

| REVISIONS |          |      |             |
|-----------|----------|------|-------------|
| NO.       | DATE     | BY   | DESCRIPTION |
| 1         | 01/06/18 | A.CH | NEW RELEASE |

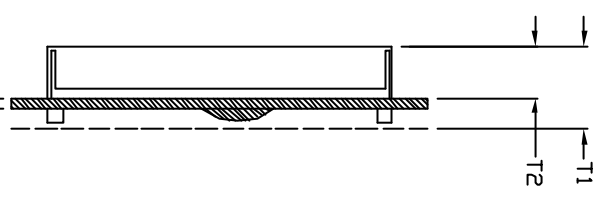
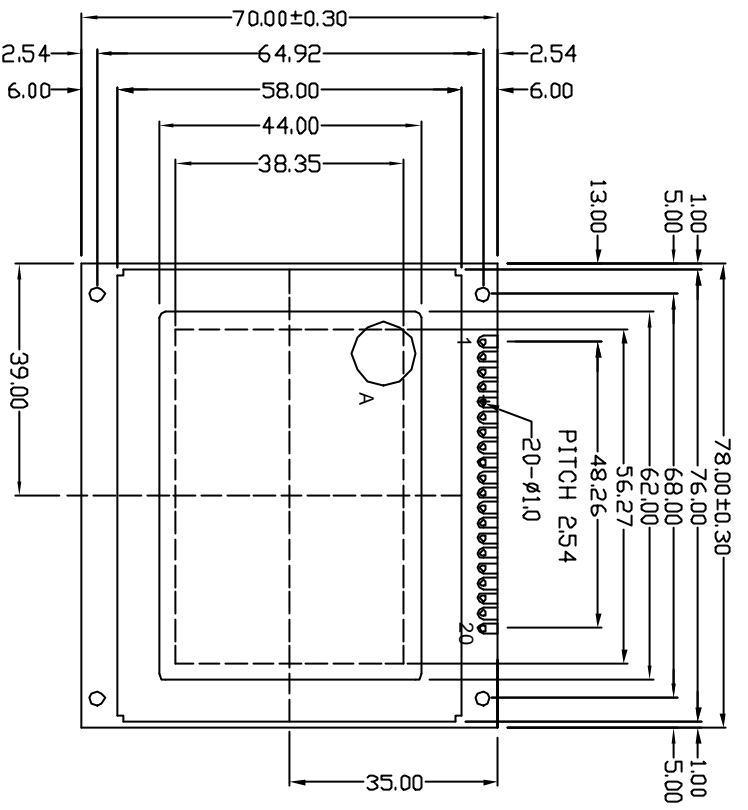
| PINS ASSIGNMENT |   |
|-----------------|---|
| NO.             | SYMBOL DESCRIPTION                      |
| 1               | VSS GROUND                              |
| 2               | VDD POWER SUPPLY FOR LOGIC AND LCD      |
| 3               | V0 OPERATING VOLTAGE FOR LCD            |
| 4               | RS DATA/INSTRUCTION SELECT              |
| 5               | R/W READWRITE SELECT                    |
| 6               | E ENABLE SIGNAL                         |
| 7-14            | DB0-DB7 DATA BUS                        |
| 15              | CS1 CHIP SELECT OF IC1 (HIGH EFFECTIVE) |
| 16              | CS2 CHIP SELECT OF IC2 (HIGH EFFECTIVE) |
| 17              | /RST RESET SIGNAL(LOW EFFECTIVE)        |
| 18              | VEE NEGATIVE VOLTAGE OUTPUT/INPUT       |
| 19              | A POWER SUPPLY FOR LED BACKLIGHT(+)     |
| 20              | K POWER SUPPLY FOR LED BACKLIGHT(-)     |

| ABSOLUTE MAXIMUM RATING |         |     |      |
|-------------------------|---------|-----|------|
| ITEM                    | SYMBOL  | MIN | MAX  |
| POWER SUPPLY(LOGIC)     | VDD-VSS | 0   | 6.5  |
| POWER SUPPLY(LCD DRV.)  | VDD-V0  | 0   | 18.0 |
| INPUT VOLTAGE           | VI      | VI  | VDD  |

