



ALL-AROUND TOUCHING SOLUTION PROVIDER

# 21.5 Inch

## Touch the all-in-one machine

(Model No.HD215AA)



Guangzhou TouchWo Electronics Co., Ltd

Version V1.2



# Catalog

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# 1 Product Overview

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## 1.1 Introduction

TouchWo capacitive touch screen all-in-one /monitor is the most convenient & advanced human-machine interactive equipment. Which integrates many functions such as touch screen. Computer, multimedia, acoustics, network, industrial design and innovated structure etc. with pure flat structure combined with excellent performance of touchscreen to reach the real human-machine interactive.

## 1.2 Features

- Capacitive Touch: 10-point capacitive touch screen, 5 ms response;
- HD display: original panel with A type. Resolution 1920\*1080P, brightness 300cd/m<sup>2</sup>, pure color and natural;
- System compatible: touchscreen monitor/android/Windows touchscreen AIO pc optional;
- Stable performance: each unit undergoes multiple tests such as whole machine aging, temperature and humidity testing, static electricity detection, vibration, high voltage, touch click and display to ensure stable quality and support 7\*24H work;
- Structure crafts: private mould design, pure flat and slim style, new backlight integrated structure, good sealing, surface IP65 waterproof;
- Durable materials: Aluminum alloy frame & Metal back cover, Corrosion and oxidation resistance
- OEM services: Flexible to add serial and USB ports;  
(color, logo, camera, 4G module, card reader, fingerprints module, POE power supply., etc) ;



- Simple Installation: wall mounted/desktop stand/embedded etc installations, plug and play. No need to debug;
- Strict quality control: the monitors have undergone multiple tests such as 48-hour ageing, electrostatic testing, vibration, voltage/electronic load test, voltage withstand test, touch/calibration test, controlled high temperature test, constant temperature and humidity test, controlled drop test.

## 2 Technical Parameters

### 2.1 System Design

|                       |                                                           |
|-----------------------|-----------------------------------------------------------|
| Output (AIO pc)       | Inside HDMI/VGA output                                    |
| Input (touch monitor) | VGA、HDMI, input                                           |
| Touch function        | Latest projected capacitive touchscreen, 10 fingers touch |
| Display               | HDMI/VGA support 1080P                                    |
| PC                    | 1080P (Full HD) MPEG、H.264.,etc                           |
| Structure design      | Backlit integrated structure, reasonable heat dissipation |
| System modules        | Combined PC,display,touch all-in-one                      |

### 2.2 LED Panel Parameters

|                  |                                                        |          |                |
|------------------|--------------------------------------------------------|----------|----------------|
| Panel type       | LED panel (a-Si TFT-LCD WLED backlight), A grade       |          |                |
| Size             | 21.5 inch(16:9)                                        |          |                |
| Display area     | 477.6 (W) *269.1 (H) mm                                |          |                |
| Max. resolution  | Default is 1920*1080P                                  |          |                |
| Brightness       | $\geq 300\text{cd/m}^2$                                | Contrast | $\geq 1200: 1$ |
| Response time    | 6(Typ.)(Tr/Td) ms                                      | Refresh  | 60Hz           |
| No. of colors    | 16.7M (LVDS, 30 Pins)                                  |          |                |
| Angle of viewing | Full viewing89/89/89/89 (Typ.)(CR $\geq 10$ )(L/R/U/D) |          |                |
| Life time        | 30000H                                                 |          |                |



## 2.3 Touchscreen Parameters

|                             |                                                                                      |                    |                           |
|-----------------------------|--------------------------------------------------------------------------------------|--------------------|---------------------------|
| Touch Technology            | Projected capacitive touchscreen (PCAP)                                              |                    |                           |
| Response Time               | < 5ms                                                                                |                    |                           |
| Touch Points                | Standard 10 points touch,support zoom in/out pictures                                |                    |                           |
| Touch effective recognition | > 1.5mm                                                                              | Touch data output  | Coordinate output         |
| Scanning frequency          | 200Hz                                                                                | Scanning Precision | 4096×4096                 |
| Communication               | Full speed USB 2.0,3.0                                                               | Theoretical clicks | 5000M times above         |
| Firmware                    | USB upgrade                                                                          | Drive              | Free drive, plug and play |
| Working current / voltage   | 180Ma/DC+5V±5%                                                                       |                    |                           |
| Anti-light interference     | Normal use when strong light such as sunlight, incandescent lamps, fluorescent lamps |                    |                           |
| Surface hardness            | Physical tempering, Mohs 7 explosion-proof glass                                     |                    |                           |
| Compatible OS               | Win 7/ Win 8/Win 10/CE/Mac/Android/Linux /XP                                         |                    |                           |

