

Antik TR 6265 Transcoder

HiDensity IP-to-IP HEVC FullHD transcoder

User manual

Real time transcoding of up to 24 video streams (1video/1audio):

- Support for H.265 and H.264 Video Encoding
- Input protocol - UDP/RTP/HTTP (MPEG-TS over http)
- Maximum 24x 1080p@25 fps or 24x 720p@25 fps or 24x NTSC 30 fps encoding
- 1RU with OLED display
- Low power consumption
- WEB-based remote configuration and control (HTTP)
- 10/100/1000 Base-T Ethernet network interface (maximum Input/Output 850Mbps for each ethernet)
- Progressive scan
- Constant bitrate (CBR) and variable bitrate (VBR)

TECHNICAL SPECIFICATIONS

- Interfaces
 - 2x RJ-45 (10/100/1000Mbit)
 - 2x USB2.0
 - 2x USB3.0
 - HDMI and RS 232
- Operating Conditions
 - Power supply range 100 - 240 VAC / 50 - 60Hz
 - Typical power consumption 150W
- Dimensions HxWxD 46x430x380mm
- Weight 5,8kg

Video decoding specification

- H.265/HEVC (Main/Main 10 profile@level 5.1)
- H.264/AVC (BP/MP/HP@level 5.1)
- MPEG-4/2/1

Audio decoding specification

- AAC-LC, HE-AAC (V1/V2)
- MPEG-1/2 (Layer I/II),

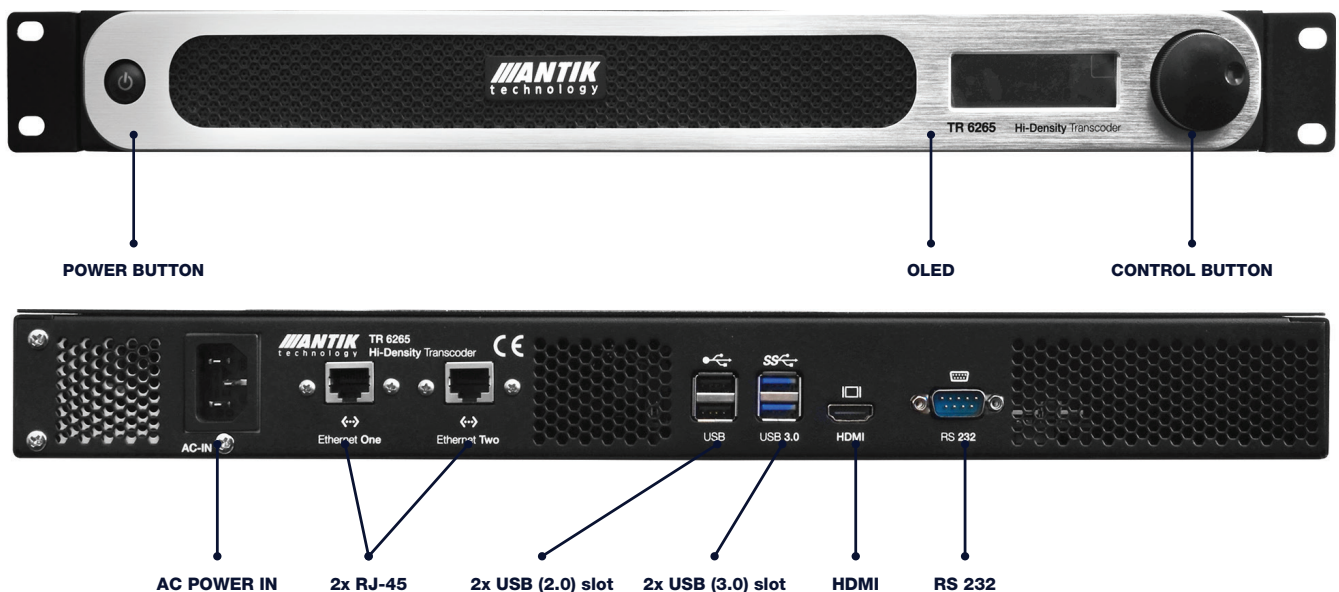
Video encoding specification

- H.265 MP@level 5 main tier
- H.264 BP/MP/HP@level 4.2

Audio encoding specification

- AAC-LC

DEVICE DESCRIPTION



Power button function

Use rotary power button to navigate in device menu:

