TFT DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司

Represented by:

FIRST Components s.r.l.
www.first-components.com
technical@first-components.com
+39 0332 1888005

SPECIFICATION

MODULE NO.: WF121-1280800BL#A08-FC

General Specifications

Item	Dimension	Unit
Size	12.1	inch
Dot Matrix	1280 x R.G.B. x 800	dots
Module dimension	308.0*214.1*14.2(MAX)	mm
Active area	261.12*163.2	mm
Pixel pitch	0.204 x 0.204	mm
LCD type	TFT, Normally Black, Transmissive	
Viewing Angle	89/89/89/89	
TFT Interface	LVDS	
TFT Driver IC	EK77526AHI205A	
Aspect Ratio	16:9	
Backlight Type	LED ,Normally White	
PCAP Driver IC	ILI2132 or equivalent	
PCAP Resolution	16384*16384	
PCAP Interface	USB (I2C available)	
PCAP FW Version	0x07.0x00.0x00.0x00.0x02.0x00.0x00.0x00	
Touch Panel	With PCAP	
Surface Treatment	Glare	

*Color tone slight changed by temperature and driving voltage.

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-20	—	+70	℃
Storage Temperature	TST	-20	—	+70	℃

Electrical Characteristics

LCD Electronics Specification

Parameter		Symbol	Value			Unit
			Min.	Typ.	Max.	
Power Supply Voltage		Vcc	3.0	3.3	3.6	V
Permissive Ripple Voltage		V_{RP}	-	50	-	mV
Rush Current		I_{RUSH}		1.5		A
Initial Stage Current		I_{IS}	-	-	1.0	A
Power Supply Current	White	-	-	530	675	mA
	Black	-	-	350	430	mA
LVDS Differential Input High Threshold		$V_{TH(LVDS)}$	+100	-	-	mV
LVDS Differential Input Low Threshold		VTL(LVDS)	-	-	-100	mV
LVDS Common Mode Voltage		V_{CM}	1.125	1.2	1.375	V
LVDS Differential Input Voltage		$\|V_{ID}\|$	100	-	600	mV
Terminating Resistor		R_T	-	100	-	Ohm
Supply CTP		VDDT(3.3V)	3.0	3.3	3.6	V
		IDDT(3.3V)	-	85	130	mA
		VDDT(5V)	-	5.0	-	V
		IDDT(5V)	-	90	135	mA

first components

Interface

1. LCM PIN Definition

Pin No.	Symbol	Description
1	12V	LED power
2	12V	LED power
3	12V	LED power
4	12V	LED power
5	ENLED	Enable pin
6	Dimming	Backlight Adjust
7	NC	No connection
8	NC	No connection
9	VCC	Power supply: +3.3V
10	VCC	Power supply: +3.3V
11	GND	Ground
12	GND	Ground
13	RX0-	Negative transmission data of pixel 0
14	RX0+	Positive transmission data of pixel 0
15	GND	Ground
16	RX1-	Negative transmission data of pixel 1
17	RX1+	Positive transmission data of pixel 1
18	GND	Ground
19	RX2-	Negative transmission data of pixel 2
20	RX2+	Positive transmission data of pixel 2
21	GND	Ground
22	RXCLK-	Negative of clock
23	RXCLK+	Positive of clock
24	GND	Ground
25	RX3-	Negative transmission data of pixel 3
26	RX3+	Positive transmission data of pixel 3
27	GND	Ground
28	SEL6/8	LVDS 6/8 bit select function control, Low or NC → 6 bit Input Mode High → 8bit Input Mode

