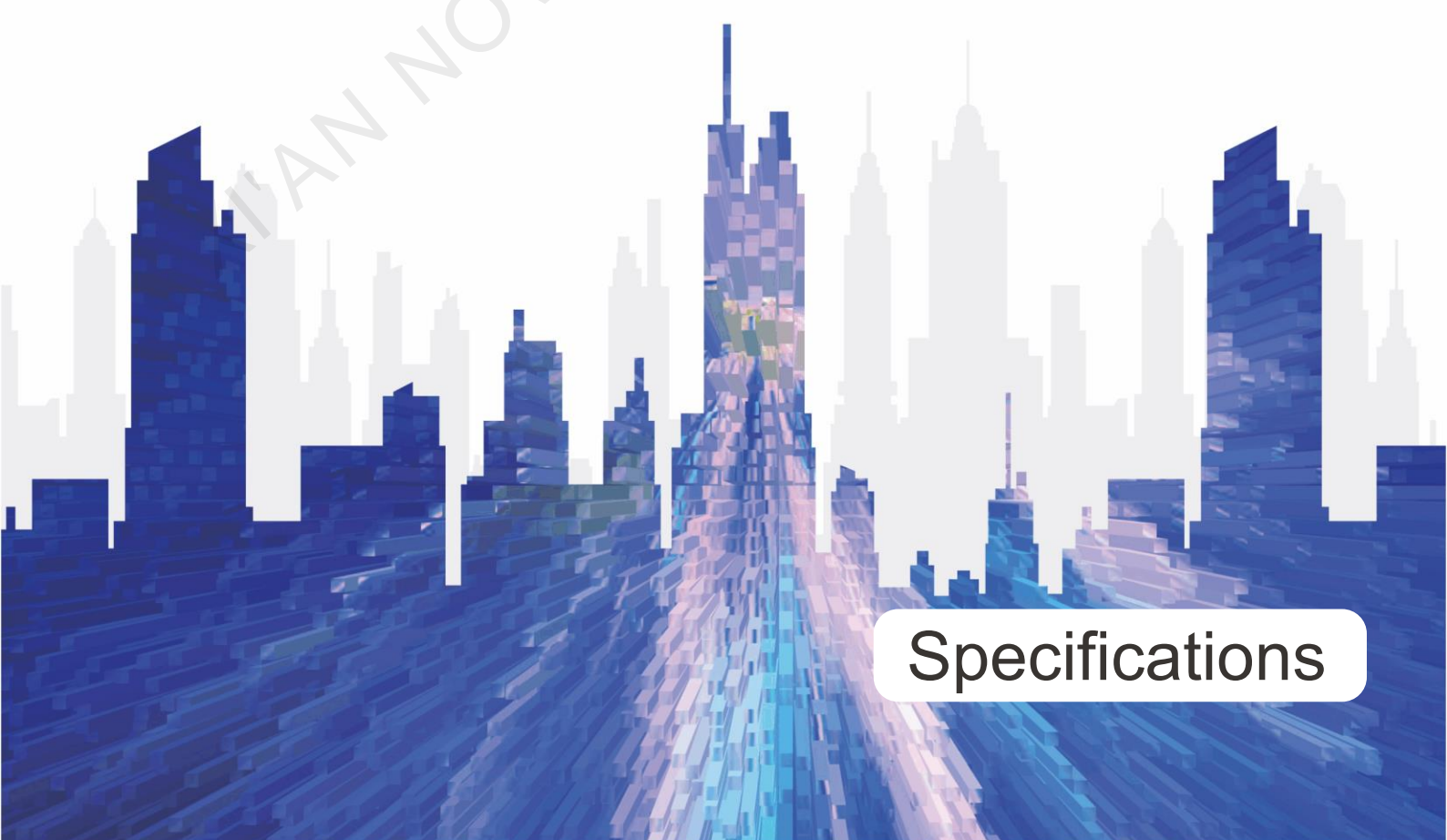


MBOX600

Multimedia Player for Transportation

V1.3.1 NS120100938



Specifications

Change History

Version	Release Date	Description
V1.3.1	2020-04-01	Changed hard disk drive specification. Changed connectors on the rear panel. Updated the product model table.
V1.3.0	2020-02-20	Updated the maximum loading capacity.
V1.2.2	2020-01-15	Updated the descriptions of LIGHT and TEMP connectors.
V1.2.0	2019-06-15	Updated the cover and back cover.
V1.1.9	2019-04-12	Added one product model.
V1.1.8	2019-03-15	Updated the feature list.
V1.1.7	2019-03-10	None
V1.1.6	2019-03-04	Updated the description of front panel buttons.
V1.1.5	2019-02-27	Updated the product model table.
V1.1.4	2019-02-19	Added net weight and operating humidity. Changed the specifications of CPU, GPU, hard disk drive and temperature. Changed the product model list.
V1.1.3	2018-12-12	Added maximum power consumption.
V1.1.2	2018-11-23	Added a product model table.
V1.1.1	2018-11-16	Updated operating temperature range.
V1.1.0	2018-10-29	Updated product appearance images, dimensions and specifications.
V1.0.1	2018-08-14	Updated product appearance images and specifications.
V1.0.0	2018-05-11	First release

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1 Overview

Introduction

The MBOX600 is an independent sending device from NovaStar, featuring big loading capacity. It is applicable to the scenarios where no PC is used to control LED displays, for example, outdoor fixed displays.

Features

- Loading capacity up to 2,300,000 pixels with a maximum width of 3840 pixels and maximum height of 2560 pixels
- Supported common resolutions: 1440×900, 1920×1080, 1920×1200, 2048×1152, and 2560×960
