

Oplayer357 OPS Player



User Manual

Version: 1.2

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Revision History:

No.	Version	Description	Date
1	V1.0	First release	Oct. 23, 2022
2	V1.1	Supplemented the pinout description of the JAE connector	Jun. 9, 2023
3	V1.2	Added description on the watchdog timer	Oct. 18, 2023

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Foreword

Thank you for purchasing Oplayer357 OPS Player (“the Device” or “the Product”). This manual intends to provide guidance and assistance necessary on setting up, operating or maintaining the Product. Please read this manual and make sure you understand the structure and functionality of the Product before putting it into use.

Intended Users

This manual is intended for:

- Operator of the Product
- Technical support engineers
- Other users

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It is our practice to change part numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the Product may be changed without notice.

Technical Support and Assistance

Should you have any question about the Product that is not covered in this manual, contact your sales representative for solution. Please contain the following information in your question:

- Product name and PO number;
- Complete description of the problem;
- Error message you received, if any.

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Regulatory Information



The Product is designed to comply with:

- CE
- FCC
- CCC

Please refer to the Appendix for Regulatory Compliance Statement.

Symbology

This manual uses the following signs to prompt users to pay special attention to relevant information.







	Caution for latent damage to system or harm to personnel
	Attention to important information or regulations

General Safety Instructions

The Product is supposed be installed by knowledgeable, skilled persons familiar with local and/or international electrical codes and regulations. For your safety and prevention of damage to the Product and other equipment connected to it, please read and observe carefully the following safety instructions prior to installation and operation. Keep this manual well for future reference.

- Do not disassemble or otherwise modify the Product. Such action may cause heat generation, ignition, electronic shock, or other damages including human injury, and may void your warranty.
- Keep the Product away from heat source, such as heater, heat dissipater, or engine casing.
- Do not insert foreign materials into any opening of the Product as it may cause the Product to malfunction or burn out.
- To ensure proper functioning and prevent overheating of the Product, do not cover or block the ventilation holes of the Product.
- Follow the installation instructions with the installation tools provided or recommended.
- The use or placement of the operation tools shall comply with the code of practice of such tools to avoid short circuit of the Product.
- Cut off the power before inspection of the Product to avoid human injury or product damage.

Precautions for Power Cables and Accessories

-  Use proper power source only. Make sure the supply voltage falls within the specified range. The Product is designed to use 12V~36V DC. Always check whether the Product is DC powered before applying power.
-  Place the cables properly at places without extrusion hazards.
-  Use only approved antenna(s). Non-approved antenna(s) may produce spurious or excessive RF transmitting power which may violate FCC limits.
-  Cleaning instructions:
 - Power off before cleaning the Product
 - Do not use spray detergent
 - Clean with a damp cloth
 - Do not try to clean exposed electronic components unless with a dust collector
-  Power off and contact Vantron technical support engineer in case of the following faults:
 - The Product is damaged
 - The temperature is excessively high
 - Fault is still not solved after troubleshooting according to this manual
-  Do not use in combustible and explosive environment:
 - Keep away from combustible and explosive environment
 - Keep away from all energized circuits
 - Unauthorized removal of the enclosure from the device is not allowed
 - Do not replace components unless the power cable is unplugged
 - In some cases, the device may still have residual voltage even if the power cable is unplugged. Therefore, it is a must to remove and fully discharge the device before replacement of the components.

CHAPTER 1 INTRODUCTION

1.1 Product Overview








Conforming to Intel Open Pluggable Specification Plus (OPS+), Vantron Oplayer357 OPS Player is powered by Intel® TigerLake processor with Core™ i3/i5/i7 or Celeron® available for choice. Vantron Oplayer357 offers two DDR4 SO-DIMMs for a maximum of 64GB memory. Despite its energy efficiency, Oplayer357 boasts rich interfaces, including DisplayPort and HDMI that support 4K UHD output, 3.5mm line out jack, USB 3.0 ports and Ethernet jacks, allowing for flexible connectivity with different peripherals.

Oplayer357 can be easily connected to an OPS compliant display via the JAE TX25 plug connector which offers DisplayPort, HDMI, USB 2.0, USB 3.0, audio (Line-out) and UART signals. It also features an HRS FX18 connector that provides additional DisplayPort, 4-lane PCIe, and I2C signals for user expansion. Such design greatly reduces space requirements and lowers deployment and maintenance costs.

Oplayer357 is designed to be seamlessly installed on Vantron TMC series large-screen touch monitors to offer an overall digital signage solution, significantly saving customers' efforts and expenditures.

1.2 Product Feature

Oplayer357

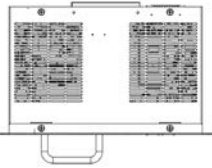



-  Intel® Core™ i3/i5/i7/Celeron® processor
-  Intel OPS+ compliant for flexible installation
-  Space saving
-  4K UHD output
-  Rich interfaces for expansion
-  Wi-Fi/BT/4G/ETH for communication
-  Windows 10 IoT system, Linux available
-  Additional DP, HDMI, PCIe x4 signals supported


1.3 Terminology

Terminology	Description
NC	No connection
VCC	Voltage common collector
OC	Open collector
GND	Ground
/	Active low signal
+	Positive of difference signal
-	Negative of difference signal
I	Input
O	Output
I/O	Input/output
P	Power or ground
A	Analog
OC	Open collector output
CMOS	3.3 V CMOS
LVC MOS	Low Voltage CMOS
LV TTL	Low Voltage TTL
3.3V	3.3V signal level
5V	5V signal level
USB	Universal Serial Bus
CK/CLK	Clock (line)

1.4 Unpacking

The Product has been carefully packed with special attention to quality. However, should you find any component damaged or missing, please contact your sales representative in due time.

