

MICROOLED Microdisplay-P02

Low voltage technology, excellent image quality & high definition

Size: 0.61 inches with 1300x1044 Resolution (5.4M dots).

This 5.4 million dots OLED microdisplay, designed on MICROOLED's proprietary low voltage technology, is ideal for applications where superior performance is required – excellent image quality, high definition, higher brightness, wide field of view, and optimized power consumption.

The MICROOLED MDP02 Microdisplay outperforms the competition in picture quality, low power consumption and compactness.

FEATURES

- **Excellent Picture Quality**
 - Unique Pixel design with 4 sub-pixels (no black matrix) for the brightest images
 - High brightness up to 400 cd/m²
 - 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



microoled

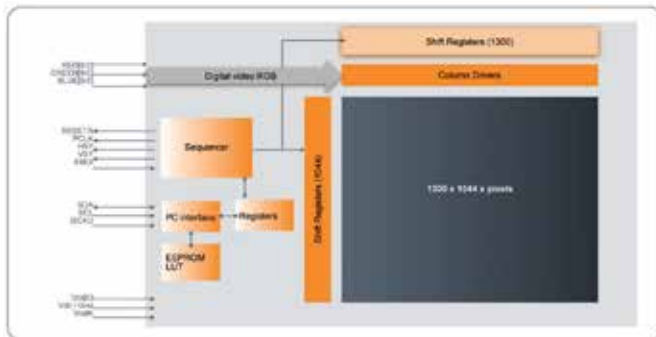


UTC Aerospace Systems

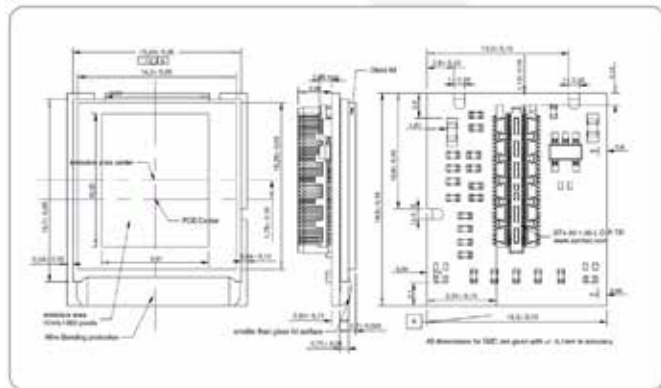
MDP02 SPECIFICATIONS

Resolution	1300 x 1044 pixels
Pixel Size	9.4µm x 9.4µm (sub-pixel 4.7µm x 4.7µm)
Alternative Resolution	1280 x 1024 (SXGA) / 1280 x 720 (HD720p)
Active Area	12.22mm x 9.81mm / 0,61" diagonal
Luminance	Full color RGBB version : up to 250 cd/m ² ; 75 fL Full color RGBWhite version : up to 400 cd/m ² ; 117 fL
Contrast	Typical 10,000:1
Video Interface	Standard 3 x 10 bit (RGB) or 4 x 10 bit (RGBW) parallel. With dedicated driving module MDM02: - Standard RGB digital parallel video input 3x8 bits - 16 bit or 24 bit digital YCbCr
Frame Rate	25 to 60 frames per second
Control interface	I2C interface
Non Volatile Memory	Embedded non-linear gamma correction and product traceability data
Operating Voltage	Power supply = 1.5V and 3.3V typical Cathode voltage = -1.9V typical
Power Consumption	250mW in typical video mode
Number of Input Output	60 IOs
Operating Temperature	-20°C to 50°C for C version -40°C to 70°C for P version
Storage Temperature	-40°C to 70°C
Evaluation Kit	- Evaluation kit available: reference = MDP02EK3S - Stand alone driver kit
Driving Module	Driving electronic module available: reference = MDM02B Automatic Temperature monitoring to implement compensation to keep constant luminance
With Dedicated Driving Module MDM02	- Integrated RGBW processing - "Dimming" function enabling excellent contrast and color balance even at extremely low brightness (<1 cd/m ²)

Block Diagram



Mechanical Diagram



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