

# 18.5in AIO TOUCH COMPUTER SYSTEM

**DW03451 User Manual**

**Sustaining Quality,  
Exceeding Expectations**

**DawarTouch**<sup>®</sup>



## 1. FCC INFORMATION

This computer 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 computer 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 computer does cause harmful interference to radio or television reception, which can be determined by turning the computer 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 computer 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.

Shielded interface cables and A.C. power cord, if any, must be used in order to comply with emission limits.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the computer.

## 2. CE INFORMATION

The computer must be installed according to the currently valid installation regulations for EMC to guarantee the designed use and to prevent EMC problems.

The computer supplied with this manual is according to the EC, EMC Directive, 2014/30/EU & LVD 2014/35/EU.

## 3. SAFETY PRECAUTIONS

1. Do not modify the three-prong grounding type computer power plug in any way.
2. Operate this unit only from the type of power source indicated on the label.
3. Do not block or cover ventilation openings on the back or bottom of the computer cabinet.
4. Do not place this computer near a radiator or heating vent.
5. Do not push objects of any kind through cabinet openings. This may result in fire or electrical shock.
6. Before adding attachments always ask a service technician to perform routine safety tests to determine that the computer is in safe operating condition. Ground potential tests should be part of

the routine safety check made by the service technician.

7. Do not place the computer on an unstable cart, stand, or shelf where it may fall and injure personnel or damage equipment.
8. Route power cords so that they cannot be walked upon or tripped over. Do not allow anything to rest on the power cord.
9. Do not install the computer in wet areas, or where it may be exposed to rain or water. Do not spill liquid of any kind on the unit.
10. Unplug the power cord from the computer before cleaning the display. Use only a damp cloth. Do not use alcohol, spirits, or ammonia to clean the display. **DO NOT ATTEMPT TO CLEAN THE INTERIOR OF THIS UNIT- THIS ACTION MUST BE PERFORMED BY THE SERVICE TECHNICIAN AS REQUIRED DURING NORMAL MAINTENANCE.**
11. Refer all servicing to qualified service personnel. **REMOVAL OF BACK COVER BY UNAUTHORIZED PERSONNEL MAY EXPOSE THE USER TO DANGEROUS VOLTAGES OR OTHER HAZARDS.**
12. Unplug the unit immediately and notify the service technician if:
  - ▶ Liquid has been spilled into the computer or the computer has been exposed to rain or water.
  - ▶ The monitor has been dropped or the cabinet damaged.
  - ▶ Fuses continue to blow.
  - ▶ The power cord is damaged or frayed.
  - ▶ A distinct change from normal operation is apparent.

When replacement parts are required, be sure that the service technician uses components specified by the manufacturer which have the same characteristics as the original parts. **UNAUTHORIZED SUBSTITUTIONS MAY RESULT IN FIRE, ELECTRICAL SHOCK OR OTHER HAZARDS.**

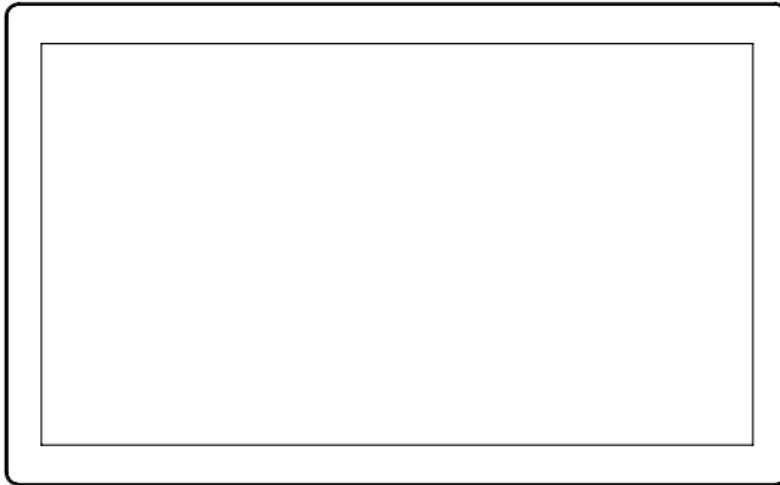
Upon completion of any service or repairs, ask the technician to perform safety checks to determine that the equipment is in safe operating condition.

