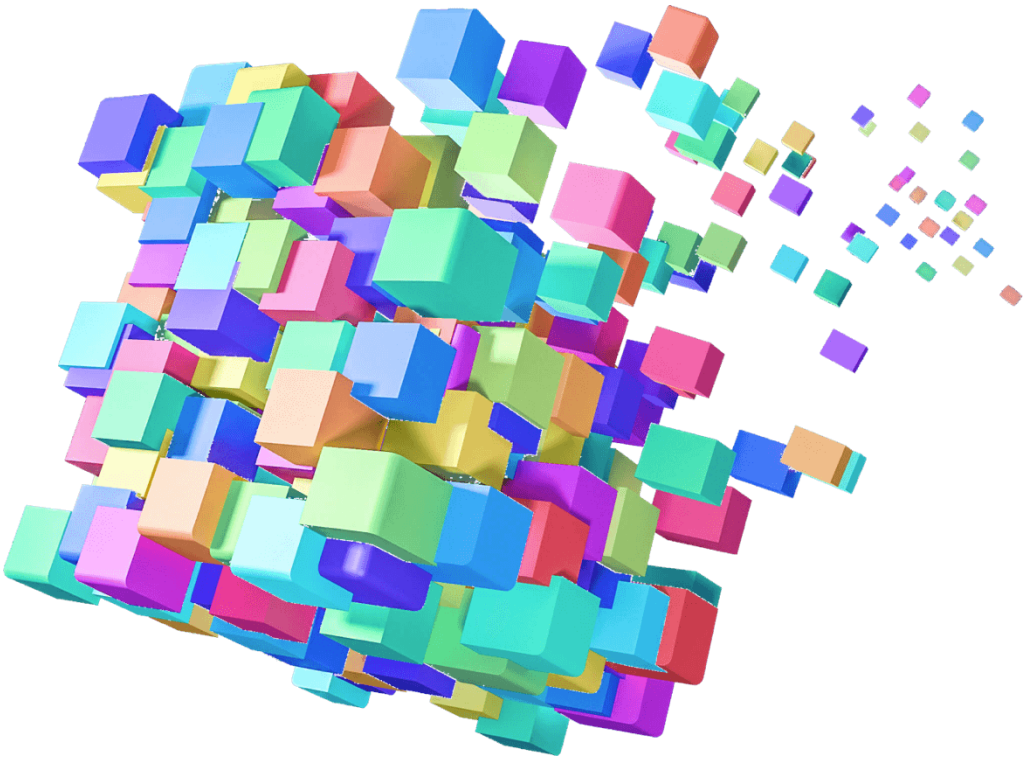

LT20

LED Sending Controller

Datasheet

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Update History

VERSION	DATE	CONTENT
V1.0	2026/6/29	Initial Release

Preface

Thank you very much for purchasing our company's product. Please read this specification sheet carefully before use.

All pictures in this specification sheet are for reference only; please refer to the actual product.

The descriptions in this specification sheet may not exactly correspond to the product or its accessories you purchased. Our company reserves the right to modify any information in this specification sheet at any time and will regularly improve or update the content of this specification sheet according to product function enhancements. Updated content will be included in new versions of this specification sheet without prior notice. Thank you for your understanding.

Certification

CCC, FCC, CE

If the product lacks relevant certifications required by the country or region of destination, please promptly contact DigiBird Technology Co., Ltd. for confirmation and handling. Otherwise, the customer shall bear any resulting legal risks, and DigiBird Technology Co., Ltd. reserves the right to pursue compensation.

Icon Conventions

	INSTRUCTION	Necessary tips, supplements, and explanations will help you better understand the content described in the specification.
	NOTE	The instructions and guidelines for operation will guide you to use the device more conveniently and efficiently.
	WARNING	There may be potential hazards; please be aware that the device can be used safely.

Safety Precautions

To ensure the safety of persons and device, when installing, operating and maintaining device, please follow the signs on the device and the safety instructions in the manual to ensure the best performance of the device and avoid dangerous or illegal situations.

 **WARNING**

- It is strictly prohibited to place the device in an environment with flammable, explosive gases or fumes, and no operations shall be performed in such an environment.
- Water seepage, dripping, or condensation is strictly prohibited in the device installation environment; otherwise, dehumidification device must be installed.

