Unilumin

2023

Unilumin UMicro Introduction

UMicro

Remarkable to Every Second

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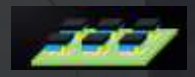
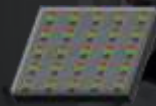
Micro LED Technology

Micro level chip size



RGB Flip-chip technology



COB packaging technology

Unilumin Micro Development Milestones

2016

Launched Mini & Micro Technology Study

Integrated industrial chains and started research on Mini & Micro products & technologies.

2018

UMini0.9 Mass Production

Released UMini series, taking the lead in mass production of COB 0.9 products. Established the first R&D and manufacturing base for Mini/Micro products in Shenzhen

2020

UMini Becomes an International Award Winner

With a breakthrough in EBL technology, UMini won the BEST OF SHOW awards of ISE 2020, and established the second Mini/Micro R&D base in Shenzhen

2021

UMicro0.5 Showcased

Driven by market demand, Unilumin builds the first Micro production base in Daya Bay and production capacity of UMirco0.5 reaches 1000㎡/ month

2022

Micro0.4 Global Release

Micro0.4 makes a comprehensive breakthrough in display technology. The second Micro manufacturing base in Daya Bay is built, with a capacity of 2000㎡/ month

2023

Full-range pixel pitch UMicro Global release

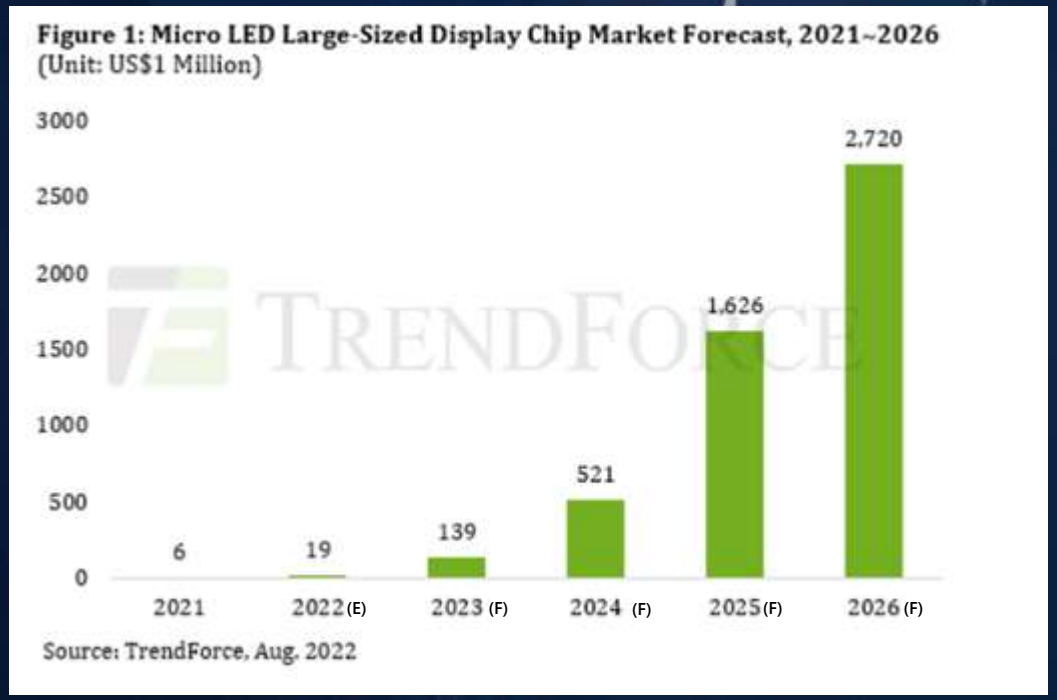
Full-range pixel pitch UMicro is in mass production and released at ISE 2023

Market Trends

The Micro LED market size is estimated at 19 million US dollars in 2022 and is forecasted to reach 2.7 billion US dollars by 2026

In the future, the development trend of Micro LED large-size displays will focus on home theaters, high-end business applications, retail, etc.

- Micro LED large-size displays will move into the home theater and high-end commercial display markets. The market size of Micro LED large-size display chips is estimated to be **19 million US dollars** in 2022. The market size is expected to grow to 2.7 Billion US dollars by 2026, at a CAGR of 245.9%;
- Micro LED technology barriers will be overcome, and the Micro LED large-size display market will peak in 2026 to 2030.




