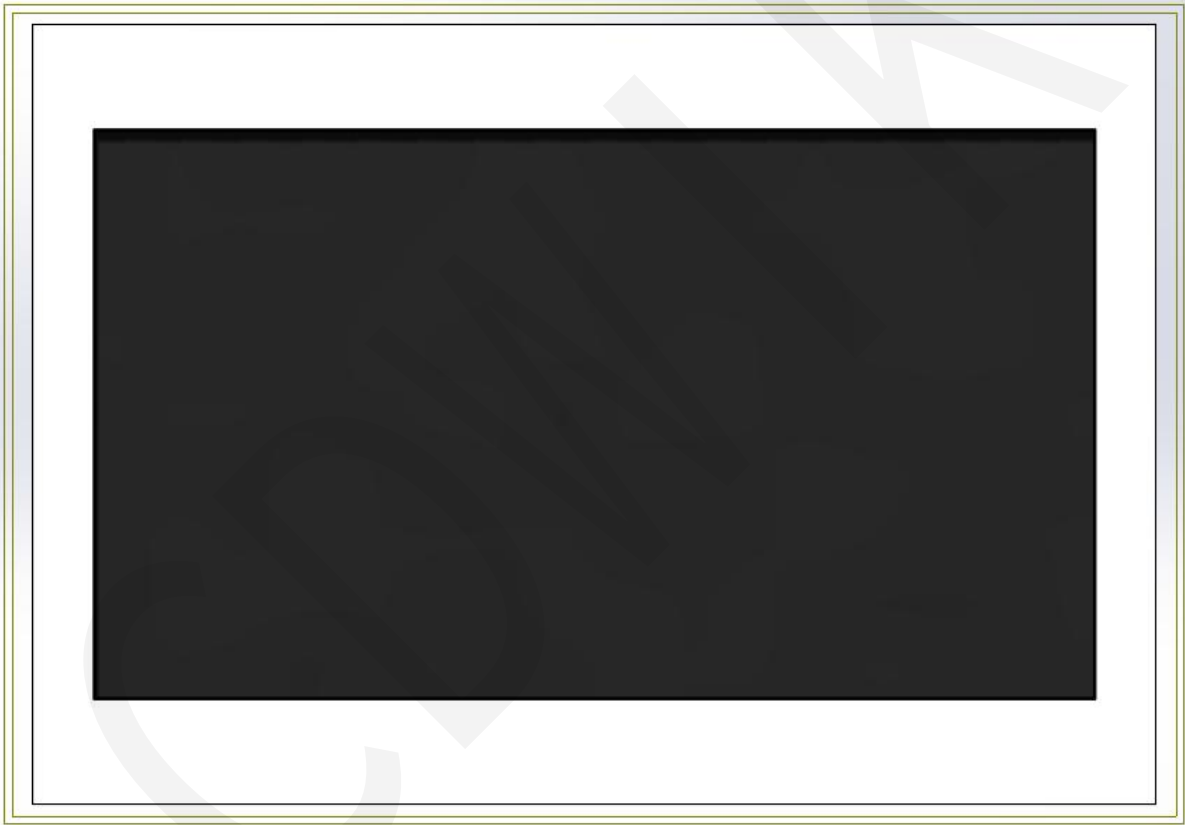


MPC3509

3.5-inch IPS display module
Product specification
sheet



3.5-inch IPS display module
