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2023

Unilumin UMiniⅢ Pro Introduction

UMiniⅢPro

Remarkable to Every Second

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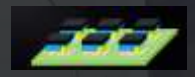
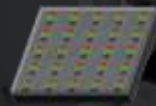
Mini LED Technology

Mini level chip size



RGB Flip-chip technology



COB packaging technology

UMiniⅢ Pro Milestones

Research materials and technology

Release Mini & Micro

Upgrade product and technology

2013

Research on technology trend

2016

Mini LED release

2018

Mini 0.9 mass production

2020

EBL & multi-layer optical processing technology

2021

UMicro 0.5 release

2022

UMicro 0.4 release

2023

Mass production for full range and step into the home use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Market Trends
Mini, the new Max

LED Fine Pitch Display Market Share

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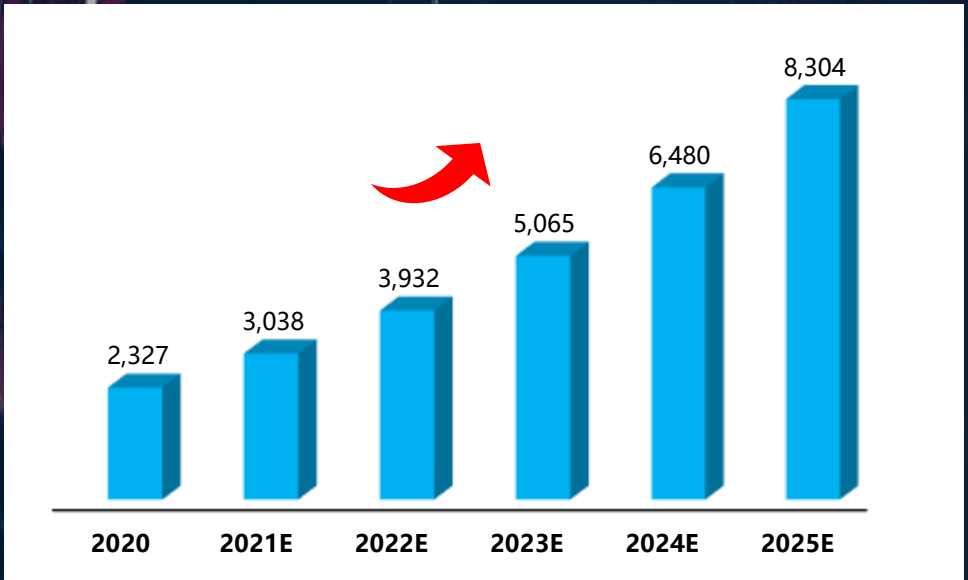
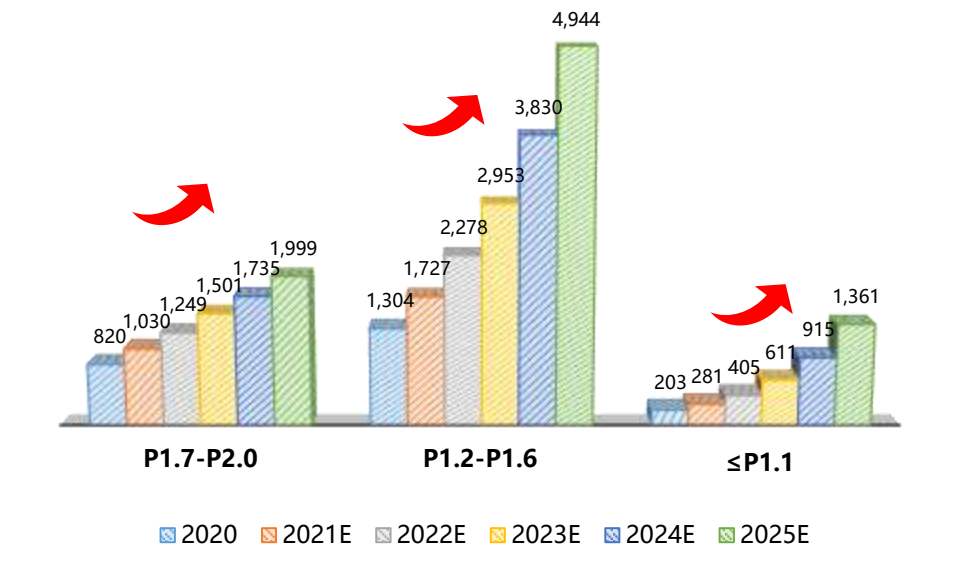
P1.2-P1.6 pitch display is the main growth point, and gradually develops in the direction of P≤1.1 ultra-fine pitch

