StreamCast

Network Encoder and Streamer

OVERVIEW

StreamCast is a single-channel encoder and streamer for cost-effective video and audio processing. It supports professional encoding, modulation and IP streaming for a variety of applications such as live encoding and uploading, MDU/hospital/hotel channel insertion, live meeting broadcasts, ad/local program playback, security camera transmission, digital signage and more. With a web interface suitable for mobile devices and a built-in Wi-Fi access point, the StreamCast is easy to access and control and is the perfect tool for many different field and fixed applications.

There are a variety of models with different input and output combinations to match any use case. The inputs include HDMI, CVBS, YPbPr, SDI and USB, while the outputs are IP multicast/unicast/HLS/RTMP/RTSP, USB and QAM modulated cable channels.

The StreamCast is an easy-to-use device that enables users to quickly setup streaming and channel modulation. Its variety of input and output options and low price make it a perfect solution for a significant number of modern video delivery applications.
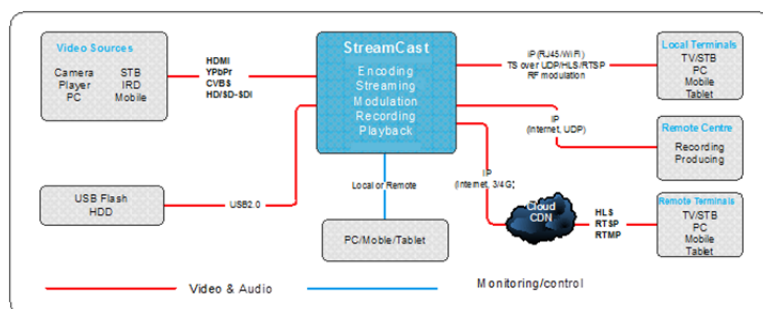
KEY FEATURES

- Compact, all-in-one design
- H.264 SD/HD and MPEG2 SD quality video encoder
- MPEG, AAC and AC3 audio encoding
- Rich IP streaming protocol support including UDP/RTP multicast or unicast, HLS-OTT, RTMP and RTSP
- QAM Annex A/C digital cable RF output
- Built-in Wi-Fi access point for web interface and for streaming
- Web interface designed for access by mobile phone browsers
- Front panel screen with status, setup and control capabilities
- Recording to and streaming from USB flash drives
- Integrated 3G/4G USB dongle support (coming soon!)

ORDERING INFORMATION

Module	Interfaces	Description
WAV-NB100-A1	HDMI, CVBS and YPbPr Input. RJ45-IP Output. 2x USB	Basic version with HDMI/AV encoding
WAV-NB100S-A1	SDI, HDMI, CVBS and YPbPr Input. RJ45-IP Output. 2x USB	SDI advanced version

NB100
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SPECIFICATIONS

CHANNELS

Video	1 channel of H.264 HD/SD or MPEG-2 SD program encoding
Audio	1 pair of MPEG1L2, AAC or AC3 audio

PHYSICAL INTERFACES

Input	1 x HDMI (v1.4)
	1 x YPbPr (3.5mm adapter cable included)
	1 x CVBS (3.5mm adapter cable included)
	1 x HD/SD-SDI (NB100S and NB100P1 only)
	1 x RF In (NB100P1 only, for local QAM insertion)
Output	1 x RJ45
	1 x RF Out (NB100P1 only)
Other I/O	Embedded Wi-Fi (for wireless accessing and data transmission)
	2 x USB2.0 (Storage and 3G/4G dongle)
Control	LCD x 1, front button x 3, Reset button x 1

ENCODING

H.264/AVC Profile (4:2:0)	SD: MP/HP@L3.0/3.1/3.2
	HD: MP/HP@L4.0/4.1/4.2
MPEG-2 Profile (4:2:0)	SD: MP@ML
Resolution	HD: 1920 x 1080@25p/30p/50i/60i, 1280 x 720@50p/60p
	SD: 720 x 576@50i, 720 x 480@60i
	Sub-SD resolutions
Rescaling	HD to SD down-conversion
Video Bit-rate	MPEG-2 - 800 kbps ~ 14 Mbps
	H.264 - 800 Kbps ~ 14 Mbps
Rate Control	CBR/VBR
GOP Control	Supported
Aspect Ratio	Automatic or Manual (4:3 or 16:9)
Aspect Processing	Letterbox/Cropping
Audio Profile	MPEG-1 Layer II, AAC (HE/LC), AC3
Audio Bit-rate	MPEG-1 Layer II: 64 - 384 Kbps
	AC3: 32 - 504 Kbps
	AAC: 32 - 504 Kbps
Audio Mode	Stereo (2.0, including down-mix)
Audio Sampling Rate	48 KHz
Audio Volume Leveling	0-8 dB

STREAMING

Video	Live: UDP/RTP, RTSP, RTMP, HLS
	Off-line: WebDAV, FTP
Server Mode	Direct streaming to connected devices (Wi-Fi or RJ45, limited number of connections supported)

MODULATION

Standards	QAM, Annex A/C
Output Range	48 - 862 MHz
Constellations	16/32/64/128/256 QAM
Symbol Rate	4.4 - 6.952 Ms/s

OPERATING MODES

Live	Encoding and IP streaming
	Encoding and RF output
Recording	Local: USB HDD, USB flash, storage card reader via USB
	Remote: FTP and NAS (future options)
	Format: TS
	Record looping (by time or size of file)
Playback	Local: USB HDD, USB flash, storage card reader via USB
	In-order, random, scheduled playlist
	IP or RF output

MANAGEMENT

Configuration	Web-GUI (easy or advanced mode) or front panel
	Power-on and play (by preset or last configuration)
Status/Monitoring	LCD display of status
	Remote monitoring of status and current program

MANAGEMENT

Dimensions	144 x 118 x 38 mm (5.6"x4.6"x1.5")
Weight	0.3 Kg (0.66 lbs)
Power	DC1: 12V DC port x 1 (Power adapter included)
	DC2: micro USB x 1
	(Warning: Both DC ports can't be connected simultaneously)
Operating Temperature	10° – 40° C