Product Summary

1.6 cm (0.64 Type) Black-and-White LCD Panel

1. Description

The LCX202 is a 1.6 cm diagonal active matrix TFT-LCD panel addressed by polycrystalline silicon super thin film transistors with built-in drivers. Use of three LCX202 panels provides a full-color representation. The square pixel array suitable for data projectors is capable of displaying fine graphics and text. In addition, the built-in 3.3 V interface circuit leads to lower voltage of timing and control signals.

(Applications: Liquid crystal data projectors, Liquid crystal multimedia projectors, Liquid crystal rear projection TVs, etc.)

2. Features

- 1.6 cm in diagonal (0.64 type)
- WUXGA display (Screen aspect ratio 8:5)
- Number of active dots: 1924 (H) \times 1204 (V) = 2316496
- High optical transmittance: 30.5\% (typ.)
- High contrast ratio: 750:1 (typ.)
- Ultra-high aperture technology and high light resistant structure
- On-chip double microlens
- Blue LASER interference suppression
- Polycrystalline silicon TFT (Thin Film Transistor) high-speed scanner
- 4\times-speed 1F inverted drive system (The video signal is polarity-inverted every 1 field.)
- Supports 480fps by high-speed scan
- 1F-VCOM inverted drive
- Built-in high-quality picture circuit Ghost free circuit
- Built-in input level conversion circuit
- Up/down and/or right/left inverse display function
- High efficiency radiation structure
- Dust-proof glass package
- Normally black mode
### 3. Supply voltage, Temperature range

<table>
<thead>
<tr>
<th>Item</th>
<th>Rated value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature</td>
<td>-10→+75</td>
<td>°C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-20→+85</td>
<td>°C</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>15.5±0.25</td>
<td>V</td>
</tr>
<tr>
<td></td>
<td>12.0±0.5</td>
<td>V</td>
</tr>
<tr>
<td></td>
<td>-3.5±0.5</td>
<td>V</td>
</tr>
<tr>
<td>Input pulse voltage</td>
<td>3.0–5.5</td>
<td>V</td>
</tr>
</tbody>
</table>

(Vp-p of all input pins except for VSIG1 to 48 and PSIG)

### 4. System block diagram

*V-by-One® is a registered trademark of THine Electronics Inc.*
5. Package Outline

[Unit: mm]

Electrode (enlarged)
Scale 4:1

The rotation angle of active area relative to H and V is ±1°

External Pin Plating

<table>
<thead>
<tr>
<th>constituent materials</th>
<th>Thickness</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold plating</td>
<td>0.02μm or more</td>
<td>Ni underplating 2 to 6 μm</td>
</tr>
</tbody>
</table>

Mass 5.8g