- Uses Intel processor
- Automatic power-on
- 4 × USB 2.0 ports and 2 × USB 3.0 ports
- 1 × HDMI output
- 1 × Audio output
- 1 × Wi-Fi antenna connector
- 1 × Gigabit Ethernet port

2 Hardware Structure

2.1 Appearance


2.1.1 Front Panel


Figure 2-1 Front panel appearance



Note: All product pictures shown in this document are for illustration purpose only. Actual product may vary.

Table 2-1 Front panel description

Name	Description
	Power switch
HLED	Hard disk status indicator Flashing: The device is reading and writing data.
PLED	Power status indicator Always on: The power input is normal.
RUN	FPGA status indicator <ul style="list-style-type: none"> • Flashing slowly: If the interval between indicator on and off is 2 seconds, it indicates no video source. • Flashing normally: If the interval between indicator on and off is about 0.5 second, it indicates the video source is available. • Flashing quickly: The receiving card is displaying the startup screen. • Breathing: The main Ethernet port malfunctioned and the backup Ethernet port is being used.

Name	Description
SYS	MCU status indicator Flashing: The MCU operates normally.
Auto-Power	Switch to enable or disable automatic power-on function <ul style="list-style-type: none"> • ON: The device is powered on automatically when the power is supplied without pressing the power switch. • OFF: Press the power switch to power on the device after the power is supplied.
CLR-CMOS	Factory Reset Button Shut down the MBOX600, disconnect the power supply, and hold down the button for about 10 seconds to take effect.
RESET	Restart Button Press the button to take effect.
	USB 2.0 port



