

# ACD-2901

## PRODUCT DATA SHEET

11/8/2017

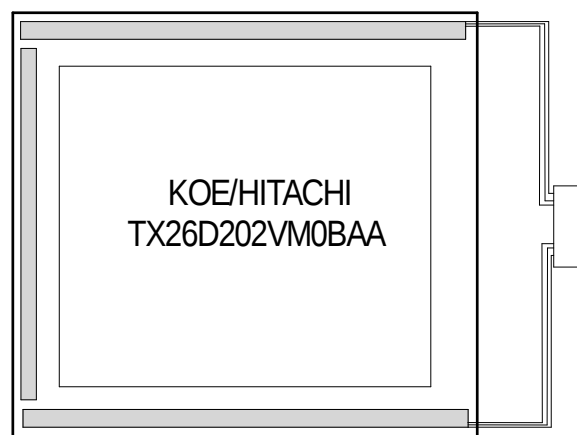
### 10.1" WUXGA LED BACKLIT TFT DISPLAY WITH NVIS WHITE CAPABILITY

#### GENERAL DESCRIPTION

The ACD-2901 consists of the KOE/Hitachi TX26D202VM0BAA 10.1" TFT display modified with a high performance LED backlight capable of Day and NVIS White operation.

#### Performance at given brightness levels

1300 cd/m<sup>2</sup> with 14.7 watts LED power (Day)  
1.71 cd/m<sup>2</sup> with 0.83 watts LED power (NVIS)



#### LCD PANEL HIGHLIGHTS

10.1" TFT Active Matrix Color  
135.9 (H)mm x 217.44 (V)mm viewable area  
WUXGA 1920 x 1200 pixels, 16.7 M colors  
800:1 typical contrast ratio  
Display Mode Normally Black  
Physical Size 232.1(W)mm x 153.2(H)mm x 10.9(D)mm  
Must be used with Bonded Cover Glass

*For complete LCD specification (standard panel), refer to the KOE/Hitachi TX26D202VM0BAA datasheet*

#### LED BACKLIGHT FEATURES

Day and NVIS LED edge-light rail

Three wire connection (Typically 17 inches long), allows simple interconnect with LED driver<sup>1</sup>

Projected lifetime > 75,000 hours

5000:1 or better dimming ratio (Day)<sup>1</sup>

<sup>1</sup> For best power transfer and control, use ACI ID5 Dual Mode LED Driver ACI-2861.

### MAXIMUM RATINGS \*

| Symbol            | Parameter                                                    | Value       | Unit  |
|-------------------|--------------------------------------------------------------|-------------|-------|
| Top <sup>1</sup>  | Operating temperature of display (center of panel surface)   | -30 to +80  | Deg-C |
| Tled              | Operating temperature of LED edge light (light rail contact) | -30 to + 95 | Deg-C |
| Tstg <sup>1</sup> | Display storage temperature                                  | -30 to +80  | Deg-C |
| Ifwd              | LED forward current (Day)                                    | 93          | mA    |
| Ifwd              | LED forward current (NVIS)                                   | 14          | mA    |

\*Maximum Ratings are those values beyond which damage may occur

1 Per Manufacturer's Specification

### PANEL/BACKLIGHT OPTICAL CHARACTERISTICS

Ifwd(Day) = 77.5mA per bank, 1 bank per rail, 2 rails per display, Ifwd(NVIS) = 12mA per bank, 1 bank per rail, 1 rail per display, LED rails: ACR-2845/ACR-2846 Ta = +25Deg-C, moving air (36.0 CFM) min 2hr soak

| Symbol | Parameter                     | Test Conditions | Min  | Typ   | Max  | Unit              |
|--------|-------------------------------|-----------------|------|-------|------|-------------------|
| Bpd    | Panel Brightness (Day)        |                 | 1170 | 1300  | 1430 | cd/m <sup>2</sup> |
| Bpn    | Panel Brightness (NVIS)       |                 | 1.54 | 1.71  | 1.88 | cd/m <sup>2</sup> |
| Xd     | White X coordinate (Day mode) |                 |      | 0.371 |      | -                 |
| Yd     | White Y coordinate (Day mode) |                 |      | 0.423 |      | -                 |
| Xn     | White X coordinate (NVIS)     |                 |      | 0.317 |      | -                 |
| Yn     | White Y coordinate (NVIS)     |                 |      | 0.432 |      | -                 |

