

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2010-8-9 14:50:47
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
EDID-Name: PL2710HD
EDID-Serial: 11049A0100866
Profile: C:/Windows/system32/spool/drivers/color/iiyama_ple2710hds_ugra.icc
Created: 2010-8-9 14:43
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	no
Offset/Gravure Paper Type 1/2	yes
Offset on uncoated paper	yes
Newspaper Printing	yes
sRGB	yes
AdobeRGB	no
ECI-RGB	no

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:	114.74 120.27 117.28
XYZ (normalized):	95.40 100.00 97.51
Luminance:	120.3 Cd/m2
Next Temperature:	5802 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.0 deltaE

Blackpoint

The blackpoint is not defined in ISO 12646. Therefore UDACT does only measure but not assess it.

Luminance:	0.3 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	5821	0.30	2.25	0.19	
5	5721	0.91	6.83	0.32	1.77
10	5912	2.15	14.33	0.35	1.81
15	5973	4.10	21.61	0.56	1.82
20	5764	6.83	28.59	0.63	1.81
25	5771	10.05	34.71	0.52	1.82
30	5825	13.78	40.34	0.12	1.82
35	5806	18.37	46.01	0.05	1.80
40	5861	23.04	50.87	0.69	1.81
45	5781	28.29	55.61	0.61	1.82
50	5797	34.44	60.46	0.15	1.81
55	5834	41.07	65.08	0.24	1.80
60	5788	48.36	69.62	0.11	1.79
65	5841	55.02	73.38	0.59	1.81
70	5815	63.44	77.73	0.25	1.80
75	5768	71.83	81.69	0.60	1.81
80	5783	80.88	85.63	0.17	1.79
85	5824	89.56	89.14	0.41	1.83
90	5797	99.56	92.92	0.06	1.80
95	5811	109.95	96.58	0.20	1.77
100	5802	120.27	100.00	0.00	
Average	5819			0.33	1.80
Range				1.29	
Max				0.69	

Tone values = 95.4%

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: CAT02

RGB	Lab	deltaLab	deltaE
0 0 0	2.3 0.1 -0.1	-2.3 -0.1 0.1	2.3
0 0 128	13.9 43.1 -72.5	0.5 -1.6 -0.8	1.8
0 0 255	29.2 64.0 -111.9	0.7 -1.2 1.1	1.8
0 128 0	50.6 -60.6 45.5	0.5 1.4 3.0	3.4
0 128 128	52.3 -39.9 -13.5	0.8 0.6 0.9	1.4
0 170 255	67.4 -27.5 -51.4	0.9 0.1 2.3	2.5
0 255 0	85.3 -89.2 75.1	0.2 -0.4 -1.7	1.8
0 255 170	86.6 -73.1 14.4	0.4 -0.8 -0.1	0.9
0 255 255	88.1 -59.0 -19.8	0.4 -0.4 0.8	1.0
85 85 85	44.3 -0.0 -0.0	-0.3 0.0 0.0	0.3
128 0 0	34.3 51.0 48.7	-0.8 1.8 3.6	4.1
128 0 128	37.6 59.7 -32.3	-0.6 0.0 -2.4	2.5
128 128 0	59.2 -10.9 57.6	-0.2 1.5 2.7	3.1
128 128 128	60.8 -0.1 0.3	-0.1 0.1 -0.3	0.3
128 128 255	64.4 18.6 -55.1	-0.0 0.0 0.8	0.8
128 255 128	90.2 -52.2 39.2	-0.1 -0.8 -1.5	1.7
170 0 255	51.0 78.3 -74.7	-0.2 -0.2 -0.4	0.5
170 170 170	74.9 0.0 -0.5	0.1 -0.0 0.5	0.5
170 255 0	91.7 -45.7 84.2	-0.1 0.6 -1.7	1.8
170 255 255	94.4 -25.0 -9.4	-0.1 -0.5 0.0	0.5
255 0 0	58.9 80.1 84.1	-0.1 -0.2 -0.8	0.9
255 0 170	61.2 86.3 -15.8	0.3 -1.1 -0.9	1.5
255 0 255	63.9 91.1 -52.8	0.3 -0.8 0.2	0.9
255 128 128	74.8 43.4 23.6	0.0 0.4 -0.5	0.7
255 170 0	81.5 20.0 82.8	-0.1 0.9 0.7	1.2
255 170 255	84.5 34.7 -22.7	0.1 0.6 0.8	1.0
255 255 0	97.7 -14.5 93.7	-0.1 0.2 -2.6	2.6
255 255 170	98.7 -6.8 34.3	0.0 -0.3 -0.9	1.0
255 255 255	100.0 0.0 0.0	0.0 -0.0 0.0	0.0
170 85 85	55.5 34.1 18.2	-0.3 0.4 0.0	0.5
85 170 85	67.1 -42.1 28.9	0.1 0.3 0.9	0.9
85 85 170	46.9 15.4 -42.9	0.1 -0.7 0.1	0.7
85 170 170	68.4 -29.3 -11.1	0.3 -0.2 0.8	0.9
170 85 170	57.4 42.2 -25.3	-0.1 -0.3 -0.1	0.3
170 170 85	73.6 -8.3 39.3	-0.1 0.5 0.7	0.9
Average			1.3
Maximum			4.1