Product specification sheet

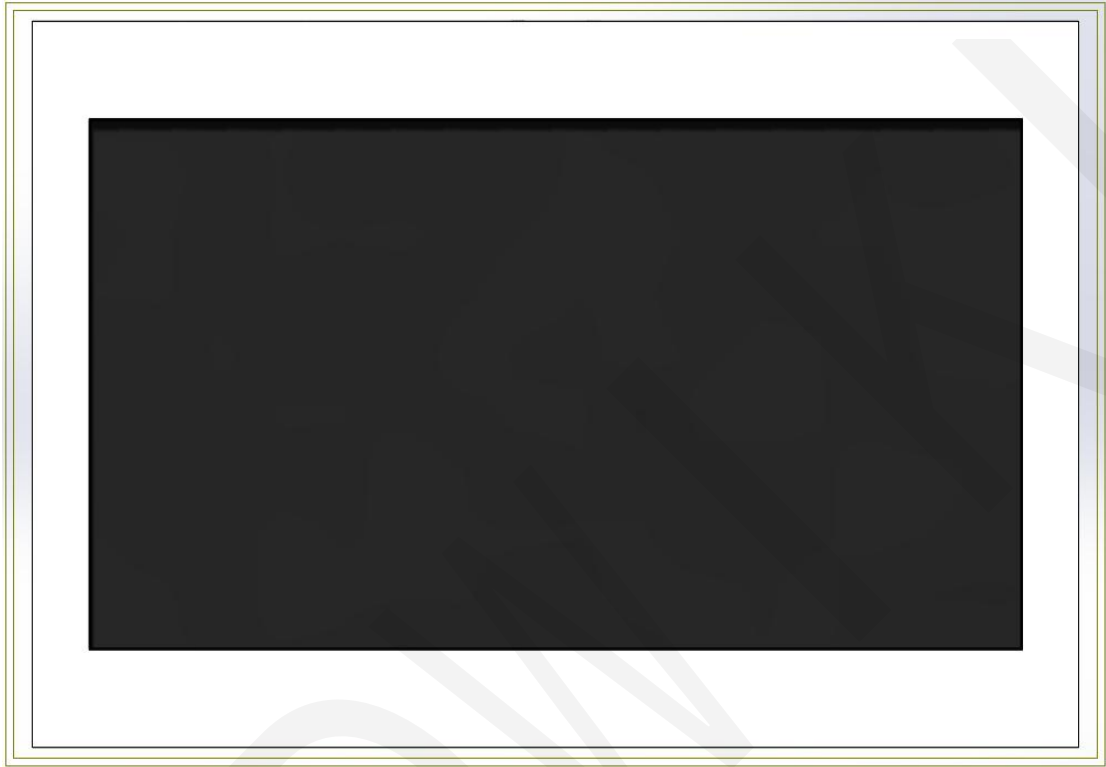
REV	Record	日期
V1.0	First Release	2026-3-6

