

# FREE FORM SEE THROUGH 720P ENGINE



## Brief Description

Innovative high performance free form optical engine for wearable near-to-the-eye systems, providing excellent image quality with vivid colors, matching low cost and low power requirements of battery operated devices.

The immersive binocular near-to-the-eye engine features a 720p HD LCOS panel that is capable of displaying both 2D and 3D content. The patented all digital architecture LCOS micro-display integrates smart electronics to achieve full 720p HD resolution in a highly compact 0.37" diagonal panel.

Displays sequential colors up to 9 Color Fields per Frame (CF/F) with programmable color field duration.

The combination of the all-digital panel architecture and the optimized optical engine provide an excellent solution for any near-to-the-eye application requiring a large virtual image with outstanding picture quality.

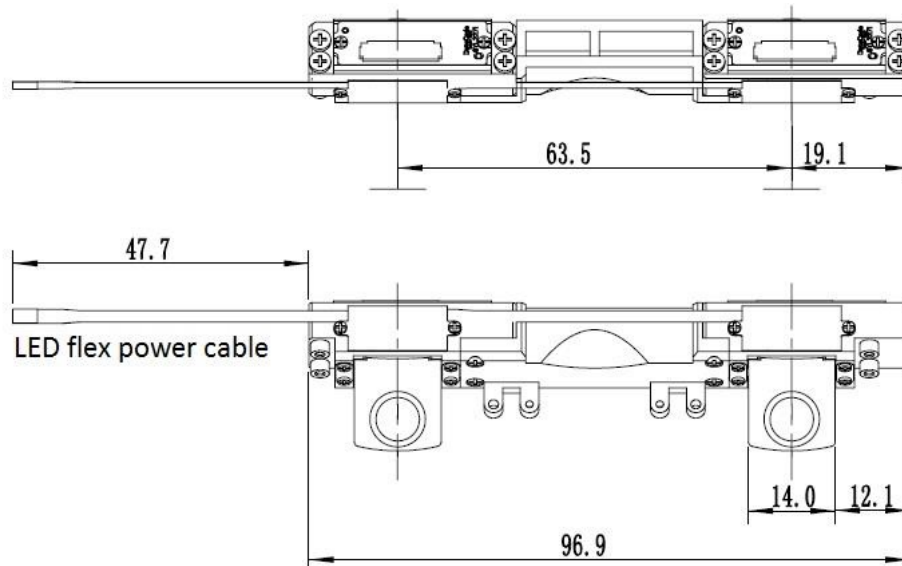
## Benefits

- Turn Key Solution for wearable devices with 720p (1280x720) resolution
- High resolution: Offers a rich user experience by supporting a full range of content including web browsing, text, graphics, multimedia and full-motion video
- Low power: Great for mobile battery powered products
- Small form factor meets requirements for all near-to-the-eye applications
- Smooth gray scale at all brightness levels, matching the visual response of the eye
- Panel illumination times greater than 95%
- The light weight optical engine - pre-installed with the 720p LCoS HD panel - accelerates design to market for ultraportable immersive applications.

## Contact Information

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## Features

- Resolution 1280x720
- Display Diagonal 0.37"
- Pixel Pitch 6.4  $\mu\text{m}$
- Virtual screen size ~ 90" @ 3m
- Eye Relief 20mm
- Eye Box 8mm
- Contrast Ratio 300:1
- FOV 39 degrees binocular, 34.8 degrees monocular
- Optical Structure Free Form Eyepiece
- IPD 63.5mm – fixed binocular ADJ (opt.)
- Diopter -0.5D
- See Through transmittance 48%+/- 10%
- LED RGB
- Power Consumption TBD mW/eye piece
- Brightness TBD
- Weight 14g +/- 1g (binocular)
- Package (L x W x H) 96,9 x 24.2 x 11.2 mm (bino-) 33.4 x 24.6 x 11.2 mm (monocular)
- Operating Temperature 0°C to 60°C
- Storage Temperature -20°C to 60°C

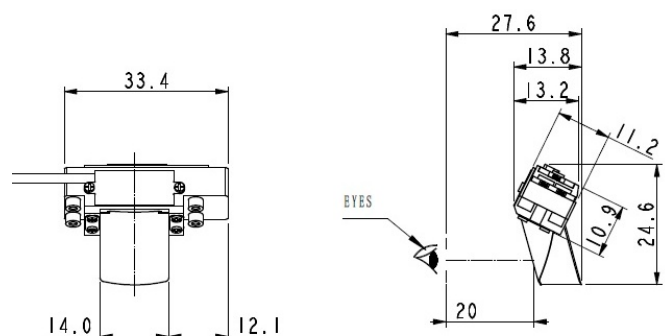
## Support

- Datasheet, errata
- Application notes
- Evaluation kit

## Monocular HD Version



## Dimensions Monocular HD



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