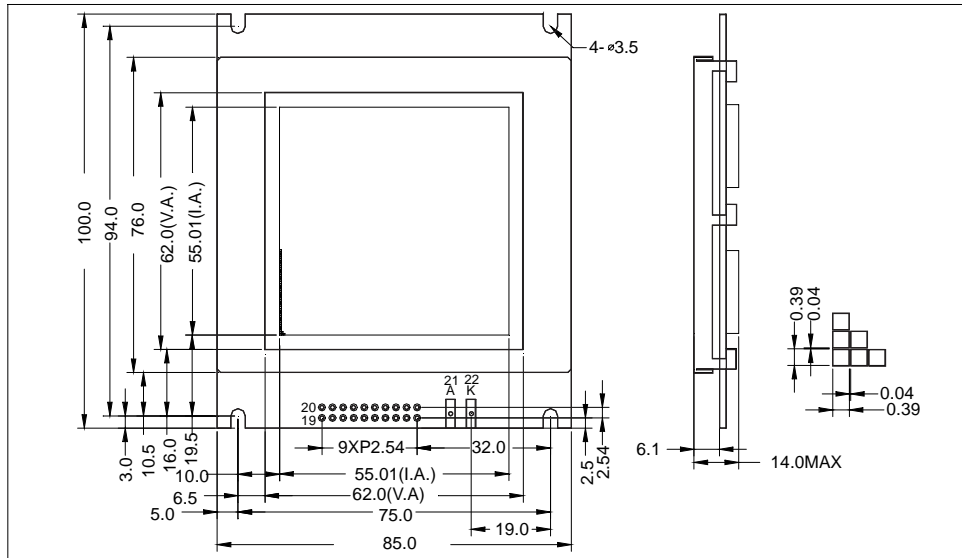


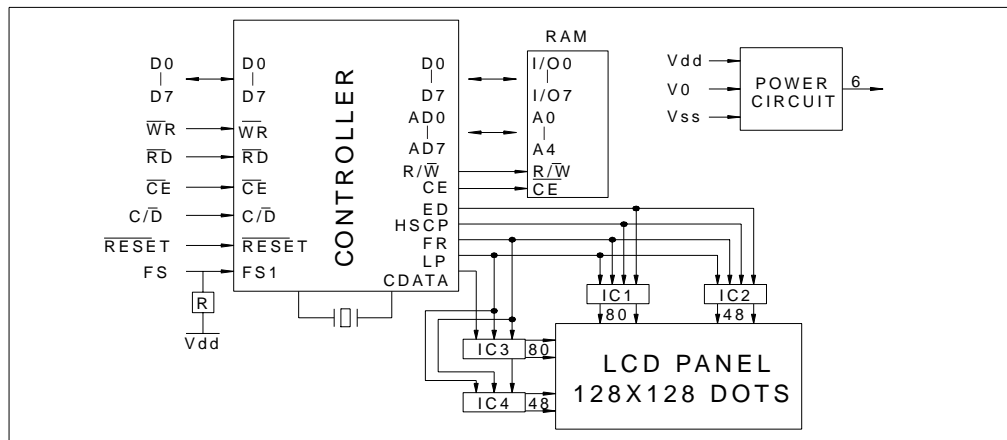
1.0 Features

- * 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



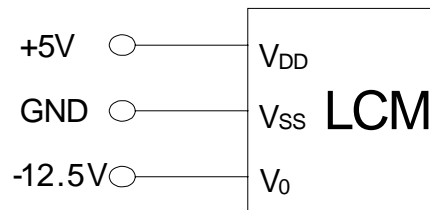
4.0 Maximum Rating

Item	Symbol	Test Condition	Standard Value		Unit
			Min.	Max.	
Supply Voltage for Logic	VDD-VSS	Ta=25 °C	-0.3	7.0	V
Supply Voltage for LCD	VDD-VEE		0	28	V
Input Voltage	VI		-0.3	7.0	V
Operating Temperature	Topr	—	0	50	°C
Storage Temperature	Tstg	—	-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-Vee		—	15.0	16.0	
Frame Frequency	f FLM	Vdd=5.0V	70	75	80	Hz	
Current Consumption	Idd	Vdd=5.0V, Vdd-V0=15.0 f FLM=75Hz	—	5.7	10.0	mA	
LCD Driving Voltage(Recommended)	Vdd-V0	Ta=25 °C; Ø, θ=0°	—	17.5	—	V	
Response Time(Rising)	Tr	Ta=25 °C; Ø, θ=0°	—	150	200	ms	
Response Time(Decay)	Td		—	200	250	ms	
Viewing Angle	Ø2-Ø1	K≥2	-30	—	30	DEG.	
Contrast Ratio	K	Ø=0°, θ=0°	2.0	5.0	—	—	

6.0 Power Supply for LCM



7.0 I/O Connection

Pin No	Symbol	Level	Function
1	FGND	---	Frame ground (connected to metal bezel)
2	GND	0V	Ground
3	VDD	---	Power supply (+5V)
4	V0	---	Power supply (negative, variable)
5	/WR	L	Data write (active at low level)
6	/RD	L	Data read (active at low level)
7	/CE	L	Chip enable (active at low level)
8	C/D	H/L	/WR="L";C/D="H": Command write, C/D="L": Data write /WR="H";C/D="H": Command read, C/D="L": Data read
9	NC	---	No connected
10	/RESET	L	Reset control (module resets, active at low level)
11~18	D0~D7	H/L	Data bus (D0 is LSB, and D7 is MSB)
19	FS	---	Font selection. Connect to Vdd: 6* 8 dots font Connect to Vss: 8* 8 dots font
20	NC	---	No connected
21	VELA	---	Backlight power supply A
22	VELK	---	Backlight power supply K