

PRESS RELEASE

**IMPERIAL EAGLE,
CLASS-1 REFERENCE
BROADCAST MONITORS**

Las Vegas, April 20th 2009

Exhibiting at the NAB '09 Show in Las Vegas, NV, TAMUZ presents their range of customized and unique LCD Broadcast Video Monitors.

At this event TAMUZ presents some highlights from their LCD Video Monitor product range to the American market, which are developed and manufactured in Henstedt-Ulzburg, Germany. We are listening to the needs of the market and we are producing the monitors the market demands. Our goal is, to design and manufacture monitors with the best image quality, rich features for applications, long-time product availability, at a cost effective price.“ says Erwin W. Lissy, President of TAMUZ Broadcast Monitors.

„Terms like Class-1, Grade A, Grade-1 or Reference used by marketing and sales people all over the industry in an attempt to classify their monitor products are confusing customers. The standard organisations, first of all the EBU, classifies the top-of-the-line monitor as Grade-1. This specifies the monitor as a

‘measuring instrument’ for visual evaluation of image quality.“; comments Erwin W. Lissy; „but Grade-1 can be mis-matched with the term Grade A (which by definition means ‘new device with no scratch or use’), so TAMUZ uses the term Class-1 for its high-grade high-performance monitors, which was the common term in the past CRT times!“

IMPERIAL EAGLE CLASS-1 BROADCAST MONITORS



The IMPERIAL EAGLE series is developed to reach the Class-1 (Grade-1)

recommendation specifications. Further developments of last years prototype, the RLM 124W HD resulted in the first cost-effective Class-1 monitor on the market. To complete the IMPERIAL EAGLE series TAMUZ developed a bigger screen, the RLM 132W HD, containing a 32 inch FullHD LCD panel with the same functionality and specifications like the smaller 24 inch monitor.

The new monitors confirm the EBU t3320 Grade-1 and EBU t3325 measurement recommendations and are different to their competition. First, the RLM 124W is a FullHD monitor with a 24 inch LCD panel, the competition uses a smaller LCD panels. Second, TAMUZ still uses selected CCFL backlighting. Next, RLM 124W values for contrast and black are much better than EBU recommendations. The brightness is set for the European market to 80 cd/m² nominal, but adjustable in the range of 70 to 100 cd/m². For the American market the monitors are aligned to 35 fL, the range is set as 20 to 40 fL..

The RLM 124W contrast is more than 1.200:1 and the Black is darker as 0,02 fL (0.07 cd/m²) at the nominal brightness of 35 fL. The RLM 132W tops this value with a contrast range of >2.500: 1 at Blacks darker as 0,01 fL (0.025 cd/m²) at nominal brightness.

BACKLIGHT SYSTEMS CONTROLS ITSELF

To reach this specification, TAMUZ developed for both screen sizes customized LCD panels, still using CCF lamps. The TAMUZ backlight system has a built-in controller with several sensors to stabilize the light output. The lighting bulbs are calibrated to glow at the right color temperature. This technology produces a more homogeneous and smoother light output at the

LCD front similar to what a huge number of LED clusters can generate. The picture quality of these panels are absolutely perfect. The displays offers wide viewing angles ($>\pm 45^\circ$ HV at 50% visible brightness level) and meets the requirements of EBU compliant colors.

In the literature viewing angle is described as the angle where a contrast of 10:1 in luminance or 5:1 in chrominance is still perceptible. Data sheets name mostly high grades, like $\pm 89^\circ$ H and V. This means that the viewer looks in a side angle of 89° onto the display and sees a brightness of 0,2 fL when black is 0,02 fL and the nominal brightness level is 23 fL. Consequently this is not a very realistic data sheet value.

HD OR SD DIGITAL INPUTS

IMPERIAL EAGLE series monitors are equipped with various inputs. Three SD/HD-SDI inputs, analog HD component inputs, analog composite inputs plus analog and digital computer signal inputs as VGA and DVI are standard.

The only additional options are DualLink or SD/HD/3G-SDI inputs accepting 4:2:2 and 4:4:4 signals. All inputs auto-detecting the format and standard of the input signal to process the image with lowest latency with no scaling artefacts.

DE-INTERLACER AND BLACK-LINE INSERTION

Progressive formats are always processed in their native vertical frequency. To process interlace formats several de-interlacer modes are selectable.

