

## Features

- 7" TFT
- USB-C Input
- 1024x600 Resolution
- 600 cd/m<sup>2</sup> Brightness
- IPS Panel
- Full Viewing Angles
- 0°C to +70°C Operating Temperatures
- High Contrast Ratio
- 16.7M Colours
- PCAP Touch

## RS PRO 7,, USB-C TFT LCD Display

RS Stock No.: 0712665



RS PRO Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

## Product Description

*This RS PRO USB-C Display is a 7" (16.9) TFT LCD Display, with a high resolution of 1024x600 (WSVGA), IPS technology and high brightness. This model is composed of:*

- *A TFT LCD panel*
- *Backlight system*
- *USB-C interface*

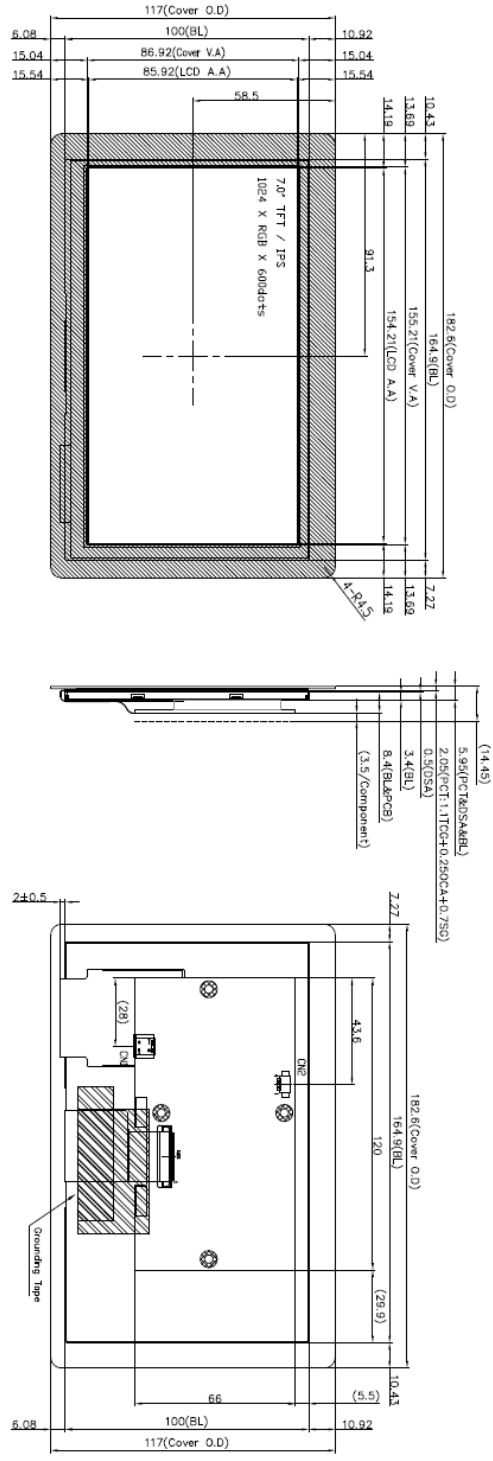
*Engineered for seamless integration with embedded computing systems, this TFT display connects effortlessly to any device featuring an USB-C PD output. The single USB-C input powers the display, video and touch from a single cable. Its high-brightness screen and wide operating temperature range deliver outstanding performance in both indoor and outdoor environments, making it the perfect choice for demanding applications.*

## General Specifications

|                                 |                |
|---------------------------------|----------------|
| Panel Size                      | 7              |
| Resolution                      | 1024x600       |
| Display Technology              | IPS            |
| Contrast Ratio                  | 600            |
| Brightness (cd/m <sup>2</sup> ) | 600            |
| Video Input                     | USB-C          |
| Operating Temperature           | -0°C to +70°C  |
| Storage Temperature             | -30°C to +80°C |
| Touch Panel                     | PCAP           |
| Touch Panel Interface           | USB-C          |

## Mechanical Specifications

|                               |                     |
|-------------------------------|---------------------|
| Overall Dimensions WxHxD (mm) | 182.6 x 117 x 14.45 |
| Active Area WxH (mm)          | 154.21 x 85.92      |



