

LCB2K

LCD Multimedia Player



Specifications

Change History

Document Version	Release Date	Description
V1.2.1	2025-08-29	• Updated the certifications. • Updated the feature descriptions. • Updated the connector description. • Updated the media decoding specifications.
V1.2.0	2024-07-24	• Updated the feature descriptions. • Updated the packing information. • Updated media decoding specifications.
V1.1.0	2024-05-30	• Updated the feature descriptions. • Updated the connector descriptions. • Updated media decoding specifications.
V1.0.2	2024-01-05	• Updated the certification information. • Updated the descriptions of the HDMI OUT and USB 3.0 connectors. • Update the description of the default password of the Wi-Fi hotspot.
V1.0.1	2023-07-28	Updated the certification information.

Introduction

The LCB2K is an LCD multimedia player created by NovaStar. This multimedia player applies to LCD screens in advertising media, digital signage, commercial display and other fields.

Certifications

SRRC, CE, WPC, NTRA

If the product does not have the relevant certifications required by the countries or regions where it is to be sold, please contact NovaStar to confirm or address the problem. Otherwise, the customer shall be responsible for the legal risks caused or NovaStar has the right to claim compensation.

Features

Output

- 1x HDMI connector

Adaptive mode: The LCB2K automatically adjusts the playback window resolution according to the EDID of the LCD display.

- 1x Stereo audio connector

The audio sample rate is fixed at 48 kHz.

Control

- 1x USB 3.0 (Type A) port

Allows for USB playback, firmware upgrade and storage expansion.

- 1x USB (Type C) port

Connects to the control computer for content publishing and screen control.

- 1x Fast Ethernet port

Connects the control computer to the device, or connects to a LAN or public network for content publishing and screen control.

Performance

- Powerful processing capacity
 - Quad-core processor @1.3 GHz
 - Support for decoding of 4K videos
 - 1 GB of RAM
 - 16 GB of internal storage

- Flawless playback

Support for Playback of 1x 4K video, 2x 1080p videos, 4x 720p, 4x 480p, or 6x 360p videos

Notes:

- Only the H.264 and H.265/HEVC encoding formats support 1x 4K video.
- Videos with resolutions between 2K and 4K will be converted into 4K videos.

Functionality

- All-round control plans
 - Enables users to publish content and control screens from a computer, mobile phone, or tablet.
 - Allows users to publish content and control screens from anywhere, anytime.
 - Allows users to monitor screens from anywhere, anytime.
- Switching between Wi-Fi AP and Wi-Fi STA
 - In Wi-Fi AP mode, the user terminal is connected to the built-in Wi-Fi hotspot of the LCB2K. The default SSID is “Model+Last 8 digits of SN” and the default password is printed on the SSID label of the product.
 - In Wi-Fi STA mode, the user terminal and the LCB2K are connected to the Wi-Fi hotspot of a router.
- Synchronous playback across multiple screens

Enabling synchronous playback halves the number of videos that can be played simultaneously within the decoding capability of the device.

- NTP time synchronization
- GPS time synchronization (The specified 4G module must be installed.)
- RF time synchronization (The specified RF module must be installed.)
- Support for 4G modules

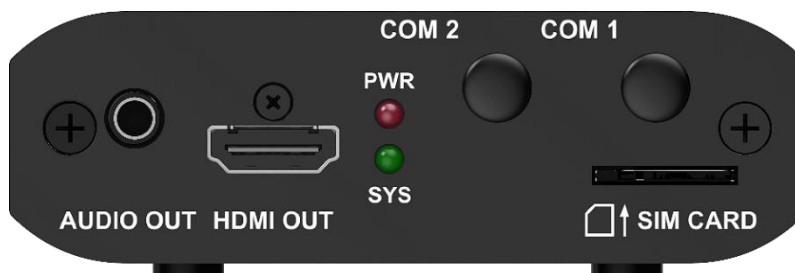
The LCB2K ships without a 4G module. Users have to purchase 4G modules separately if needed.

Network connection priority: Wired network > Wi-Fi network > 4G network

When multiple networks are available, the device will choose a network according to the priority order.

Appearance

Right View



Name	Description
AUDIO OUT	3.5mm audio output connector Note: Three-pole audio jacks can be connected.
HDMI OUT	HDMI output Adaptive mode: The LCB2K automatically adjusts the playback window resolution according to the EDID of the LCD display. Supported maximum resolution: 1920×1080@60Hz
SIM CARD	SIM card slot Capable of preventing users from inserting a SIM card in the wrong orientation.
PWR (red)	Power indicator Staying on: The power supply is working properly.
SYS (green)	System operation and Internet connection indicator • Flashing once every 2s: The device is functioning normally. • Flashing once every 0.5s: The Internet connection is normal.

