

High end industrial displays

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Since many years one can experience fight on the smart television market for our movie and living rooms, manufacturers offer wider and wider, high resolution, bright, specially shaped, elegant, and of course more and more expensive products featuring outstanding audiovisual properties. The thinner, the more curved, the less framed the set is, the higher the price consumers are ready to pay for them. The situation however is completely different at the area of high-end industrial displays. For most of the applications it is enough to have a 7"-10" screen size, much more important properties are the robust, rugged design, the ability to withstand extreme environmental circumstances, the presence of the embedded PC and the touch panel, the good outdoor visibility and readability and the industrial operating temperature range. It is also important to be able to purchase the devices for a long time in the same form factors. Sometimes there is also demand in this area for special and extreme designs, thinking of kiosk applications such as interactive information counters, shop displays, information displays at production halls or community area. Here the size of the panel as well as its thickness and weight also matter. There are many special manufacturers out there offering solutions for these market niches, but those products are not widely advertised, we may source them through solution providers, or ourselves on exhibitions, shows and via special Web shops. This article browses through the Faytech high-end industrial display solutions presented by Endrich Bauelemente Vertriebs GmbH on industrial expos such as Electronica and Embedded World exhibitions.

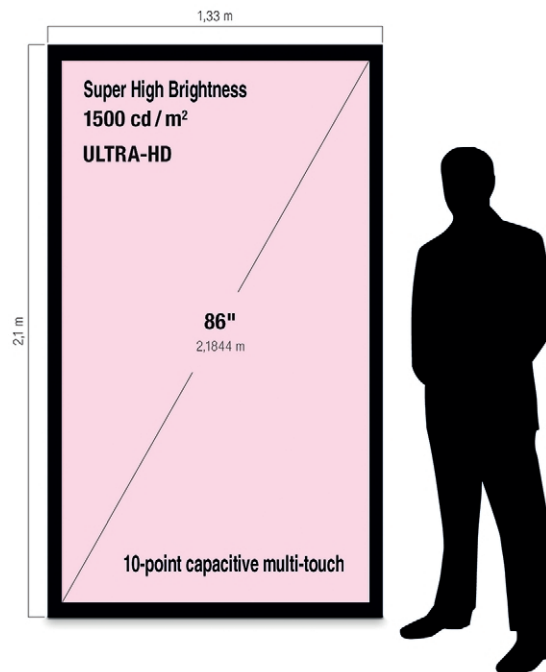
World's largest touch PC

The first in the series is Faytech's improved open frame touch monitor family, the flat yet rugged solution for easy implementation. It is designed as interactive touch display for digital signage, industrial automation, shopping mall, meeting room, hotel, classroom applications. With its hardened cover lens and galvanized steel frame, these monitors enable flush surface integration for all applications. The zinc-coated metal housing is equipped with VESA-mount as well as surrounding screw domes for robust fixation. The 10-point capacitive multi-touch controlled by high performance EETI-ICs has outstanding reliability even when raining, when it is used in foggy or dirty environment, if user is wearing rubber or winter gloves the touch panel keeps its functionality and the application being controlled. When investigating simple commercial displays, and make a closer look at the layered structure one can find air gaps in between, which are responsible for internal reflections, that cause losses in light passing through. To compensate this negative effect when using the display outdoor or in high ambient light environment, the only possibility at those solutions is to empower backlight, which results in higher power consumption and shorter lifetime. Faytech uses precise optical bonding processes combined with chemically etched glasses and its enhanced backlights contribute a perfect readability in all environments. Additionally, external reflections are reduced by the chemically etched cover lens with anti-glare coating. In direct sunlight, bright enlightened shopping centers or industrial workshops, the displays' quality is always crystal clear. Faytech guarantees zero dead pixels at all TFT displays. To provide best power consumption, – as option- an ambient light sensor can be integrated enabling automated backlight dimming, e.g. at night time. Equipped with various interfaces these monitors can be connected to any computer system. There are touch drivers available for Windows, Linux, Mac and Android.

The available interfaces offer to meet usual industrial standards such as HDMI 1.3, DVI, VGA for display card connectivity, USB for touch panel connectivity supported by Windows, Linux, Mac and Android drivers. The family contains several models in different sizes: 15", 21.5", 32", 43", 55" and World's – as of today – largest 86" touch screen, from standard SVGA 1024X768 resolution and 700:1 contrast to 3840X2160 resolution and 1600:1 contrast ratio.

