AGTechnologies
LCD Displays

SPECIFICATION

AGO 050B0-NN-N

Atualizado em 26/04/19.

Table of Contents

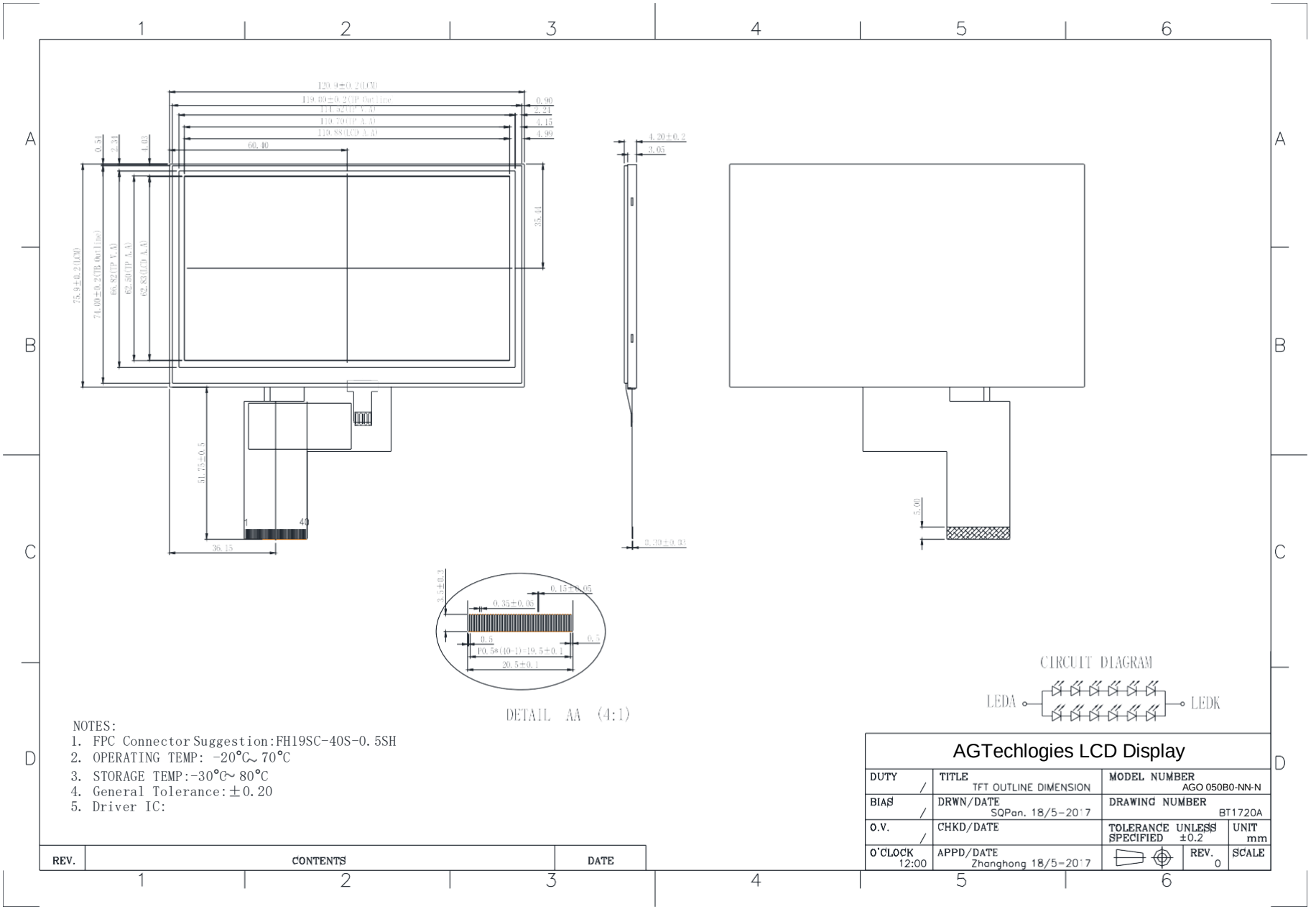
1. Revision History

Version	Summary	Date dd-mm-yy
A	Original	18/05-2017

2. Mechanical Description

Item	Contents	Unit
Module size	5.0 (A.A)	inch
Outline Size	120.9 (W) * 75.9 (H) * 4.20(T)	mm
Resolution	480(RGB)* 272 Pixels	---
Viewing size	110.88(W) * 62.83(H)	mm
Pixel size	0.231 * 0.231	mm
LCD Type	TFT (16.7M)/ Transmissive	---
Viewing Angle	6 O'CLOCK	---
Driver IC	---	---
Backlight Type	6 Serial 2 Parallel	---
Interface Type	24 Bit RGB	---

