



MPEG Digital Video Player & Network Appliance

Overview

The edje is a hard drive based digital video player and network appliance. Designed for integration into global multimedia networks, it facilitates dynamic MPEG and Bitmap audiovisual presentations without the use of a personal computer. The built-in On Screen Display (OSD) feature allows rendered 24 Bit BMP overlays up to full screen resolution with alpha blending supporting NTSC and PAL. The OSD crawl feature facilitates a scrolling text message that greatly increases the impact of the MPEG playback. OSD images and MPEG media can be linked to provide concurrent playback within a single event. In addition to miniature size, embedded technology, its multitude of presentation features, the edje offers reliability and performance that far exceed PC solutions.

Benefits

> Synchronous Cross Channel Playback

The edje implements Adtec's unique MPEG System Time Clock (STC) mastering scheme that enable cross channel synchronous playback. The STC system functions much like linear time code (LTC) providing a mechanism for units on the same Ethernet network to lock. This scheme enables channel scalability and accuracy unmatched in the industry.

> Fabulous Streaming Video

Decode and play studio quality video. The edje plays both streaming and stored video at digital encode rates that capture five times the detail of cable TV and twice the detail of other MPEG appliances.

> Versatile Record and Playback

Record video over IP for scheduled or on-demand playback. The edje records over fourteen hours of cable TV quality video on a 20GB internal disk. The edje plays to analog TV monitors, Plasma Displays, LCD projectors via composite or Y/C outputs, and/or to networked client PCs via IP.

> Reliable Content Delivery

Distribute content globally, on time, and in budget. The edje employs push, pull and mirror strategies. It delivers multimedia overnight at a fraction of the cost of guaranteed bandwidth network solutions. Its security features include the ability to decode and play encrypted video, built-in firewall protection, absolute virus immunity, and multi-password access. For remote network control and management, use Adtec's Symphony Pro software.



> Absolute Presentation Control

Orchestrate multimedia presentations with absolute control. Connect multiple players over Ethernet for frame-accurate video playback synchronization to a group of projectors or displays. Connect the edje to a power relay to switch-on a display, verify that it works, and then keep detailed play reports. It features a multi-threaded video transport OS, a powerful scripting language, trigger-sensitive macros, and an API for control over Ethernet, RS-232 or parallel lines.

> DVB-MPE Satellite Delivery

Distribute content economically to as few as fifteen sites. Add a DVB-MPE IP receiver, and the unit can receive multicast content and commands from a satellite using Adtec's FCMP protocol. It supports single-channel per carrier (SCPC) and multiple channel per carrier (MCPC) broadcasts with QSPK demodulation and filtering for up to 64 unique packet identifiers (PIDS--support multi-group broadcasts). One router can supply multiple edje's at a facility over a LAN/WAN connection at data rates up to 45 Mbps. Shortly an edje with a built-in DVB-MPE receiver will be available.

Availability

The edje is available in an aluminum case (1.75" x 4" x 8") or as an OEM PCB component.

Applications

- Unlimited channel Synchronous playback (Video Walls and Multiple Projector applications)
- Playback of MPEG in a simple looping manner
- Playback of MPEG with a time and date based schedule
- VCR and Laser Disk replacement
- Server and PC card player replacement
- Retail signage and Point-of-Purchase advertising
- Digital Signage
- Kiosks and Interactive displays
- Education and entertainment systems
- Trade shows, Museums and Theme Parks
- Transportation systems
- IP Multicast decoding with and without storage (Professional PVR)
- IP Multicast playback (Outputs analog and IP concurrently)
- Compatible with AMX, Crestron, VDBS, Dataton, Vity and others

