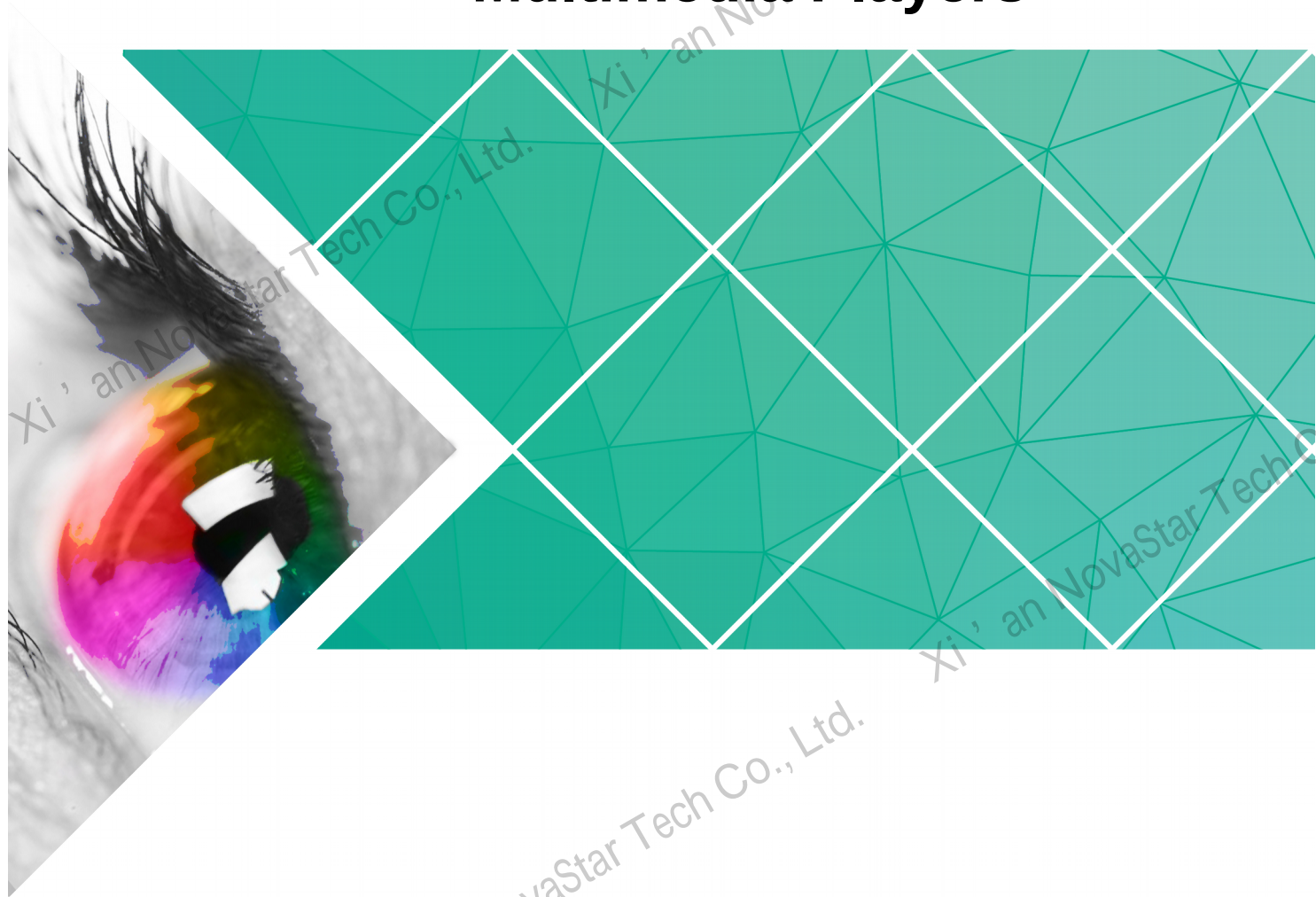# Taurus Series

Multimedia Players

T2 Specifications

Version: V1.0.0

Document Number: NS120100172

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Change History

Version	Release Date	Description
V1.0.0	2017-11-30	First release.

