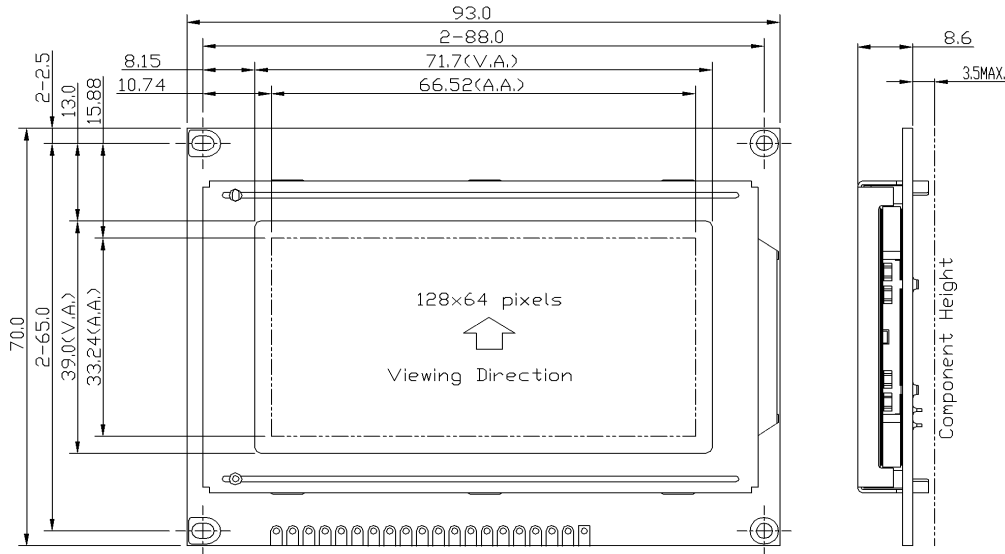


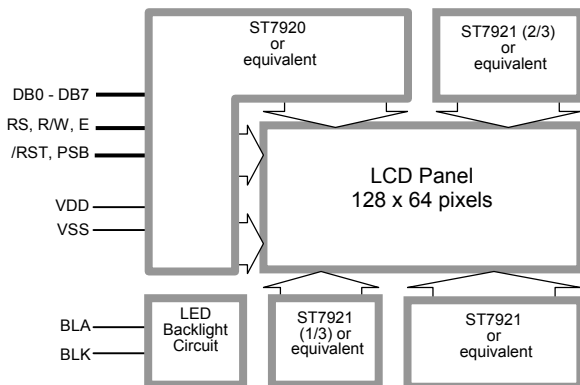
OUTLINE DRAWING



TERMINAL FUNCTIONS

Pin	Name	Descriptions	
		Parallel Mode (PSB=H)	Serial Mode (PSB=L)
1	VSS	0V Power Supply, Ground	
2	VDD	Positive Power Supply	
3	NC	No Connection (keep open)	
4	RS (CS)	Register Select RS=H, data read or write RS=L, Instruction data write or Status busy flag read	Chip Select CS=H, chip enable CS=L, Chip disable
5	R/W (SID)	Read Write Control	Serial Input Data
6	E (SCLK)	Enable trigger	Serial Clock
7	DB0	Data bus Three state I/O terminal for display data or instruction	
:	:		
14	DB7	Leave open or pull-up	
15	PSB	Interface selection PSB=L, serial mode PSB=H, 8bit or 4bit parallel mode	
16	NC	No Connection (keep open)	
17	/RST	System reset, low active	
18	NC	No Connection (keep open)	
19	BLA	LED Backlight Positive Power Supply	
20	BLK	LED Backlight Negative Power Supply	

BLOCK DIAGRAM



DISPLAY CHARACTERISTICS

Item	Value
LCD Display Mode*	STN, Positive, Transflective
Viewing Angle	6:00
Driving Method	1/33 duty, 1/5 bias
Backlight#	White LED backlight

MECHANICAL DATA

Item	Value
Outline (mm)	93.0 x 70.0 x 12.1 MAX.
Viewing Area (mm)	71.7 x 39.0
Active Area (mm)	66.52 x 33.24
Dot Pitch (mm)	0.52 x 0.52
Dot Size (mm)	0.48 x 0.48

ABSOLUTE MAXIMUM

Item	Symbol	Min	Max
Operating Voltage (V)	V _{DD}	-0.3	+5.5
Operating Temperature (°C)	T _{OP}	-20	+70
Storage Temperature (°C)	T _{ST}	-30	+80

ELECTRICAL CHARACTERISTICS*

Item	Symbol	Min	Typ	Max
Operating Voltage (V)	V _{DD}	4.8	5.0	5.2
Input High Voltage (V)	V _{IH}	0.8V _{DD}	-	V _{DD}
Input Low Voltage (V)	V _{IL}	V _{SS}	-	0.4
Operating Current (mA)	I _{DD}	-	2.3	5.5

BACKLIGHT CHARACTERISTICS

Item	Symbol	Min	Typ	Max
Forward Voltage (V)	V _{fBLA}	-	5.0	-
Forward Current (mA)	I _{fBLA}	-	80	100

LM3033 series

Major Models	Highlight		
	*LCD Mode	#Backlight	**Voltage
LM3033CDW-0B	STN-Gray	White	3.3V
LM3033CFW-0B	STN-Blue	White	3.3V
LM3033DDW-0B*	STN-Gray	White	5.0V
LM3033DFW-0B	STN-Blue	White	5.0V

For similar product or (semi) custom made LCD module, please visit our web site or contact us.

*The above information is based on this model.