

## 1. BASIC SPECIFICATIONS

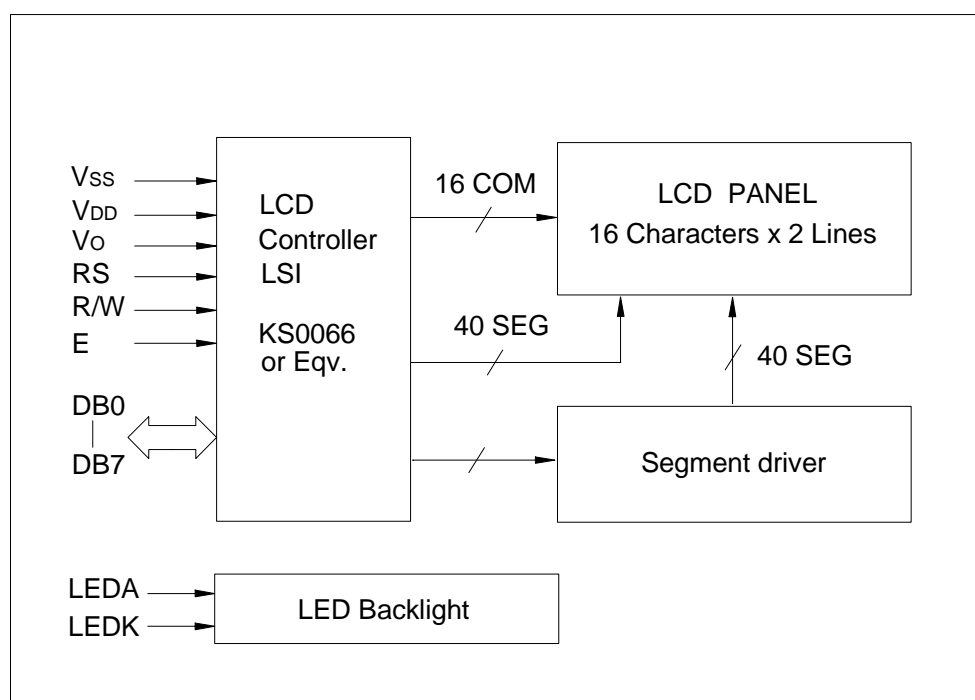
### 1.1 Display Specifications

LCD Mode	:	STN—Positive—Transflective
Display Color	:	Dark Blue
Background Color	:	Yellow-Green
Driving Duty	:	1/16 Duty
Viewing Direction	:	6:00
Backlight	:	LED

### 1.2 Mechanical Specifications

Outline Dimension	:	80.0(W) X 36.0(H) X 14.0(T)	mm
Viewing Area	:	64.6(W) X 16.0(H)	mm
Number of Characters	:	16 Characters X 2 Lines	
Character Size	:	2.95 X 5.55	mm
Dot Size	:	0.55 X 0.65	mm
Weight	:		

### 1.3 Block Diagram



## 1.4 Terminal Functions

Pin No.	Symbol	Level	Function
1	VSS	-	Ground
2	VDD	-	Power Supply for Logic (+5V)
3	VO	-	Power Supply for LCD
4	RS	H/L	Register Selection H: Display Data L: Instruction Code
5	R/W	H/L	Read/Write Selection H: Read Operation L: Write Operation
6	E	H, H→L	Enable Signal. Read data when E is "H", write data at the falling edge of E.
7	DB0	H/L	In 8-bit mode, used as low order bi-directional data bus. In 4-bit mode, open these terminals.
8	DB1	H/L	
9	DB2	H/L	
10	DB3	H/L	
11	DB4	H/L	In 8-bit mode, used as high order bi-directional data bus. In 4-bit mode, used as both high and low order data bus.
12	DB5	H/L	
13	DB6	H/L	
14	DB7	H/L	
15	LEDA	--	LED Power Supply (+5V)
16	LEDK	--	LED Power Supply (0v)

