

AUO Defines New Automotive Era with Micro LED and AmLED Creating New Experience for Future Smart Cockpits

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HSINCHU, Taiwan ([PRWEB](#)) April 21, 2022 -- The trends of electric vehicles and smart cars are drastically altering vehicle architecture, manufacturing models and supplier ecosystem. In response to such trends, AU Optronics Corp. (AUO) continues to dedicate in the research and design of high quality displays for automotive featuring Micro LED and AmLED, and will debut at Touch Taiwan 2022 the future smart cockpit integration services that leverage smart human-machine interactive display and exclusive cockpit design as the differentiation niche for the implementation of smart transportation and automotive services. The goal is to provide drivers and passengers immersive sensual experiences, create smart cockpits for future cars and build a premium third living space beyond one's home and workplace.

Micro LED Automotive Displays for New Smart Cockpit Experience

Having the advantages of high brightness, high contrast, wide color gamut, fast response and high reliability, Micro LED is the emerging next-generation display technology. This year, AUO launches Micro LED with decoration film for immersive automotive display solutions that will complement and blend perfectly with car deck panels to go with various patterns and texture, such as wood print, to fit desired cockpit design aesthetics. Micro LED's outstanding features of high brightness and high contrast, accompanied by high-transmittance patterned optical coating, prevent data interference on the display screen and satisfy wide-ranging smart automotive and home decoration applications. With many years of experience in flexible panel design and manufacturing, AUO builds a 2K resolution with 202ppi and 40mm radius 14.6-inch rollable Micro LED display panel, and a cutting-edge smart knob which features world's highest(*)141ppi resolution stretchable touch screen Micro LED panel. These Micro LED display technologies largely increase the flexibility of the in-vehicle space by exhibiting that both control knob and high quality display can be immersively hidden into cockpit when not using. The 17.3-inch transparent Micro LED display module reaches a resolution of 1280 x 720 with over 60% transparency and peak luminance of 2000 nits. Featuring small illumination areas, high brightness, high color saturation, high transparency, and high LED reliability, the transparent Micro LED display boasts no information shielding under any circumstance and can be used as a car window display so that drivers will not miss out any important information while checking out the sceneries outside the window.

Further, Micro LED features unrestricted assembly. AUO will showcase its assembled TV wall applications as a breakthrough from current TV frames and builds a personal home theatre with bright, fully saturated colors and clear, streamlined image quality.

Complete Mini LED Ecosystem for Large-Size AmLED Automotive Display

As AUO announced its AmLED technology in 2021 and teamed up with renowned global computer brands to launch high-end desktop monitors and notebooks that have garnered much positive reception during CES 2022,

AUO now applies its large-size AmLED display technologies to future smart cockpits to satisfy the next-generation automotive entertainment needs. The large 30-inch front-seat AmLED display, embedded with the industry-leading Large Touch Display Integration (LTDI) panel, realizes super low reflectance through self-developed panel lamination technology. It has the advantages of a curved design, high resolution, high contrast, and wide color gamut and can be used as a center informative display (CID) or cluster. AUO also achieves the 5.4 mm super narrow bezel design for its 24-inch AmLED display using non-silicon Tracking Gate line in Pixel (TGP) technologies, while the 22-inch AmLED display independently installed for the front passenger seat comes with integrated switchable privacy technologies to avoid diverting the driver's attention and ensure safe driving.

AUO collaborates with the supply chain ecosystem and leverages group resources to upgrade automotive displays for value transformation. The AmLED technology is developed with the LED ecosystem partners. For instance, Ennostar develops customized automotive Mini LED backlights; Darwin assists with the customization of backlight module optical design; Raydium Semiconductor supports customized IC solutions for local dimming. Combined with AUO's proprietary display technologies, the goal is to provide integrated automotive display solutions with less power consumption, higher image resolution, and higher reliability.

Hardware/Software Integrated Automotive Displays for Upgraded Future Smart Cockpit Integration Services
In addition to incorporating cutting-edge display technologies into automotive displays, AUO will showcase its integration services for future smart cockpit systems ranging from in-vehicle panel modules to system integration. For instance, the super-size streamlined curved displays embedded with amplifiers on both sides readily transforms the cockpit into a home theatre. When the driver enters the cockpit, the hidden camera integrated in the display panel will identify the driver and display personalized info on panels. For safety and convenience, the driver can tap on the 12-inch CID to receive feedbacks via the vibration actuators and make adjustments accordingly.

Besides future vehicles, AUO also develops its smart bike solution, by collecting and analyzing bicycle information through IoT system. The consolidated bike info can be displayed on the dashboard such as cycling distance, battery status, and power assist levels. Such features can be integrated in add-on bike computers or embedded into the bicycle per se. The Memory-in-Pixel (MIP) color display panel and LED indicator lights give riders an intuitive control of the riding conditions even under the sunlight. To further improve riding safety, the blind spot system detects approaching vehicles from either rear side of the bike and warns the cyclist with haptic feedbacks on the handlebars in real-time. AUO smart bike solution provides a safer and smarter riding experience for cycling.

AUO has been investing in the automotive display market for many years. It is now among the world's top three automotive display suppliers and the world-leading giant for central console displays and will continue to focus on automotive hardware/software integration, hoping to become a prominent integrator for in-vehicle information system.

Held concurrently with the exhibition is the 2022 Smart Display Innovative Application Forum. On April 28, Jennifer Lin, AUO Senior Associate Vice President, will give a speech entitled, "ALED – Ultimate Interface for Digital Life and Metaverse," and Simon Hsu, AUO Senior Director of Automotive Business Unit, will give a speech entitled, "Trend and Opportunities of Automotive Display in Smart Cockpit." Welcome to visit us at Touch Taiwan 2022 and experience the infinite possibilities brought by AUO's innovative ALED technologies and smart solutions for in-vehicle applications.

*Based on the available market research information as of April 20, 2022.

*Watch the video to view more about AUO's premium display technologies and applications:

<https://youtu.be/Ph5z2Wv-xN0>

AUO photos can be downloaded at the Company's website:

https://auo.com/en-global/Download_Photos

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ABOUT AU OPTRONICS

AU Optronics Corp. ("AUO") is one of the world's leading providers of optoelectronic solutions. Based on its profound R&D and manufacturing experience, AUO offers a full range of display applications and smart solutions integrating software and hardware, and leverages its core expertise to enter new business areas such as solar, smart retail, general health, circular economy and smart manufacturing service. Additionally, AUO has also been named to the Dow Jones Sustainability World Index since 2010. AUO's consolidated net revenues in 2021 were NT\$370.69 billion. For more information, please visit AUO.com.

Safe Harbour Notice

AU Optronics Corp. ("AUO" or the "Company") (TWSE: 2409), a global leader of TFT-LCD panels, today announced the above news. Except for statements in respect of historical matters, the statements contained in this Release include "forward-looking statements." These forward-looking statements are based on our management's expectations, projections and beliefs at the time regarding matters including, among other things, future revenues and costs, financial performance, technology changes, capacity, utilization rates, yields, process and geographical diversification, future expansion plans and business strategy. Such forward looking statements are subject to a number of known and unknown risks and uncertainties that can cause actual results to differ materially from those expressed or implied by such statements, including risks related to the flat panel display industry, the TFT-LCD market, acceptance of and demand for our products, technological and development risks, competitive factors, and other risks. In addition, our Annual Report contains other information on these and other factors that could affect our financial results and cause actual results to differ materially from any forward-looking information we may provide. We undertake no obligation to update or revise any forward-looking statements to reflect subsequent events, new information or future circumstances.

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