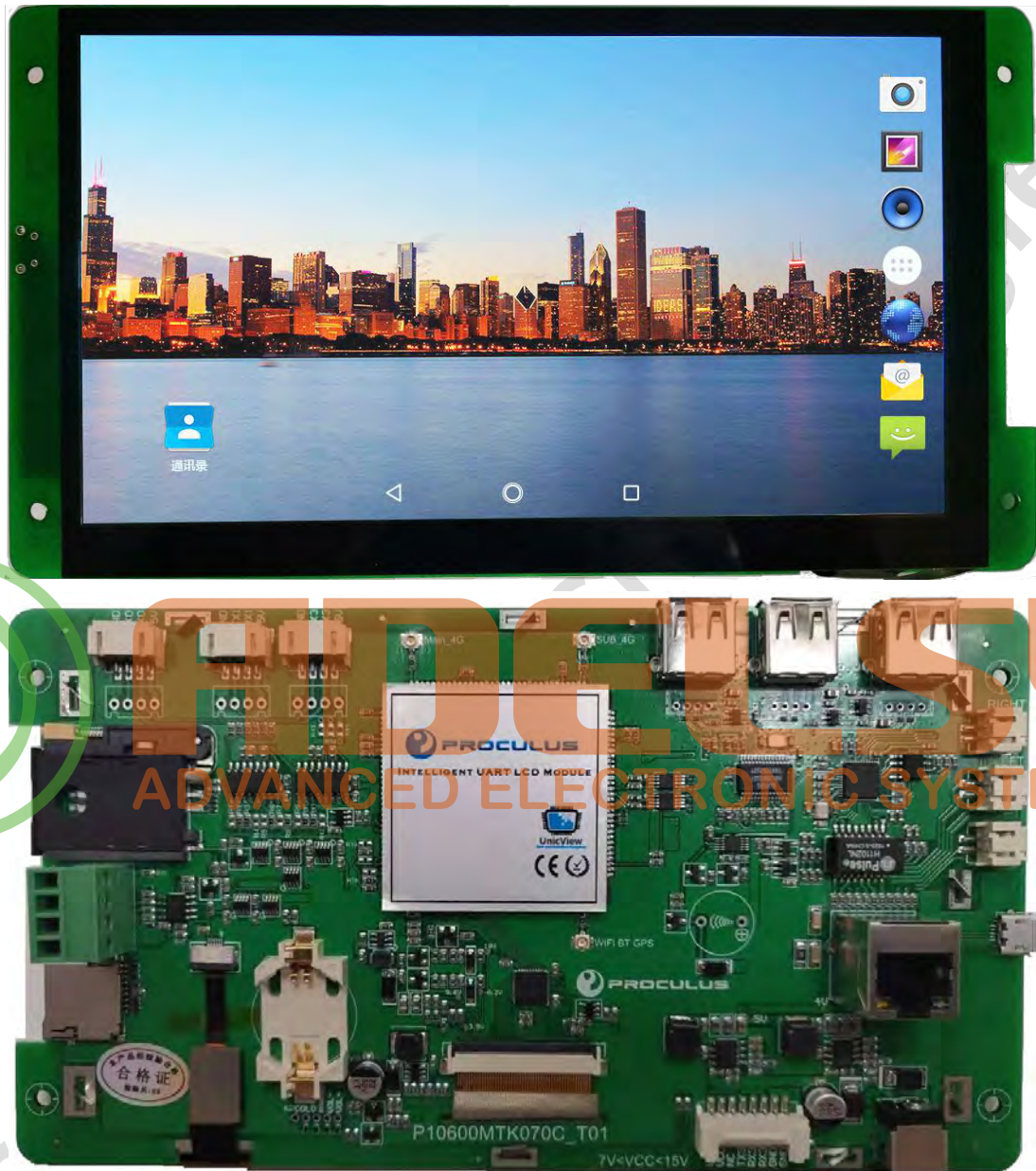


P10600MTK070I_P01

7.0 Inches, 1024xRGBx600, 16.7M Colors, Android LCM



P10600MTK070I_P01 is an industrial level Android LCM based on MTK CPU. It is equipped with Quad-core Cortex-A53, supports most decoding solutions under 1080p@60fps, H.265/MVC/VP8 solutions under 1080p@30fps and many other great features of MTK. Meanwhile, with good jpeg picture processing performance and 3D GPU, it supports OpenGL ES2.0 and 1.1 OpenVG1.1.