CN1 – Type-C

| Pin No. | Symbol | I/O | Function                                 |
|---------|--------|-----|--|
| A1      | GND    | P   | Ground                                   |
| A2      | TX1+   | I/O | High speed data path TX for DP Alt Mode. |
| A3      | TX1-   | I/O |  |
| A4      | VBUS   | P   | Cable bus power +5V only.                |
| A5      | CC1    | I/O | Type-C Port Configuration Channel        |
| A6      | D+     | I/O | USB 2.0 Interface.                       |
| A7      | D-     | I/O |  |
| A8      | SBU1   | I/O | USB Type-C Sideband Use 1                |
| A9      | VBUS   | P   | Cable bus power +5V only.                |
| A10     | RX2-   | I/O | High speed data path RX for DP Alt Mode. |
| A11     | RX2+   | I/O |  |
| A12     | GND    | P   | Ground                                   |
| B1      | GND    | P   | Ground                                   |
| B2      | TX2+   | I/O | High speed data path TX for DP Alt Mode. |
| B3      | TX2-   | I/O |  |
| B4      | VBUS   | P   | Cable bus power +5V only.                |
| B5      | CC2    | I/O | Type-C Port Configuration Channel        |
| B6      | D+     | I/O | USB 2.0 Interface.                       |
| B7      | D-     | I/O |  |
| B8      | SBU2   | I/O | USB Type-C Sideband Use 2                |
| B9      | VBUS   | P   | Cable bus power +5V only.                |
| B10     | RX1-   | I/O | High speed data path RX for DP Alt Mode. |
| B11     | RX1+   | I/O |  |
| B12     | GND    | P   | Ground                                   |

## CN2 – Backlight Control – 50271-0040L-002

| Pin No. | Symbol       | I/O | Function              |
|---------|--------------|-----|-----------------------|
| 1       | Power on/off | I   | Power On/Off control. |

|   |                      |   |                      |
|---|----------------------|---|----------------------|
| 2 | Brightness increased | I | Brightness Increase. |
| 3 | Brightness decrease  | I | Brightness decrease. |
| 4 | GND                  | P | Ground               |

## Electrical Specifications

### TFT LCD Module

| Item             | Symbol | Values |       |      | Unit |
|------------------|--------|--------|-------|------|------|
|                  |        | Min    | Typ.  | Max. |      |
| Supply Voltage   | VBUS   | -      | 5.0   | 5.5  | V    |
| required current | IBUS   | -      | 880   | 980  | mA   |
| LED life time    | -      | -      | 50000 | -    | Hr   |

### Optical Characteristics

| Item               | Symbol     | Condition  | Min.          | Typ.  | Max.  | Unit              |    |
|--------------------|------------|--|---------------|-------|-------|-------------------|----|
| Brightness         | --         | Note1,<br>Note 3,<br>( $\theta = 0^\circ$ ,<br>Normal<br>Viewing<br>Angle) | 480           | 600   | --    | cd/m <sup>2</sup> |    |
| Uniformity         | B-uni      |  | 70            | 75    | --    | %                 |    |
| Contrast Ratio     | CR         |  | 400           | 600   | --    | --                |    |
| Response Time      | Tr         |  | --            | 4     | 8     | ms                |    |
|                    | Tf         |  | --            | 12    | 24    | ms                |    |
| Color Chromaticity | White      |  | Wx            | 0.260 | 0.310 | 0.360             | -- |
|                    |            |  | Wy            | 0.280 | 0.330 | 0.380             | -- |
| View angle         | Horizontal |  | $\theta_{x+}$ | 80    | 85    | --                |    |
|                    |            | $\theta_{x-}$  | 80            | 85    | --    |                   |    |

|  |          |     |    |    |    |  |
|--|----------|-----|----|----|----|--|
|  | Vertical | θY+ | 80 | 85 | -- |  |
|  |          | θY- | 80 | 85 | -- |  |

## Projected Capacitive Touch Panel

| Item                        | Specification                                     | Unit   |
|-----------------------------|---|--------|
| Screen Size                 | 7   | Inches |
| Type                        | Transparent Type Projected Capacitive Touch Panel |        |
| Input Mode                  | Humans Finger                                     |        |
| Interface                   | USB   |        |
| Touch Number                | 10 Points   |        |
| Cover glass pencil hardness | 7H  |        |
| Response Time               | ≤25ms   | Ms     |
| Controller                  | ILI2511   |        |

## Approvals

|                     |                     |
|---------------------|---------------------|
| <b>Declarations</b> | UKCA / RoHS / REACH |
|---------------------|---------------------|

## Similar Products

| Stock No.      | Brand  | Product Name | Attribute 1             | Attribute 2 | Attribute 3       |
|----------------|--------|--------------|-------------------------|-------------|-------------------|
| <b>0712664</b> | RS PRO | 7" USB-C TFT | 700 cd/m2<br>Brightness | No Touch    | IPS<br>Technology |
| <b>0712667</b> | RS PRO | 8" USB-C TFT | 500 cd/m2<br>Brightness | PCAP Touch  | IPS<br>Technology |