

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2011-6-21 21:02:38
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/.../EIZO_FlexScan_S2433W_120cd_m2_21_06_2011.icc
Created: 2011-6-21 20:57
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:	114.18 120.24 130.47
XYZ (normalized):	94.96 100.00 108.51
Luminance:	120.2 Cd/m2
Next Temperature:	6488 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	8429	0.12	0.88	0.31	
5	6962	0.38	2.85	0.42	2.05
10	7157	0.98	7.39	1.23	2.14
15	6565	1.90	13.12	0.93	2.21
20	6384	3.54	19.83	0.36	2.21
25	6470	5.58	25.67	0.35	2.23
30	6551	8.39	31.76	0.85	2.21
35	6486	11.87	37.61	0.89	2.21
40	6464	16.06	43.30	0.74	2.20
45	6451	20.61	48.44	0.22	2.22
50	6424	25.82	53.46	0.34	2.23
55	6550	32.35	58.89	0.75	2.21
60	6441	39.11	63.77	0.29	2.21
65	6480	46.12	68.28	0.97	2.21
70	6503	54.76	73.25	0.57	2.22
75	6526	63.54	77.78	0.76	2.20
80	6461	74.30	82.80	0.43	2.17
85	6469	83.59	86.76	0.24	2.25
90	6534	95.17	91.30	0.35	2.21
95	6527	106.52	95.41	0.53	2.30
100	6488	120.24	100.00	0.00	
Average	6487			0.53	2.20
Range				1.68	
Max				0.97	

Tone values = 97.0%

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	0.9 -0.2 -0.2	-0.9 0.2 0.2	0.9
0 0 128	14.8 28.4 -62.4	0.7 -2.6 0.7	2.7
0 0 255	36.8 39.7 -101.6	-0.6 3.1 -0.7	3.2
0 128 0	43.5 -75.9 45.6	-0.3 1.6 0.6	1.7
0 128 128	46.1 -51.8 -13.4	-0.0 0.7 0.2	0.7
0 170 255	65.0 -39.2 -55.5	-0.1 1.9 -0.1	1.9
0 255 0	81.9 -122.9 76.8	0.3 -0.3 -0.2	0.4
0 255 170	83.8 -104.6 17.5	0.3 -0.5 0.4	0.7
0 255 255	86.6 -85.2 -22.0	0.2 0.5 0.2	0.6
85 85 85	35.8 0.8 -0.6	0.1 -0.8 0.6	1.0
128 0 0	31.0 56.0 46.9	0.0 -0.1 2.0	2.0
128 0 128	35.1 58.7 -28.0	0.2 -1.7 -0.0	1.7
128 128 0	52.2 -8.7 57.7	-0.4 1.9 0.9	2.1
128 128 128	54.3 -0.6 0.2	-0.3 0.6 -0.2	0.7
128 128 255	61.6 15.5 -60.6	-0.8 2.0 -0.9	2.3
128 255 128	86.4 -76.7 42.9	0.2 -1.0 0.6	1.1
170 0 255	54.0 71.6 -72.5	-0.5 0.7 -0.2	0.9
170 170 170	70.2 -0.2 0.0	-0.0 0.2 -0.0	0.2
170 255 0	88.3 -60.2 85.8	0.2 -0.1 -0.1	0.2
170 255 255	92.6 -40.0 -12.3	-0.0 -0.1 0.1	0.1
255 0 0	61.9 93.6 86.9	0.0 -0.8 -0.3	0.9
255 0 170	64.7 94.9 -4.5	0.3 -1.5 -0.2	1.6
255 0 255	69.2 94.1 -46.4	-0.1 0.3 -0.1	0.3
255 128 128	73.7 61.1 31.8	-0.3 0.4 -0.3	0.6
255 170 0	79.4 37.2 88.6	-0.2 0.7 -0.3	0.8
255 170 255	84.6 45.1 -23.0	-0.5 1.2 -0.4	1.4
255 255 0	96.4 -10.9 97.8	0.0 -0.5 -0.8	0.9
255 255 170	97.7 -5.5 40.1	0.2 -0.9 0.0	0.9
255 255 255	100.0 0.0 0.0	0.0 0.0 0.0	0.0
