

UGRA

Display Analysis & Certification Tool

Report

Basics

Date: 2011-1-12 23:09:28
Report-Version: v1.3.1
Monitor-Name: \\.\DISPLAY1
Profile: C:/Windows/system32/spool/drivers/color/nec-sv231-ugra.icc
Created: 2011-1-12 23:06
Measurement device: eye-one pro

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:	134.25 140.90 136.69
XYZ (normalized):	95.28 100.00 97.01
Luminance:	140.9 Cd/m2
Next Temperature:	5788 Kelvin
Assumed Target Whitepoint:	5800 Kelvin
Distance to assumed Target Whitepoint:	0.4 deltaE

Blackpoint

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

Luminance:	0.5 Cd/m2
Chromaticity:	1.9 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	6661	0.50	3.19	1.87	
5	6364	1.00	6.42	1.93	1.88
10	5818	2.71	15.08	0.09	1.81
15	5782	4.84	21.70	0.62	1.83
20	5774	8.26	29.07	0.34	1.81
25	5815	11.91	34.91	0.13	1.81
30	5749	16.15	40.34	0.51	1.82
35	5805	21.67	46.15	0.12	1.80
40	5748	27.48	51.27	0.50	1.81
45	5815	33.45	55.83	0.22	1.81
50	5799	40.51	60.56	0.14	1.81
55	5786	47.86	64.94	0.63	1.81
60	5798	56.21	69.39	0.51	1.80
65	5798	64.48	73.39	0.37	1.82
70	5806	74.25	77.69	0.16	1.81
75	5805	84.38	81.78	0.19	1.79
80	5797	94.45	85.52	0.51	1.79
85	5768	104.65	89.05	0.23	1.84
90	5774	116.47	92.87	0.15	1.82
95	5796	128.95	96.63	0.14	1.72
100	5788	140.90	100.00	0.00	
Average	5791			0.29	1.81
Range				1.09	
Max				0.63	

Tone values = 98.7%

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	3.2 1.0 -1.6	-3.2 -1.0 1.6	3.7
0 0 128	17.0 32.5 -69.3	-0.5 0.8 -1.1	1.4
0 0 255	32.4 51.5 -107.4	0.7 -1.1 1.0	1.7
0 128 0	51.0 -54.1 52.6	0.0 -1.1 0.7	1.3
0 128 128	53.6 -37.3 -11.2	-0.1 -0.2 -0.3	0.4
0 170 255	69.3 -28.2 -47.6	-0.1 0.5 -0.1	0.5
0 255 0	85.4 -83.3 82.6	-0.1 -0.3 -2.0	2.1
0 255 170	87.2 -69.6 17.2	-0.1 0.0 -0.8	0.8
0 255 255	89.1 -57.1 -17.0	-0.1 0.3 -0.4	0.5
85 85 85	44.5 -0.2 -0.2	-0.5 0.2 0.2	0.5
128 0 0	33.1 51.5 41.8	-0.2 1.0 4.4	4.5
128 0 128	37.1 56.5 -36.4	0.1 0.1 0.8	0.8
128 128 0	58.8 -7.7 62.4	-0.1 -0.4 -0.1	0.4
128 128 128	60.9 -0.0 -0.1	-0.2 0.0 0.1	0.3
128 128 255	65.2 15.6 -54.0	-0.0 0.1 0.3	0.3
128 255 128	90.2 -49.5 40.7	-0.2 -0.3 -0.6	0.7
170 0 255	51.3 72.4 -76.3	0.6 -0.8 1.4	1.7
170 170 170	75.2 -0.2 -0.1	-0.2 0.2 0.1	0.3
170 255 0	91.3 -41.4 89.9	-0.1 -0.3 -2.3	2.4
170 255 255	94.6 -24.5 -8.4	-0.1 -0.1 -0.1	0.1
255 0 0	57.8 79.5 70.5	0.1 -0.1 -0.0	0.1
255 0 170	60.9 83.1 -20.6	0.3 -0.6 1.2	1.4
255 0 255	64.0 86.5 -55.2	0.5 -0.8 1.2	1.6
255 128 128	74.5 43.0 20.8	-0.1 0.0 0.3	0.3
255 170 0	80.7 21.7 85.0	-0.0 -0.2 -2.0	2.0
255 170 255	84.8 33.0 -22.8	-0.1 0.3 0.1	0.3
255 255 0	97.0 -12.0 97.1	0.0 -0.3 -2.8	2.9
255 255 170	98.5 -6.0 33.8	-0.1 -0.2 -0.1	0.2
255 255 255	100.0 -0.0 0.0	0.0 -0.0 -0.0	0.0
170 85 85	55.0 33.5 16.3	-0.3 0.4 0.3	0.6
85 170 85	67.4 -39.1 31.9	-0.4 -0.1 -0.3	0.5
85 85 170	47.9 12.3 -42.4	-0.3 0.1 0.1	0.4
85 170 170	69.3 -28.3 -9.3	-0.3 -0.0 -0.1	0.4
170 85 170	57.5 39.4 -26.8	-0.1 0.2 0.5	0.5
170 170 85	73.6 -6.8 40.8	-0.3 0.1 -0.2	0.4
Average			1.0
Maximum			4.5

