

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

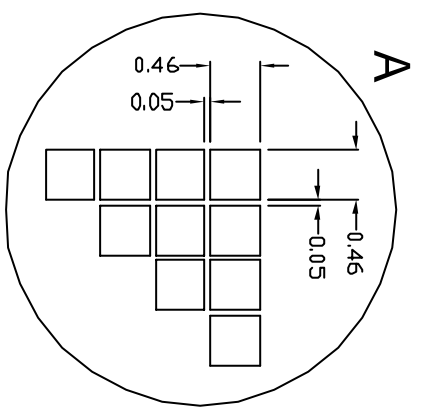
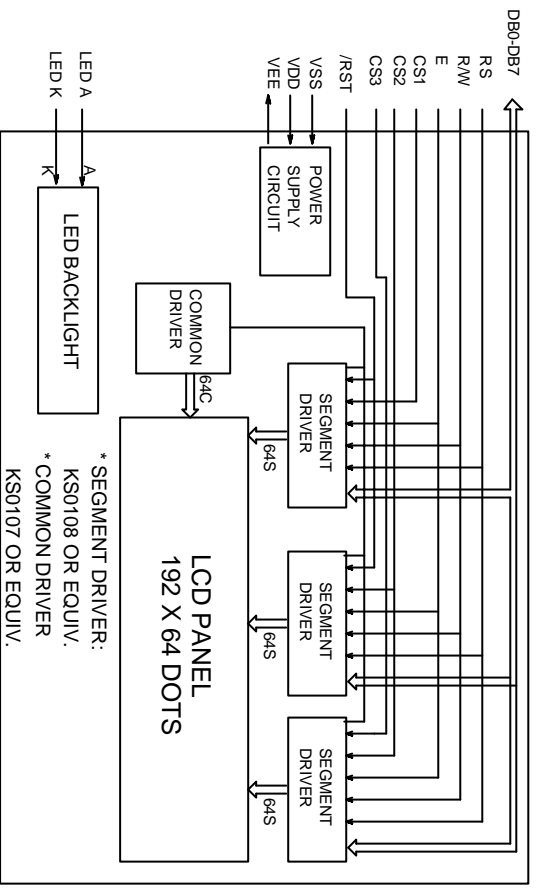
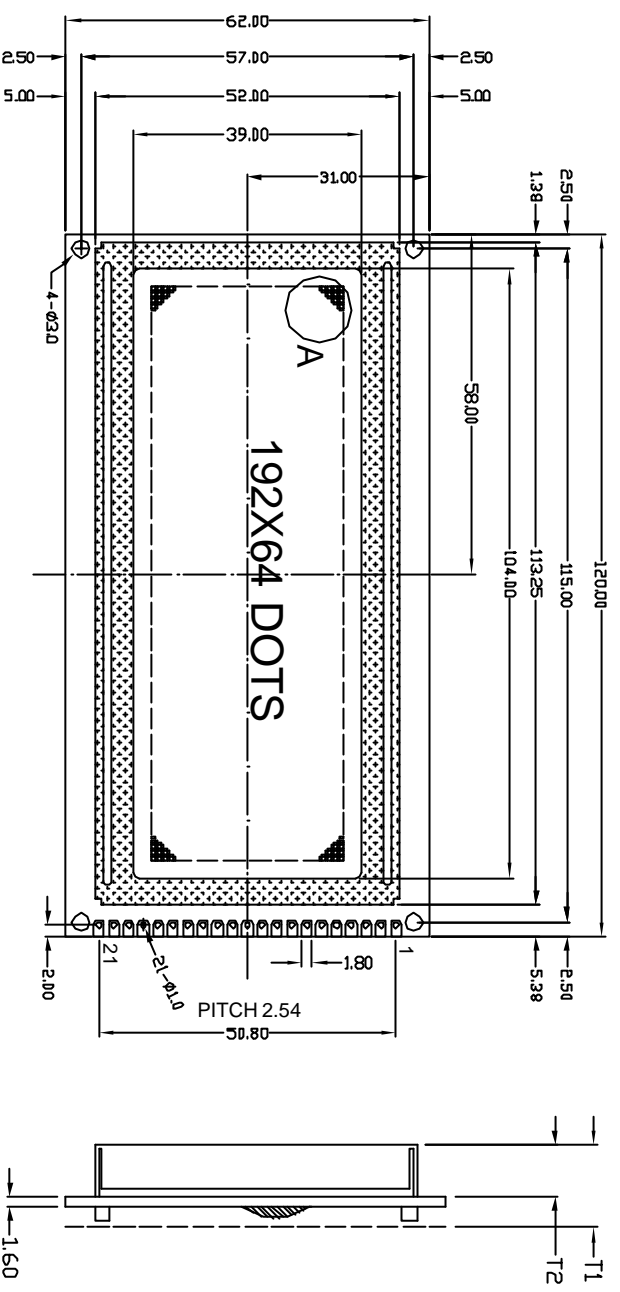
PINS ASSIGNMENT			
NO.	SYSBOL	DESCRIPTION	
1	VSS	GROUND	
2	VDD	POWER SUPPLY FOR LOGIC AND LCD	
3	V0	OPERATING VOLTAGE FOR LCD	
4	VEE	NEGATIVE VOLTAGE OUTPUT(INPUT(-10V))	
5	RS	DATA/INSTRUCTION SELECT	
6	R/W	READ/WRITE SELECT	
7	E	ENABLE SIGNAL	
8-15	DB0-DB7	DATA BUS	
16	/CS1	CHIP SELECT OF IC1 (LOW EFFECTIVE)	
17	/CS2	CHIP SELECT OF IC2 (LOW EFFECTIVE)	
18	/CS3	CHIP SELECT OF IC3 (LOW EFFECTIVE)	
19	/RST	RESET SIGNAL(LOW EFFECTIVE)	
20	A	POWER SUPPLY FOR LED B.L.(+)	
21	K	POWER SUPPLY FOR LED B.L.(-)	

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	V <sub>I</sub>	V <sub>I</sub>	VDD

ELECTRICAL CHARACTERISTICS					
ITEM	SYMBOL	MIN	TYP	MAX	UNIT
VOLTAGE FOR LOGIC	VDD-VSS	4.75	5.0	5.25	V
SUPPLY CURRENT	IDD	-	5.1	9.8	mA
			9.2	-	V
LCD OPERATING VOLTAGE	VDD-V0	-	9.0	-	V
			8.8	-	V
INPUT VOLTAGE	H	V <sub>IH</sub>	0.7VDD	VDD	V
	L	V <sub>IL</sub>	0	0.3VDD	V

MECHANICAL SPECIFICATIONS		
ITEM	SPECIFICATION	UNIT
OVERALL SIZE	120.0W x 62.0H x 14.0T(10.0T)	MM
VIEWING AREA	104.0W x 39.0H	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=14.0MMAX T2=9.0±0.3  
 \* FOR EL OR NO BACKLIGHT  
 T1=11.0MMAX T2=6.0±0.3

NT-G192643A

192 X 64 DOTS GRAPHIC LCM



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

