



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.:

WO2402A

General Specification

Item	Dimension	Unit
Number of Characters	24 characters x 2 Lines	—
Module dimension	86.2 x 24.7 x 6.0	mm
View area	72.3 x 11.84	mm
Active area	70.3 x 9.84	mm
Dot size	0.45 x 0.54	mm
Dot pitch	0.50 x 0.59	mm
Character size	2.45 x 4.67	mm
Character pitch	2.95 x 5.17	mm
Duty	1/17DUTY,1/5BIAS	
Backlight Type	LED	
IC	RW1062	
Interface	I2C	

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_{OP}	-20	—	+70	°C
Storage Temperature	T_{ST}	-30	—	+80	°C
Input Voltage	V_{IN}	-0.3	—	$V_{DD}+0.3$	V
Supply Voltage For Logic	$V_{DD}-V_{SS}$	0.3	—	5.5	V
Supply Voltage For LCD	V_{LCD}	-0.3	—	7.0	V

Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	$V_{DD}-V_{SS}$	—	—	3.0/5.0	—	V
Supply Voltage For LCD	V_{LCD}	$T_a=-20^{\circ}\text{C}$	—	—	—	V
		$T_a=25^{\circ}\text{C}$	4.4	4.5	4.6	V
		$T_a=70^{\circ}\text{C}$	—	—	—	V
Input High Volt.	V_{IH}	—	$0.7 V_{DD}$	—	V_{DD}	V
Input Low Volt.	V_{IL}	—	-0.3	—	0.6	V
Output High Volt.	V_{OH}	—	$0.75V_{DD}$	—	—	V
Output Low Volt.	V_{OL}	—	—	—	$0.2 V_{DD}$	V
Supply Current(No include LED Backlight)	I_{DD}	—	—	0.92/2.01	—	mA

Interface Pin Function

Pin No.	Symbol	Level	Description
1	XRESET		Reset pin, Initialized to Low
2~6	V0~V4		Bias voltage level for LCD driving
7	D6(SID)		Serial input data
8	D7(SCLK)		Serial clock
9	VSS		GND
10	VDD	3.0/5.0	Power supply
11	VOUT		Voltage converter output voltage
12	CAP2N		External Capacitance input, To use the voltage converter (2 times/ 3times), these pins must be connected to the external capacitance.
13	CAP2P		
14	CAP1P		
15	CAP1N		
16	VR		Reference voltage input to generate V0