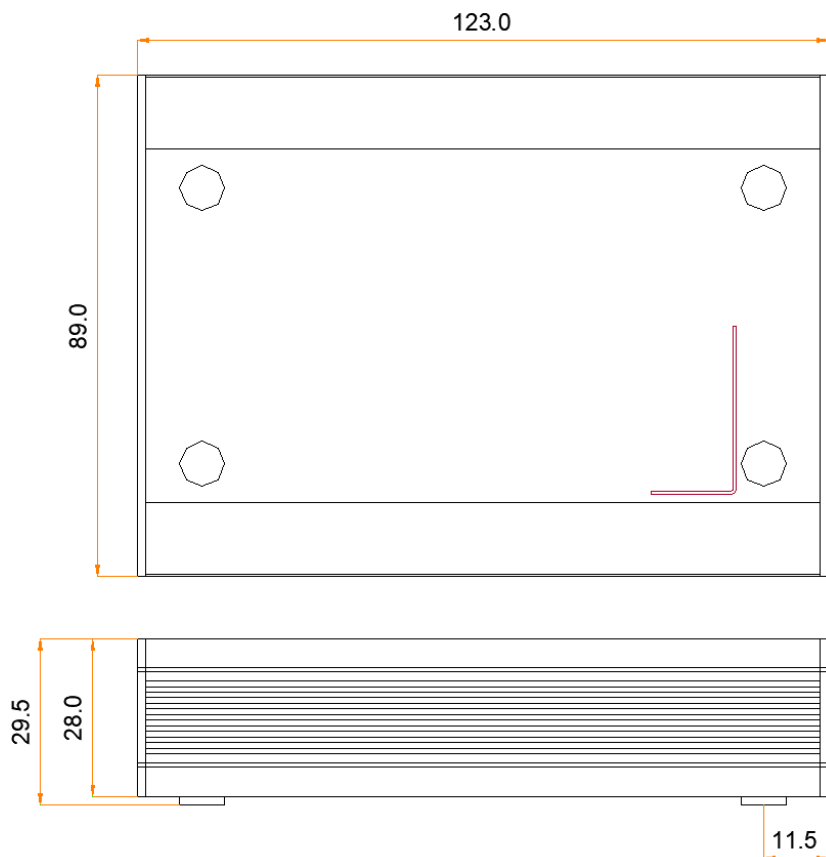
Name	Description
COM 2	GPS antenna connector
COM 1	4G antenna connector

Left View



Name	Description
WiFi	Wi-Fi AP antenna connector (2.4 GHz Wi-Fi supported)
RESET	Reset button Press and hold this button for 5 seconds to reset the product to its factory settings.
USB	USB (Type C) port Connects to the control computer for content publishing and screen control.
USB 3.0	USB 3.0 (Type A) port for USB playback, firmware upgrade and storage expansion - Supported file systems: FAT32/NTFS - USB drive capacity range: 2 GB to 128 GB - The size of a single file must be greater than 0 KB and less than 4 GB.
ETHERNET	Fast Ethernet port Connects to the control computer, a LAN or public network for content publishing and screen control.
12V 2A	Power input connector

Dimensions



Tolerance: ± 0.3 Unit: mm

Specifications

Electrical Parameters	Input voltage	DC 12 V, 2 A
	Maximum power consumption	18 W
Storage Capacity	RAM	1 GB
	Internal storage	16 GB
Operating Environment	Temperature	-20°C to +60°C
	Humidity	0% RH to 80% RH, non-condensing
Storage Environment	Temperature	-40°C to +80°C
	Humidity	0% RH to 80% RH, non-condensing
Physical Specifications	Dimensions	123.0 mm × 89.0 mm × 29.5 mm
	Net weight	255.4 g

	Gross weight	620.8 g Note: It is the total weight of the product, accessories and packing materials packed according to the packing specifications.
Packing Information	Dimensions	278.0 mm × 63.0 mm × 221.0 mm
	Accessories	• 1x Omnidirectional Wi-Fi antenna • 1x Power adapter • 2x Racks • 4x Screws • 1x Certificate of Approval

The amount of power consumption may vary depending on various factors such as product settings, usage, and environment.

Media Decoding Specifications

Image

Category	Codec	Resolution	Format	Remarks
JPEG	JFIF file format 1.02	64×64 pixels to 4096×2304 pixels	JPG, JPEG	Support for interlaced scan only Support for SRGB JPEG Support for Adobe RGB JPEG
BMP	BMP	64×64 pixels to 4096×2304 pixels	BMP	N/A
GIF	GIF	64×64 pixels to 1280×720 pixels	GIF	Supported frame rate range: 1fps to 30fps
PNG	PNG	64×64 pixels to 4096×2304 pixels	PNG	N/A
WEBP	WEBP	64×64 pixels to 4096×2304 pixels	WEBP	N/A

Video

Codec	Resolution	Max Frame Rate	Max Bit Rate (Ideal Case)	Format
H.264	48×48 pixels to	30fps	100Mbps	MP4, AVI, RMVB, FLV, MKV, MOV

Codec	Resolution	Max Frame Rate	Max Bit Rate (Ideal Case)	Format
	3840×2160 pixels			
H.265/HEVC	48×48 pixels to 3840×2160 pixels	60fps	100Mbps	MP4, AVI, RMVB, FLV, MKV, MOV
MPEG4	48×48 pixels to 1920×1088 pixels	30fps	38Mbps	MP4, AVI, RMVB, FLV, MKV, MOV
VP8	48×48 pixels to 1920×1088 pixels	30fps	38Mbps	MP4, AVI, RMVB, FLV, MKV, MOV
MJPEG	48×48 pixels to 1920×1088 pixels	30fps	38Mbps	MP4, AVI, RMVB, FLV, MKV, MOV

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| www.novastar.tech

| [Technical support](mailto:support@novastar.tech)
| support@novastar.tech