

P10768MS150I_T01

15.0 Inches, 1024xRGBx768, 16.7M Colors, Android LCM



P10768MS150I_T01 is an industrial level Android LCM based on Rockchip RK3188 ARM. It is equipped with Quad-core Cortex-A9, supports most decoding solutions under 1080p@60fps, H.264/MVC/VP8 solutions under 1080p@30fps and many other great features of Rockchip RK3188. Meanwhile, with good jpeg picture processing performance and 3D GPU, it supports OpenGL ES2.0 and 1.1 OpenVG1.1.

RK3188 has high-performance external memory interface (DDR3/LPDDR2/LVDDR3) capable of sustaining demanding memory bandwidths, also provides a complete set of peripheral interface to support very flexible applications.

● Core Board

| Item | Parameter |
|------|-------------------------|
| CPU | 1.6GHz Quad-core A9 ARM |
| RAM | 1GB /2GB DDR3 |
| eMMC | 8GB eMMC |
| GPU | Mali400MP4 |

● System Version

| Item | Parameter |
|---------|--|
| Android | Android 4.4 |
| Ubuntu | Ubuntu 13.09 (Default system is Android. Need to refresh firmware to choose Ubuntu. Apps need to be developed separately.) |

● Display

| Item | Parameter | Description |
|--------------------|-------------------------|---------------------|
| Color | 16.7M (16777216) colors | 24-bit color 8R8G8B |
| Active Area (A.A.) | 304.1 mm(W)×228.1 mm(H) | 1024×768 |
| View Area (V.A.) | 307.4 mm(W)×231.3 mm(H) | 1024×768 |
| Resolution | 1024x768 | |
| Backlight | LED | - |
| Brightness | 300nit | - |

● Optical Specifications

| Item | Symbol | Condition | Values | | | Unit | Remark |
|------------------------------------|----------------|--------------------|--------|------|------|--------|--------|
| | | | Min. | Typ. | Max. | | |
| Viewing Angle (CR _{≥10}) | θ _L | Φ=180° (9 o'clock) | 65 | 75 | - | Degree | |
| | θ _R | Φ=0° (3 o'clock) | 65 | 75 | - | | |
| | θ _T | Φ=90° (12 o'clock) | 65 | 75 | - | | |
| | θ _B | Φ=270° (6 o'clock) | 65 | 75 | - | | |

● Voltage & Current

| Item | Condition | Min | Typ. | Max | Unit |
|-------------------|-----------|-----|------|------|------|
| Power Voltage | | 5.0 | 12.0 | 36.0 | V |
| Operation Current | - | - | 400 | - | mA |

Recommended power supply: 12V 3A DC

● Reliability Test

| Item | Condition | Min | Typ. | Max | Unit |
|---------------------|----------------------|-----|------|-----|------|
| Working Temperature | 60%RH at 12V voltage | -30 | 25 | 70 | °C |
| Storage Temperature | - | -30 | 25 | 85 | °C |
| Working Humidity | 25°C | 10% | 60% | 90% | RH |
| Protection Paint | - | - | None | - | - |

