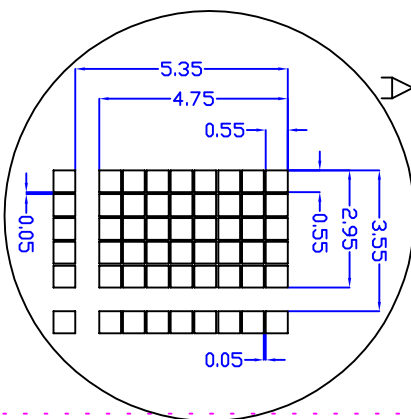
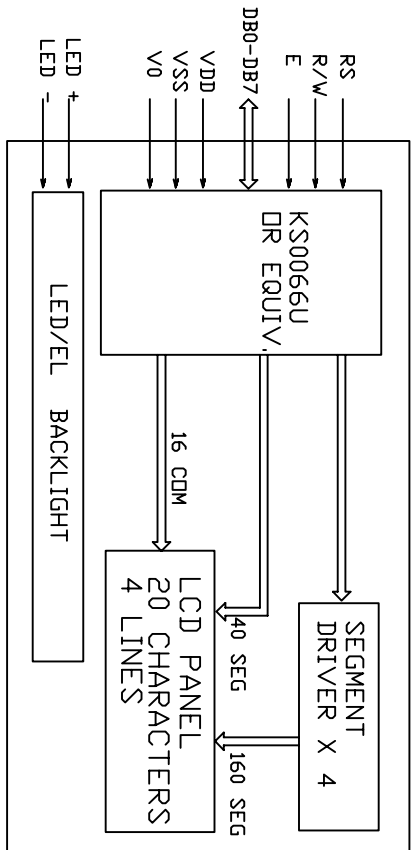


\* FOR LED BACKLIGHT  
 T1=14.0MAX T2=9.0±0.3  
 \* FOR EL DR ND BACKLIGHT  
 T1=10.0MAX T2=5.0±0.3



PINS ASSIGNMENT	
NO.	SYMBOL DESCRIPTION
1	VSS POWER SUPPLY
2	VDD POWER SUPPLY
3	V0 OPERATING VOLTAGE FOR LCD
4	RS DATA/INSTRUCTION SELECT
5	R/W READ/WRITE CONTROL
6	E ENABLE SIGNAL
7-14	DB0-DB7 DATA BUS
15	LED + POWER SUPPLY FOR LED BACKLIGHT (+)
16	LED - POWER SUPPLY FOR LED BACKLIGHT (-)

ABSOLUTE MAXIMUM RATING			
ITEM	SYMBOL	MIN	MAX
POWER SUPPLY(VDD)	VDD-VSS	-0.3	7.0
POWER SUPPLY(LCD DRV.)	VDD-V0	-0.3	13.5
INPUT VOLTAGE	VI	-0.3	VDD

ELECTRICAL CHARACTERISTICS (VDD=5.0±0.25V, 25°C)				
ITEM	SYMBOL	MIN	TYP	MAX
VOLTAGE FOR LOGIC	VDD-VSS	4.75	5.0	5.25
SUPPLY CURRENT	IDD	-	1.0	2.2
VOLTAGE FOR LCD	VDD-V0	-	4.9	-
INPUT VOLTAGE	VH	2.2	-	VDD
	VL	-0.3	-	0.6
OUTPUT VOLTAGE	VOH	2.4	-	-
	VOL	-	-	0.4

MECHANICAL SPECIFICATIONS		
ITEM	SPECIFICATION	UNIT
OVERALL SIZE	98.0W x 60.0H x 14.0T(10.0T)	MM
VIEWING AREA	76.0W x 25.2H	MM
CHARACTERS	20 CHARACTERS x 4 LINES	MM
CHARACTER SIZE	2.95W x 4.75H	MM
CHARACTER PITCH	3.55W x 5.35H	MM

OPTIONS	
1.	LCD TYPE: Y/G STN, GRAY STN, TN
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: 5.0V, 3.0V
6.	VIEWING ANGLE: 6H, 12H
7.	CHARACTER TABLE: JAPANESE, EUROPEAN, CYRILLIC

NT-C2048A

20 CHARACTERS X 4 LINES



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

NELY, YOUR SUPPLIER, AND YOUR PARTNER!

REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	02/07/12	A.C.H	NEW RELEASE