

ACCUON

NovaVista® LED Display — Product Specification

Two Product Lines. One Promise: Flawless Visuals, Every Frame.

Both lines demand the same uncompromising blackness and contrast.

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Two Product Lines

维度 / Dimension	光栅系列 / Grating Series	极黑系列 / Deep Black Series
Positioning	Flagship — Ultimate image quality	Professional — High value
Core Tech	Optical Reconstruction + Light Purification + Deep Black Surface	Black-Level Enhancement Surface Treatment
Fill Factor	≥ 85% (Square Pixel)	Standard Chip Display
DCI-P3 Color Gamut	119.63% volume, 95.5% coverage.	Native Gamut (Uncompressed)
Applications	Broadcast, High-End Film & Video, VP	Commercial Display, Conference, Showroom
Budget	High-End	Mid-to-High-End

Grating Series

The Grating Series is NovaVista®'s flagship product line, built on a system-level technology closed loop around optical reconstruction: Square Pixel → Continuous Emissive Surface → Orthogonal Grating → Deep Black Surface — systematically restructuring light from the physical layer to the application layer to solve screen-door effect, color impurity, and grayish blacks.

2.1 Technical Principle

Optical Reconstruction — Eliminating Screen-Door Effect

Square-pixel architecture raises fill factor to ≥ 85%; point sources are modulated into a continuous emissive surface via diffraction and phase-delay processing — minimises screen-door effect and cuts visible moiré to below 5%.

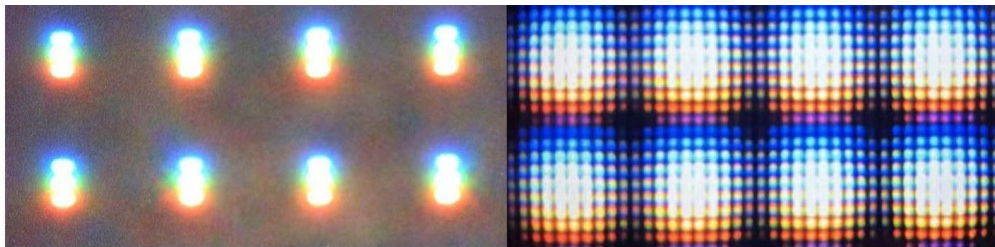


Fig. 1 Microscopic comparison: square pixel vs. conventional round pixel

Light Purification — OLED-Caliber Image Quality

Orthogonal grating + phase/amplitude modulation convert divergent light into high-purity collimated light. The Nova Vista features a DCI-P3 color gamut volume of 119.63% with 95.5% coverage, 10-bit color depth with 1024 gray levels for smooth and precise gradation.

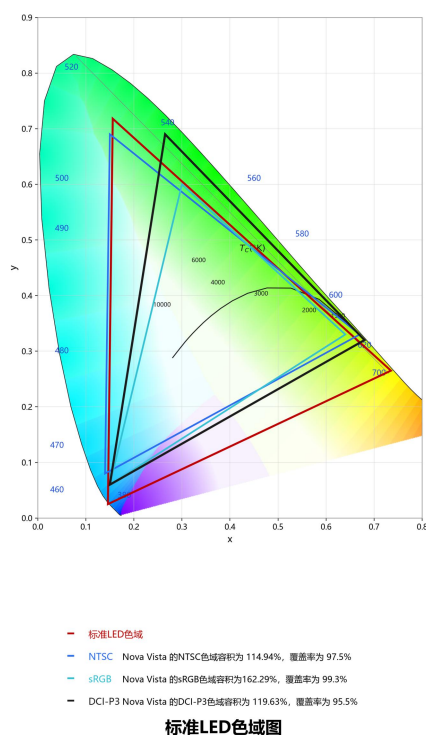


Fig. 2 CIE 1931 Chromaticity Diagram — sRGB / DCI-P3 / NovaVista Grating

2.2 Application Scenarios

场景 / Scenario	关键需求 / Key Requirement	光栅系列对应能力 / Grating Series Capability
XR Stage	Camera moiré <5% / wide HDR	7,680 Hz refresh + 1,024 grayscale + HLG/HDR10
News Studio	Skin-tone fidelity / ambient-resistant	DCI-P3 119.63% Vol., 95.5% Cov + $\Delta E \leq 3.0$ + adjustable color temp.
Simulator	Wide-angle uniformity / high-frame-rate	170°/150° viewing angle + 240 Hz frame rate



Fig. 5 Immersive curved-screen application scenario

Deep Black Series

The Deep Black Series targets the mid-to-high-end commercial market, delivering Crystal LED-class deep blacks without flagship optical modules — solving "grayish blacks under ambient light and harsh reflections."

