



RVT4.3B480272CFWN00

LCD TFT Datasheet

Rev.2.10
2017-11-21

| ITEM | CONTENTS | UNIT |
|--------------------------------|---------------------------------|-------------------|
| LCD Type | TFT/Transmissive/Normally white | / |
| Size | 4.3 | Inch |
| Viewing Direction | 12:00 (without image inversion) | O' Clock |
| Gray Scale Inversion Direction | 6:00 | O' Clock |
| LCM (W × H × D) | 106.30 × 68.00 × 7.00 | mm ³ |
| Active Area (W × H) | 95.04 × 53.86 | mm ² |
| Dot Pitch (W × H) | 0.066 × 0.198 | mm ² |
| Number of Dots | 480 (RGB) × 272 | / |
| Driver IC | FT800 | / |
| Backlight Type | 10 LEDs | / |
| Surface Luminance | 550 | cd/m ² |
| Interface Type | SPI/I2C | / |
| Color Depth | 262k | / |
| Pixel Arrangement | RGB Vertical Stripe | / |
| Surface Treatment | Anti-glare | |
| Input Voltage | 3.3 | V |
| With/Without TSP | Without Touch Panel | / |
| Weight | 76 | g |

Note 1: RoHS compliant

Note 2: LCM weight tolerance: ± 5%.

REVISION RECORD

| REVNO. | REVDATE | CONTENTS | REMARKS |
|--------|------------|---|---------|
| 1.0 | 2014-05-16 | Initial Release | |
| 1.1 | 2014-11-12 | Update mechanical drawing | |
| 1.2 | 2015-01-19 | Update LED lifetime | |
| 1.3 | 2015-02-23 | Update mode select information and thickness | |
| 1.4 | 2015-05-27 | Update Electrical Characteristics | |
| 1.5 | 2016-08-08 | Added Inspection Standards | |
| 1.6 | 2016-08-23 | Updated Mechanical Drawing | |
| 2.0.0 | 2017-05-31 | Glass change, new TFT open dimension, FFC shape, new IC controller and updated pinout | |
| 2.1.0 | 2017-11-21 | Update Electrical Characteristics | |

CONTENTS

| | |
|---|-------------------------------------|
| REVISION RECORD..... | 2 |
| CONTENTS | 3 |
| 1 MODULE CLASSIFICATION INFORMATION | 4 |
| 2 MODULE DRAWING..... | 4 |
| 3 ABSOLUTE MAXIMUM RATINGS..... | Error! Bookmark not defined. |
| 4 ELECTRICAL CHARACTERISTICS..... | 5 |
| 5 ELECTRO-OPTICAL CHARACTERISTICS | 5 |
| 6 INTERFACE DESCRIPTION | 7 |
| 7 FT800 CONTROLLER SPECIFICATIONS | 8 |
| 7.1 Serial host interface..... | 8 |
| 7.2 Block Diagram..... | 9 |
| 7.3 Host interface SPI mode 0 | 9 |
| 7.4 Backlight driver block diagram | 10 |
| 8 LCD TIMING CHARACTERISTICS | 10 |
| 8.1 Clock and data input time diagram | 10 |
| 8.2 Parallel RGB input timing table | 11 |
| 9 INSPECTION | 12 |
| 9.1 Inspection condition..... | 12 |
| Ambient conditions: | 12 |
| Viewing Angle:..... | 12 |
| 9.2 Inspection standard..... | 13 |
| 10 RELIABILITY TEST | 16 |
| 11 LEGAL INFORMATION..... | 17 |

1 MODULE CLASSIFICATION INFORMATION

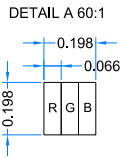
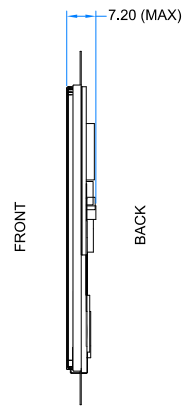
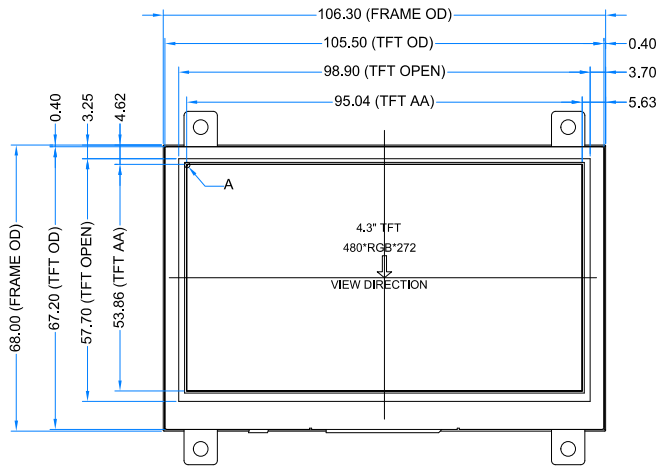
| | | | | | | | | | |
|-----------|----------|------------|----------|---------------|----------|----------|----------|----------|-----------|
| RV | T | 4.3 | B | 480272 | C | F | W | N | 00 |
| 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |

| | | |
|-----|-------------------------|--|
| 1. | BRAND | RV – Riverdi |
| 2. | PRODUCT TYPE | T – TFT Standard F – TFT Custom |
| 3. | DISPLAY SIZE | 3.5 – 3.5” 4.3 – 4.3” 5.7 – 5.7” 7.0 – 7.0” |
| 4. | MODEL SERIAL NO. | B (A-Z) |
| 5. | RESOLUTION | 320240 – 320x240 px 480272 – 480x272 px 800480 – 800x480 px |
| 6. | INTERFACE | T – TFT LCD, RGB L – TFT LCD, LVDS C – TFT + Controller |
| 7. | FRAME | N – No Frame F – Mounting Frame |
| 8. | BACKLIGHT TYPE | W – LED White |
| 9. | TOUCH PANEL | N – No Touch Panel R – Resistive Touch Panel C – Capacitive Touch Panel |
| 10. | VERSION | 00 (00-99) |

