



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

General Specifications

Item	Dimension	Unit
Size	0.96	inch
Dot Matrix	80 x RGB x 160(TFT)	dots
Module dimension	13.5(W) x 27.95(H) x 1.54(D)	mm
Active area	10.8 x 21.696	mm
Dot pitch	0.135 x 0.1356	mm
LCD type	TFT, Normally black, Transmissive	
Viewing Angle	80/80/80/80	
Aspect Ratio	1:2	
IC	ST7735S	
Backlight Type	LED, Normally White	
Touch Panel	Without Touch Panel	
Surface	Glare	

*Color tone slight changed by temperature and driving voltage.

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-20	—	+70	°C
Storage Temperature	TST	-30	—	+80	°C

Electrical Characteristics

1. Operating conditions:

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage	VCC	3.0	3.3	3.6	V
Supply LCM current	ICC	—	—	2	mA

2. LED driving conditions

Parameter	Symbol	Min	Typ	Max	Unit
LED current	I _{LED}	—	20	—	mA
LED voltage	V _{LED}	2.8	3.1	3.3	V
LED Life Time		—	50000	—	Hr

Interface

1. LCM PIN Definition

Pin	Symbol	Function
1	SPI4W	SPI4W='0', 3-wire SPI. SPI4W='1', 4-wire SPI.
2	NC	No connection
3	SDA	Serial interface data
4	SCL	Serial interface clock
5	RS	Data/command selection pin (4-wire SPI use)
6	RES	Reset pin (low active)
7	CS	Chip selection pin (low active)
8	GND	Ground
9	NC	No connection
10	VCC	Power supply.
11	LEDK	Back light cathode
12	LEDA	Back light anode
13	GND	Ground

Contour Drawing

