TFT DISPLAY SPECIFICATION

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RFF700A9-AWH-DNB

SPECIFICATION

General Specifications

- Size: 7.0 inch
- Dot Matrix: 800 x RGB x 480(TFT) dots
- Module dimension: 165.8 (W) x 106.61 (H) x 8.9(D) mm
- Active area: 152.40 x 91.44 mm
- Pixel pitch: 0.1905 x 0.1905 mm
- LCD type: TFT, Normally Black, Transmissive
- View Direction: 80/80/80/80
- TFT Interface: 24-bit RGB
- TFT Driver IC: HX8249-A + HX8678-C or Equivalent
- Aspect Ratio: 15:9
- Backlight Type: LED, Normally White
- PCAP IC: ILI2511 or equivalent
- PCAP Interface: USB (I2C available)
- PCAP FW Version: 6.0.0.0.0.0.0.1
- Touch Panel: With PCAP
- Surface: Glare

*Color tone slight changed by temperature and driving voltage.

Interface

1. LCM PIN Definition

Pin	Symbol	Function
1-4	NC	No connection
5	GND	Power Ground
6	NC	No connection
7	VCC	Power voltage
8	MODE	Input timing mode selection. MODE: 0 — Function: DE only — Note: - MODE: 1 — Function: HS+VS — Note: Default
9	DE	Data enable signal for TTL mode.
10	VS	Vertical sync input
11	HS	Horizontal sync input
12	B7	Blue data(MSB)
13	B6	Blue data
14	B5	Blue data
15	B4	Blue data
16	B3	Blue data
17	B2	Blue data
18	B1	Blue data
19	B0	Blue data(LSB)
20	G7	Green data(MSB)
21	G6	Green data
22	G5	Green data
23	G4	Green data
24	G3	Green data
25	G2	Green data
26	G1	Green data
27	G0	Green data(LSB)
28	R7	Red data(MSB)
29	R6	Red data
30	R5	Red data
31	R4	Red data
32	R3	Red data

<table>
<tr><td>33</td><td>R2</td><td>Red data</td></tr>
<tr><td>34</td><td>R1</td><td>Red data</td></tr>
<tr><td>35</td><td>R0</td><td>Red data (LSB)</td></tr>
<tr><td>36</td><td>GND</td><td>Power Ground</td></tr>
<tr><td>37</td><td>DCLK</td><td>Sample clock</td></tr>
<tr><td>38</td><td>GND</td><td>Power Ground</td></tr>
<tr><td>39</td><td>L/R</td><td>Horizontal shift direction (source output) selection.
<table>
<tr><th>L/R</th><th>Source output sequence and data order</th><th>Note</th></tr>
<tr><td>1</td><td>Left to right</td><td>Default</td></tr>
<tr><td>0</td><td>Right to left</td><td>-</td></tr>
</table></td></tr>
<tr><td>40</td><td>U/D</td><td>Vertical shift direction (gate output) selection.
<table>
<tr><th>U/D</th><th>Function</th><th>Note</th></tr>
<tr><td>1</td><td>Top→bottom</td><td>Default</td></tr>
<tr><td>0</td><td>Bottom→top</td><td>-</td></tr>
</table></td></tr>
<tr><td>41</td><td>NC</td><td>No connection</td></tr>
<tr><td>42</td><td>NC</td><td>No connection</td></tr>
<tr><td>43</td><td>NC</td><td>No connection</td></tr>
<tr><td>44</td><td>RESET</td><td>Reset pin. The chip is in reset state when RESETB=0.</td></tr>
<tr><td>45</td><td>NC</td><td>No connection</td></tr>
<tr><td>46</td><td>NC</td><td>No connection</td></tr>
<tr><td>47</td><td>DITHB</td><td>STBYB Standby mode setting pin. The chip is in standby mode when STBYB=0.</td></tr>
<tr><td>48</td><td>GND</td><td>Power Ground</td></tr>
<tr><td>49</td><td>NC</td><td>No connection</td></tr>
<tr><td>50</td><td>NC</td><td>No connection</td></tr>
</table>