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	94 %
sRGB	99 %
AdobeRGB	83 %
ECI-RGB v1.0	77 %

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	56.8 -22.4 -46.9	15.1
66.9 -24.7 -37.1	66.4 -24.5 -38.5	1.5
79.7 -12.5 -21.8	80.0 -12.8 -21.8	0.4
48.0 74.0 -3.0	49.8 71.2 0.7	5.0
60.8 50.6 -6.7	61.1 51.1 -6.4	0.6
76.4 25.8 -6.9	76.4 25.6 -6.7	0.3
89.0 -5.0 93.0	89.3 -5.2 85.9	7.1
90.3 -4.7 62.6	90.5 -4.4 63.4	0.9
92.2 -3.5 31.1	92.4 -3.8 32.0	0.9
53.1 37.7 28.9	53.3 37.4 28.3	0.8
41.5 22.7 16.8	42.4 22.4 17.5	1.2
31.9 40.0 24.0	33.4 38.4 24.2	2.1
32.5 44.4 -1.8	33.6 43.4 -0.2	2.2
51.3 1.3 44.5	51.7 0.4 42.6	2.1
34.6 -36.4 13.9	34.7 -36.7 13.1	0.8
36.0 -26.2 -20.9	35.9 -23.6 -21.2	2.6
20.9 9.6 -23.6	21.1 10.0 -23.5	0.5
89.0 0.0 -1.8	89.1 -0.3 -1.8	0.4
82.8 0.0 -1.7	83.0 0.1 -1.8	0.3
69.3 0.0 -1.4	69.5 -0.2 -1.1	0.4
54.1 0.0 -1.0	54.1 0.9 -1.3	1.0
36.6 -0.0 -0.5	37.0 -0.3 -0.5	0.5
16.0 0.0 0.0	17.1 0.3 -0.3	1.2
24.0 22.0 -46.0	24.0 22.6 -45.2	1.0
40.9 17.9 -36.6	41.2 17.9 -35.9	0.7
63.7 10.3 -23.8	63.5 10.8 -24.1	0.6
47.0 68.0 48.0	47.8 66.9 48.2	1.4
58.5 47.1 37.9	58.8 46.7 37.8	0.5
74.2 22.9 21.4	74.3 22.4 21.4	0.5
50.0 -65.0 27.0	50.6 -55.9 26.5	9.2
62.1 -39.8 21.0	62.1 -40.8 20.5	1.1
77.0 -19.1 11.0	77.2 -19.2 11.3	0.4
71.2 18.8 17.3	71.5 18.6 17.9	0.8
71.2 22.2 73.1	71.6 21.1 71.1	2.3
47.7 71.2 16.2	49.1 69.5 18.6	3.2
38.0 55.4 -20.9	38.9 54.8 -18.7	2.5
73.7 -22.8 67.6	74.1 -24.0 66.3	1.8
52.3 -52.3 -20.2	53.6 -38.2 -18.3	14.3
43.3 -17.0 -48.6	43.8 -10.8 -48.2	6.3
95.0 0.0 -2.0	95.2 0.7 -2.0	0.7
88.5 -0.4 -3.1	88.7 -0.7 -3.6	0.6
82.0 -0.9 -4.1	82.0 -1.0 -4.1	0.2
67.7 -2.0 -4.4	67.8 -2.0 -4.7	0.4
52.2 -2.5 -3.5	52.2 -2.4 -3.4	0.2
37.5 -3.9 -3.1	37.8 -3.6 -3.2	0.5
26.3 -6.8 -3.4	26.2 -6.0 -5.2	2.0
Average		2.1
Gamut-Volume		94 %