Standard accessories		Optional accessories	
	1 x Oplayer357		1 x 12V DC Power adapter & power cord
	1 x Qualified certificate		2 x 4G LTE/Wi-Fi antenna

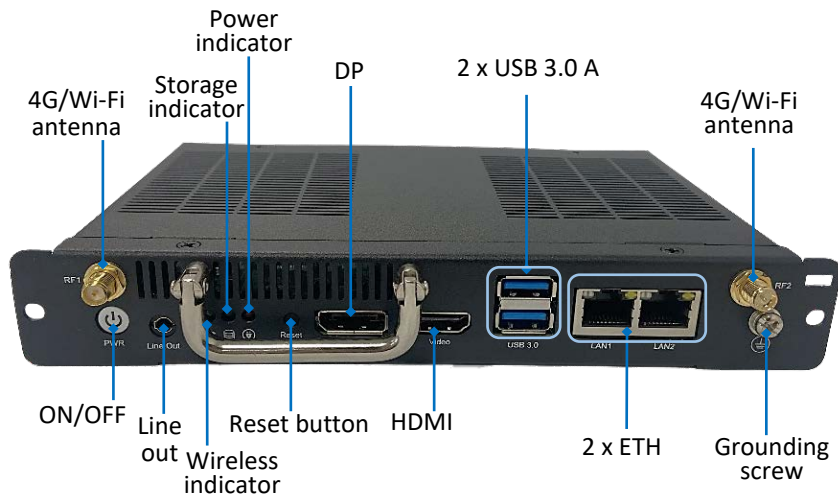
 Actual accessories might vary slightly from the list above as the customer order might be different from the standard configuration options.

1.5 Specifications

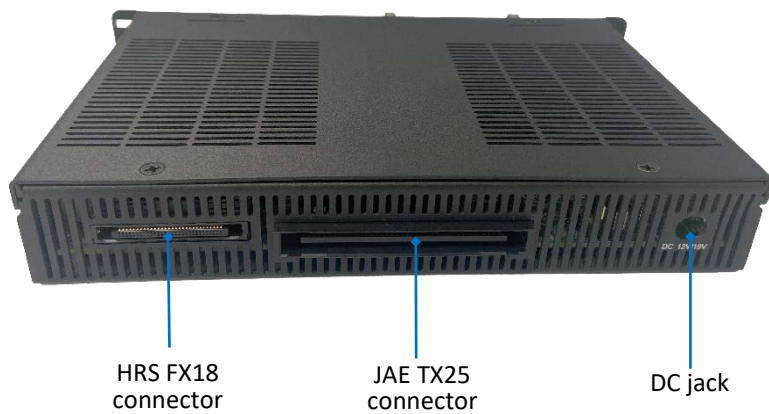
Oplayer357			
System	CPU	Intel® TigerLake-UP3 processor from: Core™ i7-1195G7 4C8T 12-28W, up to 5GHz Core™ i5-1155G7 4C8T 12-28W, up to 4.5GHz Core™ i3-1115G4 2C4T 12-28W, up to 4.1GHz Celeron® 6305 2C2T 15W, 1.8GHz	
	GPU	Intel® UHD Graphics	
	Memory	2 x DDR4 3200 SO-DIMM, up to 64GB	
	Storage	Expansion by an M.2 B-key	
Communication	Ethernet	2 x RJ45, 10/100/1000Mbps	
	Wireless	4G LTE or Wi-Fi 802.11 a/b/g/n/ac + BT 5.0	
Front I/O	Media	1 x DP 1.4 (up to 4K @60Hz)	
		1 x HDMI 1.4 (up to 4K @30Hz)	
		1 x 3.5mm Line out jack	
	USB	2 x USB 3.0 Type-A	
	SIM slot	1 x Internal Nano SIM slot	
	Antenna	2 x SMA connector (4G/Wi-Fi & BT)	
	RTC	Supported	
JAE TX25	Display	1 x DP 1.4 (up to 4K @60Hz)	1 x HDMI 1.4 (up to 4K @30Hz)
	USB	1 x USB 3.0	3 x USB 2.0
	Audio	1 x Line out	
	UART	1 x 3.3V UART	
	Fan	1 x System fan out	
	Power	12V ~ 19V power input	
HRS FX18	Display	1 x DP 1.4 (up to 4K @60Hz)	
	PCIe	1 x PCIe x4	
	I2C	1 x I ² C	
	SMBUS	1 x SMBUS for LAN	
System Control	Button	1 x ON/OFF button	1 x Reset button
	LED indicator	1 x Power indicator	1 x Wireless link/activity indicator
Software	OS	Windows 10 IoT (Optional: Linux)	
Security	Watchdog timer	Supported	
	TPM	1 x TPM 2.0	
Power	Input	Power via the DC jack (12V ~ 36V 3A)	
		Power via the OPS monitor (12V ~ 19V 3A)	
Mechanical	Dimensions	200mm x 120mm x 30mm	
	Heat dissipation	Fan/Heat sink	
Environment Condition	Temperature	Operating: 0°C ~ +35°C	Storage: -20°C ~ +70°C
	Humidity	Operating and storage: 10~85% RH (non-condensing)	
	Certification	CE, FCC, CCC	