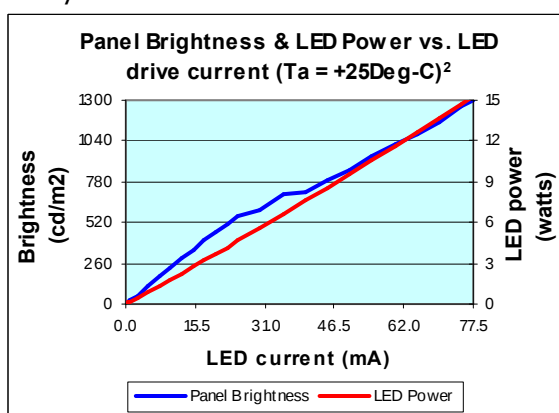
### LED EDGE-LIGHT ELECTRICAL CHARACTERISTICS

Ifwd(Day) = 77.5mA, Ifwd(NVIS) = 12mA, Top = +25Deg-C

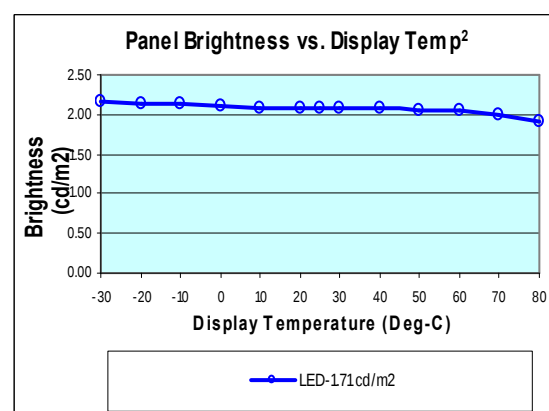
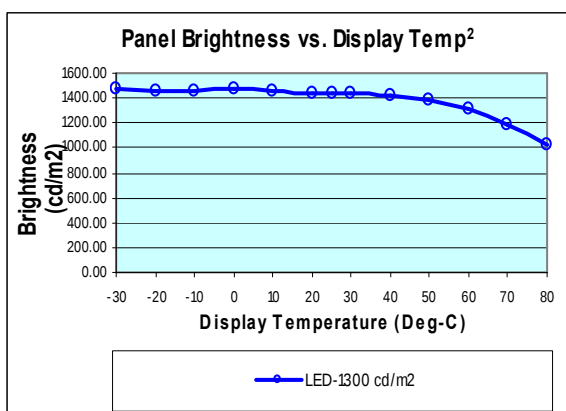
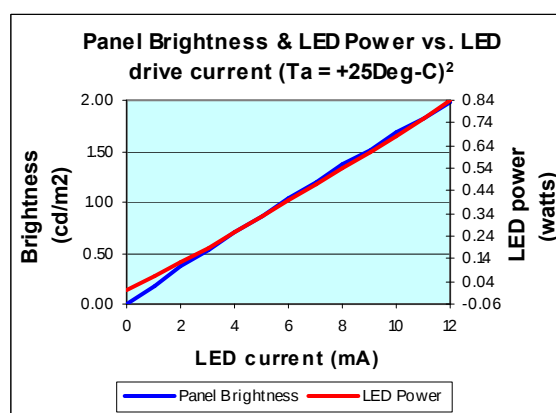
| Symbol | Parameter                                | Test Conditions | Min | Typ | Max | Unit |
|--------|------------------------------------------|-----------------|-----|-----|-----|------|
| Vfwd   | LED rail forward voltage drop (Day mode) |                 | 88  | 98  | 108 | Vdc  |
| Vfwd   | LED rail forward voltage drop (NVIS)     |                 | 62  | 69  | 76  | Vdc  |

