 85	27.56 49.06 22.37	41 50 51	5.63 6.71 7.51