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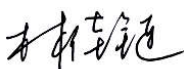
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**SPECIFICATION
FOR
IOT MODULE
MODULE NO. : SDM-L769070CN-A0-S
CUSTOMER NO.:
Rev No. : A**

AVD	PREPARED BY	CHECKED BY	APPROVED BY
SIGNATURE			
DATE	2021.10.26	2021.10.26	2021.10.26

CUSTOMER APPROVAL	SIGNATURE	DATE

Notes:

- 1.Please contact AVD before assigning your product based on this module specification.
- 2.To improve the quality of product,this product specification is subject to change without any notice.

REVISION RECORD

[illegible]



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1. MODULE DESCRIPTION

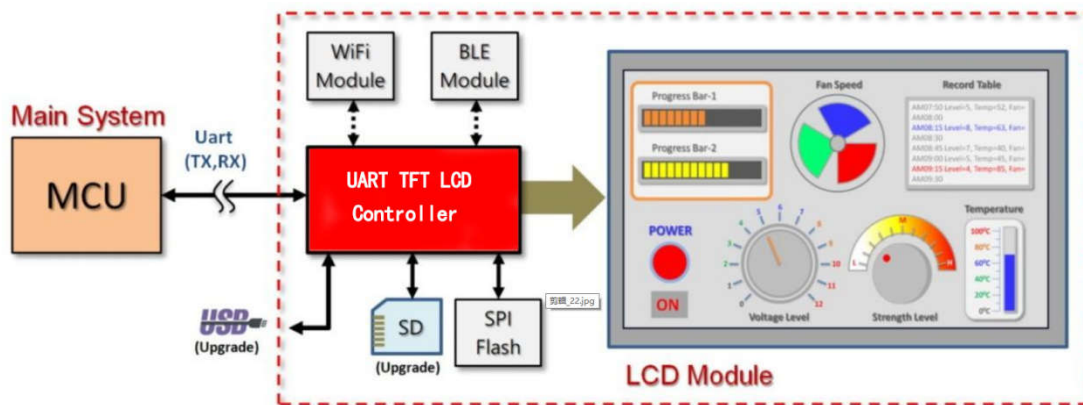
SDM-L769070CN-A0-S is a 7" serial screen with capacitive touch panel. This product can be widely used in all kinds of smart home appliances, automobile instrument panel, motorcycle panel, multi-functional transaction machine, industrial control, electronic instruments, medical beauty equipment, testing equipment, charging equipment, water and electricity meters, intelligent speakers with screen and other fields of human-computer interaction occasions.



(1) HARDWARE PARAMETERS

Memory	1G bit SPI Flash
Display Port	24-bit RGB
Touch	Support Capacitive Touch Panel (CTP)
Communication Interface	RS232(Default TTL) /RS485
Baud Rate	115200 bps(Typ.)
Buzzer	Buzzer
RTC	Support RTC
Power	12V DC(Typ.)
Power Consumption	2.3W
Application Generation	Supports Local USB Upgrade
Size	190.5*105.6mm
Language	Chinese/English
Weight	309 g

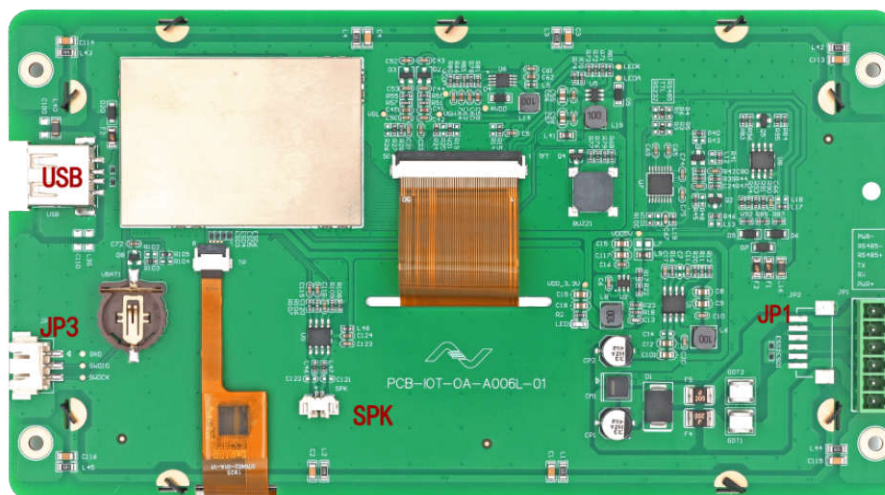
(2) FUNCTIONAL BLOCK DIAGRAM



(3) COMMUNICATION PROTOCOL

Start code	Order code	Number	Command parameter	CRC code	Epilog code
0xAA (1 Byte)	1 Byte	1 Byte	n Byte	2 Byte	0xE4、0x1B、0x11、0xEE (4 Bytes)