## TYPICAL LCD/LED BACKLIGHT PERFORMANCE GRAPHS

Day

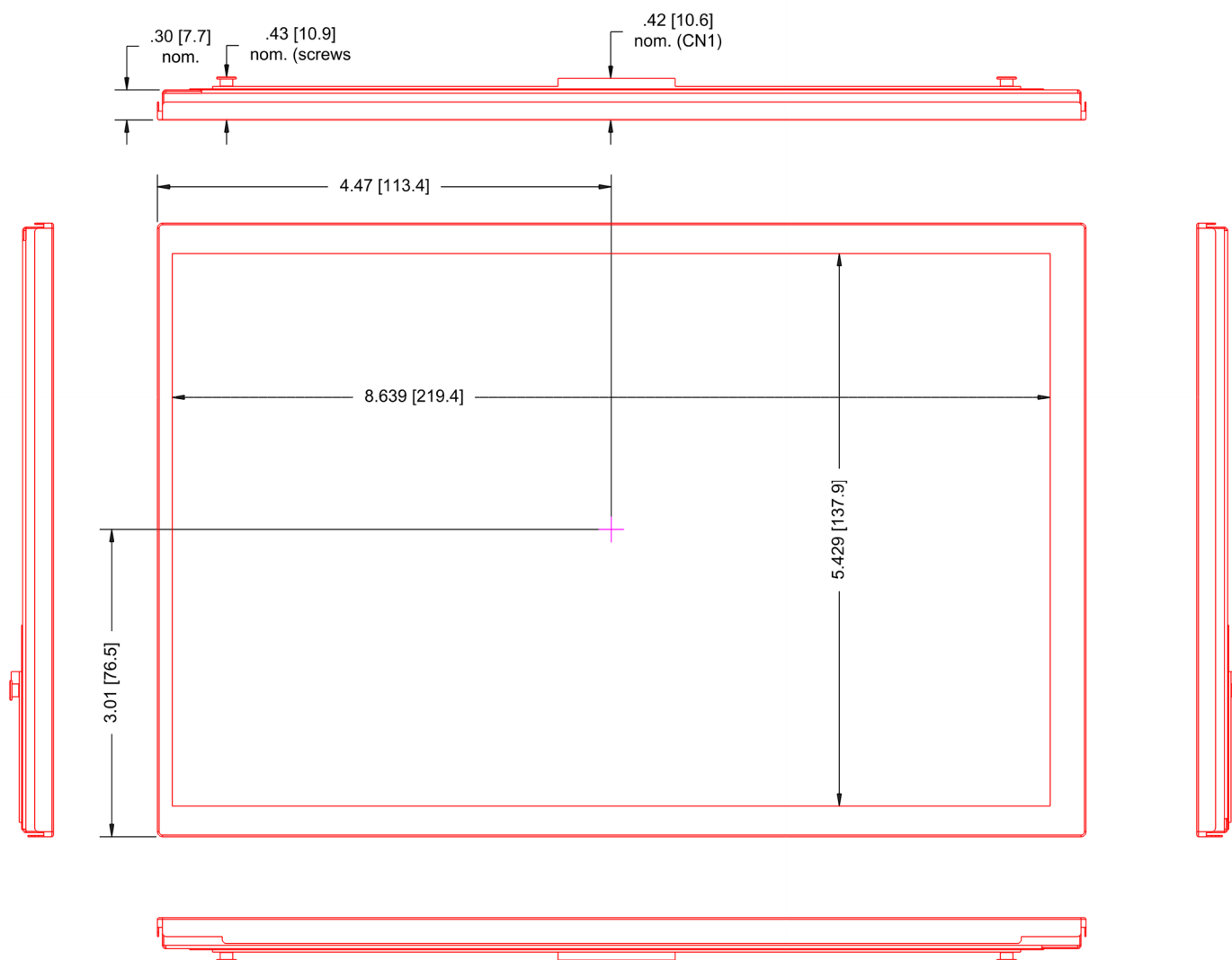


NVIS



<sup>2</sup> Moving air (36.0 CFM)

**MECHANICAL CHARACTERISTICS FRONT**



**MECHANICAL CHARACTERISTICS BACK**