## 2.4 Electrical Performance

|         |                     |               |                |
|---------|---------------------|---------------|----------------|
| Input   | 110-240V AC 50/60Hz | Output        | DC 12V5A/12V3A |
| Monitor | < 20W               | Standby       | < 0.5 W        |
| Android | <36W                | Speaker power | 8 Ω 3W         |
| Windows | <60W                |               |                |

## 2.5 Working Environment

|                     |                             |
|---------------------|-----------------------------|
| Working temperature | 0℃-50℃                      |
| Working humidity    | 10% - 80% Relative humidity |
| Storage temperature | -5℃-60℃                     |
| Storage humidity    | 10% - 70%                   |
| Altitude            | Below 5000 meters           |



## 2.6 AIO Configuration options

| Program        | Touch monitor                                                                         | Android                                                  | X86<br>Standard version                                  | X86<br>Elite version                        | OEM<br>Service |
|----------------|---------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|---------------------------------------------|----------------|
| Chip           | Need to connect a computer to help work, more details pls check parameters 3.1        | Octa core RK3288<br>Octa core RK3568<br>Hexa core RK3399 | Default: Intel N5095/J3710/J4125/J1900<br>(OPS optional) | Industrial board I3/I5/I7<br>(OPS optional) | Yes            |
| Ram            |                                                                                       | 2G/4G                                                    | 2G/4G/8G/16G                                             |                                             |                |
| Hard disk      |                                                                                       | Standrad with 8G                                         | SSD:<br>32G/64G/128G/256G/512G                           |                                             |                |
|                |                                                                                       | 16/32G optional , expandable                             | HDD:<br>500G/1T (optional)                               |                                             |                |
| Graphics cards |                                                                                       | Android HD                                               | Core Graphics                                            |                                             |                |
| Resolution     |                                                                                       | 720P/1080P                                               |                                                          |                                             |                |
| OS             |                                                                                       | Verion 7.1/9.0<br>(3568,version 11.0)                    | Win 7/ Win 8/Win 10/ Linux                               |                                             |                |
| Network        | Integrated 10/100 / 1000M adaptive network card, wireless network card 802. 11a/b/g/n |                                                          |                                                          |                                             |                |

# 3 Interfaces/ Accessories

## 3.1 Touch monitor interfaces

|                         |   |            |   |
|-------------------------|---|------------|---|
| DC port                 | 1 | Audio      | 1 |
| VGA Input(15pins D-Sub) | 1 | HDMI Input | 1 |
| USB touch port          | 1 |            |   |

## 3.2 Android AIO interfaces

|             |   |                        |   |
|-------------|---|------------------------|---|
| DC port     | 1 | Headphone              | 1 |
| RJ45        | 1 | HDMI                   | 1 |
| USB(OTG)    | 2 | WIFI                   | 1 |
| TF /SD slot | 1 | TTL/232 serial options |   |



### 3.3 Windows AIO interfaces

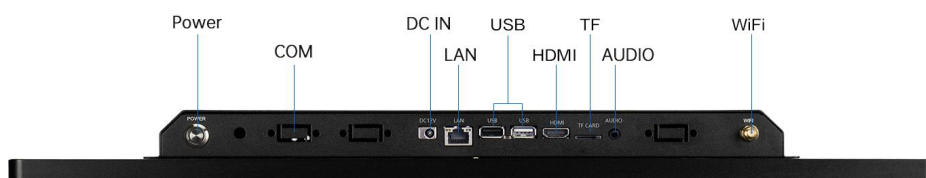
|                          |   |                                     |     |
|--------------------------|---|-------------------------------------|-----|
| DC port                  | 1 | RJ45 port                           | 1   |
| VGA output(15pins D-Sub) | 1 | HDMI output                         | 1   |
| USB                      | 4 | Headphone /MIC                      | 1/1 |
| WIFI                     | 1 | 232/485 serial options (2 to 6 pcs) |     |

