

ZETTLER DISPLAYS

SPECIFICATIONS FOR LIQUID CRYSTAL DISPLAY

CUSTOMER APPROVAL			
※ PART NO.: <u>ATM0500U21-T(ZETTLER DISPLAYS) SPEC V1.1</u>			
APPROVAL		COMPANY CHOP	
CUSTOMER COMMENTS			

ZETTLER DISPLAYS ENGINEERING APPROVAL		
DESIGNED BY	CHECKED BY	APPROVED BY
ZZK		

REVISION RECORD

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VER1.0	2023-06-29		FIRST ISSUE
VER1.1	2023-07-21	3	ADD DISPLAY SPECIFICATION

1.0 Display specification

Item	Specification	Remark
1. LCD size	5.0 inch(Diagonal)	
2. Driver element	a-Si TFT active matrix	
3. Resolution	480x(RGB)x272	
4. Display mode	Normally white, TN, Transmissive	
5. Dot Pitch (W*H)	0.077mm(W) x 0.231mm(H)	
6. Pixel pitch(W*H)	0.231mm(W) x 0.231mm(H)	
7. Active Area(W*H)	110.88mm(W) x 62.832mm(H)	
8. Module size (W*H)	143.5mm(W) x 180.9mm(H) x 8.05mm(D)	Note 1
9. Surface treatment	Anti-glare	
10. Color arrangement	RGB-stripe	
11. Color	65K(65536) colors	16BIT R5G6B5
12. Viewing angle (L/R/T/B)	70/70/70/50	
13. Interface	UART	
14. LCD controller	Integrated in the system	
15. LCM brightness	280 cd/m2 Typ.	64 level adjustable
16. Backlight driving condition	40mA @ 19.2V	
17. Touch panel	Resistive	
18. Touch controller	Integrated in the system	
19. Operation temperature	-20~60 °C	
20. Weight	T.B.D.	
21. RoHS	RoHS compliant	

Note 1: Refer to mechanical drawing

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				

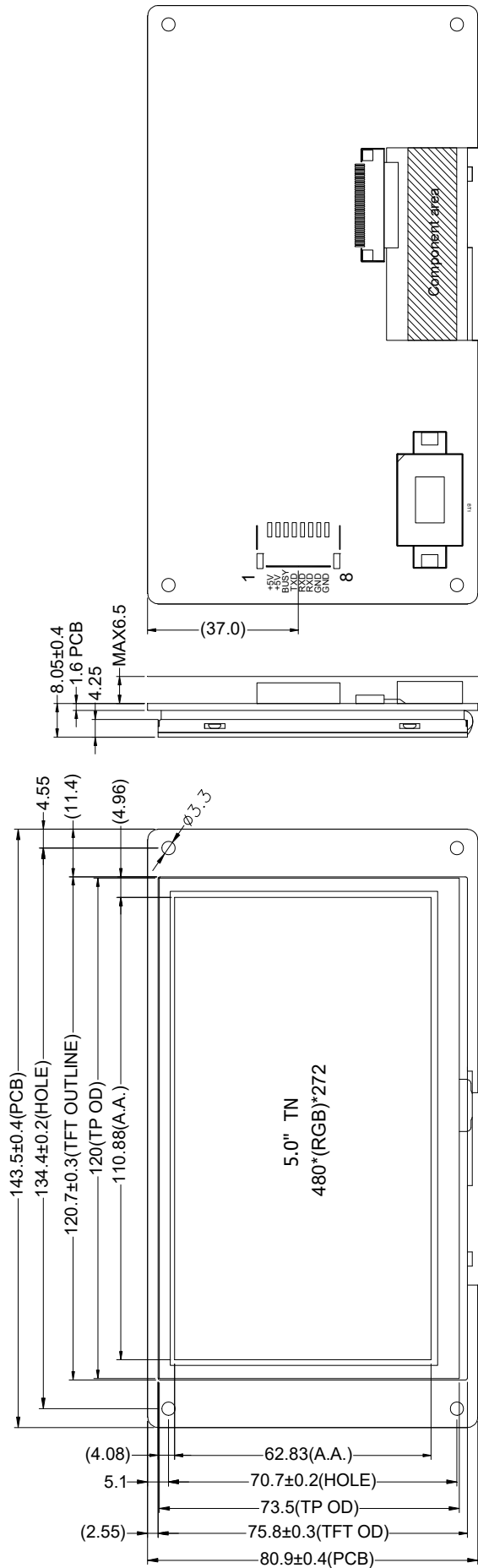
5.0 Pin definition

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-T
12V	RS232	ATM0500U21B-T
5V	TTL	ATM0500U21C-T
5V	RS232	ATM0500U21D-T

6.0 Mechanical drawing



1. General tolerance: ±0.3mm

2. (.) is for reference

6.1 connector

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

