



VESA CERTIFIED

DisplayHDR™

# Summary of DisplayHDR Specs

DisplayHDR v1.2 Criteria		Classic					True Black			Units	
	Min/Max	400	500	600	1000	1400	400	500	600		
<b>MINIMUM LUMINANCE LEVEL</b>											
8% Center Patch Test Luminance with 2% APL Background	Min	400	500	600	1000	1400	400	500	600	cd/m <sup>2</sup>	
Full-screen Flash Test Luminance	Min	400	500	600	1000	1400	250	300	350	cd/m <sup>2</sup>	
Full-screen Long-time Test Luminance	Min	320	320	350	600	900	250	300	350	cd/m <sup>2</sup>	
<b>BLACK LEVEL</b>											
Dual Corner Box Test Luminance	Max	0.4	0.1		0.05	0.02	0.0005			cd/m <sup>2</sup>	
<b>ACTIVE DIMMING / CHECKERBOARD TEST</b>											
Active Dimming – Ratio of maximum white to black at 50 cd/m <sup>2</sup>	Min	11	11.6	12	13	13.5	N / A			stops	
Active Dimming – Ratio of maximum white to black at 5 cd/m <sup>2</sup>	Min	12	12.6	13	14	14.5	N / A			stops	
Checkerboard – Max Black Level Luminance	Min	N / A					0.0005			cd/m <sup>2</sup>	
<b>COLOR GAMUT AND ADDITIVE MINIMUM LUMINANCE SPECIFICATIONS</b>											
ITU-R BT.709 Coverage for Both 10% and Full Screen	Min	99%	99%								coverage
DCI-P3 (D65) Coverage for Both 10% and Full Screen	Min	90%	95%								coverage
Additive RGB Color Luminance at 10% (Lr+Lg+Lb)	Min	400	500	600	1000	1400	400	500	600	cd/m <sup>2</sup>	
Additive RGB Color Luminance at 100% (Lr+Lg+Lb)	Min	320	320	350	600	900	250	300	350	cd/m <sup>2</sup>	
<b>MINIMUM BIT-DEPTH SEPCIFICATIONS</b>											
10-bit Video Signal, per Channel		☑	☑	☑	☑	☑	☑	☑	☑	Y / N	
Minimum Driver-IC Bit Depth (+2b Dithering)	Min	8b + 2								bits	
Minimum 8-bit Digital-to-Analog Conversion		☑	☑	☑	☑	☑	☑	☑	☑	Y / N	
Backlight Control 8-bit Accuracy		☑	☑	☑	☑	☑	N / A			Y / N	
<b>DISPLAYHDR RISE-TIME SPECIFICATIONS</b>											
Rise from Black to Max, Luminance	Max	8				2			frames		
<b>LUMINANCE AND WHITE POINT ACCURACY</b>											
ΔITP error for tests at 1 and 5 cd/m <sup>2</sup>	Max	20					ΔITP				
ΔITP error for tests at 15 cd/m <sup>2</sup>	Max	15					ΔITP				
ΔITP error for tested luminances at 50 and above cd/m <sup>2</sup>	Max	10					ΔITP				
<b>STATIC CONTRAST RATIO</b>											
1D backlights	Min	1300 : 1	7000 : 1	8000 : 1	N / A		N / A			ratio	
2D backlights	Min	N / A			30,000 : 1	50,000 : 1	N / A			ratio	
<b>XRITE® COLOR TEST PATCHES</b>											
ΔTP color error test at 50, 100 and 50% of tier	Max	8			6		8			ΔTP	
<b>HDR VS SDR BLACK LEVEL</b>											
	Max	CR <sub>HDR</sub> > 0.9 x CR <sub>SDR</sub>									
<b>BLACK CRUSH</b>											
Display luminance increasing 0, 0.05, 0.1, 0.3, 0.5 cd/m <sup>2</sup>	Min	Measure and view monotonically increasing luminance								cd/m <sup>2</sup>	
<b>SUBTITLE FLICKER</b>											
Luminance of patch when subtitle is ON vs OFF	Max	13%			10%		10%			Diff	

NEW IN v1.2