- Rotate clockwise / counterclockwise – scroll through device menu / change value
- Short press – enter selected item / confirm edited value
- Long press - escape

DISPLAY MENU

- Device settings (network settings)
- Device commands (reset single - reset one module, reset all - all modules)
- System log (module status)
- Device info (SN - serial number, TMP - temperature, SW - software, CH - modules, FAN - fan power, and voltage information)



DEVICE INSTALLATION

1. Plug the AC power cord into the AC IN and the power supply
2. Plug the RJ45 cable into ETH1 / 2 and into the LAN / WAN network



Use the rotary power button to set the network settings in the Device settings.

DHCP: YES/NO
IP address
Mask
Gateway

After setting the network settings, you need to leave the section by short pressing POWER BUTTON, then the transcoder will automatically restart. If the transcoder does not automatically restart, you need to restart the transcoder manually by holding the power button (5s) and then pressing this button to turn on the transcoder.

3. Login to web interface of transcoder (by entering your IP address for ETH1)

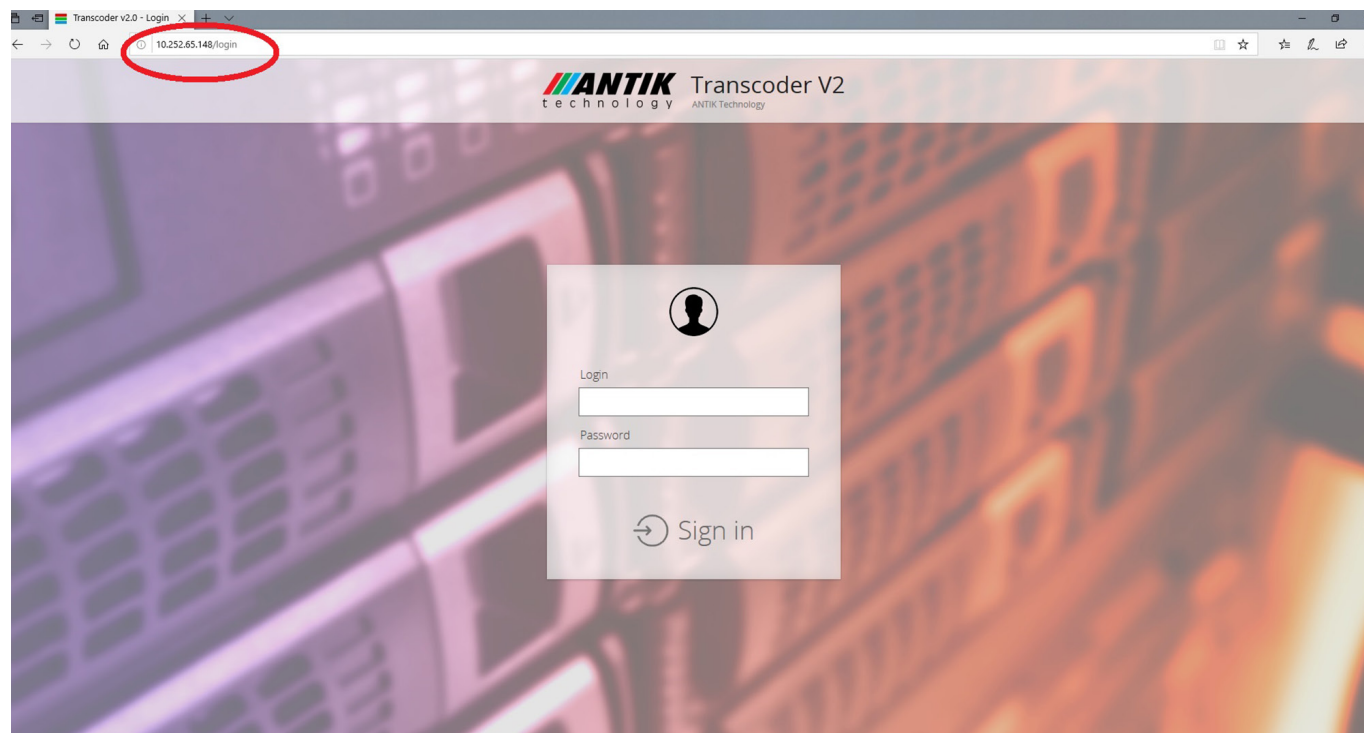
WEB INTERFACE

Login to web interface by IP address of transcoder (set by you for ETH1)