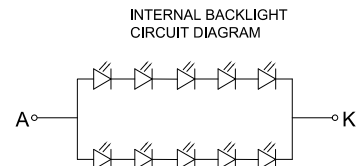
LCD TFT Datasheet Rev.2.1.0

RVT4.3B480272CFWN00

| PIN | DESC |
|-----|--------------------|
| 1 | VDD |
| 2 | GND |
| 3 | SPI_SCLK / I2C_SCL |
| 4 | MISO / I2C_SDA |
| 5 | MOSI / I2C_SA0 |
| 6 | CS / I2C_SA1 |
| 7 | INT |
| 8 | PD |
| 9 | MODE |
| 10 | AUDIO_OUT |
| 11 | NC |
| 12 | NC |
| 13 | NC |
| 14 | NC |
| 15 | NC |
| 16 | NC |
| 17 | BLVDD |
| 18 | BLVDD |
| 19 | BLGND |
| 20 | BLGND |



- NOTES:
1. DISPLAY TYPE: TFT, TRANSMISSIVE, NORMALLY WHITE
 2. OPERATION VOLTAGE: VDD=3.3V
 3. VIEWING DIRECTION: 12 O'CLOCK
 4. IC CONTROLLER: FT800
 5. OPERATING TEMP.: -20°C ~ 70°C
 6. STORAGE TEMP.: -30°C ~ 80°C
 7. LED BACKLIGHT: 10-LED WHITE
 8. SURFACE LUMINANCE: 550 cd/m²
 9. GENERAL TOLERANCE: ±0.2
 10. RoHS COMPLIANT



| | | |
|-------|--|------------|
| 2.0.0 | Glass change, new TFT open dimension, FFC shape. New IC controller and updated pinout. | 2017.05.25 |
| Ver. | DESCRIPTION | DATE |

| | |
|---------------|-----|
| CUSTOMER | |
| DRAWN | SCA |
| DFTG CHK | UNI |
| ENGR CHK | |
| APPROVAL | |
| RIVERDI SP. Z | |

3 ABSOLUTE MAXIMUM RATINGS

| PARAMETER | SYMBOL | MIN | MAX | UNIT |
|--------------------------------|-----------------|------|----------------|------|
| Supply Voltage for Logic | VDD | -0.3 | 3.6 | V |
| Input Voltage for Logic | VIN | -0.3 | VDD | V |
| Input Voltage for LED Inverter | BLVDD | -0.3 | 7.0 | V |
| Operating Temperature | T _{OP} | -20 | 70 | °C |
| Storage Temperature | T _{ST} | -30 | 80 | °C |
| Humidity | RH | - | 90% (Max 60°C) | RH |

4 ELECTRICAL CHARACTERISTICS

| PARAMETER | SYMBOL | MIN | TYP | MAX | UNIT | NOTES |
|--|--------------------------|--------|-------|--------|------|------------|
| Supply Voltage for Module | VDD | 3.0 | 3.3 | 3.6 | V | |
| Input Voltage for LED Inverter | BLVDD | 2.8 | 3.3 | 5.5 | V | |
| Input Current (Exclude LED Backlight) | IDD | - | 70 | 87 | mA | VDD = 3.3V |
| LED Backlight Current | IDD _{backlight} | | 260 | 325 | mA | BLVDD=3.3V |
| LED Backlight Current | IDD _{backlight} | | 150 | 187 | mA | BLVDD=5V |
| Total Input Current (Include LED Backlight 100%) | IDD _{total} | - | 330 | 412 | mA | BLVDD=3.3V |
| Input Voltage 'H' level | V _{IH} | 0.7VDD | - | VDD | V | |
| Input Voltage 'L' level | V _{IL} | 0 | - | 0.2VDD | V | |
| LED Life Time | - | 30000 | 50000 | - | Hrs | Note 1 |

Note 1: The LED life time is defined as the module brightness decrease to 50% original brightness at Ta=25°C.

5 ELECTRO-OPTICAL CHARACTERISTICS

| ITEM | SYMBOL | CONDITION | MIN | TYP | MAX | UNIT | REMARK | NOTE |
|-------------------------|----------------|---|-------|-------|-------|-------------------|----------|------|
| Response Time | Tr+Tf | $\theta=0^\circ$ $\phi=0^\circ$ Ta=25 | - | 20 | 30 | ms | Figure 1 | 4 |
| Contrast Ratio | Cr | | 320 | 400 | - | --- | Figure 2 | 1 |
| Luminance Uniformity | δ WHITE | | 80 | - | - | % | Figure 2 | 3 |
| Surface Luminance | Lv | | 440 | 550 | - | cd/m ² | Figure 2 | 2 |
| Viewing Angle Range | θ | $\phi = 90^\circ$ | 35 | 50 | - | deg | Figure 3 | 6 |
| | | $\phi = 270^\circ$ | 55 | 70 | - | deg | Figure 3 | |
| | | $\phi = 0^\circ$ | 55 | 70 | - | Deg | Figure 3 | |
| | | $\phi = 180^\circ$ | 55 | 70 | - | Deg | Figure 3 | |
| CIE (x, y) Chromaticity | Red | x | 0.570 | 0.620 | 0.670 | Figure 2 | 5 | |
| | | y | 0.294 | 0.344 | 0.394 | | | |
| | Green | x | 0.256 | 0.306 | 0.356 | | | |
| | | y | 0.513 | 0.563 | 0.613 | | | |
| | Blue | x | 0.083 | 0.133 | 0.183 | | | |
| | | y | 0.099 | 0.149 | 0.199 | | | |
| | White | x | 0.250 | 0.300 | 0.350 | | | |
| | | y | 0.280 | 0.330 | 0.380 | | | |

