

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2010-5-30 20:29:11
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/.../Matrix_PrimaryColors_29.05.10-custom-22-100%-trc.icc
Created: 2010-5-29 3:26
Measurement device: DTP94-LCD mode (Wide Gamut S-IPS (generic))

Summary

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

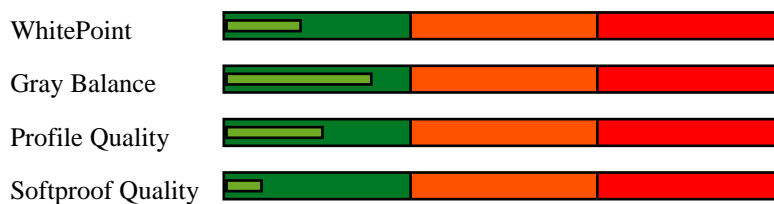
Calibration

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:	133.56 139.92 154.94
XYZ (normalized):	95.45 100.00 110.73
Luminance:	139.9 Cd/m2
Next Temperature:	6575 Kelvin
Assumed Target Whitepoint:	6600 Kelvin
Distance to assumed Target Whitepoint:	0.8 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:	1.2 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	15153	0.20	1.32	1.20	
5	9058	0.41	2.63	1.12	2.18
10	7335	1.02	6.56	0.94	2.24
15	6414	2.33	13.63	0.42	2.21
20	6621	4.16	19.94	0.34	2.22
25	6621	6.60	25.91	0.39	2.23
30	6514	9.84	31.88	0.24	2.23
35	6567	14.00	37.86	0.31	2.21
40	6506	18.97	43.60	0.58	2.20
45	6613	24.06	48.50	0.95	2.22
50	6621	30.55	53.85	0.65	2.21
55	6621	37.86	59.03	0.70	2.20
60	6567	45.67	63.86	0.46	2.21
65	6567	54.09	68.50	0.49	2.22
70	6567	63.83	73.30	0.52	2.22
75	6567	74.38	77.97	0.54	2.21
80	6567	85.85	82.57	0.57	2.21
85	6575	97.10	86.70	0.00	2.25
90	6560	111.13	91.42	1.24	2.25
95	6560	125.24	95.79	1.29	2.29
100	6575	139.92	100.00	0.00	
Average	6567			0.54	2.22
Range				1.57	
Max				1.29	

Tone values = 98.8%

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	1.3 -0.4 -1.2	-1.3 0.4 1.2	1.8
0 0 128	12.4 39.7 -67.1	-0.4 0.7 -0.8	1.1
0 0 255	30.3 68.2 -113.4	0.2 -1.3 0.8	1.5
0 128 0	45.0 -78.8 47.7	0.0 -0.1 1.8	1.8
0 128 128	47.1 -53.5 -11.1	-0.2 0.8 -0.8	1.1
0 170 255	64.8 -35.6 -56.4	-0.2 1.2 -0.2	1.2
0 255 0	85.2 -132.0 82.2	-0.1 1.3 -0.2	1.3
0 255 170	86.5 -112.1 22.3	-0.1 1.4 -0.7	1.6
0 255 255	88.3 -88.3 -19.5	-0.1 0.9 -0.2	0.9
85 85 85	36.1 0.0 0.3	-0.3 -0.0 -0.3	0.4
128 0 0	29.5 60.8 45.3	-0.1 0.6 3.1	3.1
128 0 128	32.7 66.7 -32.6	0.1 -0.0 0.1	0.1
128 128 0	52.5 -9.6 59.8	-0.0 0.1 1.3	1.3
128 128 128	54.2 -0.6 0.1	-0.2 0.6 -0.1	0.7
128 128 255	59.2 24.9 -64.7	-0.3 0.5 -0.4	0.7
128 255 128	88.9 -84.6 47.6	-0.1 0.5 -0.4	0.7
170 0 255	48.8 90.7 -81.2	0.2 -0.7 0.5	0.9
170 170 170	70.4 -0.4 0.3	-0.2 0.4 -0.3	0.5
170 255 0	90.6 -68.1 90.3	-0.1 0.8 0.1	0.9
170 255 255	93.4 -42.6 -11.1	-0.1 0.6 -0.1	0.7
255 0 0	59.5 101.8 91.3	-0.1 -0.1 -0.2	0.2
255 0 170	61.6 106.0 -10.1	0.1 -0.5 -0.0	0.5
255 0 255	64.7 112.1 -54.4	0.1 -1.6 0.6	1.7
255 128 128	72.0 66.3 29.7	-0.2 0.1 0.0	0.3
255 170 0	78.9 38.3 91.2	-0.1 0.0 -0.2	0.3
255 170 255	82.6 52.2 -26.2	-0.2 0.5 -0.3	0.6
255 255 0	97.5 -16.2 101.7	-0.1 0.3 -0.6	0.7
255 255 170	98.6 -9.4 41.6	-0.0 0.3 0.1	0.3
255 255 255	100.0 0.0 -0.0	0.0 0.0 -0.0	0.0
170 85 85	49.2 49.3 22.2	-0.1 0.1 0.0	0.2
85 170 85	62.0 -63.4 35.5	-0.3 0.8 -0.2	0.8
85 85 170	39.6 18.9 -48.2	-0.1 0.0 -0.4	0.4
85 170 170	63.7 -45.5 -10.8	-0.2 0.4 -0.4	0.6
170 85 170	51.6 57.0 -28.3	-0.0 -0.3 0.2	0.4
170 170 85	68.9 -9.8 46.7	-0.2 0.8 -0.1	0.8
Average			0.9
Maximum			3.1

