21.5 Inch
Touch Tablet PC with RFID

（Model No.BD215E）

Guangzhou TouchWo Electronics Co., Ltd

Version V1.2

Catalog

1 Product Overview

1.1 Introduction

BD215 with android base, pair with RFID card reader, are versatile.Being widely applied on school management, attendance management ,access control and etc. It could be attendance machine, information board, self-service terminal, access controller. Having sleek modern design and 28mm ultra thickness, makes it melt in most places.

1.2 Features

- **Structure design:**Pure flat design for both front and back; only 28mm thickness，rounded corners for a stylish appearance, structure compatible with adapters and built-in power supplies；

- **High reliability:** Industrial level internal power adapter, equipped with PVC protection box. Cutting power automatically if leakage happen.

- **Easy Installation:** No extra external power adapter; cables could be output from upside/downside or backside, very versatile and convenient for the cable settling.

- **Reliable Wall-mounted design:** Exclusive precise drill holes for a stable and no shaking mounting. Equipped with locking design to prevent device from being stolen.

- **Water proof design:** Pure Flat front panel is seamless assembled with the metal frame. Giving BD 116 the waterproof feature against the water from the front and side under the semi-outdoor.

- **PCAP touch panel**：BD156 equipped with 10points touch panel , the response time is less than 5ms. Anti-vandal glass adapts Mohs 6 hardness standard；

- **Multiple Peripherals :** Equipped with RFID card reader, HD camera, Noise Canceling Microphone; could be teamed with voice assistant, and face recognition.

- **Stable system**: Touchwo's Android system is deeply customized and optimized for campus use according to the needs of schools, with optional RK3288/3399/3568 chips and support for permanent power-off memory, remote/timed switch-off and other functions.

- **FHD Display:** Brand New Type A LCD panel, 1920*1080P FHD resolution, Brightness≥250cd/m2.

- **Technics & Material:** Aluminum frame is processed with sand blasting, having good durability on corrosion resistance and oxidation resistance. Having great electrical conductivity with sheet metal back shell and galvanized plate mounting.；

- Possess the special national compulsory 3C certification of the electronic class sign (provide the test report issued by the authoritative testing agency and stamped with the official seal of the manufacturer)；

- National energy saving certification for electronic classroom signs (provide a copy and stamp with manufacturer's official seal)；

- **Support customization:** provide a variety of customization services, flexible to add multiple serial ports, U-ports.(e.g. appearance colour, logo, add camera, 4G module, card swiper, fingerprint recognition, etc.)

2 Technical Parameters

2.1 System Design

Touch Function	Brand New PCAP Panel, 10 points touch supported；
Display	PC FHD HDMI Signal 1080P
Video decoding - PC	1080P Full HD MPEG、H.264 etc
Structure	Aluminum Alloy Frame , Sheet Metal Back shell
Module	PC. Display.Touch Panel

2.2   Screen Parameters

Screen Type	a-Si TFT-LCD , WLED Back-light , Type A		
Size	21.5 inch (16:9)		
Display size	476.6（W）* 268.1（H）mm		
Resolution	1920*1080P		
Brightness	≥250cd/m²	Contrast Ratio	≥3000：1
Response time	13/5(Typ.)(Tr/Td) ms	Refreshing Rate	60Hz
Number of Colors	16.7M EDP-30 Pins		
View Angle	89/89/89/89 (Typ.)(CR≥10)		
Life Time	Max:30000 Hrs		

2.3   Touch Panel Parameters

Touch Type	Projected Capacity touch screen		
Response Time	< 5ms		
Touch Points	10 points touch, such as zooming in and out of images		
Recognition Area	> 1.5mm	Touch data output	Coordinate
Scanning Rate	200Hz	Accuracy	4096×4096
Communication	USB 2.0,3.0	Lifetime	>50 Million click
Firmware	Update via USB	Driver	Free Drive
Operation Voltage	180Ma/DC+5V±5%		
Anti-glare	Normal use with strong light changes such as sunlight,		
Surface Hardness	Mohs 6 Chemical tempered explosion-proof glass		
OS supported	Win 7/ Win 8/Win 10/CE/Mac/Android/Linux /XP		