**WARNING: SERIOUS SHOCK HAZARDS EXIST WITHIN THE COVERS OF THIS COMPUTER. DO NOT OPEN THE UNIT UNDER ANY CIRCUMSTANCE.**

**THERE ARE NO USER SERVICEABLE COMPONENTS INSIDE.**

## 4. Introduction to the Product

### 4.1. Product Appearance



### 4.2. Performance Features

- ▶ AIO Touch Monitor loaded with Android 5.1
- ▶ Low energy consumption, long service life
- ▶ High contrast ratio and high luminance
- ▶ Wide view angle - IPS like panel
- ▶ Rapid response times, no trailing image
- ▶ Thin and light metal case design
- ▶ Full-HD LCD panel
- ▶ Projected capacitive touch screen (PCAP)
- ▶ Power input with positive retention and latching mechanism
- ▶ Flat design with robust metal case finish with black
- ▶ Front of product rated to IP64
- ▶ Typical power usage is 23 Watts (max is 34 Watts)

### 4.3. Specifications

Computing system	<b>CPU</b>	Rock Chip® ARM Cortex A17 RK3288 Quad-core 1.8GHz
	<b>Memory</b>	1333/2GB DDR3L DRAM On board 8G Flash ROM
	<b>Graphics</b>	Mali T764 GPU, shared memory, 1x HDMI output (1920x1080 @60HZ)
Panel	<b>Display size</b>	18.5" wide TFT color LCD (16:9) Hi-brightness 500nits IPS 1920x1080 (Hor. X Ver.)
	<b>Type</b>	Hi-brightness IPS-like type panel
	<b>Max. resolution</b>	1920x1080 (Hor. x Ver.)
	<b>Max. colors</b>	16.7M colors, True 8 bits
	<b>Pixel pitch (mm)</b>	0.213(H) x 0.213(V)
	<b>Viewing angle L/R/T/B</b>	89/89/89/89
	<b>Luminance (Typ.)</b>	500nits
	<b>Backlight</b>	LED
	<b>LCD MTBF</b>	50,000 hours (Min)
	<b>Contrast ratio (Typ.)</b>	1000:1
IO ports	<b>LAN</b>	1x Gigabit Ethernet interfaces (RJ45)
	<b>AUDIO</b>	1x stereo out plus mic in
	<b>Micro SD</b>	1x Micro SD up to 64GB
	<b>HDMI</b>	1x HDMI output, maximum resolution 1920x1080@60Hz
	<b>USB</b>	4x USB2.0 type A
<b>Power supply</b>	<b>Input voltage</b>	Power adapter: AC 100 to240V Monitor: DC 12V with lock
<b>Environment</b>	<b>Temperature</b>	Operating: 0°C to +40°C

		Storage: -20°C to +60°C
	<b>Humidity</b>	Operating: 10% to 90% @40°C non-condensed Storage: 5% to 95% @40°C non-condensed
<b>Optional configurations</b>	<b>Operating system</b>	Android system 5.1 and Debian 9.0
	<b>WiFi</b>	Support 802.11 b/g/n 2.4G
	<b>Bluetooth</b>	Support BT-V4.0
<b>Certification</b>	<b>Safety</b>	2014/30/EU & LVD 2014/35/EU
	<b>Radiation</b>	FCC Class-B
<b>Accessories</b>	<b>External RAM</b>	Micro SD slot loaded with 32GB chip

## 4.4. External Connections

Please connect the AIO Touch Computer system to external devices according to the following I/O interface list.



- ▶ LAN: RJ45 for Giga bit Ethernet
- ▶ AUDIO: Audio Line output & MIC Combo jack
- ▶ Micro SD: Expansion port for Micro SD
- ▶ HDMI: HDMI video output connector
- ▶ USB1: USB A type output connector (OTG Port for software upgrade)
- ▶ USB2: USB A type output connector
- ▶ USB3: USB A type output connector
- ▶ USB4: USB A type output connector
- ▶ DC 12V: DC12V input with positive retention and latching mechanism
- ▶ Power Switch: Press the power button  $\geq$  3 sec to turn off the computer or press the button to turn on the computer.



### Attention

Please turn off the power of the external device and the product when connecting any interface.

## 4.5. A quick Tour of the AIO Touch Computer

Before you start to set up the AIO Touch Computer, take a moment to become familiar with the location and purpose of the control, OS, connections and ports, which are illustrated in the figures below.

### 4.5.1. Front View

The front panel includes and LCD panel with Capacitive Touch Screen module. The front is rated to IP64. Please refer to section 7 mechanical drawings of DW03451 18.5”.

### 4.5.2. Rear View

The IO section is at the bottom of the AIO Touch Computer, as shown in below. The IO section includes LAN, Audio, Micro SD, HDMI output, USB1, USB2, USB3, USB4, DC12C IN and Power button. Please refer to the IO name plate drawing and refer to section 7 mechanical drawings of DW03451 18.5”.

