

TCL Unveils Next-Generation NXTPAPER Technology on AMOLED, Redefining Visual Comfort and Mobile Display Excellence

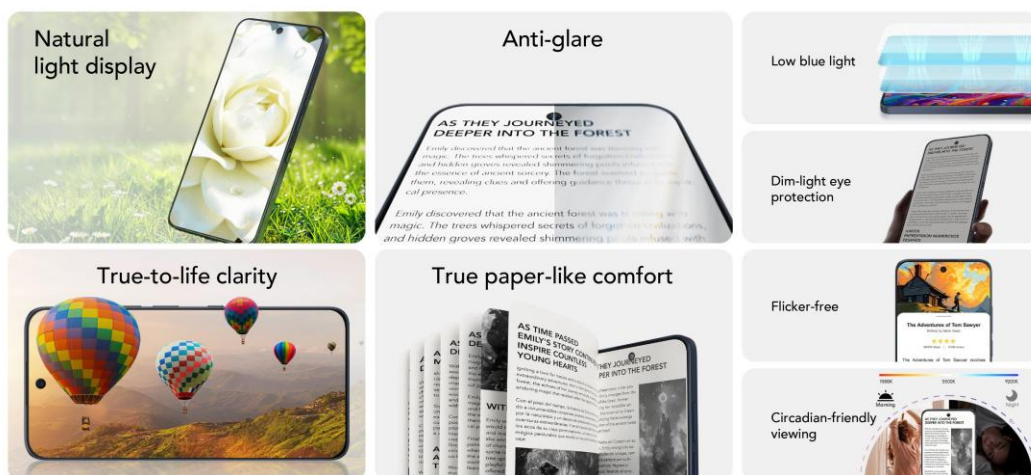
Barcelona, 2 March, 2026 – At the 2026 Mobile World Congress (MWC), TCL announced a groundbreaking advancement in its proprietary NXTPAPER eye-care technology. For the first time, NXTPAPER's signature full-color electronic display technology will be integrated with AMOLED displays, marking a major leap forward in the mobile viewing experience. This significant advancement combines the unparalleled picture quality, rich, finely detailed visuals and exceptional brightness of AMOLED with TCL's industry-leading eye care display performance, delivering a display that is both exceptionally vibrant and remarkably gentle on the eyes during prolonged viewing. Through natural-light-like visual comfort and an extraordinary paper-like experience, this brings global users a truly unmatched level of visual comfort on smartphones, leading the industry into a new era of intuitive, visually comfortable mobile display technology.

"As screen time continues to rise, from early messages to night scrolling, visual fatigue has become a shared modern experience. As the primary medium through which we perceive the world and access information, displays must not only deliver stunning image quality but also prioritize visual health," said Jefferson Li, General Manager of TCL Mobile Phone. "This new milestone in our NXTPAPER journey reflects TCL's unwavering commitment to human-centric innovation. By integrating NXTPAPER with AMOLED, we are addressing the market demand for displays that don't force users to choose between vivid visuals and eye comfort. This advancement brings us closer to our mission of creating a smartphone viewing experience that feels incredibly natural and comfortable while staying easy on the eyes even during prolonged use."

NXTPAPER MEETS AMOLED

TCL

Ultimate Comfortable Viewing with Exceptional Visual Experience



Visual Comfort Inspired by Natural Light

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At the heart of the advancement of NXTPAPER lies a simple yet powerful idea: screens should feel as natural to the eyes as natural light. Inspired by this principle, whether you're scrolling through social media on your morning commute, catching up on notifications under harsh office lighting, or enjoying a late-night reading session in bed, NXTPAPER delivers all-day long and all scenarios comfortable viewing experience through comprehensive multi-dimensional optimizations.

Key Advancements

- **Circular Polarized Light:** Circular polarization reaches 90% of natural light.
- **Blue Light Purification:** Harmful blue light is further reduced by 15% compared to NXTPAPER 4.0, reaching as low as 2.9%.
- **Circadian screen comfort & Dim-Light Eye Protection:** Enables auto-adjustments on brightness and color temperature

On a hardware level, major advancement comes from the upgraded Circular Polarizer Light (CPL) technology. The polarization rate has been elevated from 57% to 90% compared to the previous generation, reaching an industry-leading level and enabling light emission that more closely resembles the light emitting behavior of natural light. Harmful blue light has also been further reduced by another 15%, bringing it down to as low as 2.9%.