Default

login: admin

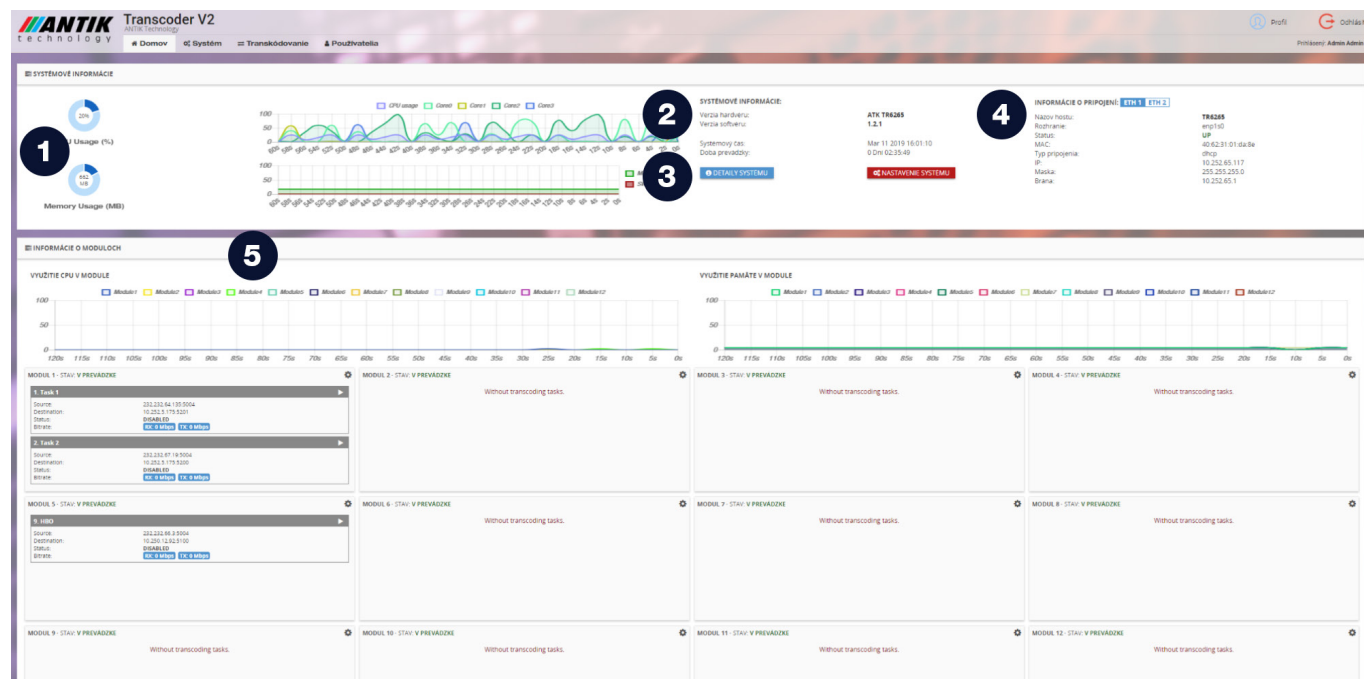
password: admin



Home page of web interface.