- When laying lines, high-voltage lines and low-voltage lines must be laid separately to avoid mutual interference.
- Device should not be close to fire sources, and containers containing liquid on and near device are prohibited.
- In case of thunderstorms or long-term non-use, please unplug the power plug.
- It is prohibited to use components not approved by the manufacturer to avoid device damage.
- It is prohibited to use control software not released by the manufacturer to control the device.
- It is prohibited to alter, cover, or tear off the device information labels attached to the device.
- If the plug power cord is damaged or worn, liquid splashes into the device, or the device is damaged by falling, please unplug the power immediately and hand it over to professionals for handling.
- All maintenance work should be completed by professionals. Unauthorized maintenance is strictly prohibited to avoid device damage and electric shock hazards.

NOTE

- The device should work in an environment with good air circulation and appropriate temperature and humidity.
- Please install the device on a stable, level workbench or in a standard rack, cabinet, or chassis.
- Do not block the device's ventilation holes with any objects, and leave more than 20cm of heat dissipation space around the device.
- Please use a single-phase three-wire AC power supply with protective grounding, ranging from 100-240V. Ensure the entire engineering system uses the same grounding. Do not use a power supply without grounding protection, and do not damage the grounding pin of the power cord.
- Before turning on the device, ensure that signal lines, communication lines and other wires are properly connected without looseness.
- Before moving the device, please turn off the power and add anti-collision protection to the device to avoid damage caused by electric shock, extrusion, collision, scratch, impact, etc.

1. Overview

The LT20 LED sending controller features 1× HDMI2.0, 1× DP1.2 and 1× Type-C inputs (signal selection: one out of three), as well as one DP LOOP output port. It supports ultra-HD signal capture at 4096×2160@60 Hz with a maximum loading capacity of 9.2 million pixels. When used with an LED receiving card, it delivers ultra-clear and smooth display on an LED video wall.

2. Features

- Supports signal input via one of three interfaces: 1× HDMI2.0, 1× DP1.2, 1× Type-C;
- Supports external 3.5mm audio input and loop-out output;
- Each device is equipped with 20 gigabit Ethernet ports and 4 fiber interfaces for output, with a capacity of 880 megapixels. When the input signal is 4 DVI channels, the device has a maximum capacity of 920W, with a maximum horizontal resolution of 8192 pixels and a maximum vertical resolution of 8192 pixels per screen.
- Configure a 1-channel DP monitoring interface (selectable from HDMI/DP/USB-C video source) for real-time monitoring of the LED screen display;
- Supports adaptive video source resolution;
- Supports ultra-low latency transmission, ensuring smooth real-time display on LED screens;
- Supports independent Gamma adjustment;
- Supports pixel-by-pixel brightness and chromaticity correction;
- Supports dual-machine backup to ensure stable signal transmission.
- Supports connecting sensors to monitor conditions such as brightness, temperature, and humidity.

3. Appearance

The following are schematic diagrams of the front and rear panels of the device. The actual product appearance shall prevail.