Gamut-Volume

These measurements are only informative.

Gamut-Volume	
ISO	94 %
sRGB	96 %
AdobeRGB	79 %
ECI-RGB v1.0	74 %

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	57.7 -21.2 -45.7	16.6
66.9 -24.7 -37.1	67.0 -24.7 -37.0	0.1
79.7 -12.5 -21.8	79.9 -12.6 -22.0	0.3
48.0 74.0 -3.0	49.1 69.9 -1.1	4.7
60.8 50.6 -6.7	60.8 50.9 -7.5	0.8
76.4 25.8 -6.9	76.3 26.3 -7.4	0.8
89.0 -5.0 93.0	89.1 -4.2 90.5	2.6
90.3 -4.7 62.6	90.5 -4.3 64.0	1.5
92.2 -3.5 31.1	92.3 -3.1 31.5	0.6
53.1 37.7 28.9	53.1 38.0 28.1	0.9
41.5 22.7 16.8	41.9 22.2 17.1	0.8
31.9 40.0 24.0	32.6 38.9 22.9	1.7
32.5 44.4 -1.8	33.1 43.6 -2.7	1.3
51.3 1.3 44.5	51.5 1.2 44.5	0.2
34.6 -36.4 13.9	35.0 -34.6 13.9	1.9
36.0 -26.2 -20.9	36.5 -21.8 -20.2	4.5
20.9 9.6 -23.6	22.3 9.1 -23.1	1.5
89.0 0.0 -1.8	89.1 0.3 -1.6	0.4
82.8 0.0 -1.7	83.0 -0.1 -1.9	0.3
69.3 0.0 -1.4	69.3 0.2 -1.5	0.2
54.1 0.0 -1.0	54.3 0.2 -1.2	0.4
36.6 -0.0 -0.5	37.1 -0.0 -0.8	0.5
16.0 0.0 0.0	17.8 -0.4 0.0	1.8
24.0 22.0 -46.0	24.9 21.2 -45.0	1.6
40.9 17.9 -36.6	41.3 17.6 -36.4	0.5
63.7 10.3 -23.8	63.9 10.1 -23.9	0.3
47.0 68.0 48.0	47.1 67.4 47.3	1.0
58.5 47.1 37.9	58.7 47.3 37.3	0.6
74.2 22.9 21.4	74.1 23.8 20.8	1.0
50.0 -65.0 27.0	51.7 -50.4 29.6	14.9
62.1 -39.8 21.0	62.4 -39.5 21.2	0.5
77.0 -19.1 11.0	77.3 -19.2 11.0	0.3
71.2 18.8 17.3	71.1 19.6 16.9	0.8
71.2 22.2 73.1	71.2 22.7 74.0	1.1
47.7 71.2 16.2	48.4 69.0 16.6	2.3
38.0 55.4 -20.9	38.0 55.1 -20.8	0.3
73.7 -22.8 67.6	73.8 -23.0 68.7	1.2
52.3 -52.3 -20.2	54.8 -35.8 -16.1	17.2
43.3 -17.0 -48.6	44.7 -11.2 -46.7	6.3
95.0 0.0 -2.0	95.2 0.3 -2.2	0.4
88.5 -0.4 -3.1	88.7 -0.1 -3.1	0.3
82.0 -0.9 -4.1	82.2 -1.0 -4.0	0.3
67.7 -2.0 -4.4	67.6 -1.2 -5.1	1.1
52.2 -2.5 -3.5	52.5 -2.7 -3.5	0.4
37.5 -3.9 -3.1	37.6 -3.5 -3.4	0.5
26.3 -6.8 -3.4	27.2 -5.9 -3.4	1.3
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	134.25 140.90 136.69	85 85 170	26.69 23.95 60.55
0 0 0	0.51 0.50 0.62	85 170 170	42.47 56.32 65.29
12 12 12	0.98 1.00 1.12	170 85 170	49.29 36.03 61.76
25 25 25	2.58 2.71 2.64	170 170 85	57.45 64.43 25.18
38 38 38	4.65 4.84 4.77	0 132 209	29.72 36.90 87.89
51 51 51	7.85 8.26 7.94	51 161 222	41.28 52.27 99.51
63 63 63	11.34 11.91 11.61	141 194 233	70.29 80.13 112.28
76 76 76	15.48 16.15 15.73	198 0 102	46.09 24.66 24.94
89 89 89	20.65 21.67 21.09	208 81 143	59.79 40.68 46.73
102 102 102	26.13 27.48 26.35	220 152 190	82.19 70.99 79.03