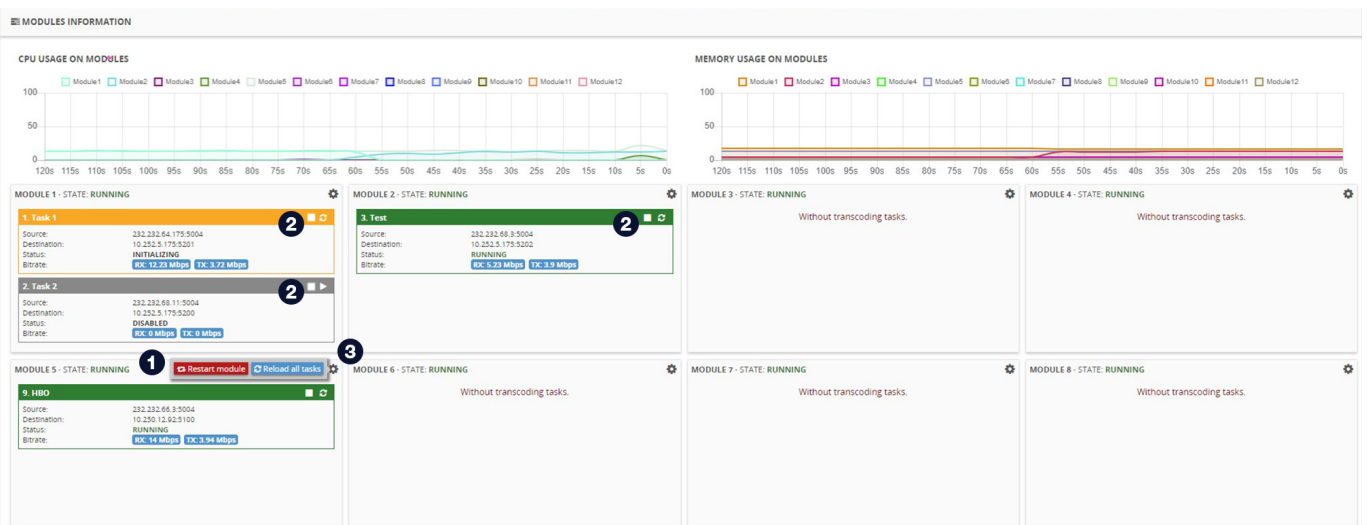
On this page is summary information:

1. CPU a memory usage
2. Hardware a firmware version
3. System time a uptime
4. Connection info
5. Modules information



On this page, you can:

1. Restart module
2. Turn on/off task or reload task
3. Reload all tasks on module



When you set tasks, you can see on information about them:

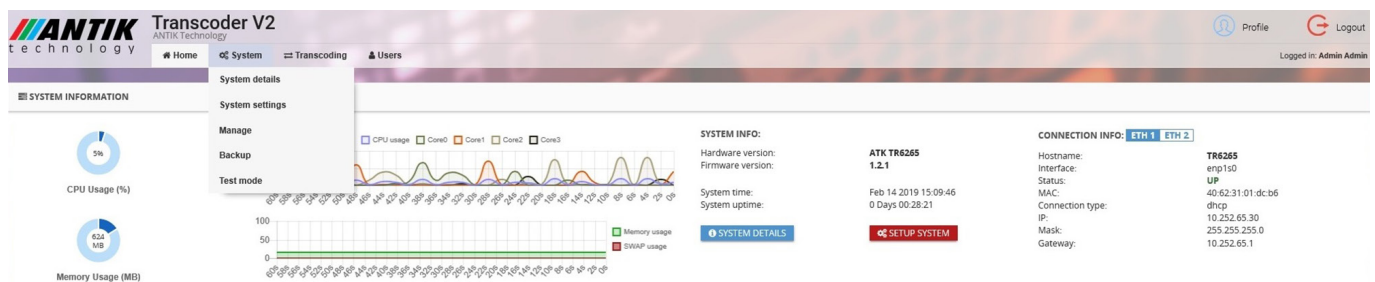
- Source
- Destination
- Status (running, initializing, stopping, disabled)
- Bitrate (RX/TX) - received/transmitted data

At the top of the homepage are the System, Transcoding, and Users sections.

There are 5 subsections in the System section described in details further on:

- System details
- System settings
- Manage
- Backup
- Test mode

SYSTEM



SYSTEM DETAILS

A summary of system and network settings. On the right is the status of modules.