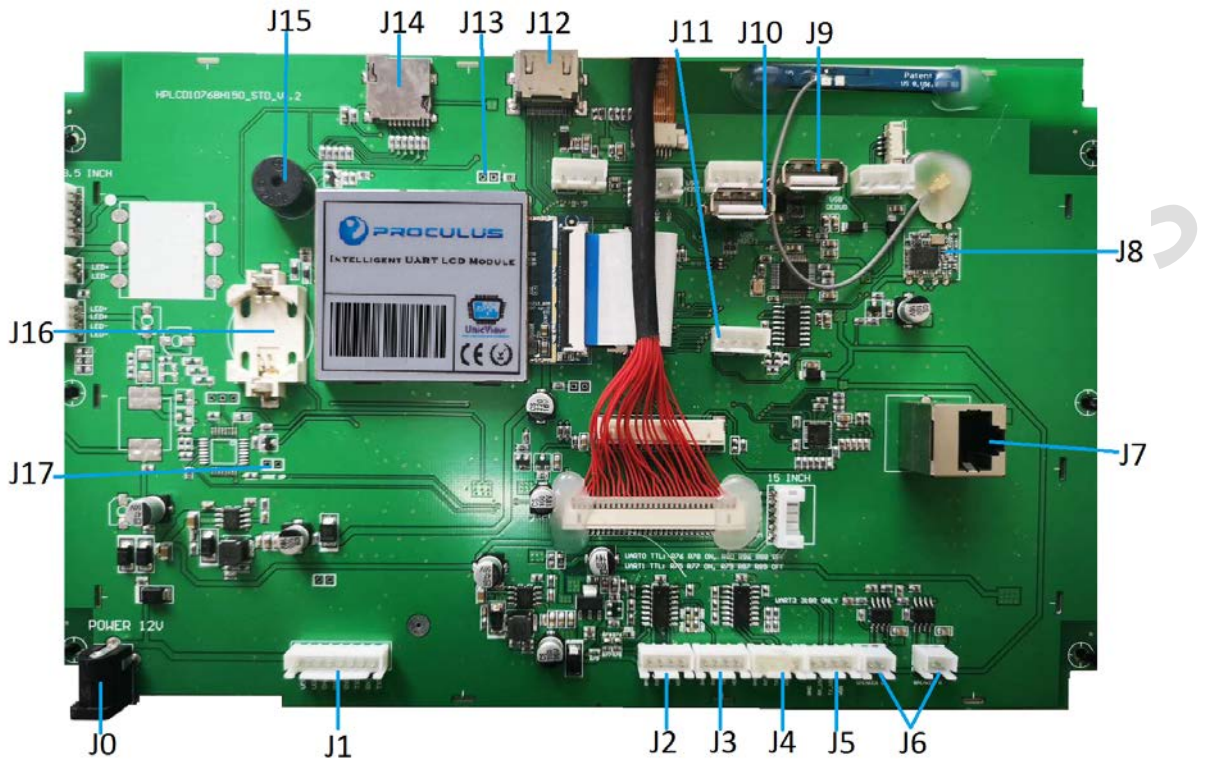
● Interface

| Item | Condition | Min | Typ. | Max | Unit |
|--------------------|--|------|--------|--------|------|
| Baudrate | Standard | 1200 | 115200 | 115200 | bps |
| | User Defin | 1200 | - | 115200 | bps |
| Serial Mode | Serial Port*4 (defaulted interface RS232). 2 of them support TTL. | | | | |
| User Interface | Standard serial communication protocol. 4Pin_2.54mm socket. | | | | |
| USB | USB DEBUG*1. USB HOST*2 | | | | |
| Ethernet | Support 802.11b/g/n/WIFI wireless network. Support 10m/100m Ethernet | | | | |

