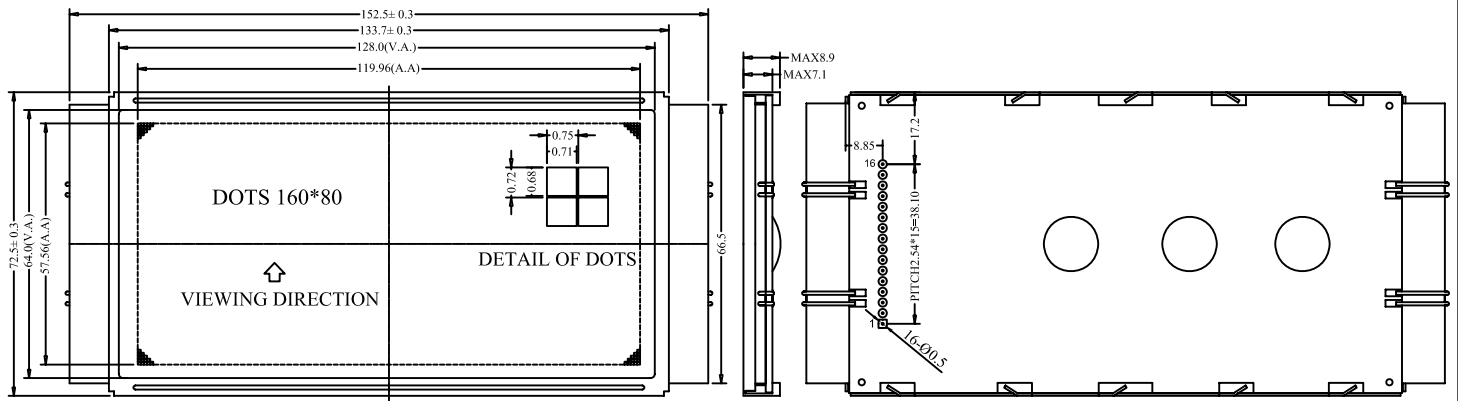


1. DIMENSION OUTLINE



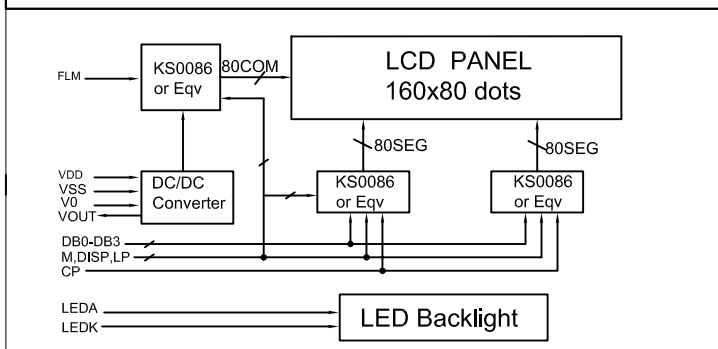
2. MECHANICAL SPECIFICATIONS

ITEM	SPECIFICATIONS	ITEM	REMARK
Module Size(L×W×H)	152.5.0×72.5×8.9	mm	Reference Dimensional Outline
View Area(W×H)	128.0×64.0	mm	
Effective V/Area	119.56×57.56	mm	
Number of Characters	160×80	-	
Dot Pitch(W×H)	0.72×0.75	mm	
Dot Size(W×H)	0.68×0.71	mm	
Weight (Reflective/Led)	-	g	

3. ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	CONDITION	STANDARD	
			MIN	MAX
Logic Voltage	V _{DD}	Ta=25°C	-0.3V	7V
LCD Voltage	V _{LCD}		-0.3V	17.5V
Input Voltage	V _I		-0.3V	V _{DD} +0.3V
Operation Temperature	T _{OP}	—	0°C	50°C
Storage Temperature	T _{St}	—	-10°C	60°C

4. BLOCK DIAGRAMMECHANICAL



5. LED BACKLIGHT SPECIFICATIONS

ITEM	SYMBOL	TYPE	MAX	UNIT
Ta=25°C				
Forward Voltage	V _f	3.0	3.1	V
Forward Current	I _f	60	—	mA
Emission Wave Length	λ _P	white	—	nm

6. INTERFACE PIN CONNECTIONS

ITEM	SYMBOL	LEVEL	FUNCTIONS
1,11	VDD	+5V	Power supply for logic
2-5	DB0-DB3	H/L	4-Bit Display Data Bus
6	FLM	H/L	Scan Start Line
7	M	H/L	Frame signal
8	LP	H/L	Data Latch Clock
9	CP	H/L	Data Shift Clock
10	DISP	H/L	Display Off Control
12	VSS	0V	Power Ground
13	V0	—	Contrast adjust
14	Vout	—	LCD Driving Voltage
15	LEDA	+5V	LED Backlight Power Supply
16	LEDK	0V	

7. ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	MIN	TYPE	MAX	UNIT
Ta=25°C					
Logic Power	V _{DD}	4.5	5	5.5	V
Input High Voltage	V _{IH}	0.8V _{DD}	—	V _{DD}	V
Input Low Voltage	V _{IL}	VSS	—	0.2V _{DD}	V
Output High Voltage	V _{OH}	V _{DD} -0.4	—	—	V
Output Low Voltage	V _{OL}	0	—	0.4	V
Logic Current	I _{DD}	—	—	10	mA
Operation Voltage For LCD	V _{DD} -V0	—	12.5	—	V