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| **Shanghai Goodview Electronic Technology Co., Ltd.** |
| **Specification** |
| **TC22H1** |



**Sign and Date by: \_\_\_\_\_\_\_\_\_\_\_ Sign and Date by: \_\_\_\_\_\_\_\_\_\_\_\_**

**Customer GoodView**

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# Chapter I. Revision History

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Parts No.** | **Version** | **Revision History** | **Date** | **Written by** | **Auditing** | **Approval** |
| 1410172 | V1.0 | First issue | 2019/10/23 |  | / | 孙小明 |
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# Chapter II. Summary

## 2.1. Statement

All parts of this product, including accessories and software, all the intellectual property right are owned by Shanghai Goodview Electronic Technology Co., Ltd. (hereinafter refers to "Goodview") or authorizes the relevant subjects xxxx to use. Without the permission of the right subjects, no copying or translation is allowed.

There is no any form of guarantee, position expression or other implication in this manual, if there is any direct or indirect loss of data, loss of profits or termination of business caused by the product information mentioned in this manual, Goodview and its employees are not liable for it. In addition to this, the product specifications and information mentioned in this manual are only for reference and will be updated at any time without further notice. Faults or damages caused by the following factors are not covered by free warranty:

* Damage caused by natural disasters (floods, fires, earthquakes, lightning strikes, typhoons, etc.), force majeure or inadvertent use of man-made operations.
* Self-assemble, repair, or send the product to a maintenance shop not authorized or certified by Goodview for inspection and repair.
* Damages and faults caused by users who may or request a third party to modify, repair, alter specifications and install, add and expand parts that are not sold, authorized or approved by our company without authorization.
* Usage problems and faults caused by improper installation and setting of software by users themselves.
* Problems and malfunctions caused by computer viruses.
* Warranty identification label of our company is torn or unrecognizable.
* Other problems and faults caused by abnormal use.

The product names mentioned in the user's manual are only for identification, and these names may belong to registered trademarks or copyrights of other companies.

Goodview reserves the right to change any or all specifications without notice. The information contained in this document is subject to change without notice.

For the latest upgrade information of product specifications, please call to Shanghai Goodview Electronic Technology Co., Ltd.

## 2.2. Safety instructions

**Safety of Electrical**

* In order to avoid serious damage caused by possible electric shock, please remove the power cord of the equipment temporarily from the power socket before moving the equipment
* When you want to add or remove the hardware device in the system, you must connect the data line of the device first and then the power line. If possible, unplug the power cord of the device before installing the hardware device.
* Before you connect or unplug any data lines from the module, make sure that all the power lines have been unplugged beforehand.
* Before using an extension card or an adapter card, we suggest that you seek for professional assistance first. These devices may interfere with the grounding circuit.
* Make sure that the voltage settings of the power supply have been adjusted to the voltage standard values used in the country/region. If you are not sure what the supply voltage value is in your area, please ask the local power company personnel nearby.
* If the power supply is damaged, please do not attempt to repair it by yourself. Please seek the help of professional technical service personnel.

······**Safety in operation**

* Before you install modules and add hardware devices, be sure to read the relevant information provided in this manual in detail.
* Before using the product, make sure that all the data lines and power lines are connected correctly. If you find any defects, please contact Goodview as soon as possible.
* In order to avoid electrical short circuit, make sure that all unused screw, paper clip and other parts are put away, and do not leave them on the module or in the equipment.
* Dust, moisture and drastic temperature changes will affect the life of the motherboard, so please try to avoid placing them in these places.
* Do not place the equipment in a place that is easy to shake.
* If there are any technical problems in the use of this product, please contact the technicians who have been verified or experienced.

