

NOVA VISTA **SCREEN**®

Two Product Lines. One Promise. Flawless Visuals, EveryFrame.

Grating Series & Deep Black Series

End-to-End Premium Display Solutions —
From Broadcast Production to Commercial Showcases

www.accuon.com.cn

Why Nova Vista Screen?

When choosing an LED display, have you encountered these problems?

- X Screen-Door Effect** — Black grids and visible pixelation destroy the immersive experience.
- X Moiré Patterns** — What the camera captures is nothing like what the naked eye sees.
- X Washed-Out Blacks** — Black doesn't look black — contrast ratios are misleading at best.
- X Glare & Reflection** — The moment ambient light hits the screen, the image becomes unreadable.

Nova Vista Screen solves these problems at the root. We start from the optical foundation, re-engineering how light is generated, transmitted, and perceived. This is not an incremental tweak — it is a **fundamental reconstruction**.

Product Line Overview

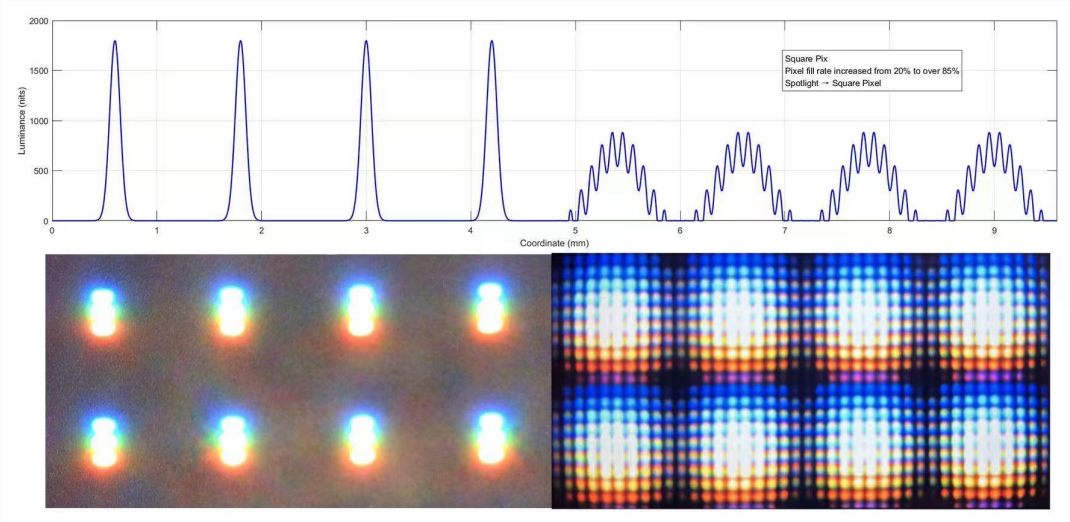
Product Line	Positioning	Best For
Grating Series	Flagship-grade image quality	Broadcast production, high-end film & video, scenarios demanding uncompromising visuals
Deep Black Series	Professional-grade, cost-effective	Commercial displays, conference recording & streaming, showroom live broadcasts, general filming

Grating Series

Built for Visual Perfection

What problem does it solve?

Conventional LED displays suffer from three fundamental flaws: inter-pixel gaps causing the screen-door effect, stray light reducing image purity, and ambient light reflection destroying black-level performance. The Grating Series addresses all three — simultaneously — at the optical level.



Optical Reconstruction Principle: Square Pixel + Orthogonal Grating + Low-Reflection Surface Layer

Core Technology 01

Optical Reconstruction — Eliminating the Screen-Door Effect

The Problem: Conventional LED displays use round pixels with significant gaps between them. The pixel fill factor typically reaches only 60%–70% — this is the root cause of the "screen-door effect."

The Solution: We adopt a **square-pixel architecture**, boosting the pixel fill factor to **≥85%**. LED point-source light passes through **diffraction and phase-delay modulation**, splitting into multiple quantized beams arranged in a rectangular array to form a continuous luminous plane.

The Result: Grid-like dark zones and visible grain are eliminated at the physical level. What you see is no longer an array of individual "lights" — it is a single, uniformly illuminated canvas.

Core Technology 02

Light Purification — OLED-Caliber Image Quality

The Problem: LED light sources are inherently divergent. Stray light degrades color saturation and contrast ratios.

The Solution: Equipped with **orthogonal grating technology**, we apply dual-control **phase modulation + amplitude modulation** to convert divergent light into high-purity **collimated light**, effectively suppressing stray light.

The Result: Color saturation and dynamic contrast reach **OLED-class** performance, delivering cinematic depth and tonal gradation. Shadow detail is preserved; highlights never clip.