3.1. Front Panel

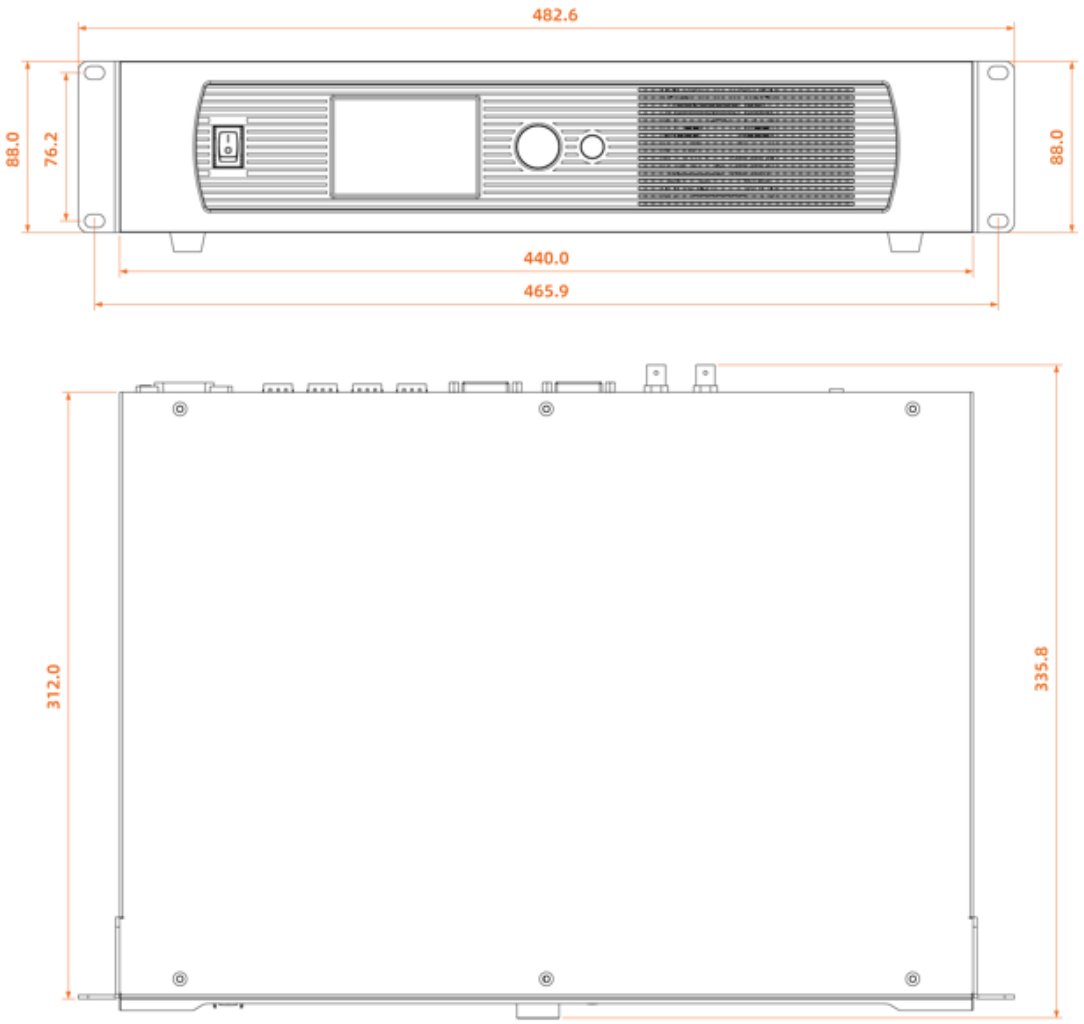
NO.	BUTTON	DESCRIPTION
①	Power Button	The power button of the device
②	LCD Screen	Displays the current status of the device and its menu.
③	Confirm Button	Press to confirm the operation, rotate to select menu items and adjust parameters.
④	BACK	Exit the current menu or cancel the current operation.
③ & ④	Button Lock	Pressing the "Confirm" and "BACK" keys simultaneously on any menu screen will lock the front panel buttons and jump to the main screen. At this time, all button functions except for the power switch will be disabled, and a lock icon will be displayed in the upper right corner of the main screen. Pressing them again will unlock the screen.

3.2. Rear Panel

TYPE	INTERFACE	DESCRIPTION
Input Interface	DVI (1/2/3/4)	• DVI interface ×4, DVI-SL standard • Supports 8-bit color depth • Supported maximum resolution: 1920×1200@60Hz • Supports custom resolutions—maximum width: 3840; maximum height: 3840.
	Type-C (5)	• Type-C interface ×1, it can be used as both an input source interface and a control interface. As an input interface: • Supported maximum resolution: 4096×2160@60Hz • Supports custom resolutions—maximum width: 8192; maximum height: 8160. Note: Choose one of the following three interfaces: Type-C, DP 1.2, or HDMI 2.0. As a control interface: • It can be connected to a PC using a Type-C to Type-C cable or a USB-A to Type-C cable, supporting device management but not visual preview. • The device generates a virtual IP address, making it easy to add the device in the software.
	DP 1.2 (5)	• DP interface ×1, DP1.2 standard • Supports HDCP 2.3 • Supported maximum resolution: 4096×2160@60Hz • Supports custom resolutions—maximum width: 8192; maximum height: 8160. Note: • The horizontal correlation parameters must be multiples of 4, including: total horizontal pixels, horizontal sync width, horizontal sync front porch, horizontal sync back porch, and horizontal active pixels. • Choose one of the following three interfaces: Type-C, DP 1.2, or HDMI 2.0.
	HDMI 2.0 (5)	• HDMI port ×1, HDMI 2.0 standard • Supports HDCP 2.3 • Supported maximum resolution: 4096×2160@60Hz • Supports custom resolutions—maximum width: 8192; maximum height: 8160. Note: • The horizontal correlation parameters must be multiples of 4, including: total horizontal pixels, horizontal sync width, horizontal sync front porch, horizontal sync back porch, and horizontal active pixels. • Choose one of the following three interfaces: Type-C, DP 1.2, or HDMI 2.0.
Audio Interface	AUDIO IN	3.5 mm audio jack ×1, independent audio input.
	AUDIO OUT	3.5 mm audio jack ×1, independent audio output.
Output Interface	1 ~ 20	RJ45 ×20, 20-channel gigabit network port output, connect to the receiving card.
	OPT1 ~ 2	10G optical port ×4. The functions of the fiber interfaces differ depending on the device's operating mode. • When the operating mode is "Video Controller", OPT1 and OPT2 send data from network ports 1~10 and network ports 11~20 respectively. • When the operating mode is "Fiber Converter", the OPT1 and OPT2 fiber ports are used for input, and the network port is used for output.
	MONITOR	DP-LOOP interface ×1, used for monitoring an LED screen with a resolution of