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	55.8 -32.6 -48.5	4.7
66.9 -24.7 -37.1	67.1 -25.4 -36.5	0.9
79.7 -12.5 -21.8	80.0 -13.1 -21.2	0.8
48.0 74.0 -3.0	48.0 74.6 -3.6	0.9
60.8 50.6 -6.7	61.0 49.9 -6.5	0.7
76.4 25.8 -6.9	76.7 24.9 -6.4	1.1
89.0 -5.0 93.0	89.0 -5.6 93.6	0.8
90.3 -4.7 62.6	90.4 -5.7 62.2	1.0
92.2 -3.5 31.1	92.3 -4.3 31.5	0.9
53.1 37.7 28.9	53.2 37.5 28.4	0.5
41.5 22.7 16.8	41.7 21.9 17.1	0.9
31.9 40.0 24.0	32.1 39.7 23.7	0.4
32.5 44.4 -1.8	32.6 44.4 -1.9	0.2
51.3 1.3 44.5	51.3 1.3 44.4	0.1
34.6 -36.4 13.9	35.1 -37.1 14.3	0.9
36.0 -26.2 -20.9	36.2 -26.2 -20.6	0.3
20.9 9.6 -23.6	21.4 9.3 -23.1	0.8
89.0 0.0 -1.8	89.1 -0.1 -1.6	0.3
82.8 0.0 -1.7	82.9 -0.6 -1.7	0.6
69.3 0.0 -1.4	69.5 -0.9 -1.1	0.9
54.1 0.0 -1.0	54.2 -0.1 -1.1	0.1
36.6 -0.0 -0.5	37.1 -0.0 -0.3	0.5
16.0 0.0 0.0	16.7 0.5 0.2	0.9
24.0 22.0 -46.0	24.0 21.8 -45.6	0.4
40.9 17.9 -36.6	41.0 18.2 -36.0	0.7
63.7 10.3 -23.8	63.9 10.0 -23.3	0.6
47.0 68.0 48.0	46.8 68.1 47.5	0.5
58.5 47.1 37.9	58.6 47.4 37.6	0.4
74.2 22.9 21.4	74.3 22.4 21.2	0.6
50.0 -65.0 27.0	50.4 -66.1 27.6	1.3
62.1 -39.8 21.0	62.3 -40.5 20.9	0.7
77.0 -19.1 11.0	77.0 -19.3 10.9	0.3
71.2 18.8 17.3	71.4 17.9 17.2	1.0
71.2 22.2 73.1	71.3 22.4 72.9	0.3
47.7 71.2 16.2	47.7 71.2 16.4	0.1
38.0 55.4 -20.9	37.9 55.4 -21.1	0.2
73.7 -22.8 67.6	73.6 -23.1 67.5	0.3
52.3 -52.3 -20.2	52.5 -53.5 -19.1	1.6
43.3 -17.0 -48.6	43.4 -17.1 -48.3	0.3
95.0 0.0 -2.0	95.1 -1.1 -1.5	1.3
88.5 -0.4 -3.1	88.4 -1.2 -3.0	0.8
82.0 -0.9 -4.1	82.0 -1.7 -3.9	0.8
67.7 -2.0 -4.4	67.8 -2.7 -4.2	0.8
52.2 -2.5 -3.5	52.4 -3.8 -3.3	1.4
37.5 -3.9 -3.1	37.7 -3.5 -2.7	0.6
26.3 -6.8 -3.4	26.6 -6.8 -3.2	0.4
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	133.56 139.92 154.94	85 85 170	20.41 16.00 58.38
0 0 0	0.19 0.20 0.34	85 170 170	29.49 46.06 63.08
12 12 12	0.38 0.41 0.56	170 85 170	46.00 27.68 59.44
25 25 25	0.95 1.02 1.20	170 170 85	46.36 54.33 18.81
38 38 38	2.25 2.33 2.56	0 145 215	26.05 34.40 99.32
51 51 51	3.95 4.16 4.59	101 172 226	42.43 52.55 112.80
63 63 63	6.26 6.60 7.28	168 203 236	70.78 80.02 126.21
76 76 76	9.39 9.84 10.80	185 52 122	45.31 22.89 28.97
89 89 89	13.32 14.00 15.41	197 114 159	59.12 40.47 52.58
102 102 102	18.05 18.97 20.70	215 173 201	81.78 71.24 89.25
114 114 114	22.75 24.06 26.39	240 225 23	90.57 102.33 12.08
