UGRA
Display Analysis & Certification Tool
Report

Basics

Date:	2013-8-31 03:33:13
Report-Version:	v1.3.1
Monitor-Name:	\\.\DISPLAY1
EDID-Name:	PA242W
EDID-Serial:	36100032TW
Profile:	C:/Windows/.../PA242W-2013-08-31T033041-5800K-18-100%-trc.icm
Created:	2013-8-31 3:30
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:	135.14 141.95 135.86
XYZ (normalized):	95.20 100.00 95.71
xy:	0.3273 0.3438
Luminance:	142.0 Cd/m2
Next Temperature:	5728 Kelvin
Assumed Target Whitepoint:	5800.0 Kelvin
Distance to assumed Target Whitepoint:	1.3 DeltaE-76

Blackpoint

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

Luminance:	0.3 Cd/m2
Chromaticity:	2.2 Chroma (Lab)

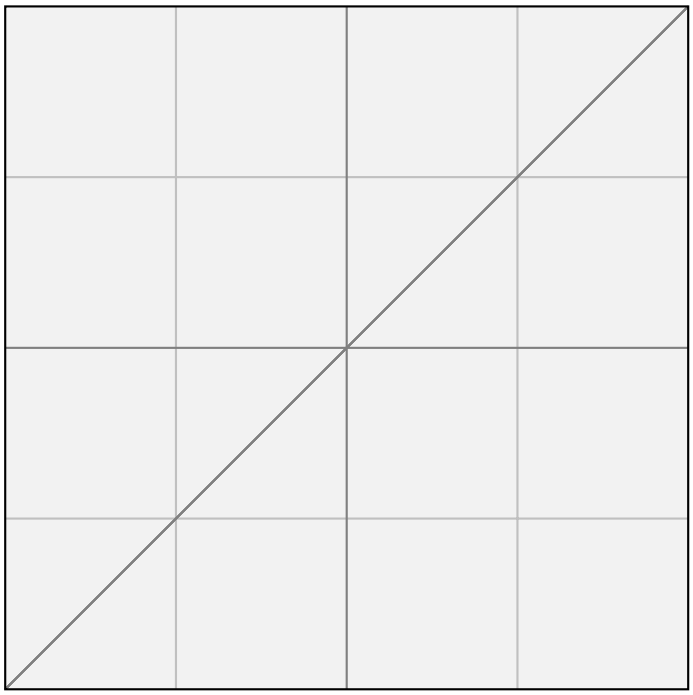
Gray balance

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	12630	0.27	1.73	2.23	
5	6615	0.88	5.58	2.19	1.82
10	6086	2.37	13.64	1.36	1.83
15	5781	4.82	21.55	0.69	1.81
20	5802	7.98	28.44	0.68	1.81
25	5753	11.74	34.54	0.34	1.81
30	5756	16.48	40.58	0.40	1.80
35	5735	21.86	46.17	0.17	1.79
40	5733	27.92	51.46	0.05	1.78
45	5732	34.09	56.10	0.17	1.79
50	5712	41.55	61.02	0.12	1.78
55	5753	49.23	65.50	0.29	1.78
60	5731	57.64	69.90	0.03	1.77
65	5732	65.83	73.79	0.04	1.79
70	5721	75.42	77.95	0.10	1.78
75	5730	85.34	81.90	0.33	1.78
80	5715	95.90	85.79	0.29	1.77
85	5721	106.06	89.26	0.24	1.81
90	5725	117.61	92.95	0.18	1.80
95	5722	129.50	96.50	0.07	1.80
100	5728	141.95	100.00	0.00	
Average	5756			0.29	1.80
Max				1.36	
Range				1.64	

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 = 100.0%

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: 0.3273 0.3438).