MTK 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 | MTK: 1.3GHz Quad-core A53 ARM |
| RAM | 1GB DDR3 |
| eMMC | 8GB eMMC |
| GPU | Mali400MP4 |
| Modem | 4G FDD LTE, TDD, LTE, HSPA+, TD-SCDMA, CDMA200, EDGE (Integrated in CPU. No extra 4G module needed) |

System Version

| Item | Parameter |
|---------|-------------|
| Android | Android 7.0 |

Display

| Item | Parameter | Description |
|--------------------|-----------------------------|---------------------|
| Color | 16.7M (16777216) colors IPS | 24-bit color 8R8G8B |
| Active Area (A.A.) | 162.00 mm(W)×121.50 mm(H) | 1024×600 |
| View Area (V.A.) | 164.00 mm(W)×124.12mm(H) | 1024×600 |
| Resolution | 1024×600 | |
| Backlight | LED | - |
| Brightness | 350nit | - |

Optical Specifications

| Item | Symbol | Condition | Values | | | Unit | Remark |
|--------------------------|------------|------------------------------|--------|------|------|--------|--------|
| | | | Min. | Typ. | Max. | | |
| Viewing Angle (CR≥10) | θ_L | $\Phi=180^\circ$ (9 o'clock) | 65 | 75 | - | Degree | |
| | θ_R | $\Phi=0^\circ$ (3 o'clock) | 65 | 75 | - | | |
| | θ_T | $\Phi=90^\circ$ (12 o'clock) | 65 | 75 | - | | |
| | θ_B | $\Phi=270^\circ$ (6 o'clock) | 65 | 75 | - | | |

Voltage & Current

| Item | Condition | Min | Typ. | Max | Unit |
|-------------------|-----------|-----|------|------|------|
| Power Voltage | | 7.0 | 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 | 50%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 | - | - |

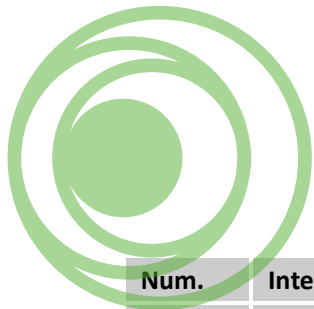
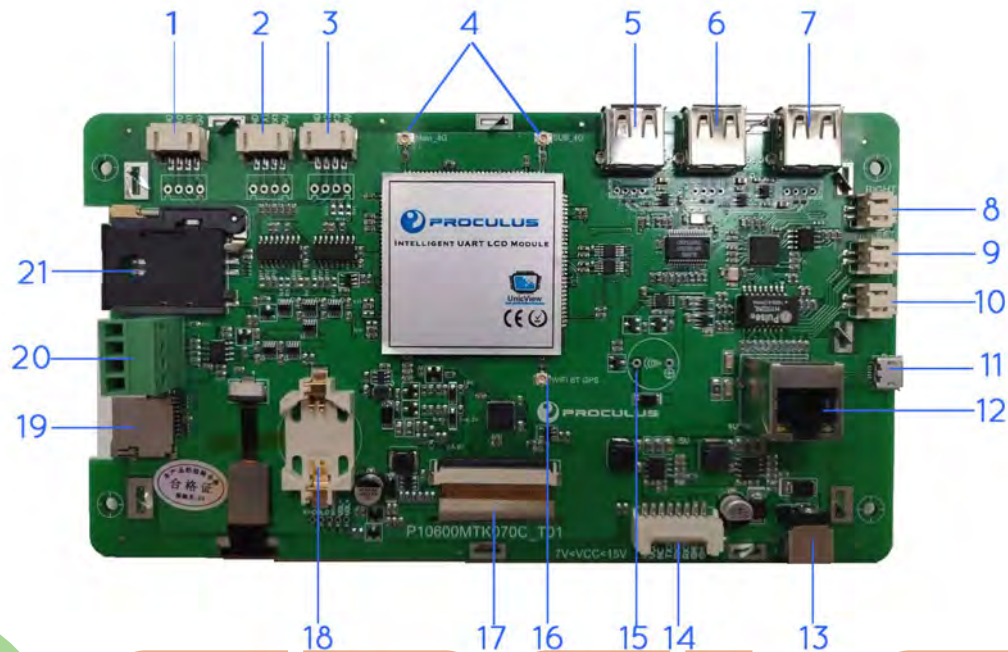
Interface