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	114.74 120.27 117.28	85 85 170	22.54 19.51 50.68
0 0 0	0.29 0.30 0.30	85 170 170	34.91 46.67 56.34
12 12 12	0.86 0.91 0.87	170 85 170	42.80 30.53 51.23
25 25 25	2.04 2.15 2.11	170 170 85	48.65 55.16 22.56
38 38 38	3.89 4.10 4.09	0 135 209	24.32 30.45 75.08
51 51 51	6.57 6.83 6.73	55 163 222	34.72 43.79 86.18
63 63 63	9.55 10.05 9.66	143 196 233	60.22 68.64 96.26
76 76 76	13.13 13.78 13.47	194 0 106	40.67 21.64 20.98
89 89 89	17.51 18.37 17.91	204 83 146	51.71 35.19 39.72
102 102 102	22.04 23.04 22.84	217 153 192	69.96 60.71 67.08
114 114 114	27.13 28.29 27.76	240 217 0	80.50 89.01 13.07
127 127 127	32.83 34.44 33.49	240 222 80	84.20 92.24 25.67
140 140 140	39.12 41.07 40.18	237 229 155	90.05 97.61 54.61
153 153 153	46.17 48.36 47.09	170 76 64	34.32 25.37 11.20
165 165 165	52.58 55.02 54.23	114 64 56	18.63 15.20 8.47
178 178 178	60.41 63.44 61.81	108 28 32	14.29 9.12 3.34
191 191 191	68.41 71.83 69.36	109 24 65	15.57 9.34 9.28
204 204 204	77.21 80.88 78.68	118 101 30	22.31 23.66 6.02
216 216 216	85.21 89.56 87.25	13 78 42	5.44 10.03 6.01
229 229 229	94.98 99.56 96.99	0 79 98	7.71 10.95 19.87
242 242 242	104.77 109.95 107.15	37 34 68	4.69 4.00 9.80
0 0 128	5.45 2.35 27.86	215 216 220	85.15 89.41 89.73
0 0 255	18.76 8.17 99.93	194 195 199	71.50 74.82 75.24
0 128 0	10.27 22.71 4.95	152 153 155	45.86 48.15 47.98
0 128 128	15.55 24.80 33.15	110 110 112	25.60 26.57 26.74
0 170 255	35.83 45.69 108.86	68 68 69	10.93 11.49 11.40
0 255 0	37.00 79.82 14.68	30 30 30	2.68 2.79 2.76
0 255 170	46.01 83.40 62.93	41 34 109	7.32 5.12 21.78
0 255 255	55.77 87.80 115.96	81 69 140	17.61 14.64 35.62
85 85 85	16.11 16.89 16.47	139 130 185	41.26 38.98 61.30
128 0 0	17.24 9.59 0.82	191 0 32	35.93 19.56 3.52
128 0 128	22.96 11.94 28.41	203 79 63	45.35 31.81 11.20
128 128 0	27.44 32.52 5.59	217 148 127	63.18 56.28 35.50
128 128 128	33.28 34.92 33.82	0 127 50	11.10 22.75 10.15
128 128 255	46.81 40.87 106.48	71 154 89	23.50 36.73 21.88
128 255 128	60.03 91.98 43.73	147 189 151	51.09 62.33 48.94
170 0 255	47.64 23.88 100.77	199 143 126	56.25 51.28 34.48
170 170 170	55.18 57.81 56.89	218 139 15	56.61 51.06 7.62
170 255 0	65.16 95.62 15.57	194 0 76	38.94 20.94 12.11
170 255 255	84.89 104.12 116.78	132 19 107	22.85 12.71 21.29
255 0 0	58.77 31.66 1.47	152 180 19	43.12 55.95 10.51
255 0 170	67.56 35.20 48.38	0 131 140	17.05 26.31 38.78
255 0 255	77.25 39.55 101.11	0 95 169	14.99 16.97 50.74
255 128 128	74.44 57.12 34.53	236 237 242	101.55 105.91 106.54
255 170 0	76.18 70.46 9.31	212 215 222	84.14 88.47 91.48
255 170 255	94.86 78.42 110.23	188 193 201	68.92 72.66 76.03
255 255 0	95.79 112.09 15.98	142 150 157	42.70 45.42 48.69
255 255 170	104.89 115.71 64.19	100 107 111	22.85 24.50 25.96
170 85 85	36.30 27.87 17.04	64 72 75	10.99 12.04 12.97
85 170 85	28.44 44.05 21.96	38 50 52	5.03 5.80 6.93