Note 1. Contrast Ratio(CR) is defined mathematically as below, for more information see Figure 1.

$$\text{Contrast Ratio} = \frac{\text{Average Surface Luminance with all white pixels (P1, P2, P3, P4, P5)}}{\text{Average Surface Luminance with all black pixels (P1, P2, P3, P4, P5)}}$$

Note 2. Surface luminance is the LCD surface from the surface with all pixels displaying white. For more information see Figure 2.

L_v = Average Surface Luminance with all white pixels (P1, P2, P3, P4, P5)

Note 3. The uniformity in surface luminance δ WHITE is determined by measuring luminance at each test position 1 through 5, and then dividing the maximum luminance of 5 points luminance by minimum luminance of 5 points luminance. For more information see Figure 2.

$$\delta \text{ WHITE} = \frac{\text{Minimum Surface Luminance with all white pixels (P1, P2, P3, P4, P5)}}{\text{Maximum Surface Luminance with all white pixels (P1, P2, P3, P4, P5)}}$$

Note 4. Response time is the time required for the display to transition from white to black (Rise Time, T_r) and from black to white (Decay Time, T_f). For additional information see FIG 1. The test equipment is Autronic-Melchers's ConoScope series.

Note 5. CIE (x, y) chromaticity, the x, y value is determined by measuring luminance at each test position 1 through 5, and then make average value.

Note 6. Viewing angle is the angle at which the contrast ratio is greater than 2. For TFT module the contrast ratio is greater than 10. The angles are determined for the horizontal or x axis and the vertical or y axis with respect to the z axis which is normal to the LCD surface. For more information see Figure 3.

Note 7. For viewing angle and response time testing, the testing data is based on Autronic-Melchers's ConoScope series. Instruments for Contrast Ratio, Surface Luminance, Luminance Uniformity, CIE the test data is based on TOPCON's BM-5 photo detector.

Figure 1. The definition of response time

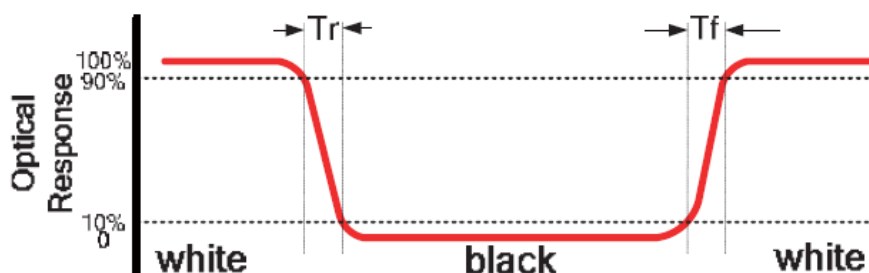


Figure 2. Measuring method for Contrast ratio, surface luminance, Luminance uniformity, CIE (x, y) chromaticity

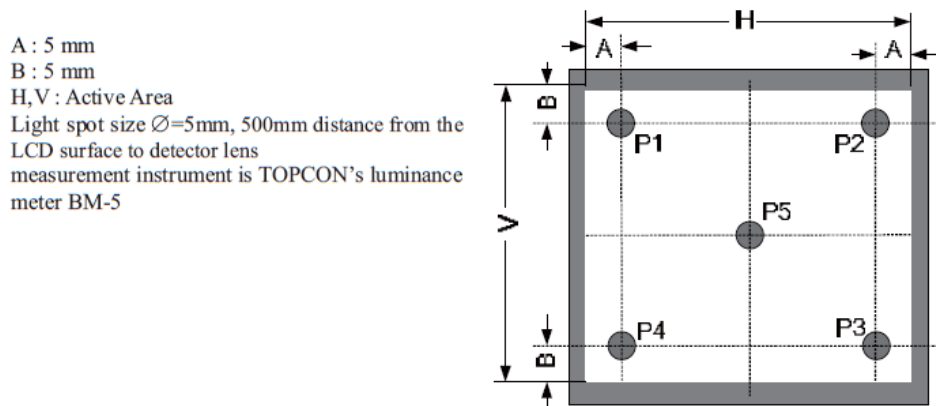
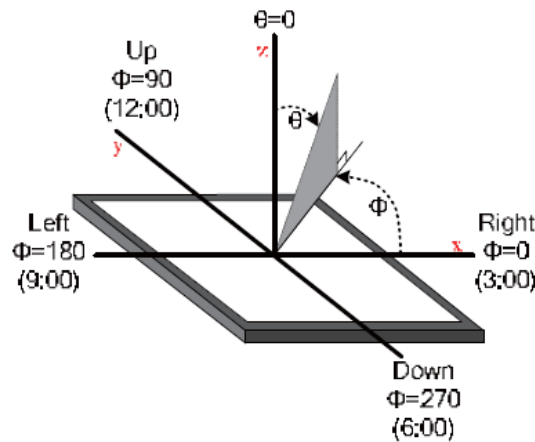


