WINDSHIELD INTEGRATED HUD

Heads Up Displays enabled by HoloCore result in bright, virtual images viewed on automotive windshields, keeping them highly transparent. HoloCore uses extremely efficient holographic optical elements that convert light beams without the need for conventional optics.

LOW VOLUME (<1.5 LITERS) UNDER THE DASHBOARD

HIGH LUMINANCE IN THE VIRTUAL IMAGE

CUSTOMIZED DESIGNS POSSIBLE

HIGHLIGHTS

- Single-shot recording on photopolymer of large size, full-color holograms
- Minimizes the exo-thermic effect during recording resulting in high uniform holograms
- Eliminates Fresnel reflection resulting in spurious holograms
- Polymer holograms are transferred from one substrate to another
- Polymer holograms are sealed between two layers of glass to prevent environmental influence
- Capable of copying large size holograms
- Playback wavelength matches holograms
- Software compensation of color shift and aberrations
- Lowest volume occupied under the dashboard
- High luminance in the virtual image

HoloCore™

by Holoptic

SPECIFICATIONS

- Single-layer RGB holographic optical element (HOE) Heads-up display (HUD) combiner for bright daylight applications (automotive, avionics, etc.).
- Playback Wavelengths (ideal): 637nm±1 nm, 523nm±1 nm, 455nm ±1 nm
- Luminance of virtual image 15,000 nits with 60,000 nits on under-dash PGU diffuser screen with uniformity >80%
- Diffraction efficiency: >70% of input RGB laser light
- Transparency (white light): 84% with Haze <2%
- Physical size (combiner only): 190-mm (V) x 262-mm (H) (7.5” x 10.5”)
- Eye box: 50-mm (V) x 100-mm (H)
- Eye relief: 50cm – 80cm
- FOV:8°(V) x 16°(H) with virtual image at infinity

FREE-STANDING HUD

Heads Up Displays enabled by HoloCore result in bright, virtual images viewed on automotive windshields, keeping them highly transparent. HoloCore uses extremely efficient holographic optical elements that convert light beams without the need for conventional optics.

COMPACT (1.5 LITERS) UNDER THE DASHBOARD

HIGH LUMINANCE IN THE VIRTUAL IMAGE

CUSTOMIZED DESIGNS POSSIBLE

HIGHLIGHTS

- Single-shot recording on photopolymer of large size, full-color holograms
- Eliminates Fresnel reflection resulting in spurious holograms
- Polymer holograms are sealed between two layers of glass to prevent environmental influence
- Capable of copying large size holograms
- Playback wavelength matches holograms
- Software compensation of color shift and aberrations
- Lowest volume occupied under the dashboard
- Highest possible luminance in the virtual image

Flexibility in playback PGU beam direction and beam combiner tilt

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SPECIFICATIONS

- Single-layer RGB holographic optical element (HOE) Heads-Up display (HUD) combiner for bright daylight applications (automotive, avionics, etc.).
- Playback Wavelengths (ideal): 637nm±1 nm, 523nm±1 nm, 455nm ±1 nm
- Luminance of virtual image 16,000 nits (60,000 nits on under-dash PGU diffuser screen) with uniformity >80%
- Diffraction efficiency: >70% of input RGB laser light
- Transparency(white light): 92% with Haze <2%
- Physical size (combiner only): 190-mm (V) x 262-mm (H) (7.5” x 10.5”)
- Eye box: 50-mm (V) x 100-mm (H)
- Eye relief: 50cm – 80cm
- FOV:8°(V) x 16°(H) with virtual image at infinity

UNDER DASHBOARD

Heads Up Displays enabled by HoloCore result in bright, virtual images viewed on automotive windshields, keeping them highly transparent. HoloCore uses extremely efficient holographic optical elements that convert light beams without the need for conventional optics.

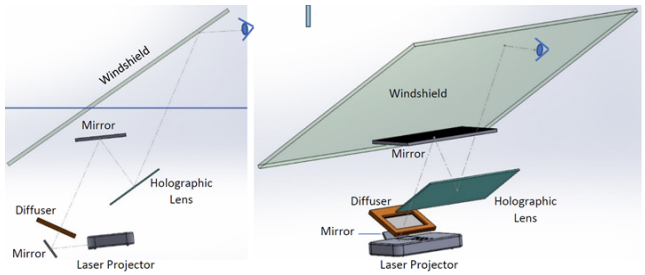
COMPACT: <7 LITER VOLUME UNDER DASH

HIGH LUMINANCE IN THE VIRTUAL IMAGE

CUSTOMIZED DESIGNS POSSIBLE

HIGHLIGHTS

- Single-shot recording on photopolymer of large size, full-color holograms
- Minimizes the exo-thermic effect during recording resulting in high uniform hologram
- Eliminates Fresnel reflection resulting in spurious holograms
- Polymer holograms are transferred from one substrate to another
- Polymer holograms are sealed between two layers of glass to prevent environmental influence
- Capable of copying large size holograms
- Playback wavelength matches holograms
- Software compensation of color shift and aberrations
- Windshield or additional glass screen used as a beam combiner



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SPECIFICATIONS

- Single-layer RGB holographic optical element (HOE) Heads-Up display (HUD) combiner for bright daylight applications (automotive, avionics, etc.)
- Playback wavelengths (ideal): 637nm±1 nm, 523nm±1 nm, 455nm ±1 nm
- Luminance of virtual image 16,000 nits (with 100,000 nits on under-dash (PGU) diffuser screen) with uniformity >80%
- Diffraction efficiency: >70% of input RGB laser light
- Transparency (white light): 84% with Haze <1%
- Physical size (combiner only): 190-mm
- (V) x 262-mm (H) (7.5” x 10.5”)
- Eye box: 50-mm (V) x 100-mm (H)
- Eye relief: 50cm – 80cm
- FOV: FOV 6° (V) x12°8°(H) with virtual image at infinity
- No glare