UGRA
Display Analysis & Certification Tool
Report

Basics

Date:	2013-8-30 02:32:35
Report-Version:	v1.3.1
Monitor-Name:	\\.\DISPLAY1
EDID-Name:	PA242W
EDID-Serial:	36100032TW
Profile:	C:/Windows/system32/spool/drivers/color/PA242W-ugra.icc
Created:	2013-8-30 2:30
Measurement device:	eye-one pro, Rev. 3, Serial: 342165, no correction

Summary

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

Calibration (Assumed Target Whitepoint: 5800.00 Kelvin)

White Point	yes
Gray balance	yes
Profile quality	yes

Softproofing
Depends on the calibration verification.

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

White-Point 

Gray Balance 

Profile Quality 

Softproof Quality 

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:	134.80 140.86 138.47
XYZ (normalized):	95.70 100.00 98.30
xy:	0.3255 0.3401
Luminance:	140.9 Cd/m2
Next Temperature:	5813 Kelvin
Assumed Target Whitepoint:	5800.0 Kelvin
Distance to assumed Target Whitepoint:	0.8 DeltaE-76

Blackpoint

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

Luminance:	0.2 Cd/m2
Chromaticity:	1.6 Chroma (Lab)

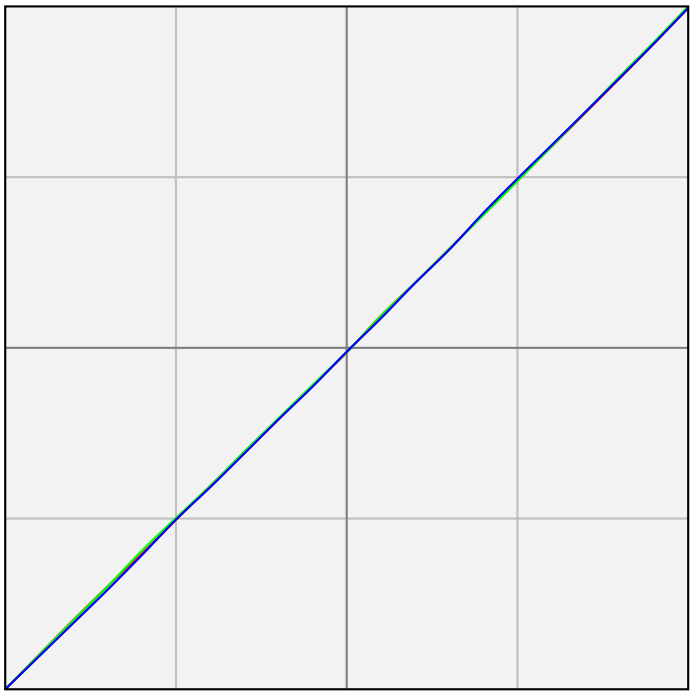
Gray balance

Average and maximum calculation will respect measurements with 1% minimum luminance only. The L-deviation shows the difference between the profile and measurement value.
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	14741	0.20	1.30	1.63	
5	7403	0.75	4.83	1.77	1.85
10	5988	2.28	13.36	0.45	1.84
15	5840	4.72	21.39	0.09	1.82
20	5963	7.80	28.22	0.96	1.82
25	5869	11.48	34.30	0.94	1.83
30	5842	15.86	40.01	0.23	1.82
35	5839	21.16	45.67	0.18	1.81
40	5815	27.12	50.98	0.11	1.81
45	5779	33.14	55.61	0.40	1.82
50	5853	39.95	60.21	0.46	1.82
55	5792	48.10	65.08	0.41	1.81
60	5823	56.38	69.49	0.22	1.80
65	5787	64.50	73.41	0.63	1.83
70	5846	74.03	77.61	0.29	1.80
75	5841	83.94	81.61	0.24	1.80
80	5810	94.28	85.47	0.31	1.81
85	5813	104.43	88.99	0.35	1.86
90	5826	116.40	92.85	0.86	1.85
95	5818	128.27	96.43	0.74	1.89
100	5813	140.86	100.00	0.00	
Average	5840			0.41	1.83
Max				0.96	
Range				1.28	

Tone values

This tests checks the calibration curves of the graphic card. 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.



