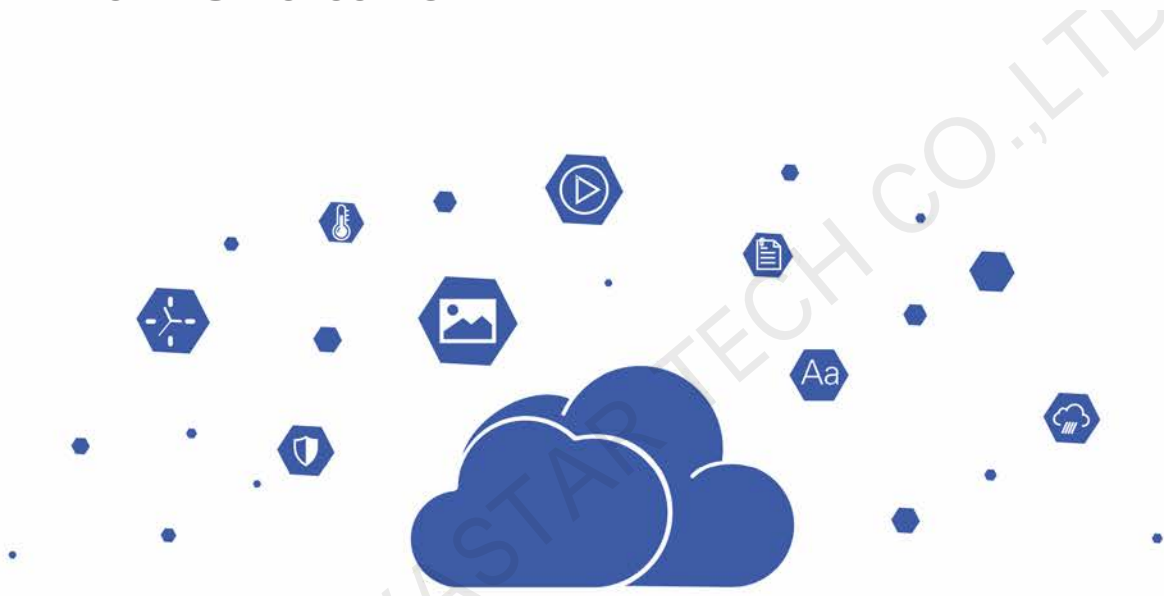


# TCB300

## LCD Multimedia Player

V1.1.0 NS120100748



**Specifications**

## Change History

Version	Release Date	Description
V1.1.0	2019-08-05	<ul style="list-style-type: none"><li>• Updated the internal storage space.</li><li>• Updated the storage temperature range.</li></ul>
V1.0.4	2019-07-23	Updated decoder specifications.
V1.0.3	2019-07-01	Deleted the description on connecting to PC through USB.
V1.0.2	2019-06-22	None.
V1.0.1	2019-06-12	Updated the appearance picture of the front panel.
V1.0.0	2019-05-25	First release

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# 1 Overview

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The TCB300 is an LCD multimedia player from NovaStar, which is used for LCD displays in the fields such as advertising media, digital signage and commercial display.

## Features

- Powerful processing capability
- Comprehensive control plans
- Wi-Fi AP connection
- 4G module

In addition to solution publishing and screen control via PC, mobile phones and LAN, the comprehensive control plans also support remote centralized publishing and monitoring.

## Other Hardware Features

- Wired Gigabit Ethernet
- Stereo audio output
- HDMI output
- USB drive importing display

# 2 Features

## 2.1 Powerful Processing Capability

- 1.2 GHz four-core processor
- Support for up to 1080P video hardware decoding
- 1 GB operating memory
- 32 GB on-board internal storage space with 28 GB available for users

## 2.2 Comprehensive control plans

The TCB300 provides comprehensive control plans:

- Solution publishing and screen control via PC
- Solution publishing and screen control via LAN
- Solution publishing and screen control via mobile phone
- Clustered remote solution publishing and screen control
- Clustered remote monitoring

## 2.3 Wi-Fi AP Connection

The TCB300 has permanent Wi-Fi AP. The default SSID is "**AP + *the last 8 digits of the SN***", for example, "**AP10000033**", and the default password is "**12345678**". The TCB300 requires no wiring and users can manage the displays at any time by connecting to the TCB300 via mobile phone, Pad or PC.