Figure 3. The definition of viewing angle



6 INTERFACE DESCRIPTION

| PIN NO. | SYMBOL | DESCRIPTION |
|---------|-------------------|--|
| 1 | VDD | Power Supply |
| 2 | GND | Ground |
| 3 | SPI_SCLK/ I2C_SCL | SPI SCK Signal / I2C SCL Signal, Internally 47k Pull UP |
| 4 | MISO/ I2C_SDA | SPI MISO Signal / I2C SDA Signal, Internally 47k Pull UP |
| 5 | MOSI/ I2C_SA0 | SPI MOSI Signal / I2C Slave Address Bit 0, Internally 47k Pull UP |
| 6 | CS/I2C_SA1 | SPI Chip Select Signal / I2C Slave Address Bit 1, Internally 47k Pull UP |
| 7 | INT | Interrupt Signal, Active Low, Internally 47k Pull UP |
| 8 | PD | Power Down Signal, Active Low, Internally 47k Pull UP |
| 9 | MODE | Host Interface SPI(Pull Low) or I2C(Pull Up) Mode Select Input, Internally 10k Pull DOWN |
| 10 | AUDIO_OUT | Audio Out Signal |
| 11 | NC | Not Connected |
| 12 | NC | Not Connected |
| 13 | NC | Not Connected |
| 14 | NC | Not Connected |
| 15 | NC | Not Connected |
| 16 | NC | Not Connected |
| 17 | BLVDD | Backlight Power Supply, Can Be Connected to VDD |
| 18 | BLVDD | Backlight Power Supply, Can Be Connected to VDD |
| 19 | BLGND | Backlight Ground, Internally connected to GND |
| 20 | BLGND | Backlight Ground, Internally connected to GND |

7 FT800 CONTROLLER SPECIFICATIONS

FT800 or EVE (Embedded Video Engine) simplifies the system architecture for advanced human machine interfaces (HMIs) by providing functionality for display, audio, and touch as well as an object oriented architecture approach that extends from display creation to the rendering of the graphics.

7.1 Serial host interface

Figure 4. SPI interface connection

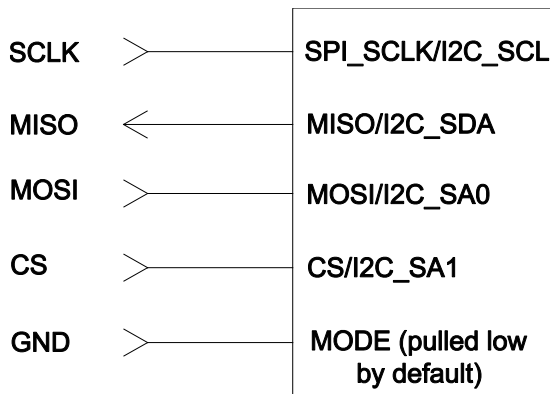
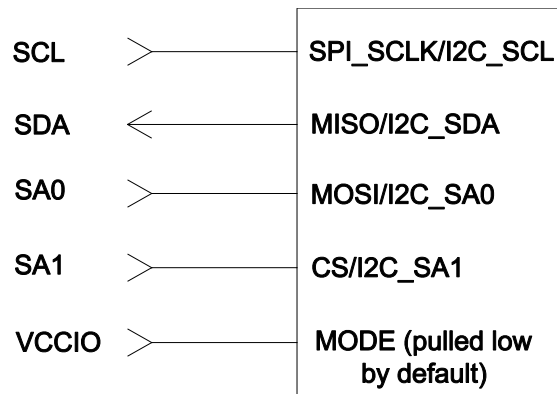


Figure 5. I2C interface connection



SPI Interface – the SPI slave interface operates up to 30MHz.

Only SPI mode 0 is supported. The SPI interface is selected by default (MODE pin is internally pulled low by 47k resistor).

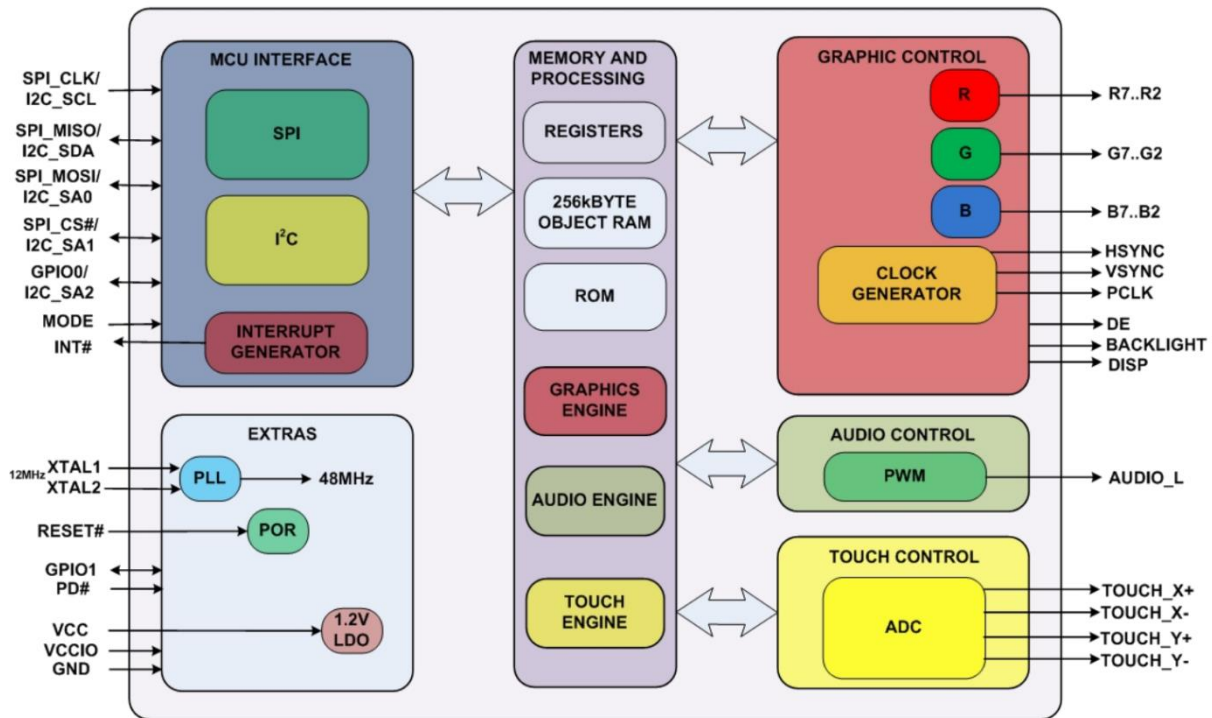
I²C Interface – the I²C slave interface operates up to 3.4MHz, supporting standard-mode, fast-mode, fast-mode plus and high-speed mode.

