CHECKLIST

EKTA

16 QUESTIONS
TO ASK WHILE CHOOSING AN LED SCREEN

EKTA LED DISPLAYS: PROFESSIONAL OPINION

Do you want to make a reasonable choice while buying an expensive screen, but need an expert opinion? In order to take into account all aspects be sure to ask manufacturers and suppliers the following questions.

1 WHAT IS THE MAXIMUM CALIBRATED BRIGHTNESS OF THE SCREEN YOU PROPOSE?

The maximum calibrated brightness of a high quality screen for outdoor use should be at least 5,500 NIT. This index ensures good visibility even under direct sunlight. It is worth noting, that in case of a screen's lower brightness and maximum intensity of sunlight, the image on the screen is simply not visible.

In the LED market it is easy encounter suppliers and dealers of Chinese screens who intentionally indicate a significantly higher brightness of their products. Moreover, some of them do not take into account the calibration procedure that reduces the overall brightness of the screen.

EKTA is ready to confirm the characteristics of the screen brightness to their customers in the certified testing laboratory.

2 DOES AN OUTDOOR LED VIDEO SCREEN HAVE AN AUTOMATIC BRIGHTNESS ADAPTATION SYSTEM DEPENDING ON OUTDOOR LIGHTING?

All EKTA-manufactured screens are equipped with intelligent system of brightness adjustment to the light conditions (AutoBright). This provides important advantages, such as:

- increasing LEDs lifespan up to 20-30%;
- electricity costs saving;
- comfortable image perception at any weather conditions;
- increasing road users safety (without blinding drivers and pedestrians);
- screen's brightness control is performed automatically without human input.

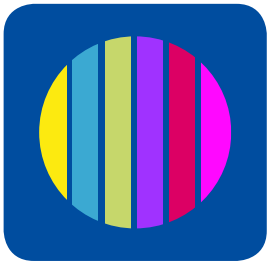
3 DOES AN LED SCREEN HAVE AN AUTOMATIC SYSTEM OF BRIGHTNESS UNIFORMITY IMPLEMENTED IN EACH LED AND MODULE?

EKTA applies an exclusive two-level brightness calibration system Uniformity^2 that ensures up to 99% illumination uniformity across the entire screen surface. Such high quality performance is offered by market leaders only. It is worth noting, that absence of this system causes some problems. Thus one part of the screen modules will look darker, while the other - lighter. The images on the screen surface can appear blotchy.

To check this system availability, you have to demonstrate on a screen's surface all basic colors (red, green, blue) one by one on different brightness levels.

If the system is available illumination will reach ideal uniformity across the whole screen's surface.

4 IS THERE ANY BUILT-IN SYSTEM OF COLOR CORRECTION AND COLOR TEMPERATURE ADJUSTMENT?



EKTA applies its own system of color correction and white balance. It allows you to adjust the color temperature over a wide range: from 2,000 to 9,000 K. It is worth noting, that this system enables you to mingle screen's white color settings with other display devices during TV shooting, studio broadcasting, concerts and other events.

5 IS THERE ANY BUILT-IN COLOR CALIBRATION SYSTEM IMPLEMENTED FOR EACH PIXEL?

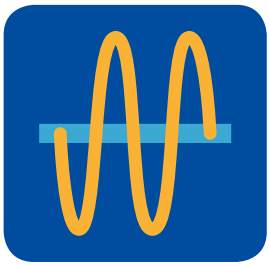
EKTA applies an exclusive system of color calibration for each pixel illumination - Color Uniformity[2]. It provides equal color coordinates for all LEDs in the screen. Should the system be unavailable, the LEDs in the white areas will appear as dot colored speckles. The best way to check its availability is to view screen illumination of white color under the conditions of different levels of brightness.

6 HOW MANY BITS ARE ALLOCATED TO PROCESS EACH COLOR IN SEPARATE DISPLAY POINTS?

EKTA displays are made with 16-18 bit color processing and the maximum number of displayable colors up to 18,000 trillion. Today modern screens use 15-16 bits per one color that enables to display up to 281 trillion colors.

This index affects capability of various systems that provide high-brightness as well as the number of displayable colors.

