

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2010-3-19 0:20:48
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
EDID-Name: DELL U2410
EDID-Serial: F525M9B20HHL
Profile: C:/WINDOWS/System32/spool/DRIVERS/COLOR/dellu2410-ugra1.icc
Created: 2010-3-19 0:18
Measurement device: eye-one pro

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:	132.62 139.54 136.02
XYZ (normalized):	95.05 100.00 97.48
Luminance:	139.5 Cd/m2
Next Temperature:	5837 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.6 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:	2.7 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	0	0.07	0.49	2.73	
5	8152	0.52	3.39	1.88	1.93
10	5802	2.15	12.85	0.60	1.84
15	5573	4.60	21.20	1.43	1.81
20	5755	7.73	28.22	0.43	1.81
25	5744	11.34	34.25	0.82	1.82
30	5808	15.70	40.00	0.15	1.82
35	5836	20.96	45.66	0.74	1.82
40	5788	26.99	51.09	0.86	1.81
45	5868	32.61	55.45	0.63	1.82
50	5765	39.69	60.29	0.87	1.81
55	5849	47.01	64.72	1.10	1.81
60	5814	55.42	69.27	1.13	1.80
65	5823	63.73	73.33	0.14	1.82
70	5843	72.77	77.37	0.43	1.82
75	5816	82.29	81.28	0.84	1.82
80	5847	93.66	85.56	0.09	1.79
85	5817	103.54	89.02	0.47	1.83
90	5801	114.42	92.57	0.82	1.86
95	5825	126.68	96.32	0.50	1.85
100	5837	139.54	100.00	0.00	
Average	5801			0.63	1.83
Range				2.07	
Max				1.43	

Tone values = 93.9%

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	0.5 -0.7 -2.7	-0.5 0.7 2.7	2.8
0 0 128	12.8 49.0 -75.9	-0.0 1.3 -1.2	1.8
0 0 255	27.4 76.0 -116.7	0.1 0.1 -0.0	0.1
0 128 0	50.7 -87.5 51.0	0.5 -0.9 1.5	1.8
0 128 128	52.7 -59.1 -12.8	0.2 -0.1 -0.2	0.4
0 170 255	67.9 -44.2 -51.2	-0.1 0.3 0.1	0.3
0 255 0	85.7 -133.6 79.4	-0.1 -0.2 -0.0	0.2
0 255 170	87.0 -110.6 15.9	-0.1 0.4 -0.9	1.0
0 255 255	88.3 -89.7 -19.7	-0.1 0.1 -0.0	0.2
85 85 85	43.7 0.6 0.0	0.3 -0.6 -0.0	0.6
128 0 0	33.9 67.6 51.5	0.0 0.5 2.9	2.9
128 0 128	36.9 75.3 -35.7	0.1 0.3 -0.3	0.5
128 128 0	59.0 -9.8 64.1	0.3 -1.3 0.7	1.5
128 128 128	60.7 0.8 0.0	-0.0 -0.8 -0.0	0.8
128 128 255	64.0 22.4 -56.6	-0.1 -0.4 0.2	0.5
128 255 128	90.3 -73.9 40.1	-0.1 -0.9 -0.3	0.9
170 0 255	50.0 97.6 -78.5	0.2 0.2 0.5	0.6
170 170 170	75.0 -0.3 0.4	-0.0 0.3 -0.4	0.5
170 255 0	92.0 -60.7 89.3	-0.1 -0.2 -0.3	0.4
170 255 255	94.3 -36.1 -9.9	-0.1 -0.4 0.2	0.4
255 0 0	59.4 102.7 87.2	0.1 0.2 1.0	1.0
255 0 170	61.6 108.7 -17.3	0.2 -0.0 -0.1	0.2
255 0 255	63.9 114.3 -54.8	0.2 0.0 0.3	0.4
255 128 128	75.0 58.6 23.6	0.1 -0.1 0.3	0.3
255 170 0	81.7 30.4 89.3	0.1 -0.3 0.1	0.3
255 170 255	84.6 45.7 -22.9	-0.0 0.5 0.1	0.5
255 255 0	97.9 -16.7 98.5	-0.0 -0.0 -0.5	0.5
255 255 170	98.9 -8.3 34.9	0.0 -0.1 0.0	0.1
255 255 255	100.0 0.0 -0.0	0.0 0.0 -0.0	0.0
170 85 85	55.1 46.4 18.9	0.2 -0.3 -0.0	0.4
85 170 85	67.3 -58.7 31.7	-0.1 -0.1 -0.3	0.4
85 85 170	46.4 17.8 -44.3	0.1 -0.4 -0.2	0.5
85 170 170	68.6 -43.1 -10.2	-0.1 0.3 -0.5	0.6
170 85 170	56.9 54.4 -26.3	0.2 -0.1 -0.1	0.3
170 170 85	73.8 -9.3 42.3	-0.0 0.1 -0.2	0.2
Average			0.7
Maximum			2.9