3.1 Deep Black vs. Standard COB

能力 / Capability	性能 / Performance	实际优势 / Real-World Advantage
Crystal LED-Class Appearance	No gray haze in dark fields; clearer than conventional LED	Meets mid-to-high-end commercial aesthetics
Camera-Friendly	Effectively suppresses specular reflection & camera noise	No extra anti-reflection accessories needed
Color Fidelity	No compression of native LED gamut & brightness	Image quality uncompromised; cost controllable

Cabinet Types

NovaVista® offers two primary cabinet forms, covering flat and curved surfaces, walls and corners — all common installation scenarios.

4.1 Thin Cabinet

42.5 mm ultra-thin die-cast aluminum cabinet — lightweight, high rigidity, excellent thermal dissipation; designed for flat splicing and 90° right-angle corners.

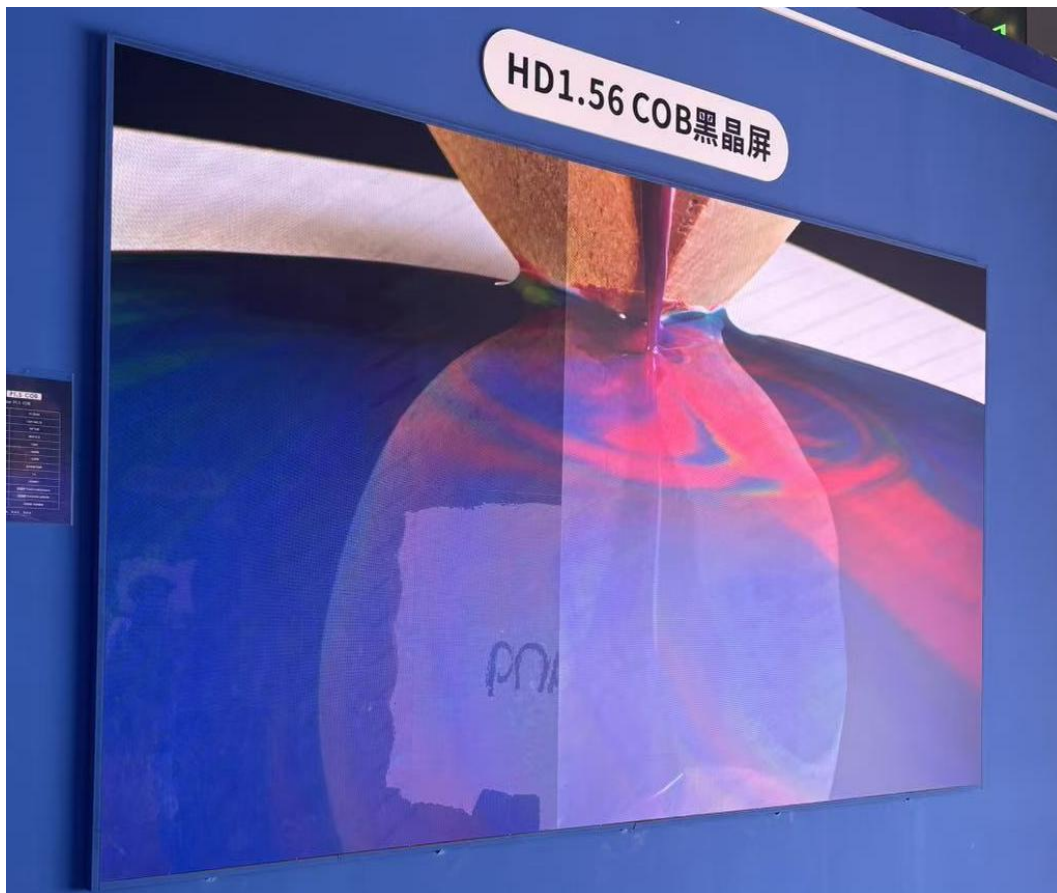


Fig. 3 Thin cabinet dimensions

4.2 Curved Cabinet

5-axis CNC-machined die-cast Al/Mg cabinet with flexible PCB — no angle brackets, no support steel frame — achieving smooth, precise curved displays. Supports flat, right-angle, convex, concave, and edge-cut forms.