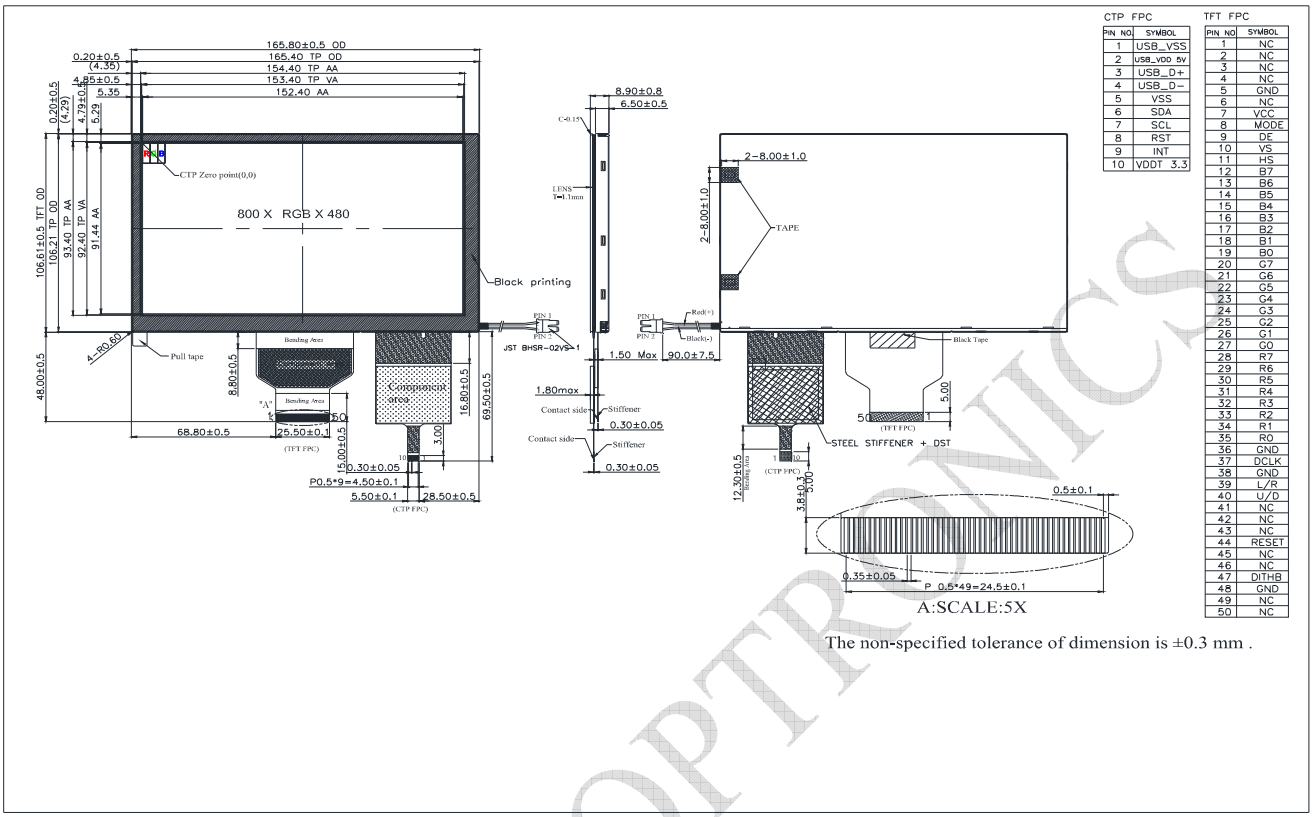
2. Backlight PIN Definition

Pin	Symbol	Description
1	VLED+	Red, LED_ Anode
2	VLED-	Black, LED_ Cathode

3. PCAP PIN Definition

Pin	Symbol	Function
1	USB_VSS	System ground
2	USB_VDD 5V	Power supply
3	USB_D+	Data +
4	USB_D-	Data -
5	VSS	System ground
6	SDA	I2C data input and output
7	SCL	I2C clock input
8	RST	External Reset, Low is active
9	INT	External interrupt to the host
10	VDDT 3.3	Power supply

Contour Drawing



Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+80	℃
Storage Temperature	TST	-40	—	+85	℃

Electrical Characteristics

1. Operating conditions

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage	Vcc	2.7	3.3	3.6	V
Current of power supply	Icc	—	101	150	mA
Supply PCAP	USB_VDD 5V	4.4	5.0	5.5	V
	$I_{VDD\ 5V}$	—	83.6	126	mA

2. LED driving conditions

Parameter	Symbol	Min	Typ	Max	Unit
LED current	—	—	450	—	mA
LED voltage	VLED+	8.1	9.3	10.2	V
LED Life Time	—	40000	—	—	Hr