



Blonder Tongue

STEP Series

Scalable Transcoder-Encoder Platform
MPEG-2 to H.264, HD to SD, Adaptive Bit-rate

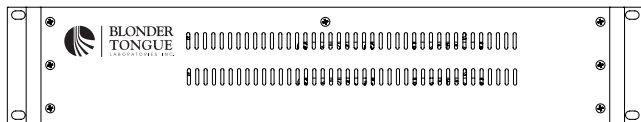
SOLUTIONS FOR ALL YOUR APPLICATIONS

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.

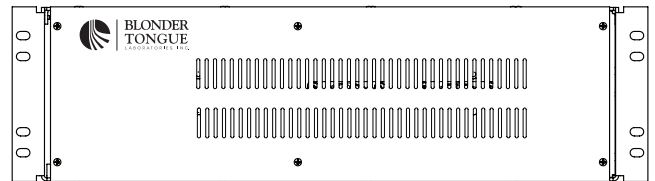
The STEP is a 1RU, 2RU, or 3RU integrated system to perform video processing in a scalable manner to meet the latest video requirements and migrate to next generation video network architecture. The STEP can support multiple video quality encoding bit-rates, multiple audio formats, and text scrolling. 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

| Model | Stock # | Platform | Power Supply | Nodes | CPU | PCIe Slots | | Encoding/Transcoding MPEG-2/AVC | | |
|------------|----------|----------------------|--------------|-------|-----|------------|-----|---------------------------------|----------|----------|
| | | | | | | 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 |

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 |

| | |
|---------------------|---|
| 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 |
|----------------------|---|

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

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|-------------------------------|---|
| 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 |

Input/Output

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|--|---|
| 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

