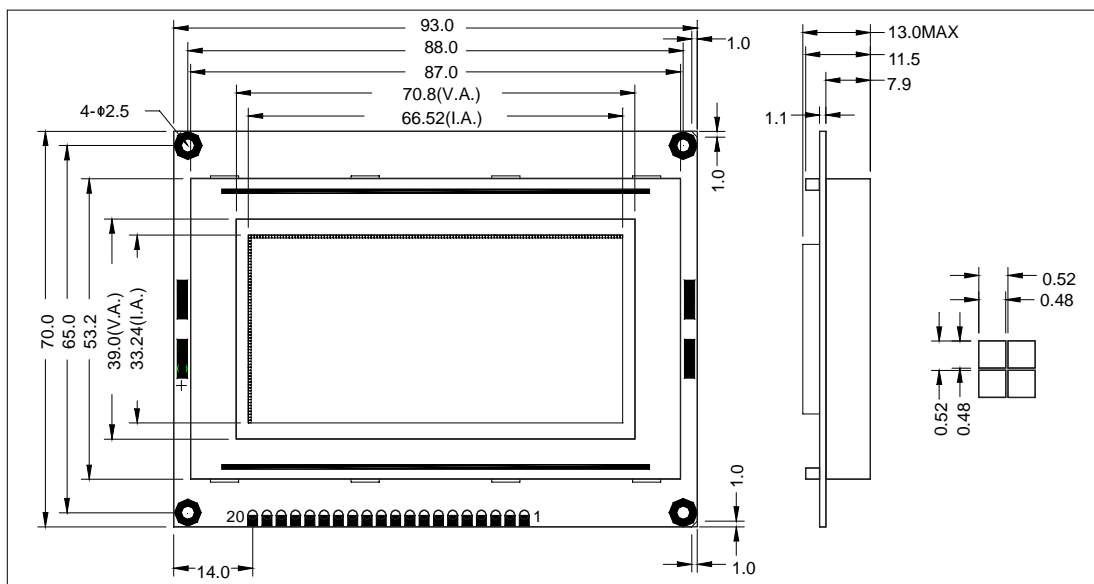


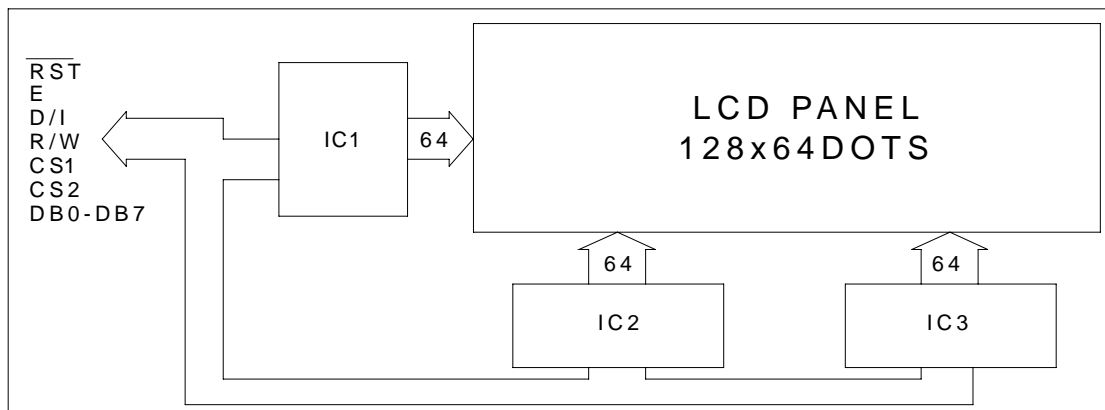
1.0 Features

- * Display Mode: Reflective/Transflective/Transmissive and Positive Type STN
- * Input Data: 8-Bits Parallel Data Input from a MPU
- * Assembly: SMT
- * Backlight: Optional

2.0 External Dimensions



3.0 Block Diagram



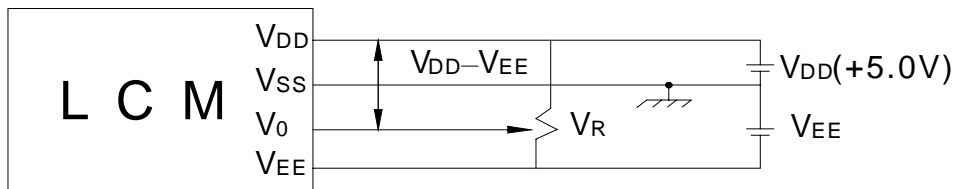
4.0 Maximum Rating

Item	Symbol	Test Condition	Standard Value		Unit
			Min.	Max.	
Supply Voltage for Logic	V _{DD} -V _{SS}	Ta=25 °C	0	6.0	V
Supply Voltage for LCD	V _{DD} -V _{EE}		0	16.0	V
Input Voltage	V _I		0	V _{DD}	V
Operating Temperature	T _{opr}	—	-10	+60	°C
Storage Temperature	T _{stg}	—	-20	+70	°C

5.0 Electro-Optical Characteristics

Item	Symbol	Conditions	Standard Value			Unit	
			Min.	Typ.	Max.		
Power Supply for Logic	Logic	Vdd	—	4.5	5.0	5.5	V
	LCD Drive	Vdd-V0		—	—	16.0	
Frame Frequency	f FLM	Vdd=5.0V	70	75	80	Hz	
Current Consumption	Idd	Vdd=5.0V, Vdd-V0=12.0 f FLM=75Hz	—	1.8	3.0	mA	
LCD Driving Voltage(Recommended)	Vdd-V0	Ta=25 °C; $\phi, \theta = 0^\circ$	12.0	12.5	13.0	V	
Response Time(Rising)	Tr	Ta=25 °C; $\phi, \theta = 0^\circ$	—	150	200	ms	
Response Time(Decay)	Td		—	200	250	ms	
Viewing Angle	$\phi 2-\phi 1$	K ≥ 2	-30	—	30	DEG.	
Contrast Ratio	K	$\phi = 0^\circ, \theta = 0^\circ$	2.0	3.0	—	—	

6.0 Power Supply for LCM



V_{DD}-V_{EE}: LCD Driving Voltage

7.0 I/O Connection

Pin No	Symbol	Level	Function
1	GND	--	Ground (0V)
2	VDD	--	Power supply for logic circuit:+5V
3	VLCD	--	Power supply for LCD driving:-7.5V typ.
4	R/S(D/I)	H/L	When R/S="H", it indicates that DB7~DB0 is display data; When R/S="L", it indicates that DB7~DB0 is instruction data.
5	RWL(R/W)	H/L	While R/W="H" and E="H", data is read to DB7~DB0 While R/W="L" and E="H->L", data is written to DB7~DB0
6	CE(E)	H.H L	Enable signal.
7~14	DB0~DB7	H/L	Data bus line.
15	CS1	H/L	Chip selection. Selects the chip that controls the left half or the right half screen.(active at high level, CS1=1,CS2=0, left half)
16	CS2	H/L	Chip selection. Selects the chip that controls the left half or the right half screen.(active at high level, CS1=0,CS2=1, right half)
17	/RST	H/L	Reset at low level
18	VADJ	--	Adjusting power supply for LCD driving
19	GND	--	Power supply for backlight K
20	VLED	--	Power supply for backlight A