2.1.2 Rear Panel


Figure 2-2 Rear panel appearance



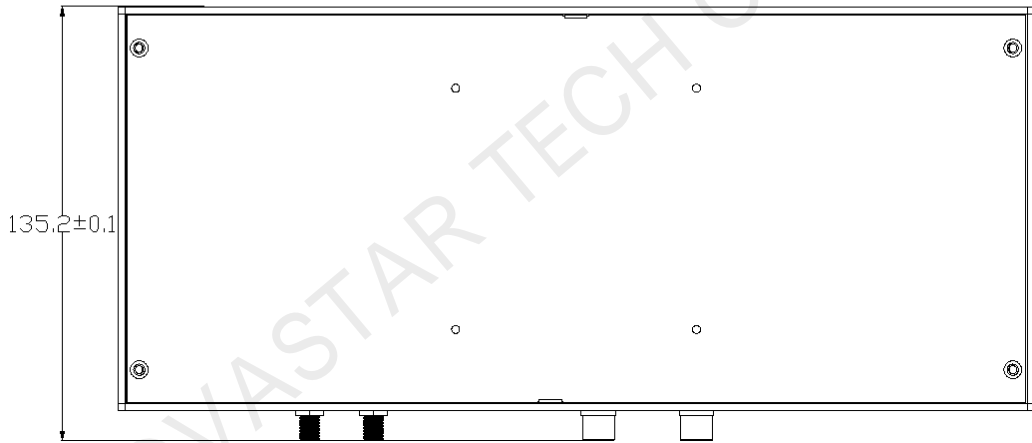
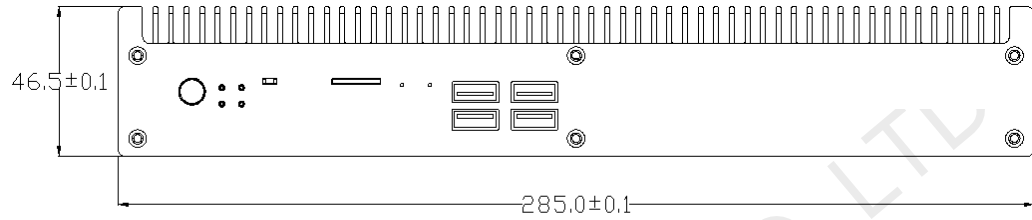
Note: All product pictures shown in this document are for illustration purpose only. Actual product may vary.

Table 2-2 Rear panel description

Name	Description
LEDOUT	Ethernet output
LIGHT	Light sensor connector In Windows 10, light sensor data can be read back with NovaLCT. In Linux, the light sensor cannot be operated.
TEMP	Reserved
	Audio output connector
HDMI	HDMI output connector
USB3.0	USB 3.0 port
COM1	Reserved
	Wi-Fi antenna connector

Name	Description
	Gigabit Ethernet ports
DC-12V	Power input connector

2.2 Dimensions



Unit: mm

3 Specifications

CPU	Celeron 3855U: dual-core, 1.6 GHz, TDP 15 W, support for EIST power-saving technology or i5-7200U: dual-core, 2.5 GHz, TDP 15 W, support for Turbo and EIST power-saving technologies
Memory	4GB
GPU	Celeron 3855U: HD510 i5-7200U: HD620
HDD	128 GB
Front panel connectors	4 × USB 2.0
Rear panel connectors	4 × Ethernet outputs
	1 × Light sensor connector
	2 × Reserved connectors
	1 × Audio output connector
	1 × HDMI connector
	2 × USB 3.0
	1 × Wi-Fi antenna connector
	1 × Gigabit Ethernet port
	1 × Power input connector (12 V DC)
Capacity	2.3 million pixels
Max power consumption	43 W
Operating environment	Temperature: -20°C–60°C Humidity: 0% RH–80% RH, non-condensing
Storage environment	–40°C to +80°C
Dimensions (L × W × H)	285.0 mm × 135.2 mm × 46.5 mm

Net Weight	1465.7 g
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XI'AN NOVASTAR TECH CO.,LTD

4 Models

OS	Model	CPU	Memory	HDD
Linux (English edition)	MBOX600(3U4A3)	3855U	4GB	128GB
	MBOX600(7U4A3)	i5-7200U	4GB	128GB
Windows 10 IOT Enterprise (English edition)	MBOX600(3U4A3)[WIN10 IOT Enterprise]	3855U	4GB	128GB
	MBOX600(7U4A3)[WIN10 IOT Enterprise]	i5-7200U	4GB	128GB
	MBOX600(7U8A4)[WIN10 IOT Enterprise]	i5-7200U	8GB	256GB

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