At the bottom, you can choose from system logs:

- Apache access log
- Apache error log
- Aut log
- MYSQL error log
- System log
- Reroute APP log

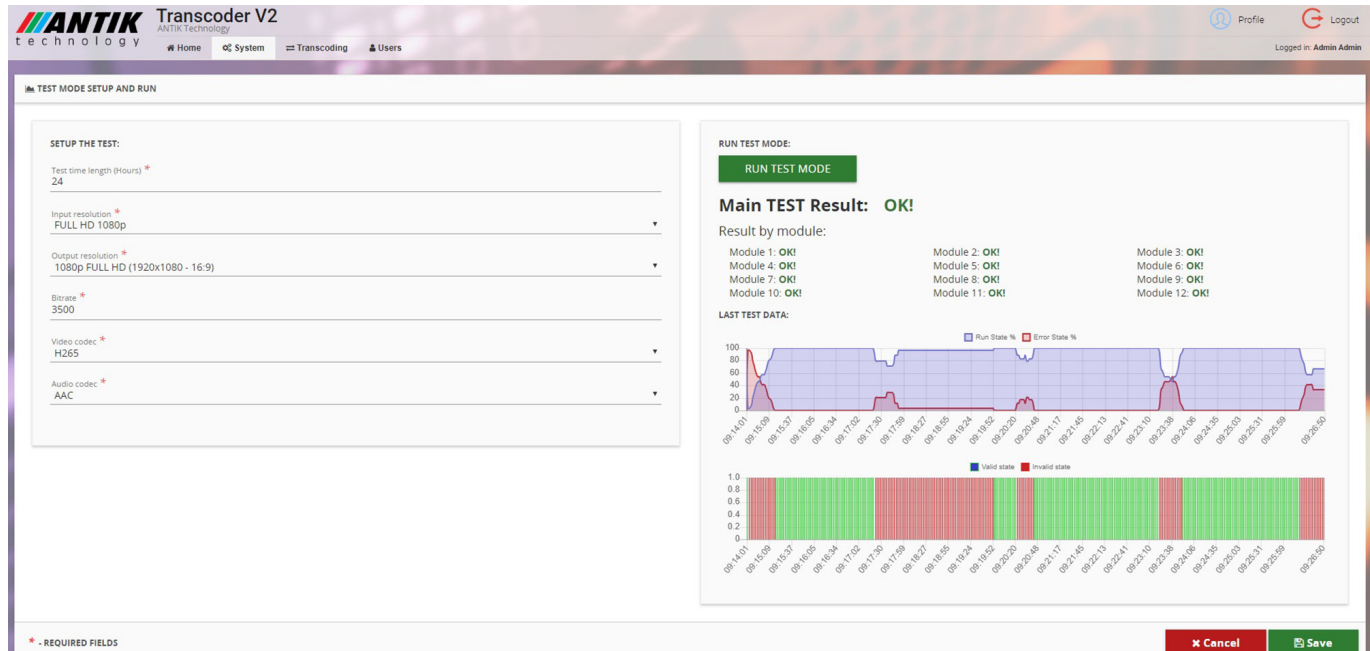
TEST MODE

Test mode is used to temporarily test the modules.

Setup of test mode:

- Test time length (Hours)
- Input resolution
- Output resolution
- Bitrate
- Video codec
- Audio codec

After setting up the test, run the test by using the RUN TEST MODE icon.

