

MICROOLED Monochrome Microdisplay-P02

Low voltage technology, excellent image quality & high definition

Size: 0.61 inches with 2600x2088 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.



MICROOLED

FEATURES

- **Excellent Picture Quality**
 - Unique Pixel design with 4 sub-pixels (no black matrix) for the brightest images
 - High brightness up to 1500 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

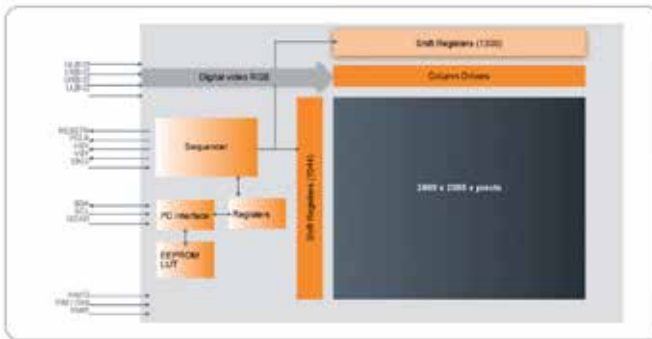
- Defense
- Security
- Sporting



UTC Aerospace Systems

MDP02 SPECIFICATIONS	
Resolution	2600 x 2088 pixels
Pixel Size	9.4µm x 9.4µm (sub-pixel 4.7µm x 4.7µm)
Alternative Resolution	2560 x 2048 (QSXGA) / 1280 x 1024 (SXGA)
Active Area	12.22mm x 9.81mm / 0.61" diagonal
Luminance	Green monochrome version: up to 1500 cd/m ² ; 438fL White monochrome version: up to up to 800 cd/m ² ; 234fL
Contrast	Typical 10,000:1
Video Interface	Standard RGB 4 x 10 bit parallel. With dedicated driving module MDM02: - 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 = MDP02EK3M - Stand alone driver kit
Driving Module	Driving electronic module available: reference = MDM02BM
With Dedicated Driving Module MDM02	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 ²)

Block Diagram



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