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	100 %
sRGB	100 %
AdobeRGB	99 %
ECI-RGB v1.0	92 %

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 -31.9 -49.7	5.1
66.9 -24.7 -37.1	66.9 -24.3 -37.4	0.6
79.7 -12.5 -21.8	79.8 -12.0 -21.8	0.6
48.0 74.0 -3.0	47.9 73.5 -2.5	0.7
60.8 50.6 -6.7	60.8 50.4 -7.3	0.6
76.4 25.8 -6.9	76.4 26.1 -7.3	0.5
89.0 -5.0 93.0	89.0 -4.7 91.5	1.5
90.3 -4.7 62.6	90.1 -3.9 62.3	0.9
92.2 -3.5 31.1	91.9 -2.7 30.4	1.1
53.1 37.7 28.9	52.9 38.8 28.1	1.4
41.5 22.7 16.8	41.7 22.6 17.2	0.5
31.9 40.0 24.0	31.8 39.5 22.8	1.3
32.5 44.4 -1.8	32.2 44.5 -2.5	0.7
51.3 1.3 44.5	51.3 1.5 44.4	0.3
34.6 -36.4 13.9	34.4 -34.3 13.5	2.2
36.0 -26.2 -20.9	35.9 -26.0 -20.4	0.5
20.9 9.6 -23.6	21.1 9.7 -22.9	0.7
89.0 0.0 -1.8	89.0 0.3 -2.0	0.3
82.8 0.0 -1.7	82.8 -0.1 -1.9	0.2
69.3 0.0 -1.4	69.2 0.6 -1.2	0.6
54.1 0.0 -1.0	53.9 0.3 -1.7	0.8
36.6 -0.0 -0.5	36.6 -0.3 -0.5	0.3
16.0 0.0 0.0	16.4 1.6 -0.9	1.9
24.0 22.0 -46.0	24.1 22.6 -46.1	0.6
40.9 17.9 -36.6	40.7 18.4 -36.6	0.5
63.7 10.3 -23.8	63.4 10.9 -23.7	0.7
47.0 68.0 48.0	46.9 67.2 46.8	1.4
58.5 47.1 37.9	58.7 46.7 37.3	0.7
74.2 22.9 21.4	74.1 23.7 21.1	0.8
50.0 -65.0 27.0	49.8 -63.7 26.4	1.4
62.1 -39.8 21.0	61.8 -38.8 20.7	1.2
77.0 -19.1 11.0	77.0 -18.4 10.4	0.9
71.2 18.8 17.3	70.9 19.6 16.6	1.0
71.2 22.2 73.1	71.1 22.7 73.4	0.7
47.7 71.2 16.2	47.7 70.4 15.4	1.1
38.0 55.4 -20.9	38.0 55.1 -20.2	0.8
73.7 -22.8 67.6	73.5 -22.3 67.4	0.6
52.3 -52.3 -20.2	52.0 -51.8 -20.8	0.9
43.3 -17.0 -48.6	43.3 -18.0 -48.2	1.1
95.0 0.0 -2.0	94.8 0.9 -2.7	1.1
88.5 -0.4 -3.1	88.6 -0.3 -3.2	0.1
82.0 -0.9 -4.1	81.9 -0.8 -4.1	0.1
67.7 -2.0 -4.4	67.3 -1.4 -4.6	0.7
52.2 -2.5 -3.5	52.6 -3.2 -3.3	0.8
37.5 -3.9 -3.1	37.4 -4.1 -3.1	0.3
26.3 -6.8 -3.4	26.4 -6.3 -3.5	0.5
Average		0.9
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	132.62 139.54 136.02	85 85 170	26.11 22.00 59.67
0 0 0	0.05 0.07 0.31	85 170 170	35.94 54.65 64.63
12 12 12	0.49 0.52 0.67	170 85 170	53.73 34.56 60.02
25 25 25	2.07 2.15 2.13	170 170 85	56.09 64.47 24.07
38 38 38	4.49 4.60 4.49	0 129 208	24.09 33.23 87.87
51 51 51	7.39 7.73 7.51	84 159 221	40.89 51.65 99.97
63 63 63	10.90 11.34 11.10	154 193 232	69.65 79.19 111.35
76 76 76	14.94 15.70 15.26	171 40 103	44.75 22.88 24.48
89 89 89	19.79 20.96 20.17	185 96 144	58.83 40.22 46.63
102 102 102	25.53 26.99 25.82	206 159 191	81.08 70.27 78.70