Global LED Fine Pitch Display Market size



Fine Pitch Display Market Size



- In 2022, the global LED fine pitch (≤P2.0) market size is US$3.9 billion, and it is expected to reach US$8.3 billion by 2025, with a CAGR of 29% from 2020 to 2025;
- By 2025, the largest growth in the LED fine pitch display market will mainly come from P1.2-P1.6 pitch displays, and maintain the largest market share. From 2022 to 2025, P1.2-P1.6 pitch displays CAGR It is 31%, and its proportion has increased from 58% to 60%; P≤1.1 ultra-fine pitch display has the fastest growth, with a CAGR of 46%; while P1.7-P2.0 pitch display has the slowest growth, with a CAGR of 20% , the proportion also dropped from 32% to 24%.

P≤1.1 Pitch LED Display Applications

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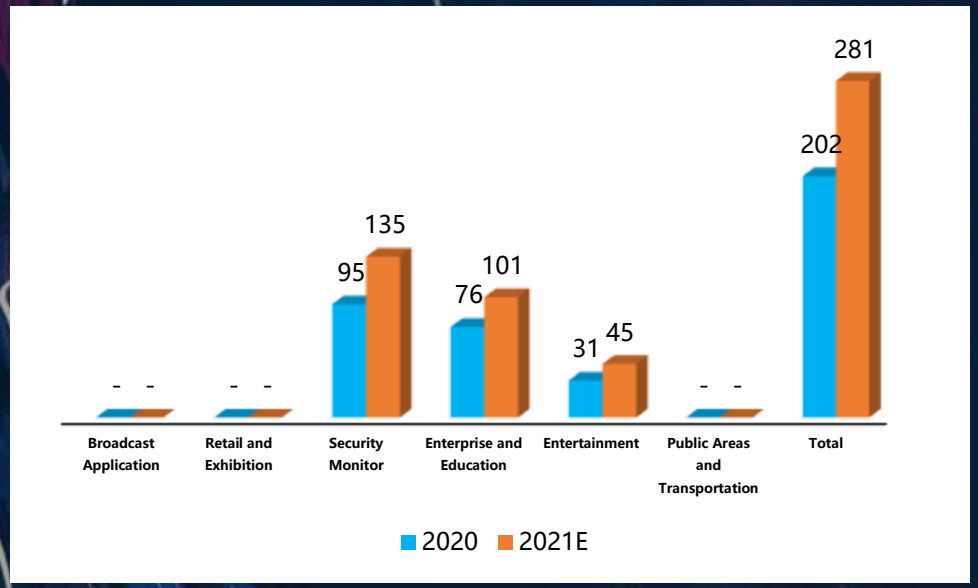
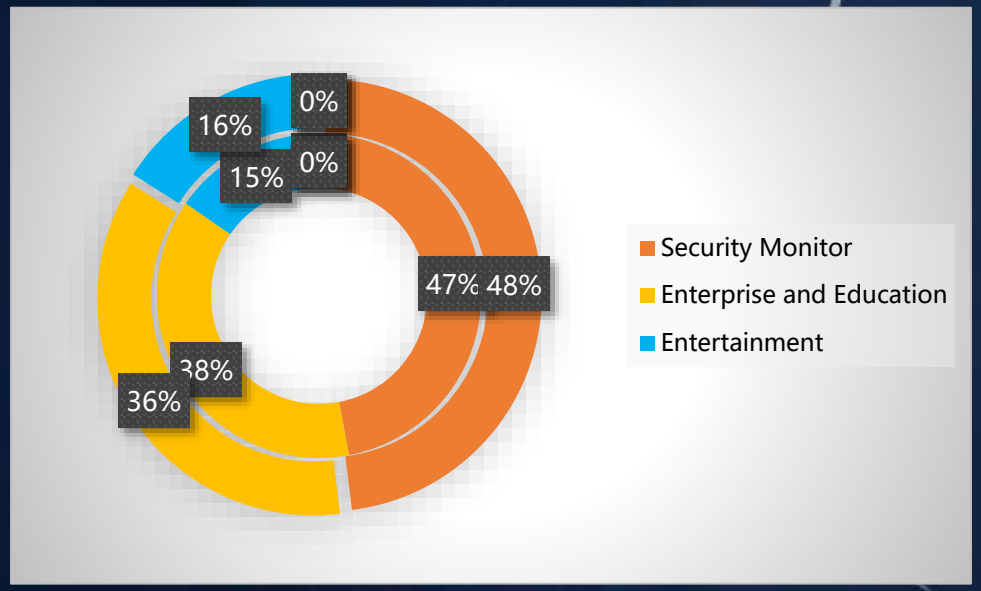
Security monitoring is the main application scenario for P≤1.1 pitch displays, accounting for nearly 50% of the total, followed by enterprise and education scenarios, accounting for 36%