# Chapter III. Product Parameter

## 3.1. Main Technical Parameters

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **NO** | **Subtype** | **Name** | | **Parameter** | **Unit** | **Note** |
| 1 |  | Panel | | 22 inches LED backlight |  |  |
| 2 | Product  Parameter | Product size (mm) | | 529.6(H)×321(V)×42.3(D) | mm |  |
| 3 | Active size (mm) | | 475.0（H）×266.4(V） | mm |  |
| 4 | Color | | Aluminum alloy frame + black shell |  |  |
| 5 | Weight (Gross) | | 8.1 | KG |  |
| 6 | Weight (Net) | | 6.1 | KG |  |
| 7 | Speaker | | Stereo 2×2W 4Ω | Watt |  |
| 8 | Screen hanging mode | | Portrait\Landscape |  |  |
| 9 | OSD Language | | Chinese\English |  |  |
| 10 | Play mode | | ☑Horizontal ☑Vertical ☑Split display ☑Play List |  |  |
| 11 | Multimedia transmission | | USB、WAN、LAN |  |  |
| 12 | Watchdog function | | Support |  |  |
| 13 | Timer | | Timing power on/off |  |  |
| 14 | Core | CPU | | RK 3288 Quad-core ARM Cortex A17 （Max. 1.6GHz） |  |  |
| 15 | GPU | | Quad-core ARMMail-764 |  |  |
| 16 | Memory | | DDR3 2GB |  |  |
| 17 | Storage | | 8GB eMMC FLASH |  |  |
| 18 | Operation System | | Android 7.1 |  |  |
| 19 | Touch Panel | Touch Type | | Capacitive |  |  |
| 20 | Touch Point | | 10 point |  |  |
| 21 | Enter mode | | Finger、[capacitive stylus](file:////w/capacitive%20stylus/%23keyfrom=E2Ctranslation) |  |  |
| 22 | Multimedia | Picture | Extension | JPG、JPEG、BMP、PNG | TBD |  |
| 23 | Audio | Extension | MP3 audio format, etc |  |  |
| 24 | Video | Extension | MPEG1、MPEG2、MPEG4、H.264、WMV、MKV、TS、flv and other mainstream video formats |  |  |
| 25 | Text | Extension | .txt |  |  |
| 26 | HTMI 5 | | Support |  |  |
| 27 | Installation | VESA standard | | 400×200 |  |  |
| 28 | Hanging mode | | Hanging bracket/VESA installation |  |  |
| 29 | Accessories |  | | 1. Warranty card×1 2. Certificate×1 3. Quick Start×1 4. AC power line×1 5. 2.4G WiFi antenna×1 6. Remote control×1 7. AAA battery×2 8. Security and Environmental Protection×1 9. Hanging bracket×1 |  |  |
| 30 | Certification |  | |  |  |  |

## 3.1.1. LCD Panel Technical Parameters

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Symbol** | **Parameter** | | | **Unit** | **Note** |
| **Min** | **Typ** | **Max** |
| LCD Panel Size | |  | - | 21.5 | - | inches | Led backlight |
| Active Screen Size | |  | 476.064(H) ×267.786 (V) | | | mm |  |
| Pixel Format | |  | 1920×1080 | | | Pixels |  |
| Panel Luminance | |  | 200 | 250 |  | cd/m2 |  |
| Production Luminance | |  | 170 | 212 |  | cd/m2 |  |
| Contrast Ratio | | CR | 700 | 1000 | - |  |  |
| Color Depth | |  | 6bit, 16.7 Million colors | | |  |  |
| Pixel Pitch | |  | 0.24795（H）X 0.24795(V) | | | mm |  |
| Color Temperature | |  |  | 6500 |  | K |  |
| Color Gamut | |  |  | 72 |  | % |  |
| Response Time | | G to G BW | - | 14 | 25 | ms |  |
| Backlight Life Time | |  | 30000 | - | - | Hrs |  |
| Viewing Angle | Xaxis,right=0° | R | 85 | 89 | - |  |  |
| x axis, left=180° | L | 85 | 89 | - |  |
| y axis, up =90° | U | 85 | 89 | - |  |
| yaxis, down=270° | D | 85 | 89 | - |  |

## 3.2. Specification Overview

### 3.2.1. AC Input Electrical Characteristics

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item** | **Symbol** | **Values** | | | **Unit** | **Note** |
| **Min** | **Typ** | **Max** |
| AC Power Input Voltage | AC IN | 110 | 220 | 240 | VAC |  |
| AC Power Input Current | TBD | - | - | 0.5A | AAC |  |
| Power Consumption | TBD | - | - | 25W | Watt |  |