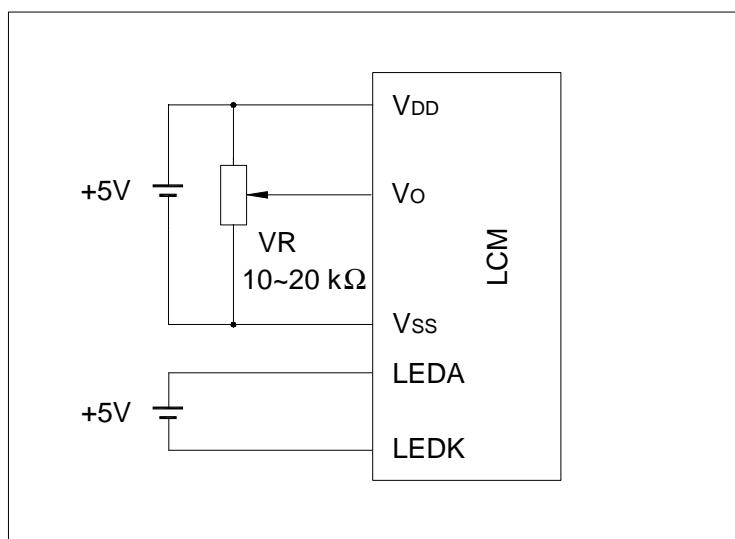
## 2. ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	VDD-VSS	-0.3	7.0	V
Supply Voltage(LCD)	VDD-VO	-0.3	13.0	V
Input Voltage	VI	-0.3	VDD+0.3	V
Operating Temp.	Topr	-20	70	°C
Storage Temp.	Tstg	-30	80	°C

### 3.3 LED Backlight Characteristics (Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max.	UNIT
Forward Voltage	V <sub>f</sub>		3.9	4.1	4.3	V
Forward Current	I <sub>f</sub>	V <sub>f</sub> =4.1V	--	110	--	mA
Peak Wave Length	λ <sub>p</sub>	I <sub>f</sub> =110mA	--	568	--	nm
Luminance	L <sub>v</sub>	I <sub>f</sub> =110mA	--	100	--	cd/m <sup>2</sup>