		4096×2160 @60Hz. Note: • Selectable video output from Type-C, DP 1.2, or HDMI 2.0
Control Interface	ETHERNET 1 /2	The control network port supports device management and visual monitoring when connected to the control PC via a network cable.
	USB 2.0	Reserved interface
	RS232	3-pin central control interface. RX: Signal receiving; TX: Signal sending; G: Grounding
Function Interface	GENLOCK	Genlock interface.
Power Interface	AC 100-240V	50/60Hz

4. Dimensions



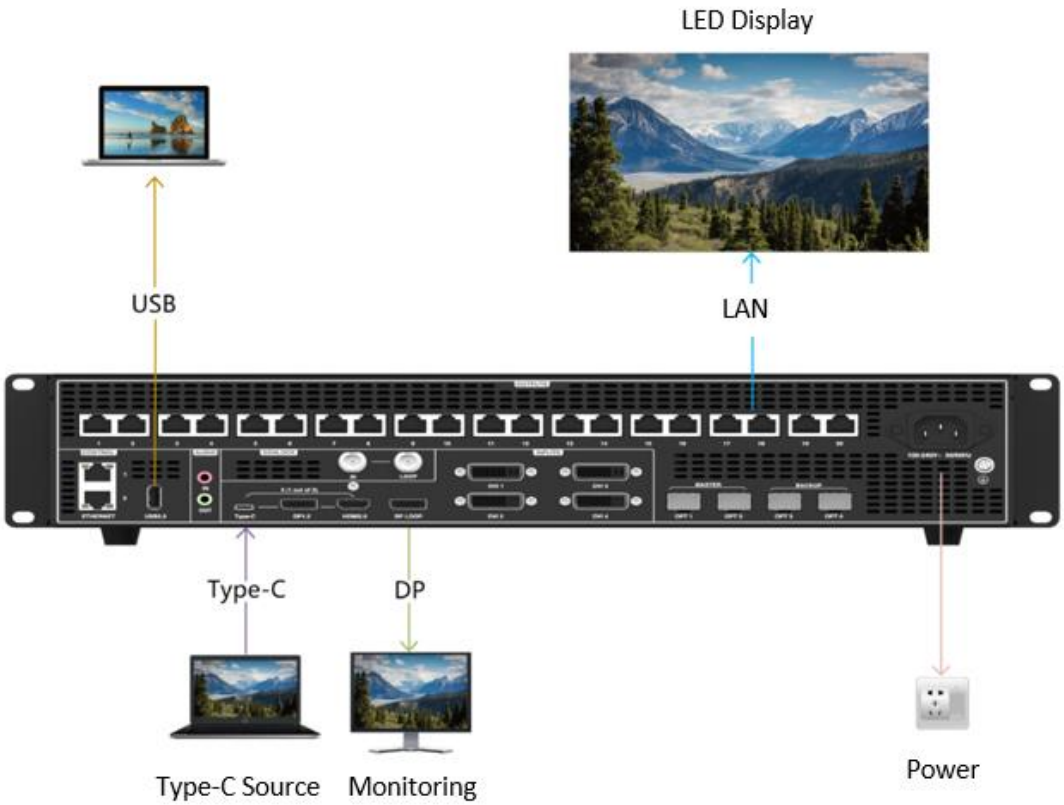
Unit: mm

5. Specifications

Specifications

Electrical	Power Supply	AC100–240V 50/60Hz
	Power Consumption	56 W
Operating	Temperature	-20 °C–50 °C
	Humidity	0% RH–85% RH, non-condensing
Storage	Temperature	-30°C to +80°C
	Humidity	0% RH–95% RH, non-condensing
Physical	Dimensions	482.6mm × 312mm × 88mm (Length × Width × Height) (excluding feet and interfaces)
	Net Weight	4.93 kg
	Total weight	8.94 kg
Packaging	Inner Box	560mm × 550mm × 230mm
	Accessories	Power Cord ×1, 4K60-HDMI Video Cable ×1, USB to Type-C Cable ×1, Network Cable ×1, Cable Management Kit ×1, User Manual ×1, Certificate of Conformity ×1, Warranty Card ×1, Packing List ×1
	Outer Box	580mm × 570mm × 265mm

6. Application



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