Blonder Tongue ENCODERS

STEP Series

Scalable Transcoder-Encoder Platform

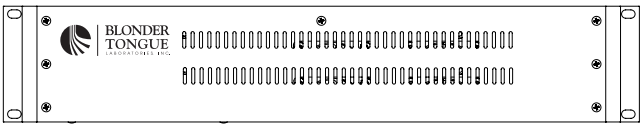
MPEG-2 to H.264, HD to SD, Adaptive Bit-rate

SOLUTIONS FOR ALL YOUR APPLICATIONS

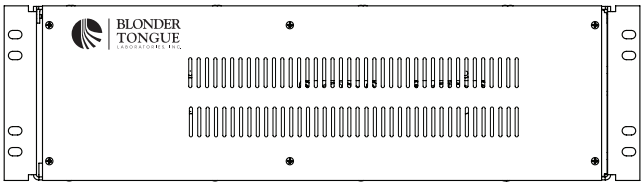
STEP is capable of performing high-quality HD/SD MPEG-2 or H.264 encoding, HD/SD MPEG-2 to H.264 and H.264 to MPEG-2 transcoding, HD to SD downscaling, as well as creating Adaptive Bit-Rate live profiles supporting HTTP streaming protocols HLS, HDS and IIS for any-screen video delivery.

The STEP is a 1RU, 2RU, or 3RU integrated system to perform video processing in a scalable manner to meet the latest video requirements and migrate to next generation video network architecture. The STEP can support multiple video quality encoding bit-rates, multiple audio formats, and text scrolling. STEP is compatible with any industry media server, digital rights managed software, and can be easily integrated into CDN providers to deliver a solution based on customer needs.

STEP-1



STEP-2



STEP-3

Key Features

- SD/HD MPEG-2/MPEG-4 (H.264) to SD/HD MPEG-2/MPEG-4 (H.264) transcoding
- Adaptive stream (HLS/HDS/IIS) encoding and segmentation
- Motion compensated high-quality format conversion
- HD to SD conversion
- Multi-channel audio support
- Text scrolling support
- CALM/ALC support
- DVB subtitling support

Extras & I/O Options via PCIe Cards

- CALM - per channel stereo
- CALM - per channel 5.1
- Text scrolling feature per channel (SD and HD)
- HDMI input (in the clear) per port
- SD/HD-SDI input/output per port
- ASI input/output per port
- 8VSB/QAM input per channel
- CVBS input per channel

Optional Features

- Analog inputs support
- Delay inserter
- 8VSB and clear QAM input
- PIP support
- Pro MPEG FEC COP3

Ordering Information

						PCIe Slots		Encoding/Transcoding MPEG-2/AVC		
Model	**Stock #**	**Platform**	**Power Supply**	**Nodes**	**CPU**	**Full**	**Low**	**Through-put**		
								SD-to-SD	**HD-to-SD**	**HD-to-HD**
STEP-1-S	6531 S	1RU	Single	X	1	2	X	16	10	4
STEP-1-D	6531 D	1RU	Dual	X	1	2	X	16	10	4
STEP-2-S1N	6532 S1N	2RU, Single Node	Single	1	2	4	2	10	8	3
STEP-2-D2N	6532 D2N	2RU, 2 Node	Dual	2	4	4	0	30	16	6
STEP-2-D4N	6532 D4N	2RU, 4 Node	Dual	4	8	0	4	60	32	12
STEP-3-D12	6533 D12	3RU, 12 Node, 12 CPU	Dual	12	12	X	X	192	128	48
STEP-3-D24	6533 D24	3RU, 12 Node, 24 CPU	Dual	12	24	X	X	384	256	96

Rev: 013015

Specifications

Compression Standards

Video **MPEG-2:** **MPEG-4 AVC/H.264:**	 Simple, Main, and 422P Profile up to High Level Baseline, Main, and High Profile up to Level 4.2 HD
Audio	Multiple programs per channel MPEG-1 layer 2 MPEG-2 layer 3 (mp3) MPEG-2/MPEG-4, AAC-LC, AAC-HE Dolby® Digital E, AC-3 pass through Sampling Freq 32, 44.1, 48 kHz