Tone values = 98.4%

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 Lab values are calculated, based on the measured white point (xy: 0.3255 0.3401).

The assumed chromatic adaptation is: Bradford

RGB	Lab	deltaLab	DeltaE-76
0 0 0	1.3 -0.2 -1.6	-1.3 0.2 1.6	2.1
0 0 128	12.3 54.3 -77.9	-0.7 2.6 -1.6	3.2
0 0 255	25.6 85.9 -120.1	-0.0 0.2 -0.2	0.2
0 128 0	50.8 -91.1 51.9	0.4 -1.9 1.7	2.6
0 128 128	52.7 -61.0 -12.7	0.1 0.0 -0.5	0.5
0 170 255	67.6 -44.5 -51.2	-0.2 0.7 -0.7	1.0
0 255 0	85.7 -140.6 81.1	0.0 -0.1 -0.0	0.1
0 255 170	87.0 -115.6 16.2	-0.1 0.7 -0.9	1.1
0 255 255	88.1 -92.8 -19.5	-0.1 0.5 -0.5	0.7
85 85 85	44.0 0.0 -0.2	-0.1 -0.0 0.2	0.2
128 0 0	33.8 67.9 51.5	0.3 0.9 3.0	3.2
128 0 128	36.6 77.3 -37.3	0.2 0.9 0.7	1.2
128 128 0	59.0 -10.9 64.8	0.5 -1.3 1.1	1.8
128 128 128	60.6 0.1 -0.4	0.1 -0.1 0.4	0.4
128 128 255	63.4 24.1 -57.6	0.1 0.3 0.2	0.3
128 255 128	90.3 -78.2 40.6	-0.0 0.2 -0.1	0.2
170 0 255	49.2 102.8 -80.1	0.3 -0.0 0.8	0.8
170 170 170	75.0 -0.2 0.1	-0.1 0.2 -0.1	0.2
170 255 0	92.1 -63.5 91.0	0.0 -0.6 -0.4	0.7
170 255 255	94.2 -37.5 -9.7	-0.1 0.1 -0.1	0.2
255 0 0	59.6 103.9 88.6	0.1 0.1 -0.1	0.2
255 0 170	61.5 111.3 -18.4	0.2 -0.0 0.8	0.8
255 0 255	63.5 118.5 -55.9	0.2 -0.2 0.7	0.7
255 128 128	75.1 60.0 23.5	0.2 -0.5 0.6	0.8
255 170 0	81.8 30.5 91.2	0.2 -0.8 -0.4	0.9
255 170 255	84.6 47.6 -23.1	-0.1 0.3 0.0	0.3
255 255 0	98.1 -18.1 100.4	0.1 -0.4 -0.6	0.8
255 255 170	99.1 -9.2 35.4	-0.0 -0.0 0.0	0.1
255 255 255	100.0 0.0 -0.0	0.0 0.0 0.0	0.0
170 85 85	55.4 47.0 18.7	0.1 -0.2 0.3	0.4
85 170 85	67.4 -61.3 31.9	-0.1 -0.1 -0.0	0.1
85 85 170	46.3 18.9 -45.1	-0.1 0.3 -0.1	0.3
85 170 170	68.6 -44.4 -10.6	-0.1 0.4 -0.2	0.4
170 85 170	57.1 56.1 -27.0	-0.0 0.1 0.2	0.3
170 170 85	74.0 -10.0 42.6	-0.1 -0.2 -0.0	0.2
Average			0.8
Maximum			3.2

Gamut-Volume

These measurements are only informative.

