

LCB4K

LCD Multimedia Player



Specifications

Change History

Document Version	Release Date	Description
V1.2.3	2025-08-29	• Updated the certifications. • Updated the feature description. • Updated the connector description. • Updated the media decoding specifications.
V1.2.2	2024-10-18	Updated the feature description.
V1.2.1	2024-09-19	Updated the descriptions of the connectors on the rear panel.
V1.2.0	2024-07-24	• Updated the feature description. • Updated the packing information. • Updated the media decoding specifications.
V1.1.0	2024-05-30	• Updated the feature descriptions. • Updated the connector descriptions. • Updated the media decoding specifications.

Introduction

The LCB4K is an LCD multimedia player created by NovaStar. This multimedia player applies to LCD and LED displays in advertising media, digital signage, commercial display and other fields.

Certifications

CQC, SRRC, CE, WPC, KC, 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 2.0 connector
 - Adaptive mode: The LCB4K automatically adjusts the playback window resolution according to the EDID of the LCD display.
 - Custom mode: The user manually sets the playback window resolution.

- 1x Stereo audio connector

The audio sample rate is fixed at 48 kHz.

Control

- 1x USB 3.0 (Type A) port allowing for USB playback, firmware upgrade and storage expansion
- 1x USB 2.0 (Type A) port allowing for USB playback, firmware upgrade, storage expansion and cascading sending devices for control
- 1x USB (Type B) port connecting to the control computer for content publishing and screen control
- 1x Gigabit Ethernet port connecting to the control computer, a LAN or public network for content publishing and screen control

Performance

- Powerful processing capacity
 - Quad-core ARM A55 processor @1.8 GHz
 - Support for 4K video decoding
 - 2 GB of onboard RAM
 - 32 GB of internal storage

- Flawless playback

Support for playback of 2x 4K, 4x 1080p, 6x 720p, 8x 480p, or 10x 360p videos

Notes:

- Only the H.264 and H.265/HEVC encoding formats support 2x 4K videos.

- Only the H.265/HEVC encoding formats support 5x 1080p videos.
- 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 connects to the built-in Wi-Fi hotspot of the device. 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 device 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 device 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

Front Panel



Name	Description
RESET	Factory reset button Press and hold this button for 5 seconds to reset the device to its factory settings.
	Reserved
SIM CARD	SIM card slot Capable of preventing users from inserting a SIM card in the wrong orientation.
RS232	Reserved
PWR (red)	Power indicator Staying on: The power supply is working properly.
SYS (green)	System running and Internet connection indicator - Flashing once every 2s: The system is functioning normally. - Flashing once every 0.5s: The Internet connection is normal. - Staying on/off: The operating system is malfunctioning.