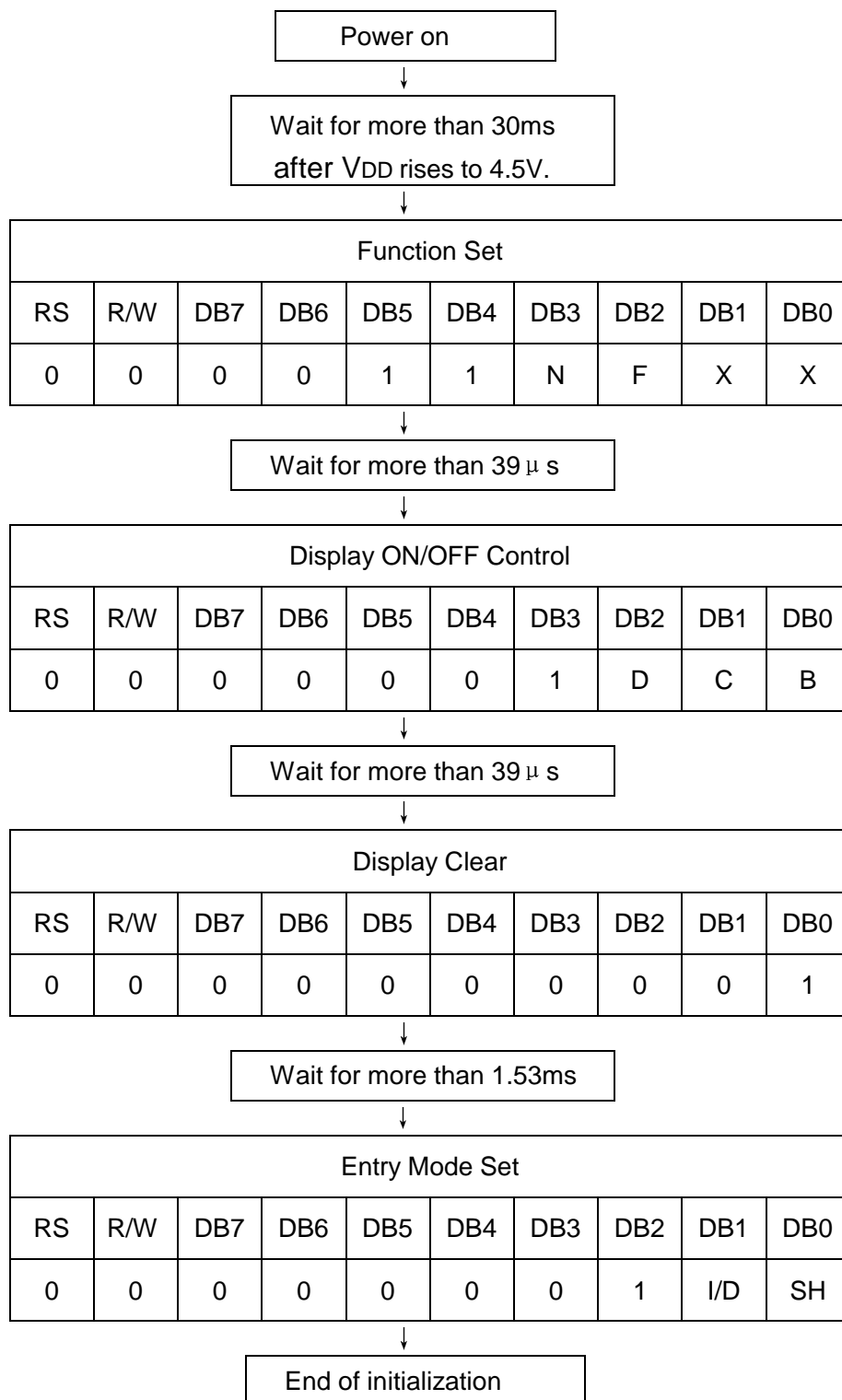
### 3.4 Power Supply



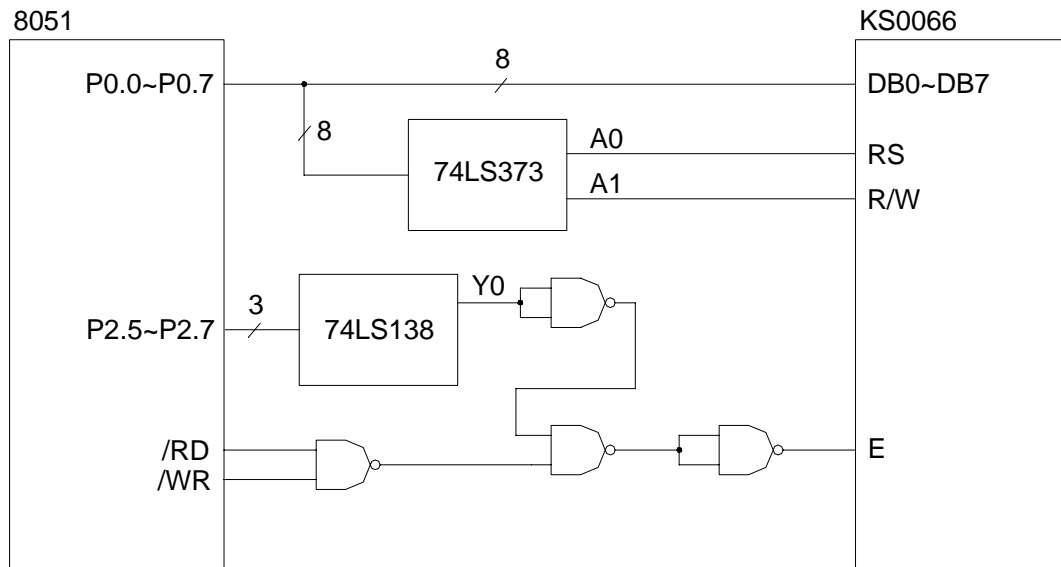
### Table 4.3 CGROM Character Code Table

[illegible]

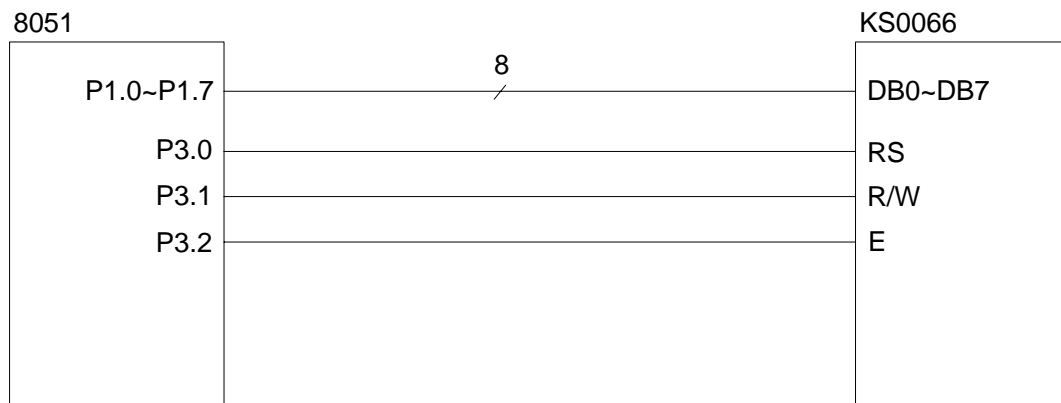
## (1). 8-Bit Initialization:



### 5.3 Connection with 8051 Family MPU



a. Application Circuit 1



b. Application Circuit 2