



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.:

WO240160A

General Specification

Item	Dimension	Unit
Number of dots	240 x 160	—
Module dimension	93.0 x 64.2 x 9.8 (MAX)	mm
View area	78.5 x 47.5	mm
Active area	69.58 x 43.98	mm
Dot size	0.27 x 0.255	mm
Dot pitch	0.29 x 0.275	mm
Duty	1/160	
Backlight Type	LED	
IC	ST7529	
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	$V_{DD}-V_{SS}$	-0.5	—	4.0	V
Power supply voltage (VDD standard)	VLCDIN, VLCDOUT	-0.5	—	+20	V
Input voltage	V_{IN}	-0.5	—	$V_{DD}+0.5$	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}	$T_a=-20^{\circ}\text{C}$	—	—	—	V
		$T_a=25^{\circ}\text{C}$	14.3	14.5	14.8	V
		$T_a=70^{\circ}\text{C}$	—	—	—	V
Input High Volt.	V_{IH}	—	$0.7V_{DD}$	—	V_{DD}	V
Input Low Volt.	V_{IL}	—	V_{SS}	—	$0.3V_{DD}$	V
Output High Volt.	V_{OH}	—	$V_{DD}-0.4$	—	—	V
Output Low Volt.	V_{OL}	—	V_{SS}	—	0.4	V
Supply Current(No include LED Backlight)	I_{DD}	$V_{DD}=3.3\text{V}$	—	4.8	—	mA

Interface Pin Function

Pin No.	Symbol	Level	Description
1	VDD		Power supply (+3.3V)
2	VSS		Power supply
3	/CS	L	Chip enable active “ L “
4	RS	H / L	H : Data , L : Instruction
5	/WR	L	Write enable input,active Low
6	/RD	L	Read enable input,active Low
7	DB0	H/L	Data bus line
8	DB1	H/L	Data bus line
9	DB2	H/L	Data bus line
10	DB3	H/L	Data bus line
11	DB4	H/L	Data bus line
12	DB5	H/L	Data bus line
13	DB6	H/L	Data bus line
14	DB7	H/L	Data bus line
15	/RST		Reset input pin /RST =Low, initialization is executed
16	BLA	Power	Backlight Positive Power Supply

Contour Drawing