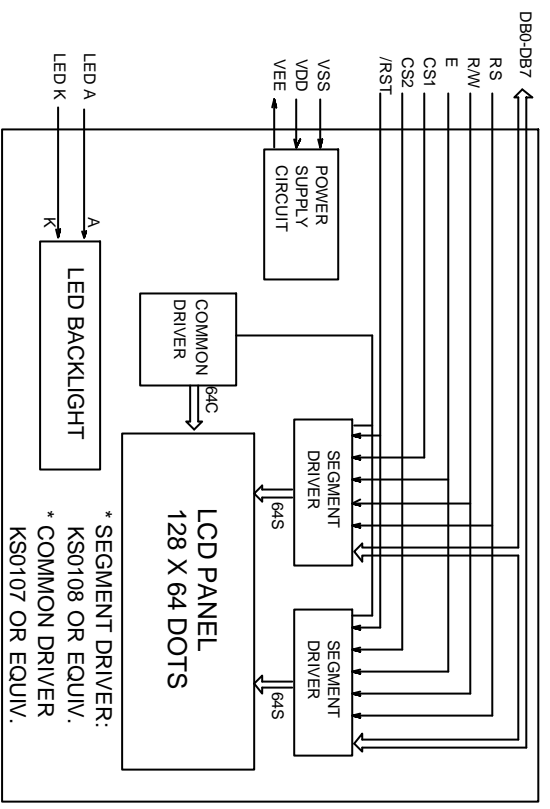
| ELECTRICAL CHARACTERISTICS |         |      |        |        |
|----------------------------|---------|------|--------|--------|
| ITEM                       | SYMBOL  | MIN  | TYP    | MAX    |
| VOLTAGE FOR LOGIC          | VDD-VSS | 4.75 | 5.0    | 5.25   |
| SUPPLY CURRENT             | IDD     | -    | 5.1    | 9.8    |
|                            | 0C      | -    | 9.2    | -      |
|                            | 25C     | -    | 9.0    | -      |
|                            | 40C     | -    | 8.8    | -      |
| LCD OPERATING VOLTAGE      | VDD-V0  | -    | -      | -      |
|                            | 25C     | -    | 9.0    | -      |
|                            | 40C     | -    | 8.8    | -      |
| INPUT VOLTAGE              | H       | VH   | 0.7VDD | VDD    |
|                            | L       | VIL  | 0      | 0.3VDD |

| MECHANICAL SPECIFICATIONS |                              |      |
|---------------------------|------------------------------|------|
| ITEM                      | SPECIFICATION                | UNIT |
| OVERALL SIZE              | 78.0W x 70.0H x 14.0T(11.0T) | MM   |
| VIEWING AREA              | 62.0W x 44.0H                | MM   |
| DOT NUMBER                | 128 x 64                     | DOTS |
| DOT SIZE                  | 0.39W x 0.55H                | MM   |
| DOT PITCH                 | 0.44W x 0.50H                | MM   |

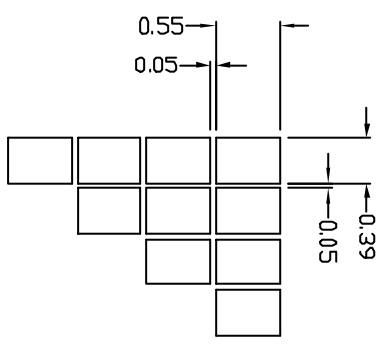
| OPTIONS |  |
|---------|--|
| 1.      | LCD TYPE: Y/G STN.; GRAY STN.; BW FSTN                                     |
| 2.      | BACKLIGHT: WITHOUT BACKLIGHT; LED; EL                                      |
| 3.      | COLOR OF BACKLIGHT: Y/G; BLUE; WHITE                                       |
| 4.      | TEMPERATURE RANGE: NORMAL(0--50C); EXTENDED(-20--70C)                      |
| 5.      | POWER SUPPLY: ON BOARD DC/DC(SINGLE 5.0V); DUAL POWER SUPPLY(5.0V & -5.0V) |
| 6.      | VIEWING ANGLE: 6H; 12H   |



\* FOR LED BACKLIGHT  
 T1=14.0MMAX T2=9.0±0.3  
 \* FOR EL OR NO BACKLIGHT  
 T1=11.0MMAX T2=6.0±0.3



\* SEGMENT DRIVER:  
 KS0108 OR EQUIV.  
 \* COMMON DRIVER  
 KS0107 OR EQUIV.



NT-G128642A

128 X 64 DOTS GRAPHIC LCM



ALL DIMENSIONS ARE IN MM. TOLERANCE IS +/-0.2 UNLESS OTHERWISE NOTED.