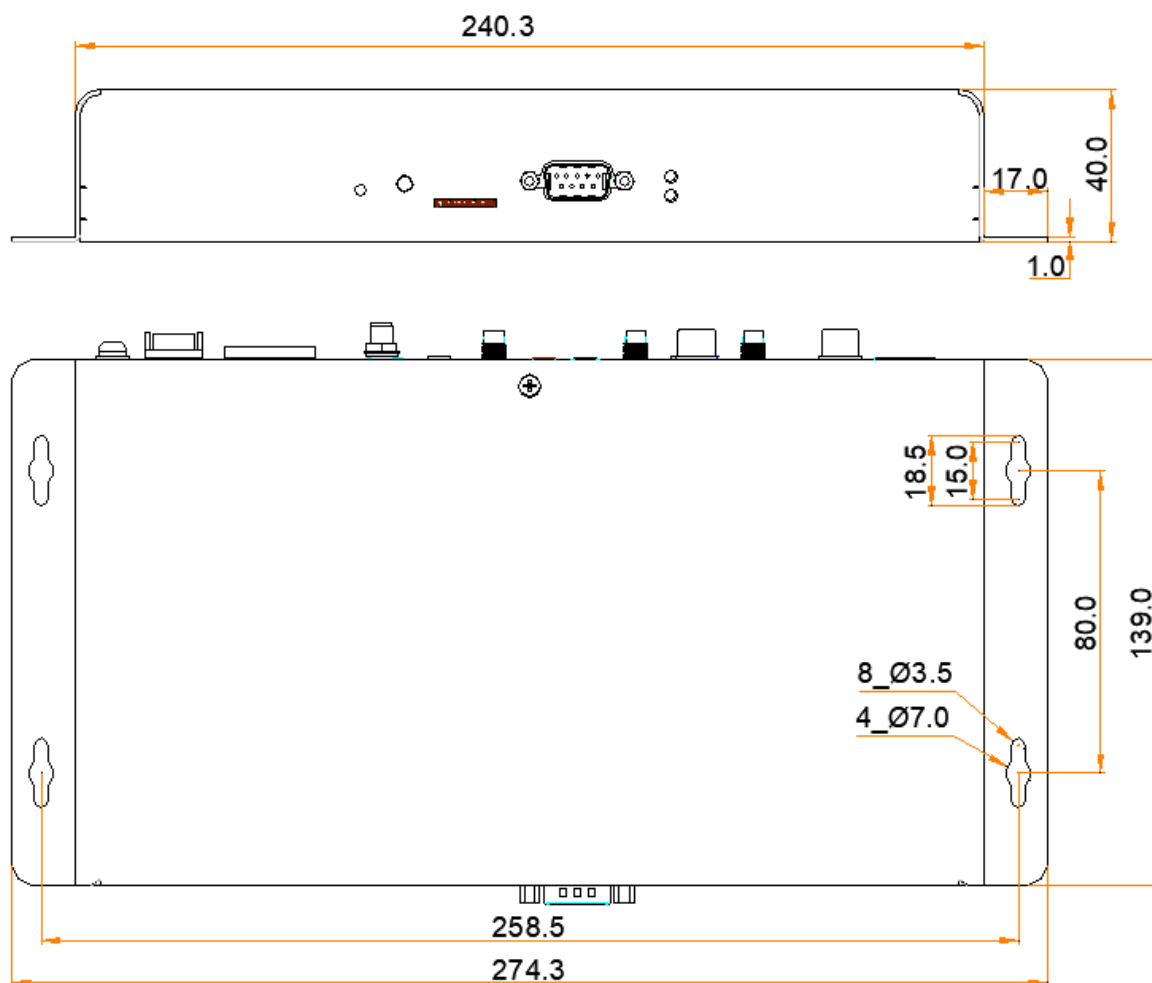
Rear Panel



Name	Description
ETHERNET	Gigabit Ethernet port Connects to the control computer or connects to a LAN or public network for content publishing and screen control.
HDMI 2.0 OUT	HDMI 2.0 output connector Adaptive mode: The LCB4K automatically adjusts the playback window

Name	Description
	resolution according to the EDID of the LCD display. – 3840×2160@60/50/30/25/24Hz – 1920×1080@60Hz – 1280×720@60Hz – 720×480@60Hz • Custom mode: The user manually sets the playback window resolution. – Maximum width: 512~4096 pixels (512×512@60Hz~4096×2160@60Hz) – Maximum height: 512~4096 pixels (512×512@60Hz~2160×4096@60Hz)
WiFi	Wi-Fi antenna connector (2.4 GHz Wi-Fi supported) Support for switching between Wi-Fi AP and Wi-Fi Sta
USB	USB (Type B) port Connects to the control computer for content publishing and screen control.
COM 2	GPS antenna connector
USB 3.0	USB 3.0 (Type A) port for USB playback, firmware upgrade and storage expansion, and cascades a sending device for control • 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.
USB 2.0	USB 2.0 (Type A) port for USB playback, firmware upgrade and storage expansion, and cascades a sending device for control. • 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.
COM 1	4G antenna connector
AUDIO OUT	3.5 mm audio output connector Note: Three-pole audio jacks can be connected.
	Reserved RF antenna connector
100-240V~, 50/60Hz, 0.6A	Power input connector
ON/OFF	Power switch

Dimensions



Tolerance: ± 0.3 Unit: mm

Specifications

Electrical Parameters	Power supply	100-240 V~, 50/60 Hz, 0.6 A
	Maximum power consumption	15 W
Storage Space	RAM	2 GB
	Internal storage	32 GB
Operating Environment	Temperature	-20°C to +60°C
	Humidity	0% RH to 80% RH, non-condensing
Storage	Temperature	-40°C to +80°C

Environment	Humidity	0% RH to 80% RH, non-condensing
Physical Specifications	Dimensions	274.3 mm × 139.0 mm × 40.0 mm
	Net weight	1.1 kg
	Gross weight	1.7 kg Note: It is the total weight of the product, accessories and packing materials packed according to the packing specifications.
Packing Information	Dimensions	386.0 mm × 110.0 mm × 285.0 mm
	Accessories	• 1x Wi-Fi omnidirectional antenna • 1x AC power cord • 1x USB cable • 1x Certificate of Approval
IP Rating	IP20 Please prevent the product from water intrusion and do not wet or wash the product.	
System Software	• Android 11 operating system software • Android terminal application software	

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 1920×1088 pixels	GIF	At a resolution of 1280×720, the supported frame rate range is 1fps to 30fps. At a resolution of 1920×1088, the supported frame

Category	Codec	Resolution	Format	Remarks
				rate range is 1fps to 10fps.
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 4096×2304 pixels	30fps	80Mbps	MP4, AVI, RMVB, FLV, MKV, MOV
H.265/HEVC	48×48 pixels to 4096×2304 pixels	60fps	100Mbps	MP4, AVI, RMVB, FLV, MKV, MOV
MPEG4	48×48 pixels to 1920×1088 pixels	30fps	38.4Mbps	MP4, AVI, RMVB, FLV, MKV, MOV
VP9	48×48 pixels to 4096×2304 pixels	60fps	60Mbps	MP4, AVI, RMVB, FLV, MKV, MOV
MJPEG	48×48 pixels to 1920×1088 pixels	30fps	60Mbps	MP4, AVI, RMVB, FLV, MKV, MOV

Notes and Cautions

This is Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

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