

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

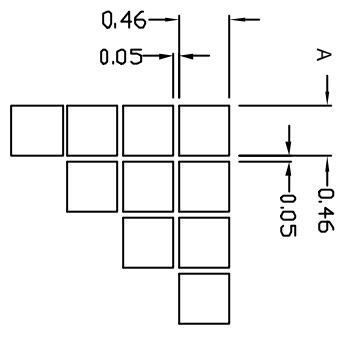
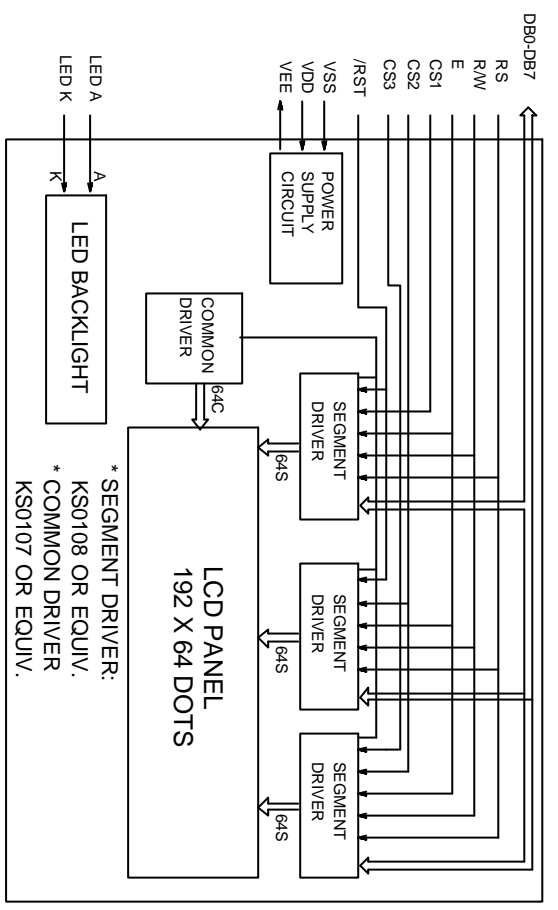
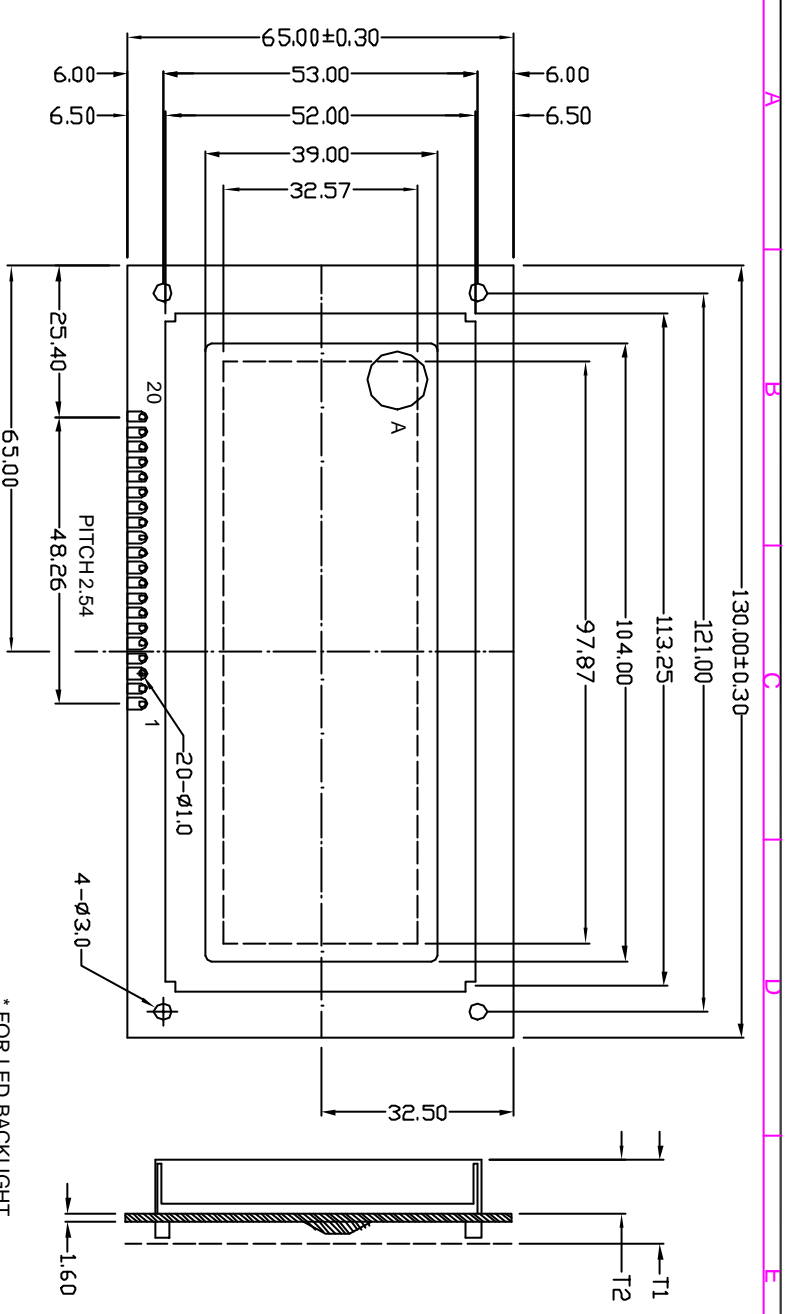
PINS ASSIGNMENT	
NO.	SYMBOL DESCRIPTION
1	VSS GROUND
2	VDD POWER SUPPLY FOR LOGIC AND LCD
3	V0 OPERATING VOLTAGE FOR LCD
4	RS DATA/INSTRUCTION SELECT
5	R/W READWRITE SELECT
6	E ENABLE SIGNAL
7-14	DB0-DB7 DATA BUS
15	CS1 CHIP SELECT OF IC1 (HIGH EFFECTIVE)
16	/RST RESET SIGNAL(LOW EFFECTIVE)
15	CS2 CHIP SELECT OF IC2 (HIGH EFFECTIVE)
15	CS3 CHIP SELECT OF IC3 (HIGH EFFECTIVE)
19	VEE NEGATIVE VOLTAGE OUTPUT(INPUT(-10V) POWER SUPPLY FOR LED B.L.(+5.0V))
20	A

ABSOLUTE MAXIMUM RATING			
ITEM	SYMBOL	MIN	MAX
POWER SUPPLY(LOGIC)	VDD-VSS	0	6.5
POWER SUPPLY(LCD DRV.)	VDD-V0	0	1.80
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
		mA		
LCD OPERATING VOLTAGE	0C	-	9.2	-
	25C	VDD-V0	9.0	-
	40C	-	8.8	-
INPUT VOLTAGE	H	VH	0.7VDD	V
	L	VIL	0	0.3VDD

MECHANICAL SPECIFICATIONS		
ITEM	SPECIFICATION	UNIT
OVERALL SIZE	130.00V X 65.00H X 1.40T(10.0T)	MM
VIEWING AREA	104.00V X 39.00H	MM
DOT NUMBER	192 X 64	DOTS
DOT SIZE	0.46W X 0.46H	MM
DOT PITCH	0.51W X 0.51H	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 & -10.0V)
6. VIEWING ANGLE:	6H; 12H



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

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

NT-G192641A

192 X 64 DOTS GRAPHIC LCM



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

