Taurus Series Multimedia Player

T10 Specifications

Change History

Document Version	Release Date	Description
V1.0.1	2023-09-28	• Changed the description of the default Wi-Fi AP password. • Changed the internal storage capacity from 16 GB to 32 GB.
V1.0.0	2022-06-28	First release

Introduction

The T10 is a new generation of multimedia player created by NovaStar for full-color LED displays. This multimedia player integrates playback and sending capabilities, allowing users to publish content and control LED displays with a computer, mobile phone, or tablet. Working with our superior cloud-based publishing and monitoring platforms, the T10 enables users to manage LED displays from an Internet-connected device anywhere, anytime.

Thanks to its reliability, ease of use, and intelligent control, the T10 becomes a winning choice for commercial LED displays and smart city applications such as fixed displays, lamp-post displays, chain store displays, advertisement players, mirror displays, retail store displays, door head displays, shelf displays, and much more.

Certifications

None

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

- Loading capacity up to 650,000 pixels

  Maximum width: 4096 pixels
  Maximum height: 3840 pixels
- 1x Gigabit Ethernet port
- 1x Stereo audio connector

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

Input

- 2x Sensor connectors

  Connect to brightness sensors or temperature and humidity sensors.

Control

- 1x USB 3.0 (Type A) port

  Allows for USB playback and firmware upgrade over USB.
- 1x USB (Type C) port

  Connects to the control computer for content publishing and screen control.
- 1x Fast Ethernet port

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

Performance

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

  1x 4K, 2x 1080p or 4x 720p video playback

Functionality

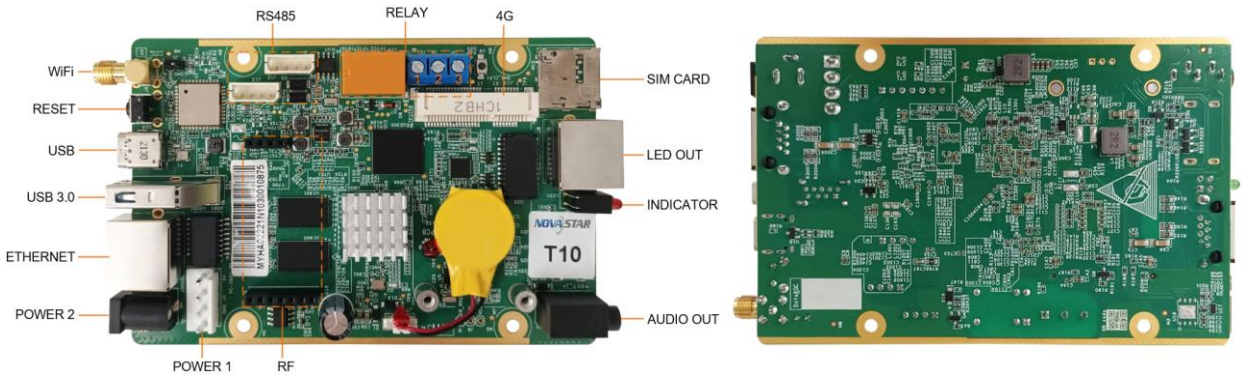
- All-round control plans
  - Enables users to publish content and control screens from a computer, mobile phone, or tablet.
  - Allows users to publish content and control screens from anywhere, anytime.
  - Allows users to monitor screens from anywhere, anytime.
- Switching between Wi-Fi AP and Wi-Fi STA
  - In Wi-Fi AP mode, the user terminal connects to the built-in Wi-Fi hotspot of the T10. The default SSID is "AP+*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 T10 are connected to the Wi-Fi hotspot of a router.
- Synchronous playback across multiple screens
  - 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 T10 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 T10 will choose a signal automatically according to the priority.

