



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司

SPECIFICATION

MODULE NO.:

WO2004C

General Specification

Item	Dimension	Unit
Module dimension	68.3 x 36.4 x 6.0	mm
View area	60.5 x 22.18	mm
Active area	58.5 x 20.18	mm
Dot size	0.45x 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	1/33DUTY,1/6BIAS	
Backlight Type	LED	
IC	IST3602	
Interface	I2C	

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-20	—	+70	°C
Storage Temperature	TST	-30	—	+80	°C
Input Voltage	V _{IN}	-0.3	—	V _{DD} +0.3	V
Power Supply Voltage	V _{DD}	-0.3	—	4.0	V
LCD Driver Voltage	V _{LCD}	-0.3	—	18.0	V

Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	V _{DD}	—	2.7	3.0	3.3	V
Supply Voltage For LCD	V _O -V _{SS}	Ta=-20°C	—	—	—	V
		Ta=25°C	7.6	7.8	8.0	V
		Ta=70°C	—	—	—	V
Input High Volt.	V _{IH}	—	0.8 V _{DDIO}	—	V _{DD}	V
Input Low Volt.	V _{IL}	—	V _{SS}	—	0.2 V _{DD}	V
Output High Volt.	V _{OH}	—	0.8 V _{DDIO}	—	V _{DD}	V
Output Low Volt.	V _{OL}	—	—	—	0.2 V _{DD}	V
Supply LCM current	I _{DD}	V _{DD} =3.0V	—	0.5	—	mA

Interface Pin Function

Pin	Symbol	Function Description
1	ITO ESD	Ground
2	V0	LCD Power Supply
3	VSS	Ground(VSS2&VSS3)
4	VDD	Power Supply(VDD2&VDD3)
5	VSS1	Ground(VSS1)
6	VDD1	Power Supply(VDD1)
7	SDA	Serial input data
8	SCL	Serial input clock
9	RESB	Hardware Reset input pin
10	ITO ESD	Ground
11	K	LED-
12	A	LED+

Contour Drawing

