LCB2K
LCD Multimedia Player

Specifications

Change History

Document Version	Release Date	Description
V1.0.2	2023-09-28	• Updated the certifications. • Changed the description of the default Wi-Fi AP password. • Changed the internal storage capacity from 16 GB to 32 GB. • Added the IP rating and system software information.
V1.0.1	2023-07-28	Updated the certification information.
V1.0.0	2023-06-14	First release

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

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
- 1x Stereo audio connector

  The audio sample rate of the internal source is fixed at 48 kHz.

Control

- 1x USB 3.0 (Type A) port

  Allows for playback of content imported from a USB drive and firmware upgrade over USB.
- 1x USB (Type C) port

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

- 1x Fast Ethernet port

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

Performance

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

- Flawless playback

  Playback of 1x 4K video, 2x 1080p videos, 4x 720p 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.
- Synchronous playback across multiple screens (Playback limit: 1x 1080p video)
  - NTP time synchronization
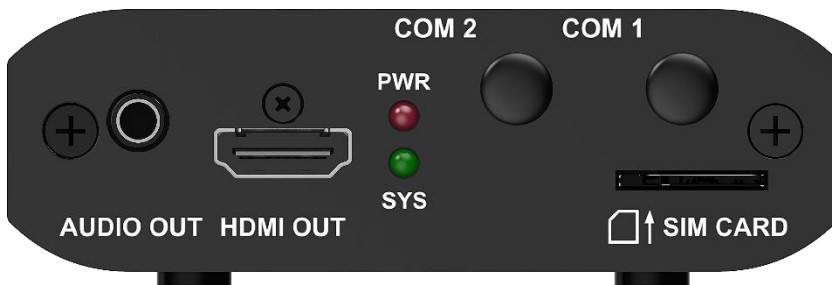 - GPS time synchronization (The specified 4G module must be installed.)
  - RF time synchronization (The specified RF module must be installed.)
- Switching between Wi-Fi AP and Wi-Fi STA
  - In Wi-Fi AP mode, the user terminal connects to the built-in Wi-Fi hotspot of the LCB2K. The default SSID is "AP+*Last 8 digits of SN*". 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.
- 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 types of networks are available, the LCB2K will choose a signal automatically according to the priority.

Appearance

Right View

Name	Description
AUDIO OUT	Audio output connector
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 • Custom mode: The user manually sets the playback window resolution. – Width range: 160 pixels to 4096 pixels

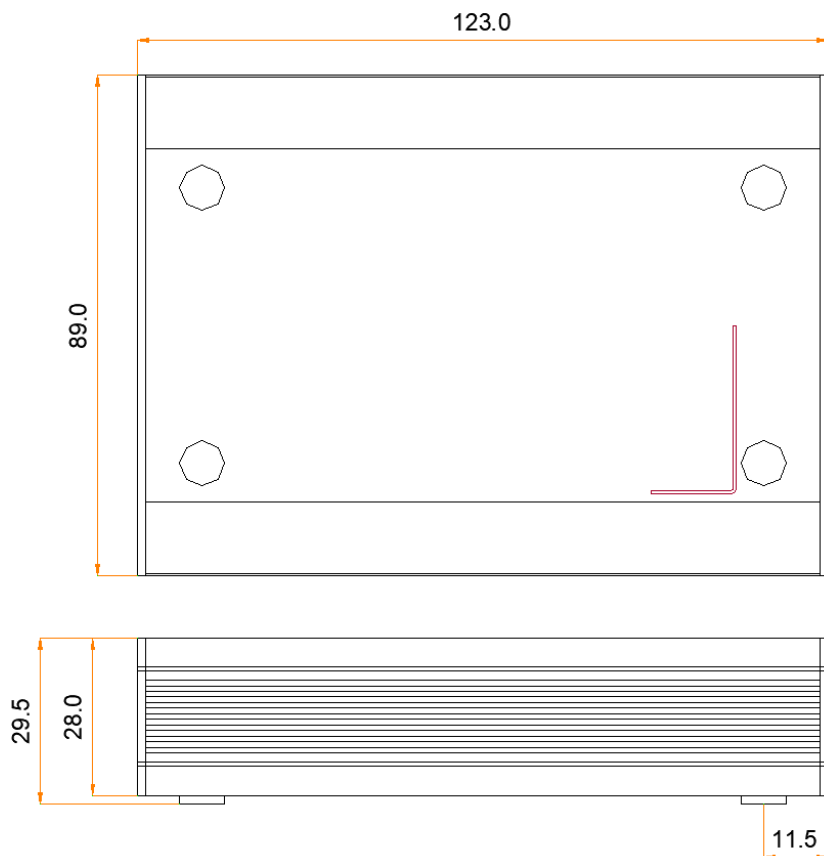| Name	Description
	– Height range: 160 pixels to 3820 pixels
SIM CARD	SIM card slot Capable of preventing users from inserting a SIM card in the wrong orientation
PWR (red)	Power indicator Staying on: The power supply is working properly.
SYS (green)	System operation and Internet connection indicator • Flashing once every 2s: The device is functioning normally. • Flashing once every 0.5s: The Internet connection is normal.
COM 2	GPS antenna connector
COM 1	4G antenna connector

