

FEATURES

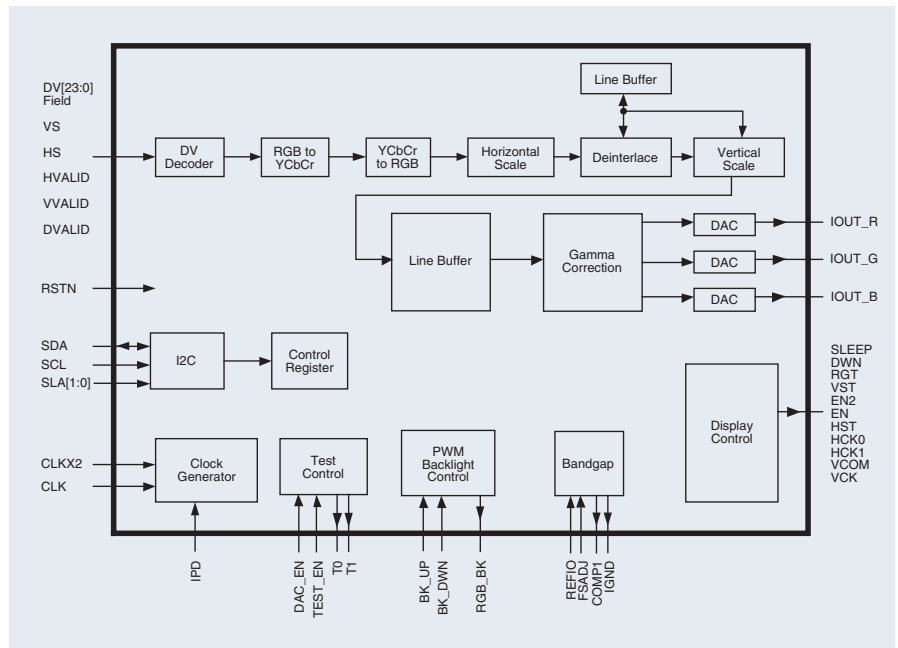
- Supports CyberDisplay® VGA display
- Supports TV-Decoder image inputs using CCIR601 format or digital VESA VGA with separate sync
- Digital input formats:
 - NTSC and PAL video
 - BT656
 - 4:2:2 YCbCr
 - 16-bit RGB (5,6,5)
 - 480p RGB/YCbCr
- I²C interface
- Horizontal and vertical scaling
- Programmable gamma correction
- Three integrated 8-bit DACs
- Programmable control of PWM backlight brightness
- 3.3V operating voltage
- Stereo video support
- 80 TQFP and 80 BGA packages

BLOCK DIAGRAM

Functional Description

The SSD1502 driver IC is a highly integrated controller solution to the Kopin CyberDisplay® VGA microdisplay. Together with the analog driver, it includes timing controls, image processing, buffer control, a data translation unit, scaling buffer memory and three 8-bit DACs. The SSD1502 provides timing and control signals for the display and employs gated-clock design rules to achieve a low power solution.

The controller chip supports digital input formats. Digital inputs are formatted by the horizontal and vertical scaling blocks to achieve 640 x 480 output pixels. There is a YCbCr to RGB conversion block and a gamma correction block for added on-board data processing. Three 8-bit DACs convert digital video data to 1Vpp analog video signal. The chip generates digital control signals to the microdisplay and analog video data to the analog driver chip.



*Specifications subject to change without notice

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