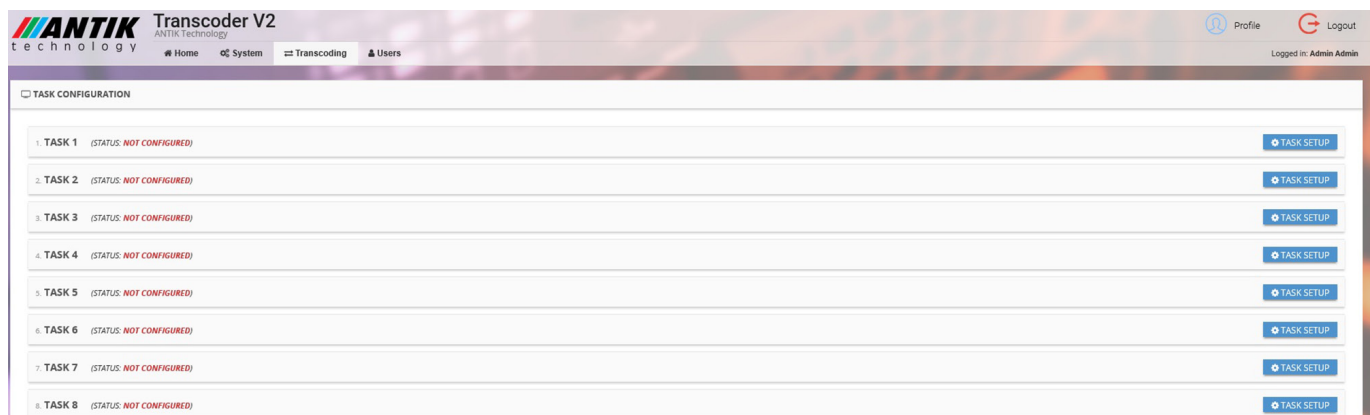


TRANSCODING

Task configuration

If we have:

- SD/HD input resolution – max. 2 task/1 module
- 4K input resolution – max. 1 task/1module



First step is click on **TASK SETUP** icon

Settings: BASE SETUP

- Task title
- Slot (auto or module 1-12) (on which module should run task)
- Source IP address and port (after entering this data, it is necessary to load the data by clicking on LOAD INPUT DATA, then you will get the information that contains the input stream with the option of selecting audio PID for transcoding.

HBO (STATUS: RUNNING)

BASE SETUP:

Task title *

HBO

Slot

Auto

Source IP address *

232.232.66.3

Source port

5004

LOAD INPUT DATA

Source audio channel *

105

Source video channel *

Destination IP address *

10.250.12.92

Destination port *

5100

Output video PID

101

Output audio PID

102

Input interface

ETH1

Output interface

ETH1

CODEC SETUP:

Video codec *

H265

Video resolution

1080p FULL HD (1920x1080 - 16:9)

Video profile *

Main

Video framerate *

25 FPS

Video bitrate *

3500

Audio codec *

AAC

Audio samplerate *

48000

Audio bitrate *

192

TTL *

64

STOP TASK CANCEL TASK SETUP SAVE TASK SETUP

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Home
System
Transcoding
Users

TASK CONFIGURATION

1 TASK 1 (STATUS: DISABLED)

2 TASK 2 (STATUS: DISABLED)

3 TEST (STATUS: DISABLED)

BASE SETUP:

Task title *

Test

Slot

Auto

Source IP address *

232.232.66.3

Source port

5004

Source audio channel *

105

Source video channel *

Destination IP address *

10.252.5.175

Destination port *

5202

Output video PID

101

Output audio PID

Input stream information

Stream 0 - video

Stream type:

video

PID:

101

Codec:

H.264 / AVC / MPEG-4 AVC / MPEG-4 part 10

Codec profile:

Main

Resolution:

1920 x 1080

Ratio:

16:9

Base time:

1/50

Is AVC:

false

Framerate:

25/1

Time base:

1/90000

Stream 1 - audio

Selected audio:

☒ Selected

Stream type:

audio

PID:

105

Codec:

MP2 (MPEG audio layer 2)

Sample rate:

48000

Channels:

2

Channel layout:

stereo

Base time:

1/90000

Bitrate:

192000

Tags:

language: cze

Stream 2 - audio

Selected audio:

☐ Selected

Stream type:

audio

PID:

107

Codec:

MP2 (MPEG audio layer 2)

Sample rate:

48000

Channels:

2

Channel layout:

stereo

Base time:

1/90000

Bitrate:

192000

Tags:

language: eng

START TASK TASK SETUP

START TASK TASK SETUP

STOP TASK CANCEL TASK SETUP SAVE TASK SETUP

Zdrojová IP adresa *

232.232.66.3

Zdrojový port

5004

LOAD INPUT DATA

Zdrojový audio kanál *

105

Source video channel *

101

- Destination IP address and port
- Output video and audio PID
- Input and output interface (ETH1/ETH2)