The assumed chromatic adaptation is: Bradford

RGB	Lab	deltaLab	DeltaE-76
0 0 0	1.7 0.2 -2.2	-1.7 -0.2 2.2	2.8
0 0 128	12.7 54.1 -77.9	-0.9 2.7 -1.7	3.3
0 0 255	25.8 85.4 -119.7	-0.0 0.0 -0.1	0.1
0 128 0	51.6 -91.4 52.0	0.2 -1.7 1.6	2.3
0 128 128	53.5 -61.5 -12.4	-0.2 0.3 -0.7	0.8
0 170 255	67.9 -45.0 -50.7	-0.2 0.6 -0.5	0.8
0 255 0	85.7 -139.5 80.4	0.0 -0.4 0.1	0.4
0 255 170	87.0 -114.4 15.5	-0.1 0.4 -0.6	0.7
0 255 255	88.1 -92.3 -19.5	-0.1 0.5 -0.3	0.6
85 85 85	44.5 0.1 -0.2	-0.3 0.1 -0.0	0.3
128 0 0	34.4 68.4 51.5	0.0 0.8 3.0	3.1
128 0 128	37.0 77.8 -37.2	0.0 0.7 0.6	0.9
128 128 0	59.8 -11.0 65.0	0.2 -1.2 0.9	1.5
128 128 128	61.3 0.0 0.1	-0.1 -0.0 0.1	0.2
128 128 255	64.2 23.4 -56.2	-0.2 0.4 -0.2	0.5
128 255 128	90.5 -76.0 40.0	-0.1 -0.6 -0.1	0.7
170 0 255	49.4 102.7 -79.7	0.4 -0.1 0.8	0.9
170 170 170	75.4 -0.1 0.0	-0.1 0.0 -0.0	0.1
170 255 0	92.2 -62.5 90.4	0.0 -0.8 -0.3	0.8
170 255 255	94.3 -36.6 -9.5	-0.1 -0.1 -0.1	0.2
255 0 0	59.6 103.9 86.6	0.1 0.1 0.2	0.3
255 0 170	61.6 111.2 -18.9	0.1 -0.1 0.7	0.7
255 0 255	63.5 118.3 -55.8	0.2 -0.3 0.6	0.7
255 128 128	75.5 58.8 23.3	-0.0 -0.1 0.4	0.4
255 170 0	82.1 29.9 90.3	0.2 -0.9 -0.4	1.0
255 170 255	84.7 47.0 -22.8	-0.0 0.1 0.1	0.1
255 255 0	98.1 -18.0 99.8	0.1 -0.5 -0.8	0.9
255 255 170	99.1 -9.0 34.7	-0.0 -0.1 0.0	0.2
255 255 255	100.0 0.0 0.0	0.0 -0.0 0.0	0.0
170 85 85	55.8 46.7 18.4	-0.1 0.3 0.3	0.4
85 170 85	67.8 -60.5 31.7	-0.1 -0.7 0.1	0.7
85 85 170	46.8 18.9 -44.8	-0.3 0.5 -0.3	0.7
85 170 170	69.0 -43.7 -10.5	-0.2 -0.3 -0.3	0.4
170 85 170	57.5 55.9 -26.9	-0.2 0.5 -0.0	0.5
170 170 85	74.3 -9.9 42.3	-0.0 -0.3 0.2	0.4
Average			0.8
Maximum			3.3

Gamut-Volume

These measurements are only informative.