127 127 127	28.98 30.55 33.72	240 228 109	95.25 106.76 33.75
140 140 140	35.91 37.86 41.78	240 233 173	103.28 113.20 72.04
153 153 153	43.45 45.67 50.26	171 104 83	39.08 29.05 14.52
165 165 165	51.46 54.09 59.53	124 87 74	20.64 16.99 10.86
178 178 178	60.73 63.83 70.26	116 53 46	15.55 9.69 4.06
191 191 191	70.77 74.38 81.87	117 50 82	17.29 10.11 12.33
204 204 204	81.69 85.85 94.50	134 120 50	25.28 26.95 6.95
216 216 216	92.69 97.10 107.53	49 94 61	6.46 12.00 7.69
229 229 229	105.40 111.13 121.59	38 94 116	9.10 13.02 26.20
242 242 242	118.78 125.24 137.02	52 50 85	5.65 4.80 13.08
0 0 128	5.87 2.45 30.62	222 223 226	99.34 104.04 118.23
0 0 255	26.53 10.68 140.89	204 205 208	82.52 86.70 98.78
0 128 0	6.16 20.35 3.33	167 168 170	53.17 56.05 63.48
0 128 128	11.90 22.91 33.28	128 128 130	29.66 31.06 35.30
0 170 255	37.76 49.21 145.90	87 87 88	12.79 13.40 14.96
0 255 0	27.74 93.12 13.68	44 44 44	3.03 3.14 3.45
0 255 170	38.36 97.39 70.23	54 50 125	8.91 6.07 29.42
0 255 255	54.11 103.79 153.38	97 88 154	20.96 16.99 47.22
85 85 85	12.10 12.68 13.92	153 148 194	48.96 46.12 81.17
128 0 0	17.38 8.05 0.62	183 58 46	39.87 21.34 4.46
128 0 128	23.08 10.29 30.91	197 110 82	51.78 36.32 14.63
128 128 0	23.56 28.40 3.56	214 168 145	72.78 65.23 47.02
128 128 128	29.46 31.06 34.28	48 139 72	11.03 26.32 12.36
128 128 255	50.20 39.59 143.36	110 164 112	27.45 43.00 28.41
128 255 128	51.15 103.50 44.58	170 197 168	58.85 72.05 64.27
170 0 255	58.72 25.44 140.55	200 163 144	64.47 59.37 46.09
170 170 170	54.94 57.74 63.56	214 160 43	64.47 58.38 8.69
170 255 0	60.17 107.87 14.37	185 56 92	42.99 22.45 16.07
170 255 255	86.59 118.65 154.24	135 52 123	25.70 13.93 29.03
255 0 0	79.53 36.55 1.39	172 189 53	48.63 63.87 12.14
255 0 170	90.20 40.72 58.59	0 142 155	16.40 29.41 49.93
255 0 255	106.40 47.00 142.14	23 109 180	16.94 19.61 66.65
255 128 128	91.79 59.66 35.50	239 240 244	116.84 123.16 139.49
255 170 0	90.94 74.65 6.98	219 221 227	96.86 102.08 118.62
255 170 255	117.37 85.75 147.01	199 203 210	79.88 84.44 100.06
255 255 0	107.16 129.35 14.82	159 164 171	49.54 52.88 63.67
255 255 170	117.95 133.74 72.68	119 125 129	26.55 28.80 34.53
170 85 85	37.42 24.27 14.36	84 90 93	12.77 13.95 16.80
85 170 85	20.96 42.65 18.33	57 67 69	5.97 6.95 8.69