

1. Overview/Application

PS050U0PVX-NH2 is a 0.50 inch (1.29 cm) diagonal, UXGA resolution (1600 x1200), active matrix color OLED (Organic Light Emitting Display) panel module based on single crystal silicon backplane. The pixel circuits and driving IC are integrated on the silicon backplane to get the compact size and very low power consumption.

(Potential applications: Virtual Reality application(AR/VR), Head mounted displays, Near-Eye Displays etc.)

2. Features

- Small-size, high resolution 0.50 UXGA Display PPI=4032
- AP Operated Resolution 1600 x1200 up to 30Hz
- Fast response
- Thin and light in weight
- High contrast
- Power-saving(PS) mode
- Scan direction selection, up or down
- Interface, Support MIPI only or MIPI+I2C

Support VESA-DSC in-chip decoder (3X and 3.75X compression ratio)

Support scaling up 1.33x, (1200x900 to 1600 x 1200), 1.5x (1068x800 to 1600 x 1200), and 2.0x (800x600 to 1600 x 1200)

- Sequential/Global emission

3. Module Structure

- Active matrix color OLED display with on-chip driver based on single crystal silicon transistors