Gamut-Volume (ISO)	100 %
sRGB	100 %
AdobeRGB	99 %
ECI-RGB v1.0	94 %

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)	Measurement (Lab)	Measurement (Yxy)	DeltaE-76
55.0 -37.0 -50.0	55.3 -33.3 -48.6	0.1742 0.2549	4.0
66.9 -24.7 -37.1	67.1 -25.4 -36.6	0.2271 0.2937	0.9
79.7 -12.5 -21.8	79.8 -12.6 -21.4	0.2865 0.3260	0.4
48.0 74.0 -3.0	48.1 73.5 -3.3	0.5071 0.2591	0.6
60.8 50.6 -6.7	60.9 50.1 -6.4	0.4300 0.2923	0.6
76.4 25.8 -6.9	76.6 25.3 -7.0	0.3744 0.3228	0.5
89.0 -5.0 93.0	88.7 -4.8 93.2	0.4607 0.4932	0.4
90.3 -4.7 62.6	90.2 -4.5 62.6	0.4312 0.4605	0.3
92.2 -3.5 31.1	92.3 -3.8 31.3	0.3893 0.4138	0.4
53.1 37.7 28.9	53.0 38.2 28.8	0.5046 0.3644	0.5
41.5 22.7 16.8	41.7 22.3 17.2	0.4598 0.3685	0.6
31.9 40.0 24.0	32.1 39.4 23.9	0.5561 0.3423	0.6
32.5 44.4 -1.8	32.7 43.8 -1.7	0.4756 0.2793	0.7
51.3 1.3 44.5	51.4 1.7 44.4	0.4511 0.4595	0.5
34.6 -36.4 13.9	34.5 -35.7 13.7	0.2739 0.4864	0.8
36.0 -26.2 -20.9	36.0 -26.0 -20.6	0.2082 0.3125	0.3
20.9 9.6 -23.6	21.3 9.1 -23.0	0.2706 0.2379	0.9
89.0 0.0 -1.8	89.0 -0.2 -1.6	0.3427 0.3559	0.3
82.8 0.0 -1.7	82.8 -0.0 -2.1	0.3420 0.3547	0.4
69.3 0.0 -1.4	69.5 -0.3 -1.1	0.3429 0.3564	0.4
54.1 0.0 -1.0	54.2 0.2 -0.7	0.3445 0.3566	0.4
36.6 -0.0 -0.5	36.8 -0.7 -0.4	0.3422 0.3581	0.7
16.0 0.0 0.0	16.8 0.2 -0.4	0.3445 0.3556	0.9
24.0 22.0 -46.0	24.6 20.5 -44.4	0.2261 0.1681	2.2
40.9 17.9 -36.6	41.0 17.1 -36.3	0.2747 0.2327	0.8
63.7 10.3 -23.8	63.9 9.9 -23.9	0.3104 0.2957	0.5
47.0 68.0 48.0	46.9 68.0 47.7	0.6225 0.3298	0.3
58.5 47.1 37.9	58.5 47.2 38.1	0.5304 0.3647	0.2
74.2 22.9 21.4	74.3 22.7 21.3	0.4276 0.3741	0.3
50.0 -65.0 27.0	50.0 -64.3 27.2	0.2469 0.5525	0.7
62.1 -39.8 21.0	62.2 -39.5 20.7	0.3066 0.4621	0.5
77.0 -19.1 11.0	77.0 -18.6 10.9	0.3338 0.3993	0.5
71.2 18.8 17.3	71.3 18.8 16.9	0.4143 0.3713	0.4
71.2 22.2 73.1	71.1 22.3 73.2	0.5078 0.4430	0.2
47.7 71.2 16.2	47.9 70.9 16.2	0.5593 0.2916	0.3
38.0 55.4 -20.9	38.2 54.4 -21.2	0.4175 0.2310	1.0
73.7 -22.8 67.6	73.8 -22.8 68.0	0.4123 0.5132	0.5
52.3 -52.3 -20.2	52.3 -52.1 -20.0	0.1880 0.3499	0.2
43.3 -17.0 -48.6	43.4 -17.3 -48.4	0.1770 0.2265	0.4
95.0 0.0 -2.0	95.0 -0.5 -1.7	0.3423 0.3560	0.5
88.5 -0.4 -3.1	88.6 -0.8 -2.8	0.3398 0.3543	0.5
82.0 -0.9 -4.1	82.0 -1.0 -4.2	0.3365 0.3515	0.2
67.7 -2.0 -4.4	67.7 -2.1 -4.3	0.3326 0.3510	0.2
52.2 -2.5 -3.5	52.4 -3.1 -2.9	0.3311 0.3545	0.9
37.5 -3.9 -3.1	37.4 -4.4 -3.7	0.3205 0.3521	0.8

26.3 -6.8 -3.4	26.8 -6.8 -3.2	0.3077 0.3572	0.5
Average			0.6
Gamut-Volume			100 %

Measurement Data

This table lists all RGB measurements. The XYZ values represent the values from the measurement device.