P≤1.1 Pitch Display Application Scale



P≤1.1 Pitch Display Application Proportion



- In 2021, the global P≤1.1 pitch display market size has reached 280 million US dollars, a year-on-year increase of 39%;
- From the perspective of application scenarios, P≤1.1 pitch displays are mainly used in security monitoring, enterprises and education. The scale of application scenarios is US$135 million and US$101 million, accounting for 48% and 36% of the market size of P≤1.1 pitch displays.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4K
P0.9 162"
4K
P0.7 135"
4K
P0.6 108"
4K
P0.4 81"
Mini-pitch display with incredible 4K picture quality
Unique technologies for unparalleled user experience
EBL
EBL+ Technology
EDL
EDL Technology
3DL
3D LUT
Comfortable use experience
5G
5G Transmission
Maximum Energy-saving


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Impressive Display Effect
Remarkable to Every Second

1.1 See The World Brought to Life on Display

UMini Ⅲ Pro adopts unique **EBL+(Enhance Black Level+) technology and multi-layer optical processing technology**, which displays vivid, detailed black content with an amazing 30000:1 contrast providing audiences with a breathtaking immersive viewing experience. In addition, the surface of the COB LEDs is protected by patented technology for durability, quality and performance.

- Black Super black background
- **30000:1** Super high contrast*
- Super soft display
- Ultra-low moiré
- Ultra-low reflectance
- Ultra low touch trace

* : support

1.2 Each Pixel Matters - Ultra-high Consistency

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UMini Ⅲ Pro features EDL(Enhance Drive Level) technology to improve consistency of the grayscale on the display and effectively solve the heat dissipation problems of micro-pitch LED displays

- Low temperature rise
- Ultra high consistency
- No flickering
- No high-contrast coupling issues
- Low power consumption

1.3 True Color Reproduction with 3D-LUT

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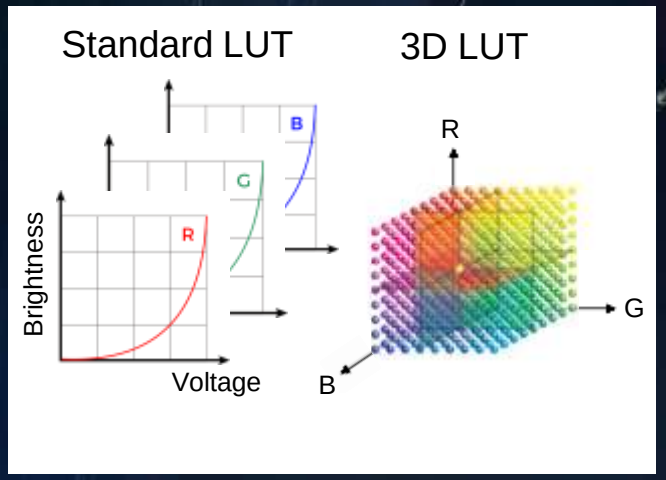


- High-precision gamut transfer
- DCI-P3 color gamut
- High saturation

Exact color representation is important, and 3D-LUT technology makes it possible, which allows UMiniⅢPro to accurately present each image in its original color across the screen.

