SONY

Tentative

Product Summary

1.4 cm (0.55Type) Silicon Reflective Liquid Crystal Display

SXRD242

1. Description

The SXRD242 is a 1.4 cm diagonal reflective liquid crystal display panel with built-in drivers using a single crystal silicon backplane, and enables the full-color display by color sequential system.

The panel supports FHD resolutions of 1920×1080. It provides film-like picture quality with high contrast and high aperture ratio that can be free from the grainy mesh effect. The capability of displaying smooth moving pictures with a rapid optical response and 360Hz・480Hz・600Hz・720Hz・840Hz・960Hz operation frequency makes it ideal for use in portable projectors.
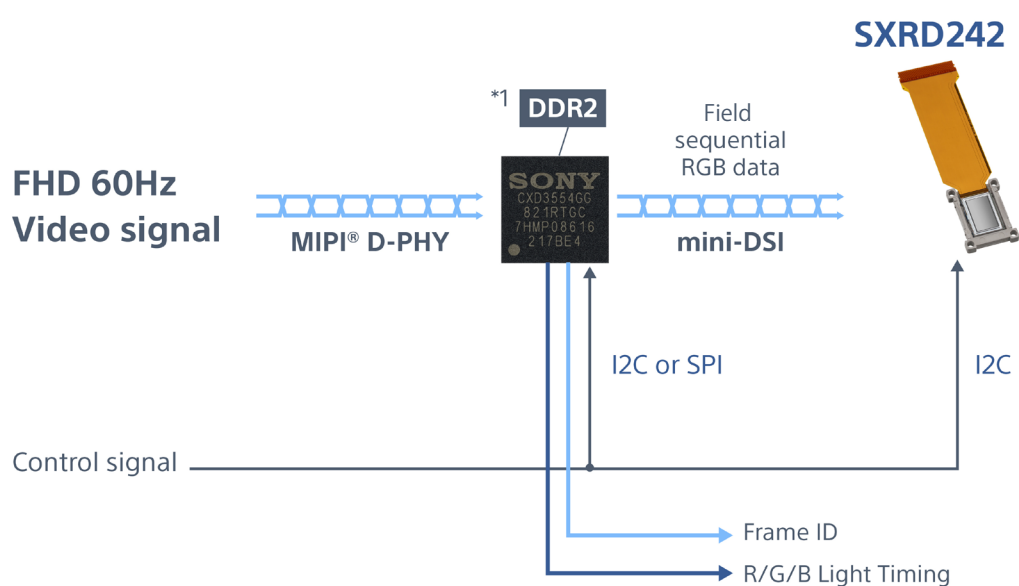
2. Features

- ◆ 1.4 cm in diagonal (0.55 inch type)
- ◆ Supports FHD format (Screen aspect ratio 16:9)
- ◆ Number of dots:1920 (H)×1080 (V) = 2,073,600 (Available: 2048(H) x 1080(V)
- ◆ Total number of pixels: 2112(H) × 1088 (V) = 2,297,856
- ◆ Pixel pitch: 6.4 μm
- ◆ High reflectivity: 87% (Typ. 550 nm)
- ◆ Rapid optical response（rise time/fall time）0.6ms / 1.0ms (Typ.)
- ◆ Vertically aligned liquid crystal
- ◆ High light resistance
- ◆ Color sequential system
- ◆ Dust-proof glass package
- ◆ Normally black mode
- ◆ Maximum operation frequency: 960Hz
- ◆ Embedded thermal sensor and heater function
- ◆ Embedded photo sensor function
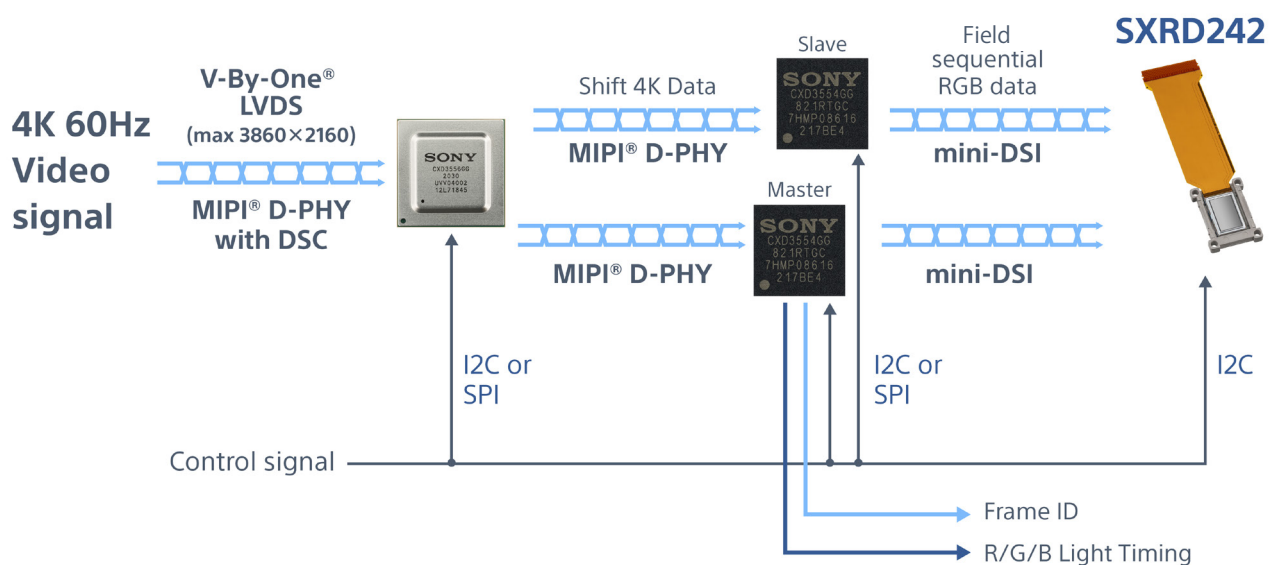- ◆ Embedded timing controller/Programmable Gamma Buffer

3. Power supply voltage used, Temperature range

Item	Rated	Unit
Operating temperature range	-10~+60	℃
Storage temperature range	-20～+70	℃
Power supply	6.0±0.2 1.5±0.1	V

4. System block diagram

SXRD242

*1 DDR2

Field sequential RGB data

FHD 60Hz Video signal

MIPI® D-PHY

mini-DSI

I2C or SPI

I2C

Control signal

Frame ID

R/G/B Light Timing

*1 DDR2：Required when using the Keystone function

Slave

Field sequential RGB data

SXRD242

Shift 4K Data

V-By-One® LVDS
(max 3860×2160)

4K 60Hz Video signal

MIPI® D-PHY

mini-DSI

MIPI® D-PHY with DSC

Master

MIPI® D-PHY

mini-DSI

I2C or SPI

I2C or SPI

I2C

Control signal

Frame ID

R/G/B Light Timing

V-by-One® is a registered trademark of THine Electronics Inc.
MIPI® is a registered trademark of MIPI Alliance, Inc.

(Unit: mm)

No	Description
1	FPC
2	Stiffener
3	Panel Holder
4	Glass
5	Reinforcing Material
6	Filler

Scale 2:1
General Tolerance ±0.1

A
3:1