Gamut-Volume (ISO)	100 %
sRGB	100 %
AdobeRGB	99 %
ECI-RGB v1.0	93 %

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	55.8 -33.4 -48.4	0.1752 0.2560	4.0
66.9 -24.7 -37.1	66.9 -24.8 -36.8	0.2273 0.2925	0.3
79.7 -12.5 -21.8	80.0 -13.2 -21.5	0.2854 0.3264	0.8
48.0 74.0 -3.0	47.9 73.7 -3.7	0.5069 0.2581	0.7
60.8 50.6 -6.7	61.0 50.1 -7.1	0.4279 0.2911	0.7
76.4 25.8 -6.9	76.4 25.8 -6.8	0.3755 0.3227	0.1
89.0 -5.0 93.0	88.8 -4.2 92.7	0.4612 0.4919	0.9
90.3 -4.7 62.6	90.4 -4.9 62.5	0.4303 0.4608	0.2
92.2 -3.5 31.1	92.3 -3.7 31.1	0.3892 0.4133	0.2
53.1 37.7 28.9	53.2 37.4 29.0	0.5031 0.3660	0.3
41.5 22.7 16.8	41.8 22.3 17.0	0.4587 0.3680	0.6
31.9 40.0 24.0	32.0 40.2 22.4	0.5545 0.3375	1.6
32.5 44.4 -1.8	32.5 44.7 -2.1	0.4772 0.2768	0.4
51.3 1.3 44.5	51.4 1.7 44.1	0.4504 0.4589	0.7
34.6 -36.4 13.9	34.9 -36.6 14.0	0.2722 0.4883	0.4
36.0 -26.2 -20.9	36.3 -26.7 -20.2	0.2080 0.3150	0.9
20.9 9.6 -23.6	21.4 8.5 -23.1	0.2682 0.2385	1.3
89.0 0.0 -1.8	89.0 -0.0 -2.0	0.3423 0.3550	0.2
82.8 0.0 -1.7	82.8 -0.1 -1.6	0.3426 0.3556	0.1
69.3 0.0 -1.4	69.5 -0.2 -1.1	0.3431 0.3563	0.4
54.1 0.0 -1.0	54.3 0.4 -1.2	0.3435 0.3549	0.5
36.6 -0.0 -0.5	36.8 -0.6 -0.4	0.3423 0.3581	0.7
16.0 0.0 0.0	16.4 -0.7 -0.8	0.3380 0.3559	1.1
24.0 22.0 -46.0	24.2 21.5 -45.8	0.2228 0.1625	0.5
40.9 17.9 -36.6	41.1 17.4 -36.6	0.2743 0.2317	0.5
63.7 10.3 -23.8	63.7 10.4 -23.6	0.3118 0.2957	0.2
47.0 68.0 48.0	47.0 68.0 47.0	0.6210 0.3294	1.0
58.5 47.1 37.9	58.5 47.0 37.7	0.5293 0.3645	0.2
74.2 22.9 21.4	74.3 22.6 21.2	0.4272 0.3739	0.3
50.0 -65.0 27.0	50.0 -64.3 27.0	0.2464 0.5516	0.7
62.1 -39.8 21.0	62.2 -39.3 20.6	0.3067 0.4617	0.6
77.0 -19.1 11.0	77.0 -19.0 10.7	0.3329 0.3993	0.3
71.2 18.8 17.3	71.4 18.6 17.3	0.4148 0.3722	0.3
71.2 22.2 73.1	71.3 22.6 73.2	0.5082 0.4424	0.5
47.7 71.2 16.2	47.6 71.4 16.0	0.5605 0.2902	0.4
38.0 55.4 -20.9	37.9 55.1 -21.5	0.4184 0.2291	0.6
73.7 -22.8 67.6	73.5 -22.1 67.6	0.4134 0.5116	0.8
52.3 -52.3 -20.2	52.7 -52.4 -19.4	0.1895 0.3524	0.8
43.3 -17.0 -48.6	43.9 -17.9 -47.6	0.1787 0.2298	1.4
95.0 0.0 -2.0	95.1 0.0 -1.6	0.3432 0.3559	0.4
88.5 -0.4 -3.1	88.7 -0.1 -3.0	0.3405 0.3534	0.3
82.0 -0.9 -4.1	82.0 -0.9 -3.8	0.3374 0.3522	0.3
67.7 -2.0 -4.4	67.8 -2.1 -4.3	0.3328 0.3511	0.2
52.2 -2.5 -3.5	52.5 -2.8 -3.4	0.3305 0.3527	0.4
37.5 -3.9 -3.1	37.6 -3.6 -3.6	0.3234 0.3517	0.5