## Interface

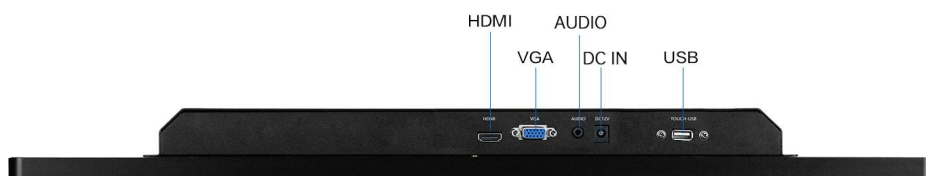
### Windows OS



### Android OS



### Touch Monitor



Note: The interfaces and locations of different motherboards may vary, subject to availability.

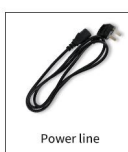


### 3.4 Accessories

|                    |                                                            |
|--------------------|------------------------------------------------------------|
| Instruction manual | 1                                                          |
| Power cable        | 1                                                          |
| Wall mount bracket | 1                                                          |
| Warranty card      | 1                                                          |
| Certificate        | 1                                                          |
| HDMI/USB cable     | 1 for each (default is 1.5 meter , for touch monitor only) |
| WIFI Antenna       | 1 (for Windows/Android AIO only)                           |



Product Manual

Warranty card  
Certificate

Power line



Adapter

Wifi Antenna  
(only for touch PC)HDMI line  
(For monitor only)USB line  
(For monitor only)

