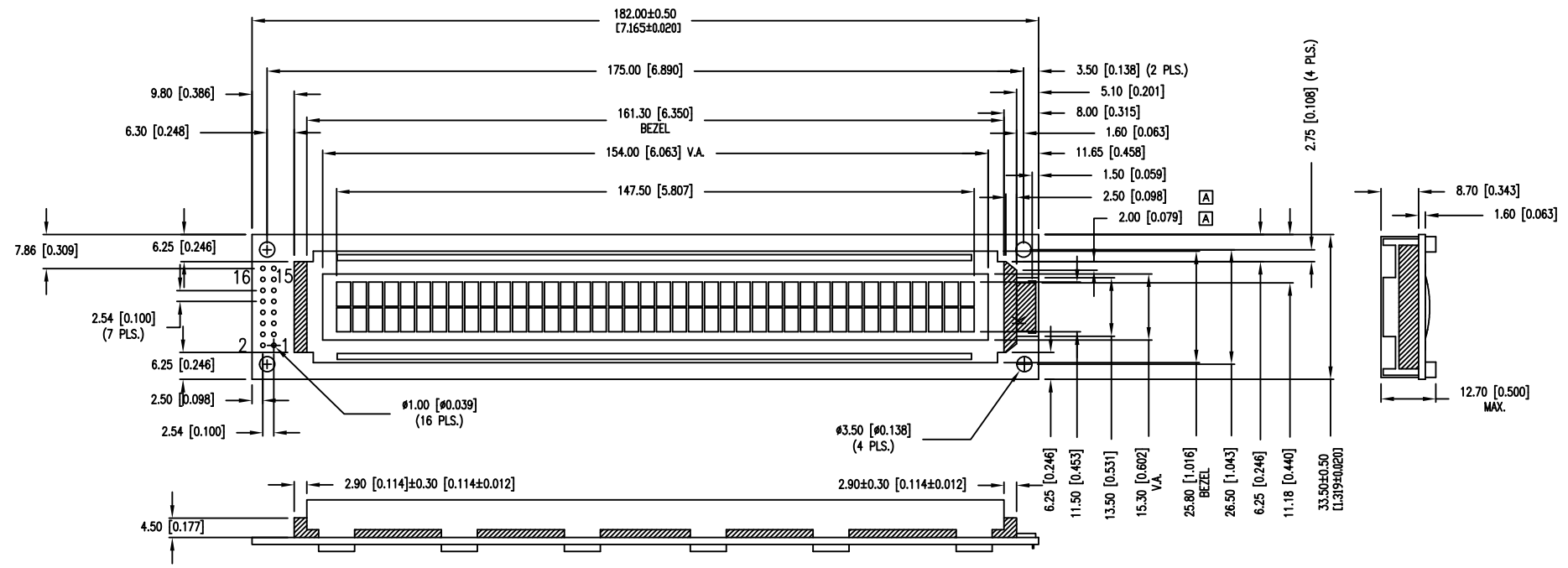
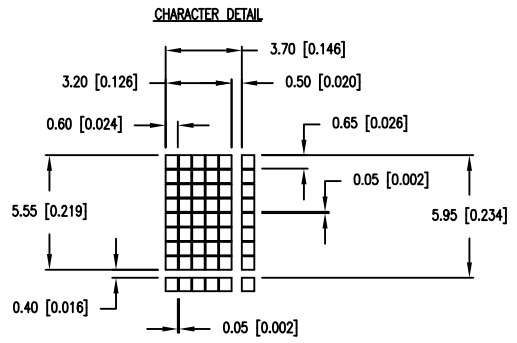


| PART NUMBER | LCM-H04002DWN-1G | REV. | C |
|-------------|-------------------------------------|------|------|
| DATE | E.C.N. NUMBER AND REVISION COMMENTS | | REV. |
| 07.15.09 | E.C.N. #11577. | | A |
| 10.02.03 | E.C.N. #11587. | | B |
| 05.23.16 | ECN-Lumex201600010 | | C |

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

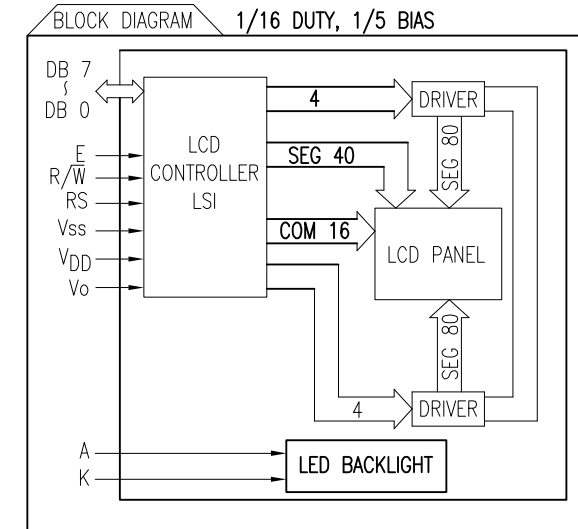
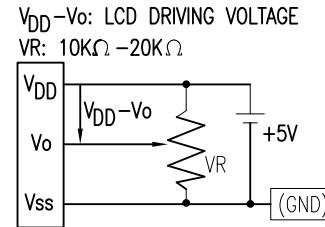
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Creating LED and LCD Solutions Together™
425 N. GARY AVE.
CAROL STREAM, IL 60188
PHONE: 800-278-5666
FAX: 630-315-2152
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40 x 2 LCD CHARACTER MODULE, FSTN BLCK, NEGATIVE IMAGE, 525nm GREEN LED BACKLIGHT.
THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE DUE TO NEW MATERIALS OR PRODUCT IMPROVEMENT.
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| | | | |
|--------|-----------|-----------|------|
| DATE: | 05.23.16 | DRAWN BY: | E.C. |
| PAGE: | 1 OF 2 | CHKD BY: | G.Y. |
| SCALE: | N/A | APRVD BY: | Ray |
| UNIT: | mm [INCH] | | Ⓟ |

