

Deep Blue

driving tomorrow's vision today



Key Features

- Deep Blue
 - SDI
 - Embedded digital audio
 - Balanced audio
 - MPEG4
 - MPEG1, 2
- Lite Blue
 - Composite
 - S-Video
 - Un-balanced audio
 - MPEG 4
 - MPEG1, 2

Universal Features

- Decode whilst encode
- Video Loop-through
- Text/graphics overlay
- colour bars (on/off)
- on-board TBC
- input loss warning
- pre-conditioning

Future-proofing for tomorrow's communications market, and solid solutions built on firm technical foundations are demanded by today's users .

Robust products, ease of integration, value for money and great support are what's required by system integrators.

Breeze Technologies universal MPEG codec solutions meet these criteria, and more.

BLUE, (Breeze Line of Universal Encoders), enables MPEG1, 2 and 4 codec capability in real time with a mix of SDI, composite and S-Video.

Decode whilst encode, video loop-through, internal sync, time-based-correction and text overlay are all available on a single PCI card designed to deliver the highest degree of confidence, flexibility and resilience within today's and tomorrow's multi-channel digital broadcast, network and archive systems.

Deep Blue is a broadcast and production encoder/decoder that provides SDI and composite video input/output and digital and balanced audio.

Lite Blue is a general purpose broadcast, corporate and institutional encoder/decoder that offers composite and S-Video input/output and unbalanced audio.

Each delivers the reliability, functionality and standards to meet today's and tomorrow's communications system needs.

Software in the form of free issue SDKs, 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.

BLUE Technical Specification

Video Input

- Deep: SDI, Composite, PAL/NTSC
- Lite: S-Video, Composite, PAL/NTSC

Audio Input

- Deep: Embedded digital, balanced
- Lite: Unbalanced stereo (line) input (2 x phono)

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

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

Video Input Conditioning

- Selectable pre-filtering
- Time Base Correction
- On Screen Display, burnt-in or overlay text or graphics
- Colour bars
- Contrast, saturation, hue, gamma control

Video Output

- Deep: SDI, Composite
- Lite: S-video, Composite

Audio Output

- Deep: Balanced analogue stereo, embedded digital
- Lite: Unbalanced analogue stereo line (2 x phono), monitor out (3.5 mini jack)

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