

# White Pupil™ Display Module



## MODULE FEATURES

### Image

Resolution: 428 x 240 (WQVGA)  
 Contrast Ratio > 100:1 (Typ)  
 FOV: 10.68 degrees diagonal

### Optics

Eye Relief: 18 mm  
 Exit Pupil: 3.1 x 1.9 mm  
 Distortion: < 1%

### Brightness

2000 nits @ 10 mA to Backlight

### Mechanical

Dimension: 45 x 12.1 x 5.78 mm

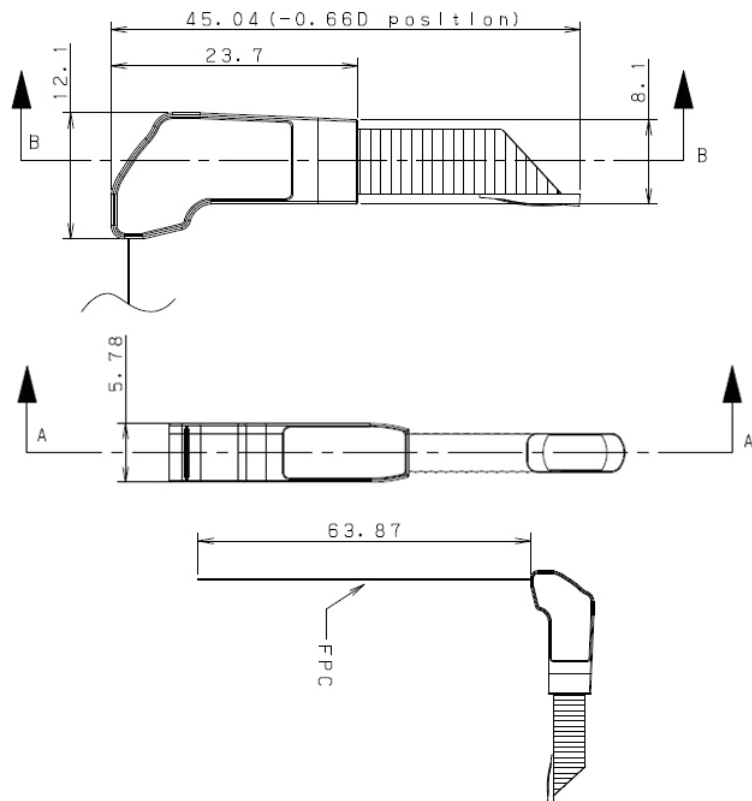
### Drive Electronics

A230 Low-Power ASIC  
 with Frame Buffer Memory

### Power Consumption

(Display + BL + ASIC)  
 < 100 mW at 1000 nits

MECHANICAL DRAWING



The White Pupil™ display optical module enables OEM customers to simplify the integration of a Kopin WQVGA LVS color filter display into their end product. White Pupil is a compact module aimed for emerging wearable computing and communication devices. Integrating a transmissive LCD (428 x 240 resolution in a 0.2" diagonal), efficient backlight, and precision optics, the White Pupil module provides a bright, full-color image with less than 1% distortion in a 10.68 degree field of view and comfortably large eye box (3.1mm x 1.9mm) and eye relief of (18mm).

When the White Pupil is paired with Kopin's A230 display driver ASIC, the system consumes less than 100 mW at a display brightness of 1000 nits, sufficient for outdoor usage. A frame buffer memory residing in the ASIC can further save system power consumption by allowing the host processor and other system components to go into a lower power state while the A230 handles displaying the image.

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\*Specifications subject to change without notice  
 \*Preliminary Rev. 3