Table of Contents

1 Safety

This chapter illustrates Taurus series products safety to ensure storage, transportation, installation and usage safety of the products.

Safety description is applicable to all personnel that contact or use the products. First, pay attention to following points:

- Read throughout the description.
- Save the whole description.
- Be complied with the whole description.

1.1 Storage and Transport Safety

- Pay attention to dust and water prevention.
- Avoid long-term direct sunlight.
- Do not place the products at the position near fire and heat.
- Do not place the products in an area containing explosive materials.
- Do not place the products in strong electromagnetic environment.
- Place the products at a stable position to prevent damage or personal injury caused by dropping.
- Save the packing box and materials which will come in handy if you ever have to ship your products. For maximum protection, repack your product as it was originally packed at the factory.

1.2 Installation and Use Safety

- Only trained professionals may install the products.
- Do not insert and unplug (power cord plug) when the power is on.
- Ensure the safe grounding of the device.
- Be careful about electric shock risk.
- Always wear a wrist band and insulating gloves.
- Do not place the products in an area having more or strong shake.
- Perform dust removing regularly.

- Do not maintain the products without authorization but contact NovaStar as soon as possible.
- Replace spare parts only with the same parts supplied by NovaStar.

2 Overview

2.1 Introduction

- Taurus series products are the second generation of multimedia players dedicated to small and media size LED full color display developed by NovaStar.

- T2 of the Taurus series products (herein after referred to as "T2") feature following advantages, better satisfying users' requirements:

- Loading capacity up to 650,000 pixels

- Synchronization display

- Powerful processing capability

- Omnidirectional control plan

- Synchronous and asynchronous dual-mode

- Wi-Fi AP connection

- If the user has a high demand on synchronization, the time synchronization module is recommended. For details, please consult our technical staff.

- In addition to program publishing and screen control via PC, mobile phones and LAN, the omnidirectional control plan also supports remote centralized publishing and monitoring.

2.2 Application

- Taurus series products can be widely used in LED commercial display field, such as bar screen, chain store screen, advertising machine, mirror screen, retail store screen, door head screen, on board screen and the screen requiring no PC.

- Classification of Taurus' application cases is shown in Table 2.2.1.1.1.1.1.1.

Table 2.2.1.1.1.1.1.1 Application

● Cla	● Description
● Mar	● Advertising media: To be used for advertising and information promotion including bar screen and advertising machine. ● Digital signage: To be used for signage display in retail stores

● Cla	● Description
	including retail store screens and door head screens.
	● Commercial display: To display commercial information of hotel, cinema and shopping mall, such as chain store screens.
● Net	● Independent screen: Use a PC or the client software of a mobile phone to enable single-point connection and management of a screen.
	● Cluster screen: Use the cluster solution developed by NovaStar to realize centralized management and monitor of multiple screens.
● Con	● Wired connection: A PC connects to Taurus through the Ethernet cable or LAN.
	● Wi-Fi connection: PC, Pad and mobile phone can connect to Taunus through Wi-Fi, which can be enabled in the case without PC in conjunction with ViPlex software.

●

3 Features

3.1 Synchronous Display

● The T2 support switching on/off function of synchronous display.

● When synchronous display is enabled, the same content can be played on different displays synchronously if the time of different T2 units are synchronous with one another and the same program is being played.

3.2 Powerful Processing Capability

● 1.5 GHz four-core processor.

● Support for 1080P video hardware decoding.

● 1 GB operating memory and 8 GB internal storage space.