## 3.2.2. Green mode function

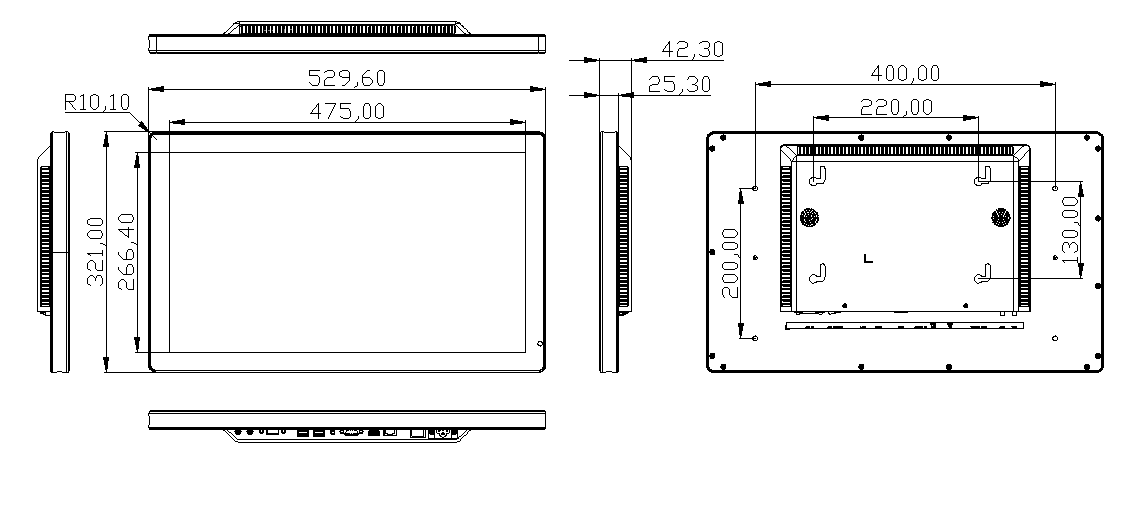
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| --- | --- | --- | --- | --- | --- | --- |
| **Item** | **Symbol** | **Values** | | | **Unit** | **Note** |
| **Min** | **Typ** | **Max** |
| Stand-by power consumption | TBD | / | / | 0.5 | Watt |  |

## 3.3. External Interface Portion

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** | **Subtype** | **Name** | **Number** | **Parameter** |
| 1 | Input Terminals | HDMI | ×1 | 2.0 |
| 2 | VGA | ×1 | 1D-SUB 15pin |
| 3 | AUDIO IN | ×1 | 3.5mm |
| 4 | Control  Terminals | Ethernet RJ45 | ×1 | 100M Ethernet |
| 5 | WiFi | ×1 | 2.4G/5G 802.11b/g/n/ac  Bluetooth 4.2 |
| 6 | USB | ×2 | USB OTG  USB HOST |
| 7 |  | TOUCH USB | ×1 | 外置触摸USB接口 |