Unilumin
4K
P0.9 162"
4K
P0.7 135"
4K
P0.6 108"
4K
P0.4 81"
Micro-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


Unilumin
Impressive Display Effect
Remarkable to Every Second

1.1 See The World Brought to Life on Display

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UMicro 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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UMicro 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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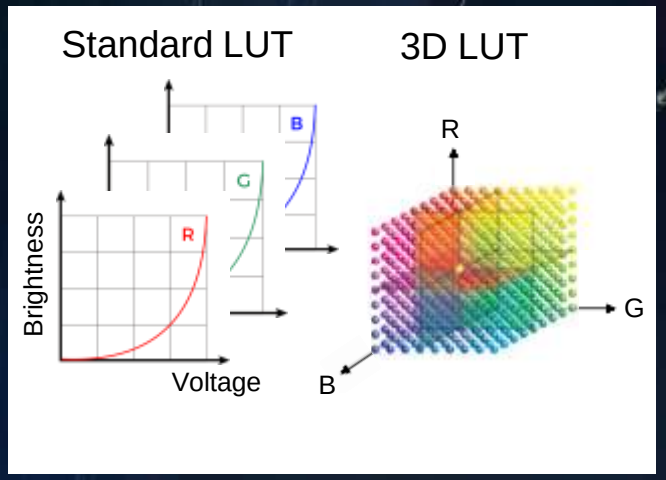