first components

29	GND	Ground
30	NC	No connection

2. CON2

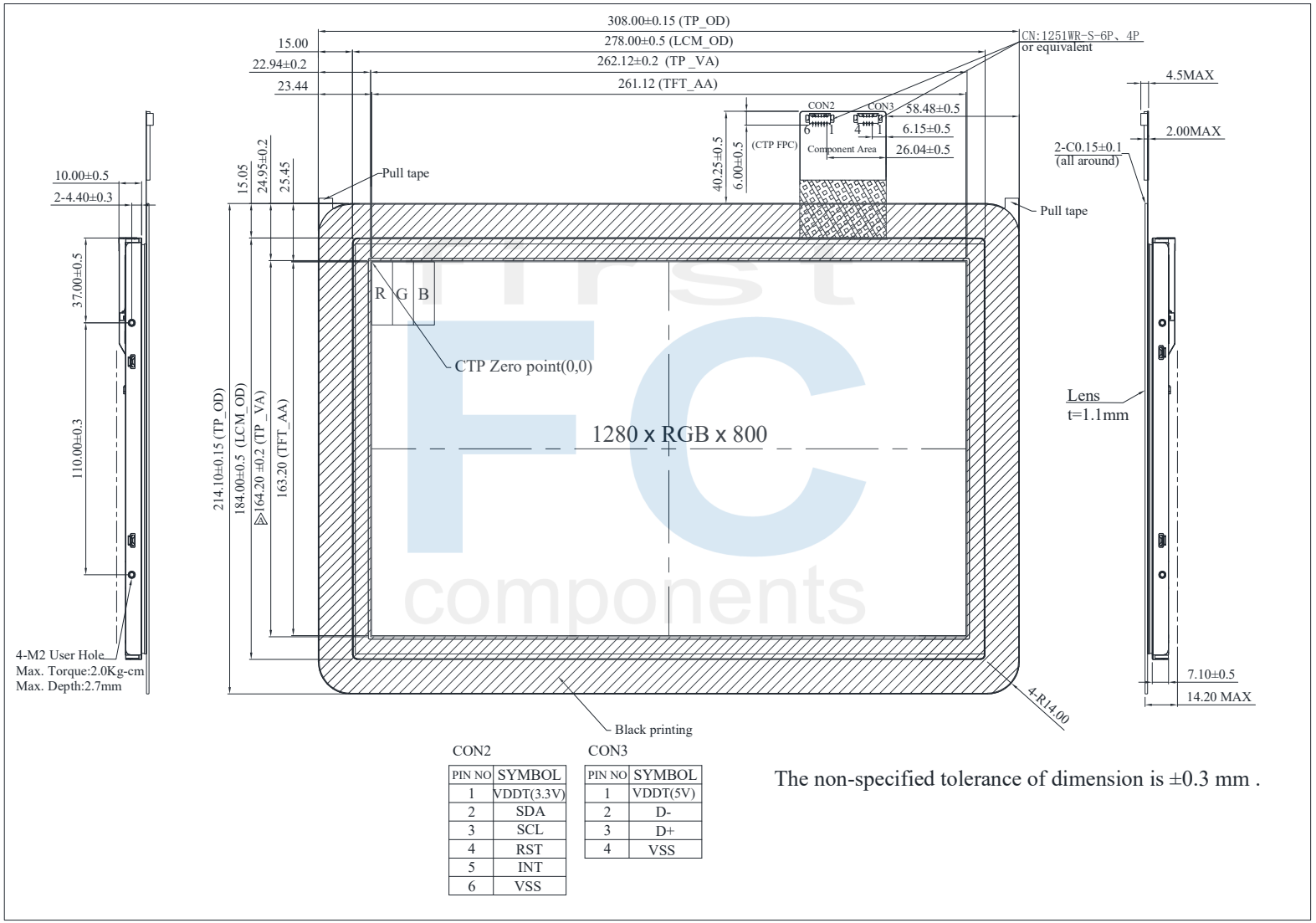
Pin	Symbol	Function
1	VDDT(3.3V)	Power supply
2	SDA	I2C data input and output
3	SCL	I2C clock inputI2C clock input
4	RST	External Reset, Low is active
5	INT	External interrupt to the host
6	VSS	Ground for analog circuit