Wall mount

## 4 Structure/Drawing

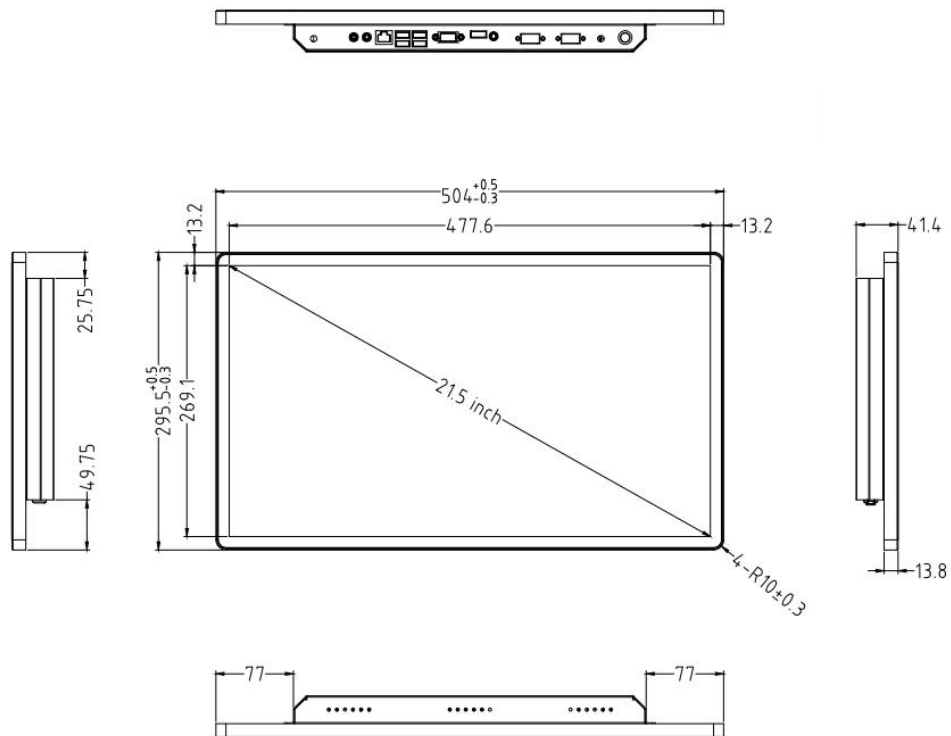
### 4.1 Physical Dimension

|                           |                                                        |
|---------------------------|--------------------------------------------------------|
| Screen                    | 21.5 inch                                              |
| Display area              | 477.6* 269.1 mm (16: 9)                                |
| Machine dimension (W×H×T) | 504 (W) × 295.5 (H) × 41.4 (T) mm                      |
| Packing dimension (W×H×T) | 570 (W) × 440 (H) × 145 (T) mm                         |
| Stand                     | Wall mount default (N.W 67.8 kg) , Floor-Stand options |
| Wall mount holes (L×W)    | 100×100 mm                                             |
| Wall mount screws         | M4                                                     |
| N.W                       | 4.5 KG                                                 |
| G.W                       | 6.12KG                                                 |

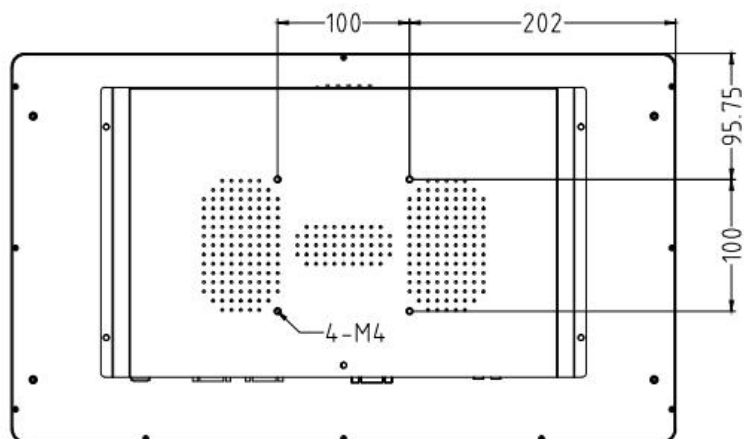


## 4.2 Drawings

### Front View



### Back View





# 5 Pictures

## 5.1 Product Views



**Note:** The interfaces and locations of different motherboards may vary, subject to availability.

## 5.2 Details



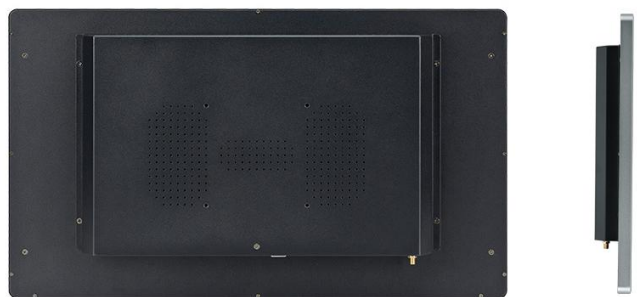


## 5.3 Color

### All Black



### Black panel+Silver frame+Black back cover



More colors can be customized



## 5.4 Installation



Wall mount bracket



Desk base



Wall mount bracket



Simple desktop



Folding bracket



Desk base

**For more color options, please contact sales**



## 6 Warning

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1. This device belongs to precision electronic equipment, front IP65, the overall protection level is IPX3, should pay attention to avoid water splashing rain
  2. Do not place the device in a damp environment. Outdoor equipment needs to be equipped with a moisture-proof cover.  
  
When it rains or dews, it needs to be protected to prevent the water from entering the machine and the mold. The wet environment will accelerate the rapid aging of electronic components, thereby reducing the service life of the product and causing damage to parts;
  3. Do not leave the device exposed to strong UV light and direct sunlight for a long time. When the temperature is higher than 50 °C, the ultraviolet and high temperature illumination screen will accelerate the deflection of the liquid crystal molecules, and the screen will accelerate the aging. When the outdoor temperature is higher than 50 °C, it will be moved indoors or shaded;
  4. The brightness of the product is not less than 300cd/m2. When the ambient brightness is high, the screen display will be unclear. Please avoid placing it outdoors when the sunlight is strong;
  5. When the temperature is below 0 °C, the screen may not work properly due to the deflection of the liquid crystal molecules. It is not recommended to use below 0 °C;
- **The recommended ambient temperature for this product is 0-50°C, and humidity is 10%-80%.**



# 6 Warning

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## FCC Warning Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

### RF Exposure Statement

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance of 20cm the radiator your body. This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.