

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2011-1-24 17:59:37
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/system32/spool/drivers/color/fujitsu_p24w-6_ugra.icc
Created: 2011-1-24 17:53
Measurement device: DTP94-LCD mode

Summary

The monitor has not passed the certification according to the UGRA DACT specifications.

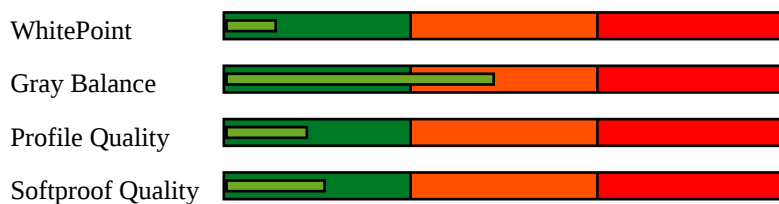
Calibration

White Point	yes
Gray balance	no
Profile quality	yes

Softproofing

MultiColor, HighBody	no
Offset/Gravure Paper Type 1/2	no
Offset on uncoated paper	no
Newspaper Printing	no
sRGB	no
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:	112.34 117.81 115.94
XYZ (normalized):	95.36 100.00 98.41
Luminance:	117.8 Cd/m2
Next Temperature:	5854 Kelvin
Assumed Target Whitepoint:	5900 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:	0.3 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	5707	0.29	2.22	0.19	
5	5038	0.84	6.44	2.64	1.84
10	5865	2.07	14.16	0.57	1.83
15	5831	4.11	21.90	0.08	1.81
20	5837	6.72	28.65	0.34	1.81
25	5901	9.78	34.60	0.22	1.81
30	5870	13.50	40.34	0.27	1.81
35	5859	18.00	46.01	0.03	1.80
40	5817	23.09	51.38	0.86	1.80
45	5830	27.89	55.76	0.21	1.82
50	5878	33.84	60.54	0.16	1.81
55	5829	39.98	64.91	0.76	1.81
60	5837	47.12	69.47	0.30	1.80
65	5878	53.94	73.41	0.23	1.82
70	5835	62.02	77.66	0.19	1.81
75	5828	70.64	81.82	0.66	1.80
80	5837	79.64	85.81	0.82	1.78
85	5867	88.10	89.29	0.28	1.80
90	5829	97.84	93.04	0.57	1.80
95	5851	108.03	96.70	0.85	1.77
100	5854	117.81	100.00	0.00	
Average	5849			0.39	1.81
Range				1.60	
Max				0.86	

Tone values = 91.5%

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	2.2 0.2 -0.0	-2.2 -0.2 0.0	2.2
0 0 128	16.1 38.0 -71.5	-0.6 0.8 -1.2	1.6
0 0 255	31.5 58.8 -110.2	-0.0 -0.1 0.1	0.1
0 128 0	51.3 -55.6 53.3	0.1 -0.4 1.3	1.4
0 128 128	53.7 -37.1 -11.5	-0.1 0.1 -0.2	0.2
0 170 255	69.2 -26.1 -48.5	-0.1 0.6 -0.1	0.6
0 255 0	86.1 -84.6 82.8	-0.2 -0.1 -0.1	0.3
0 255 170	87.6 -69.9 17.7	-0.1 0.2 -0.8	0.8
0 255 255	89.3 -56.1 -17.2	-0.1 0.2 -0.3	0.4
85 85 85	44.3 0.3 -0.1	-0.3 -0.3 0.1	0.5
128 0 0	32.9 51.6 47.0	-0.4 1.0 2.4	2.6
128 0 128	36.8 58.4 -37.0	-0.2 0.3 0.0	0.4
128 128 0	58.9 -9.1 63.8	-0.0 -0.2 0.9	0.9
128 128 128	60.9 -0.1 -0.2	-0.3 0.1 0.2	0.3
128 128 255	65.1 17.5 -54.8	-0.3 0.5 -0.3	0.7
128 255 128	90.5 -50.3 40.8	-0.2 -0.4 0.3	0.5
170 0 255	50.9 76.2 -77.4	-0.1 -0.1 0.0	0.1
170 170 170	75.1 0.1 0.2	-0.2 -0.1 -0.2	0.3
170 255 0	91.8 -42.9 90.7	-0.1 -0.4 -0.3	0.5
170 255 255	94.8 -24.1 -8.4	-0.1 -0.3 -0.3	0.4
255 0 0	57.6 79.7 77.3	-0.1 -0.1 -0.1	0.2
255 0 170	60.5 84.6 -20.5	0.0 -0.3 0.1	0.4
255 0 255	63.4 89.2 -56.2	0.1 -0.3 0.3	0.4
255 128 128	74.3 42.7 20.8	-0.2 0.2 0.8	0.8
255 170 0	80.7 20.4 87.2	0.1 -0.2 -0.2	0.3
255 170 255	84.5 33.9 -23.3	-0.0 0.4 -0.0	0.4
255 255 0	97.3 -13.8 98.4	0.0 -0.1 -0.6	0.6
255 255 170	98.6 -6.8 34.4	0.0 -0.1 0.2	0.2
255 255 255	100.0 0.0 -0.0	0.0 0.0 -0.0	0.0
170 85 85	55.0 33.8 16.7	-0.4 -0.0 0.3	0.5
85 170 85	67.6 -39.7 32.0	-0.2 -0.1 0.3	0.4
85 85 170	47.5 14.3 -42.8	-0.3 -0.0 -0.5	0.6
85 170 170	69.3 -28.0 -9.1	-0.2 0.0 -0.4	0.4
170 85 170	57.3 40.8 -26.7	-0.3 0.1 -0.5	0.6
170 170 85	73.6 -7.6 41.2	-0.2 -0.1 0.5	0.5
Average			0.6
Maximum			2.6