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FEATURES

- Broadcast quality Full D1 MPEG 2
- MP@ML decoding up to 15 Mega bits per second
- Supports Constant and Variable bit rate encoding
- Supports MPEG 1, MPEG 2 Half-D1, MPEG 2 three-quarter-D1, and MPEG 2 Full-D1
- Built in hard drive storage
- MPEG File Encryption
- Built in hard drive storage
- File playback verification
- Multiple-unit Synchronous playback (unlimited channels)
- Composite, YC video
- OSD with crawl banner
- Unbalanced analog audio
- Serial, Ethernet and Parallel control
- Robust API for developers
- TCP/IP Ethernet protocol
- FTP Server and Client (Concurrent)
- EMT (ADTEC high speed LAN Ethernet protocol)
- FCMP (ADTEC File Control Multicast Protocol for Satellite based distribution)
- Secure IP Authentication (Built-in Firewall)
- LAN and WAN support
- Supports control data distribution via the Internet
- Front panel LED status
- Supports NTSC, PAL, PALN and PALM standards
- Time Clock with NTP support
- Support for Optibase UDP Ethernet IP Multi-Cast broadcast reception
- Symphony-Net application included
- Play list and Schedule (time based) support
- Compliant with most MPEG 2 program streams
- Compliant with most MPEG 1 system streams
- Plays elementary MPEG Audio streams
- Frame Indexing
- ADTEC embedded deterministic real time operating system
- NOT PC based
- External 12 VDC power supply
- Very small (4" x 1.75" x 8")
- UL and CE certified DC power supply

(*) Please note the required encoding parameters under the specifications and check our web site for updated file support.

All features subject to change without written notice.

SPECIFICATIONS

Decoding Standards

MPEG 2 ISO/IEC 13818 MP@ML
MPEG 1 ISO/IEC 11172

Decoding Data Rates

MPEG 2 1 to 15 Mbits/s
MPEG 1 400 Kbits/s to 5 Mbits/s

Decoded Streams

MPEG 2 Program (CBR or VBR) or System
MPEG 1 System
Audio elementary requires special firmware

Pictures Structure

I, IP, IBP, GOP from 1 to 15

Video Resolution NTSC

Horizontal: 720, 704, 640, 480, 352
Vertical: 480, 240
Color Frequency: 3,579,545 Hz

Video Resolution PAL

Horizontal: 720, 704, 640, 480, 352
Vertical: 576, 288
Color Frequency: 4,433,618.75 Hz

Video Resolution PAL-M

Horizontal: 720, 704, 640, 480, 352
Vertical: 480, 240
Color Frequency: 3,575,611.49 Hz

Video Resolution PAL-N

Horizontal: 720, 704, 640, 480, 352
Vertical: 576, 288
Color Frequency: 3,582,056.25 Hz

Video Sampling

4:2:0

Audio Type and Sampling

MPEG Layer 1 and Layer 2
32, 44.1 KHz, 48 KHz
Mono, Dual Mono, Stereo or Joint Stereo

Audio Data Rates

MPEG Layer 1: 32 Kbits/s to 448 Kbits/s in 32 K steps
MPEG Layer 2: 64, 96, 112, 128, 160, 192, 224, 256, 320, 384 Kbits/s

OSD

24 Bit color (rendered to 16 per line)
Alpha blending
688 by 480 maximum resolution NTSC
688 by 576 maximum resolution PAL
Crawl banner with maximum of 50 by 7000 pixels with 3 dwell speeds and positions

Platform

ADTEC Embedded system with:
Motorola Cold Fire 32 Bit RISC CPU
ADTEC Real Time Deterministic OS
10 Base T Ethernet
TCP/IP With FTP Server and Client
EMT (ADTEC Ethernet Protocol)
FCMP (Adtec satellite multicast)
Serial RS232 (Loop through)
Parallel (4 Bit, BCD)
One IDE drive host interface

Analog Video Outputs

Composite (1 BNC, 75 Ohm)
YC (4 Pin Din)

Analog Audio Outputs

Unbalanced Stereo (2 RCA, 56 K Ohm)

Physical and Operational

4" 1.75" 8" (WHD)
102 mm 44 mm 203 mm (WHD)
+12 Volt DC input Hz
24-Watts maximum power consumption
50/90 Degrees F, 30/70 RH
UL-CE Certified DC power supply

Adtec Digital, Inc.
Innovative MPEG Solutions
www.adtecinc.com
US Sales: 615/256-6619
Int'l Sales: 904/394-0389