1.6 Product Layout

1.6.1 Front view



1.6.2 Back view

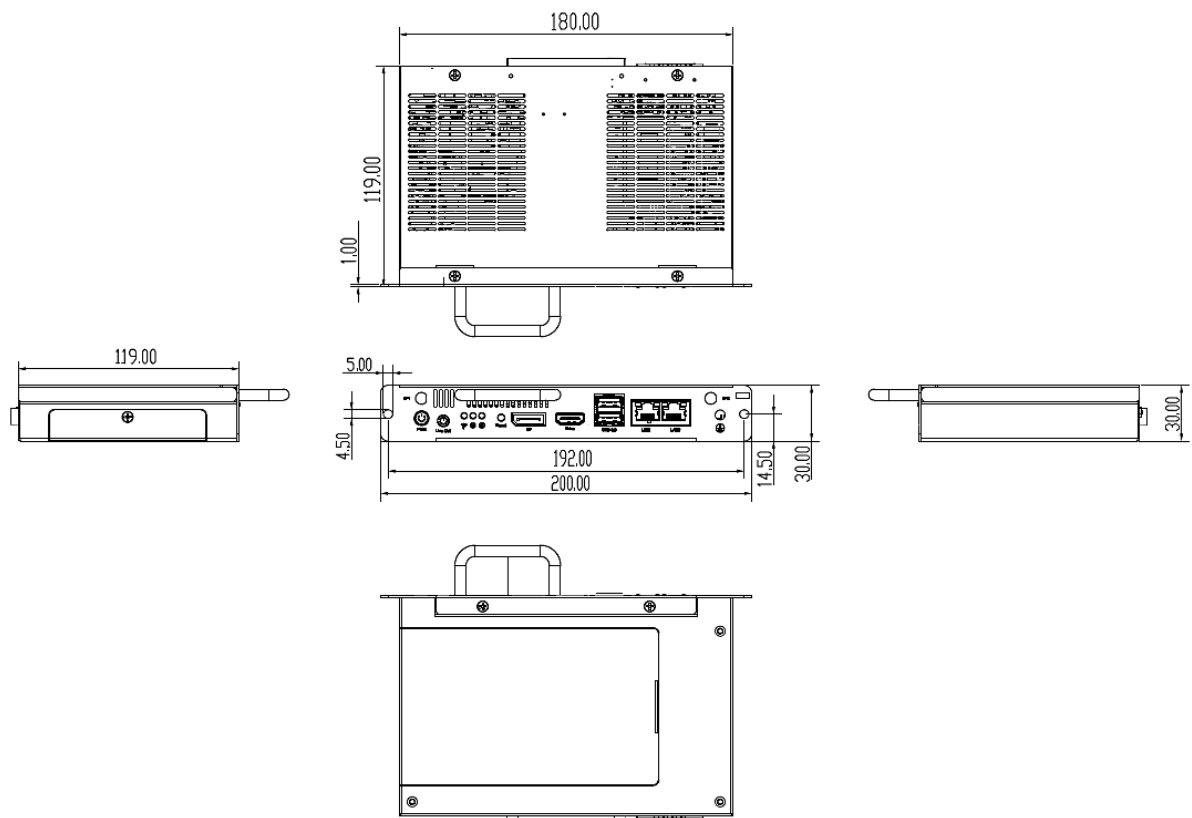


1.7 Operating System

Oplayer357 runs Windows 10 IoT operating system and users also have the option for Linux distributions.

1.8 Mechanical Dimensions

- 200mm x 120mm x 30mm (With mounting frame)



1.9 Power Supply

Oplayer357 is designed to work with 12V ~ 36V DC power input via the power jack on the back of the device or powered by 12V ~ 19V DC from the docking display via the pluggable connector.

CHAPTER 2 GETTING STARTED

2.1 Device Installation


Typically, Oplayer357 is used with an OPS compliant display to offer a digital signage solution for users with 4K UHD output. The following steps use Vantron TMC550 55-inch touchscreen monitor to illustrate how to install Oplayer357 to an OPS compliant display.

1. Carefully place Oplayer357 into the opening of the TMC550 touchscreen monitor and make sure the JAE plug connector of Oplayer357 is accurately aligned with the receptacle connector in the opening;



2. Plug the Oplayer357 OPS player into the monitor;
3. Fix the player with two M4 screws.



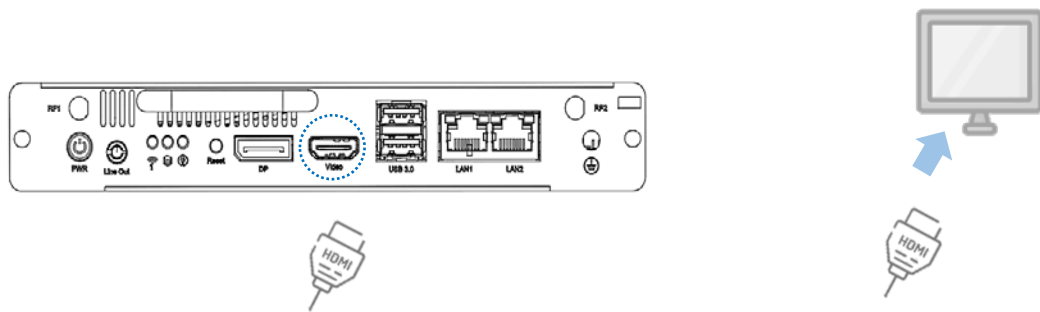
 *The HRS connector shall be plugged into the OPS+ slot of the monitor, if any.*