Wi-Fi AP signal strength is related to the transmit distance and environment. Users can change the Wi-Fi antenna as required.

## 2.4 4G Module

The TCB300 is designed with 4G module. You can connect to the Internet via 4G network after turning on mobile data network in the client software ViPlex.

Wired network is prior to 4G network. When both of the networks are available, the TCB300 will choose signals automatically according to the priority.

# 3 Hardware Structure

## 3.1 Appearance

### 3.1.1 Front Panel

Figure 3-1 Front panel



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

Table 3-1 Front panel description

Name	Description
SIM CARD	SIM card slot
PWR	Power status indicator Always on: Power input is normal.
SYS	System status indicator <ul style="list-style-type: none"> <li>Flashing once every other 2 seconds: The system is operating normally.</li> <li>Flashing once every other second: The system is installing the upgrade package.</li> <li>Flashing once every other 0.5 second: The system is downloading data from the Internet or copying the upgrade package.</li> <li>Always on/off: The system is operating abnormally.</li> </ul>
CLOUD	Internet connection status indicator <ul style="list-style-type: none"> <li>Always on: The unit is connected to the Internet and the connection status is normal.</li> <li>Flashing once every other 2 seconds: The unit is connected to VNNOX and the connection status is normal.</li> </ul>

Name	Description
RUN	Reserved
USB 1	USB 2.0 port
ETHERNET	Gigabit Ethernet port
WiFi-AP	Wi-Fi AP antenna port
4G	4G antenna port