26.3 -6.8 -3.4	26.4 -6.4 -4.0	0.3057 0.3526	0.8
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	135.14 141.95 135.86	141.95 0.3273 0.3438
0 0 0	0.27 0.27 0.45	0.27 0.2706 0.2737
12 12 12	0.86 0.88 1.02	0.88 0.3124 0.3181
25 25 25	2.27 2.37 2.45	2.37 0.3201 0.3342
38 38 38	4.62 4.82 4.73	4.82 0.3262 0.3400
51 51 51	7.63 7.98 7.82	7.98 0.3257 0.3405
63 63 63	11.20 11.74 11.35	11.74 0.3267 0.3424
76 76 76	15.73 16.48 15.94	16.48 0.3267 0.3423
89 89 89	20.83 21.86 20.99	21.86 0.3271 0.3432
102 102 102	26.59 27.92 26.76	27.92 0.3271 0.3436
114 114 114	32.49 34.09 32.73	34.09 0.3272 0.3433
127 127 127	39.57 41.55 39.67	41.55 0.3276 0.3440
140 140 140	46.89 49.23 47.40	49.23 0.3267 0.3430
153 153 153	54.87 57.64 55.19	57.64 0.3272 0.3437
165 165 165	62.65 65.83 63.01	65.83 0.3272 0.3438
178 178 178	71.79 75.42 72.05	75.42 0.3274 0.3440
191 191 191	81.09 85.34 81.39	85.34 0.3272 0.3444
204 204 204	91.22 95.90 91.38	95.90 0.3275 0.3444
216 216 216	100.88 106.06 101.17	106.06 0.3274 0.3442
229 229 229	111.88 117.61 112.33	117.61 0.3273 0.3441
242 242 242	123.30 129.50 123.81	129.50 0.3274 0.3438
0 0 128	6.95 2.39 35.29	2.39 0.1558 0.0536
0 0 255	23.23 7.46 120.38	7.46 0.1537 0.0494
0 128 0	8.24 28.16 4.34	28.16 0.2024 0.6911
0 128 128	15.03 30.83 39.19	30.83 0.1767 0.3625
0 170 255	36.70 54.77 126.87	54.77 0.1681 0.2509
0 255 0	27.62 96.18 13.85	96.18 0.2007 0.6988
0 255 170	38.80 100.08 71.87	100.08 0.1841 0.4749
0 255 255	50.69 103.93 133.80	103.93 0.1757 0.3603
85 85 85	19.22 20.16 19.39	20.16 0.3270 0.3430
128 0 0	24.66 11.26 0.72	11.26 0.6730 0.3074
128 0 128	31.49 13.46 36.35	13.46 0.3874 0.1655
128 128 0	33.13 39.36 4.65	39.36 0.4295 0.5102
128 128 128	40.07 42.08 40.21	42.08 0.3275 0.3439
128 128 255	56.38 47.41 125.21	47.41 0.2462 0.2070
128 255 128	59.82 110.13 49.78	110.13 0.2722 0.5012
170 0 255	63.64 25.65 121.54	25.65 0.3019 0.1216
170 170 170	66.00 69.39 66.36	69.39 0.3271 0.3439
170 255 0	69.01 114.83 14.39	114.83 0.3481 0.5793
170 255 255	92.12 122.57 134.98	122.57 0.2635 0.3505
255 0 0	84.11 38.09 1.56	38.09 0.6796 0.3078
255 0 170	95.43 41.65 60.84	41.65 0.4822 0.2104
255 0 255	107.18 45.28 122.46	45.28 0.3899 0.1647
255 128 128	99.52 68.89 41.47	68.89 0.4742 0.3282
255 170 0	97.87 84.71 8.08	84.71 0.5133 0.4443
255 170 255	121.06 92.71 129.01	92.71 0.3532 0.2705
255 255 0	111.98 134.19 14.90	134.19 0.4289 0.5140
255 255 170	123.38 138.17 74.16	138.17 0.3675 0.4116
170 85 85	48.32 33.27 19.94	33.27 0.4759 0.3277
85 170 85	28.89 53.58 24.07	53.58 0.2711 0.5029
85 85 170	27.24 22.77 61.10	22.77 0.2451 0.2050
85 170 170	36.95 56.32 65.75	56.32 0.2324 0.3542
170 85 170	56.35 35.93 61.70	35.93 0.3659 0.2334
170 170 85	58.02 66.70 24.59	66.70 0.3886 0.4467
0 129 207	24.37 34.30 86.86	34.30 0.1674 0.2357