114 114 114	31.10 32.61 32.19	237 217 0	92.71 102.74 11.79
127 127 127	38.02 39.69 38.73	237 221 87	96.62 106.03 29.47
140 140 140	45.00 47.01 46.55	236 228 158	103.56 111.95 63.94
153 153 153	53.10 55.42 54.62	156 85 64	39.43 28.79 12.69
165 165 165	60.57 63.73 61.96	106 68 56	20.87 17.00 9.47
178 178 178	69.33 72.77 71.34	97 38 31	15.40 9.55 3.62
191 191 191	78.64 82.29 80.72	98 36 64	16.98 9.90 10.75
204 204 204	88.97 93.66 91.40	116 101 33	25.69 27.06 6.18
216 216 216	98.70 103.54 101.12	35 74 44	6.41 11.47 6.66
229 229 229	109.31 114.42 111.84	26 76 97	8.57 12.68 22.56
242 242 242	120.75 126.68 123.88	36 35 67	5.36 4.61 11.18
0 0 128	6.44 2.40 33.89	215 216 220	98.62 103.50 104.26
0 0 255	22.66 8.26 120.23	194 195 199	81.88 86.15 86.80
0 128 0	8.07 26.62 4.23	152 153 155	52.88 55.35 55.24
0 128 128	14.62 29.30 38.35	110 110 112	29.18 30.58 31.06
0 170 255	36.52 53.88 127.87	68 68 69	12.31 12.99 12.88
0 255 0	28.62 94.53 14.24	30 30 30	2.98 3.03 3.10
0 255 170	39.33 98.41 71.23	38 37 108	8.54 5.94 26.15
0 255 255	51.36 102.81 135.06	78 71 138	19.98 16.49 41.40
85 85 85	18.21 19.04 18.55	137 132 183	47.56 45.00 70.62
128 0 0	23.43 10.73 0.66	169 43 30	40.23 21.65 4.04
128 0 128	29.96 13.09 34.88	185 92 63	52.19 36.66 13.03
128 128 0	31.74 37.44 4.54	206 153 127	73.22 64.81 41.04
128 128 128	38.63 40.33 39.31	35 120 54	11.08 25.61 11.08
128 128 255	54.90 46.42 125.63	93 148 92	27.32 42.11 24.63
128 255 128	59.20 107.68 49.35	156 186 153	59.15 71.99 57.21
170 0 255	61.59 25.97 121.56	189 147 126	64.38 58.39 40.31
170 170 170	63.81 67.30 65.09	205 144 24	65.34 58.41 7.55
170 255 0	67.92 112.22 14.74	171 42 74	42.95 22.57 14.41
170 255 255	90.86 120.56 135.98	117 39 105	25.41 13.91 24.81
255 0 0	81.21 37.02 1.49	158 176 33	49.49 63.70 10.83
255 0 170	91.98 40.83 58.96	10 125 140	15.67 28.59 44.83
255 0 255	103.74 45.14 121.99	16 92 167	15.51 19.12 57.98
255 128 128	96.06 66.53 40.46	236 237 242	116.27 121.57 123.61
255 170 0	95.09 82.22 8.20	212 215 221	97.08 102.25 105.07
255 170 255	117.69 90.86 129.10	189 193 201	79.57 84.07 88.08
255 255 0	109.90 131.25 15.32	143 149 156	48.78 51.81 55.48
255 255 170	120.76 135.10 73.53	101 107 111	26.60 28.85 30.51
170 85 85	46.05 31.73 19.05	65 72 75	12.32 13.65 14.65
85 170 85	28.23 51.79 23.54	41 50 52	5.88 6.85 7.66