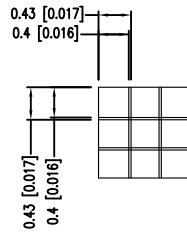
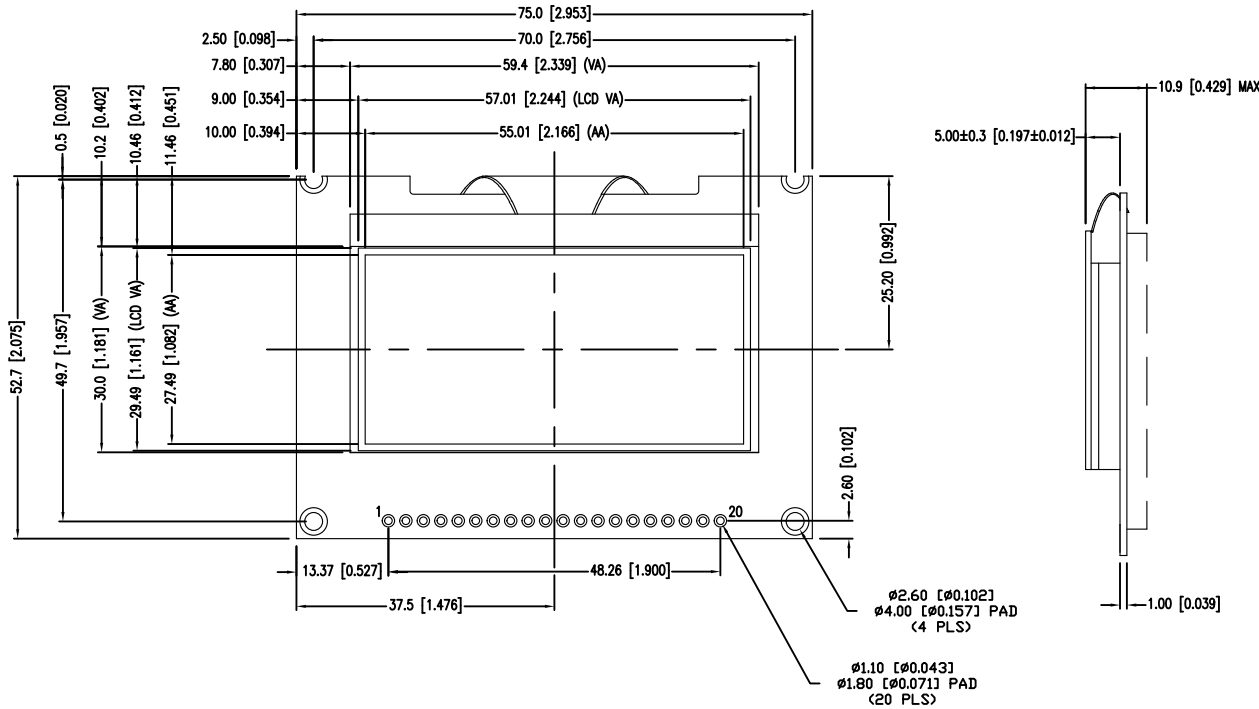
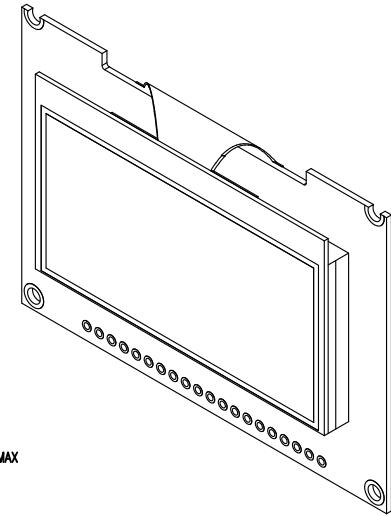


|             |                    |            |   |
|-------------|--------------------|------------|---|
| PART NUMBER | LOD-H12864GP-G     | REV.       | A |
| REV         | DESCRIPTION        | DATE       |   |
| A           | ECN-Lumex201700090 | 2017.10.18 |   |



CHARACTER DETAIL  
SCALE: 10:1



NOTES:

1. BLACK BACKGROUND.
2. PIXEL COLOR GREEN.
3. MINIMUM VIEWING ANGLE OF 65° FROM 12,3,6,9, O'CLOCK.
4. US2066 CONTROLLER.
5. RoHS COMPLIANT.

CAUTION: STATIC SENSITIVE DEVICE  
FOLLOW PROPER E.S.D. HANDLING PROCEDURES  
WHEN WORKING WITH THIS PART.

\*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN= +DECIMAL PRECISION -0.00, MAX.= +0.00 -DECIMAL PRECISION



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128 X 64 GRAPHIC OLED MODULE, 3.0V, GREEN PIXEL COLOR, W/ BLACK BACKGROUND

\*\*THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE DUE TO NEW MATERIALS OR PRODUCT IMPROVEMENT.\*\*

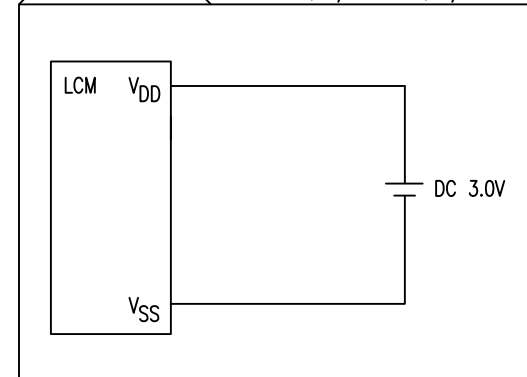
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|        |           |           |      |
|--------|-----------|-----------|------|
| DATE:  | 10.18.17  | DRAWN BY: | C.C. |
| PAGE:  | 1 OF 2    | CHKD BY:  | G.Y. |
| SCALE: | NTS       | APRVD BY: | E.C. |
| UNIT:  | mm [INCH] |           |      |

