

TFT DISPLAY SPECIFICATION



RAYSTAR

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RFC202990A-AYW-MNR

General Specifications

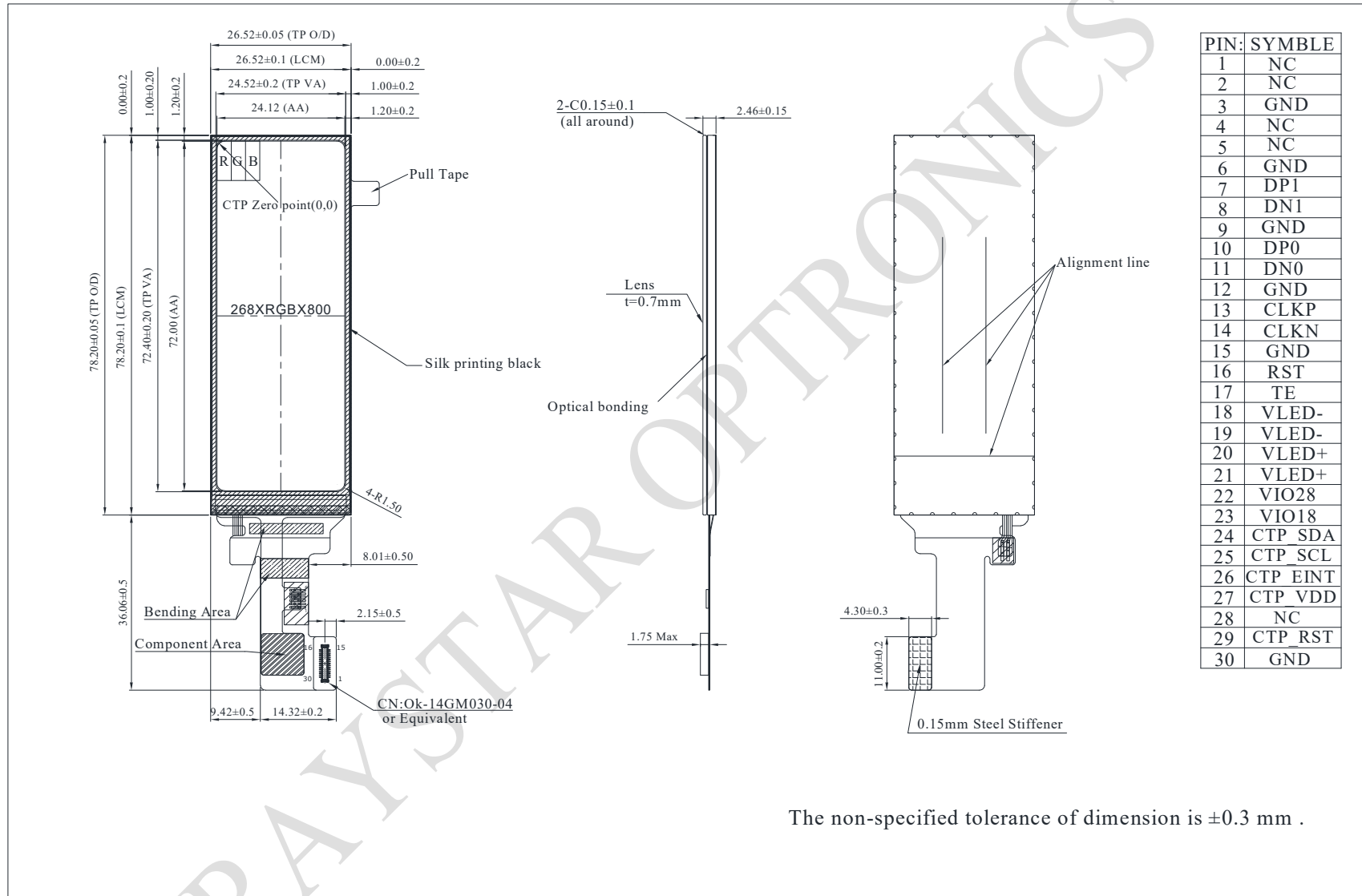
- Size: 2.99 inch
- Dot Matrix: 268 x RGB x 800(TFT) dots
- Module dimension: 26.52 (W) x 78.2 (H) x 2.46 (D) mm
- Active area: 24.12 x 72.0 mm
- Pixel Pitch: 0.09 x 0.09 mm
- LCD type: TFT, Normally Black, Transmissive
- Interface: 2-Lanes MIPI
- Driver IC: GC9503
- Viewing angle: 80/80/80/80(IPS)
- PCAP Driver IC: CST328
- PCAP Interface: I2C
- PCAP FW Version: 1.0.3
- PCAP Resolution: 268*820
- Backlight Type: LED, Normally White
- Touch Panel: Projected Capacitive Touch Panel, PCAP
- Surface: Glare

Interface

LCM PIN Definition

Pin No.	Symbol	Description
1	NC	No connection
2	NC	No connection
3	GND	Power ground
4	NC	No connection
5	NC	No connection
6	GND	Power ground
7	DP1	MIPI-DSI data lane 1 positive input pin
8	DN1	MIPI-DSI data lane 1 negative input pin
9	GND	Power ground
10	DP0	MIPI-DSI data lane 0 positive input pin
11	DN0	MIPI-DSI data lane 0 negative input pin
12	GND	Power ground
13	CLKP	MIPI-DSI data lane positive input pin
14	CLKN	MIPI-DSI data lane negative input pin
15	GND	Power ground
16	RST	Reset signal(low active)
17	TE	Serves TE (Tearing Effect) pin on MPU interface
18	VLED-	LED backlight cathode
19	VLED-	LED backlight cathode
20	VLED+	LED backlight anode
21	VLED+	LED backlight anode
22	VI028	Analog power supply
23	VI018	Power supply for the logic power and I/O circuit
24	CTP_SDA	TP-SDA
25	CTP_SCL	TP-SCL
26	CTP_EINT	TP-EINT
27	CTP_VDD	TP-VCC
28	NC	No connection
29	CTP_RST	TP-RESET
30	GND	Power ground

Contour Drawing



Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Power Supply voltage 1	VI028~GND	-0.3	+4.6	V
Power Supply voltage 2	VI018~GND	-0.3	+4.6	V
Logic Input Voltage Range	V_{IN}	-0.3	VI018+0.5	V
Logic Output Voltage Range	V_O	-0.3	VI018+0.5	V

Electrical Characteristics

Operating conditions

Item	Symbol	Min	Typ	Max	Unit
Supply voltage for analog circuit	VI028	2.6	2.8	3.6	V
Working current for VI028	—	—	43.0	65.0	mA
Supply voltage for logic circuit	VI018	1.65	1.8	3.3	V
Input voltage 'H'level	VIH	0.7*VI018	—	VI018	V
Input voltage 'L'level	VIL	GND	—	0.3*VI018	V
Output voltage 'H'level	VOH	0.8*VI018	—	VI018	V
Output voltage 'L'level	VOL	GND	—	0.2*VI018	V
Supply PCAP	CTP_VDD	2.65	2.8	3.3	V
	CTP_IDD	—	7.0	11.0	mA