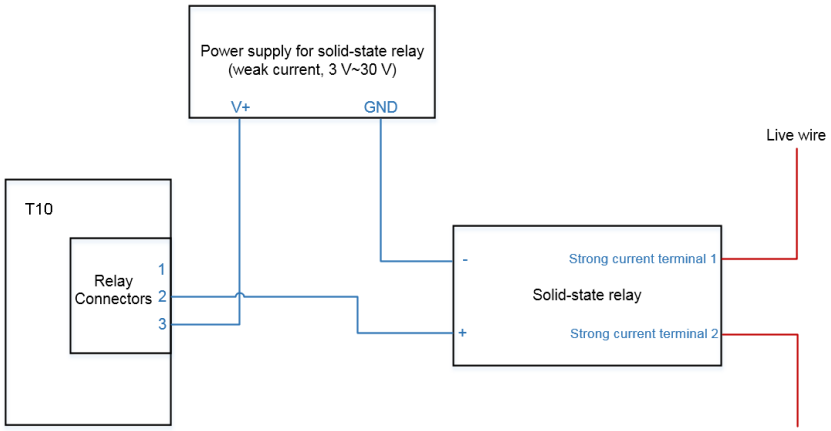
Appearance



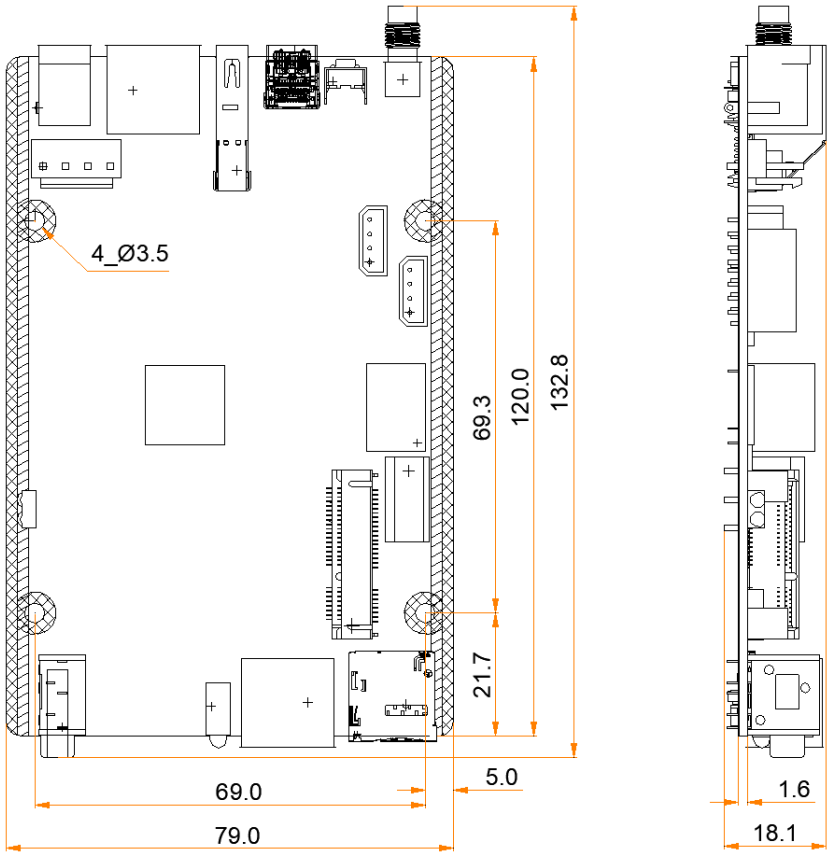
All product pictures shown in this document are for illustration purpose only. Actual product may vary.

Name	Description
SIM CARD	SIM card slot Capable of preventing users from inserting a SIM card in the wrong orientation

Name	Description	
LED OUT	Gigabit Ethernet output	
INDICATOR	Red	Power indicator Staying on: The power input is normal.
	Green	System running and Internet connection indicator • Flashing once every 2s: The operating system is functioning normally. • Flashing once every 0.5s: The Internet connection is normal. • Staying on/off: The operating system is malfunctioning.
AUDIO OUT	Audio output connector	
RF	RF module connectors	
POWER 1	Power input connector (5 V~12 V)	
POWER 2	Power input connector (5 V~12 V)	
ETHERNET	Fast Ethernet port Capable of connecting to the control computer, a LAN or public network for content publishing and screen control	
USB 3.0	USB 3.0 (Type A) port Allowing for USB playback and firmware upgrade over USB The Ext4 and FAT32 file systems are supported. The exFAT and FAT16 file systems are not supported.	
USB	USB (Type C) port Capable of connecting to the control computer for content publishing and screen control	
RESET	Factory reset button Press and hold this button for 5 seconds to reset the product to its factory settings.	
WiFi	Wi-Fi AP antenna connector	
RS485	Sensor connectors Capable of connecting to brightness sensors or temperature and humidity sensors.	
RELAY	3-pin relay control switch • DC: Maximum voltage and current: 30 V, 3 A • AC: Maximum voltage and current: 250 V, 3 A Two connection methods:	

Name	Description
	• Common switch: The connection method of pins 2 and 3 is not fixed. Pin 1 is not connected to the wire. On the power control page of ViPlex Express, turn on the circuit to connect pin 2 to pin 3, and turn off the circuit to disconnect pin 2 from pin 3. • Single pole double throw switch: The connection method is fixed. Connect pin 2 to the pole. Connect pin 1 to the turn-off wire and pin 3 to turn-on wire. On the power control page of ViPlex Express, turn on the circuit to connect pin 2 to pin 3 and disconnect pin 1 form pin 2, or turn off the circuit to disconnect pin 3 from pin 2 and connect pin 2 to pin 1. Note: The T10 uses DC power supply. Using the relay to directly control AC is not recommended. If it is required to control AC, the following connection method is recommended. 
4G	4G module slot

Dimensions



Tolerance: ±0.3 Unit: mm

To make molds or trepan mounting holes, please contact NovaStar for a higher-precision structural drawing.

Specifications

Electrical Parameters	Input voltage	DC 5 V~12 V
	Maximum power consumption	12 W
Storage Capacity	RAM	1 GB
	Internal storage	32 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	132.8 mm × 79.0 mm × 18.1 mm

	Net weight	88.3 g
	Gross weight	297.5 g
Packing Information	Dimensions	278.0 mm × 63.0 mm × 221.0 mm Note: It is the total weight of the product, accessories, and packing materials packed according to the packing specifications.
	Accessories	• 1x Wi-Fi omnidirectional antenna • 1x Power connector • 1x Quick Start Guide • 1x Packing list
System Software	• Android 11.0 operating system software • Android terminal application software • FPGA program 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	Container	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
PNG	PNG	No Restriction	PNG	N/A
WEBP	WEBP	No Restriction	WEBP	N/A

Video

Category	Codec	Resolution	Maximum Frame Rate	Maximum 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
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

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