2.4   Electrical Performance

Power Input	110-240V AC 50/60Hz
Power Output	DC 12V3A
Standby power consumption	≤0.5W
Overall power consumption	＜36W

Speakers Power	8Ω3W

2.5   Operation Environment

Operation Temperature	0℃-50℃
Operation Humidity	10% - 80%
Storage Temperature	-5℃-60℃
Storage Humidity	10% - 70%
Altitude	Under 5000 meters

2.6   Configurations

	Standard	Premium	Flagship	Custom
Processor	Quad Core RK3288 Octa Core RK3368	Quad Core RK3568	Six Core RK3399	Available
RAM	2G/4G			Available
ROM	Default 8G			Available
	16/32G Optional, Scalable			Available
Graphic card	Android HD			Available
Clarity	720P/1080P			Available
System	Android 7.1/9.0 (3568,Android 11.0)			Available
NIC	Integrated 10/100 / 1000M adaptive network card, wireless network card 802.11a / b / g / n			

2.7 Card Reader（RFID）

◆ Card Reader with USB port (Default)

Card Supported	Support Mifare standard; Support card with S50,S70,14443A protocol /15693 card /ICODE2 chip card		
System Supported	Windows98\XP32\XP64\2000\CE\7\ME\NT\LIUNX\Vista32\Vista64, Android		
Protocol Supported	14443A, 15693, 14443A&15693		
Identification Distance	0~50mm		
Support Card Type	Read and write to ISO14443TYPEA-compliant MIFARE series cards		
Built-in speakers	Buzzer		
Size	104（L）*65（W）*10（H）mm		
Reading time	＜100ms	Reading speed	0.2s
Reading spacing	0.5s	Interface port	USB port
Power input	Via USB	Operation Voltage	5V
Operation Power	100mA	Weight	140g

◆ Card Reader with COM port

Card supported	ISO14443TYPEA
System	Windows98、Me、2K、XP、2003、Vista 和 Linux、Unix、Android
Protocol supported	Protocol：14443A,15693,14443A&15693
Support Card Type	Read and write to ISO14443TYPEA-compliant MIFARE series cards
Identification Distance	0~50mm
Operation Voltage	5V
Size	50（L）*32（W）*3（H）mm

Interface with PC	RS232/TTL	Communication speed	106Kbit
Read rate	9600bps	Operating temperature	-5℃～65℃
Antenna	All in one	Relative humidity	10%～80%
Frequency	13.56MHz	Weight	20/40g

2.8 Camera （Optional or customer supplied）

◆ **Default 200mp camera**

Aperture	2.8	Interface	USB2.0
Relative illumination	65%	Field of view	60°
TV distortion	<5%	Photosensitive area size	1/5-inch
Microphone	Optional	Pixel	HD 200mp
Highest resolution	1616*1232	Target distance	80CM
Pixel size	1.75μm×1.75μm		
Size	60mm×8mm×5.2mm		

◆**500mp Optional**

Aperture	2.8	Interface	USB2.0
Relative illumination	65%	Field of view	60°

TV distortion	<5%	Photosensitive area size	1/5-inch
Microphone	Optional	Pixel	HD 500mp
Highest resolution	2592*1944	Target distance	80CM
Pixel size	1.4μm×1.4μm		
Size	60mm×9.2mm×5.5mm		

3 Interface & Accessory

3.1 Interface Ports

DC Ports	2.1mm DC12V*1
RJ45 Ethernet Port	1
USB (OTG included)	2
TF /SD card slot	1
MIC	1
HDMI	1
WIFI antenna	1
TTL/232/485 ports are optional	

3.2 Accessories

Product Manual	1
Wall mount bracket	1
Warranty card	1
Certificate	1
AC power cord	1
Key	2