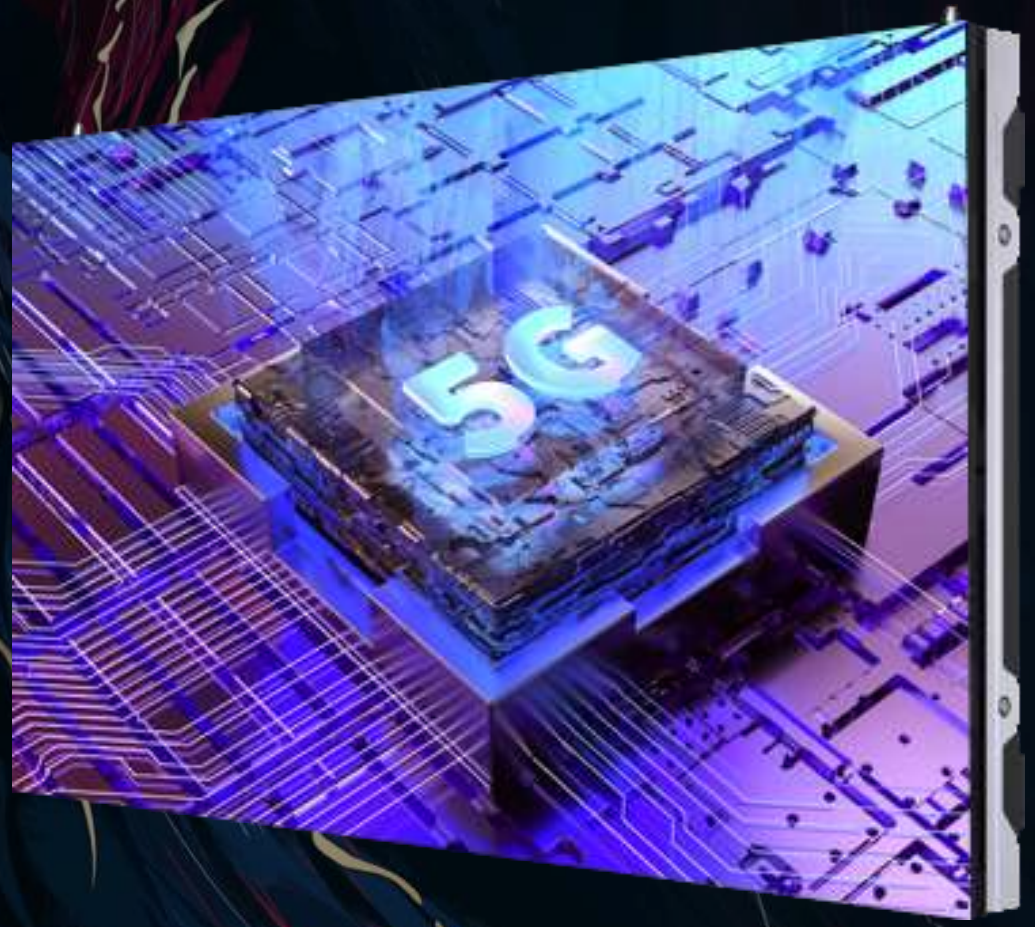
* : support

1.4 Superb Visibility with High Brightness

UMini Ⅲ Pro supports ultra-high brightness* to adapt to diverse environments, so the visual experience will not be affected, even if it is directly illuminated by bright lights.

* : support

1.5 5G Ultra-large Signal Transmission*



Streamlined Hardware Equipment

Fast Data Transmission & Large Load Capacity

UMini Ⅲ Pro utilizes 5G ultra-large signal transmission technology, which ensures the data transmission speed is four times faster than traditional LED display for larger load capacity. In addition, the hardware equipment is more streamlined to facilitate easy installation.