2.2 Using the Device

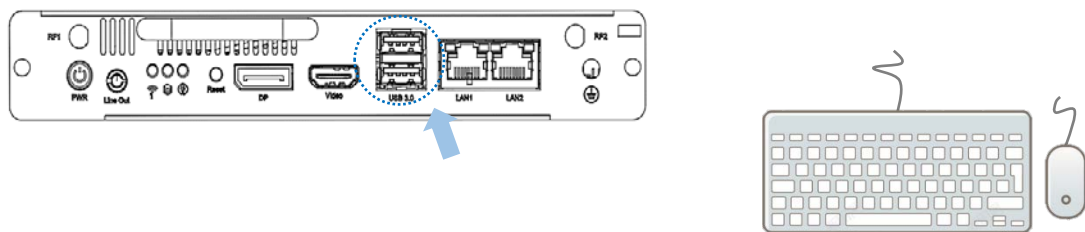
Oplayer357 is also intended for independent use as a common industrial computer. To access the GUI of the device, follow the steps below to connect it to a mouse, keyboard and monitor.

1. Insert one end of a DP/HDMI cable to the correspondense interface of the device and the other end to a monitor;

▶ Choose a proper display cable depending on the output interface you intend to use, and adapter connectors are sometimes needed (HDMI interface for illustration here).



2. Connect the mouse and keyboard to the USB ports on the device;



3. Power on the device using a 12V~36V DC power adapter;
4. The device will boot up to the Windows system by default upon powering up.

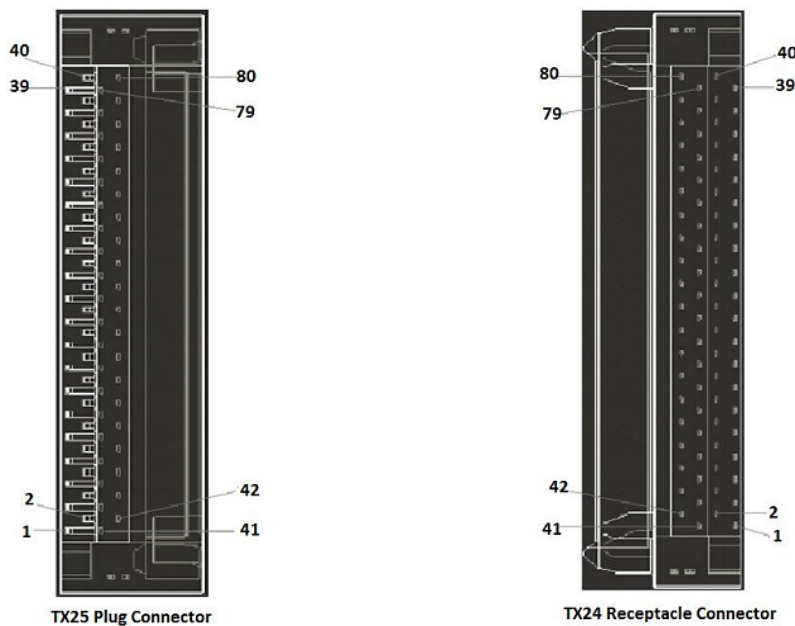
CHAPTER 3 HARWARE DESCRIPTION

This section briefs on the hardware definition and connector/jumper pinout.

3.1 JAE TX25 connector

The Open pluggable specification is based on the 80-pin board-to-board JAE TX25 plug connector and JAE TX24 receptacle connector which offer a diverse range of I/O signals that users can utilize for expansion purposes. The maximum current allowed on the pins is 1A.

Specification: 2 x 40, 1.27mm, 1A, Male, 9mm H, Right Angle, WDT, THR, RoHS



Pinout description:

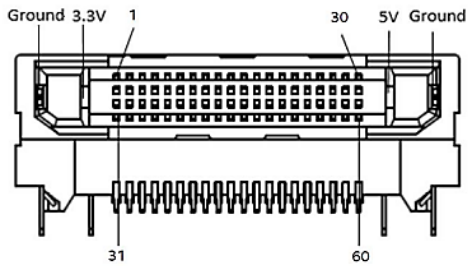
Pin	Signal	Description	I/O Type
1	DDP_3N	DisplayPort	O
2	DDP_3P	DisplayPort	O
3	GND	Ground	-
4	DDP_2N	DisplayPort	O
5	DDP_2P	DisplayPort	O
6	GND	Ground	-
7	DDP_1N	DisplayPort	O
8	DDP_1P	DisplayPort	O
9	GND	Ground	-
10	DDP_0N	DisplayPort	O
11	DDP_0P	DisplayPort	O
12	GND	Ground	-

