

HD MICROOLED DISPLAY MODULE 5Mpx PROFESSIONAL IMAGE QUALITY

OVERVIEW

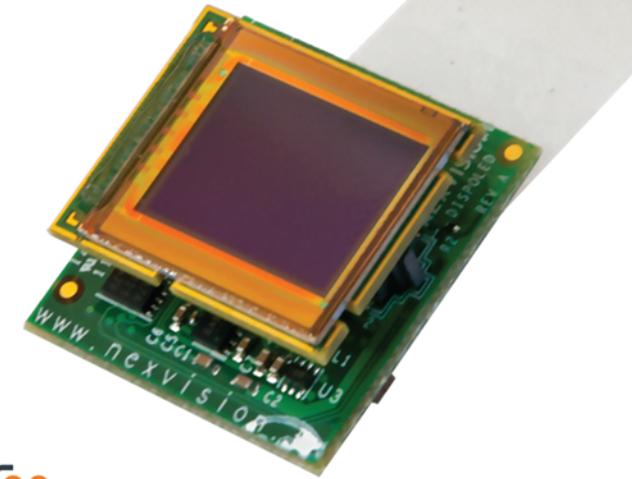
Superior image quality 5Mpx OLED displays module
 High contrast (max 100,000:1) and high uniformity (96%)
 5.4 million pixels, 0.61 inch diagonal
 SXGA or monochrome formats (2,560 by 2,048pixels)
 Sub-pixel pitch of 4.7x4.7µm, 2x2 color organisation
 Power-efficient (<0.25W@30FPS)
 Digital video input
 Programmable LUT and FPGA on-fly image processing
 Max frame rate : 60Hz - Max pixel clock : 120MHz

APPLICATIONS

Near-to-eye display
 Night vision systems
 Head Mount Display used in surgery
 HD stereo goggle
 DSLR HD viewfinder
 Professional camcorder viewfinder

FEATURES

Plugs on IZUMI (color) or WHYOMING (monochrome) MICROOLED™ display's backside connector with similar size
 Interface : parallel video (10 bits) with pixel clock and discrete or embedded (ITU-BT656) syncs or LVDS for higher definition
 Ultra low power FPGA
 FPGA and OLED supplies regulation from main 3.3V supply
 Video processing may include format conversion (YUV 4:2:2 to RGB) and color correction LUTs (gamma & temperature) among others
 30-point, 0.5mm pitch FPC input connector with :
 > I2C control signal pair (for OLED display & DISPOLED module control + configuration)
 > 1xclock input pair (as 1xLVDS pair or 1xclk + 1xGPIO)
 > 8xsignal pairs (as 8xLVDS pairs or 16xdiscrete signals)
 > 3.3V power supply (2 pins)
 > IO voltage supply (2 pins). May be 1.8V / 2.5V / 3.3V
 SPI Flash for reprogrammable FPGA configuration storage + debug connector for link with development tool.
 These two features may be omitted on production module.
 64kbit I2C EEPROM for OLED Display individual characterization information storage (optional)
 OLED cathode negative supply generation including negative voltage adjustment (brightness adjustment) under host I2C control
 and fast switching capability for PWM brightness control.



PHYSICAL DIMENSION