3.3 Omnidirectional Control Plan

Table 3.3.1.1.1.1.1.1 Control Plan

● C	● Co	● C	● R
● P	● Co ● Co	● P	● V ● N
● P	● Co	● P	● V ● N

C	Co	C	R
P	Co	M	V
C	Co	M	V
	Co		V
			V
C	Co	M	N
	Co		V
			V

- Cluster control plan is a new internet control plan featuring following advantages:

- More efficient: Use the cloud service mode to process services through a uniform platform. For example, VNNOX is used to edit and publish programs, and NovaiCare is used to centrally monitor display status.

- More reliable: Ensure the reliability based on active and standby disaster recovery mechanism and data backup mechanism of the server.

- More safe: Ensure the system safety through channel encryption, data fingerprint and permission management.

- Easier to use: VNNOX and NovaiCare can be accessed through Web. As long as there is internet, operation can be performed anytime and anywhere.

- More effective: This mode is more suitable for the commercial mode of advertising industry and digital signage industry, and makes information spreading more effective.

# 3.4 Synchronous and Asynchronous Dual-Mode

- The T2 supports synchronous and asynchronous dual-mode, allowing more application cases and being user-friendly.

- When internal video source is applied, the T2 is in asynchronous mode; when HDMI-input video source is used, the T2 is in synchronous mode. Content can

be scaled and displayed to fit the screen size automatically in synchronous mode.

- Users can manually and timely switch between synchronous and asynchronous modes, as well as set HDMI priority.

3.5 Wi-Fi AP Connection

- The T2 has permanent Wi-Fi AP. The SSID is "**AP +** *the last 8 digits of the SN*", for example, "**AP10000033**", and the default password is "**12345678**". The T2 requires no wiring and users can manage the displays at any time by connecting to the T2 via mobile phone, Pad or PC.
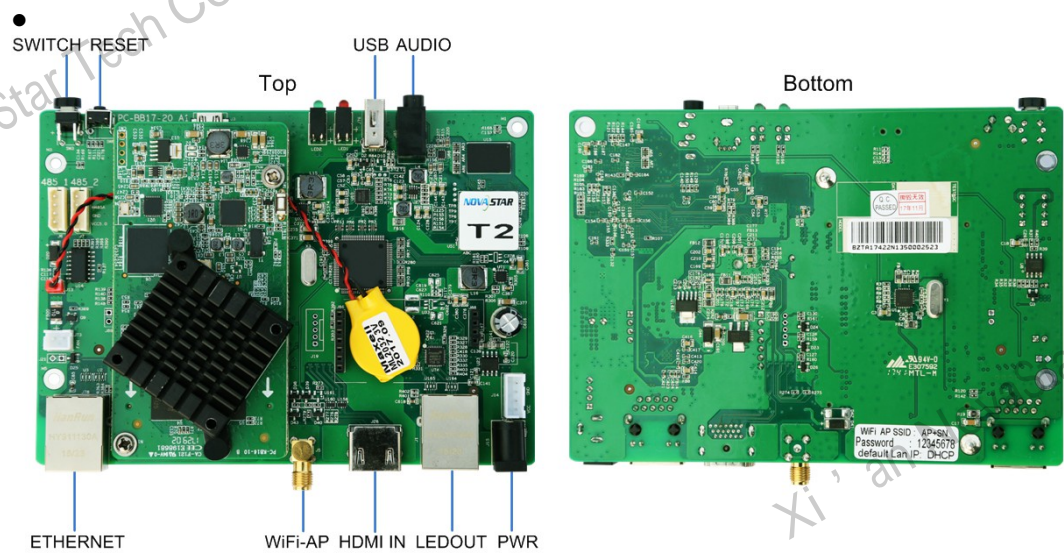

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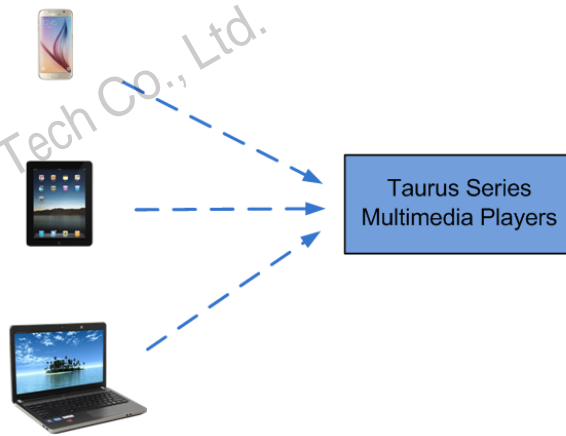
- T2's Wi-Fi AP signal strength is related to the transmit distance and environment. Users can change the Wi-Fi antenna as required.