13	DDP_AUXN	DisplayPort	I/O
14	DDP_AUXP	DisplayPort	I/O
15	DDP_HPD	DisplayPort	I
16	GND	Ground	-
17	TMDS_CLK-	DVI-D	O
18	TMDS_CLK+	DVI-D	O
19	GND	Ground	-
20	TMDS0-	DVI-D	O
21	TMDS0+	DVI-D	O
22	GND	Ground	-
23	TMDS1-	DVI-D	O
24	TMDS1+	DVI-D	O
25	GND	Ground	-
26	TMDS2-	DVI-D	O
27	TMDS2+	DVI-D	O
28	GND	Ground	-
29	DVI_DDC_DATA	DVI-D	I/O
30	DVI_DDC_CLK	DVI-D	I/O
31	DVI_HPD	DVI-D	I
32	GND	Ground	-
33	+12V~+19V	Power	-
34	+12V~+19V	Power	-
35	+12V~+19V	Power	-
36	+12V~+19V	Power	-
37	+12V~+19V	Power	-
38	+12V~+19V	Power	-
39	+12V~+19V	Power	-
40	+12V~+19V	Power	-
41	RSVD	Reserved	NC
42	RSVD	Reserved	NC
43	RSVD	Reserved	NC
44	RSVD	Reserved	NC
45	RSVD	Reserved	NC
46	RSVD	Reserved	NC
47	RSVD	Reserved	NC
48	RSVD	Reserved	NC
49	RSVD	Reserved	NC

50	SYS_FAN	System Fan Control	O
51	UART_RXD	UART 3.3V	I
52	UART_TXD	UART 3.3V	O
53	GND	Ground	-
54	StdA_SSRX-	USB 3.0	I
55	StdA_SSRX+	USB 3.0	I
56	GND	Ground	-
57	StdA_SSTX-	USB 3.0	O
58	StdA_SSTX+	USB 3.0	O
59	GND	Ground	-
60	USB_PN2	USB	I/O
61	USB_PP2	USB	I/O
62	GND	Ground	-
63	USB_PN1	USB	I/O
64	USB_PP1	USB	I/O
65	GND	Ground	-
66	USB_PN0	USB	I/O
67	USB_PP0	USB	I/O
68	GND	Ground	-
69	AZ_LINEOUT_L	Audio-Lch	O
70	AZ_LINEOUT_R	Audio-Rch	O
71	CEC	Consumer Electronics Control	I/O
72	PB_DET	Pluggable Board Detect	O
73	PS_ON#	Pluggable Signal ON	I
74	PWR_STATUS	Power Good	OUT (OC)
75	GND	Ground	-
76	GND	Ground	-
77	GND	Ground	-
78	GND	Ground	-
79	GND	Ground	-
80	GND	Ground	-

3.2 HRS FX18 connector

The 60-pin board-to-board HRS FX18 connector supports additional DisplayPort and PCIe x4 signals for expansion purposes.



Pinout description:

Pin	Signal	Description	I/O Type
1	PCIE-RXN0	PCIe	I
2	PCIE-RXP0	PCIe	I
3	GND	Ground	-
4	GND	Ground	-
5	PCIE-RXN1	PCIe	I
6	PCIE-RXP1	PCIe	I
7	GND	Ground	-
8	GND	Ground	-
9	PCIE-RXN2	PCIe	I
10	PCIE-RXP2	PCIe	I
11	GND	Ground	-
12	GND	Ground	-
13	PCIE-RXN3	PCIe	I
14	PCIE-RXP3	PCIe	I
15	GND	Ground	-
16	GND	Ground	-
17	PCIE_CLK_N	PCIe CLK	O
18	PCIE_CLK_P	PCIe CLK	O
19	GND	Ground	-
20	I2C1_CLK	I2C Clock	O
21	I2C1_DATA1	I2C Data	I/O
22	GND	Ground	-
23	DDP1_AUXN	DisplayPort1	O
24	DDP1_AUXP	DisplayPort1	O

25	GND	Ground	-
26	DDP1_1N	DisplayPort1	O
27	DDP1_1P	DisplayPort1	O
28	GND	Ground	-
29	DDP1_0N	DisplayPort1	O
30	DDP1_0P	DisplayPort1	O
31	PCIE_WAKE	PHY Status	I
32	GND	Ground	-
33	PCIE-TXN0	PCle	O
34	PCIE-TXP0	PCle	O
35	GND	Ground	-
36	GND	Ground	-
37	PCIE-TXN1	PCle	O
38	PCIE-TXP1	PCle	O
39	GND	Ground	-
40	GND	Ground	-
41	PCIE-TXN2	PCle	O
42	PCIE-TXP2	PCle	O
43	GND	Ground	-
44	GND	Ground	-
45	PCIE-TXN3	PCle	O
46	PCIE-TXP3	PCle	O
47	GND	Ground	-
48	I2C_CLK_LAN	I2C/SMBus CLK	O
49	I2C_DATA_LAN	I2C/SMBus Data	I/O
50	LAN_DISABLE	PHY Status	O
51	SLEEP_S3	PHY Status	O
52	PCle_RST	PCle Reset	O
53	GPIO	GPIO	I/O
54	GND	Ground	-
55	DDP1_3N	DisplayPort1	O
56	DDP1_3P	DisplayPort1	O
57	GND	Ground	-
58	DDP1_2N	DisplayPort1	O
59	DDP1_2P	DisplayPort1	O
60	DDP1_HPD	DisplayPort1	I

3.3 Power jack

Oplayer357 is designed to work with 12V ~ 36V DC power input via the power jack on the back of the device or powered by 12V~19V DC from the docking display via the pluggable connector.