* : support

1.6 HD Dynamic Picture Presentation

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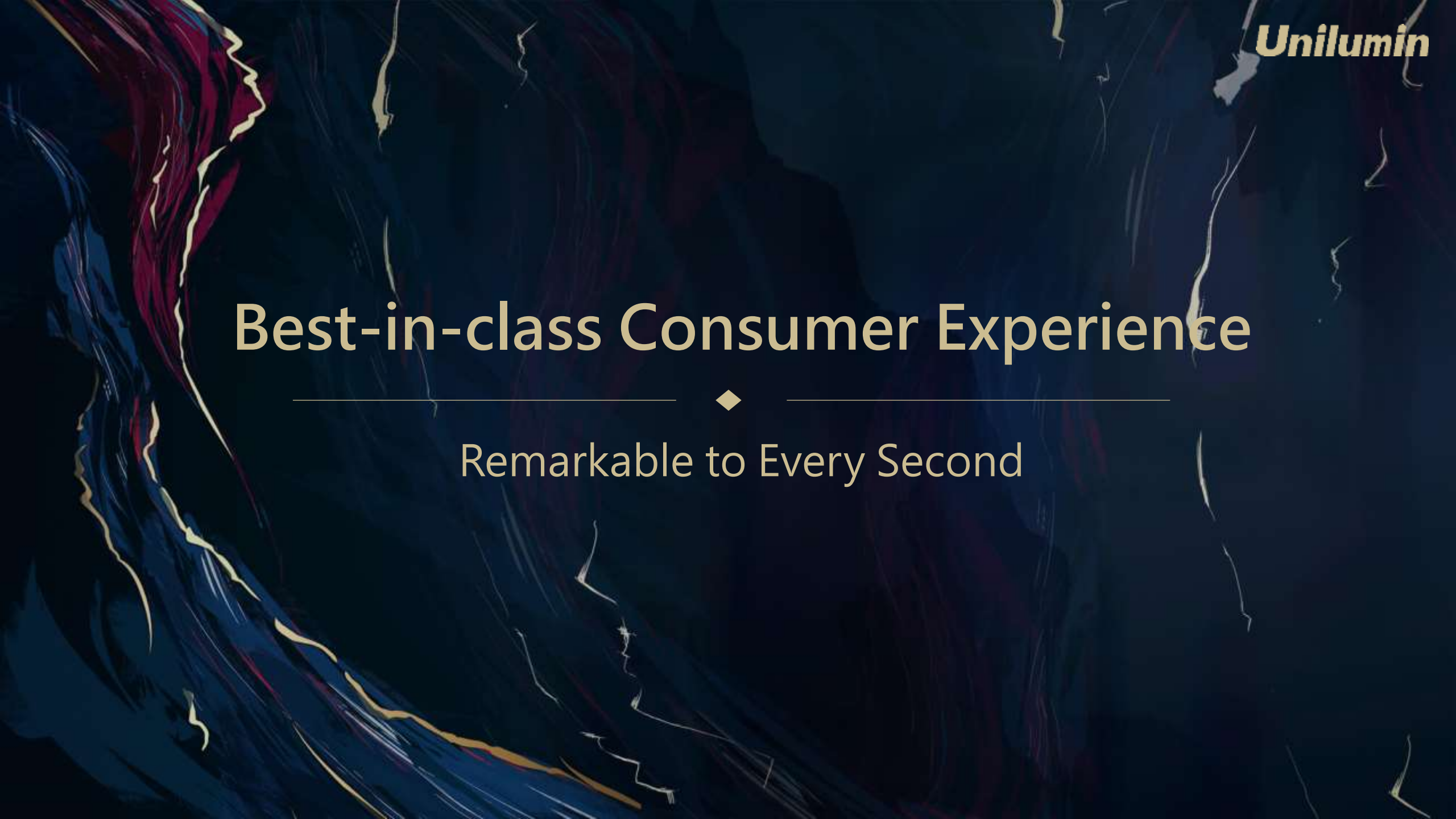
UMini Ⅲ Pro supports high frame rate applications of 120HZ and 240HZ which makes the display content smoother*

* : support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Best-in-class Consumer Experience
Remarkable to Every Second

2.1 “Cool” Screen

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UMiniⅢ Pro adopts unique energy-efficient & heat-dissipation technology to keep a low temperature for a better user experience, even during long periods with high brightness.

(Eg. With 25℃ ambient temperature, the front screen temperature of UMiniⅢPro Pro0.9 with 600nits is approx. 36℃)

2.2 Human-friendly Experience

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EMC Class B

UL LISTED Certification

Qualified EMC Class B, UMini Ⅲ Pro's anti-interference is consumer level. In addition, UL LISTED certification provides confidence that UMini Ⅲ Pro was designed with all safety considerations while providing the most captivating imagery possibility.