170 85 85	50.3 46.2 22.8	0.1 -0.4 0.6	0.7
85 170 85	60.4 -58.4 31.9	-0.2 0.5 0.5	0.7
85 85 170	40.7 14.5 -46.2	0.3 -1.4 0.3	1.5
85 170 170	62.9 -43.4 -12.3	-0.1 0.1 -0.0	0.2
170 85 170	53.4 50.4 -24.9	0.2 -1.0 0.2	1.1
170 170 85	68.2 -7.1 44.2	-0.2 0.6 0.6	0.9
Average			1.1
Maximum			3.2

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	95 %
AdobeRGB	93 %
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	55.4 -33.6 -49.5	3.4
66.9 -24.7 -37.1	67.1 -24.3 -37.6	0.7
79.7 -12.5 -21.8	79.8 -13.3 -21.9	0.8
48.0 74.0 -3.0	47.5 75.0 -2.5	1.2
60.8 50.6 -6.7	61.0 51.8 -6.1	1.4
76.4 25.8 -6.9	76.5 25.6 -6.7	0.3
89.0 -5.0 93.0	89.1 -5.8 91.5	1.7
90.3 -4.7 62.6	90.5 -5.6 62.3	0.9
92.2 -3.5 31.1	91.9 -3.3 30.8	0.5
53.1 37.7 28.9	53.1 38.2 28.3	0.8
41.5 22.7 16.8	41.6 22.8 16.1	0.7
31.9 40.0 24.0	32.0 40.5 23.4	0.8
32.5 44.4 -1.8	32.7 45.0 -1.8	0.6
51.3 1.3 44.5	51.7 0.4 44.2	1.0
34.6 -36.4 13.9	34.4 -35.2 13.2	1.4
36.0 -26.2 -20.9	35.7 -25.5 -21.3	0.9
20.9 9.6 -23.6	21.0 10.9 -24.3	1.5
89.0 0.0 -1.8	89.0 0.7 -2.2	0.8
82.8 0.0 -1.7	83.3 -0.5 -1.2	0.9
69.3 0.0 -1.4	69.6 0.0 -1.0	0.4
54.1 0.0 -1.0	54.4 -0.4 -0.8	0.5
36.6 -0.0 -0.5	36.8 0.9 -1.0	1.0
16.0 0.0 0.0	16.6 -0.2 0.2	0.6
24.0 22.0 -46.0	23.8 23.6 -45.7	1.6
40.9 17.9 -36.6	41.1 18.7 -36.2	0.9
63.7 10.3 -23.8	64.0 10.5 -23.8	0.4
47.0 68.0 48.0	46.8 68.0 46.9	1.1
58.5 47.1 37.9	58.7 48.2 37.5	1.2
74.2 22.9 21.4	74.2 23.8 21.4	0.9
50.0 -65.0 27.0	50.3 -65.4 26.5	0.7
62.1 -39.8 21.0	62.3 -40.3 20.8	0.5
77.0 -19.1 11.0	77.3 -20.0 12.0	1.4
71.2 18.8 17.3	71.3 19.8 17.0	1.0
71.2 22.2 73.1	71.5 22.0 72.4	0.7
47.7 71.2 16.2	47.5 71.6 16.0	0.5
38.0 55.4 -20.9	38.0 56.6 -20.3	1.4
73.7 -22.8 67.6	73.4 -22.5 66.9	0.8
52.3 -52.3 -20.2	52.4 -53.1 -20.1	0.8
43.3 -17.0 -48.6	42.7 -15.5 -49.8	2.0
95.0 0.0 -2.0	95.0 -0.7 -2.2	0.7
88.5 -0.4 -3.1	88.5 -0.3 -3.5	0.4
82.0 -0.9 -4.1	82.4 -0.5 -3.7	0.7
67.7 -2.0 -4.4	67.5 -1.5 -4.9	0.7
52.2 -2.5 -3.5	52.3 -2.1 -3.4	0.4
37.5 -3.9 -3.1	37.5 -3.0 -3.5	0.9
26.3 -6.8 -3.4	26.4 -5.5 -4.1	1.5
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	114.18 120.24 130.47	85 85 170	17.36 14.50 48.91
0 0 0	0.11 0.12 0.15	85 170 170	24.77 38.33 53.09
12 12 12	0.35 0.38 0.42	170 85 170	39.57 25.66 49.57
25 25 25	0.90 0.98 1.11	170 170 85	39.73 45.60 16.51
38 38 38	1.84 1.90 2.14	0 144 216	21.57 29.08 84.13
51 51 51	3.39 3.54 3.83	103 172 227	36.49 45.14 96.63
63 63 63	5.32 5.58 6.08	168 202 236	60.10 68.47 107.01
76 76 76	8.04 8.39 9.31	185 0 122	38.25 19.20 23.21
