



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司

SPECIFICATION

MODULE NO.: WO160160B

General Specification

Item	Dimension	Unit
Number of dots	160 x 160	—
Module dimension	82.2x 77.5 x 7.43 (MAX)	mm
View area	60.0 x 60.0	mm
Active area	54.38 x 54.38	mm
Dot size	0.32 x 0.32	mm
Dot pitch	0.34 x 0.34	mm
Duty	1/160	
Backlight Type	LED	
IC	UC1698	
Interface	8080	

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_{OP}	-20	—	+70	°C
Storage Temperature	T_{ST}	-30	—	+80	°C
Supply voltage for Logic	$V_{DD}-V_{SS}$	-0.3	—	4.0	V
LCD Driver Voltage	V_O-V_{SS}	-0.3		+19.8	V

Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	$V_{DD}-V_{SS}$	—	3.0	3.3	3.6	V
Supply Voltage For LCM	V_O-V_{SS}	$T_a=-20^{\circ}C$	—	—	—	V
		$T_a=25^{\circ}C$	16.2	16.5	16.8	V
		$T_a=70^{\circ}C$	—	—	—	V
Input High Volt.	V_{IH}	—	$0.8V_{DD}$	—	V_{DD}	V
Input Low Volt.	V_{IL}	—	—	—	$0.2 V_{DD}$	V
Output High Volt.	V_{OH}	—	$0.8 V_{DD}$	—	V_{DD}	V
Output Low Volt.	V_{OL}	—	—	—	$0.2V_{DD}$	V
Supply Current(No include LED Backlight)	I_{DD}	$V_{DD}=3.3V$	—	3.3	—	mA

Interface Pin Function

Pin No.	Symbol	Level	Description
1	VSS	—	Ground
2	AO	H/L	Date type select H:Data L:Instruction
3	WR	L	Write Operation of the host interface
4	RD	L	Read Operation of the host interface
5	XCS	L	Chip select PIN
6	RST	L	Reset signal
7	VDD	—	Power supply for Logic
8	DB0	H/L	Data bus line
9	DB1	H/L	Data bus line
10	DB2	H/L	Data bus line
11	DB3	H/L	Data bus line
12	DB4	H/L	Data bus line
13	DB5	H/L	Data bus line
14	DB6	H/L	Data bus line
15	DB7	H/L	Data bus line
16	LED-	—	Power supply for backlight negative
17	NC	—	No connection
18	LED+	—	Power supply for backlight position