2.3 Comprehensive Eye Protection

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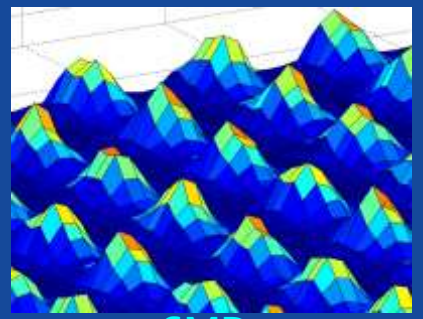
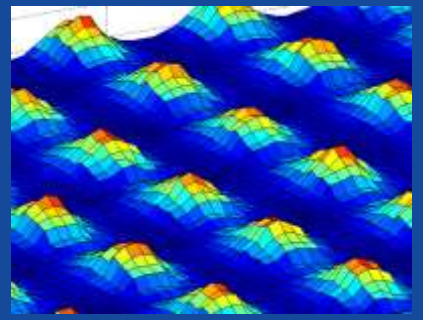
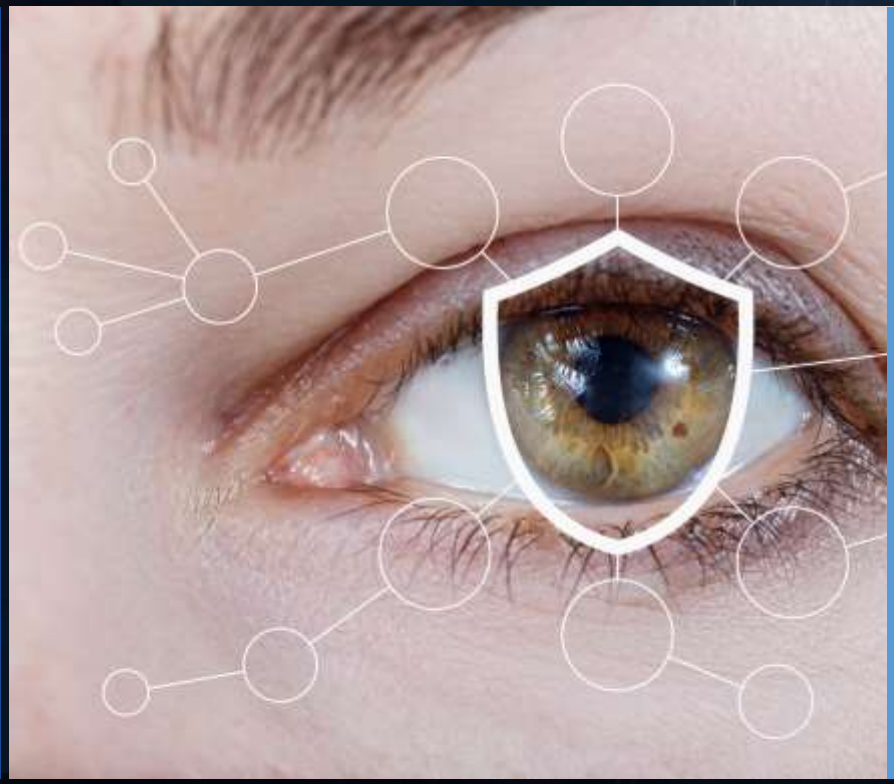


SMD



COB



- Area light source design, reduce negative effects on eyes
- Nano-optical materials with diffusion process ensures uniform light and filter out stray light
- Best-in-class LEDs ensure less than 5% harmful blue rays.

Utilizing multiple technologies to minimize health hazards caused by long-term use of the screen, UMicro has been certified by TUV for its visual comfort display performance