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1. overview

1.1. picture presentation



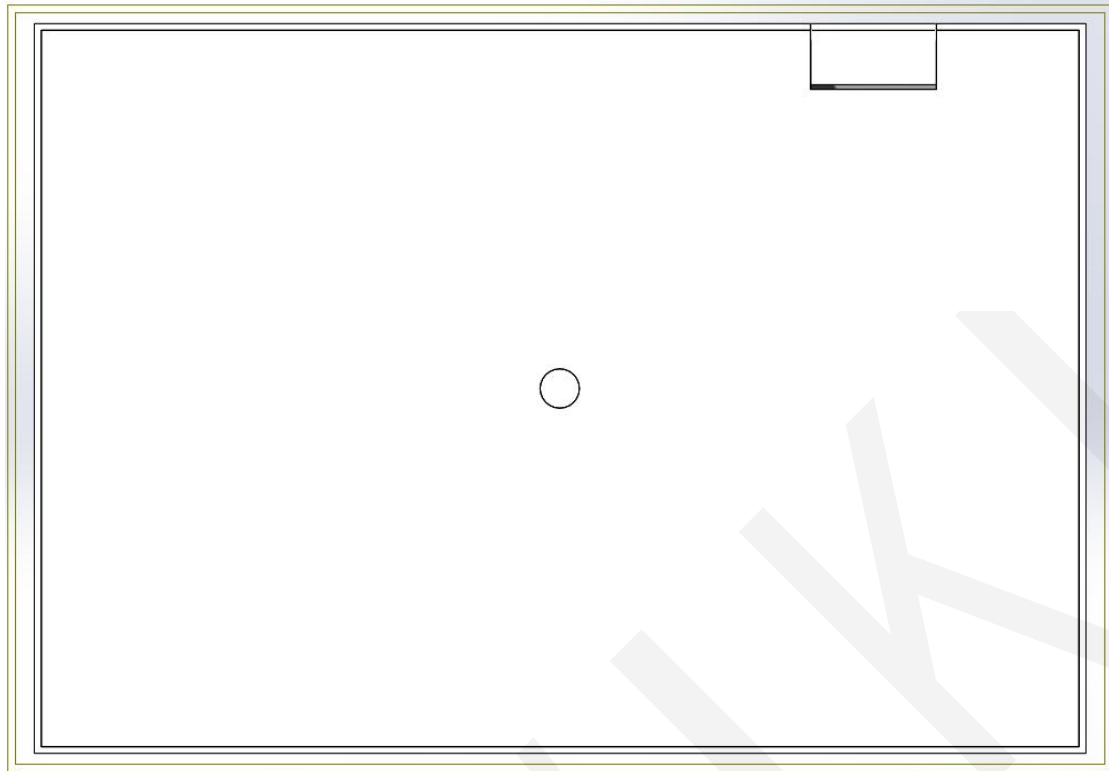


Figure 1.1 MPC3509 product drawing

1. 2. parts list

2. product features

2.1. Feature description

- **3.5-inch IPS color screen with a resolution of 480x320, providing rich display colors**
- **Hardened iron casing**
- **Wide viewing angle**
- **True colors, excellent picture quality, high-definition viewing range, and very detailed display**
- **Standard TYPE-C interface for convenient power supply**

3. Product Parameter

3.1. LCD screen parameters

project	parameter	unit
screen size	3.5	inch
Screen type	IPS TFT	—
Effective display area	73.42 (W) x48.60 (H)	mm
resolution ratio	480*320	—
length-width ratio	16:9	—
display port	Type C	—
pixel size	0.15 (H) x0.15 (W)	mm
visual Angle	ALL 0' CLOCK	deg
Backlight brightness (typical value)	24	cd/m ²
Backlight type	6 并	—
operating temperature	-20~70	℃
storage temperature	-30~80	℃

3.2. dimension parameters

project	parameter	unit
The size of the LCD screen	82.90 (W) x54.12 (H) x2.30 (D) (不包含排线和背胶)	mm
Module size and shape	90.15 (W) x56.46 (H) x8.80 (D)	mm

3.3. electrical parameters

project	parameter	unit
working voltage	5.0	V
Backside current	109	mA
total current	135	mA
power dissipation	0.675	W

3.4. other parameters

project	parameter	unit
SKU	MPC3509	—
Power supply interface	TYPE-C	—
Weight (including packaging)		g