Fig. 4 Curved cabinet

箱体形态 / Form	尺寸 / Size (W × H × D)	应用 / Typical Use
全尺寸 / Full Size	300 × 675 × 80 mm	Large-span curved main screen
3/4 尺寸 / 3/4 Size	300 × 506.25 × 80 mm	Curved transition zone
1/2 尺寸 / 1/2 Size	300 × 337.5 × 80 mm	Curved edge finishing

Common Technical Specifications

Parameter	P0.78	P0.9	P1.25	P1.5625	P1.875
Physical Parameters					
Pixel Pitch (mm)	0.78	0.9375	1.25	1.5625	1.875
Pixel Density (dots/m ²)	1,638,400	1,137,778	640,000	409,600	284,444
Module Resolution (W × H)	192 × 216	160 × 180	120 × 135	96 × 108	80 × 90
Module Size (mm)	150 × 168.75				
Cabinet Size — Thin (mm)	600 × 337.5 × 42.5 / 300 × 337.5 × 42.5				
Cabinet Size — Curved (mm)	300 × 675 × 80 / 300 × 506.25 × 80 / 300 × 337.5 × 80				
Cabinet Resolution — Thin	768 × 432	640 × 360	480 × 270	384 × 216	320 × 180
Cabinet Weight (kg)	Thin: 5 · Curved: ≤ 8				
Cabinet Material	Die-cast Aluminum				
Optical Parameters					
Surface Treatment	Deep Black Surface/AG				
Fill Factor	Grating ≥ 85% (Square Pixel) · Deep Black: Standard Chip Display				
Brightness (cd/m ²)	600 / Optional				
Brightness Uniformity	≥ 98%				
Chromaticity Uniformity	Δx, Δy ≤ ±0.003				
Contrast Ratio	10,000:1				
Color Gamut	Grating: DCI-P3 119.63% Vol., 95.5% Cov · Deep Black: Native Gamut				
Reflectance	≤ 2.0% (SCI) · Gloss ≈ 40 GU				
Color Temperature	2,000–10,000 K (Adjustable)				
ΔE / Color Fidelity	≤ 3.0				
Horizontal Viewing Angle	≥ 170°				
Vertical Viewing Angle	≥ 150°				
Blue Light Reduction	Attenuates 415–480 nm (≥ 40% HEV) · IEC 62471				
VICO / Visual Comfort Index	≤ 1.8 (Excellent)				
Processing Performance					
Refresh Rate	≥ 3,840 Hz (Max. 7,680 Hz)				
Gray Scale	10-bit · 1,024 levels				
Frame Rate	60 / 120 Hz		60 / 120 / 240 Hz		
HDR Support	HLG · HDR10				
Control Card	1G/5G Receiving Card				
Electrical Parameters					
A.C. Input	AC 100–240 V, 50/60 Hz				
Max. Power (W/m ²)	500–600				
Avg. Power (W/m ²)	Grating ≤ 260–300 · Deep Black 150–200				
Operational Parameters					
Serviceability	Thin: Front · Curved: Front/Rear				
Operating Temperature	-10 °C ~ +40 °C				

Parameter	P0.78	P0.9	P1.25	P1.5625	P1.875
Operating Humidity	10%–90% RH (Non-condensing)				
IP Rating	Front: IP54 / Rear: IP20				
Lifespan	≥ 100,000 hrs				
Installation	Interior				

Note: Parameters in this specification are typical values; actual figures may vary depending on screen size, configuration, signal source, and environmental conditions. Final product specifications are subject to the commercial contract and official quotation.

Certifications & Compliance

项目 / Item	内容 / Detail
/	· · ·
/	(Quality) · (Environment)
光生物安全 / Photobiological Safety	IEC 62471 · VICO ≤ 1.8 · 蓝光滤减 ≥ 40% HEV
公司 / Company	广州艾恩电子有限公司 / Guangzhou Accuon Electronics Co., Ltd.
官网 / Website	www.accuon.com.cn