For special purposes an interlace simulation mode, named Black-Line Insertion, is selectable. This mode displays each field of interlaced video (odd and even) separately and blanking the corresponding second field with black lines. Using this mode the displayed image looks like a CRT image. SD and HD formats can be displayed scaled to fit the screen or 1:1 in a pixel-to-pixel mode. For displaying SD without scaling a 2:1 mode doubles the image size on screen.

MANUAL OR REMOTE OPERATION

The IMPERIAL EAGLE series is equipped with a fully loaded keyboard at the front containing turn-knobs for Brightness, Contrast, Saturation, Backlight, Zoom, Marker and a number of buttons for several functions, which allows direct adjustments and settings. Specific settings can be done within the OSD menu.

Additionally, the TCP/IP port at the rear can be utilized in the unique operation of our MRC software. The MRC software was developed by TAMUZ engineers and it allows you to control hundreds of monitors in a network from a single keyboard. The MRC software is an excellent tool to manage monitor settings and to control a very unique feature within TAMUZ monitors, the Anti-Sticking mode. This mode helps to prevent the typical LCD effect of sticking when the monitor is used for long term display of static content, a general issue with LCD panels.

Using a standard web browser all the settings are accessible via the TCP/IP port. The keyboard also can be configured with functions individually on this

way.

COLOR ALIGNMENT OF LCD VIDEO MONITORS

And last but not least, the IMPERIAL EAGLE series, like most of TAMUZ monitors, are equipped with AAC - the Automatic Alignment and Calibration function. A connector at the front of the monitor accommodates various color analyzer probes, like the Konica-Minolta CS-200, Klein Instruments K-10 or DK Technologies PM 5639 allowing an easy interface for the probe in color calibration.

The monitor itself handles the alignment by its internal processor, so no external PC or Test Generator is necessary. The AAC function generates a individual LUT to correct the colormetry and the gamma shading for the monitor to display the image at its best without banding effects. Up to four individual setups can be stored inside the monitor using the embedded web browser interface. For best and perfect calibrated performance the reset button at the front will reconfigure all user settings back to the factory default.

COST EFFECTIVE CLASS-1 BROADCAST MONITORS

The IMPERIAL EAGLE series is absolutely cost effective. The basic models, the RLM 124W HD and RLM 132W HD are equipped with all inputs and comes with a detachable front bezel to cover a 16:9 aspect ratio. In addition, a contrast filter glass can be equipped at the monitors front. The fully metal monitor housing is designed for desktop use and comes with a tiltable stand. Pricing starts at \$15.000.

CONFIRMING SMPTE, BT.709 and EBU 3320

The IMPERIAL EAGLE Monitors are an ideal solution for all broadcasters and PostProduction facilities that must have monitors confirming the SMPTE, ITU or EBU recommendations for color critical applications.

All IMPERIAL EAGLE monitors come with an individual alignment certification assured by KonicaMinolta CS-2000 spectroradiometers.

Technical specifications, data sheets and manuals are available online for download at www.tamuz.tv. For latest high-resolution images for printing use the download area at www.tamuz.tv/pressframe.htm or call-in by phone or email.

TAMUZ Broadcast Monitors, established in 1996, a leading brand in the LCD video monitor industry, is a division of the privately owned PTV Professional TeleVision GmbH, founded in 1993, to develop and manufacture LCD monitors for video applications like Broadcast, Entertainment, Medical, Industry and other branches. TAMUZ monitors are sold world wide through a distributor and a dealer network.

TAMUZ manufactures LCD Monitors for Broadcast Applications in the size from 4" up to 82". The IMPERIAL EAGLE series is designed for high-end broadcast and post production applications confirming SMPTE/EBU recommendations at 35/23 fL brightness. The GREY OWL SL series is designed for broadcast applications aligned to studio levels confirming SMPTE/EBU recommendations at 35/23 fL brightness. The BLACK MILAN series is designed for broadcast applications as a hybrid monitor containing a four input MultiViewer and direct-view inputs. The SPARROWHAWK series is designed for displaying MultiView images. The HAWK series is designed for portable applications in acquisition at the film set.

To serve the North American market (USA, Canada, Mexico) a branch office (TAMUZ USA, LLC.) is operating in Chester, New Jersey. For details see www.tamuz-usa.com, or contact Dave Hartmann at 908 - 879 0010 (info@tamuz-usa.com).

The South American market is supported by Inviso Video Solutions International, Inc. based in Miami FL as master distributor and their network of sub dealers. (www.inviso.tv)