| PART NUMBER | LCM-H04002DWN-1G | REV. | C |
|-------------|-------------------------------------|------|------|
| DATE | E.C.N. NUMBER AND REVISION COMMENTS | | REV. |
| 07.15.09 | E.C.N. #11577. | | A |
| 10.02.03 | E.C.N. #11587. | | B |
| 05.23.16 | ECN=Lumex201600010 | | C |

| PIN CONFIGURATION | | | | | |
|-------------------|-----------------|--------|---|---------------|--|
| PIN NO. | SYMBOL | LEVEL | FUNCTION | | |
| 1 | V _{SS} | - | POWER SUPPLY | GND (0V) | |
| 2 | V _{DD} | - | | 5V | |
| 3 | V _O | - | | FOR LCD DRIVE | |
| 4 | RS | H/L | REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT | | |
| 5 | R/ \bar{W} | H/L | H: DATA READ (MODULE-->MPU) L: DATA WRITE (MODULE<--MPU) | | |
| 6 | E | H,H->L | ENABLE | | |
| 7~14 | DB0~DB7 | H/L | DATA BUS-SOFTWARE SELECTABLE 4 OR 8 BIT MODE. | | |
| 15 | A | 3.2V | ANODE | LED BACKLIGHT | |
| 16 | K | - | CATHODE | LED BACKLIGHT | |




ⓑ ELECTRICAL CHARACTERISTICS V_{DD}=4.7V to 5.3V, T_A=25°C

| ITEM | SYMBOL | CONDITION | STANDARD VALUE | | | UNIT | |
|----------------------------|----------------------------------|---------------------|----------------------|--------------------|------|-----------------|-----------------|
| | | | MIN. | TYP. | MAX. | | |
| SUPPLY VOLTAGE FOR LOGIC | V _{DD} -V _{SS} | - | 4.5 | 5.0 | 5.5 | V | |
| SUPPLY CURRENT FOR LOGIC | I _{DD} | V _{DD} =5V | - | 3.0 | 5.0 | mA | |
| INPUT VOLTAGE | HIGH LOW | V _{IH} | - | 0.7V _{DD} | - | V _{DD} | V |
| | | V _{IL} | - | -0.3 | - | 0.6 | V |
| LCD MODULE DRIVING VOLTAGE | V _{DD} -V _O | - | 4.2 | 4.5 | 4.8 | V | |
| LED BACKLIGHT | VOLTAGE | V _f | I _f =60mA | - | 3.2 | 3.4 | V |
| | REVERSE CURRENT | I _r | V _r =5V | - | - | 0.2 | mA |
| | POWER CONSUMPTION | P _D | - | - | 192 | 204 | mW |
| | LUMINOUS | L | I _f =60mA | 100 | 120 | - | cd/m |
| | COLOR | - | I _f =60mA | 520 | 525 | 530 | nm ² |

ABSOLUTE MAXIMUM RATINGS

| ITEM | SYMBOL | TEST CONDITION | STANDARD VALUE | | UNIT |
|------------------------------|----------------------------------|----------------------|----------------|-----------------|------|
| | | | MIN | MAX | |
| SUPPLY VOLTAGE FOR LOGIC | V _{DD} -V _{SS} | T _a =25°C | -0.3 | 7 | V |
| SUPPLY VOLTAGE FOR LCD DRIVE | V _{DD} -V _O | - | -0.3 | 10 | V |
| INPUT VOLTAGE | V _I | T _a =25°C | -0.3 | V _{DD} | V |
| OPERATING TEMPERATURE | T _{opr} | LCM-H | -20 | 70 | °C |
| STORAGE TEMPERATURE | T _{stg} | LCM-H | -30 | 80 | °C |

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-0.00 -DECIMAL PRECISION

| | | | | |
|--|--|-----------------|----------------|---|
|  <p>425 N. GARY AVE. CAROL STREAM, IL 60188 PHONE: 800-278-5666 FAX: 630-315-2152 WEB: WWW.LUMEX.COM</p> | 40 x 2 LCD CHARACTER MODULE, FSTN BLCK, NEGATIVE IMAGE, 525nm GREEN LED BACKLIGHT. | DATE: 05.23.16 | DRAWN BY: E.C. | |
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| | | UNIT: mm [INCH] | | Ⓟ |

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