



# MICROOLED Microdisplay-P01

Low voltage technology, excellent image quality & high definition

## 0.38 Inches with 873x500 Resolution (1.7M dots).

This 1.7 million dots OLED microdisplay, designed on MICROOLED's proprietary low voltage technology, is ideal for diverse applications where clear, crisp and sharp image quality are required while optimizing cost-effectiveness, power consumption and required space of your application. The MICROOLED MDP01 Microdisplay outperforms the competition in picture quality, low power consumption and compactness.



**MICROOLED**

## FEATURES

- **Excellent Picture Quality**
  - Unique Pixel design with 4 sub-pixels (no black matrix) for the brightest images
  - High brightness up to 400 cd/m<sup>2</sup>
  - Consistent contrast/color over a wide viewing angle even with wide FOV optics
- **Superior Performance**
  - Very High Uniformity (>96%)
  - Response times well below 1 millisecond for fast moving objects
  - Unique auto-adjusting display for constant luminance
  - Optimized power consumption for extended battery life

## APPLICATIONS

- Defense
- Security
- Sporting

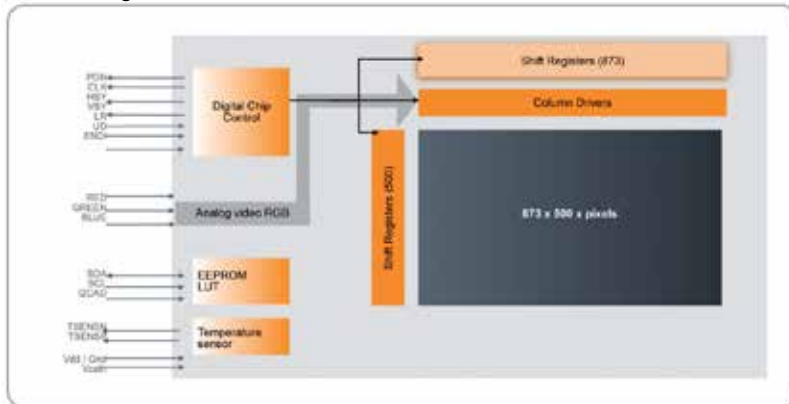


**UTC Aerospace Systems**

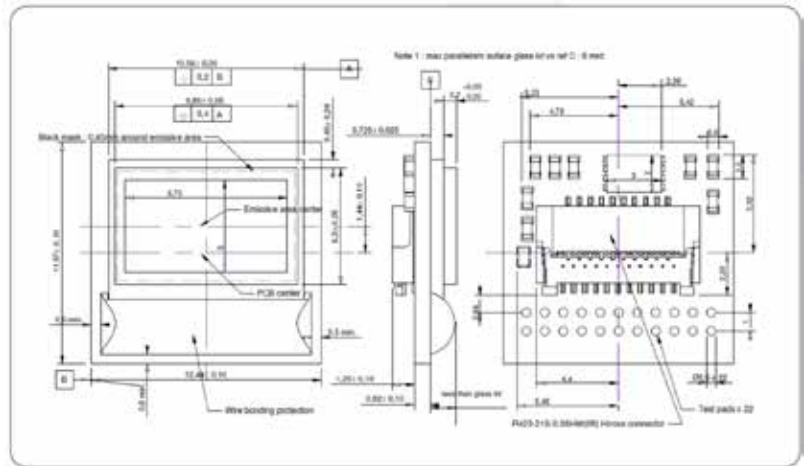
## MDP01 SPECIFICATIONS

<b>Resolution</b>	873 x 500 pixels
<b>Pixel Size</b>	10µm x 10µm (sub-pixel 5µm x 5µm)
<b>Alternative Resolution</b>	852 x 480 (WVGA) / 872 x 500 or 640 x 480 (VGA)
<b>Active Area</b>	8.73mm x 5.00mm / 0.38" diagonal
<b>Luminance</b>	Full color RGBB: up to 250cd/m <sup>2</sup> ; 75fL
<b>Contrast</b>	Typical 10,000:1
<b>Video Interface</b>	Four parallel analog inputs for display direct interface with dedicated driving module MDM01: 24 bit standard digital RGB, 8 bit digital luminance Y, 8 bit BT656
<b>Frame Rate</b>	25 to 120 frames per second
<b>Temperature Sensor</b>	Embedded analog temperature sensor
<b>Non Volatile Memory</b>	Embedded non-linear gamma correction and product traceability data
<b>Operating Voltage</b>	Power supply = 2.5V - 2.8V - 3.3V typical Cathode voltage = -1.9V typical
<b>Power Consumption</b>	25mW in typical video mode
<b>Number of Input Output</b>	21
<b>Operating Temperature</b>	-20°C to 50°C for C version -40°C to 70°C for P version
<b>Storage Temperature</b>	40°C to 70°C
<b>Evaluation Kit</b>	- Evaluation kit available: reference = MDP01EK3S - Stand alone driver kit
<b>Driving Module</b>	Driving electronic module available: reference = MDM01B
<b>With Dedicated Driving Module MDM01</b>	- Automatic Temperature monitoring to implement compensation to keep constant luminance - "Dimming" function enabling excellent contrast and color balance even at extremely low brightness (<1 cd /m <sup>2</sup> )

**Block Diagram**



**Mechanical Diagram**



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