83 158 220	41.18 52.36 98.69	52.36 0.2142 0.2724
152 193 232	70.44 80.81 111.01	80.81 0.2686 0.3081
168 41 102	45.84 23.38 25.25	23.38 0.4852 0.2474
183 97 142	60.12 41.19 46.62	41.19 0.4064 0.2784
204 158 189	82.44 71.53 77.92	71.53 0.3555 0.3085
237 214 0	94.48 103.90 11.19	103.90 0.4508 0.4958
237 220 87	99.00 108.95 29.72	108.95 0.4165 0.4584
236 227 157	106.05 115.04 63.77	115.04 0.3723 0.4038
154 85 63	40.30 29.79 12.52	29.79 0.4879 0.3606
104 68 55	21.34 17.40 9.59	17.40 0.4416 0.3601
95 37 31	16.03 9.86 3.74	9.86 0.5409 0.3328
96 36 63	17.58 10.25 10.75	10.25 0.4557 0.2656
115 100 33	26.44 27.68 6.31	27.68 0.4376 0.4580
35 74 43	6.55 12.06 6.79	12.06 0.2579 0.4748
26 76 96	8.83 13.19 22.90	13.19 0.1966 0.2936
35 36 66	5.45 4.79 11.42	4.79 0.2515 0.2213
214 215 220	100.22 105.21 104.06	105.21 0.3238 0.3399
193 194 198	83.48 87.71 86.38	87.71 0.3241 0.3405
151 152 154	54.12 56.89 55.70	56.89 0.3246 0.3413
109 109 111	30.17 31.55 31.10	31.55 0.3250 0.3399
67 68 68	12.67 13.42 13.02	13.42 0.3239 0.3431
29 30 29	2.90 3.09 3.08	3.09 0.3197 0.3406
37 38 106	8.50 6.04 25.95	6.04 0.2100 0.1491
76 72 137	20.42 17.08 41.95	17.08 0.2570 0.2150
135 131 182	48.68 46.27 71.12	46.27 0.2931 0.2786
167 43 29	41.45 22.15 4.01	22.15 0.6131 0.3276
183 91 62	53.08 37.10 12.73	37.10 0.5158 0.3605
204 152 126	74.65 66.46 41.23	66.46 0.4094 0.3645
38 118 53	11.32 26.24 10.96	26.24 0.2333 0.5408
93 146 92	28.23 43.53 25.15	43.53 0.2913 0.4492
155 184 152	59.94 73.15 56.76	73.15 0.3157 0.3853
188 146 125	66.15 60.34 40.27	60.34 0.3967 0.3618
204 142 24	67.04 59.81 7.69	59.81 0.4983 0.4445
169 42 72	44.11 22.94 14.08	22.94 0.5437 0.2828
114 40 104	25.85 14.14 25.54	14.14 0.3944 0.2157
158 173 34	50.79 64.97 10.83	64.97 0.4012 0.5133
15 124 138	16.27 29.84 44.44	29.84 0.1796 0.3295
15 93 166	16.13 19.95 58.41	19.95 0.1707 0.2111
236 237 241	118.93 124.85 122.51	124.85 0.3247 0.3409
212 214 221	99.30 104.29 104.77	104.29 0.3220 0.3382
188 192 200	81.17 85.71 87.61	85.71 0.3189 0.3368
142 148 155	50.21 53.56 55.92	53.56 0.3144 0.3354
100 106 110	27.08 29.21 30.42	29.21 0.3123 0.3369
65 71 74	12.75 14.01 14.99	14.01 0.3054 0.3355
40 49 51	5.98 6.97 7.81	6.97 0.2883 0.3355