89 89 89	11.38 11.87 13.07	198 104 159	51.36 34.75 44.00
102 102 102	15.37 16.06 17.59	215 169 201	69.90 60.83 75.09
114 114 114	19.57 20.61 22.24	239 229 0	77.83 88.24 11.09
127 127 127	24.53 25.82 27.78	239 232 106	81.79 91.94 28.49
140 140 140	30.51 32.35 35.04	239 236 172	88.03 96.22 60.72
153 153 153	37.15 39.11 42.17	171 100 82	33.64 24.87 12.24
165 165 165	44.10 46.12 50.54	124 85 74	17.75 14.48 9.40
178 178 178	51.79 54.76 59.17	116 47 46	13.41 8.28 3.45
191 191 191	60.55 63.54 69.71	117 41 82	14.94 8.70 10.36
204 204 204	70.44 74.30 80.10	133 122 48	21.87 23.61 6.07
216 216 216	79.32 83.59 90.35	48 96 60	5.43 9.92 6.45
229 229 229	90.29 95.17 103.80	39 95 116	7.61 10.90 22.00
242 242 242	101.29 106.52 116.47	52 47 86	4.82 3.98 11.19
0 0 128	4.83 2.55 25.26	222 222 226	85.29 89.29 100.51
0 0 255	22.15 12.77 117.31	204 205 208	71.49 75.49 83.55
0 128 0	4.99 16.31 2.78	167 168 170	45.92 48.31 53.53
0 128 128	9.83 18.80 28.42	128 128 130	25.42 26.85 29.73
0 170 255	31.22 42.53 121.80	87 87 88	10.88 11.31 12.69
0 255 0	22.59 72.43 11.63	44 44 44	2.52 2.66 2.86
0 255 170	31.67 77.40 59.56	56 41 126	7.61 5.08 24.48
0 255 255	44.57 84.98 128.31	98 83 155	18.00 14.60 40.01
85 85 85	10.26 10.68 11.83	154 145 195	42.18 39.81 69.29
128 0 0	15.20 7.65 0.60	183 41 45	34.17 18.31 3.86
128 0 128	20.21 10.22 25.77	197 105 81	44.78 31.28 12.40
128 128 0	20.19 24.15 3.31	214 166 144	62.75 55.85 39.30
128 128 128	25.25 26.75 28.90	45 144 71	9.48 22.56 10.79
128 128 255	42.82 37.09 120.35	109 169 111	23.58 37.08 24.04
128 255 128	42.94 82.94 38.15	170 200 167	50.59 62.61 53.61
170 0 255	51.14 27.21 118.63	200 161 144	55.67 50.70 38.72
170 170 170	46.79 49.33 53.50	213 161 37	55.47 50.50 7.60
170 255 0	50.88 86.89 12.52	185 30 92	36.70 19.06 13.50
170 255 255	73.52 99.79 129.59	136 32 124	22.30 11.98 23.99
255 0 0	69.49 34.78 1.91	171 194 47	41.64 54.61 10.38
255 0 170	78.32 39.41 48.95	6 145 156	14.01 25.26 42.95
255 0 255	91.54 47.42 118.81	30 106 181	14.19 16.28 56.43
255 128 128	79.61 54.23 30.36	239 240 244	99.81 105.42 118.33
255 170 0	78.64 65.27 6.85	219 221 227	83.64 88.06 101.24
255 170 255	101.24 78.26 124.23	200 203 210	69.68 73.47 85.01
255 255 0	92.23 107.87 13.50	159 164 171	42.24 44.87 53.76
255 255 170	101.08 112.33 61.30	119 125 129	22.96 24.62 29.07
170 85 85	32.43 21.86 12.50	84 90 93	10.85 11.83 14.30
85 170 85	17.59 34.43 15.86	57 67 69	5.16 5.91 7.52