CODEC SETUP

- Video codec (H264/H265)
- Video resolution
 - 1080p FULL HD (1920x1080)
 - 720p HD (1280x720)
 - 576p (720x576p)
 - 480p SD (640x480)
 - 480p SD (720x480p)
 - 360p (640x360)
- Video ratio (16:9, 4:3)
- Video profile (Baseline, Main, High for H264, Main for H265)
- Video framerate (for NTSC - 30 fps, for PAL - 25fps)
- Video bitrate
- Audio codec (AAC)
- Audio samplerate (48000/44100)
- Audio bitrate
- TTL

Once you have set these parameters, you need to save the task setup. The task should be initialized automatically after saving.

The screenshot shows a task configuration window for a task named 'HBO' with a status of 'RUNNING'. The interface is divided into two main sections: 'BASE SETUP' and 'CODEC SETUP'. The 'BASE SETUP' section includes fields for Task title (HBO), Slot (Auto), Source IP address (232.232.66.3), Source port (5004), Source audio channel (105), Source video channel, Destination IP address (10.250.12.92), Destination port (5100), Output video PID (101), Output audio PID (102), and Input interface (FT141). There is a 'LOAD INPUT DATA' button. The 'CODEC SETUP' section includes dropdown menus for Video codec (H265), Video resolution (1080p FULL HD (1920x1080 - 16:9)), Video profile (Main), Video framerate (25 FPS), Video bitrate (3500), Audio codec (AAC), Audio samplerate (48000), Audio bitrate (192), and TTL (64). At the top right of the 'CODEC SETUP' section, there are buttons for 'STOP TASK', 'CANCEL TASK SETUP', and 'SAVE TASK SETUP'.

You can reset the set job and clear the entered data with the CLEAR AND RESET TASK.

The screenshot shows a task configuration window for a task named 'TASK 3' with a status of 'NOT CONFIGURED'. The interface is divided into two main sections: 'BASE SETUP' and 'CODEC SETUP'. The 'BASE SETUP' section includes fields for Task title (TASK 3). The 'CODEC SETUP' section includes a dropdown menu for Video codec (H264). At the top right of the 'CODEC SETUP' section, there are buttons for 'CANCEL TASK SETUP' and 'SAVE TASK SETUP'. A red circle highlights the 'CANCEL TASK SETUP' button, and a tooltip 'Clear and reset task!' is visible below it.

The task may have a status (running - the task is started, initializing - the task is initialized, stopping - the task is disabled, disabled - the task is disabled, not configured - the task is not set)

The screenshot shows a list of tasks with their status and action buttons. The tasks are: 1. TASK 1 (STATUS: STOPPING), 2. TASK 2 (STATUS: DISABLED), 3. TEST (STATUS: INITIALIZING), 4. TASK 4 (STATUS: NOT CONFIGURED), 5. TASK 5 (STATUS: NOT CONFIGURED), 6. TASK 6 (STATUS: NOT CONFIGURED), 7. TASK 7 (STATUS: NOT CONFIGURED), 8. TASK 8 (STATUS: NOT CONFIGURED), and 9. HBO (STATUS: RUNNING). Each task has a 'TASK SETUP' button. The 'TEST' task is highlighted in yellow. The 'HBO' task has 'STOP TASK' and 'TASK SETUP' buttons.

USERS

Users

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Home System Transcoding Users

Users List Add

ID	NAME	
1	Admin Admin	antik@antik.sk

This section is for adding users and setting / editing / creating roles.

List

The user list provides information about their ID, user name, email, last login, and whether they are active or logged in.

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Home System Transcoding Users

Profile Logout

Logged in: Admin Admin

ID	NAME	EMAIL	LAST LOGIN	ACTIVE	LOGGED IN
1	Admin Admin	antik@antik.sk	2019-02-27 13:28:44	✓	✓

TOTAL: 1 ROWS SHOW PER PAGE: 20 ROWS

You can edit an existing user by clicking on the name in the list.

