NetUP Stream Processor

A powerful media server for working with online streams

The third generation of NetUP solutions for working with online streams, from converting formats of broadcasting to transcoding and tie-in graphics with maximum performance.

Transcode, transrate, resize

NetUP MultiMedia Processor is a high-performance MPEG-transcoder, that allows to process up to 50 streams of standard resolution (SD) or up to 12 streams of high (HD) resolution, by changing their bitrate, resolution or video and audio codecs. You can create a mosaic channel consisted of several streams, embed text (subtitles, current time) or images.

IP repeater

Allows receiving any IP streams from cameras, encoders, videoconferences, VoD, third-party providers or from the Internet by UDP (SPTS, MPTS), RTP, RTSP, RTMP, HTTP Progressive, HLS, MPEG-DASH, SRT protocols and retransmitting them with a change of their format and without. Thus, using one device it is possible to provide a content for any user devices - STBs, mobile devices, smart TV and others. UDP broadcasting with minimal jitter allows you to broadcast TV channels in DVB-networks.

TV show archive

NetUP MultiMedia Processor allows you to record a streaming broadcast on embedded or external storage with subsequent access to records. Also, you can place your own videos and movies and broadcast them by creating your own TV channel.

Ultra HD Ready

Due to the support of resolutions up to 3840x2160 and the modern HEVC codec (H.265) NetUP MultiMedia Processor will be relevant for many years.

HIGHLIGHTS

- **Rackmount,1U**
- **Any-to-any - broadcasting from any sources to any receivers**
- **MPEG-2, MPEG-4 AVC, HEVC**
- **API for monitoring and managment using third party systems**
- **Web-based managment interface**
- **AAC, MP2, MP3, AC-3**
- **AES-scrambler**
- **Embedded storage**

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Specifications

Supported formats and codecs	For input streams	For output streams
Protocols	UDP, HLS, DASH, HTTP progressive, RTP, RTSP, SRT	UDP, HLS, DASH, HTTP progressive, RTMP Publish, SRT
Media containers	MPEG-TS, Mp4	MPEG-TS, MP4
Audio codecs	AAC, MP2, MP3, AC-3	AAC, MP2, MP3
Video codecs	MPEG-2 (H.222/H262; baseline, main, high) up to 2048x2048 AVC (H.264; baseline, main, high) up to 4096x2304 HEVC (H.265; main) up to 8192x8192	MPEG-2 (H.222/H262; simple, main) up to 1920x1080 AVC (H.264; baseline, main, high) up to 4096x4096 HEVC (H.265; main) up to 4096x2176
Deinterlacing	none, BOB, ADI	none, BOB, ADI
Interfaces		Number of ports
Gigabit Ethernet 10/100/1000 (RG45)		4
VGA		1
USB 3.0		2
Console port RJ-45 (8P8C)		1
Power plug C14		1
Main technical data		
Dimensions (no more)		430 x 428 x 45 mm
Weight (no more)		10 kg
Ambient operating temperature		+15…+35°C
Operating Rel. Ambient humidity		Up to 80% (at 25°C)
AC Power	number of phases: 1, voltage: 220-240V, frequency: 50 (±1) Hz, current (no more): 1.5	

Functionality and purpose
Demultiplexing MPTS
Broadcasting
Profiling and preparing adaptive HLS
Changing broadcast protocols
Creating a mosaic
Overlay graphics, animation, running text
Choice of elementary streams
Broadcasting from files with playlist creation*
Converting teletext subtitles to webvtt
Archive recording (CatchUP, Timeshift)*
AES scrambling*

* Additional functionality.
Not included in the base software license

- **Intel QuickSync based transcoding**
- **1U rack mount server platform**
- **Modular software based on NetUP SystemOS**
- **Reuse of resources**
- **GraphQL API support**
- **Fully-functional web interface**

Performance for fast profile
up to 60SD/14HD channels transcoding to MPEG-2
up to 50SD/12HD channels transcoding to AVC
up to 30SD/6HD channels transcoding to HEVC
processing up to 150 channels of audio in AAC