2.4 Make Every Watt Count

RGB Flip Chip

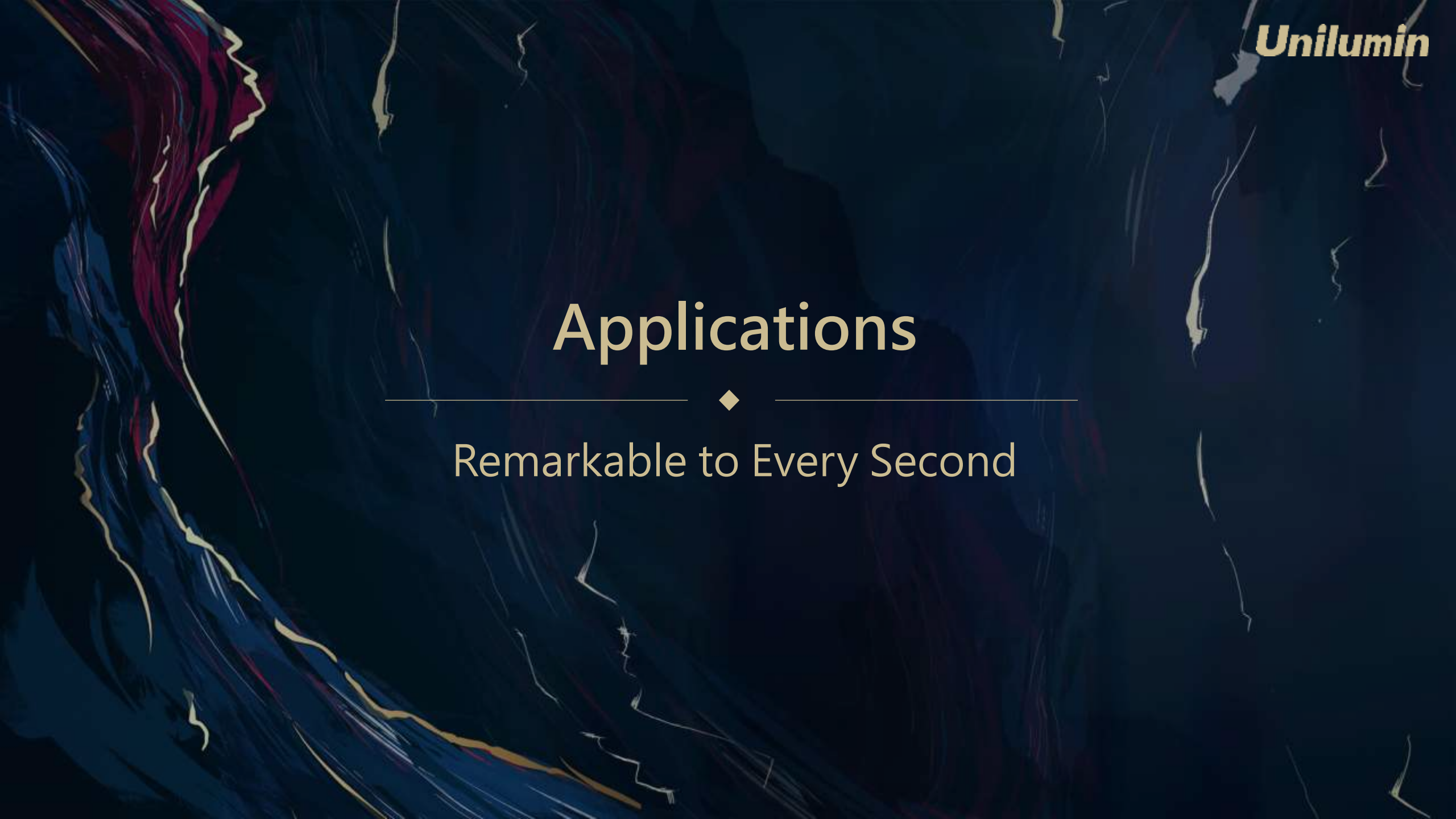
Dynamic Energy Saving

One-click Sleep

Common Cathode Design

Featuring the latest energy-saving technology, UMiniⅢPro can achieve maximum energy-saving effect (up to 60%*), whether in use or in standby

* : UMini Pro 0.9 compared with conventional 0.9 pixel pitch



Applications

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Home Theater

High-end Applications

Industrial Design

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Exhibition Hall

Specifications

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4 Specifications

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Model	UMiniⅢPro	
Pixel Pitch(mm)	0.9	1.2
Cabinet Size(mm)	600*337.5	
Pixel Density	640x360	480x270
Circuit design	Common Cathode	
Brightness(cd/m²)	600-1200	
Power（W/Cabinet）	50	40
View Angle（°）	0~180	
Refresh Rate(Hz)	3840	
Standard Contrast（600nits）	15,000：1	
Max Contrast（1200nits）	30,000：1	
Working Temperature	White screen(Maximum power): 11℃ temperature rise Normal operation: no temperature rise	
Certification	UL/FCC/IC/CE/CB/RoHS2.0/EAC/CCC/CQC/Low Blue Light/Class B	

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THANKS

Official Website

Unilumin Headquarters VR Tour

Unilumin R&D Base VR Tour

Unilumin Smart Factory VR Tour