7 WHAT REFRESH RATE IS IMPLEMENTED IN THE SCREEN MODULES?



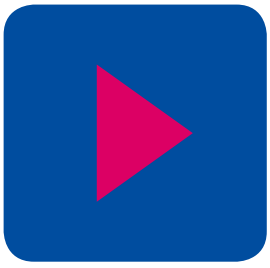
EKTA video modules with a small pixel pitch have a refresh rate between 4,800 to 9,600 Hz, while large pixel pitch modules up to 32,000 Hz. These indicators provide a stable perception of an image. There is no distortion in dynamic horizontal and vertical stripes when your eyes rove over the screen. Such visual defect is a common disadvantage of cheaper screens.

8 WITH THE BRIGHTNESS REDUCTION FROM 100% TO 1-2% DOES THE SCREEN RETAIN A HIGH-QUALITY IMAGE?

EKTA screens maintain their full working capacities even at the lowest level of brightness, up to a total brightness of 0.4%.

Often, while working in TV studios or applied together with projection devices LED screen should perform its full capabilities starting with 1-2% of illumination brightness. Let us point out, that vast majority of screens are not capable of it.

9 WHAT ARE THE FUNCTIONS OF THE SCREEN MANAGEMENT SYSTEM?



EKTA-manufactured screens are provided with the following management functions:

- built-in software for playing back audio and video content;
- simultaneous display of several images with the use of various effects (transparency, any window sizes, etc.);
- displaying information from various video sources;
- full resolution, provided with screen management system, enables to display 4K video (3,840 x 2,160 pxs) at a rate of 60 Hz.

10 ARE EKTA SCREENS EQUIPPED WITH AUTOMATIC SELF-MONITORING SYSTEM OF DIFFERENT OPERATING CONDITIONS?

All EKTA-manufactured screens have a built-in self-monitoring system. It allows real-time checking of operating temperatures, voltage supply and many other characteristics within each module. Safety of screen operation directly depends on this function. Thus automatic activation of protection systems and adjustment of operating conditions ensure screen working capacities and prevent unexpected failures, as well as fire.

11 IS THE SUPPLIER READY TO PROVIDE INFORMATION ABOUT ITS MANUFACTURING FACILITIES?

EKTA is ready to share a detailed knowledge of its manufacturing facilities. The plant is equipped with robotics of world-leading brands, test-bench and measuring equipment as well as certified testing laboratory.

The EKTA quality control system is certified to ISO 9001:2008 standards.

12 CAN EKTA PRODUCTS WORK IN EU COUNTRIES IN CONDITIONS OF STRICT STANDARDS APPLIED FOR ELECTRICAL ENGINEERING?

EKTA is proud of successful cooperation with such countries as Germany, France, Switzerland, Italy, Austria, Latvia, Estonia, Sweden, and the CIS countries.

13 DO EKTA SCREENS MEET THE STANDARDS OF «QUALITY POWER CONSUMPTION» AND ELECTROMAGNETIC CAPABILITY?

EKTA-manufactured screens are equipped with high-performance power supply units, based on resonance technologies and with high dynamic capabilities (technology PowerSmart). It allows to get a power factor not less than 0.98 and maintain full working capacity when changing the power supply voltage range from 90 V to 265 V phase voltage. Power consumption of almost sinusoidal kind allows to remove disturbance interferences.

When connected to a network, cheap video screen may cause disturbance interferences within nearest buildings. In order to prevent such cases three-phase supply with 380 V voltage is used. However, a lot of China-manufactured screens use single phase 220 V, which raises questions of reliability, safety and security both of equipment and of power supply.

14 THE COMPONENTS OF THE SCREENS ARE FIRE-RESISTANT BUT CAN THE ELECTRONIC MODULES AND POWER SUPPLY SYSTEM BECOME THE KEY OF IGNITION?

EKTA screens comply with the fire resistance category V-0 according to the standard UL94. To create plastic parts of cluster construction, including the array, company used polycarbonate with UV stabilizers for resistance.

It is worth mentioning that only in 2013 five screens of Chinese production were burned. The cause of the fire was spontaneous combustion.

15 DISPLAY SIZE

EKTA-manufactured screens are among the lightest and slimmest in the world. One square meter weighs from 29 kg (indoor) to 32 kg (outdoor) and a module is just 8.6 centimeter thin. The depth of high-tech screens usually doesn't exceed 10-12 centimeters.

16 WHAT KIND OF SERVICE DOES THE SUPPLIER PROVIDE?

EKTA supplies self-manufactured products. The screens are produced in Ukraine, Zhitomir.

EKTA`s service center and warranty service works more than 20 years around the clock.

It is worth noting, that China-imported products don't have full level of service or the service isn't performed on the proper level. Moreover, this kind of suppliers doesn't check equipment working capacities.