Ice Blue

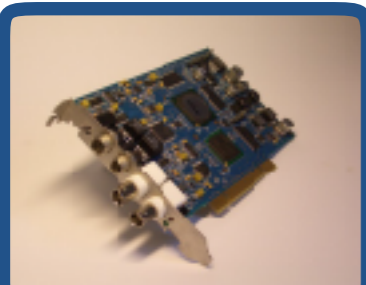## *driving tomorrow's vision today*

Key Features

- SDI In/out
- Composite in
- Embedded Digital Audio in/out
- Balanced Audio in/out (XLR)
- Digital AES/EBU (XLR)
- MPEG1, MPEG2, MPEG4
- Desktop Streaming
- Built-in Time Base Corrector
- Digital inlay
- Real-time Transcoding
- Decode whilst encode
- Video Loop-through
- VTR Control
- Text/graphics overlay
- pre-conditioning
- DirectShow and Linux SDK
- ISMA Compliant
- Quicktime compatible

Today's communications market demands future-proofing, and solid solutions built on firm technical foundations.

Robust products, ease of integration, value for money and great support are what's required by system integrators. Breeze Technologies MPEG encoder solutions meet these criteria, and more.

Ice Blue is a high-end broadcast and production encoder/decoder that enables MPEG1, 2 and 4 encoding and decoding with a mix of SDI, composite, digital AES, balanced and embedded audio inputs and outputs.

Ice Blue is an ideal solution for digital signage, with it's ability to stream the desktop or incorporate PowerPoint and web-based applications. The video input can be combined with the desktop to re-purpose content. This feature makes a cost effective signage system.

The product supports the creation and playback of Transport, Program, System and MP4 files.

It is already being used in applications for Compliance and Archive recording, Corporate Television Distribution and providing real-time ingest to video servers, including Darwin Streaming Server.

The powerful feature of real-time transcoding brings cutting edge performance for re-packaging and re-purposing of content. This allows your existing MPEG2 content to be converted to MPEG4 in real-time.

Ice Blue delivers the reliability, functionality and standards needed in today's and tomorrow's communication industries.

Software in the form of free issue SDKs for Windows and Linux, PowerStream (supplied), PowerStream Enterprise Edition (multi-encoder control and management) and online support is available to system integrators and developers. PowerStream is based on DirectShow architecture.

ICE BLUE Technical Specification

Video Input
- SDI, Composite, PAL/NTSC

Audio Input
- Embedded digital,
- Balanced (XLR)
- AES/EBU (XLR)

Video Encoding
- MPEG1, MPEG2, MP@ML
- MPEG4, SP@L1, L2 and L3 with extensions to full D1 interlaced video
- Scene change detection
- Adaptive field/frame motion compensation and DCT type
- Inverse telecine (3:2 pulldown) (NTSC only)
- Motion estimation +/- 127 pels h, +/- 63 pels v.0.5 pels accuracy
- Fixed (25 PAL, 29.97 NTSC) and variable frame rates
- 128kbps - 15Mbps
- Horizontal resolution 128 - 720 pixels in 16 pixel steps
- Fixed resolutions of QSIF, SIF, HDI, 2/3D1, 3/4D1, FD1, for NTSC and PAL
- Programmable GOP structure and length: I, IP, IPB and IBBP
- Low latency
- Multi-board support

Graphics
- 32bit 720 x 576 and 720 x 480

Audio Encoding
- MPEG1 layer I and II
- MPEG1 layer 3 (MP3)
- AAC and AC-3
- Sampling frequencies 32, 44.1, 48 and 96kHz
- Bits per channel: 16, 20, 24

Multiplexing
- Single channel
- MPEG1 system stream
- MPEG2 Program Stream or Transport Stream
- MPEG4 encapsulated in MPEG2 Transport Stream
- PES and ES output
- ISMA Compliant and MP4 file format compliant, including hinting

Video Input Conditioning
- Selectable pre-filtering
- Contrast, saturation, hue, gamma control

Transcoding
- MPEG2 to MPEG4
- MPEG4 to MPEG2

Video Output
- SDI

Audio Output
- Balanced Analogue stereo
  Embedded digital

Video Decoding
- MPEG1, 2 and 4
- 7-tap horizontal and 2-tap vertical filter
- Letterbox conversion
- 3:2 pulldown
- Closed caption and teletext

Audio Decoding
- MPEG1 layer I and II
- MPEG1 layer 3 (MP3)
- AAC and AC-3
- Sampling frequencies 32, 44.1, 48 and 98kHz
- Bits per channel: 16, 20, 24, 32

Demultiplexing
- System, program and transport stream

Graphics
- Background and Video plane
- 2 x 32 bit alpha-blending (RGB and YUV)
- 2, 4 or 8 colour indexing
- per-pixel transparency
- Deflicker filtering

Power Consumption
- 2w @ + 5 VDC
- 9w @ + 3.3 VDC

Standards Compliance
- CE and FCC approved
- ISO /IEC 14496 and ISO/IEC 13818 compatible

System Requirements
- Win XP, 2000, NT4
- Red Hat 7, Red Hat 9

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