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	94 %
sRGB	98 %
AdobeRGB	81 %
ECI-RGB v1.0	76 %

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	57.8 -20.2 -45.4	17.6
66.9 -24.7 -37.1	66.8 -24.6 -37.4	0.3
79.7 -12.5 -21.8	80.1 -13.0 -21.3	0.8
48.0 74.0 -3.0	49.2 71.0 -1.3	3.6
60.8 50.6 -6.7	61.2 50.6 -6.2	0.7
76.4 25.8 -6.9	76.5 26.1 -6.6	0.5
89.0 -5.0 93.0	89.1 -4.4 91.8	1.4
90.3 -4.7 62.6	90.5 -4.7 62.0	0.6
92.2 -3.5 31.1	92.4 -3.2 31.2	0.3
53.1 37.7 28.9	53.3 37.9 28.0	0.9
41.5 22.7 16.8	42.0 22.9 16.3	0.6
31.9 40.0 24.0	32.5 39.5 23.2	1.1
32.5 44.4 -1.8	33.0 43.4 -2.0	1.1
51.3 1.3 44.5	51.8 0.8 44.4	0.7
34.6 -36.4 13.9	34.7 -35.2 14.0	1.2
36.0 -26.2 -20.9	36.5 -21.8 -19.0	4.8
20.9 9.6 -23.6	21.8 8.8 -22.6	1.6
89.0 0.0 -1.8	89.2 0.3 -1.5	0.5
82.8 0.0 -1.7	83.0 -0.4 -1.5	0.5
69.3 0.0 -1.4	69.3 0.2 -1.3	0.3
54.1 0.0 -1.0	54.3 0.6 -0.8	0.6
36.6 -0.0 -0.5	37.0 0.2 -0.5	0.4
16.0 0.0 0.0	17.4 -0.7 -0.1	1.6
24.0 22.0 -46.0	24.9 21.2 -44.6	1.9
40.9 17.9 -36.6	41.3 17.6 -35.5	1.2
63.7 10.3 -23.8	63.9 10.4 -23.0	0.8
47.0 68.0 48.0	47.4 67.4 46.5	1.7
58.5 47.1 37.9	58.8 47.2 37.5	0.5
74.2 22.9 21.4	74.3 23.2 20.9	0.6
50.0 -65.0 27.0	51.5 -51.0 29.1	14.3
62.1 -39.8 21.0	62.1 -39.9 21.2	0.2
77.0 -19.1 11.0	77.0 -19.1 10.8	0.2
71.2 18.8 17.3	71.2 19.4 16.7	0.8
71.2 22.2 73.1	71.2 22.8 72.7	0.7
47.7 71.2 16.2	48.4 69.7 16.7	1.7
38.0 55.4 -20.9	38.4 54.6 -20.2	1.1
73.7 -22.8 67.6	73.6 -22.8 67.0	0.5
52.3 -52.3 -20.2	54.8 -35.5 -15.9	17.5
43.3 -17.0 -48.6	44.7 -10.7 -45.4	7.3
95.0 0.0 -2.0	95.3 -0.1 -1.5	0.6
88.5 -0.4 -3.1	88.7 -0.7 -2.9	0.5
82.0 -0.9 -4.1	82.2 -1.6 -3.8	0.8
67.7 -2.0 -4.4	67.5 -1.1 -4.6	0.9
52.2 -2.5 -3.5	52.4 -2.7 -3.1	0.5
37.5 -3.9 -3.1	37.8 -4.0 -3.5	0.5
26.3 -6.8 -3.4	26.8 -5.9 -3.4	1.0
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	112.34 117.81 115.94	85 85 170	22.43 19.60 51.35
0 0 0	0.28 0.29 0.29	85 170 170	35.63 47.05 55.14
12 12 12	0.78 0.84 0.64	170 85 170	41.30 29.71 52.12
25 25 25	1.95 2.07 2.00	170 170 85	47.87 54.08 20.93
38 38 38	3.92 4.11 4.03	0 133 208	25.31 30.95 74.83
51 51 51	6.39 6.72 6.55	46 162 221	34.42 43.38 84.73
63 63 63	9.30 9.78 9.67	140 195 232	59.13 67.46 94.88
76 76 76	12.90 13.50 13.38	199 0 103	38.86 20.54 21.44
89 89 89	17.16 18.00 17.72	209 83 143	50.52 34.47 39.32
102 102 102	21.90 23.09 22.33	220 153 190	68.84 59.51 66.38