| Item | Condition | Min | Typ. | Max | Unit |
|----------------|--|------|--------|--------|------|
| Baudrate | Standard | 1200 | 115200 | 115200 | bps |
| | User Define | 1200 | - | 115200 | bps |
| Serial Mode | TTL5V/RS232 *4 | | | | |
| User Interface | 4Pin_2.54mm socket*3. One with 8Pin_2.0mm*1 | | | | |
| USB | USB DEBUG*1. USB HOST*3 | | | | |
| Ethernet | Support 802.11b/g/n/WIFI wireless network. Support 10m/100m Ethernet | | | | |

● Peripherals

Peripherals CTP, TF Card, Bluetooth, GPS, Dual-channel loudspeaker, MIC, etc.

● Interface Description



ADELSY

ADVANCED ELECTRONIC SYSTEMS

| Num. | Interface Name | Description |
|------|-------------------------|---|
| 1 | Serial port 0 | Device name ttyMT0. Support TTL/RS232. Used as debugging serial port. |
| 2 | Serial port 1 | Device name ttyMT1. Support TTL/RS232. |
| 3 | Serial port 3 | Device name ttyMT3. Support TTL/RS232. |
| 4 | 4G Antenna Socket | |
| 5 | USB Host | |
| 6 | USB Host | |
| 7 | USB Host | |
| 8 | Loudspeaker | Right sound channel |
| 9 | Loudspeaker | Left sound channel |
| 10 | MIC socket | |
| 11 | USB OTG | |
| 12 | RJ45 Interface | Support 10M/100M network |
| 13 | DC Power Socket | |
| 14 | 8Pin_2.0mm Power Socket | |
| 15 | Buzzer | |
| 16 | Wifi Antenna | |
| 17 | RGB Signal Interface | |

| | | |
|----|-----------------|--|
| 18 | RTC Socket | |
| 19 | MicroSD Socket | |
| 20 | RS485 Socket | |
| 21 | SIM Card Socket | |

● Electricity Level Switch

| Serial Port | Electricity Level | | |
|-------------|-------------------|----------|----------|
| | | TTL | RS232 |
| 0 | ON | R1, R4 | R2, R3 |
| | OFF | R2, R3 | R1, R4 |
| 1 | ON | R5, R7 | R6, R8 |
| | OFF | R6, R8 | R5, R7 |
| 3 | ON | R9, R12 | R10, R11 |
| | OFF | R10, R11 | R9, R12 |

Note: Serial Port 1 is closed by default.

Serial Port 1 and SP3485 shares one signal channel. They are mutex. It could switch from one to the other by changing R18 and R19.

| | Serial Port 1 | | SP3485 |
|--|---|--|--------|
| | ON | OFF | |
| | Set R18 \neq 0R and pull-up high level to turn on Serial Port 1 | Set R18=0R and pull-down low level to turn off Serial Port 1 | |
| | Set R19 \neq 0R and pull-up high level to turn on SP3485 | Set R19=0R and pull down low level to turn off SP3485 | |

Switch of SP3485 power supply:

Control of the power supply of SP3485 can be done by connecting and disconnecting R17. Default setting is ON.

Switch of 5V power supply of serial ports:

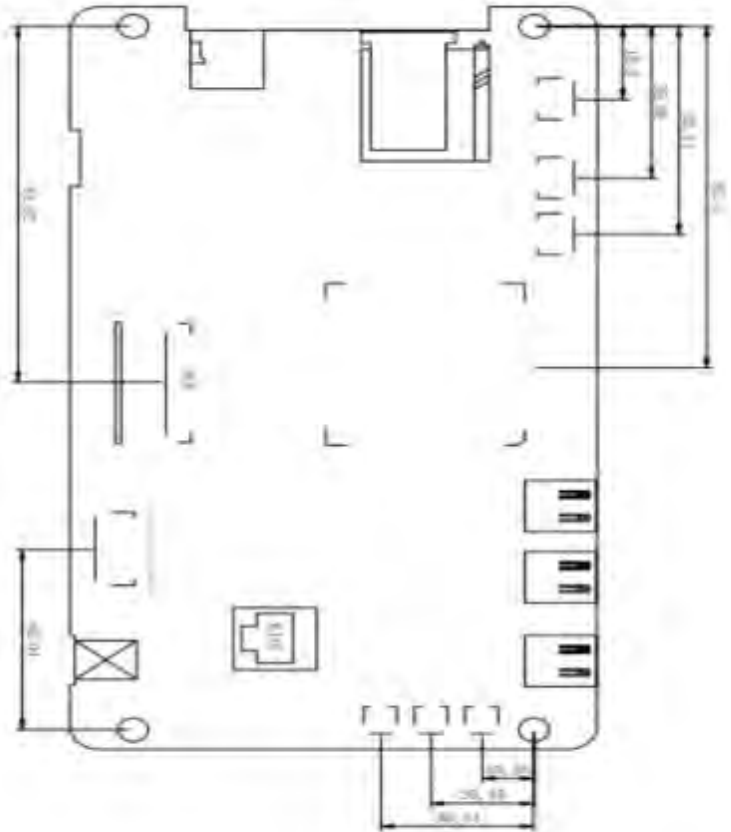
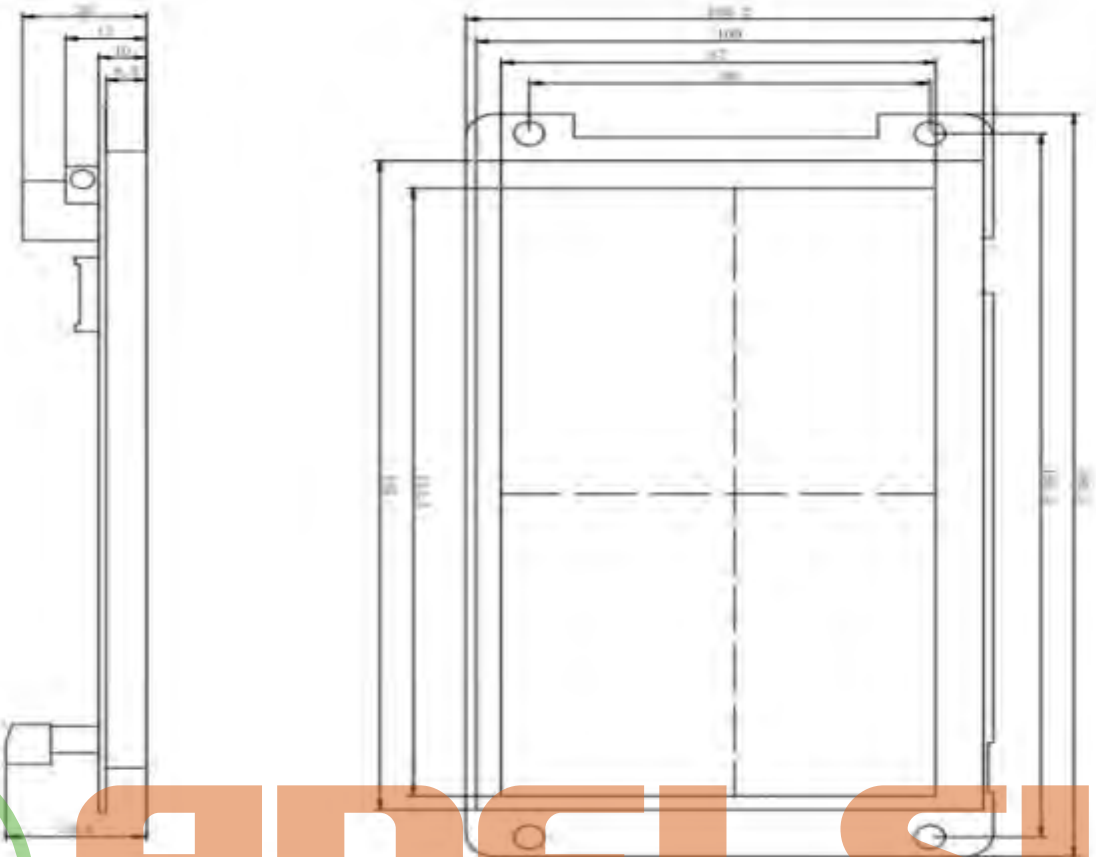
R13, R14, R15 can be used to control the 5V power supply of serial ports.

R13 corresponds to serial port 0.

R14 corresponds to serial port 1.

R15 corresponds to serial port 3.

Unmarked Tolerance: $\pm 0.3\text{mm}$



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