4. Product Interface

4.1. Interface Function Description

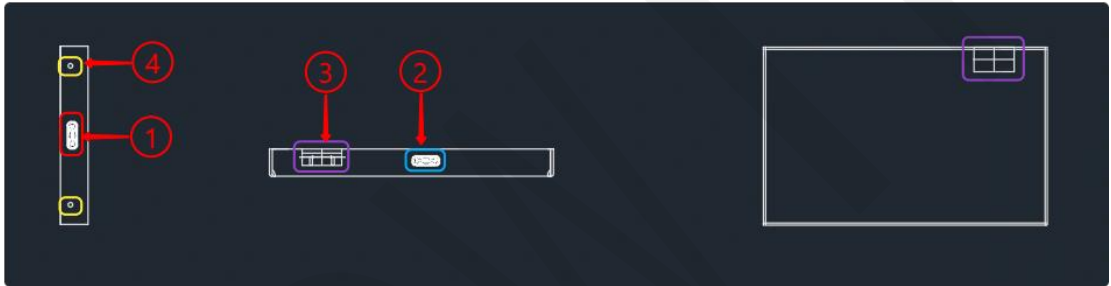
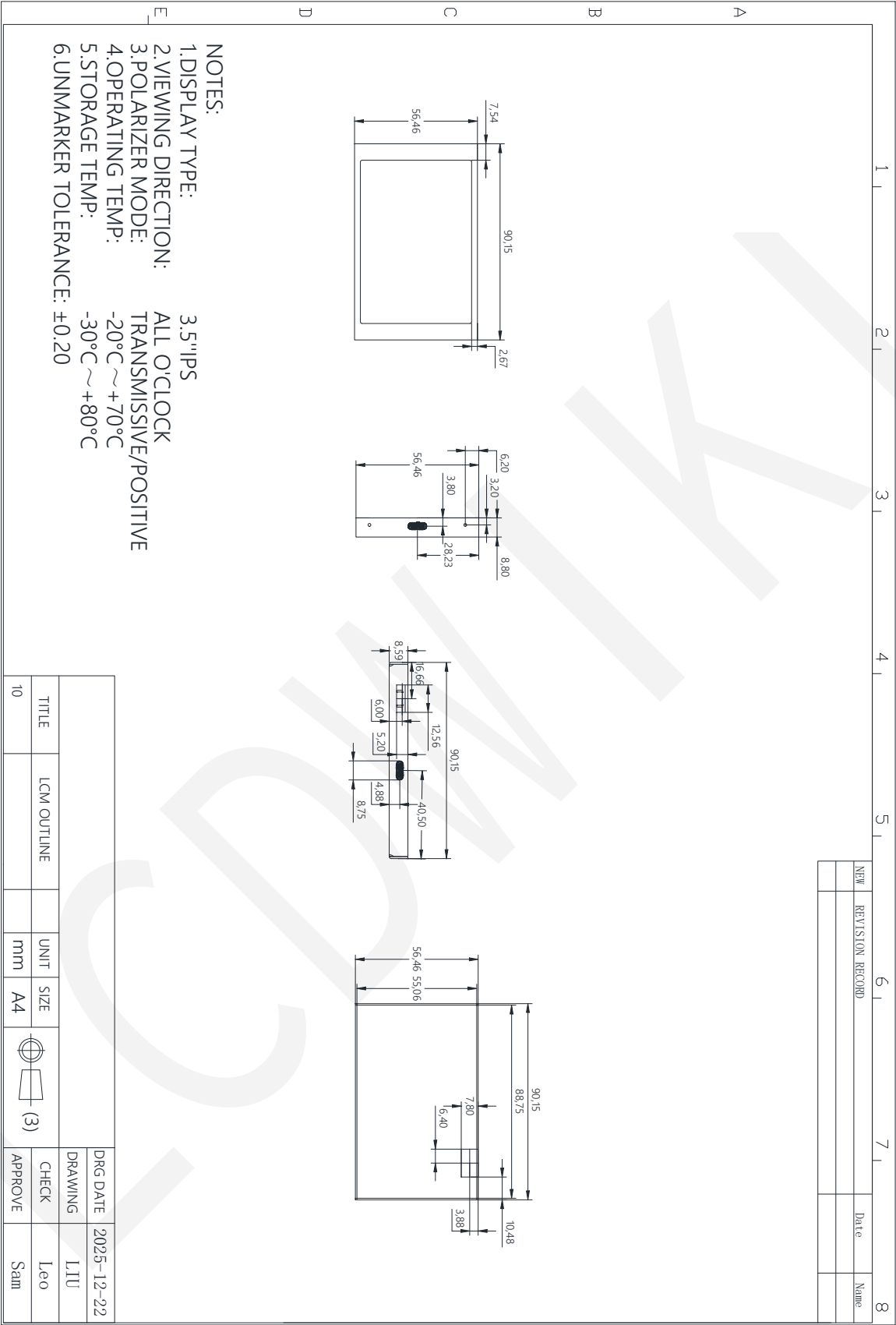