RGB	XYZ	Yxy
255 255 255	134.80 140.86 138.47	140.86 0.3255 0.3401
0 0 0	0.19 0.20 0.34	0.20 0.2584 0.2752
12 12 12	0.70 0.75 0.89	0.75 0.2988 0.3219
25 25 25	2.18 2.28 2.30	2.28 0.3219 0.3379
38 38 38	4.51 4.72 4.65	4.72 0.3249 0.3399
51 51 51	7.36 7.80 7.67	7.80 0.3222 0.3418
63 63 63	10.86 11.48 11.15	11.48 0.3242 0.3429
76 76 76	15.19 15.86 15.70	15.86 0.3249 0.3393
89 89 89	20.25 21.16 20.91	21.16 0.3250 0.3396
102 102 102	25.98 27.12 26.72	27.12 0.3255 0.3398
114 114 114	31.67 33.14 32.28	33.14 0.3262 0.3413
127 127 127	38.28 39.95 39.66	39.95 0.3247 0.3389
140 140 140	45.95 48.10 46.93	48.10 0.3259 0.3412
153 153 153	53.86 56.38 55.34	56.38 0.3253 0.3405
165 165 165	61.56 64.50 62.76	64.50 0.3260 0.3416
178 178 178	70.80 74.03 73.15	74.03 0.3248 0.3396
191 191 191	80.25 83.94 82.81	83.94 0.3249 0.3398
204 204 204	90.08 94.28 92.34	94.28 0.3256 0.3407
216 216 216	99.75 104.43 102.29	104.43 0.3255 0.3408
229 229 229	110.85 116.40 113.66	116.40 0.3252 0.3414
242 242 242	122.28 128.27 125.29	128.27 0.3254 0.3413
0 0 128	6.86 2.32 35.35	2.32 0.1541 0.0521
0 0 255	23.56 7.50 123.02	7.50 0.1529 0.0487
0 128 0	7.88 27.01 4.16	27.01 0.2018 0.6917
0 128 128	14.61 29.63 39.01	29.63 0.1755 0.3559
0 170 255	36.79 53.90 129.45	53.90 0.1671 0.2448
0 255 0	27.19 95.23 13.64	95.23 0.1998 0.6999
0 255 170	38.40 99.16 72.08	99.16 0.1832 0.4730
0 255 255	50.75 103.13 136.34	103.13 0.1749 0.3553
85 85 85	18.70 19.53 19.32	19.53 0.3249 0.3394
128 0 0	23.77 10.82 0.65	10.82 0.6745 0.3071
128 0 128	30.65 13.05 36.47	13.05 0.3823 0.1628
128 128 0	31.93 37.83 4.45	37.83 0.4303 0.5098
128 128 128	38.82 40.51 40.19	40.51 0.3248 0.3389
128 128 255	55.54 45.96 127.93	45.96 0.2421 0.2003
128 255 128	58.28 108.61 49.69	108.61 0.2691 0.5015
170 0 255	63.45 25.46 124.41	25.46 0.2974 0.1194
170 170 170	65.07 68.09 66.85	68.09 0.3253 0.3404
170 255 0	67.87 113.51 14.18	113.51 0.3470 0.5804
170 255 255	91.36 121.33 137.63	121.33 0.2608 0.3463
255 0 0	83.64 37.86 1.42	37.86 0.6804 0.3080
255 0 170	94.96 41.38 61.44	41.38 0.4801 0.2092
255 0 255	107.15 45.17 125.32	45.17 0.3859 0.1627
255 128 128	98.55 67.38 41.38	67.38 0.4754 0.3250
255 170 0	97.01 83.41 7.80	83.41 0.5154 0.4432
255 170 255	120.75 91.66 131.69	91.66 0.3509 0.2664
255 255 0	111.30 133.13 14.79	133.13 0.4294 0.5136
255 255 170	122.68 137.06 74.68	137.06 0.3668 0.4098
170 85 85	47.46 32.46 19.78	32.46 0.4760 0.3256
85 170 85	28.11 52.38 23.93	52.38 0.2692 0.5017
85 85 170	26.76 22.15 61.62	22.15 0.2421 0.2004
85 170 170	36.15 55.05 66.21	55.05 0.2296 0.3497
170 85 170	55.57 35.13 62.32	35.13 0.3631 0.2296
170 170 85	57.03 65.42 24.41	65.42 0.3883 0.4455
0 130 207	24.12 33.45 87.57	33.45 0.1662 0.2305