The application area:

- Industrial control rooms
- Advertisement boards
- Exhibition booths
- Public area (shopping mall, airport bus station) information kiosk
- Industrial Control Interfaces
- Dash Boards
- Digital Signage
- Interactive Classrooms
- Meeting Rooms



The "digital poster"

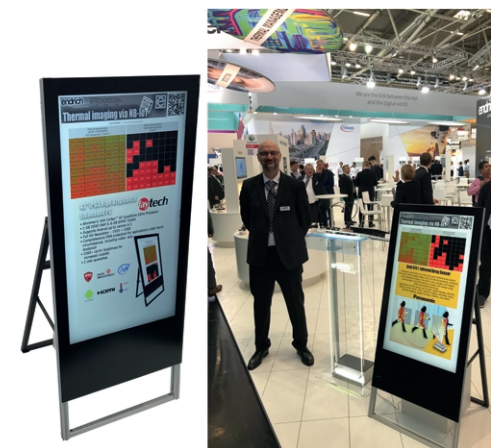
The other interesting product is the 43" IP65 high brightness embedded PC. It is the 21st century replacement and modern alternative of in- and outdoor stand up posters, also known as customer stopper. This enhanced multi-media monitor can attract attention of pedestrians or guide restaurant guests with the possibility to display multimedia contents such as high resolution (animated) pictures, videos. Its thin design and the ability to stand firm and solid with the aluminum support attached make the device perfectly fitting to place in shop windows. Its screen has a display ratio of 16:9 in portrait format, and has an industrial A+ quality LCD panel backed by Faytech's 100% no dead pixel guarantee, with antiglare treatment (chemical etched) and glass front reaching MoSH 7. The housing consists of aluminum and metal and has complete IP65 protection for applications under harsh environmental circumstances, offering water- and dust-proof solution. The device has an optically bonded glass protection front, which will improve the stability, reduce the internal reflection, but also increase the viewing angle. It has a backlight brightness of at least 1000 cd / m², which guarantees a super sharp and clear picture, even exposed to direct sunlight. Beside this, it is completely safe to install it as outdoor application because it runs on 24 V supply voltage. The PC is powered by Allwinner V 40 Cortex™ A7 QuadCore CPU, equipped by 1GB DDR3 RAM and 8GB EMMC Flash, and has preinstalled Android 6.0 OS. As the networking interfaces regard LAN and WiFi are both available. This device is the perfect cost-effective solution for in- and outdoor applications in the field of digital signage. With its modern design and sleek look, the device would fit perfectly in a store, company entrance, restaurant, shopping mall, waiting room, exhibition booth or any other related application.

LAPSCREEN® - slim external display for mobile devices

Most of us use an external display in everyday office work. This is supported by most of the desktop PCs and notebooks, using a docking station with a fix TFT screen is usual installation at a modern office. But what to do if we are often out of office and need to work on the way at airport lounges, hotel rooms or fast-food restaurants? What if we would like to extend the display possibilities of our mobile devices such as our tablets or even mobile phones?

Reader may have an answer for certain cases, using an adequate converter or any wireless connection usually it is possible to connect to the TV set of the hotel room, but elegant, convenient and mobile solution cannot be established in such way. The answer of year 2019 and Faytech is the LAPSCREEN® display, which is a slim, lightweight (400 gr) A4 size mobile monitor, which offers solution to extend or duplicate small size displays through USB-C or HDMI connection, and can be used for mobile PCs, tablets and even GSM phones.

There are yet two versions available, one of them is equipped with a 10-point multi-touch capacitive touch panel,



the other is without. Both have 4mm thin 12.5" size full HD (1920x1080) resolution LCD panel. The touch panel is optically bonded to the cover lens in the first version, in order to reduce internal reflections and minimize the requested brightness of the backlight – as well as the power consumption to meet A++ requirements – and still being able to provide crystal clear picture. Faytech's LAPSCREEN® is a plug'n'play device and can be used for different operating systems. Some say this is "3rd evolution of mobile computing – the paper of the future".

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