Specification of the power jack: 2.0mmD, 6.5mmD, 5A, Male, RA, WDT, THR, RoHS

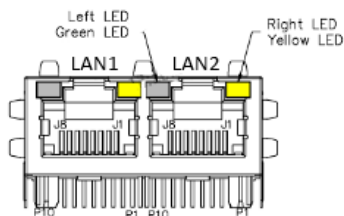


Pinout description:

Pin	Signal	Type	Description
1	+VDC	P	DC-IN POWER +
2	GND	P	Ground

3.4 Ethernet jack

Oplayer357 implements two RJ45 Ethernet jacks (LAN1 & LAN2), supporting 10M/100M/1000Mbps data rate. Each Ethernet jack has two LED indicators to indicate the link/activity status of the network.



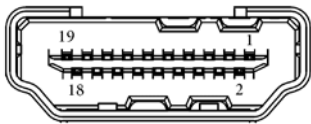
Pinout description of the Ethernet jacks:

Pin	Signal	Type	Description
A1	L1_MDI_0P	I/O	Ethernet MDI0+ Signal
A2	L1_MDI_0N	I/O	Ethernet MDI0- Signal
A3	L1_MDI_1P	I/O	Ethernet MDI1+ Signal
A4	L1_MDI_1N	I/O	Ethernet MDI1- Signal
A5	L1_MDI_2P	I/O	Ethernet MDI2+ Signal
A6	L1_MDI_2N	I/O	Ethernet MDI2- Signal
A7	L1_MDI_3P	I/O	Ethernet MDI3+ Signal
A8	L1_MDI_3N	I/O	Ethernet MDI3- Signal

B1	L2_MDI_0P	I/O	Ethernet MDI0+ Signal
B2	L2_MDI_0N	I/O	Ethernet MDI0- Signal
B3	L2_MDI_1P	I/O	Ethernet MDI1+ Signal
B4	L2_MDI_1N	I/O	Ethernet MDI1- Signal
B5	L2_MDI_2P	I/O	Ethernet MDI2+ Signal
B6	L2_MDI_2N	I/O	Ethernet MDI2- Signal
B7	L2_MDI_3P	I/O	Ethernet MDI3+ Signal
B8	L2_MDI_3N	I/O	Ethernet MDI3- Signal

3.5 HDMI (Video)

Oplayer357 offers an HDMI 1.4 port (Type-A) with resolution up to 4096 x 2160 @30Hz for delivering high-definition video and high-resolution audio.



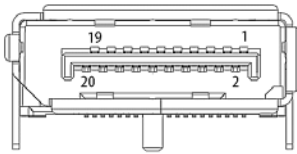
Pinout description:

Pin	Signal	Type	Description
1	HDMI_TXD2P_R	O	HDMI DATA
2	GND	P	Ground
3	HDMI_TXD2N_R	O	HDMI DATA
4	HDMI_TXD1P_R	O	HDMI DATA
5	GND	P	Ground
6	HDMI_TXD1N_R	O	HDMI DATA
7	HDMI_TXD0P_R	O	HDMI DATA
8	GND	P	Ground
9	HDMI_TXD0N_R	O	HDMI DATA
10	HDMI_TXCOP_R	O	HDMI CLK
11	GND	P	Ground
12	HDMI_TXCON_R	O	HDMI CLK
13	NC		NC
14	NC		NC
15	HDMI_DDC_SCL	I/O	HDMI DDC I2C CLK
16	HDMI_DDC_SDA	I/O	HDMI DDC I2C DATA

17	GND	P	Ground
18	VCC_HDMI	P	HDMI POWER +5V
19	HDMI_HPD	I	HDMI HOT PLUG DETECTION

3.6 DP

Oplayer357 offers a DP 1.4 port with resolution up to 4096 x 2160 @60Hz for delivering high-definition video and high-resolution audio.



Pinout description:

Pin	Signal	Type	Description
1	DPB_Lane0+	O	DP DATA
2	GND	P	Ground
3	DPB_Lane0-	O	DP DATA
4	DPB_Lane1+	O	DP DATA
5	GND	P	Ground
6	DPB_Lane1-	O	DP DATA
7	DPB_Lane2+	O	DP DATA
8	GND	P	Ground
9	DPB_Lane2-	O	DP DATA
10	DPB_Lane3+	O	DP DATA
11	GND	P	Ground
12	DPB_Lane3-	O	DP DATA
13	Config1	P	Ground
14	Config2	P	Ground
15	DPB_AUX+	O	Auxiliary Channel (positive)
16	GND	P	Ground
17	DPB_AUX-	O	Auxiliary Channel (negative)
18	DPB_HPD	I	DP HOT PLUG DETECTION
19	GND	P	Ground
20	DP_PWR	P	+3.3V Power

3.7 USB 3.0

Oplayer357 implements two stacked USB 3.0 Type-A ports ideally for connecting USB peripherals such as a keyboard, mouse, scanner, etc.

3.8 Antenna connectors

There are two SMA antenna connectors on the enclosure marked as RF1 and RF2. The antenna connectors are intended for connecting 4G/Wi-Fi & Bluetooth antennas and are not specified to allow users to install the antenna(s) randomly to either connector.

3.9 ON/OFF button

The ON/OFF button is designed to turn on/off the device when the device has power.

Specification: 7.5mm, 8.7mm H, WDT, SMT, RoHS

3.10 Reset button

Oplayer357 provides a reset button for rebooting the device without using the ON/OFF button.




Specification: 7.3mm, 6.25mm H, WDT, SMT, RoHS

3.11 Line out

Oplayer357 provides a line out jack on the front panel for connecting an earphone or amplifier.

3.12 LED indicators

There are three LED indicators on the front panel with functions separately described as follows.