To further align with natural viewing rhythms, the circadian screen comfort dynamically adjusts brightness and color temperature throughout the day, following the patterns of ambient daylight. In low-light environments, dim-light eye protection can adjust the brightness, which can be reduced to as low as 1 nit, creating a calm, night-friendly visual experience that minimizes disruption and supports long-term comfort.

Optimized Paper-Like Experience with Industry First Anti-Glare Technology

Building on TCL's signature paper-like display concept, this latest NXTPAPER display elevates digital viewing into a more immersive and refined experience. Eye fatigue is influenced not only by how a screen emits light, but also by how it reflects ambient light. NXTPAPER optimizes towards both directions to create a viewing experience that truly mirrors the comfort of paper—whether you're reading under a sunny window, working outdoors, or unwinding with a book before bed.

Key Advancements

- **First Anti-Glare on AMOLED in Smartphone Industry**
- **Adaptive Reading Experience**

For the first time, an anti-glare (AG) technology will be implemented on AMOLED display in the smartphone industry, effectively reducing environmental glare while preserving clarity. By applying nano-matrix lithography technology, NXTPAPER minimizes ambient light reflections and glare, creating a viewing experience that closely resembles real paper. Whether you're reading outdoors on a bright sunny day or working near a window, the display remains crystal clear and comfortable, no more tilting your screen or searching for shade.

Complementing the hardware innovation, the adaptive reading mode is also developed that automatically adjusts the background color based on surrounding light conditions, helping maintain consistently comfortable visuals across different environments. Together, these enhancements make this latest NXTPAPER display particularly suitable for long-form content consumption, seamlessly blending eye comfort with modern digital convenience.

Exceptional True-to-Life Viewing Experience

By integrating NXTPAPER with a cutting-edge AMOLED panel, TCL unlocks a new level of visual fidelity - advanced eye comfort and premium display quality without compromise. With professional-grade color accuracy of $\Delta E < 1$ and 100% P3 wide color gamut coverage, the display delivers true-to-life visuals that photographers, online shoppers, and movie lovers can trust. The peak brightness of 3200 nits enables users to navigate outdoors under bright sunlight. With a 120Hz refresh rate, users are able to enjoy smooth scrolling.

This fusion ensures that while your eyes are soothed by NXTPAPER's advanced comfort technologies, you're simultaneously treated to a premium viewing experience that sets a new benchmark for mobile displays.

Powered by TCL's End-to-End Display Strength

This latest breakthrough is driven by TCL's vertically integrated display ecosystem, bringing together the expertise of TCL CSOT (China Star Optoelectronics Technology) and its global leadership across multiple display categories. From large screens to mobile displays, TCL's mastery of display technology enables innovations that span the entire product portfolio.

As one of the leading global innovators in display technologies, TCL CSOT focused on promoting the development of next-generation display technologies such as Mini LED, Micro LED, OLED, and Inkjet Printing OLED to lead the future technology trend. This deep technical foundation ensures seamless integration of NXTPAPER and AMOLED display.

TCL's leadership is validated by the market. According to shipment data from global research firm Omdia for 2024, TCL achieved Global TOP 1 rankings in Mini LED TV shipments, Google TV shipments, and 85-inch and larger TV shipments, reinforcing its position as a leading force in next-generation large-screen display technologies. This scale and expertise across big screens present unique insights into how consumers interact with displays in every aspect of their lives.

Disclaimer

Figures calculated in the release are based on stringent internal testing procedures.

About TCL

TCL Electronics (1070.HK) is a leading consumer electronics brand and leader in the global television industry. TCL now operates in more than 160 markets around the world. The

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company specializes in the research, development, and manufacturing of consumer electronics products ranging from TVs, audio, home appliances, mobile devices including mobile phones, tablets, smart connected devices, smart glasses, commercial displays, and more. Visit the TCL website at <https://www.tcl.com>.

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