Figure 4.1 Product Interface Diagram

Interface Name	function declaration
①Type C	Provide power supply and display interfaces
②Type C	
③4Pin netlist	
④Hole	Used for fixing the back panel of the secondary screen

5. Product dimensions diagram

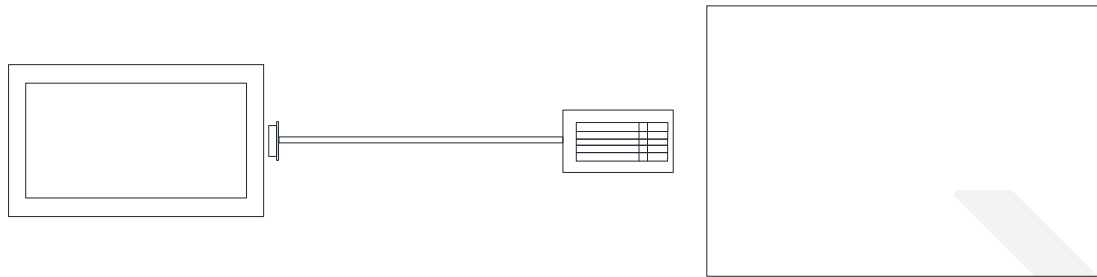
5.1. MPC3509 Product Dimension Diagram



MPC3509 Product Dimension Diagram

6. connection schematic diagram

connect computer



Step 1: Connect the secondary screen to the 4-pin port.

Step 2: Use the other end as a USB cable to connect the USB interface of the computer host.

Step 3: On the computer, set the high-definition output resolution (up to 1920*1080), select an appropriate theme, and click to enable the display screen.

7. matters need attention

7.1. Safe use of the product

- Do not use violent pressing or hitting on the screen to avoid damaging it.
- Do not use hard objects to scratch the screen to prevent scratching it.
- Do not place heavy items on the product to avoid damaging the screen.
- Please keep the product clean. Do not drip water or oil onto the screen.
- Please use a clean, soft, and dry cloth to wipe the screen. Do not spray water or cleaning agents directly onto the screen.
- Do not disassemble the product randomly to avoid damaging the screen or the wiring.
- Do not place the product in a high-temperature or high-humidity environment.
- Please place the product upright on a stable surface to avoid damaging it due to falling.
- Please use the correct voltage to connect the product to avoid damaging it due to excessive voltage.
- When using the product, do not touch the components or pins with wet hands to avoid short circuits and damage to the product.
- When the product is not in use for a long time, please unplug the power

supply.

7.2. Frequently Asked Questions (FAQ)

- Question 1: The product does not respond upon power-on and the screen does not light up.

analysis:

First, make sure that the Type C interface is properly connected. Then, check the voltage of the power supply interface and the contact condition of the power supply cable.

If the backlight still doesn't respond after following the above steps, it can be presumed that there might be a fault in the hardware circuit.

- Question 2: The backlight of the product lights up when powered on, but there is no display screen.

analysis:

A bright backlight indicates that the module has been powered on normally. Check if it is due to insufficient power supply voltage or if the host computer has not clicked the start screen display. If necessary, use necessary tools such as multimeters, oscilloscopes, or logic analyzers to analyze and test the signals, and contact our technical staff for assistance.

- Question 3: The upper computer shows that there is no available screen.

analysis:

Check if the backlight is on, then check if the device manager detects the screen connection. If after plugging and unplugging several times or changing the computer interface and data cable, it still cannot be detected, please contact our technical staff for assistance.

- Question 4: After clicking to activate the screen display, the screen does not light up.

analysis:

First, check if the backlight is on. If it's not on, it might be due to insufficient power supply. Replace the computer interface or data cable and try again. Check if the brightness is too low, whether the screen pixels are correct, and if the theme is selected.