Add

In the new or editing settings of an existing user, it is necessary to set their login, first name and last name, email, password, language (in which the user interface will be), activate or deactivate the user and assign one of the roles.

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Home System Transcoding Users

Profile Logout

Logged in: Admin Admin

USER EDIT

USER INFORMATION:

User login *
admin

Name
Admin

Surname
Admin

Email *
antik@antik.sk

Password

Language
English

☒ Active

ROLE ASSIGNMENT:

☒ SuperAdmin
☐ Administrator
☐ Monitoring

* - REQUIRED FIELDS

Cancel Save

ROLES

List

The role list is information about the role name and its description. On the right side there are icons for editing and deleting a single role.

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Home System Transcoding Users

Profile Logout

Logged in: Admin Admin

ID	ROLES	DESCRIPTION
1	SuperAdmin	
2	Administrator	Main admin
5	Monitoring	For monitoring tasks and modules

TOTAL: 3 ROWS SHOW PER PAGE: 20 ROWS

Click the role name, icon (i), or clicking on Add section to edit the role.

Add

ROLE INFORMATION:

Text ID *
ADMIN

Role name *
Administrator

Description
Main admin

ROLE PERMISSIONS:

MODULE/GROUP	VIEW	ADD	EDIT	REMOVE	ALL
global	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
configuration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Home	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
account	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Users	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Users	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Roles	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

* - REQUIRED FIELDS

Cancel Save

It is necessary to set the text ID, role name and role permissions in certain sections (view, add, edit, remove in specific section) The logged-in user can edit his / her profile and data (Login, Name, Surname, Email, Language, Password).

My Account

Login: admin

Name: Admin

Surname: Admin

Email: antik@antik.sk

Language: English

Password (current):

Password (new):

Password (new again):

Cancel Save

FAQ

1. How do I select a sound track for output?

After entering the source IP address and port, you need to load the source data by clicking LOAD INPUT DATA where you will see the input stream information where you can select the sound track by clicking on checkbox. (see picture on page 7)

2. How i rewrite PIDs for output?

Transcoding - Task setup – Ouput video and audio PID

3. Can I increase the resolution at the output?

It is not possible to transcode to a higher resolution than the input.

4. Can I reduce the data flow on the output?

Transcoding - task setup - codec setup

- a) change video codec to H265
- b) decrease video and audio bitrate

5. How to reload just one of the tasks on the module?

- a) On the home page, click the reload icon for the task. (see picture on page 4)
- b) When setting a task in the transcoding section - saving the task (SAVE TASK SETUP icon) (see picture on page 8)

6. It seems to me that one of the modules incorrectly transcode the stream. How can i use another module with same task setup?

- a) If the module transcode incorrectly, you can reboot module.
- b) If you want switch configuration of task to another module: Transcoding - Task setup - Slot (choose another module)

7. How do I get to a log file if I do not have access to SSH?

System - System details - System log - Select logfile (see picture on page 5)

8. What is the maximum resolution for the input stream?

4k (3840x2160)

9. What is the maximum number of output streams?

Maximum 24x 1080p or 24x 720p (If source stream is in 4k - then 12x output stream)

10. Does the device support Dolby audio codec too?

Unfortunately the device does not support Dolby audio codec.

11. What if I do not see any input data?

Check that the IP address and port are correct, check that see the IP address coming to the transcoder.

12. How can i play the output stream?

Set up in Transcoding - Task setup - Destination IP address and port (In a case you want to use unicast, the destination IP = IP address your PC) or multicast (If your PC can see multicast) and than play in VLC (e.g. unicast udp://@:(your chosen port) or multicast (udp://(multicast IP):(port)

13. What is the maximum bitrate on input and output?

For standard network settings, the theoretical throughput for one ethernet is 850 Mbit/s - input/output and for 2x ethernet version is 850 Mbit/s on input and 850 Mbit/s at output.

14. Can I use pass through function on video or audio?

At the time of creating the manual, this function is not available.

The firmware of this device is subject to continuous development and not all of the features described in this manual must match the current state.