0.94 cm (0.37Type) Silicon Reflective Liquid Crystal Display

SXRD241

1. Description

The SXRD241 is a 0.94 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 operation frequency makes it ideal for use in portable projectors.

(Applications: portable projector, filming equipment)

2. Features

- 0.94 cm in diagonal (0.37 inch type)
- Supports FHD format(Screen aspect ratio 16:9)
- Number of dots: 1920 (H) × 1080 (V) = 2,073,600
- Total number of pixels: 1984(H) × 1088 (V) = 2,158,592
- Pixel pitch: 4.3 µm
- High reflectivity: 82 % (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: 600Hz
- Embedded thermal sensor and heater function
- Embedded timing controller/Programmable Gamma Buffer
3. Power supply voltage used, Temperature range

<table>
<thead>
<tr>
<th>Item</th>
<th>Rated</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature range</td>
<td>-10~+60</td>
<td>°C</td>
</tr>
<tr>
<td>Storage temperature range</td>
<td>-20~+70</td>
<td>°C</td>
</tr>
<tr>
<td>Power supply</td>
<td>6.0±0.2</td>
<td>V</td>
</tr>
<tr>
<td></td>
<td>1.5±0.1</td>
<td>V</td>
</tr>
</tbody>
</table>

4. System block diagram

*1 DDR2: Required when using the Keystone function

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5. Package Outline

(Unit: mm)

General Tolerance ±0.1

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FPC</td>
</tr>
<tr>
<td>2</td>
<td>Stiffener</td>
</tr>
<tr>
<td>3</td>
<td>Panel Holder</td>
</tr>
<tr>
<td>4</td>
<td>Glass</td>
</tr>
<tr>
<td>5</td>
<td>Reinforcing Material</td>
</tr>
<tr>
<td>6</td>
<td>Glass Bonding Material</td>
</tr>
<tr>
<td>7</td>
<td>Filler</td>
</tr>
<tr>
<td>8</td>
<td>LC Sealing Material</td>
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<tr>
<td>9</td>
<td>Common Glass</td>
</tr>
<tr>
<td>10</td>
<td>Back Plane</td>
</tr>
</tbody>
</table>

Mass 0.9g