

QVGA OLED MICRODISPLAY SVPO320



Brief Description

The SVPO320 provides a complete digital microdisplay solution with a very high level of electronic and optical integration. Its P-OLED technology offers class-leading image quality coupled with ultra-low power consumption, thus makes it best suitable for portable, battery-driven devices.

Due to its self-luminous OLED technology it does neither require any extra light source nor associated light guiding optics. Together with its high level of electronic integration, its requirement for only a single supply voltage and its very easy adaptable flex assembly it allows absolutely lowest system cost.

The SVPO320 is ideally suited for Electronic Viewfinders (EVFs) in digital/video cameras, thermal cameras and night scopes as well as for Personal Media Viewers or Head Mounted Displays (HMDs) for Image and Video or Virtual and Augmented Reality applications.

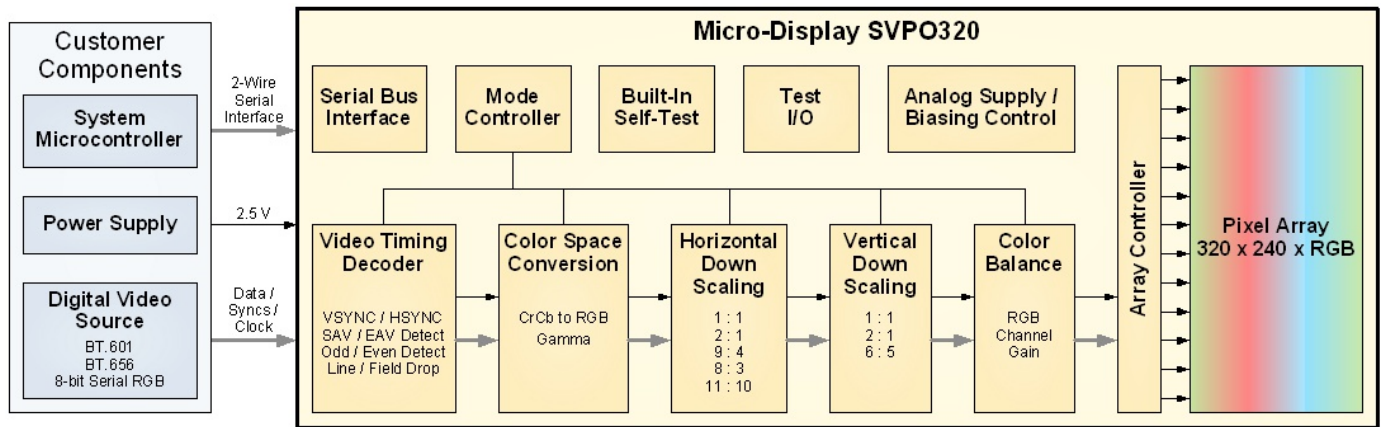
Benefits

- Enables much longer runtimes of portable, battery-driven devices through ultra-low power consumption (usually 15-25 mW)
- Lower system costs compared to other LCD-, LCoS- or DLP-based microdisplay solutions due to integrated light source and no need for related costly guiding optics
- Single 2.5V supply voltage allows cost-efficient system architectures
- No need for any extra display driver ICs due to the integrated, highly configurable display driver electronics
- Simple direct connection to ICs from all major vendors enabled by integrated, very flexible digital video interface and decoder
- Glue-less integration through integrated flex assembly enables smaller and more light-weight products

Contact Information

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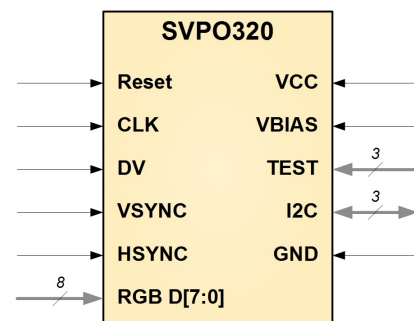
Features

- QVGA 320 x 240 x RGB resolution
- 230 k pixel, with pixel pitch of 15.0 μm
- Active area of 0.24" (6.0 mm) diagonal
- Luminance (typical) 120 cd / m^2
- Contrast > 10,000 : 1, fill factor 82%
- Supports frame rates from 50 ... 120 fps
- Response time < 10 μs , blurring-free
- Color depth video 18-bit, still 24-bit
- 4:2:2 YCbCr-RGB color space conversion
- Built-in gamma decorection -> compatibility with other different image standards
- Scaling horizontal & vertical planes
- Formats to be displayed in QVGA in their correct aspect ratio without cropping:
 - NTSC (720 x 480), PAL (768 x 576),
 - VGA (640 x 480), CIF (352 x 288)
- Supports WVGA (16:9) to QVGA (4:3)
- BT656, BT601, serial RGB DV interfaces
- Serialized RGB input format over D[7:0]
- <25 mW (serial RGB) power consumption
- Operating temperature -20 to +60 $^{\circ}\text{C}$
- Single supply voltage 2.5 V $\pm 10\%$
- Integrated charge pump for 6V (OLED)
- 2-wire serial I²C interface for control
- Internal test pattern generator

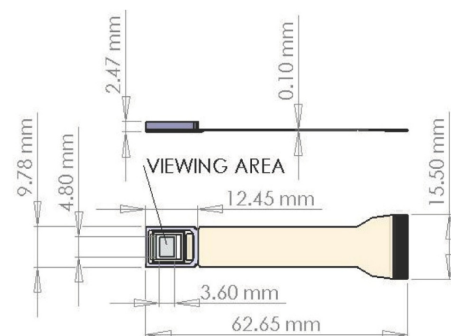
Support

- Datasheet, errata
- Application notes
- Evaluation kit

Signal Overview



Dimensions



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