

## *edje* 1010 & 1013 MPEG Digital Video Player & Network Appliance

### Overview

The edge 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 edge offers reliability and performance that far exceed PC solutions.

### Benefits

#### > Synchronous Cross Channel Playback

The edge 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 edge 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 edge records over fourteen hours of cable TV quality video on a 20GB internal disk. The edge 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 edge 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 edge 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 edge's at a facility over a LAN/WAN connection at data rates up to 45 Mbps.

### Availability

The edge 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 Medialon, 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 Multicast 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

## 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

(\* 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.



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