#### IO Name Plate Drawing



1. LAN
2. Audio
3. Micro SD
4. HDMI output
5. USB1 – USB4
6. DC12V IN
7. Power On/Off button

### 4.5.3. Installation Procedures

- ▶ Connect the power adapter to AIO Touch Computer.
- ▶ Connect the female end of the power cord to the attached power adapter.
- ▶ Connect the 3-pin male plug of the power cord to an electrical outlet.
- ▶ Push the Power Button.

The AIO Touch Computer can only be powered by included power adapter.

### 4.5.4. Installing System Software

The AIO Touch Computer come preloaded with Android version 5.1. Any application program supporting Android 5.1 OS can be loading into this computer.

## 5. Cleaning Procedure

During normal use of the AIO-ANDROID Touch Computer the device may become dirty and should be regularly cleaned.

The cleaning steps:

- ▶ Please wipe dust and other particles off with a clean, soft towel.
- ▶ If the Computer is still not clean, please use a neutral cleaner along with the clean soft towel. Wipe dry after cleaning.
- ▶ Rubbing or scraping the housing with fingernails or other hard objects might scratch the housing.



### Attention

Do not immerse or rinse the AIO-ANDROID Touch Computer or its peripherals. If you accidentally spill liquid on the device, disconnect the unit from the power source and replace the unit.

## 6. Troubleshooting

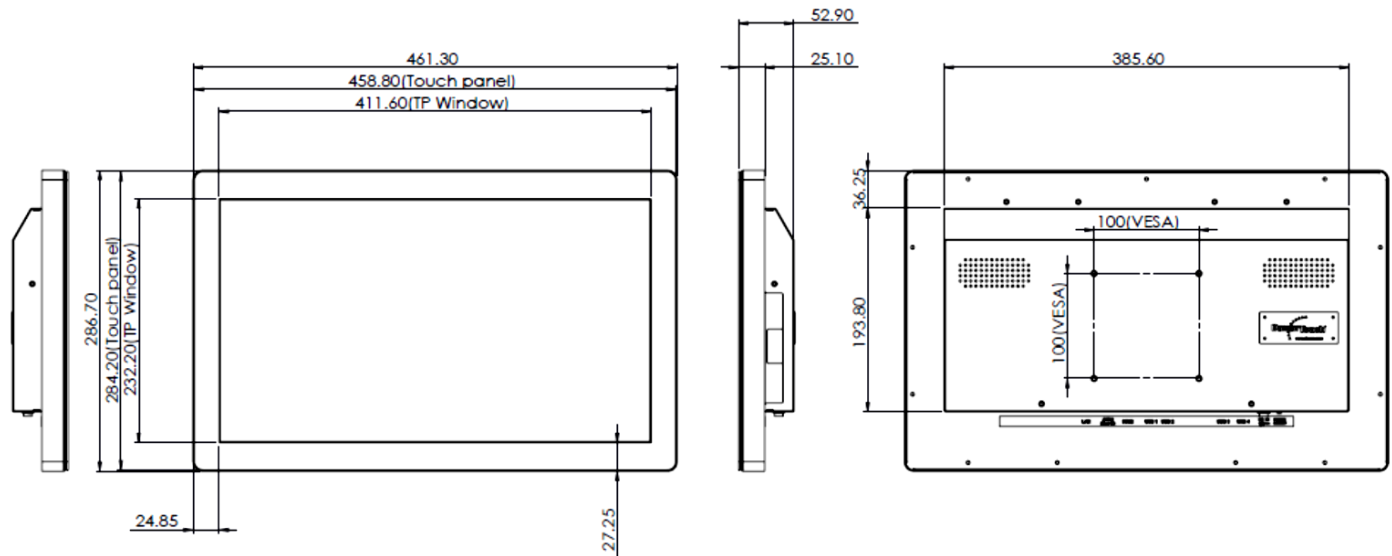
Refer to the following two charts to diagnose and fix issues before replacing the computer:

Problem	Fix									
	1	2	3	4	5	6	7	8	9	10
Failure to power on	▲	▲	▲							
Failure to power off			▲							
LAN connection fail				▲	▲					
Wi-Fi connection fail				▲	▲					
Bluetooth fail						▲				
No sound										▲
HDMI no output							▲			
USB read/ write fail								▲		
Micro SD read/ write fail									▲	



Fix	
1	Check whether the power cord is connected.
2	Check whether the power adapter LED is light up
3	Push power button
4	Check LAN IP address
5	Check if Wi-Fi is enabling.
6	Check if Bluetooth is enabling
7	Check external Monitor
8	Change another USB pin driver
9	Check Micro SD card
10	Check AUDIO input connection

## 7. Mechanical Drawings



## Revision History

V1.0 September 24, 2020	Initial Release
V1.1 June 28, 2021	In §4.2 Performance Features, added power usage