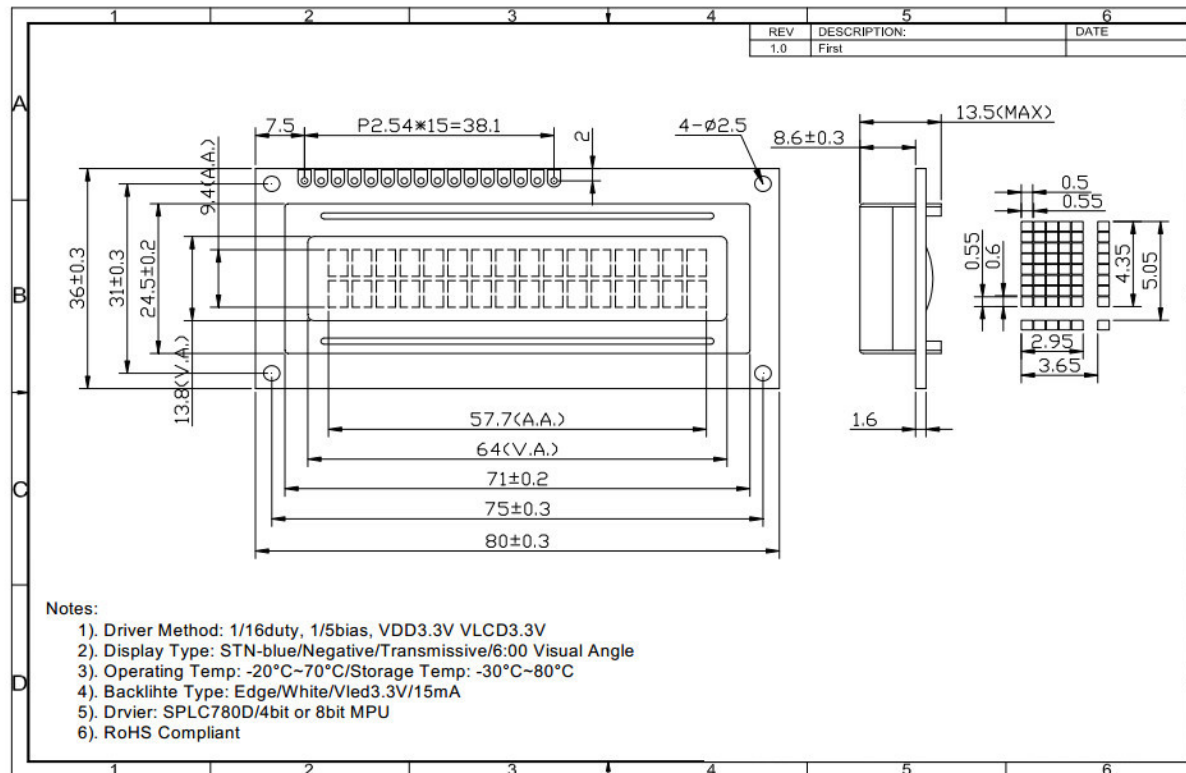
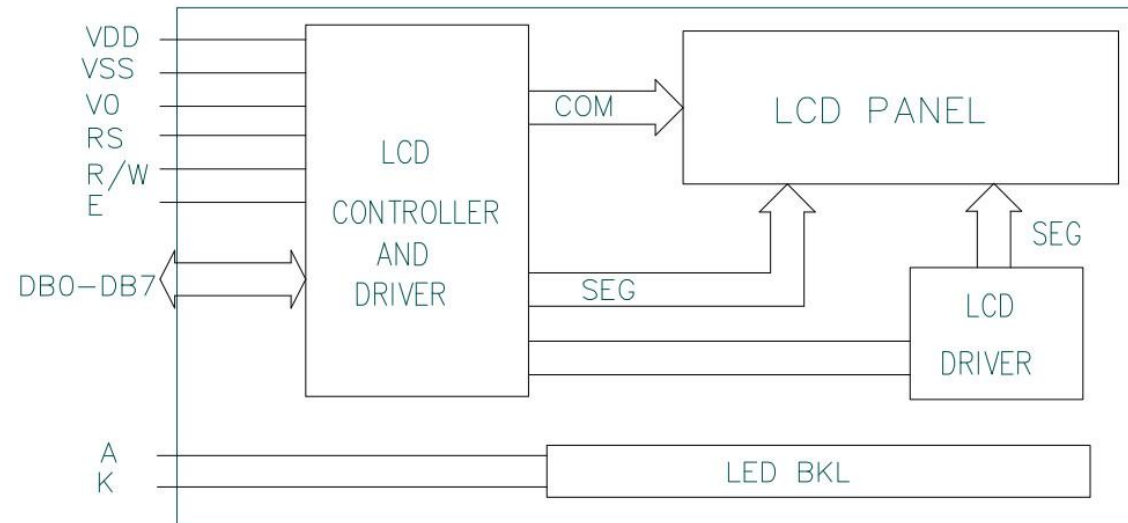


3.3V LCD with Blue Backlight (1602) Datasheet

Outline Dimension



Block Diagram



2. MECHANICAL SPECIFICATIONS

ITEM	SPECIFICATIONS	ITEM	REMARK
Module Size(L×W×H)	80.0×36.0×13.0	mm	Reference Dimensional Outline
View Area(W×H)	64.5×13.8	mm	
Effective V/Area	55.45×10.75	mm	
Number of Characters	16CH×2Lines	-	
Characters Size(W×H)	2.95×5.15	mm	
Dot Size(W×H)	0.55×0.60	mm	
Weight(Reflective/Led)	-	g	

3. ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	CONDITION	STANDARD	
			MIN	MAX
Logic Voltage	V _{DD}	Ta=25℃	-0.3V	7V
LCD Voltage	V _{LCD}		-0.3V	13V
Input Voltage	V _I		-0.3V	V _{DD} +0.3V
Operation Temperature	T _{OP}	—	-20℃	70℃
Storage Temperature	V _{OP}	—	-30℃	80℃

DC characteristics

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply voltage for LCD	V _{DD} -V ₀	Ta =25℃	-	-	3.3	V
Input voltage	V _{DD}			3.3		
Supply current	I _{DD}	Ta=25℃, V _{DD} =3.3V	-	1.5	2.5	mA
Input leakage current	I _{LKG}		-	-	1.0	uA
“H” level input voltage	V _{IH}		2.2	-	V _{DD}	V
“L” level input voltage	V _{IL}	Twice initial value or less	0	-	0.6	
“H” level output voltage	V _{OH}	LOH=-0.25mA	2.4	-	-	
“L” level output voltage	V _{OL}	LOH=1.6mA	-	-	0.4	
Backlight supply voltage	V _F		-	3.3	-	
Backlight supply current	I _{LED}	V _F =3.3V R=6.8 OHM	-	30	-	mA

Pin Description

Pin no.	Symbol	External connection	Function
1	V _{SS}	Power supply	Signal ground for LCM
2	V _{DD}		Power supply for logic for LCM
3	V ₀		Contrast adjust
4	RS	MPU	Register select signal
5	R/W	MPU	Read/write select signal
6	E	MPU	Operation (data read/write) enable signal
7~10	DB0~DB3	MPU	Four low order bi-directional three-state data bus lines. Used for data transfer between the MPU and the LCM. These four are not used during 4-bit operation.
11~14	DB4~DB7	MPU	Four high order bi-directional three-state data bus lines. Used for data transfer between the MPU
15	LED+	LED BKL power supply	Power supply for BKL
16	LED-		Power supply for BKL