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Samsung XL20

Simon Baker, 2 December 2007

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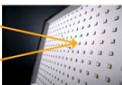
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Above: Samsung XL20 with attached hood. [Click for larger image](#)

Samsung are well known for their popular SyncMaster monitor range, with many models being held in high regard by reviewers and users alike. The model here for review at the moment is part of another range they are marketing, and is being aimed at colour enthusiasts and professional graphics work. The XL20 is a 20" (4:3 aspect) screen featuring an impressive spec and most notably, an LED backlight unit. We have also seen the announcement recently of a 24" and 30" version of this screen, with the [XL24](#) and [XL30](#) expected to be released over the next couple of months.



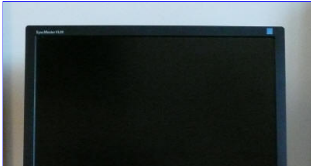


Single LED Module (RGB) LED Configuration (Direct type)

The LED backlight unit offers an enhanced colour gamut stretching even beyond that of modern W-CCFL backlighting. While CCFL's are limited to around 92% of the NTSC colour space on modern displays, LED units like this can offer a gamut covering 114% of the NTSC space. This corresponds to a complete coverage of the Adobe RGB natural colour space as well. Further to the LED backlighting used here, the XL20 features an AU Optonics AMVA panel, the first of this technology we have tested here in fact. Professional colour enhancement is realized using the Samsung designed Color DNA chip (FPGA), enabling high-speed 14-bit image reproduction, extremely expressive gradation and exact colours. The 8-bit input is converted to 10-bit data by the monitor's LUT (Look Up Table), before being subject to 14-bit data processing to help express further detail. The screen is packaged with Samsung's Natural Color Expert software and a Samsung branded X-rite i1 (Eye-One) Display 2 colorimeter. This is the same hardware device which X-rite provide with [their calibration package](#) and that [LaCie provide with theirs](#). We already know this to be an excellent high end hardware calibration tool, and later we will take a look at how effective their bundled software package is.

The rest of the monitor spec and features as listed as follows:

Size	20"	Colour Depth	16.7M from a palette of 1 billion, 114% NTSC gamut
Resolution	1600 x 1200	Viewing Angles	178 / 178
Response Time	8ms G2G	Panel Technology	AMVA
Contrast Ratio	600:1	Interfaces	DVI-D and DVI-I
Brightness	250 cd/m2	Colour	Black bezel and stand
Special Features	LED backlighting technology, 2x USB hub, packaged X-rite i1 Display 2 colorimeter and calibration hood. Height, pivot, tilt and rotate functionality		



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https://web.archive.org/web/20071220195215/http://tftcentral.co.uk/reviews/samsung_xl20.htm

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