

## LIVE STREAM TRANSCODER FOR MPEG 2 & H.264 VIDEO AND WEBRADIO

### PRODUCT DESCRIPTION

MC-TRANS is a live stream transcoder platform for IPTV headends, OTT broadcast channels and mobile streaming. MC-TRANS converts HD/SD streams to any H.264 or MPEG-2 format, bitrate and resolution. It supports transport streams and Apple's HTTP Live Streaming (HLS) protocol for video streams. Additional internet radio streams can be accessed and transcoded to MPEG-TS, HLS. MC-TRANS software can be installed on your own server or virtual hardware and can also be deployed in the cloud. Additionally an 19", 1RU turnkey transcoding appliance is available.



### KEY FEATURES

- H.264 & MPEG-2 live transcoding
- Scalable software-transcoding
- Baseline, main profile & high profile with variable GOP
- Downscaling, upscaling & de-interlacing
- Logo, time & text inserter & overlays
- Adjustable framerate (6 - 60fps)
- HLS for iOS devices, Android & Google TV
- Unicast/Multicast with TS over UDP/RTP
- Support for multiple IP ports for in, out, management
- Remote configuration via SOAP
- Easy configuration via Web GUI

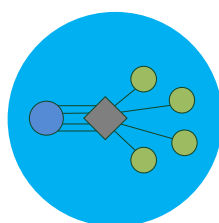
### APPLICATION

- IPTV live stream transcoding
- OTT internet broadcasting
- Transcoding for multi-screens and -devices
- Transcoding for mobile clients
- HD to SD conversion
- H.264 to MPEG-2 for legacy STBs
- Webradio transcoding to IPTV

## APPLICATION



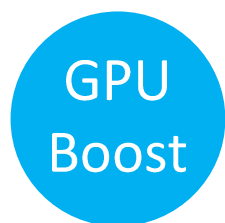
H.264 & MPEG-2



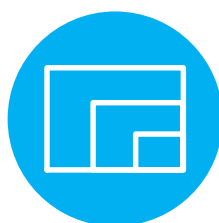
Unicast & Multicast



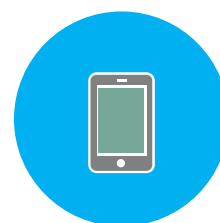
Webradio



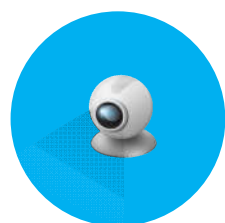
GPU Acceleration



Scaling



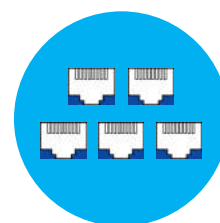
HLS Streaming



RTSP/RTP



Logo, Time & Text  
Inserter



Multi Network  
Interface

## TECHNICAL SPECIFICATION:

### MC-TRANS SOFTWARE :

Input protocol:	TS over UDP, TS over RTP, RTSP/RTP, Icecast, Shoutcast
Input video codec:	MPEG-2, H.264
Input audio codec:	MPEG-1/2, AAC, Dolby AC-3 pass through
Output protocol:	TS over UDP, TS over RTP, HLS, TS over HTTP
Output video codec:	MPEG-2, H.264
Output audio codec:	MPEG-1/2, AAC
Video encoding:	H.264 (MPEG-4 AVC Part 10, ISO/IEC 14496-10). Baseline, main profile, high profile MPEG-2 (ISO/IEC 13818-2), main profile, high profile
Video encoding bitrates:	250Kb/s – 20Mb/s, CBR/VBR
Video resolutions:	320x240 up to 1920x1080 (1080p)
Audio encoding:	MPEG-4 AAC, data rate 6-256 kbit MPEG-1 Layer 2, data rate 64-384 kbit sample rates: 48 kHz, 16Bit
Multiplex format:	ISO/IEC 13818-1 transport ISO/IEC 14496-10 NAL (Network Abstraction Layer)
IP protocols:	HTTP, TCP/IP control protocol, UDP/RTP streaming, IGMP, SAP, unicast/multicast, SNMP traps, DHCP
Insertion & overlay:	BMP logo, text and date/time
Scaling:	Up- and downscaling from 320x240 to 1920x1080, adjustable frame rate divider
Frame rate:	Adjustable frame rate from 6 – 60 fps
Management:	HTTP web browser, SNMP traps, SOAP web service Teracue framework protocol (AMX & Crestron support)