# Chapter IV. Mechanical Portion

## 4.1. Outline drawing

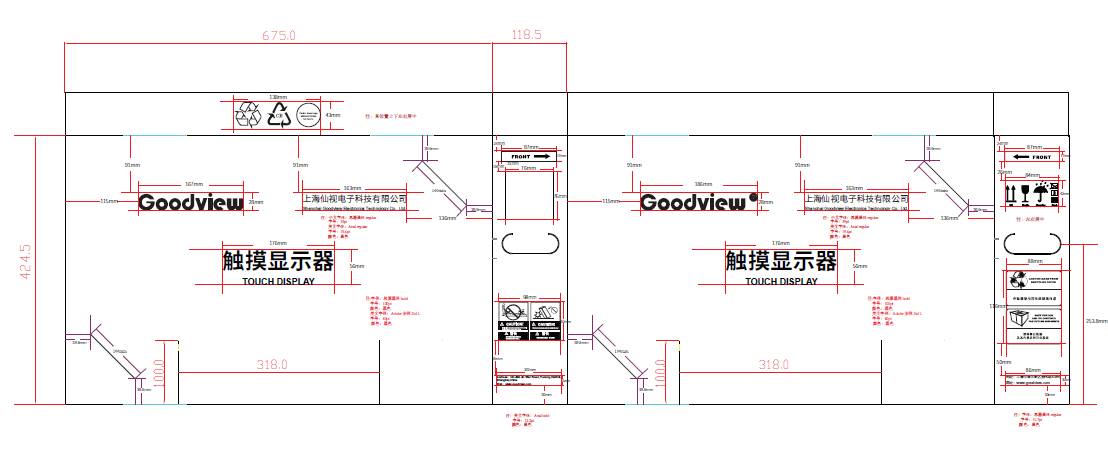


# Chapter V. Packaging Portion

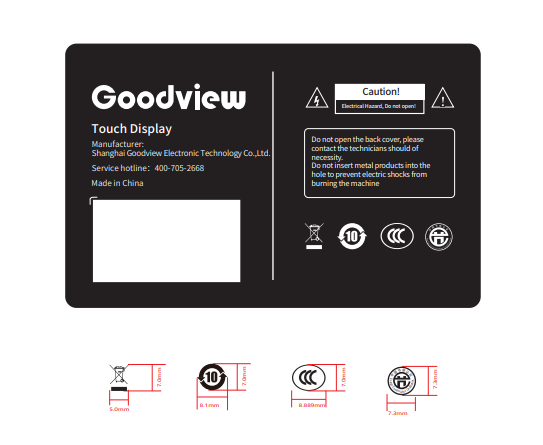
## 5.1. Packing Size



## 5.2. Packaging Drawings



## 5.3. Nameplate



**Technological parameter**

1. Size: length 110mm, Width 70mm, thickness 0.25mm, R Angle diameter 3mm

2. Nameplate color: white on black

3. Nameplate material: PVC

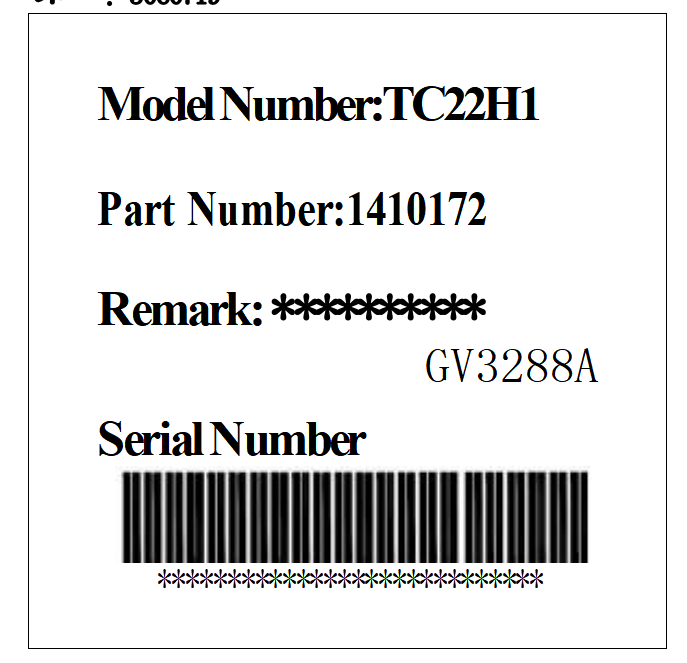
## 5.4. Labels

## 5.4.1. Nameplate Labels

## 

## 

## 5.4.2. Packaging Labels



# Chapter VI. Environmental Requirement

## 6.1. Operating Temperature

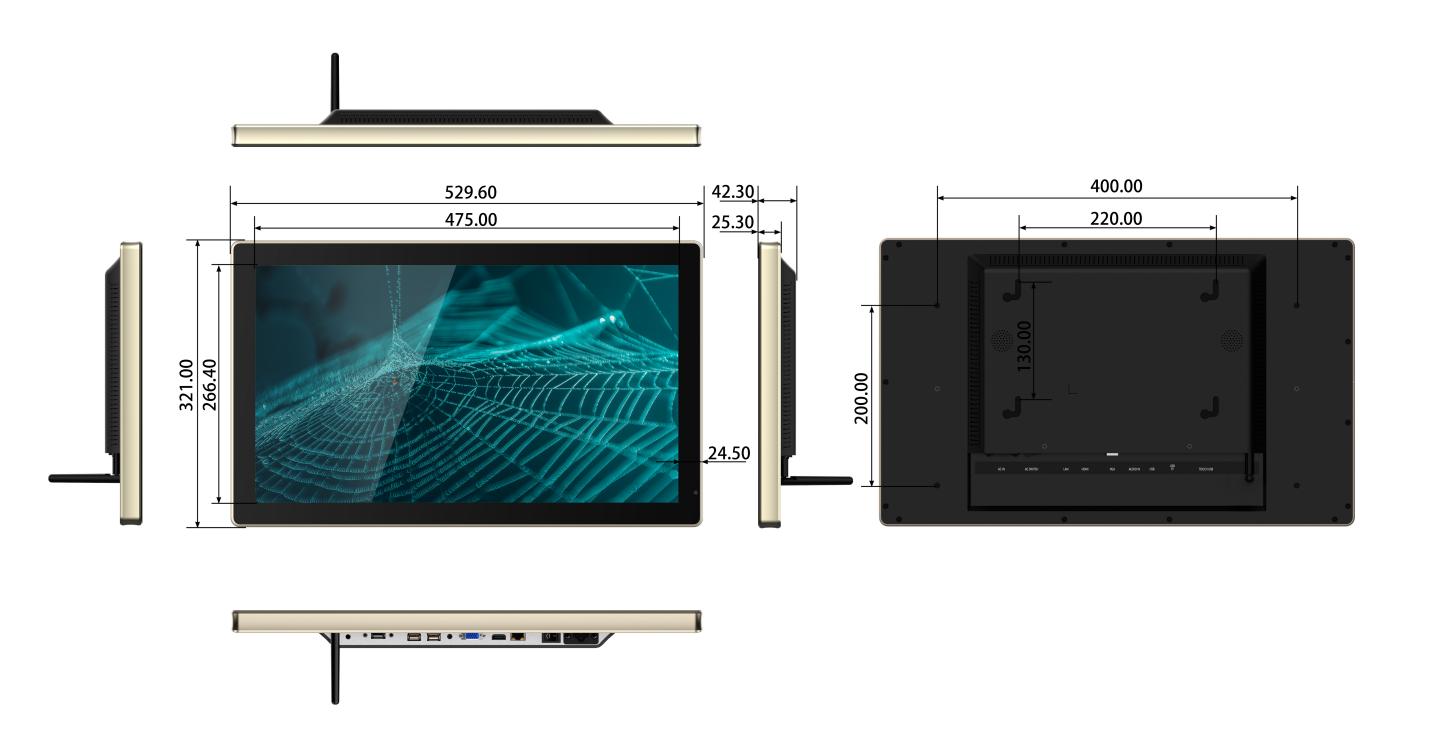
|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | Symbol | Values | | | Unit | Note |
| Min | Typ | Max |
| Operating Temperature | Hop | 0 | - | 40 | ℃ |  |
| Operating Ambient Humidity | Hop | 10% | - | 80% | %RH | Relative humidity (non-condensing). |

## 6.2. Storage Temperature

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item | Symbol | Values | | | Unit | Note |
| Min | Typ | Max |
| Storage Temperature | HST | -10 | - | 55 | ℃ |  |
| Storage Humidity | HST | 10 | - | 80% | RH | relative humidity (non-condensing). |

# Chapter VII. ID Rendering

## 7.1. Six Sides Figure



## 7.2. Front View

图片包含 监视器, 陈列, 电子产品, 屏幕

描述已自动生成

## 7.3. Back View

图片包含 监视器, 电子产品, 墙壁, 照片

描述已自动生成

## 7.4. End View



## 7.5. Interface Rear View