### 3.1.2 Rear Panel

Figure 3-2 Rear panel

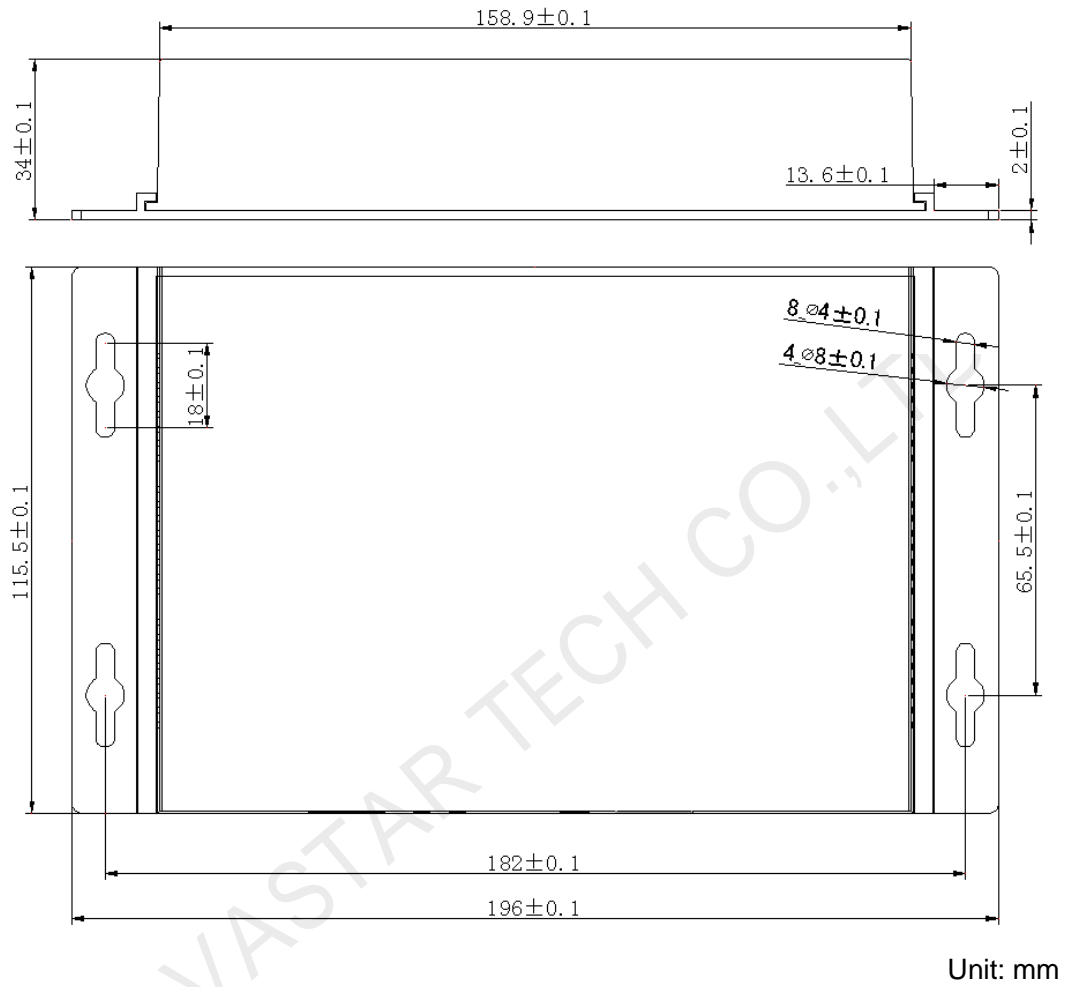


Note: All product pictures shown in this document are for illustration purpose only. Actual product may vary.

Table 3-2 Rear panel description


Name	Description
PWR	Power input
AUDIO	Audio output
USB 2	USB Type B port
RESET	Factory reset button, hold down for 5 seconds to reset to factory defaults
HDMI OUT	HDMI output

### 3.2 Dimensions





# 4 Related Software

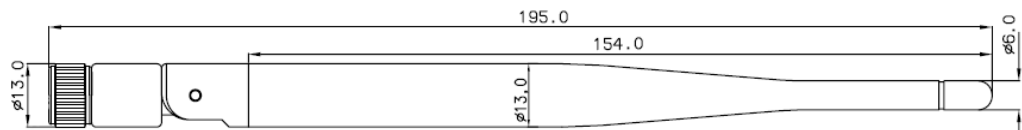
Name	Type	Description	Where to Get
ViPlex Handy	Mobile client	LAN-based screen management software for Android and iOS, which is mainly used for screen management, solution editing and publishing.	
ViPlex Express	PC client	LAN-based screen management software for Windows, which is mainly used for screen management, solution editing and publishing.	<a href="http://www.vnnox.com/single/download.html">www.vnnox.com/single/download.html</a>
VNNOX	Online software	NovaStar cloud platform, which is mainly used for remote content management, terminal control and terminal monitoring.	<a href="http://www.vnnox.com">www.vnnox.com</a>

# 5 Product Specifications

## Specifications

Electrical Parameters	Input voltage	5 V DC
	Maximum power consumption	15 W
Storage Space	Operating memory	1 GB
	Internal storage space	32 GB on-board with 28 GB available for users
Storage Environment	Temperature	-40°C–80°C
	Humidity	0% RH–80% RH, non-condensing
Operating Environment	Temperature	-20°C–60°C
	Humidity	0% RH–80% RH, non-condensing
Packing Information	Dimensions (H×W×D)	335 mm × 190 mm × 62 mm
	List	<ul style="list-style-type: none"> <li>• 1 xTCB300</li> <li>• 1 x Wi-Fi antenna</li> <li>• 1 x Power adapter (5V 3A)</li> </ul>
Dimensions (H × W × D)	196.0 mm × 115.5 mm × 34.0 mm	
Net Weight	266.2 g	