4 Hardware Structure

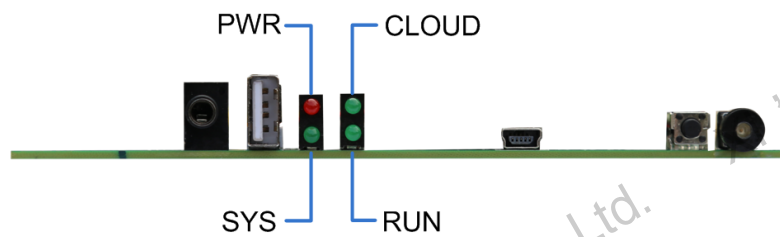## 4.1 Appearance

Figure 4.1.1.1.1.1.1 Appearance of T2

● Note: Product images provided in this file are for reference only, and the actual products shall prevail.

Table 4.1.1.1.1.1.1 Connectors and buttons of the T2

● N	● Description
● A	● Audio output
● U	● USB2.0 port
● R	● Factory reset button, hold down for 5 seconds to reset to factory defaults

● N	● Description
● S	● Button for switching between synchronous and asynchronous modes ● Always on: Synchronous mode ● Off: Asynchronous mode
● E	● Gigabit Ethernet port
● W	● Wi-Fi antenna port
● H	● HDMI1.4 input
● L	● Output Ethernet port
● P	● Power input

PWR ── ┌ CLOUD

SYS ──┘ └── RUN

●

● Note: Product images provided in this file are for reference only, and the actual products shall prevail.

Table 4.1.1.1.1.1.1.2 Indicators of the T2

● N	● Description
● P	● Power status indicator ● Always on: Power input is normal.
● S	● System status indicator ● Flashing once every 2 seconds: The system is operating normally. ● Flashing once every 0.5 second: The

● N	● Description
	system is downloading data from the Internet. ● Always on/off: The system is operating abnormally.
● C	● Internet connection status indicator ● Always on: The unit is connected to the Internet and the connection status is normal. ● Flashing once every 2 seconds: The unit is connected to VNNOX and the connection status is normal.
● R	● FPGA status indicator ● Same as the signal indicator status of the sending card: FPGA is operating normally.

4.2 Dimensions

- The total thickness (board thickness + thickness of the components on the front and back side) is no greater than 15.2mm.

- Unit of the dimension chart is "mm". Ground connection is enabled for location hole (GND).

