

TFT DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.: WF18FTZAADNN0#

General Specifications

Item	Dimension	Unit
Size	1.77	inch
Dot Matrix	128 x RGB x 160(TFT)	dots
Module dimension	34.0(W) x 45.83(H) x 2.65(D)	mm
Active Area	28.03 x 35.04	mm
Dot pitch	0.073 x 0.219	mm
LCD type	TFT, Normally White, Transmissive	
View Direction	6 o'clock	
Gray Scale Inversion Direction	12 o'clock	
Aspect Ratio	Portrait	
IC	ST7735S	
Backlight Type	LED, Normally White	
Touch Panel	Without Touch Panel	
Surface	Anti-Glare	

Absolute Maximum Ratings

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

Electrical Characteristics

Operating conditions:

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Analog	VCI	—	2.5	2.75	4.8	V
Interface Operation Voltage	IOVCC	—	1.65	1.8	3.7	V
Supply LCM current	ICI(mA)	—	-	0.9	2	mA

LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
LED current		-	40	-	mA
Power Consumption		-	124	-	mW
LED voltage	VBL+	2.9	3.1	3.4	V
LED Life Time		-	50,000	-	Hr

Interface

LCM PIN Definition

Pin	Symbol	I/O	Function															
1	VLED-	P	Back light cathode															
2	VLED+	P	Back light anode															
3	IM0	I	- MCU Parallel Interface Type Selection -If Not Used, Please Fix this Pin at VDDI or DGND Level.															
4	IM1		<table><tr><th>IM1</th><th>IM0</th><th>Parallel Interface</th></tr><tr><td>0</td><td>0</td><td>MCU 8-bit Parallel</td></tr><tr><td>0</td><td>1</td><td>MCU 16-bit Parallel</td></tr><tr><td>1</td><td>0</td><td>MCU 9-bit Parallel</td></tr><tr><td>1</td><td>1</td><td>MCU 18-bit Parallel</td></tr></table>	IM1	IM0	Parallel Interface	0	0	MCU 8-bit Parallel	0	1	MCU 16-bit Parallel	1	0	MCU 9-bit Parallel	1	1	MCU 18-bit Parallel
IM1	IM0		Parallel Interface															
0	0		MCU 8-bit Parallel															
0	1		MCU 16-bit Parallel															
1	0	MCU 9-bit Parallel																
1	1	MCU 18-bit Parallel																
5	IM2	I	MCU Parallel Interface Bus and Serial Interface select IM2='1', Parallel Interface IM2='0', Serial Interface															
6	RESET	P	Reset signal															
7-12	NC	-	No Connect															
13-28	DB15-DB0(SPI_SDA)	I/O	DB15:0] are used as MCU parallel interface data bus. -DBis the serial input/output signal in serial interface mode. -In serial interface, DB15:1] are not used and should be fixed at VDDI or DGND level.															
29	NC	-	No Connect															
30	RD	I	Read Enable in 8080 MCU Parallel Interface. -If not used, please fix this pin at VDDI or DGND level.															
31	WR	I	Serial clock -Write Enable in MCU Parallel Interface. -If not used, please fix this pin at VDDI or DGND level.															
32	D/C(SPI_SCL)	I	-Display data/command Selection Pin in MCU Interface. -D/CX='1': Display Data or Parameter. -D/CX='0': Command Data. -In Serial Interface, this is used as SCL. -If not used, please fix this pin at VDDI or DGND level.															
33	CS(SPI_CS)	I	Chip enable															
34	IOVCC	P	Interface Operation Voltage															
35	VCI	P	Analog Supply Voltage															
36	GND	P	Ground															
37-40	NC	-	No Connect															

Contour Drawing