- High-precision gamut transfer
- DCI-P3 color gamut
- High saturation

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

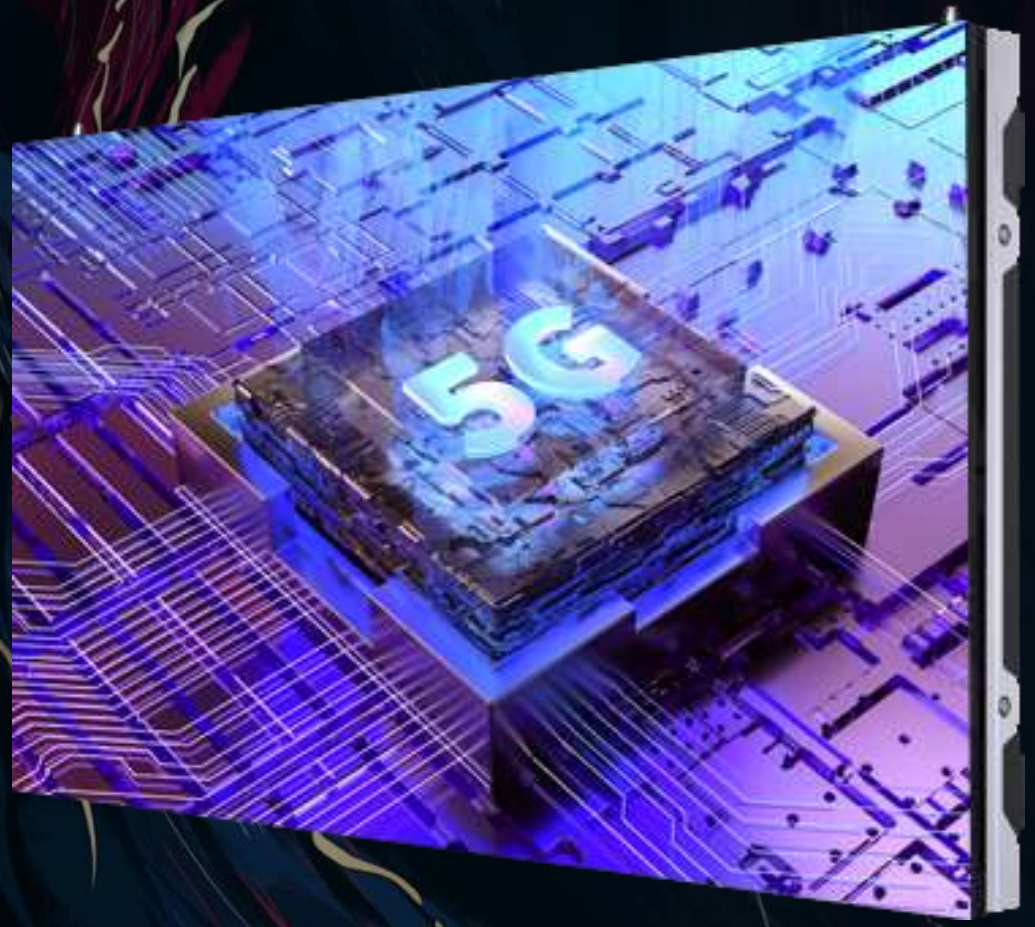
* : support

1.4 Superb Visibility with High Brightness

UMicro 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

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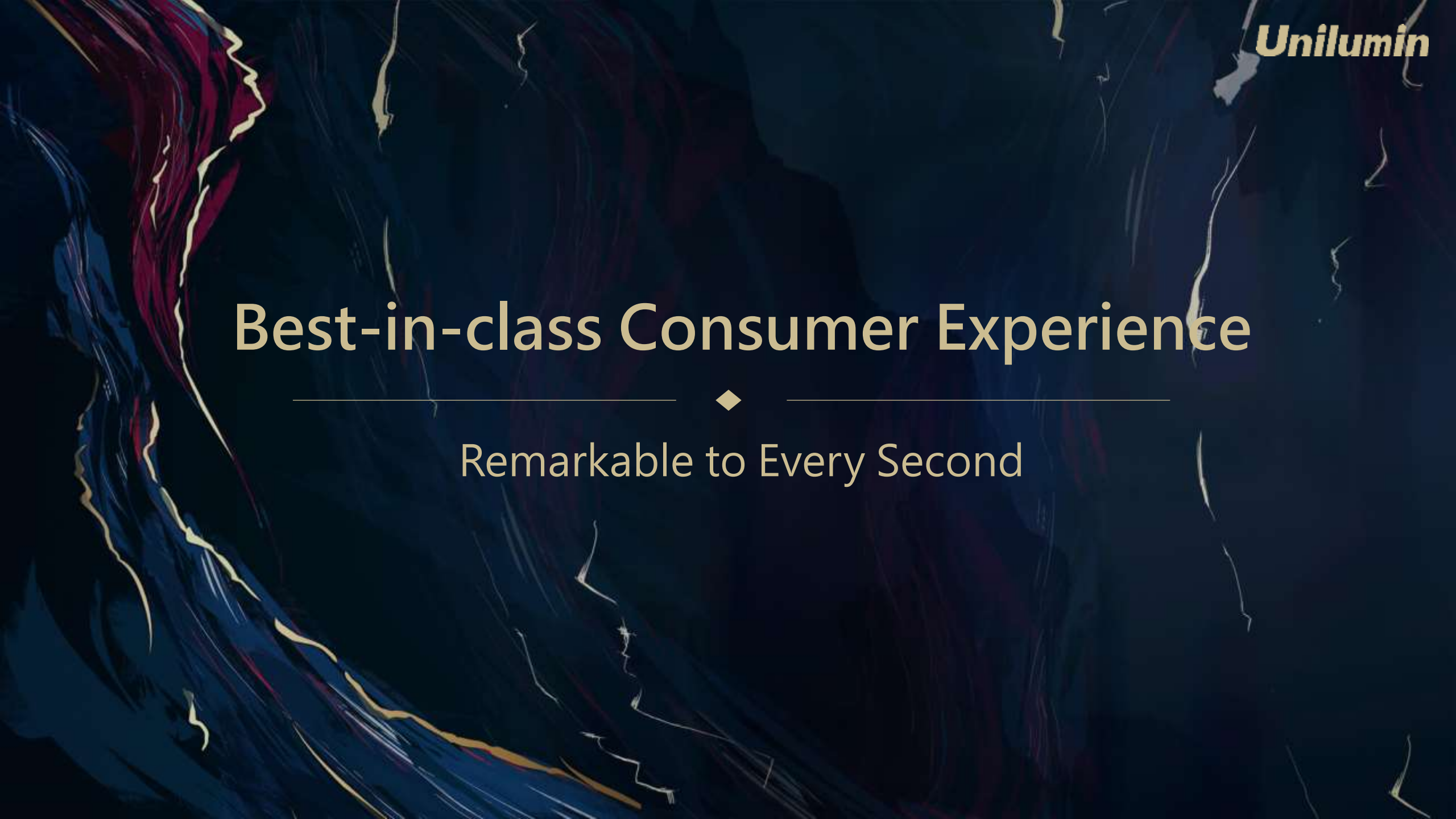
UMicro supports high frame rate applications of 120HZ and 240HZ which makes the display content smoother*

