



TECHNICAL BULLETIN

Facts to design the „REFERENCE“ monitor.

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The guidelines for the engineers at the TAMUZ research lab to design a monitor fulfilling the EBU recommendations for a monitor classified as Class-1 are set as;

Fact	Solution
Screen Size	TAMUZ selects 24 and 27 inch wide screen as adequate screen size for applications in control rooms or post production.
Color Space	Both monitors will have full EBU color space. Similar to ITU-709.
Operational Brightness	The TAMUZ „REFERENCE“ monitors are designed for 80 cd/m ² as their nominal brightness. The brightness value will be adjustable by the user in a range of low 40 up to high 120 cd/m ² .
High Contrast	Independent research labs attest a contrast ratio of 1000:1 or higher for the prototype of the TAMUZ „REFERENCE“ monitors.
Color Temperature	The nominal color temperature is D65 (6504 K). Therefore TAMUZ develops a special backlight system, which offers the correct color temperature, very homogeneously shines and makes constant values possible over the adjustable range of the brightness.
Resolution	All TAMUZ „REFERENCE“ monitors have FullHD resolution and are able to display 1080 HD signals in a "pixel-to-pixel" mode without any scaling. HD 720 or SD formats will be displayed as scaled full screen image or 1:1 as a window. 2:1 for checking focus is available too.
Alignment & Calibration	The TAMUZ „REFERENCE“ monitors are equipped with a AAC port to connect a probe directly to the monitor. The alignment and calibration is hardware based and done by the internal processor.
Video Inputs	The TAMUZ „REFERENCE“ monitors will have as minimum two SD/HD-SDI inputs, accepting all formats. Additional DVI, VGA or analog component inputs are possible.
Technology	The backlight system at the TAMUZ „REFERENCE“ monitors are based on selected CCFL lamps. The signal processing will use the 10 bit data natively and calculates with higher bit depth. The LCD panel itself is still using the standard 8 bit ports.
Housing, Mechanics	The TAMUZ „REFERENCE“ monitors are designed as a desktop monitor, equipped with a stand. The delicate LCD screen is protected by a high contrast anti-glare filter glass. All input connections are placed at the rear. A set of front keys operates the OSD menu.
Cost Efficiency	The TAMUZ „REFERENCE“ monitors will be offered at a moderate price level (~11.000 EUR), a little higher as standard monitors, but more cost effective as competition products.
Customization	Until the definite specification of the equipment design in autumn of the year, customers have the possibility to bring in their ideas.

TAMUZ - LCD Video Monitors

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