



Bus Type	8080	6800	SPI (S8)	SPI (S9)
Control & Data Pins				
BM[1:0]	10b	11b	00b	01b
CS[1:0]	Chip Select			
CD	Control/Data			
WR0	WR	R/W	-	-
WR1	RD	EN	-	-
Access	Read/Write		Write Only	
D[7:0]	8-bit bus (Tri-state)		D0=SCK, D3=SDA	

\* Connect unused control pins and data bus pins to V<sub>b0</sub> or V<sub>ss</sub>

Table 4: Host interfaces Choices

- Note**
- Recommended component values:  
 C<sub>e</sub>: 100x-200x LCD load capacitance or 1.0uF (2V), whichever is higher.  
 C<sub>l</sub>: 10nF - 30nF (25V) is appropriate for most applications.  
 R<sub>l</sub>: 10MΩ. Acts as a draining circuit when the power is abnormally shut down.
  - The illustrated resistor values are for reference only. Please optimize for specific requirements of each application.

Interface			
Pin no	Symbol	Pin no	Symbol
1	NC	16	D5
2	NC	17	D4
3	NC	18	D3/SDA
4	NC	19	D2
5	VLCD	20	D1
6	VB0+	21	D0/SCK
7	VB0-	22	WR1
8	VB1-	23	WR0
9	VB1+	24	CD
10	VSS	25	RST
11	VDD	26	/CS0
12	BM1	27	NC
13	BM0	28	NC
14	D7	29	NC
15	D6	30	NC

Feature			
Controller	UC1601	Module	56.6 x 44.2
Duty	1/65 duty	Viewing Area	50.6 x 31.0
Bias	1/9 bias	Mounting hole	-
B/L	BLUE	Character Size	0.334 x 0.403

Absolute Maximum Rating					
Item	Symbol	Condition	Min	Max	Units
Supply for logic voltage	V <sub>dd</sub> -V <sub>ss</sub>	25°C	-0.3	4	V
LCD driving supply voltage	V <sub>dd</sub> -V <sub>ss</sub>	25°C	-0.3	12	V
Input voltage	V <sub>in</sub>	25°C	-0.4	V <sub>dd</sub> +0.3	V

Electrical Characteristics						
Item	Symbol	Condition	Min.	Typ.	Max.	Units
Power supply voltage	V <sub>dd</sub> -V <sub>ss</sub>	25°C	2.4	-	3.3	V
LCD operation voltage	V <sub>op</sub>	25°C	-	10.2	-	V
LED Forward Voltage	V <sub>F</sub>	25°C	-	3.2	-	V
LED Forward Current	I <sub>F</sub>	25°C	-	40	-	mA