-

15.2±0.1
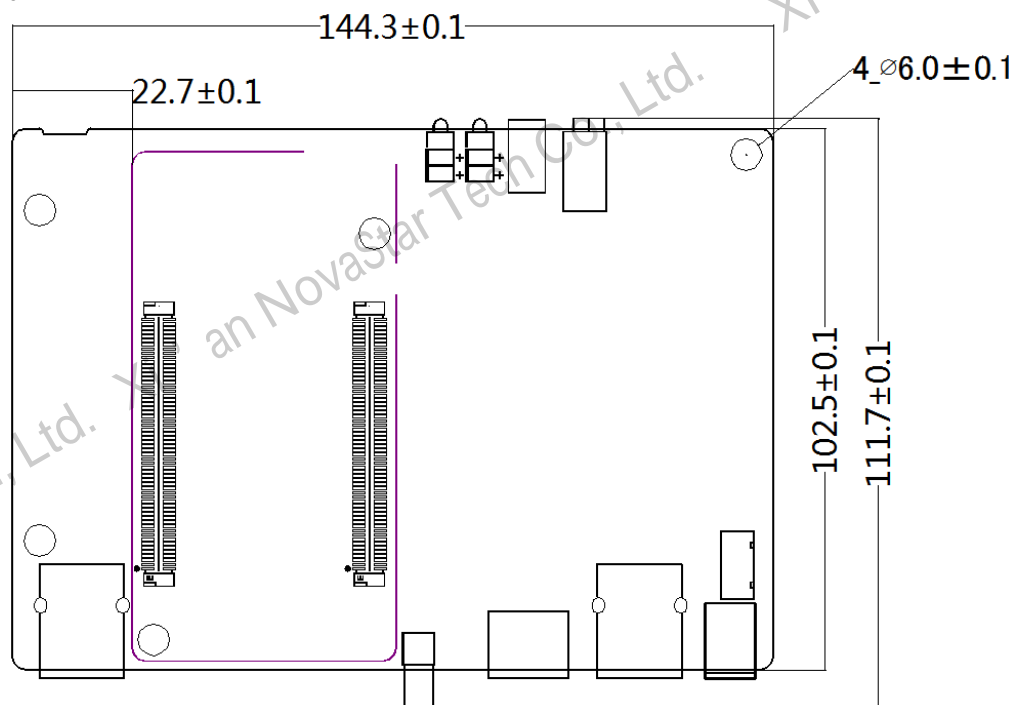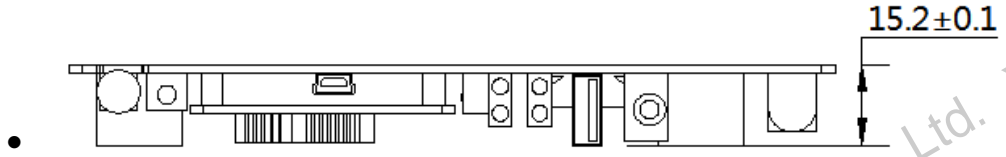
5 Software Structure

5.1 System Software

- Android operating system software
- Android terminal application software
- FPGA program
- Note: The third-party applications are not supported.

5.2 Related Configuration Software

Table 5.2.1.1.1.1.1.1 Related configuration software

● Software	● Description
● ViPlex Handy	● Mobile phone client software of the T2 includes Android and iOS which are mainly used for screen management, editing, and program publishing.

Software	Description
● ViPlexExpress	● PC client software of the T2 only includes Windows which is mainly used for screen management, editing, and program publishing.
● NovaLCT-Taurus	● Display screen configuration software works in Windows only, and is used to adjust screens to the best display status.

●

6 Specifications

T	Sub-Item	Specifications
P	Dimension (H×W×D)	144.3 mm×111.7 mm×15.2 mm
	Weight	134.2 g
	Rated voltage	5 V DC
	Rated current	2 A
	Maximum power consumption	18 W
	Storage temp	0ºC–50ºC

		erature	
		● Storage humidity	● 0% RH–80% RH
		● Operating temperature	● -40ºC–80ºC
		● Operating humidity	● 0% RH–80% RH
		● Operating memory	● 1 GB
		● Internal storage space	● 8 GB
	● P	● Dimension (H×W×D)	● 260 mm×210 mm×56 mm
		● List	● One bare card of the T2 LED multimedia player ● One column

		Wi-Fi omnidirectional antenna
• C	• Support 650,000 pixel loading capacity, with maximum width of 1920 pixels and maximum height of 1080 pixel.	
	• Support Wi-Fi AP connection.	
	• Support Gigabit wired network.	
	• Support stereo audio output.	
	• Support HDMI input mode.	
	• Support HDMI input full-screen self-adaptive display.	
	• Support manual and timing switching between synchronous and asynchronous modes.	
	• 1-Way USB interface supports USB drive importing display.	
	• Onboard brightness sensor interface supports automatic and timing smart brightness adjustment.	

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