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## 1. Handling Precautions

- 1) Since front polarizer is easily damaged, pay attention not to scratch it.
- 2) Be sure to turn off power supply when inserting or disconnecting from input connector.
- 3) Wipe off water drop immediately. Long contact with water may cause discoloration or spots.
- 4) When the panel surface is soiled, wipe it with absorbent cotton or other soft cloth.
- 5) Since the panel is made of glass, it may break or crack if dropped or bumped on hard surface.
- 6) Since CMOS LSI is used in this module, take care of static electricity and insure human earth when handling.
- 7) Do not open nor modify the Module Assembly.
- 8) Do not press the reflector sheet at the back of the module to any directions.
- 9) At the insertion or removal of the Signal Interface Connector, be sure not to rotate nor tilt the Interface Connector of the TFT Module.
- 11) After installation of the TFT Module into an enclosure (Notebook PC Bezel, for example), do not twist nor bend the TFT Module even momentary. At designing the enclosure, it should be taken into consideration that no bending/twisting forces are applied to the TFT Module from outside. Otherwise the TFT Module may be damaged.
- 12) Small amount of materials having no flammability grade is used in the LCD module. The LCD module should be supplied by power complied with requirements of Limited Power Source (IEC60950 or UL1950), or be applied exemption.
- 13) Disconnecting power supply before handling LCD modules, it can prevent electric shock, DO NOT TOUCH the electrode parts, cables, connectors and LED circuit part of TFT module that a LED light bar build in as a light source of back light unit. It can prevent electrostatic breakdown.

## 2. General Description

B079XAN01 V0 is a Color Active Matrix Liquid Crystal Display composed of a TFT LCD panel, a driver circuit, and LED backlight system. The screen format is intended to support the 4:3 XGA, 768(H) x1024(V) screen and 262k colors (RGB 6-bits data driver) with LED backlight driving circuit. All input signals are MIPI interface compatible.

B079XAN01 V0 is designed for a display unit of notebook style personal computer and industrial machine.

### 2.1 General Specification

| Items   | Unit                 | Specifications                  |
|---|----------------------|---------------------------------|
| Screen Diagona  | [mm]                 | 199.68                          |
| Active Area   | [mm]                 | 119.808 (H) x 159.744(V)        |
| Pixels H x V  |                      | 768 x 3(RGB) x 1024             |
| Pixel Pitch   | [mm]                 | 0.156 X 0.156                   |
| Pixel Format  |                      | R.G.B. Vertical Stripe          |
| Display Mode  |                      | Normally Black                  |
| White Luminance<br>(ILED=21.8mA)<br><b>(Note: I<sub>LED</sub> is LED current)</b> | [cd/m <sup>2</sup> ] | 400 typ. (4 points average)     |
| Luminance Uniformity  |                      | 0.7 min. (96 points)            |
| Contrast Ratio  |                      | 800 typ                         |
| Response Time   | [ms]                 | 17 typ ((rise + fall time)      |
| Nominal Input Voltage VDD   | [Volt]               | +3.3 typ.                       |
| Power Consumption   | [Watt]               | Logic Power: 0.79W max @ white  |
|   |                      | BLU Power: 1.518W max           |
| Weight  | [Grams]              | 70 max (65 typ)<br>(Base Panel) |



# Product Specification

AU OPTRONICS CORPORATION

|   |              | Min.                       | Typ.   | Max.   |        |
|---|--------------|----------------------------|--------|--------|--------|
| Physical Size (panel only)                                | [mm]         | Length                     | 170.92 | 171.07 | 171.37 |
|   |              | Width                      | 128.75 | 129    | 129.25 |
|   |              | Thickness (W/O PCBA)       | ---    | ---    | 2.01   |
|   |              | Thickness (W/ PCBA)        | ---    | ---    | 4.81   |
| Support Color   |              | 16.7M colors ( RGB 8-bit ) |        |        |        |
| Temperature Range<br>Operating<br>Storage (Non-Operating) | [°C]<br>[°C] | -10 to +60<br>-20 to +70   |        |        |        |
| RoHS Compliance   |              | RoHS Compliance            |        |        |        |

## 2.2 Optical Characteristics

The optical characteristics are measured under stable conditions at 25°C (Room Temperature) :

| Item                                | Symbol         | Conditions         | Min.  | Typ.  | Max.  | Unit              | Note     |
|-------------------------------------|----------------|--------------------|-------|-------|-------|-------------------|----------|
| White Luminance<br>$I_{LED}=21.8mA$ |                | 4 points average   | ---   | 400   | ---   | cd/m <sup>2</sup> | 1, 4, 5. |
| Viewing Angle                       | $\theta_R$     | Horizontal (Right) | ---   | 89    | ---   | degree            | 4, 9     |
|                                     | $\theta_L$     | CR = 10 (Left)     | ---   | 89    | ---   |                   |          |
|                                     | $\psi_H$       | Vertical (Upper)   | ---   | 89    | ---   |                   |          |
|                                     | $\psi_L$       | CR = 10 (Lower)    | ---   | 89    | ---   |                   |          |
| Luminance Uniformity                | $\Delta_{96P}$ | 96 Points          | 0.7   | ---   | ---   |                   | 1, 3, 4  |
| Contrast Ratio                      | CR             |                    | ---   | 800   | ---   |                   | 4, 6     |
| Cross talk                          | %              |                    | ---   | ---   | 2     |                   | 4, 7     |
| Response Time                       | $T_{RT}$       | Rising + Falling   | ---   | 17    | ---   | msec              | 4, 8     |
|                                     | Red            | Rx                 | 0.587 | 0.605 | 0.623 |                   |          |
|                                     |                | Ry                 | 0.329 | 0.345 | 0.361 |                   |          |
|                                     | Green          | Gx                 | 0.287 | 0.327 | 0.367 |                   |          |
|                                     |                | Gy                 | 0.545 | 0.570 | 0.595 |                   |          |
|                                     | Blue           | Bx                 | 0.13  | 0.155 | 0.18  |                   |          |
|                                     |                | By                 | 0.095 | 0.117 | 0.139 |                   |          |
|                                     |                | Wx                 | ---   | 0.309 | ---   |                   |          |

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