AMERICAN BRIGHT

MINI-LED · AUTOMOTIVE · MARINE

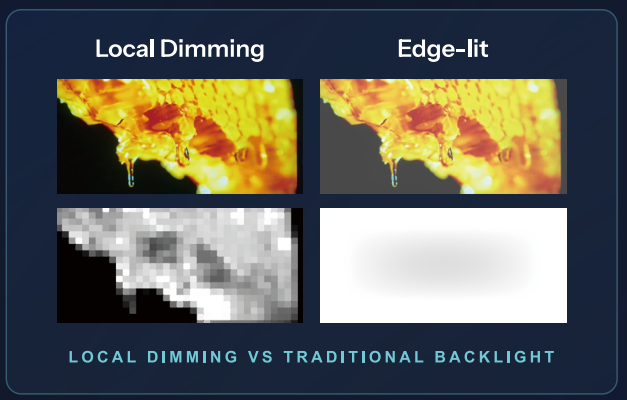
HUD SOLUTIONS

Head-Up Display Systems Powered by Mini-LED Backlight

CORE TECHNOLOGY

Mini-LED Backlight, Built for the Road & Sea

Full-array local dimming delivers deep blacks in the same frame as brilliant highlights, so navigation icons, speed readouts and warnings stay razor-sharp even against a bright sky reflection.



LOCAL DIMMING VS TRADITIONAL BACKLIGHT

WHY MINI-LED FOR VEHICLES

6K-12K CD/M²
SUNLIGHT READABLE
Up to 10,000+ nits capable — legible in direct sunlight

1M :1
CONTRAST RATIO
Full-array local dimming with up to 4,096 levels per zone

–30~50%
POWER SAVING
Smart dimming saves up to 80% vs OLED at similar brightness

COOLER OPERATION
Extended display life with lower operating temperatures and vibrant color gamut.

WIDE TEMP RANGE
Operates -30 °C to +85 °C — cabins, marine helms

*Active cooling required for peak brightness

APPLICATIONS IN TRANSPORTATION

Trucks & Fleet
Long-haul cabs where drivers face hours of glare and vibration — legibility and durability matter most.

TRUCK HUD

Buses & Coaches
Longer sight-lines and larger windshields need bigger virtual images with camera and CAN feeds overlaid.

HUD MONITOR

Boats & Yachts
Marine glare, salt spray and low-visibility runs demand ultra-bright displays with radar and AIS overlays.

BOAT HUD

AMERICAN BRIGHT LED BRT

The HUD Product Family

Three purpose-engineered head-up displays. One shared Mini-LED backlight core.

PRODUCT SPECS



01 TRUCK HUD (T-HUD)

A specialized head-up display for trucks — drivers keep their eyes on the road while reading speed, navigation and vehicle-status messages projected onto the windshield.

- **Patented optical system** — high virtual-image brightness, sun stray-light blocked
- **Full-color high-contrast panel** renders navigation and warnings in vivid color
- **Dual modes: Normal** (speed / limit / time) and Navigation (turn-by-turn + ETA)

IMAGE SIZE	IMAGE DISTANCE	BRIGHTNESS	RESOLUTION
5.2"	1 m	10K cd/m²	480 × 128
DISPLAY	**SIGNAL**	**COLOR**	**MEDIUM**
TFT LCD	CAN / GPS / BT	Full color	Windshield



DEVICE · IN-CAB VIRTUAL IMAGE

02 BOAT HUD

Overhead-mounted HUD projecting a large virtual image ahead of the windshield — enhances navigation safety at high speed and in low visibility, integrating with marine electronics.

- **Info display:** speed, heading, depth, GPS / navigation
- **Safety warnings:** collision, yaw, shore / reef alerts
- **Low-visibility assist:** radar overlay, AIS beaconing, thermal imaging

IMAGE SIZE	IMAGE DISTANCE	BRIGHTNESS	RESOLUTION
12.3"	2 m	>6K cd/m²	1920 x 720
BACKLIGHT	**OP. TEMP**	**DIMMING**	**DISPLAY**
Mini-LED	-30 °C ~ 85 °C	Auto & Manual	TFT LCD

Boat HUD Optical Path



OVERHEAD-MOUNTED VIRTUAL IMAGE & SAMPLE DISPLAYS

03 HUD MONITOR

Goes beyond driving data — mirror smartphones via CarPlay / Android Auto, receive camera feeds, or connect to the vehicle CAN bus, all projected onto the windshield.

- **Smartphone casting** — Apple CarPlay & Android Auto · HDMI input
- **AV input** for rear & side-view cameras · CAN Bus ECU integration
- **Flexible 7" ~ 15"** virtual image to suit bus or truck cabin

IMAGE SIZE	IMAGE DISTANCE	BRIGHTNESS	RESOLUTION
7" ~15"	1 m	6K ~ 12K cd/m²	800 x 480
SIGNAL	**Backlight**	**Color**	**MEDIUM**
HDMI / CVBS / CAN	Mini-LED	Full Color	Windshield





MULTIMEDIA INPUTS · BUS & TRUCK CABIN DEPLOYMENTS

EYES FORWARD. DATA READY.

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