114 114 114	31.88 33.45 32.63	239 221 0	94.35 103.73 13.02
127 127 127	38.61 40.51 39.41	239 225 83	98.79 108.25 29.53
140 140 140	45.80 47.86 46.81	237 230 156	105.78 114.23 64.09
153 153 153	53.71 56.21 54.94	173 77 62	40.10 29.47 12.98
165 165 165	61.55 64.48 62.90	115 64 55	21.29 17.39 9.72
178 178 178	70.68 74.25 72.16	110 28 30	16.17 10.18 3.89
191 191 191	80.29 84.38 81.93	112 22 64	17.78 10.57 11.39
204 204 204	90.22 94.45 92.22	118 102 31	26.14 27.50 6.41
216 216 216	99.86 104.65 101.42	0 79 44	6.73 11.98 6.94
229 229 229	111.07 116.47 112.88	0 78 98	9.55 13.23 23.14
242 242 242	122.90 128.95 125.36	38 33 68	5.90 5.15 12.08
0 0 128	6.67 3.60 34.22	215 216 220	100.08 104.80 104.40
0 0 255	22.21 11.48 118.53	194 195 199	83.49 87.62 87.79
0 128 0	13.31 26.99 4.31	152 153 155	53.56 56.11 56.06
0 128 128	19.83 30.63 38.49	110 110 112	30.02 31.43 31.42
0 170 255	44.39 57.05 125.83	68 68 69	12.88 13.52 13.44
0 255 0	45.58 93.62 13.59	30 30 30	3.30 3.49 3.38
0 255 170	56.50 99.55 71.07	43 30 108	8.87 6.39 26.24
0 255 255	67.93 105.50 132.72	83 66 139	20.67 17.26 42.15
85 85 85	18.98 19.96 19.45	140 129 184	48.76 46.42 72.22
128 0 0	19.16 10.44 1.38	195 0 25	41.10 22.13 4.04
128 0 128	25.55 13.66 35.82	207 80 60	53.09 37.04 13.15
128 128 0	32.45 37.35 5.13	220 148 126	74.44 65.67 41.73
128 128 128	39.15 41.09 39.96	0 128 54	14.71 27.91 11.32
128 128 255	54.95 49.30 124.76	65 155 92	28.24 43.53 25.40
128 255 128	71.61 107.70 49.45	144 190 153	59.94 73.16 57.45
170 0 255	53.77 28.32 121.13	201 143 125	65.59 59.35 40.53
170 170 170	65.12 68.44 66.49	219 141 14	66.21 59.01 7.75
170 255 0	77.59 110.71 14.97	198 0 72	44.15 23.70 14.44
170 255 255	100.14 122.67 134.98	135 13 105	25.84 14.20 25.26
255 0 0	66.09 35.43 3.26	148 182 29	50.37 64.94 11.11
255 0 170	76.77 40.83 61.39	0 131 141	21.58 32.39 45.12
255 0 255	88.12 46.64 122.91	0 92 169	18.13 20.70 59.12
255 128 128	86.17 66.25 42.32	236 237 242	118.64 124.23 124.74
255 170 0	88.31 80.65 9.57	212 215 222	98.75 103.58 105.73
255 170 255	110.78 92.71 129.74	188 193 201	81.09 85.57 88.90
255 255 0	111.73 128.86 16.27	142 149 157	49.98 52.86 56.86
255 255 170	122.79 134.88 74.99	99 107 111	27.02 29.09 30.74
170 85 85	41.63 32.08 20.48	63 72 75	12.72 13.95 15.06
85 170 85	34.68 52.24 24.05	38 50 52	6.35 7.32 8.09