Resolutions & Frame Rates

Flexible:	Mobile to HD 1080p60 (mix & match resolutions)
Example Common Resolutions	576i and 480i x 720, 544 and 352 pixels @ 25, 29.97 and 30 Hz 1080i x 1920, 1440, 1280 and 960 pixels @ 25, 29.97 and 30 Hz 720p x 1280, 960 and 640 pixels @ 23.976, 50, 59.94 and 60 Hz 1080p x 1920,1440,1280, and 960 pixels @ 23.976, 50, 59.94, and 60 Hz (1080p60 is feature upgrade option)

Processing

Audio/Video/Transport:	Cropping/Scaling (manual or AFD) Single in – multi-out (option)(e.g. PIP) Noise Filtering (option) 0 to 24 hour delay inserter (option) COPv3 FEC Decode/Encode (option) Audio Level Control
Format Conversion:	PAL/NTSC to NTSC/PAL 50i/25p to/from 60i/30p 50p to/from 60p

Transcoding:	Full decode/full re-encode mode Scene Change Detection and I frame insertion Fixed and Dynamic GOP Structures

Rate Control:	CBR VBR Capped VBR Single and Multi-pass modes

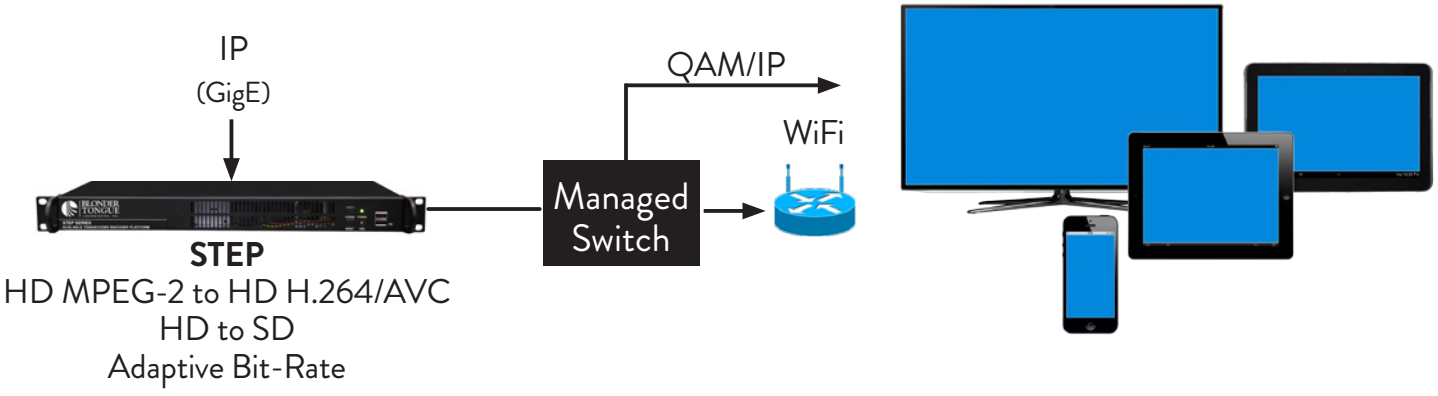
Input/Output

Bit Stream Formats:	IP/UDP/MPEG2-TS IP/UDP/RTP IP/UDP/RTP/MPEG-TS MPEG-TS (ASI) VSB and Clear QAM inputs (optional PCIe cards) – 2 channels/slot
Interfaces:	IP ASI (option) Analog input (option)
Configuration & Management:	Embedded web-server interface SNMP Control

TRANSCODING & LIVE STREAMING

BT'S STEP SERIES.....MULTI-SCREEN

Scalable Transcoder-Encoder Platform



STEP
HD MPEG-2 to HD H.264/AVC
HD to SD
Adaptive Bit-Rate

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