The I²C device address is configurable between 20h to 23h depending on the I²C_SA[1:0] pin setting, i.e. the 7-bit I²C slave address is 0b'01000A1A0.

The I²C interface is selected when the MODE pin is tied to VDDIO.

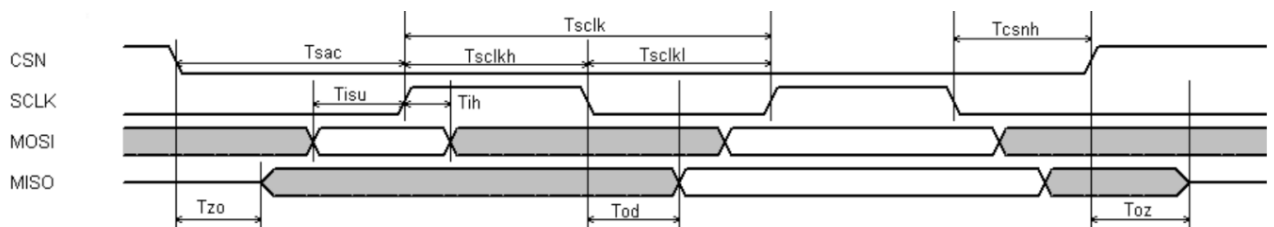
7.2 Block Diagram

Figure 6. FT800 Block diagram



7.3 Host interface SPI mode 0

Figure 7. SPI timing diagram



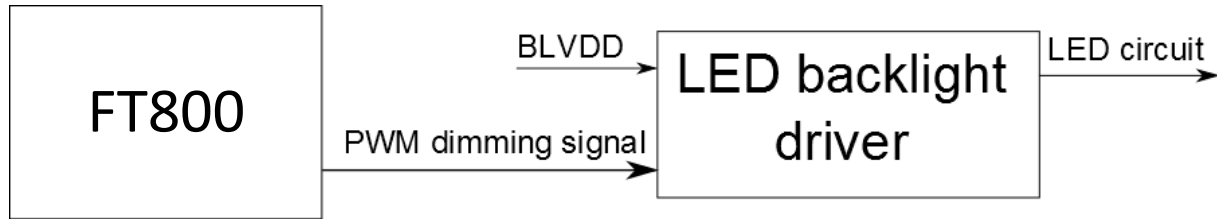
For more information about FT801 controller please go to official FT800 Datasheet.

http://www.ftdichip.com/Support/Documents/DataSheets/ICs/DS_FT800.pdf

7.4 Backlight driver block diagram

Backlight enable signal is internally connected to FT800 Backlight control pin. This pin is controlled by two FT800's registers. One of them specifies the PWM output frequency, second one specifies the duty cycle. Refer to FT800 datasheet for more information.

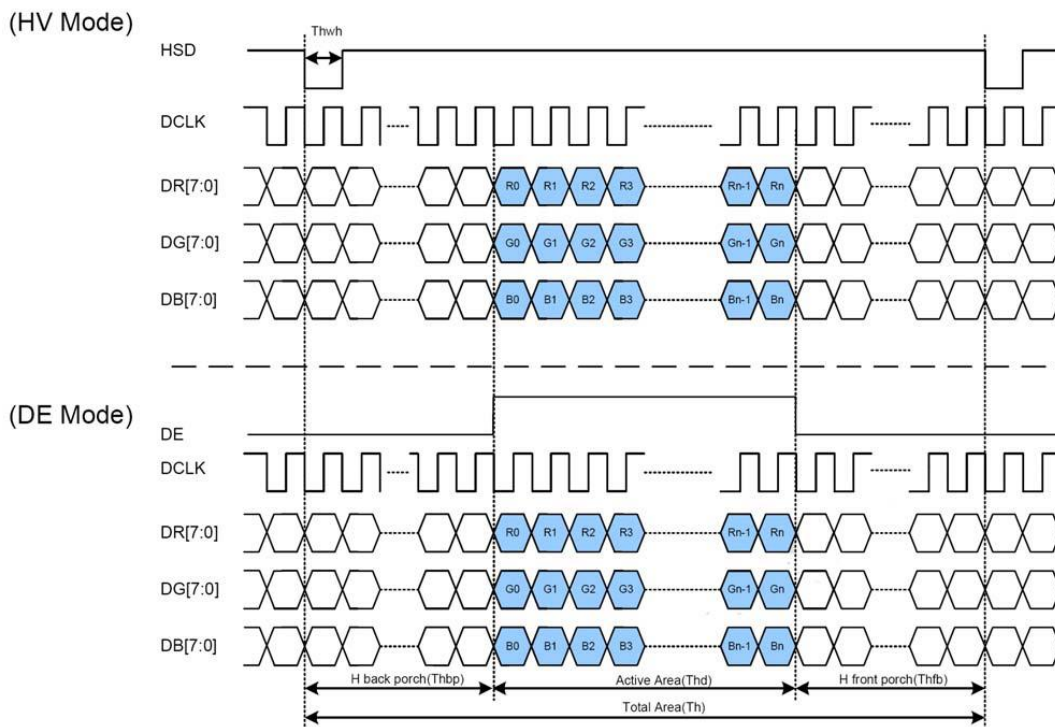
Figure 8. Backlight driver block diagram



