

# AZ DISPLAYS

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## SPECIFICATIONS FOR LIQUID CRYSTAL DISPLAY

| CUSTOMER APPROVAL                                     |  |                 |  |
|---|--|-----------------|--|
|   |  |                 |  |
| ※ PART NO. : <u>ATM0500U21(AZ DISPLAYS) SPEC V1.0</u> |  |                 |  |
| APPROVAL  |  | COMPANY<br>CHOP |  |
| CUSTOMER<br>COMMENTS                                  |  |                 |  |

| AZ DISPLAYS ENGINEERING APPROVAL |            |             |
|----------------------------------|------------|-------------|
| DESIGNED BY                      | CHECKED BY | APPROVED BY |
| ZZK                              |            |             |

**REVISION RECORD**

| REVISION      | REVISION DATE     | PAGE | CONTENTS           |
|---------------|-------------------|------|--------------------|
| <b>VER1.0</b> | <b>2023-06-29</b> |      | <b>FIRST ISSUE</b> |

## 1.0 Display specification

|                |                    |                     |
|----------------|--------------------|---------------------|
| Color          | 65K(65536) colors  | 16BIT R5G6B5        |
| Display size   | 110.88mm x 62.83mm | 480x272             |
| Resolution     | 480 x 272          |                     |
| Backlight mode | LED white          |                     |
| Touch panel    | Resistive          |                     |
| Luminance      | 350 cd/m2(Typ)     | 64 level adjustable |

## 2.0 Electrical characteristics

| *Parameter        | Min.           | Typ. | Max | Unit |
|-------------------|----------------|------|-----|------|
| Input voltage     | 7.0            | 12.0 | 15  | V    |
| Working current   | -              | 0.24 | -   | A    |
| Recommended power | 12V/1A adaptor |      |     |      |

| *Parameter        | Min.          | Typ. | Max | Unit |
|-------------------|---------------|------|-----|------|
| Input voltage     | 4.8           | 5.0  | 5.2 | V    |
| Working current   | -             | 0.6  | -   | A    |
| Recommended power | 5V/1A adaptor |      |     |      |

\*Refer to P/N selection

## 3.0 Working environment

| Parameter             | Test condition | Min | Typ | Max | Unit |
|-----------------------|----------------|-----|-----|-----|------|
| Operating temperature | VDD / 60%RH    | -20 | 25  | 60  | ° C  |
| Storage temperature   | 60%RH          | -30 | 25  | 70  | ° C  |
| Working humidity      | 25° C          | 10% | 60% | 90% | RH   |

## 4.0 Interface parameter

| Item                | Test condition                                     | Min  | Typ    | Max    | Unit |
|---------------------|--|------|--------|--------|------|
| Baud rate           | Default  | -    | 115200 | -      | bps  |
|                     | Customized   | 1200 |        | 921600 | bps  |
| UART output level   | Output 1, Iout = 1mA                               | 3.0  | 3.2    | -      | V    |
|                     | Output 0, Iout = -1mA                              | -    | 0.1    | 0.2    | V    |
| UART input level    | Input 1, Iin = 1mA                                 | 2.0  | 3.3    | 5.0    | V    |
|                     | Input 0, Iin = -1mA                                | -0.7 | 0.0    | 1.3    | V    |
| UART mode           | 8N1, 3.3V TTL/CMOS (Default), RS232 level optional |      |        |        |      |
| User interface mode | 8PIN 2.0mm with lock                               |      |        |        |      |
| FLASH               | 128M BYTE  |      |        |        |      |
| SD interface        | None   |      |        |        |      |

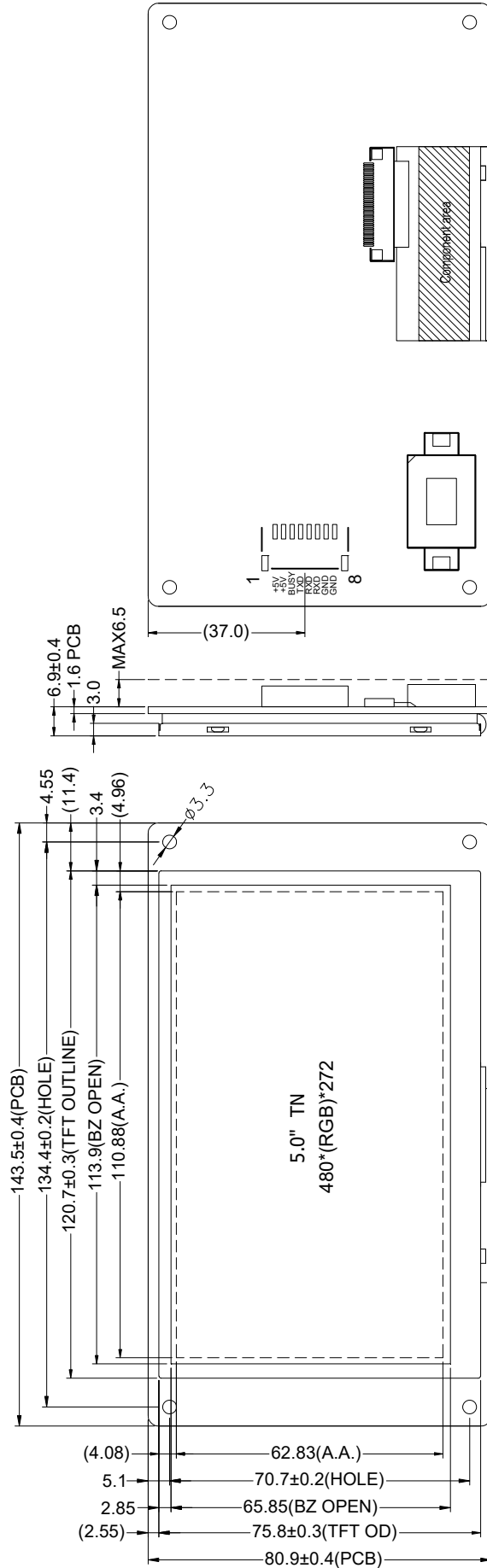
## 5.0 Pin definition

| Pin No. | Symbol | Function     |
|---------|--------|--------------|
| 1       | +5V    | Power supply |
| 2       | +5V    | Power supply |
| 3       | BUSY   | Reserved     |
| 4       | TXD    | UART output  |
| 5       | RXD    | UART input   |
| 6       | RXD    | UART input   |
| 7       | GND    | Ground       |
| 8       | GND    | Ground       |

## 6.0 P/N selection

| VDD voltage | TTL level | P/N         |
|-------------|-----------|-------------|
| 12V         | TTL       | ATM0500U21A |
| 12V         | RS232     | ATM0500U21B |
| 5V          | TTL       | ATM0500U21C |
| 5V          | RS232     | ATM0500U21D |

6.0 Mechanical drawing



1. General tolerance:  $\pm 0.3$ mm  
 2. (.) is for reference

6.1 connector

A=14.0; B=16.75; C=20.0; D=11.5; (mm)