PIN CONFIGURATION

| PIN NO. | SYMBOL          | LEVEL  | DESCRIPTION                                       |
|---------|-----------------|--------|---|
| 1       | V <sub>DD</sub> | 3.0V   | SUPPLY VOLTAGE FOR LOGIC                          |
| 2       | V <sub>SS</sub> | 0V     | SUPPLY VOLTAGE FOR LOGIC GROUND                   |
| 3       | NC              | -      | -   |
| 4       | DB0             | H/L    | DATA BIT 0  |
| 5       | DB1             | H/L    | DATA BIT 1  |
| 6       | DB2             | H/L    | DATA BIT 2  |
| 7       | DB3             | H/L    | DATA BIT 3  |
| 8       | DB4             | H/L    | DATA BIT 4  |
| 9       | DB5             | H/L    | DATA BIT 5  |
| 10      | DB6             | H/L    | DATA BIT 6  |
| 11      | DB7             | H/L    | DATA BIT 7  |
| 12      | CSI             | 2-0    | CHIP SELECTION PIN                                |
| 13      | NC              | -      | NO CONNECTION                                     |
| 14      | /RST            | -      | HARDWARE RESET PIN                                |
| 15      | R/W             | H/L    | H:READ (MPU-->MODULE);L:WRITE(MPU-->MODULE)       |
| 16      | D/I             | H/L    | H: DATA, L: COMMAND                               |
| 17      | E               | H,H >L | CHIP ENABLE SIGNAL                                |
| 18      | V <sub>CC</sub> | 13.0V  | SUPPLY VOLTAGE FOR PANEL(POSITIVE VOLTAGE OUTPUT) |
| 19      | NC              | -      | -   |
| 20      | NC              | -      | -   |

BLOCK DIAGRAM 128 X 64, 1/64 DUTY, 1/9 BIAS



ELECTRICAL/OPTO CHARACTERISTICS

V<sub>DD</sub>=2.8V , V<sub>CC</sub>=13.0V, 80cd/m<sup>2</sup>, 50% PIXEL ON

| ITEM                     | SYMBOL                           | CONDITION       | STANDARD VALUE     |        |                    | UNIT              |
|--------------------------|----------------------------------|-----------------|--------------------|--------|--------------------|-------------------|
|                          |                                  |                 | MIN.               | TYP.   | MAX.               |                   |
| SUPPLY VOLTAGE FOR LOGIC | V <sub>DD</sub> -V <sub>SS</sub> | -               | 2.8                | 3.0    | 3.3                | V                 |
| SUPPLY VOLTAGE FOR PANEL | V <sub>CC</sub> -V <sub>SS</sub> | -               | 12.5               | 13.0   | 13.5               | V                 |
| INPUT VOLTAGE            | HIGH                             | V <sub>IH</sub> | 0.8V <sub>DD</sub> | -      | V <sub>DD</sub>    | V                 |
|                          | LOW                              | V <sub>IL</sub> | 0                  | -      | 0.2V <sub>DD</sub> | V                 |
| OUTPUT VOLTAGE           | HIGH                             | V <sub>OH</sub> | 0.9V <sub>DD</sub> | -      | V <sub>DD</sub>    | V                 |
|                          | LOW                              | V <sub>OL</sub> | 0                  | -      | 0.1V <sub>DD</sub> | V                 |
| OLED DRIVING CURRENT     | IDD                              | -               | -                  | 50     | -                  | mA                |
| VIEW ANGLE               |                                  |                 | 160                | -      | -                  | deg               |
| DARK ROOM CONTRAST       |                                  |                 | -                  | 2000:1 | -                  | -                 |
| BRIGHTNESS W/POLARIZER   |                                  |                 | 60                 | 80     | -                  | cd/m <sup>2</sup> |

ABSOLUTE MAXIMUM RATINGS

| ITEM                     | SYMBOL          | TEST CONDITION       | STANDARD VALUE |     | UNIT |
|--------------------------|-----------------|----------------------|----------------|-----|------|
|                          |                 |                      | MIN            | MAX |      |
| SUPPLY VOLTAGE FOR LOGIC | V <sub>DD</sub> | T <sub>a</sub> =25°C | -0.3           | 4.0 | V    |
| SUPPLY VOLTAGE FOR PANEL | V <sub>CC</sub> | T <sub>a</sub> =25°C | 0              | 15  | V    |
| HUMIDITY                 |                 |                      | -              | 85  | %    |
| OPERATING TEMPERATURE*   | Topr            | -                    | -40            | 70  | °C   |
| STORAGE TEMPERATURE**    | Tstg            | -                    | -40            | 85  | °C   |

\*OPERATING LIFE 40,000 HRS  
 END OF LIFE IS SPECIFIED AS 50 %OF INITIAL BRIGHTNESS  
 \*\*LONG TIME STORAGE ENVIRONMENT REQUIRED  
 TEMPERATURE: 23±5°C  
 HUMIDITY: 10±5% RH

\*BRIGHTNESS=80cd/m<sup>2</sup> , T<sub>a</sub>=25°C, 60% RH, V<sub>DD</sub>=5.0V, V<sub>CC</sub>=12.0V, 100% DISPLAY AREA TURN ON.

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