8 LCD TIMING CHARACTERISTICS

8.1 Clock and data input time diagram

Figure 9. Clock and data input time diagram



8.2 Parallel RGB input timing table

| PARAMETER | SYMBOL | MIN | TYP | MAX | UNIT |
|------------------|--------|-----|-----|-----|------|
| DCLK Frequency | Fclk | 5 | 9 | 12 | MHz |
| VSD Period Time | Tv | 277 | 288 | 400 | H |
| VSD Display Area | Tvd | 272 | | | H |
| VSD Back Porch | Tvb | 3 | 8 | 31 | H |
| VSD Front Porch | Tvfp | 2 | 8 | 97 | H |
| HSD Period Time | Th | 520 | 525 | 800 | DCLK |
| HSD Display Area | Thd | 480 | | | DCLK |
| HSD Back Porch | Thbp | 36 | 40 | 255 | DCLK |
| HSD Front Porch | Thfp | 4 | 5 | 65 | DCLK |

9 INSPECTION

Standard acceptance/rejection criteria for TFT module.

9.1 Inspection condition

Ambient conditions:

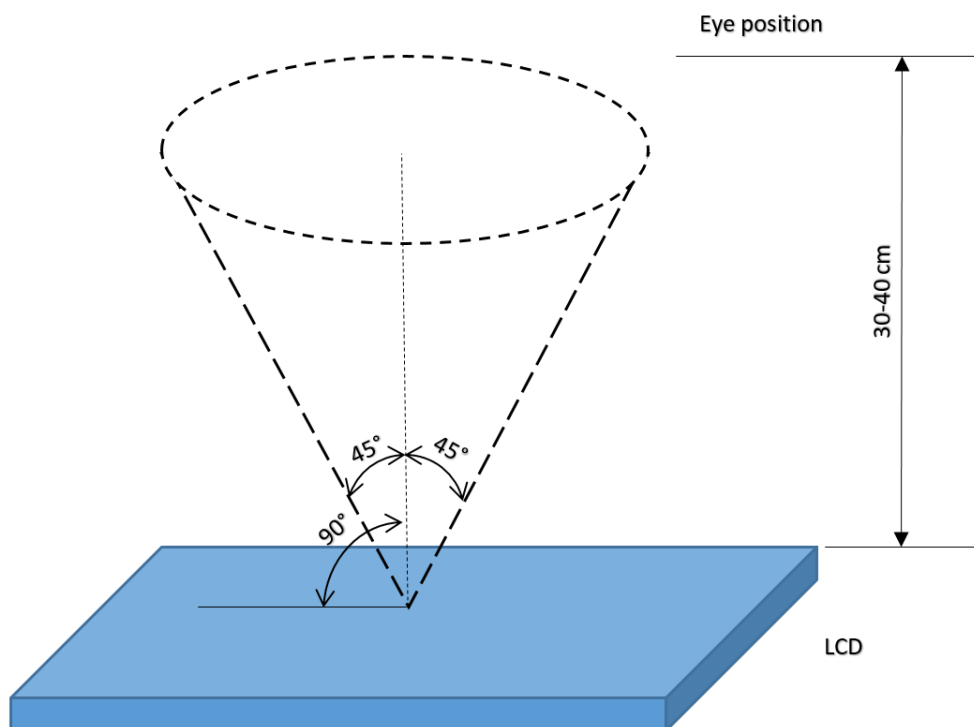
- Temperature: $25\pm^{\circ}\text{C}$
- Humidity: $(60\pm 10)\%RH$
- Illumination: Single fluorescent lamp non-directive (300 to 700 lux)

Viewing distance:

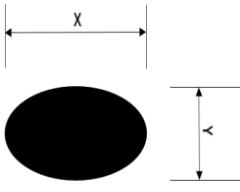
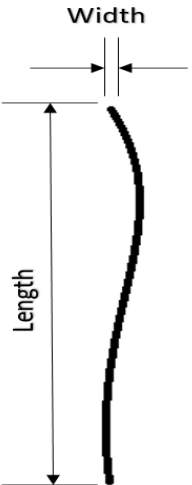
$35\pm 5\text{cm}$ between inspector bare eye and LCD.

Viewing Angle:

U/D: $45^{\circ}/45^{\circ}$, L/R $45^{\circ}/45^{\circ}$



9.2 Inspection standard

| Item | Criterion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---------------|--|------------------|---------------|------------|---------------|---------------------|----------|---------------------|---------|-----------------|---|---------|-----------------|---|----------|---|------------|--|--|--------|-------|---------------|---|----------|---------|---------|-----------------|---|---------|-----------------|---|----------|---|
| <p>Black spots, white spots, light leakage, Foreign Particle (round Type)</p> | <div style="display: flex; align-items: center; justify-content: center;">  <table border="1" style="margin-left: 20px;"> <thead> <tr> <th colspan="2">Size < 5"</th> </tr> <tr> <th>Average Diameter</th> <th>Qualified Qty</th> </tr> </thead> <tbody> <tr> <td>D < 0.2 mm</td> <td>Ignored</td> </tr> <tr> <td>0.2 mm < D < 0.3 mm</td> <td>3</td> </tr> <tr> <td>0.3 mm < D < 0.5 mm</td> <td>2</td> </tr> <tr> <td>0.5 mm < D</td> <td>0</td> </tr> </tbody> </table> </div> <div style="text-align: center; margin: 10px 0;"> $D = \frac{(x + y)}{2}$ </div> <p>*Spots density: 10 mm²</p> | Size < 5" | | Average Diameter | Qualified Qty | D < 0.2 mm | Ignored | 0.2 mm < D < 0.3 mm | 3 | 0.3 mm < D < 0.5 mm | 2 | 0.5 mm < D | 0 | | | | | | | | | | | | | | | | | | | | | | |
| Size < 5" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Average Diameter | Qualified Qty | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D < 0.2 mm | Ignored | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.2 mm < D < 0.3 mm | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.3 mm < D < 0.5 mm | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.5 mm < D | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>LCD black spots, white spots, light leakage (line Type)</p> | <div style="display: flex; align-items: center; justify-content: center;">  <table border="1" style="margin-left: 20px;"> <thead> <tr> <th colspan="3">Size < 5"</th> </tr> <tr> <th>Length</th> <th>Width</th> <th>Qualified Qty</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>W < 0.02</td> <td>Ignored</td> </tr> <tr> <td>L < 3.0</td> <td>0.02 < W < 0.05</td> <td rowspan="2">2</td> </tr> <tr> <td>L < 2.5</td> <td>0.05 < W < 0.08</td> </tr> <tr> <td>-</td> <td>0.08 < W</td> <td>0</td> </tr> </tbody> </table> </div> <div style="text-align: center; margin: 10px 0;"> <table border="1"> <thead> <tr> <th colspan="3">Size >= 5"</th> </tr> <tr> <th>Length</th> <th>Width</th> <th>Qualified Qty</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>W < 0.02</td> <td>Ignored</td> </tr> <tr> <td>L < 3.0</td> <td>0.02 < W < 0.05</td> <td rowspan="2">4</td> </tr> <tr> <td>L < 2.5</td> <td>0.05 < W < 0.08</td> </tr> <tr> <td>-</td> <td>0.08 < W</td> <td>0</td> </tr> </tbody> </table> </div> <p>*Spots density: 10 mm²</p> | Size < 5" | | | Length | Width | Qualified Qty | - | W < 0.02 | Ignored | L < 3.0 | 0.02 < W < 0.05 | 2 | L < 2.5 | 0.05 < W < 0.08 | - | 0.08 < W | 0 | Size >= 5" | | | Length | Width | Qualified Qty | - | W < 0.02 | Ignored | L < 3.0 | 0.02 < W < 0.05 | 4 | L < 2.5 | 0.05 < W < 0.08 | - | 0.08 < W | 0 |
| Size < 5" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Length | Width | Qualified Qty | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | W < 0.02 | Ignored | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L < 3.0 | 0.02 < W < 0.05 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L < 2.5 | 0.05 < W < 0.08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | 0.08 < W | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Size >= 5" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Length | Width | Qualified Qty | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | W < 0.02 | Ignored | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L < 3.0 | 0.02 < W < 0.05 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L < 2.5 | 0.05 < W < 0.08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | 0.08 < W | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Item | Criterion | |
|-----------------------------------|----------------------------------|---------------|
| Clear spots | Size < 5" | |
| | Average Diameter | Qualified Qty |
| | D < 0.2 mm | Ignored |
| | 0.2 mm < D < 0.3 mm | 3 |
| | 0.3 mm < D < 0.5 mm | 2 |
| | 0.5 mm < D | 0 |
| | Size >= 5" | |
| | Average Diameter | Qualified Qty |
| | D<0.2 mm | Ignored |
| | 0.2 mm < D < 0.3 mm | 4 |
| | 0.3 mm < D < 0.5 mm | 2 |
| | 0.5 mm < D | 0 |
| | *Spots density: 10 mm | |
| | Polarizer bubbles | Size < 5" |
| Average Diameter | | Qualified Qty |
| D < 0.2 mm | | Ignored |
| 0.2 mm < D < 0.5 mm | | 3 |
| 0.5 mm < D < 1 mm | | 2 |
| 1 mm < D | | 0 |
| Total Q'ty | | 3 |
| Size >= 5" | | |
| Average Diameter | | Qualified Qty |
| D<0.25 mm | | Ignored |
| 0.25 mm < D < 0.5 mm | | 3 |
| 0.5 mm < D | | 0 |
| Electrical Dot Defect | | Size < 5" |
| | | item |
| | Black do defect | 4 |
| | Bright dot defect | 2 |
| | Total Dot | 5 |
| | Size >= 5" | |
| | item | Qualified Qty |
| | Black do defect | 5 |
| | Bright dot defect | 2 |
| | Total Dot | 5 |

| Item | Criterion | | | |
|----------------------|-----------------------------------|---------------------|---------------|---------------|
| Touch panel spot | Size < 5" | | | |
| | Average Diameter | Qualified Qty | | |
| | D < 0.2 mm | Ignored | | |
| | 0.2 mm < D < 0.4 mm | 5 | | |
| | 0.4 mm < D < 0.5 mm | 2 | | |
| | 0.5 mm < D | 0 | | |
| | Size >= 5" | | | |
| | Average Diameter | Qualified Qty | | |
| | D < 0.25 mm | Ignored | | |
| | 0.25 mm < D < 0.5 mm | 4 | | |
| | 0.5 mm < D | 0 | | |
| | Touch panel White line Scratch | Size < 5" | | |
| | | Length | Width | Qualified Qty |
| | | - | W < 0.02 | Ignored |
| L < 3.0 | | 0.02 < W < 0.05 | 2 | |
| L < 2.5 | | 0.05 < W < 0.08 | | |
| - | | 0.08 < W | 0 | |
| Size >= 5" | | | | |
| Length | | Width | Qualified Qty | |
| - | | W < 0.03 | Ignored | |
| L < 5.0 | | 0.03 < W < 0.05 | 2 | |
| - | | 0.05 < W | 0 | |