Core Technology 03

Deep Black Surface & Spectral Health

Capability	Technical Specification	Real-World Benefit
Low-Reflection Surface	SCI ≤ 2.0%, Gloss ≈ 40 GU	Ambient light interference is minimized; blacks appear truly deep
Blue Light Mitigation	Attenuates harmful 415–480 nm blue light; compliant with IEC 62471	Extended viewing comfort with no perceptible color shift

Grating Series — Key Specifications

119.63%

DCI-P3
Gamut Coverage

1,024

Grayscale Levels Smooth
Gradation

160°

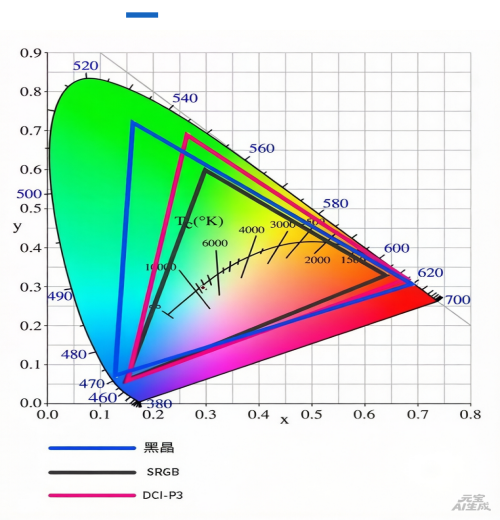
Full Viewing Angle No
Distortion

100,000 h

Service Life Reliable & Stable

Parameter	Value	What It Means for You
Color Gamut	DCI-P3 119.63% Vol; 95.5% Cov	Richer, more accurate color than standard
Grayscale	1,024 levels, 10-bit processing	Gradients appear natural and seamless
Moiré Suppression	Ultra-low	Camera-ready — shoot with confidence
Viewing Angle	160° full-angle	Consistent image quality from any position

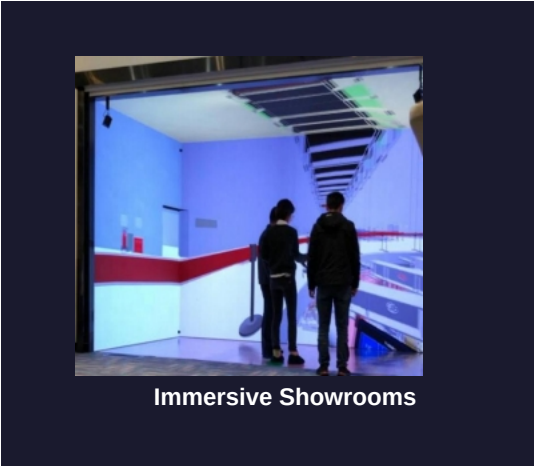
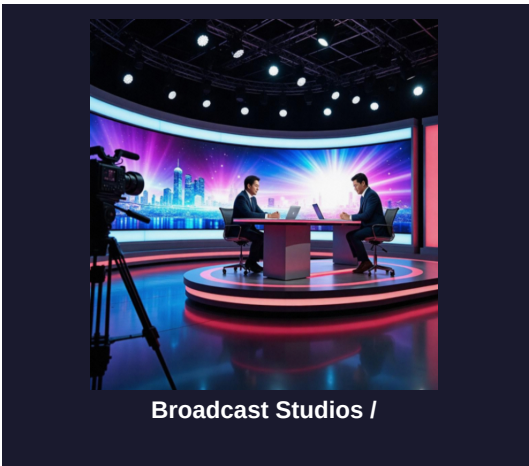
Color Gamut Coverage: Exceeding sRGB and DCI-P3



StandardsWhy this matters:

The Grating Series (shown in blue) exceeds both the sRGB and DCI-P3 gamut envelopes — meaning it can reproduce a wider range of visible colors than the standards used for broadcast and digital cinema.

Typical Application Scenarios



Deep Black Series

Professional Grade, Smarter Budget

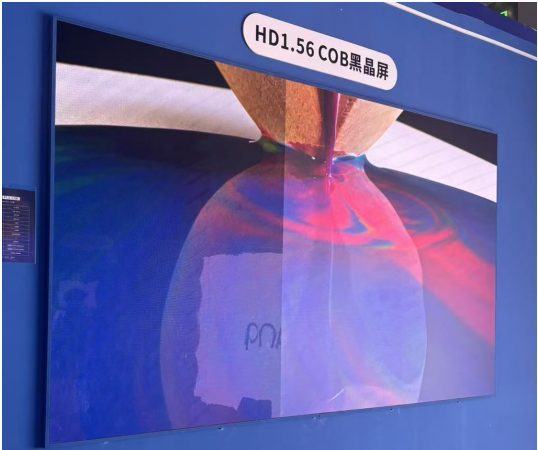
What problem does it solve?

Not every application demands the flagship optical reconstruction of the Grating Series. For many professional use cases, the core pain point is simpler: **under ambient light, LED screens look gray instead of black, and reflections are distracting**. What you need is a screen that is "jet-black when off, richly layered when on" — without paying for optical modules you don't need.

How is it achieved?

Black-Level Enhanced Surface Treatment

The Deep Black Series employs a deep-black optimization process rooted in the same design philosophy as **Sony Crystal LED**. The core principle is not stacking film layers, but rather engineering the **optical interface** to suppress ambient light reflection.