## Wi-Fi Antenna



Unit: mm

# 6 Audio and Video Decoder Specifications

## 6.1 Image

Type	Codec	Supported Image Size	Container	Remarks
JPEG	JFIF file format 1.02	48x48 pixels~8176x8176 pixels	JPG, JPEG	Not Support Non-interleaved Scan Software support SRGB JPEG Software support Adobe RGB JPEG
BMP	BMP	No Restriction	BMP	N/A
GIF	GIF	No Restriction	GIF	N/A
PNG	PNG	No Restriction	PNG	N/A
WEBP	WEBP	No Restriction	WEBP	N/A

## 6.2 Audio

Type	Codec	Channel	Bit rate	Sampling rate	File Format	Remarks
MPEG	MPEG1/2/2.5 Audio Layer1/2/3	2	8kbps~320Kbps, CBR and VBR	8KHZ~48 KHz	MP1, MP2, MP3	N/A
Windows Media Audio	WMA Version 4, 4.1, 7, 8, 9, wmapro	2	8kbps~320Kbps	8KHZ~48 KHz	WMA	Non-support WMA Pro, lossless and MBR
WAV	MS-ADPCM, IMA-ADPCM,	2	N/A	8KHZ~48	WAV	Support 4bit MS-ADPCM,

Type	Codec	Channel	Bit rate	Sampling rate	File Format	Remarks
	PCM			KHz		IMA-ADPCM
OGG	Q1~Q10	2	N/A	8KHZ~48 KHz	OGG, OGA	N/A
FLAC	Compress Level 0~8	2	N/A	8KHZ~48 KHz	FLAC	N/A
AAC	ADIF, ATDS Header AAC-LC and AAC-HE, AAC-ELD	5.1	N/A	8KHZ~48 KHz	AAC, M4A	N/A
AMR	AMR-NB, AMR-WB	1	AMR-NB 4.75~12.2kbps@8kHz AMR-WB 6.60~23.85kbps@16kHz	8KHZ, 16KHz	3GP	N/A
MIDI	MIDI Type 0 and 1, DLS version 1 and 2, XMF and Mobile XMF, RTTTL/RTX, OTA, iMelody	2	N/A	N/A	XMF, MXMF, RTTTL, RTX, OTA, IMY	N/A

## 6.3 Video

Type	Codec	Supported Image Size	Maximum Frame Rate	Maximum Bit Rate (Ideal Case)	File Format	Remarks
MPEG-1/2	MPEG-1/2	48x48 pixels~1920x1080 pixels	30fps	80Mbps	DAT, MPG, VOB, TS	Support Field Coding
MPEG-4	MPEG-4	48x48 pixels~1920x1080 pixels	30fps	38.4Mbps	AVI, MKV, MP4, MOV, 3GP	Not support MS MPEG4 v1/v2/v3 Not support GMC
H.264/AVC	H.264	48x48 pixels~1920x1080 pixels	1080P@60fps	57.2Mbps	AVI, MKV, MP4, MOV, 3GP, TS, FLV	Support Field Coding Support MBAFF
MVC	H.264 MVC	48x48 pixels~1920x1080 pixels	60fps	38.4Mbps	MKV, TS	Support Stereo High

Type	Codec	Supported Image Size	Maximum Frame Rate	Maximum Bit Rate (Ideal Case)	File Format	Remarks
		0 pixels				Profile only
H.265/HEVC	H.265/HEVC	64x64 pixels~1920x1080 pixels	1080P@60fps	57.2Mbps	MKV, MP4, MOV, TS	Support Main Profile Support Tile & Slice
GOOGLE VP8	VP8	48x48 pixels~1920x1080 pixels	30fps	38.4 Mbps	WEBM, MKV	N/A
H.263	H.263	SQCIF(128x96), QCIF(176x144), CIF(352x288), 4CIF(704x576)	30fps	38.4Mbps	3GP, MOV, MP4	Not support H.263+
VC-1	VC-1	48x48 pixels~1920x1080 pixels	30fps	45Mbps	WMV, ASF, TS, MKV, AVI	N/A
MOTION JPEG	MJPEG	48x48 pixels~1920x1080 pixels	30fps	38.4Mbps	AVI	N/A

**Note:** Output data format is YUV420 semi-planar, and YUV400(monochrome) is also supported for H.264.

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