85 160 221	41.57 52.56 101.04	52.56 0.2130 0.2693
154 193 232	70.33 79.71 112.35	79.71 0.2680 0.3038
169 42 103	45.70 23.36 25.68	23.36 0.4824 0.2465
184 98 143	59.78 40.79 46.67	40.79 0.4060 0.2770
205 160 190	82.43 71.46 80.17	71.46 0.3522 0.3053
237 215 0	93.29 102.77 11.04	102.77 0.4505 0.4962
238 220 88	98.21 107.46 29.90	107.46 0.4169 0.4562
237 227 158	105.55 114.14 64.72	114.14 0.3711 0.4013
155 85 64	40.07 29.32 12.72	29.32 0.4880 0.3571
105 68 56	21.09 17.14 9.60	17.14 0.4410 0.3583
96 38 31	15.86 9.86 3.57	9.86 0.5415 0.3367
97 37 64	17.49 10.30 10.96	10.30 0.4513 0.2659
116 101 34	26.24 27.38 6.30	27.38 0.4379 0.4570
36 74 44	6.43 11.64 6.76	11.64 0.2590 0.4688
27 76 97	8.83 12.90 23.29	12.90 0.1961 0.2866
36 36 67	5.50 4.75 11.58	4.75 0.2518 0.2175
215 216 220	99.83 104.39 105.35	104.39 0.3225 0.3372
194 195 199	83.39 87.07 88.70	87.07 0.3218 0.3360
152 153 155	53.92 56.45 56.74	56.45 0.3227 0.3378
110 110 112	29.90 31.16 31.13	31.16 0.3243 0.3380
68 68 69	12.57 13.25 13.22	13.25 0.3220 0.3394
30 30 30	3.05 3.17 3.19	3.17 0.3242 0.3370
38 39 107	8.65 6.21 26.05	6.21 0.2114 0.1518
77 73 138	20.29 16.89 42.23	16.89 0.2555 0.2127
136 133 183	48.80 46.29 73.29	46.29 0.2898 0.2749
168 43 30	41.14 21.94 3.93	21.94 0.6139 0.3274
184 92 63	52.83 36.81 12.82	36.81 0.5156 0.3593
205 153 127	74.35 65.95 41.90	65.95 0.4081 0.3620
39 119 54	11.29 25.99 11.04	25.99 0.2336 0.5379
94 147 93	28.08 43.12 25.52	43.12 0.2903 0.4458
157 185 153	60.00 72.64 57.69	72.64 0.3153 0.3817
189 147 127	65.85 59.78 41.35	59.78 0.3944 0.3580
204 143 26	66.12 59.00 7.72	59.00 0.4977 0.4442
170 43 73	44.05 23.04 14.44	23.04 0.5403 0.2826
115 41 105	25.89 14.27 26.17	14.27 0.3903 0.2152
159 175 35	50.58 64.91 10.94	64.91 0.4001 0.5134
16 125 140	16.09 29.12 45.23	29.12 0.1779 0.3220
16 93 167	16.04 19.42 59.58	19.42 0.1687 0.2043
236 237 242	118.04 123.63 124.83	123.63 0.3221 0.3373
212 215 221	98.34 103.19 106.12	103.19 0.3196 0.3354
189 193 201	80.93 85.03 89.92	85.03 0.3163 0.3323
143 149 156	50.01 53.07 56.95	53.07 0.3125 0.3316
101 107 111	26.85 28.90 30.52	28.90 0.3112 0.3350
65 72 75	12.49 13.78 15.24	13.78 0.3009 0.3320
41 50 52	6.08 7.08 7.89	7.08 0.2888 0.3363