Indicator name	Symbol	Description
Power indicator		Turns solid green when the device is powered on.
Storage indicator		Blinks when the storage device is being accessed.
Wireless indicator		Turns solid green when there is wireless connection.

3.13 Grounding screw

The grounding screw on the front panel allows users to attach a ground wire to it to protect the device from potential electrical damage.

CHAPTER 4 SOFTWARE SETUP


Please connect a mouse, keyboard, and display to the device for easier operation.

4.1 BIOS Introduction

BIOS initializes hardware like CPU and memory, and saves hardware settings for installation and loading of the operating system (OS).

Users may need to run BIOS Setup program when:

- An error message appears suggesting that the user should run BIOS Setup;
- Default settings need to be customized.

 *Please be aware that BIOS will be under continuous update for better system performance, therefore the description in this chapter might vary slightly and is for reference only.*

4.2 BIOS Setup

4.2.1 Entering BIOS Setup Utility

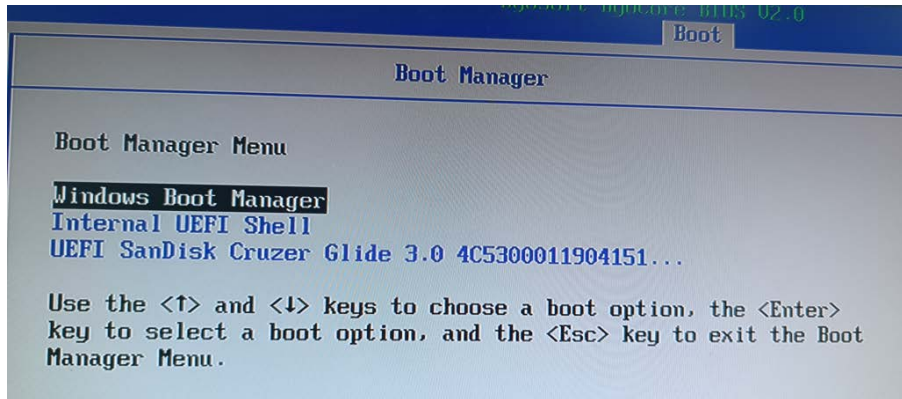
When the device is powered on, the system will start the power-on self-test process. Then you can press **F2** to access the BIOS configuration page for more settings.

The menu bar comprises:

- **Platform Information Menu:** Basic system configurations, like BIOS information, FSP information, device information, processor information, firmware information, system time and date, etc.
- **Advanced:** Advanced configurations that allow users to customize the system and device settings
- **Security:** System security settings where users can set the administrator and user passwords, manage the passwords, etc.
- **Boot:** System boot options
- **Exit:** BIOS load or exit options with or without changes saved

4.2.2 Selecting a boot option

After powering on the device, you can press **F7** to enter the boot manager menu which allows you to change the boot options of the system.



Windows Boot Manager is used to access the Windows operating system installed on the device. When selected, it initiates the boot process for Windows.

Internal UEFI Shell is a command line interface that provides access to a range of commands and utilities to be used for network booting, system management or recovery, system diagnostics, troubleshooting, etc.

UEFI SanDisk xxxx is a specific boot entry associated with the SanDisk device. This option allows you to boot the device from this bootable device.

Please refer to 4.3.2 Making a Bootable USB Drive for Window 10 for the details of making a bootable USB device.

4.3 Installing Windows 10 System

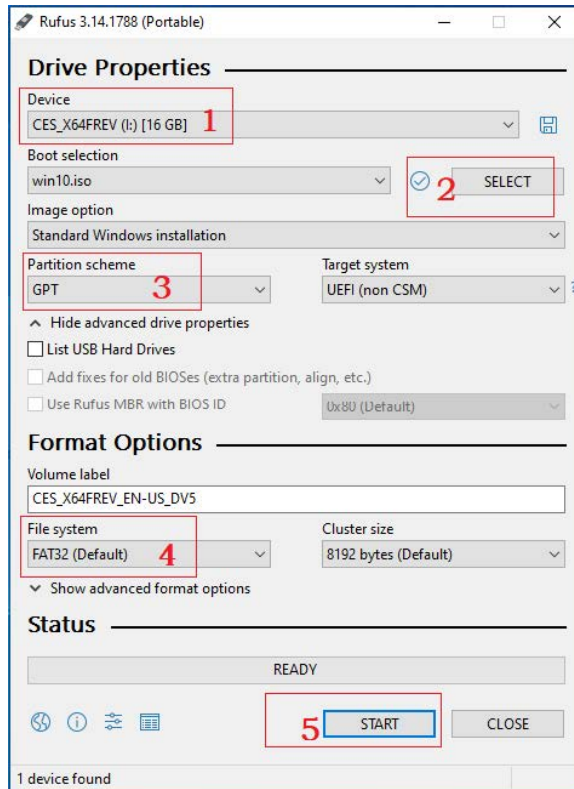
4.3.1 Prerequisites

- A USB drive with capacity no less than 8GB, preferably supporting USB 3.0
- Software release package of Oplayer357
- A program for making the bootable device: rufus-xxx .exe (available in the release package)
- Windows 10 image (available in the release package)
- A host computer running Windows system
- A USB keyboard, mouse and monitor to connect the device for easier operation

4.3.2 Make a Bootable USB Drive for Windows 10

Run the program rufus-xxx .exe after plugging the USB drive into the host computer and it will automatically detect the USB drive. Then follow the steps below to make a bootable USB drive.