10 RELIABILITY TEST

| NO. | TEST ITEM | TEST CONDITION |
|-----|----------------------------|---|
| 1 | High Temperature Storage | 80±2°C/240hours |
| 2 | Low Temperature Storage | -30±2°C/240hours |
| 3 | High Temperature Operating | 70±2°C/240hours |
| 4 | Low Temperature Operating | -20±2°C/240hours |
| 5 | Temperature Cycle | -30±2°C~25~80±2°C × 20 cycles (30min.) (5min.) (30min.) |
| 6 | Damp Proof Test | 60°C ±5°C × 90%RH/240hours |
| 7 | Vibration Test | Frequency 10Hz~55Hz Amplitude of vibration : 1.5mm Sweep: 10Hz~55Hz~10Hz X, Y, Z 2 hours for each direction. |
| 8 | Package Drop Test | Height:60 cm 1 corner,3 edges,6 surfaces |
| 9 | ESD Test | Air: ±4KV 150pF/330Ω 5 times Contact: ±2KV 150pF/330Ω 5 time |

11 LEGAL INFORMATION

Riverdi makes no warranty, either expressed or implied with respect to any product, and specifically disclaims all other warranties, including, without limitation, warranties for merchantability, non-infringement and fitness for any particular purpose. Information about device are the property of Riverdi and may be the subject of patents pending or granted. It is not allowed to copy or disclosed this document without prior written permission.

Riverdi endeavors to ensure that the all contained information in this document are correct but does not accept liability for any error or omission. Riverdi products are in developing process and published information may be not up to date. Riverdi reserves the right to update and makes changes to Specifications or written material without prior notice at any time. It is important to check the current position with Riverdi.

Images and graphics used in this document are only for illustrative the purpose. All images and graphics are possible to be displayed on the range products of Riverdi, however the quality may vary. Riverdi is no liable to the buyer or to any third part for any indirect, incidental, special, consequential, punitive or exemplary damages (including without limitation lost profits, lost savings, or loss of business opportunity) relating to any product, service provided or to be provided by Riverdi, or the use or inability to use the same, even if Riverdi has been advised of the possibility of such damages.

Riverdi products are not fault tolerant nor designed, manufactured or intended for use or resale as on line control equipment in hazardous environments requiring fail – safe performance, such as in the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life support machines or weapons systems in which the failure of the product could lead directly to death, personal injury or severe physical or environmental damage ('High Risk Activities'). Riverdi and its suppliers specifically disclaim any expressed or implied warranty of fitness for High Risk Activities. Using Riverdi products and devices in 'High Risk Activities' and in any other application is entirely at the buyer's risk, and the buyer agrees to defend, indemnify and hold harmless Riverdi from any and all damages, claims or expenses resulting from such use. No licenses are conveyed, implicitly or otherwise, under any Riverdi intellectual property rights.



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Display Modules](#) category:

Click to view products by [Riverdi](#) manufacturer:

Other Similar products are found below :

[LCD-WVGA-7IN-1](#) [P6153-PR](#) [TDP0700T800480PCAP](#) [P6171DPR-DC-RS](#) [99-47-02033A](#) [P6171DPR-DC-U](#) [96LEDK-A215FH25NF5](#)
[IDK-1121WR-30FHA1E](#) [IDK-104R-32SVI1](#) [WF70GTIAGDNT0#](#) [G1619W02BBW01](#) [MIKROMEDIA 4 FOR STM32F4 CAPACITIVE FPI](#)
[MIKROMEDIA 3 FOR STM32F4 CAPACITIVE FPI](#) [PH320240T023-IHC09](#) [1148693](#) [1148689](#) [PIM537](#) [TN0216ANVNANN-GN00](#)
[TN0104ANVAANN-GN00](#) [TN0181ANVNANN-GN00](#) [12121000](#) [MIKROMEDIA FOR DSPIC33](#) [MIKROMEDIA FOR PIC24](#)
[MIKROMEDIA FOR PIC32](#) [MIKROMEDIA FOR STELLARIS M3](#) [MIKROMEDIA FOR XMEGA](#) [MIKROMEDIA HMI 3.5 RES](#)
[MIKROMEDIA HMI 5](#) [MIKROMEDIA PLUS FOR FT90X](#) [MIKROMEDIA PLUS FOR PIC32MX7 SHIELD](#) [MIKROMEDIA PROTO](#)
[SHIELD](#) [MIKROMEDIA 5 FOR TIVA](#) [MIKROMEDIA 5 FOR TIVA SHIELD](#) [MIKROMEDIA 7 FOR STM32F4](#) [MIKROMEDIA](#)
[CONNECT SHIELD](#) [MIKROMEDIA FOR ARM](#) [MIKROMEDIA FOR DSPIC33EP](#) [MIKROMEDIA FOR PSOC5LP](#) [MIKROMEDIA](#)
[GAMING SHIELD](#) [MIKROMEDIA HMI 4.3 USB](#) [MIKROMEDIA HMI 5 RES](#) [MIKROMEDIA HMI 5 USB](#) [MIKROMEDIA HMI 7](#)
[MIKROMEDIA HMI BREAKOUT BOARD](#) [MIKROMEDIA PLUS FOR PIC32MX7](#) [MIKROMEDIA PLUS FOR STM32](#)
[RVT28AEFNWN00](#) [RVT28UEFNWC01](#) [RVT28UEFNWC03](#) [RVT28UEFNWC05](#)