* : support


Unilumin
Best-in-class Consumer Experience
Remarkable to Every Second

2.1 “Cool” Screen

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UMicro 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 UMicro0.7 with 600nits is approx. 37℃)

2.2 Human-friendly Experience

EMC Class B

UL LISTED Certification

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

2.3 Comprehensive Eye Protection

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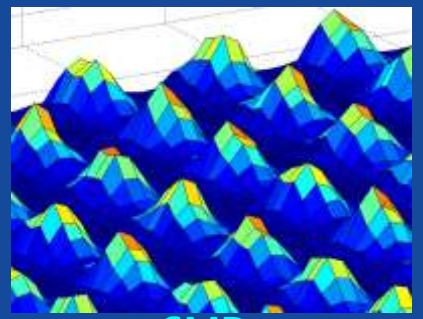
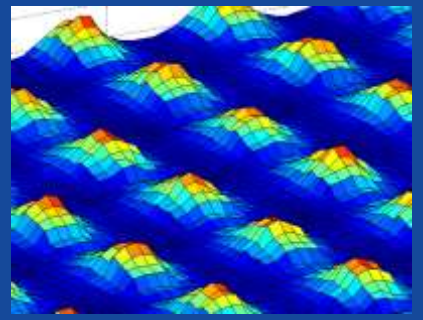
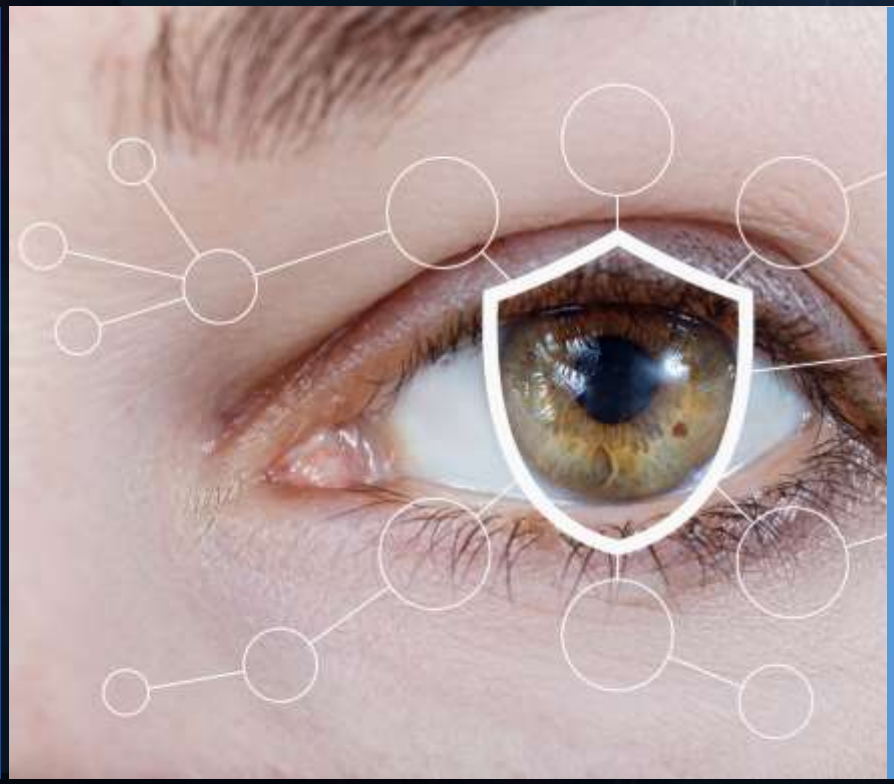