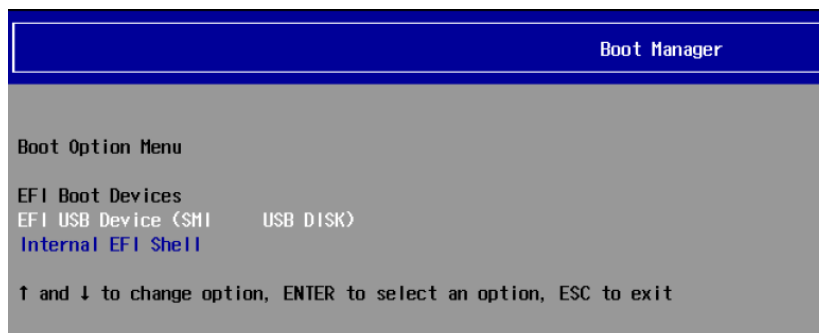
1. Click on **Device** and choose the USB drive you want to use from the drop-down list;
2. Select the ISO image you want to burn onto the USB drive from the drop-down list and click **Select**;
3. Generally, users would like to create a **Standard Windows installation**, and Rufus will automatically detect the correct **Partition Scheme** based on the USB drive. Yet make sure the partition scheme is **GPT**;
4. Set the Target system as **UEFI** and the File system as **FAT32** or **NTFS**;
5. Click **START** to make the bootable USB drive;



6. Unplug the USB drive from the host computer after the bootable device is successfully made.

4.3.3 System installation

1. Plug the bootable USB drive into Oplayer357;
2. Power on the device and it will enter the boot process;
3. Press **F7** during the boot process to enter the **BIOS boot manager** menu;
4. Select the bootable USB drive you created for Windows system and press **ENTER**;



5. Wait for the installation of Windows on Oplayer357.

4.4 Watchdog Timer

The watchdog timer is controlled through the I/O chip F81804. You can enable or disable the watchdog timer by running the program **TestF8180xWdt** located in \4 Sw-Tests\WDT\TestF8180xWdt.zip.

Before running the program, please install the following drivers.

1. Fintek IO driver (directory: \3 Sw-Driver\F8180x)
2. Vs2015 runtime library (directory: \4 Sw-Tests\VC_redist.x64(vs2015~2022).exe)

CHAPTER 5 DISPOSAL AND WARRANTY

5.1 Disposal

When the device comes to end of life, you are suggested to properly dispose of the device for the sake of the environment and safety.

Before you dispose of the device, please back up your data and erase it from the device.

It is recommended that the device is disassembled prior to disposal in conformity with local regulations. Please ensure that the abandoned batteries are disposed of according to local regulations on waste disposal. Do not throw batteries into fire or put in common waste canister as they are explosive. Products or product packages labeled with the sign of “explosive” should not be disposed of like household waste but delivered to specialized electrical & electronic waste recycling/disposal center.

Proper disposal of this sort of waste helps avoid harm and adverse effect upon surroundings and people’s health. Please contact local organizations or recycling/disposal center for more recycling/disposal methods of related products.

5.2 Warranty

Product warranty

VANTRON warrants to its CUSTOMER that the Product manufactured by VANTRON, or its subcontractors will conform strictly to the mutually agreed specifications and be free from defects in workmanship and materials (except that which is furnished by the CUSTOMER) upon shipment from VANTRON. VANTRON's obligation under this warranty is limited to replacing or repairing at its option of the Product which shall, within **24 months** after shipment, effective from invoice date, be returned to VANTRON's factory with transportation fee paid by the CUSTOMER and which shall, after examination, be disclosed to VANTRON's reasonable satisfaction to be thus defective. VANTRON shall bear the transportation fee for the shipment of the Product to the CUSTOMER.

Out-of-Warranty Repair

VANTRON will furnish the repair services for the Product which are out-of-warranty at VANTRON's then-prevailing rates for such services. At customer's request, VANTRON will provide components to the CUSTOMER for non-warranty repair. VANTRON will provide this service as long as the components are available in the market; and the CUSTOMER is requested to place a purchase order up front. Parts repaired will have an extended warranty of 3 months.

Returned Products

Any Product found to be defective and covered under warranty pursuant to Clause above, shall be returned to VANTRON only upon the CUSTOMER's receipt of and with reference to a VANTRON supplied Returned Materials Authorization (RMA) number. VANTRON shall supply an RMA, when required within three (3) working days of request by the CUSTOMER. VANTRON shall submit a new invoice to the CUSTOMER upon shipping of the returned products to the CUSTOMER. Prior to the return of any products by the CUSTOMER due to rejection or warranty defect, the CUSTOMER shall afford VANTRON the opportunity to inspect such products at the CUSTOMER's location and no Product so inspected shall be returned to VANTRON unless the cause for the rejection or defect is determined to be the responsibility of VANTRON. VANTRON shall in turn provide the CUSTOMER turnaround shipment on defective Product within **fourteen (14) working days** upon its receipt at VANTRON. If such turnaround cannot be provided by VANTRON due to causes beyond the control of VANTRON, VANTRON shall document such instances and notify the CUSTOMER immediately.

Appendix Regulatory Compliance Statement

This product has been determined to be compliant with the applicable standards, regulations, and directives for the countries where the product is marketed.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates 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 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.

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate this equipment.