114 114 114	26.59 27.89 27.31	241 219 0	78.76 86.85 9.95
127 127 127	32.25 33.84 33.41	240 223 87	82.21 90.42 25.70
140 140 140	38.35 39.98 39.60	238 229 158	88.47 95.67 54.38
153 153 153	45.04 47.12 46.43	174 77 64	33.68 24.80 11.11
165 165 165	51.43 53.94 53.32	116 64 56	17.96 14.55 8.48
178 178 178	59.14 62.02 60.82	110 28 31	13.53 8.45 3.21
191 191 191	67.19 70.64 68.84	112 24 64	14.75 8.77 9.41
204 204 204	75.66 79.64 77.57	119 102 33	22.08 23.37 5.44
216 216 216	83.86 88.10 86.63	0 78 44	5.49 9.89 5.71
229 229 229	93.14 97.84 95.52	0 78 97	8.00 11.06 19.08
242 242 242	102.59 108.03 105.44	37 34 67	4.74 4.14 9.87
0 0 128	5.74 2.73 29.71	215 216 220	84.02 87.90 88.68
0 0 255	19.39 8.97 103.36	194 195 199	69.68 73.24 73.96
0 128 0	11.14 22.96 3.39	152 153 155	44.86 46.92 47.41
0 128 128	16.82 25.80 33.04	110 110 112	25.19 26.25 26.36
0 170 255	37.88 47.58 108.50	68 68 69	10.74 11.23 11.25
0 255 0	38.80 80.21 11.11	30 30 30	2.65 2.82 2.78
0 255 170	47.94 84.37 60.06	42 33 108	7.45 5.32 22.21
0 255 255	57.94 88.97 113.85	82 68 138	17.30 14.39 35.31
85 85 85	15.85 16.57 16.36	140 130 183	40.77 38.63 60.26
128 0 0	15.86 8.61 0.75	196 6 30	34.81 18.79 3.65
128 0 128	21.49 11.14 30.63	208 80 62	44.49 31.12 11.12
128 128 0	26.94 31.48 3.88	220 148 127	62.24 55.15 35.46
128 128 128	32.77 34.39 34.02	0 127 54	12.18 23.28 9.50
128 128 255	46.45 40.81 107.08	65 154 92	23.23 36.03 21.04
128 255 128	60.32 91.17 41.83	144 189 153	49.75 60.72 48.32
170 0 255	45.77 23.06 104.29	201 143 126	54.81 49.67 34.53
170 170 170	54.49 57.09 55.98	220 140 24	55.37 49.39 6.63
170 255 0	65.26 94.17 11.91	199 0 73	37.12 19.76 12.28
170 255 255	84.46 102.99 114.84	135 19 105	21.83 12.05 21.58
255 0 0	54.73 29.22 1.82	149 180 33	41.88 54.00 9.40
255 0 170	63.90 33.35 51.57	0 131 140	18.12 27.02 38.05
255 0 255	73.79 37.89 105.09	0 93 167	15.29 17.27 49.17
255 128 128	71.48 55.04 35.64	236 237 242	99.25 104.12 104.86
255 170 0	72.94 67.34 7.04	211 215 221	82.30 86.64 89.38
255 170 255	92.30 76.58 110.31	188 193 201	67.48 71.44 75.10
255 255 0	93.04 108.82 12.61	142 149 156	41.67 44.01 47.53
255 255 170	102.31 113.07 62.64	99 107 111	22.49 24.19 25.72
170 85 85	34.76 26.71 17.11	63 72 75	10.71 11.80 12.95
85 170 85	29.04 44.01 20.17	38 50 52	5.16 5.94 6.68