

TFT DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.: WF28ETLAJDNF0#

General Specifications

Item	Dimension	Unit
Size	2.8"	
Dot Matrix	240 x RGB x 320(TFT)	dots
Module dimension	50.0(W) x 69.2(H) x 3.42(D)	mm
Active area	43.2 x 57.6	mm
Dot pitch	0.06 x 0.18	mm
LCD type	TFT, Normally White, Transmissive	
TFT Control IC	ILI9341 or Equivalent	
TFT Interface	8-bit/16-bit CPU (build in controller)	
View Direction	6 o'clock	
Gray Scale Inversion Direction	12 o'clock	
Aspect Ratio	3:4	
Backlight Type	LED, Normally White	
PCAP IC	FT6336G or Equivalent	
PCAP Interface	I2C	
Touch Panel	Projected Capacitive Touch Panel (PCAP)	
Surface	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	Min	Typ	Max	Unit
Supply Voltage For Analog	VCI	2.5		3.3	V
Supply Voltage For Logic	IOVCC	1.65		3.3	V
Supply Current For LCM	ICC	—	5	7.5	mA
Supply Voltage For Touch Logic	VDDT	3.0	3.3	3.6	V

LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
LED current		-	80	-	mA
Power Consumption		224	256	272	mW
LED voltage	VBL+	2.9	3.2	3.4	V
LED Life Time		50,000	—	-	Hr

Interface

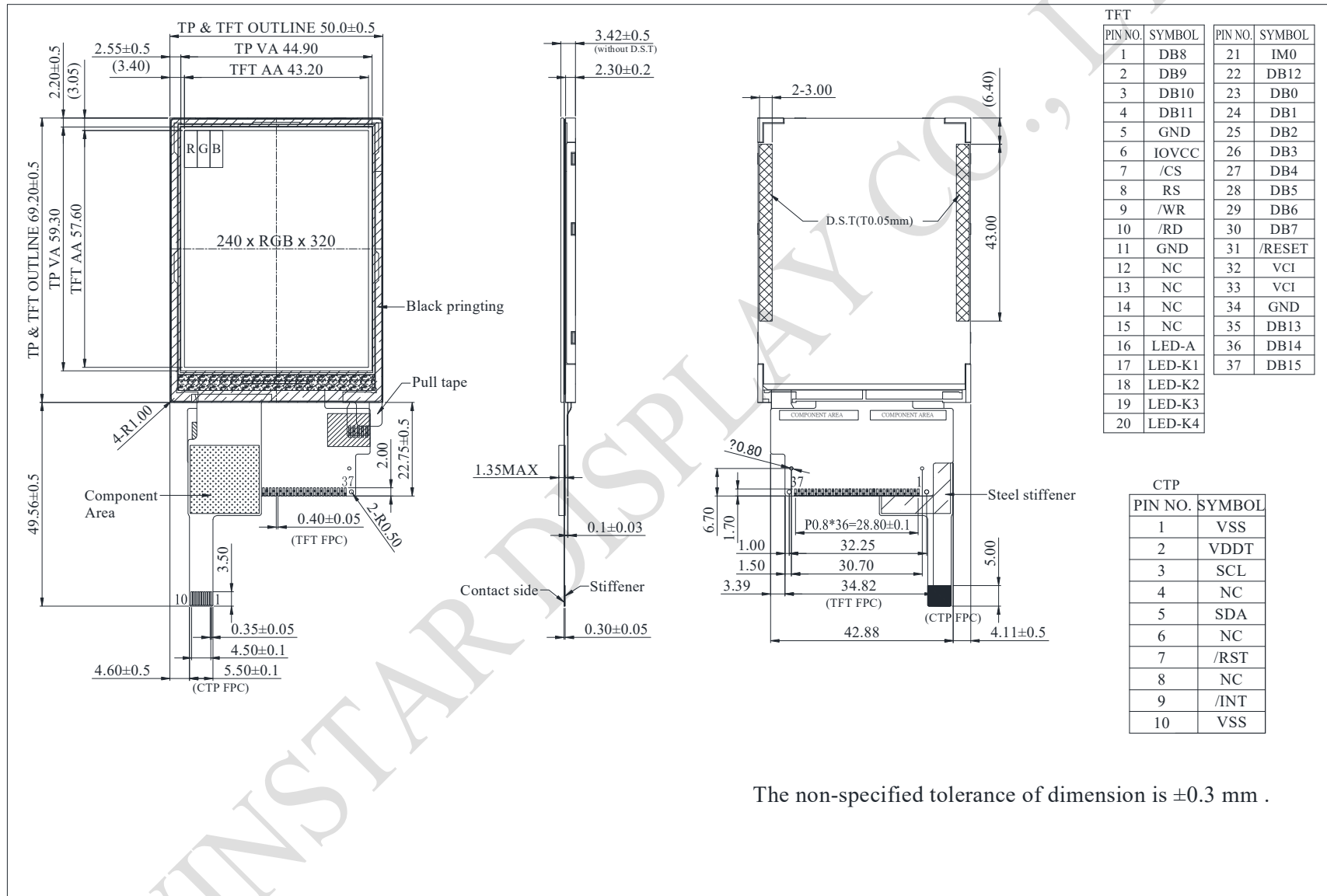
LCM PIN Definition

NO	Symbol	Function	I/O
1~4	DB8~DB11	Data bus	I/O
5	GND	Ground	P
6	IOVCC	power supply	P
7	/CS	Chip select signal.	I
8	RS	register select	I
9	/WR	Write data when WRX is Low.	I
10	/RD	Read strobe signal. Read out data when RDX is Low.	I
11	GND	Ground	P
12	NC	No connection	-
13	NC	No connection	-
14	NC	No connection	-
15	NC	No connection	-
16	LEDA	Anode of LED backlight.	P
17~20	LEDK1~4	Cathode of LED backlight.	P
21	IM0	IM0=0 8Bit DB0-7; IM0=1 16Bit DB0-DB15	P
22	DB12	Data bus	I/O
23~30	DB0~DB7	Data bus	I/O
31	/RESET	System reset pin.	I
32~33	VCI	power supply	P
34	GND	Ground	P
35~37	DB13~DB15	Data bus	I/O

PCAP PIN Definition

Pin	Symbol	Function
1	VSS	Ground for analog circuit
2	VDDT	Power Supply : +3.3V
3	SCL	I2C clock input
4	NC	No connect
5	SDA	I2C data input and output
6	NC	No connect
7	/RST	External Reset, Low is active
8	NC	No connect
9	/INT	External interrupt to the host
10	VSS	Ground for analog circuit

Contour Drawing



TFT			
PIN NO.	SYMBOL	PIN NO.	SYMBOL
1	DB8	21	IM0
2	DB9	22	DB12
3	DB10	23	DB0
4	DB11	24	DB1
5	GND	25	DB2
6	IOVCC	26	DB3
7	/CS	27	DB4
8	RS	28	DB5
9	/WR	29	DB6
10	/RD	30	DB7
11	GND	31	/RESET
12	NC	32	VCI
13	NC	33	VCI
14	NC	34	GND
15	NC	35	DB13
16	LED-A	36	DB14
17	LED-K1	37	DB15
18	LED-K2		
19	LED-K3		
20	LED-K4		

CTP	
PIN NO.	SYMBOL
1	VSS
2	VDDT
3	SCL
4	NC
5	SDA
6	NC
7	/RST
8	NC
9	/INT
10	VSS

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