(4) INTERFACE DESCRIPTION





JP1 : Power and UART



No.	Symbol	No.	Symbol
1	PWR+(12V)	4	RS485+
2	RX	5	RS485-
3	TX	6	PWR-

JP3 : MCU burning Interface



No.	Symbol	No.	Symbol
1	GND	3	SWDCK
2	SWDIO	/	/

USB :Standard Type-a USB 2.0 Interface



No.	Symbol	No.	Symbol
1	USB5V	3	DP
2	DN	4	GND

SPK : 8 Ω 3W Loudspeaker

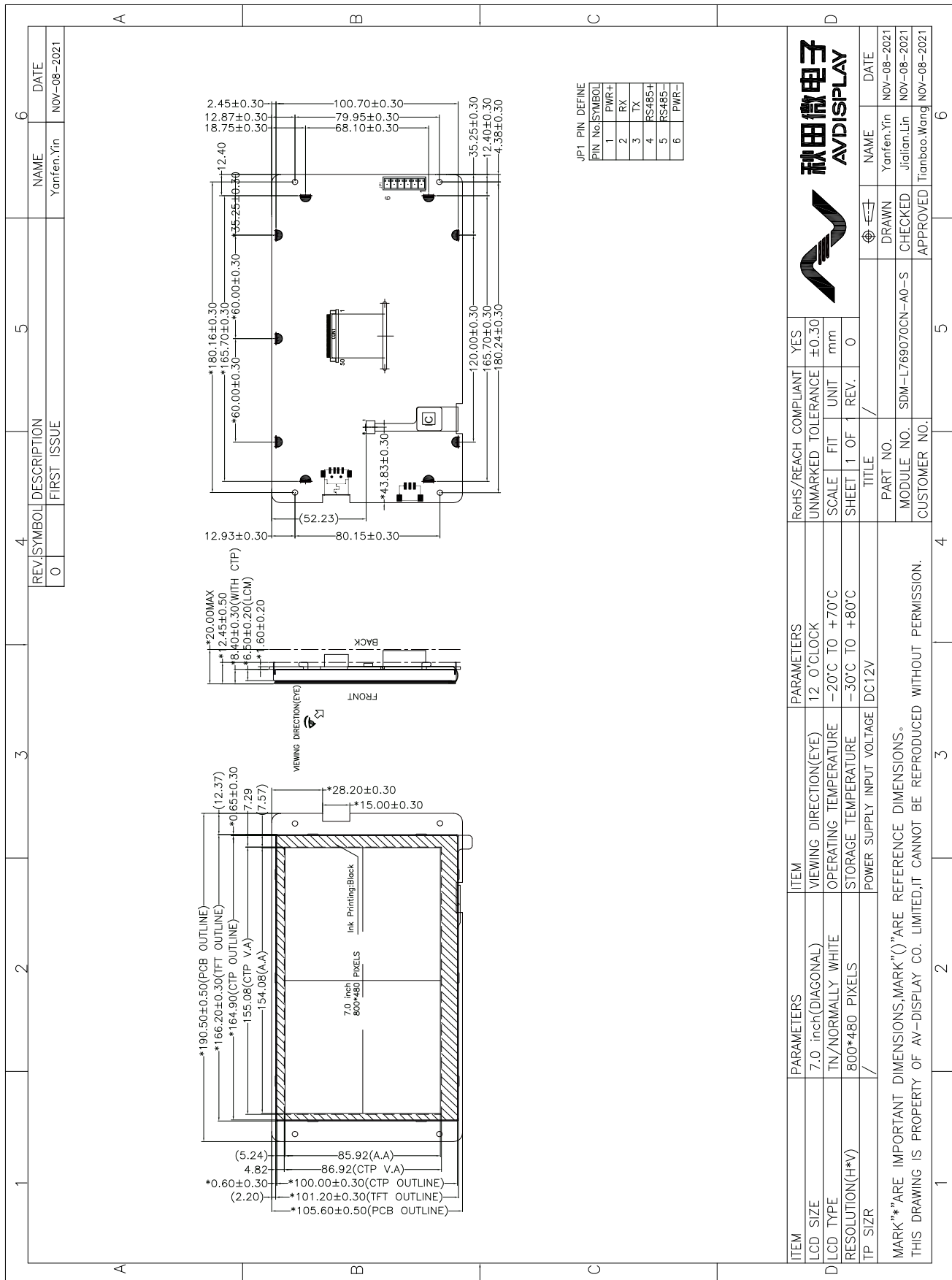


No.	Symbol	No.	Symbol
1	SPK+	2	SPK-

Remark:

- (1) The default value of a serial port is TTL.R6 R8 used to select TTL,R1 R3 used to select RS232, R4 5 used to select RS485.
- (2) J3 is used for MCU firing.
- (3) The RTC requires an external CR1220 battery.
- (4) Firmware upgrade requires a USB flash disk.

2.MOUDLE EXTERNAL DIMENSIONS





3.LCD DESCRIPTION

No.	Item	Contents	Unit
1	LCD Size	7.0 Inch	/
2	Display Mode	TN/Normally White/Transmissive	/
3	Interface type	24 bit RGB	/
4	Resolution	800 *480 Pixels	/
5	Pixel Pitch	0.1962*0.1790 mm	/
6	Color Depth	16.7M	/
7	Module Size (L*W*H)	165.00*100.00*5.70 mm	/
8	Surface Luminance	500(Typ.)	cd/m^2

4.TOUCH DESCRIPTION

No.	Item	Contents	Unit
1	Touch Type	Capacitive Touch Panel (CTP)	/
2	Driver IC	GT911 or Compatible	/
3	Resolution	800*480 Pixels	/
4	Interface Type	IIC	/
5	Size	7.0 Inch	/
6	Operating Voltage	3.3	V

5.ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Power Supply Input Voltage(Module)	VDD	-0.3	24.0	V
Supply Current (Normal Temp.)(12V Typ.)	IVDD	-	TBD	mA
Operation Temperature	Top	-20	+70	°C
Storage Temperature	Tst	-30	+80	°C
Humidity	RH	-	90	%RH

6.RELIABILITY TEST CONDITIONS

No.	Test Item	Test condition	Inspection after test
1	High Temperature Storage Test	+80°C/120 hours	Inspection after 2~4 hours storage at room temperature, the sample shall be free from defects : 1.Current changing
2	Low Temperature Storage Test	-30°C/120 hours	
3	High Temperature Operating Test	+70°C/120 hours	
4	Low Temperature Operating Test	-20°C/120 hours	

5	Temperature Cycle Storage Test	-30°C ~ 25°C ~ +80°C/10 cycles (30 min.) (10 min.) (30 min.)		value before test and after test is 50% larger; 2. Function defect : Non-display,abnormal-display 3.Visual defect : Glass crack.
6	High Temperature High Humidity Test	+60°C*90% RH/120 hours		
7	Vibration Test	Frequency : 250 r/min Amplitude : 1 inch Time: 45 min		
8	Drop Test	Drop direction: 1 corner/3 edges/6 sides ,10 times		
		Packing weight(kg)	Drop height(cm)	
		<11	80±1.6	
		11≦G<21	60±1.2	
		21≦G<31	50±1.0	
		31≦G<40	40±0.8	
9	ESD Test	Air discharge: ±8 KV, 10 times Contact discharge: ±4 KV, 10 times		

7.REMARK:

- Avoid any inappropriate external force or strong vibration in the assembly process.
- Do not twist or bend panels and prevent improper external forces from damaging panels during assembly.
- High temperature, high humidity or rapid temperature changes may affect performance. Store and use the product in an appropriate environment.
- Avoid dust, oil mist, acid, alkali and chloride damage to the product.
- Wear wrist straps, antistatic gloves and clothes during assembly to prevent electrostatic discharge (ESD).
- When assembling, use ionic fan to prevent electrostatic discharge (ESD).
- Removing the protective film from the top (PCBA binding side) to the bottom in 3 seconds to prevent electrostatic discharge (ESD).
- Follow the correct time sequence when operating.
- Avoid displaying the same mode/pattern for a long time.
- V-COM voltage should be adjusted after aging (blinking) to display the best performance.
- Turn off the power when connecting or disconnecting the circuit.
- Products may contain small amounts of liquid crystal and comply with local laws and regulations.