Deep Black Series vs. Standard COB: Dark field without gray cast — a noticeably cleaner, more transparent image

2.0%

Reflectance (SCI Mode)

60%+

Lower Reflectance vs. Standard LED

40 GU

Comfortable Matte Gloss

Retains the native brightness and vivid color of LED while achieving an emissive-like immersive experience. No brightness sacrifice for low reflection; no "hazy matte" shortcut that dulls the image.

Deep Black Series — Key Capabilities

Capability	Performance	Real-World Advantage
Crystal LED-Like Appearance	Dark field: no gray cast, no white haze — visibly more transparent than conventional LED	Meets the aesthetic standards of mid-to-high-end commercial displays
Camera-Friendly	Effectively suppresses specular reflection and camera noise	Conference recording and showroom streaming without additional anti-reflective accessories
Color Fidelity	Low reflection achieved without compressing native LED color gamut or brightness	No compromise on image quality; cost remains controlled
Matte Texture	Gloss 40 GU (60° angle) — between semi-matte and full matte	Eliminates harsh highlights while preserving image sharpness
Compatibility	Compatible with mainstream COB / MIP / SMD packaging	Flexibly matches project budgets

Two Product Lines — Side by Side

Dimension	Grating Series	Deep Black Series
Positioning	Flagship — Ultimate Image Quality	Professional — High Value
Core Technology	Optical Reconstruction + Light Purification + Deep Black Surface	Black-Level Enhanced Surface Treatment
Pixel Fill Factor	≥ 85% (Square Pixel)	Standard Chip Display
Moiré Suppression	Ultra-Low (Physical-Level Optimization)	Excellent (Camera-Friendly Design)
Reflectance	≤ 2.0%	2.0%
Color Gamut	DCI-P3 119.63% Vol; 95.5% Cov	Native Gamut (Uncompressed)
Applications	Broadcast Production, High-End Film & Video	Commercial Display, Conference Recording, Showroom Live Streaming
Budget	High-End	Mid-to-High-End

Common Technical Specifications

Parameter	Specification
Pixel Structure	COB / MIP / SMD
Physical Pixel Pitch	P0.78 / P0.9 (0.9375) / P1.25 / P1.5625 / P1.875 mm
Module Dimensions	150 × 168.75 mm
Contrast Ratio	≥ 10,000 : 1
Color Temperature	2,000-10,000 K (Adjustable)
Grayscale Depth	10-bit / 1,024 Levels
Service Life	≥ 100,000 Hours

Why You Can Trust Nova Vista Screen

We don't just sell a display panel. We deliver certainty — on three levels:

01 Optical Certainty

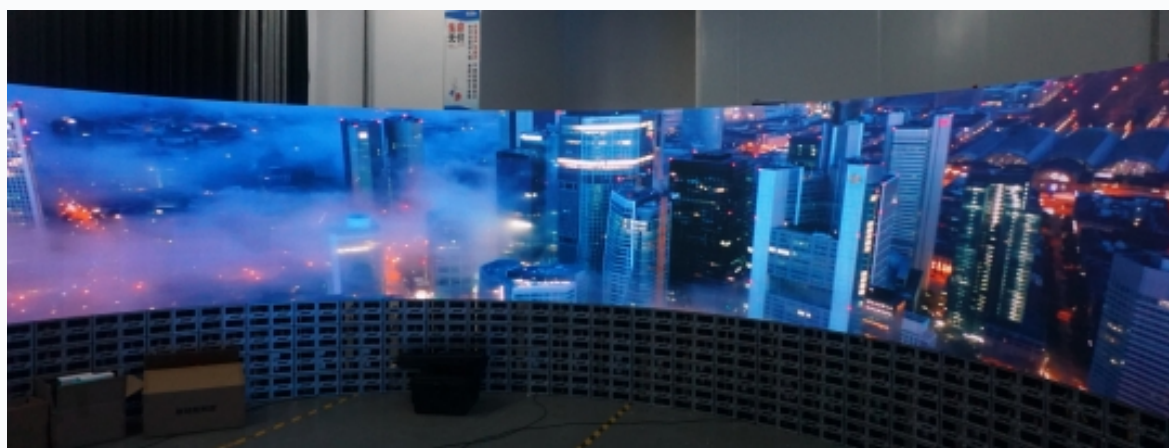
The Grating Series re-engineers the entire optical chain — from light generation to transmission to presentation. The Deep Black Series precisely optimizes the optical interface. Both are purpose-built, not compromised.

02 Color Certainty

The entire product line achieves ultra-wide color gamut coverage with precise grayscale gradation. What you see is what you get — no surprises, no excuses.

03 Operational Certainty

Low-reflection surfaces reduce visual fatigue. Harmful blue light is actively managed. 100,000-hour service life. Built to perform, day after day.



Ready to Elevate Your Visual Experience?

For enterprise partnerships, visit our website or contact our technical support team.

www.accuon.com.cn

Nova Vista® Screen | Product Brochure | v1.0