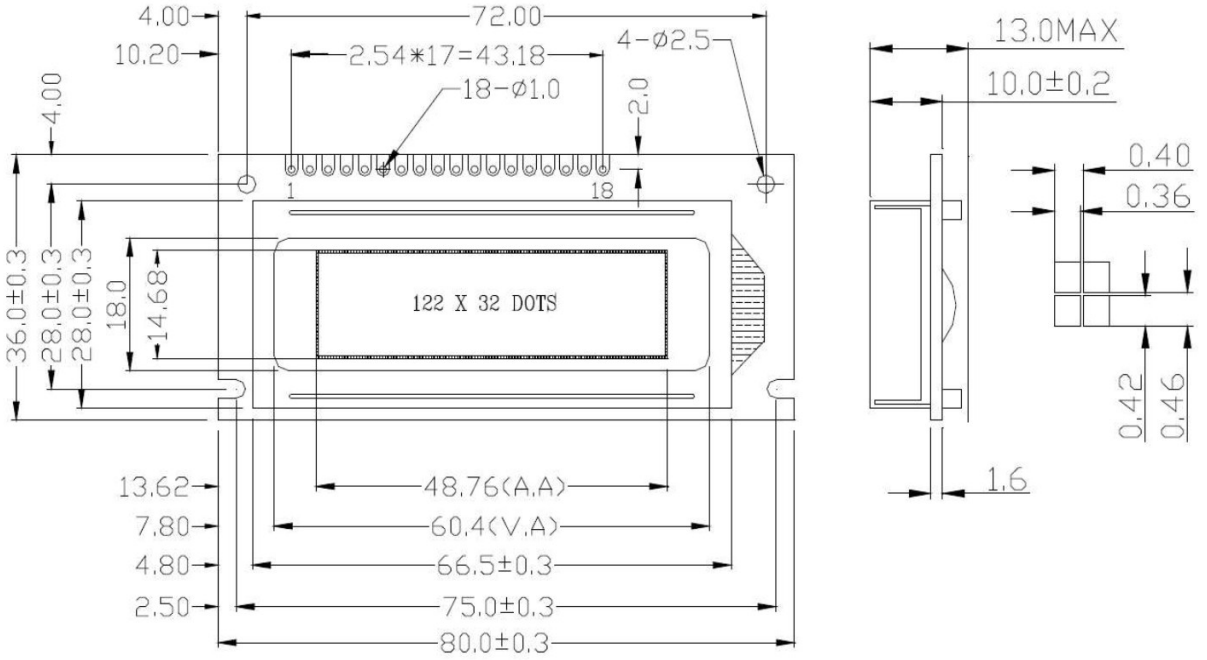
PHYSICAL DIMENSIONS



FUNCTIONS & FEATURES

Graphic: 122×32 pixels
LCD Mode: STN transflective
Controller IC: NJU6450 or Equivalent
Viewing Angle: 6 O'clock direction
6800 serial 8-Bit MPU Interface
Backlight: LED Y/G 1-LED 15mA ECO
Operating Temperature Range: -20º to +70º
Storage Temperature Range : -30º to +80º

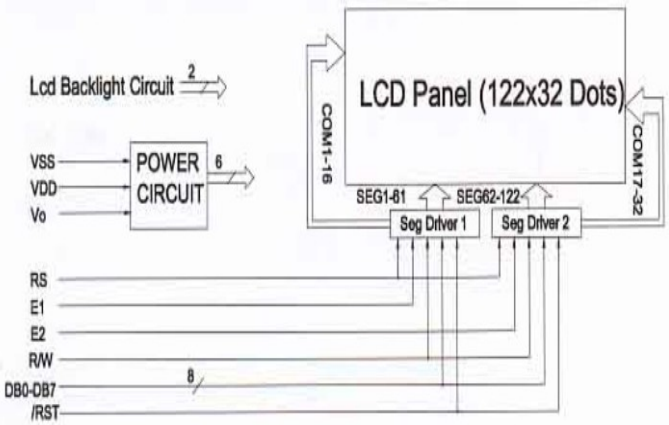
PIN CONFIGURATION

1	GND	POWER GROUND
2	VDD	POWER POSITIVE 5V
3	Vo	OP.VOLTAGE FOR LCD
4	Ao	H:DATA L:INSTRUCTION
5	E1	ENABLE TRIGGER
6	E2	ENABLE TRIGGER
7	R/W	H:READ L:WRITE
8	DB0	DATA BUS LSB
9	DB1	DATA BUS
10	DB2	DATA BUS
11	DB3	DATA BUS
12	DB4	DATA BUS
13	DB5	DATA BUS
14	DB6	DATA BUS
15	DB7	DATA BUS MSB
16	/RST	RESET
17	LED +	BACKLIGHT +5V or GND
18	LED -	BACKLIGHT 0V or +5V

MECHANICAL DATA

Module size with backlight	80 x 36 x 13	[mm]
View Area	60.4 x 18	[mm]
Active Area	48.8 x 14.7	[mm]

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS (25º)

SUPPLY VOLTAGE LOGIC	MAX. 5.5	[V]
INPUT VOLTAGE	VDD	[V]

Ver.1.1.A

INSTRUCTION TABLE

Instruction	Code											Description	
	A0	$\overline{RD}$	$\overline{WR}$	D_7	D_6	D_5	D_4	D_3	D_2	D_1	D_0		
Display On / Off	0	1	0	1	0	1	0	1	1	1	0/1	Whole Display On/Off. 1:On,0:Off(Power Save mode if the static Drive On)	
Display Start Line	0	1	0	1	1	0	Display Start Address (1~31)					Determine the Display Line correspond to the COM_0.	
Page Address Set	0	1	0	1	0	1	1	1	0	Page (0~3)		Set the Page of Disp. Data RAM to the Page Register.	
Column Address Set	0	1	0	0	Column Address (0~79)							Set the Column Address of Display Data RAM to the Column Register.	
Status Read	0	0	1	BUSY	ADC	ON / OFF	RESET	0	0	0	0	Read the status. BUSY 1:Working 0:Ready ADC 1:Clockwise Output 0:Counterclockwise ON/OFF1:Disp Off 0:Disp On RESET 1:Reset 0:Normal	
Write Display Data	1	1	0	Write Data								Write the data to the Display Data RAM.	Access the predetermined address of the Display Data RAM. The Column address increment "1" after read or write.
Read Display Data	1	0	1	Read Data								Read the data from the Display Data RAM.	
ADC Select	0	1	0	1	0	1	0	0	0	0	0/1	Determine the clockwise or counterclockwise reading of the Display Data RAM. 0:Clockwise Output 1:Counterclockwise Output	
Static Drive On / Off	0	1	0	1	0	1	0	0	1	0	0/1	Select the Dynamic or Static Driving. 1:Static Driving (Power Saving) 0:Dynamic Driving	
Duty Ratio Select	0	1	0	1	0	1	0	1	0	0	0/1	Select the duty ratio. 1:1/32 Duty 0:1/16 Duty	
Read Modify Write	0	1	0	1	1	1	0	0	0	0	0	Increment the Column Address register when writing but no-change when reading.	
End	0	1	0	1	1	1	0	1	1	1	0	Release from the Read Modify Write Mode.	
Reset	0	1	0	1	1	1	0	0	0	1	0	Set the Display Start Line Register to 1st line, Page Add. Register to "3".	
Power Save (Dual Command)	0 0	1 1	0 0	1 1	0 0	1 1	0 0	1 0	1 1	1 0	0 1	Set the power save mode by selecting Display Off and Static Driving On.	