3. Mechanical Drawing



NOTES:
1. FPC Connector Suggestion:FH19SC-40S-0.5SH
2. OPERATING TEMP: -20℃～70℃
3. STORAGE TEMP:-30℃～80℃
4. General Tolerance:±0.20
5. Driver IC:

REV.	CONTENTS	DATE

AGTechlogies LCD Display			
DUTY /	TITLE TFT OUTLINE DIMENSION	MODEL NUMBER AGO 050B0-NN-N	
BIAS /	DRWN/DATE SQPan. 18/5-2017	DRAWING NUMBER BT1720A	
O.V. /	CHKD/DATE	TOLERANCE UNLESS SPECIFIED ±0.2	UNIT mm
O'CLOCK 12:00	APPD/DATE Zhanghong 18/5-2017	REV. 0	SCALE

4. Interface Definition

PIN NO.	PIN Name	Function Description
1	VLED-	back light power supply negative
2	VLED+	back light power supply positive
3	GND	Ground
4	VDD	Power supply
5-12	R0-R7	Red Data
13-20	G0-G7	Green Data
21-28	B0-B7	Blue Data
29	GND	Ground
30	CLK	Clock signal
31	DISP	Display on/off
32	HSYNC	Horizontal sync input in RGB mode(short to GND if not used)
33	VSYNC	Vertical sync input in RGB mode(short to GND if not used)
34	DE	Data enable
35	NC	No Connection
36	GND	Ground
37	XR	touch panel X-right
38	YD	touch panel Y-bottom
39	XL	touch panel X-left
40	YU	touch panel Y-up

5.3 AC Timing Diagram

9. Optical Specification

Name	Symbol	Min	Type	Max	Unit
Transmittance rate	T(%)	-	5	-	%
Contrast ratio	C/R	400	500	-	-
Response time	Tr+Tf	-	45	-	ms
Viewing Angle	0U	40	50	-	degree (C/R>10)
	0D	50	60	-	
	0L	50	60	-	
	0R	50	60	-	

*Viewing angle description :

*Contrast rate description(CR) :
Tested in the center of the LCM panel

*Response time description : Sum of TR and TF

11. Precaution

11.1 Handling

(1) Protect the panel from static, it may cause damage to the CMOS Gate Array IC.

(2) Use fingerstalls with soft gloves in order to keep display clean during the incoming inspection and assembly process.

(3) If the liquid crystal material leaks from the panel, it should be kept away from the eyes or mouth. In case of contact with hands, legs or clothes, it must be washed away thoroughly with soap.

(4) The desirable cleaners are water, IPA (Isopropyl Alcohol) or Hexane. Don't use Ketone type materials (ex. Acetone), Ethyl alcohol, Toluene, Ethyl acid or Methyl chloride. It might permanent damage to the polarizer due to chemical reaction.

(5) Pins of I/F connector shall not be 0ed directly with bare hands.

(6) Refrain from strong mechanical shock and / or any force to the panel. In addition to damage, this may cause improper operation or damage to the panel.

(7) Note that polarizers are very fragile and could be easily damaged. Do not press or scratch the surface harder than a B pencil lead.

(8) Wipe off water droplets or oil immediately. If you leave the droplets for a long time,staining and discoloration may occur.

(9) If the surface of the polarizer is dirty, clean it using some absorbent cotton or soft cloth.

11.2 Storage

(1) Do not leave the panel in high temperature, and high humidity for a long time. It is highly recommended to store the panel with temperature from 0 to 35℃ and relative humidity of less than 70%.

(2) The panel shall be stored in a dark place. It is prohibited to apply sunlight or fluorescent light during the store.

11.3 Operation

(1) The LCD shall be operated within the limits specified. Operation at values outside of these limits may shorten life, and/or harm display images.

(2) Do not exceed the absolute maximum rating value. (the supply voltage variation, Input voltage variation in part contents and environmental temperature and so on).Otherwise the panel may be damaged.

(3) If the panel displays the same pattern continuously for a long period of time, it can be the situation when the image" Sticks" to the screen.