### SYSTEM REQUIREMENTS:

Web server:	IIS 6
CPU:	Intel Core i5 and higher, best Intel Core i7 5th or 6th Generation, with Intel Pro Graphic Card
RAM:	4 GByte
HDD:	64 GByte
Network interfaces:	1GbE or 10GbE
Operating system:	Microsoft Windows 7/8.1/10 Following windows components are needed: - Internet Information Services v6.0 or higher with version 6.0 compatibility - NET Framework v3.5 or higher - NET Framework v4.5

### MC-TRANS HARDWARE PLATFORM:



## SPECIFICATIONS OF MC-TRANS-1RU:

CPU:	Intel core i7 6th Generation with Intel Pro Graphic Card
RAM:	8 GByte
Performance:	up to 18x SD MPEG-2 → SD H.264 Main Profile up to 8x HD 1080i H.264 → 1080i H.264 High Profile
Operating System:	Win 10 Pro, 64bit
Network:	2x 10/100/1000TX Ethernet, RJ45, half/full duplex, auto-sensing or manual control

## ENVIRONMENTAL:

Chassis:	19", 1 RU
Dimensions:	43 x 482 x 407 mm (HxWxD)
Weight:	6,15 kg
Temperature:	+5 to +60°C environmental temperature
Agency approvals:	CE RoHS
Power supply:	260 Watt PSU, typical 120 Watt, 100-240V, 47-63 Hz
Limited warranty:	1 year standard limited warranty. Warranty extensions available up to 5 years.

## ORDER INFORMATION:

MC-TRANS-1RU	1RU rack mount IPTV transcoder with single power supply (for redundancy add 1RU-EXT-PS) and with preinstalled MC-TRANS software. Requires MC-TRANS license.
MC-TRANS-BASIC	MC-TRANS license for 1 channel transcoder. Requires MC-SWMAIN for first 12 month of installation.
MC-TRANS-SW-EXT	MC-TRANS software license for the extension of 1 additional transcoding channel.
MC-SWMAIN	Annual software maintenance for MultiCoder. Free upgrades, same version number and eMail support.
1RU-EXT-PS	Power supply for MC-TRANS-1RU appliance. Can be used as a spare part or for redundancy. Single 90-240V AC, 50/60 Hz power supply.

## COMPLEMENTARY PRODUCTS:

MC-ROUTE-1RU	1RU rack mount IPTV stream router with single power supply and with preinstalled MC-ROUTE software. Requires MC-ROUTE license.
DMM-220-S2	DVB board for IPTV streaming, re-multiplexing and MPEG-2/H.264 decoding. 2 x DVB-S/S2 in and up to 32 TV channels over IP out. ASI, HDMI and analog AV outputs.
ENC-300-DVI	MPEG-4 AVC H.264 DVI encoder blade with DVI/HDMI input (with embedded audio).
ENC-300-HDSDI	MPEG-4 AVC H.264 SD/HD encoder blade with SD/HD SDI input (with embedded audio) and Composite, S-Video (Y/C), Component (YPbPr) or analog VGA (RGB) input.
ENC-400-HDMI	H.264 and MJPEG HD/SD encoder board with HDMI input, loop through outputs and USB recording.
ENC-400-HDSDI	H.264 and MJPEG HD/SD encoder board with HDSDI input, loop through outputs and USB recording.
ENC-500-HDMI	H.265 and H.264 HD/SD portable encoder device with HDMI input, available in Q3 2016

\* Note: Some features to be introduced with upcoming upgrades