Manual	certification	Power cord	Key	Wall mount

4 Dimension & Structure

4.1 Dimension

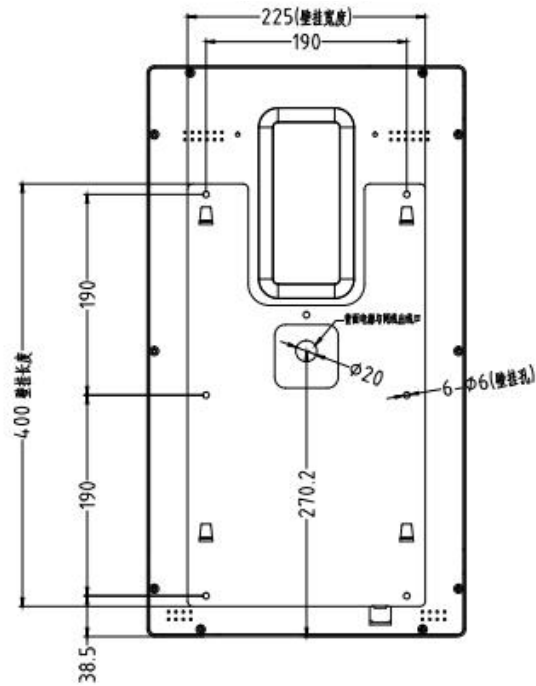|	
Screen	21.5 inch
Screen Area	269.1×477.6mm （16：9）
Machine Size	301.4（L）×540.4（W）× 28（H） mm
Package size	600（L）×465（L）× 106（H）mm
Mounting bracket	Default wall-mount bracket（N.W 0.54kg）
Back holes for the mounting	380×190mm
Wall screw spec	M4
Net weight	6.1kg

Gross weight	8.2 kg

4.2 Structure

Back view
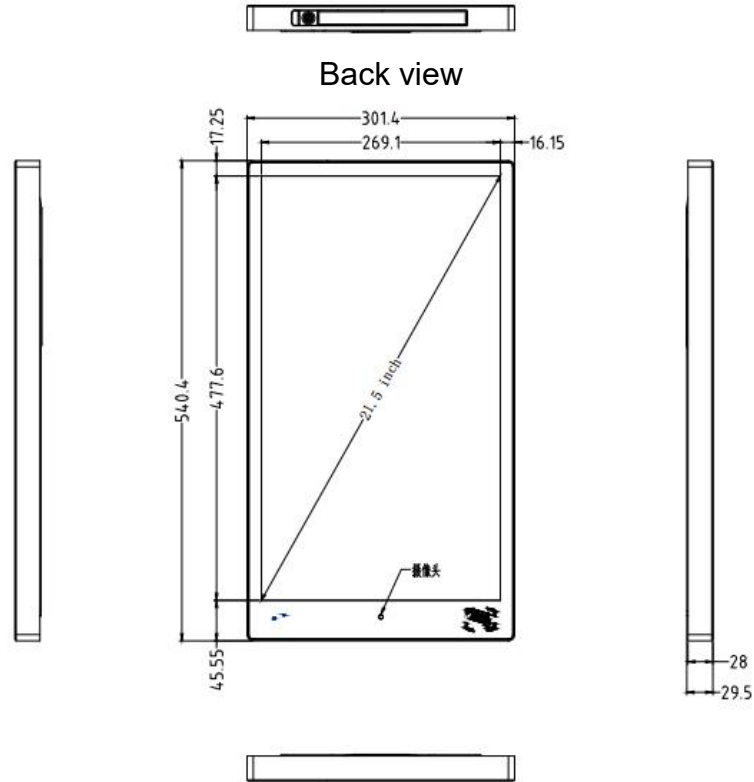
Back cover

5 Safety Warning
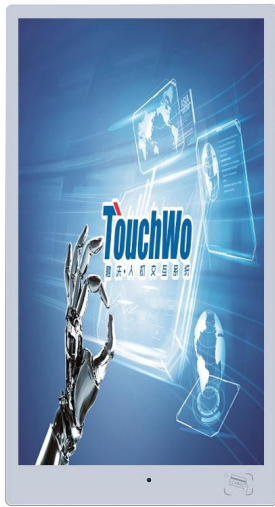
5.1 Photos Views

5.2   Details

5.3   Color

White sliver color (white front panel and back cover,sliver frame)

More colors cloud be customized, please contact our sales

5.4   Installation method

Standard with:

Wall mount

6 Safety Warning

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℃，and humidity is**

10%-80%。