Left View

Name	Description
WiFi	Wi-Fi AP antenna connector
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 Allows for playback of content imported from a USB drive and firmware upgrade over USB. The Ext4 and FAT32 file systems are supported. The exFAT and FAT16 file systems are not supported.
ETHERNET	Fast Ethernet port Connects to the control computer, a LAN or public network for content publishing and screen control.

Name	Description
12V—2A	Power input connector

Dimensions

123.0

89.0

29.5 28.0

11.5

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	32 GB
Operating Environment	Temperature	–20℃ to +60℃
	Humidity	0% RH to 80% RH, non–condensing
Storage Environment	Temperature	–40℃ to +80℃

	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 Packing list
IP Rating	IP20 Please prevent the product from water intrusion and do not wet or wash the product.	
System Software	• Android 11.0 operating system software • Android terminal application software • Note: Third-party applications are not supported.	

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

Media Decoding Specifications

Image

Category	Codec	Supported Image Size	File Format	Remarks
JPEG	JFIF file format 1.02	96×32 pixels to 817×8176 pixels	JPG, JPEG	No support for non-interlaced scan Support for SRGB JPEG Support for Adobe RGB JPEG
BMP	BMP	No Restriction	BMP	N/A
GIF	GIF	No Restriction	GIF	N/A

Category	Codec	Supported Image Size	File Format	Remarks
PNG	PNG	No Restriction	PNG	N/A
WEBP	WEBP	No Restriction	WEBP	N/A

Video

Category	Codec	Resolution	Max Frame Rate	Max Bit Rate (Ideal Case)	File Format	Remarks
MPEG-1/2	MPEG-1/2	48×48 pixels to 1920×1088 pixels	30fps	80Mbps	DAT, MPG, VOB, TS	Support for field coding
MPEG-4	MPEG4	48×48 pixels to 1920×1088 pixels	30fps	38.4Mbps	AVI, MKV, MP4, MOV, 3GP	No support for MS MPEG4 v1/v2/v3, GMC
H.264/AVC	H.264	48×48 pixels to 4096×2304 pixels	2304p@60fps	80Mbps	AVI, MKV, MP4, MOV, 3GP, TS, FLV	Support for field coding and MBAFF
MVC	H.264 MVC	48×48 pixels to 4096×2304 pixels	2304p@60fps	100Mbps	MKV, TS	Support for Stereo High Profile only
H.265/HEVC	H.265/HEVC	64×64 pixels to 4096×2304 pixels	2304p@60fps	100Mbps	MKV, MP4, MOV, TS	Support for Main Profile, Tile & Slice
GOOGLE VP8	VP8	48×48 pixels to 1920×1088 pixels	30fps	38.4Mbps	WEBM, MKV	N/A
GOOGLE VP9	VP9	64×64 pixels to 4096×2304 pixels	60fps	80Mbps	WEBM, MKV	N/A

Category	Codec	Resolution	Max Frame Rate	Max Bit Rate (Ideal Case)	File Format	Remarks
H.263	H.263	SQCIF (128×96) QCIF (176×144) CIF (352×288) 4CIF (704×576)	30fps	38.4Mbps	3GP, MOV, MP4	No support for H.263+
VC-1	VC-1	48×48 pixels to 1920×1088 pixels	30fps	45Mbps	WMV, ASF, TS, MKV, AVI	N/A
MOTION JPEG	MJPEG	48×48 pixels to 1920×1088 pixels	60fps	60Mbps	AVI	N/A

Official website
www.novastar.tech

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