SMD



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

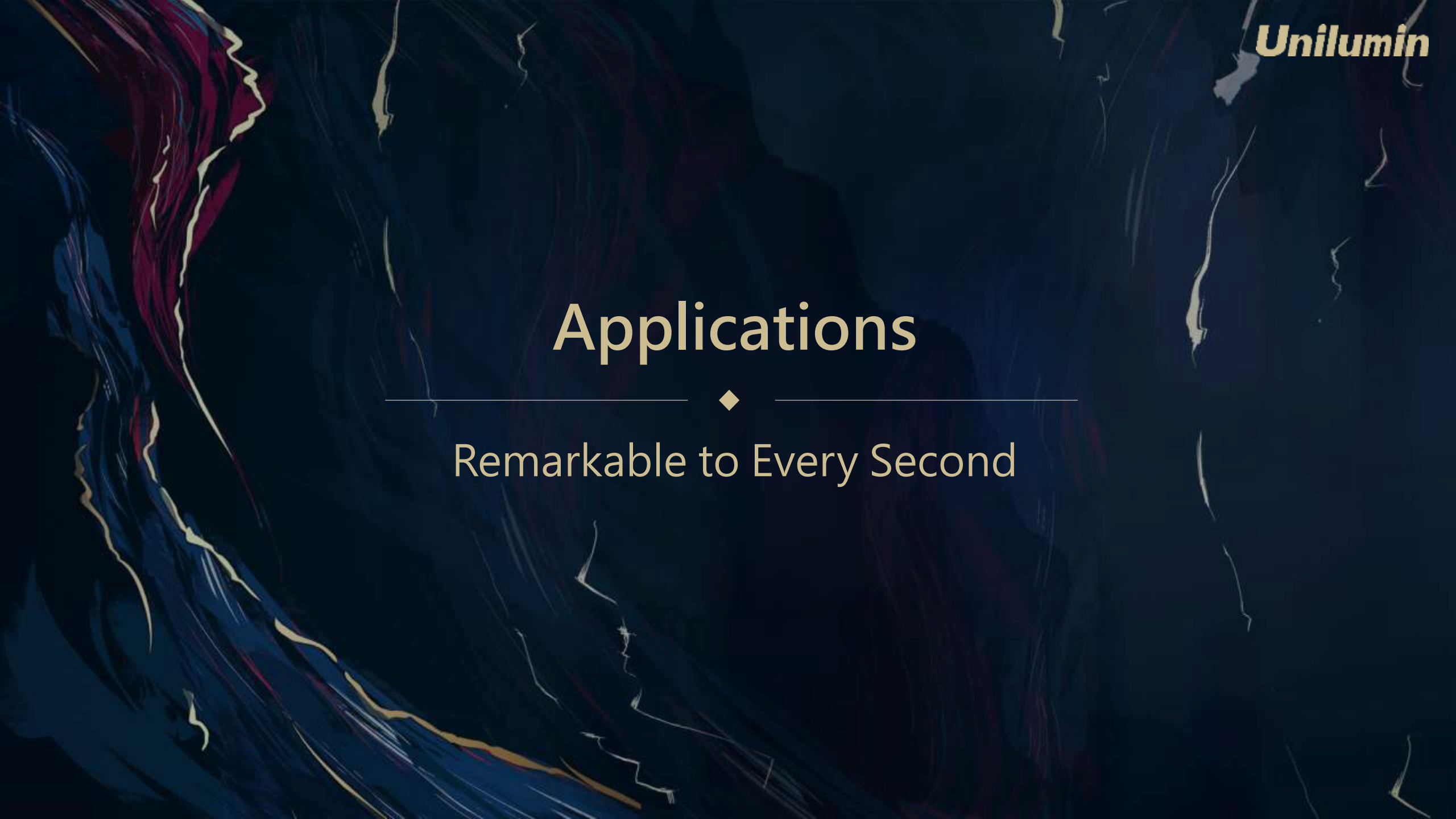
Dynamic Energy Saving

One-click Sleep

Common Cathode Design

Featuring the latest energy-saving technology, UMicro can achieve maximum energy-saving effect (up to 56%*), whether in use or in standby

* : UMicro 0.7 compared with conventional 0.7 pixel pitch products



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	UMicro		
Pixel Pitch(mm)	0.4	0.6	0.7
Cabinet Size(mm)	600*337.5		
Pixel Density	1280x720	960x540	768x432
Circuit design	Common Cathode		
Brightness(cd/m²)	600	600-1000	600-1200
Power (W/Cabinet)	80	65	60
View Angle (°)	0~180		
Refresh Rate(Hz)	3840		
Standard Contrast (600nits)	6000 : 1	15,000 : 1	15,000 : 1
Max Contrast (1200nits)	N/A	30,000 : 1	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