3. CON3

Pin	Symbol	Function
1	VDDT(5V)	Power supply
2	D-	Data -
3	D+	Data +
4	VSS	System ground

first FC components

Contour Drawing



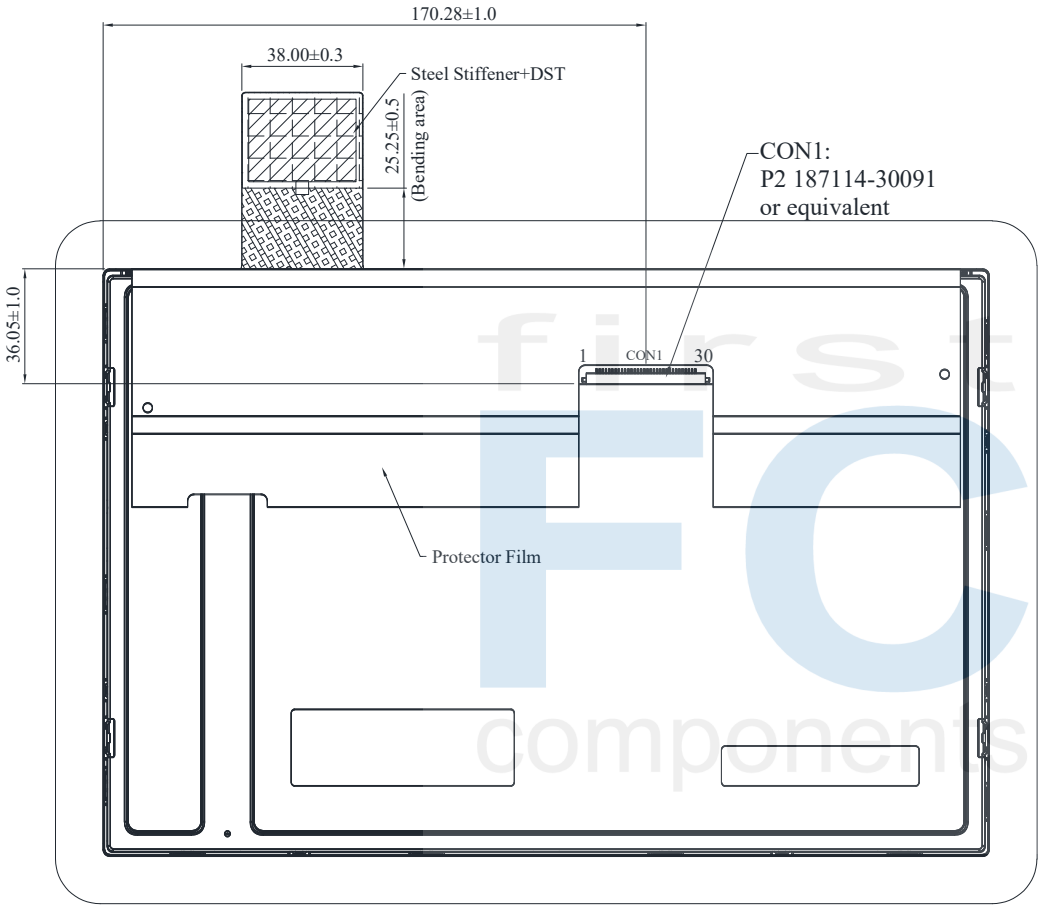
CON2

PIN NO	SYMBOL
1	VDDT(3.3V)
2	SDA
3	SCL
4	RST
5	INT
6	VSS

CON3

PIN NO	SYMBOL
1	VDDT(5V)
2	D-
3	D+
4	VSS

The non-specified tolerance of dimension is ±0.3 mm .



CON1

PIN NO.	SYMBOL
1	12V
2	12V
3	12V
4	12V
5	ENLED
6	Dimming
7	NC
8	NC
9	VCC
10	VCC
11	GND
12	GND
13	RX0-
14	RX0+
15	GND
16	RX1-
17	RX1+
18	GND
19	RX2-
20	RX2+
21	GND
22	RXCLK-
23	RXCLK+
24	GND
25	RX3-
26	RX3+
27	GND
28	SEL6/8
29	GND
30	NC

The non-specified tolerance of dimension is ±0.3 mm .

first components