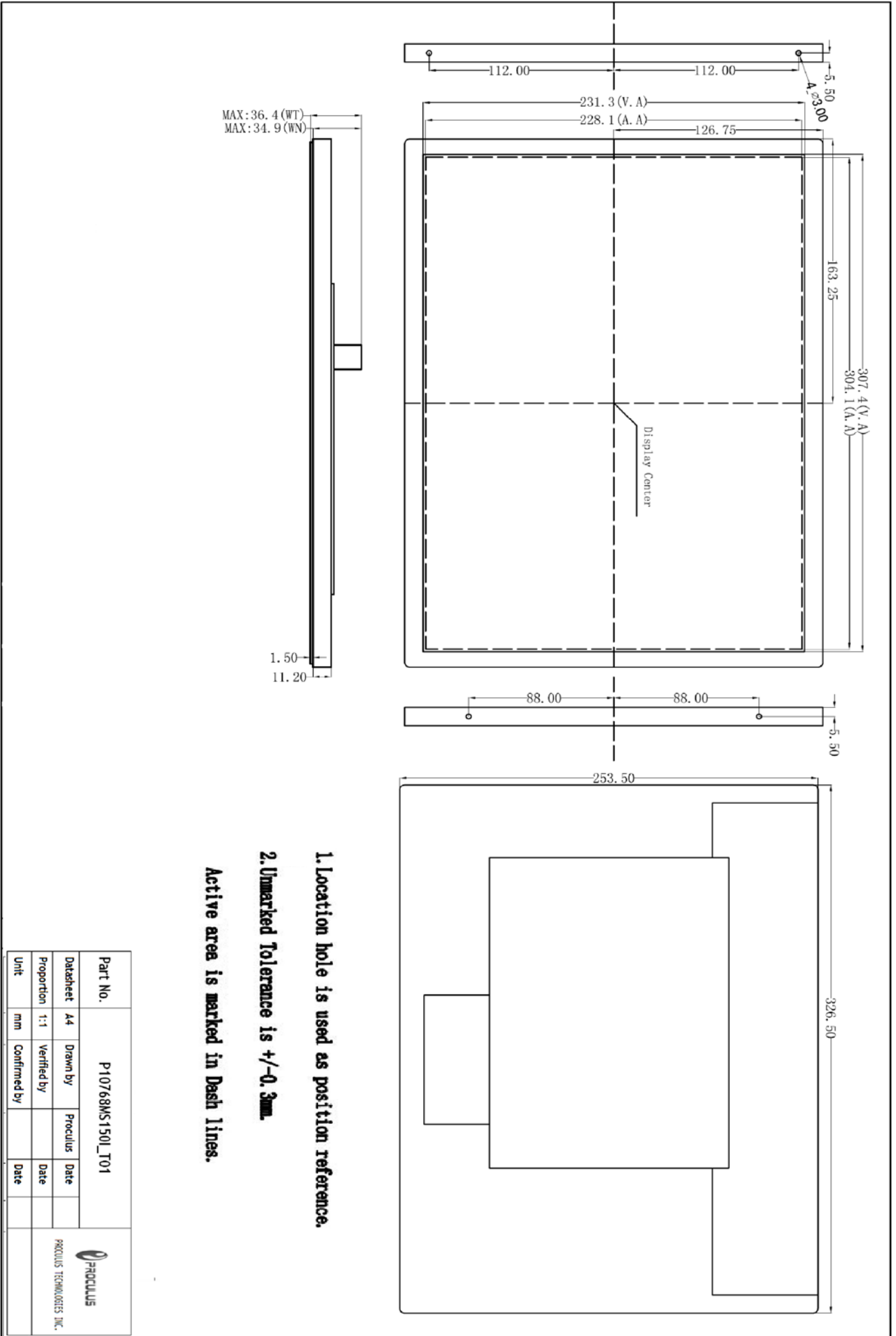
● Peripherals

Peripherals Microphone interface. 2-channel 4 Ω /3W loudspeaker.

● Interface Description



| Num. | Interface Name | Description |
|------|----------------------|--|
| J0 | Power | 12V3A power supply |
| J1 | Power | Same as J0 |
| J2 | Serial port 0 | Device name: ttyS0. Support RS232/TTL. Pin definition: GND, RX, TX, VCC |
| J3 | Serial port 1 | Device name: ttyS1. Support RS232/TTL. Pin definition: GND, RX, TX, VCC |
| J4 | Serial port 3 | Device name: ttyS3. Pin definition: GND, RX, TX, VCC (Not Available in RK3188) |
| J5 | USB-serial interface | Device name: ttyCOM0. Pin definition: GND, RX, TX, VCC |
| J6 | Loudspeaker | Support 4W output |
| J7 | RJ45 interface | Support 10M/100M network |
| J8 | Wireless network | Support IEEE802.11b/g/n network. Support wireless & Bluetooth 2-in-1. |
| J9 | USB DEBUG | App debugging interface. Firmware upgrade interface |
| J10 | USB1 | Support USB Peripherals |
| J11 | USB2 | Support USB Peripherals |
| J12 | HDMI | |
| J13 | RECOVERY | Short-circuit to enter firmware burning mode |
| J14 | TF card | |
| J15 | Buzzer | |
| J16 | RTC | |
| J17 | Wake-up | |



1. Location hole is used as position reference.

2. Unmarked Tolerance is +/-0.3mm.

Active area is marked in Dash lines.

| | | | | | |
|------------|------------------|--------------|---------|--|--|
| Part No. | P10768MS150I_T01 | | |  PROCLUS TECHNOLOGIES INC. | |
| Datasheet | A4 | Drawn by | Proclus | Date | |
| Proportion | 1:1 | Verified by | | Date | |
| Unit | mm | Confirmed by | | Date | |