



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司

SPECIFICATION

MODULE NO.: WG160160E5

General Specification

Item	Dimension	Unit
Number of dots	160 x 160	—
Module dimension	85.0 x 100.0 x 14.5 (MAX)	mm
View area	62.0 x 62.0	mm
Active area	60.78 x 60.78	mm
Dot size	0.36 x 0.36	mm
Dot pitch	0.38 x 0.38	mm
Duty	1/160	
Backlight Type	LED	
IC	RA8806	
Interface	8080 family	

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	—	6.5	V

Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	$V_{DD}-V_{SS}$	—	4.5	5.0	5.5	V
Supply Voltage For LCM *Note	$V_{DD}-V_0$	$T_a=-20^{\circ}\text{C}$	—	—	—	V
		$T_a=25^{\circ}\text{C}$	17.9	18.4	18.9	V
		$T_a=70^{\circ}\text{C}$	—	—	—	V
Input High Volt.	V_{IH}	—	$0.8 V_{DD}$	—	V_{DD}	V
Input Low Volt.	V_{IL}	—	0	—	$0.2 V_{DD}$	V
Output High Volt.	V_{OH}	—	$V_{DD}-0.4$	—	V_{DD}	V
Output Low Volt.	V_{OL}	—	0	—	$V_{DD}+0.4$	V
Supply Current	I_{DD}	$V_{DD}=5.0\text{V}$	—	26.3	40.0	mA

Interface Pin Function

Pin No.	Symbol	Level	Description
1	FGND	—	Frame Ground
2	VSS	—	GND
3	Vdd	—	Power supply (+5.0 V)
4	Vo	—	Power supply for LCD driver
5	/WR	I	Write When MPU I/F is 8080 series, this pin (WR) is used as data write, active low.
6	/RD	I	Read Enable When MPU interface(I/F) is 8080 series, this pin (RD) is used as data read, active low.
7	/CS	I	Chip Select Input
8	RS	I	Command / Data Select Input
9	BUSY	O	Busy Signal Output
10	/RST	I	Reset Signal Input
11	DB0	I/O	Data bus line
12	DB1	I/O	Data bus line
13	DB2	I/O	Data bus line
14	DB3	I/O	Data bus line
15	DB4	I/O	Data bus line
16	DB5	I/O	Data bus line
17	DB6	I/O	Data bus line
18	DB7	I/O	Data bus line
19	NC	—	No connection
20	Vee	—	Negative voltage output

Contour Drawing &Block Diagram

