

D*AP8 FLX – 8 Channel Surround Audio Processor

Providing an adaptable approach to digital audio processing, the D*AP8 FLX offers complete flexibility from a choice of multiple I/O formats including AES, 3G SDI, MADI, Dante™ and analog, coupled with an extensive list of license based processing options to create a fully customized solution in an efficient and space saving 1RU form factor.



Designed to be easily upgradable through additional licenses, the D*AP8 FLX is a cost effective surround digital audio processor that can grow and expand to match the evolving needs of a wide range of applications in broadcast or production.

Overview

The D*AP8 FLX provides eight channels of AES/EBU audio I/O (4x 2.0, or 5.1+2.0) with brickwall true peak limiting as standard. Optional audio decoding and encoding (Dolby® E, Dolby® Digital Plus, Dolby® Digital or AAC, HE-AAC v1/2) including metadata management is also available. A choice of processing licenses can be added to unlock an extensive range of algorithms and processes:

Level Magic™ Loudness Management

Based on a unique multi-loop control principle, the Level Magic™ algorithm provides adaptive wideband loudness control with exceptionally high audio quality that is free of coloration, pumping, distortion or modulation effects. Level Magic™ is designed to be audibly transparent and due to its highly adaptive nature, requires only a small number of parameters to be input during initial setup.

Dynamics Processing

The dynamics section comprises of an upward compressor that controls dynamic range but retains the micro dynamic structure, and an expander/gate to remove low-level noise without introducing artifacts.

Parametric EQ and Spectral Signature™

A comprehensive 5-band Parametric EQ is coupled with Jünger Audio's Spectral Signature™ dynamic equalizer, a powerful creative tool allowing adaptive control of the spectral balance of your content. Spectral Signature™ analyzes incoming audio and compares its spectral structure with a predetermined "reference" curve. This allows dynamic EQ corrections to be applied only if necessary to achieve a consistent sound image and tonal balance.

Fail Over and Automatic Upmix

When broadcasting a mix of stereo and 5.1 content, it can be disturbing to viewers when the surround field collapses back to stereo and vice-versa. Upmix can be set to detect stereo or mono only content and automatically create 5.1 in order to maintain a consistent surround experience. Existing 5.1 content will pass untouched. Fail Over ensures that if the primary signal is lost, the unit can switch automatically to a secondary backup feed.

Voice Over

Voice Over provides seamless integration of voice and program content in situations such as continuity announcements or video description with automatic ducking.

FM Conditioner

A powerful option for FM broadcast to pre-control the MPX power and peak deviation of a stereo FM signal, including true peak and pre-emphasis limiting.

GfK Watermarking

An optional GfK SE watermarking encoder is available to allow audience measurement.

Web Configuration

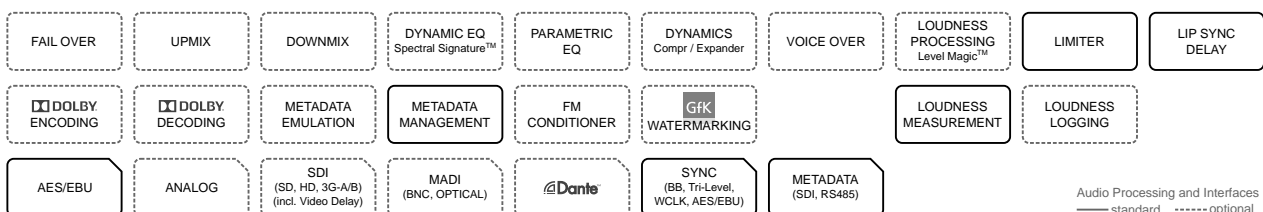
A web interface permits easy and intuitive setup and configuration from anywhere in your network. Onscreen metering and measurements are available for easy reference and a dedicated "mobile" UI is tailored specifically for touch screens or smaller displays such as tablets and smartphones.

System Integration

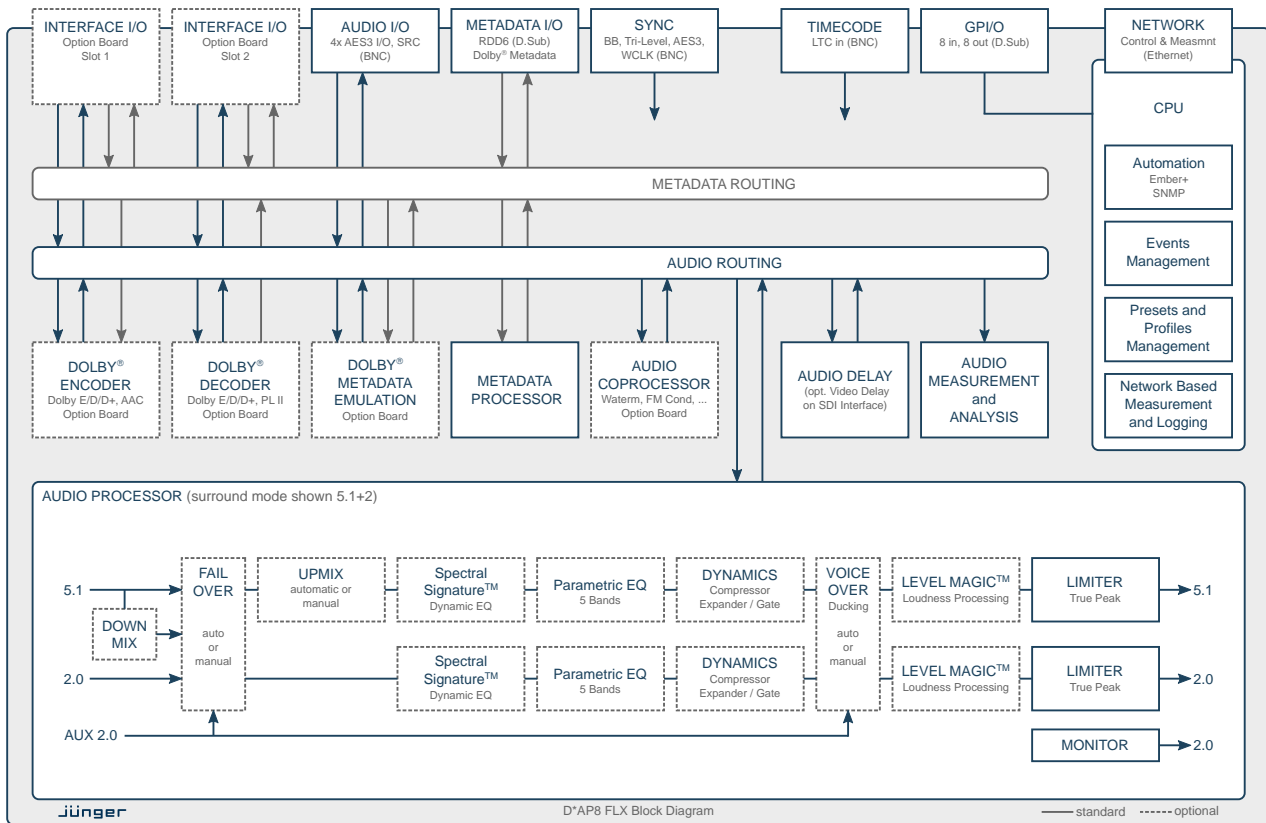
All system parameters are remotely accessible allowing the unit to be integrated and remotely operated by external control systems. An advanced built-in Event Management tool allows the remote loading of parameter presets either by hotkeys on the optional X*AP RM1 remote panel, by 8 onboard GPI/O's or by network commands using the Ember+™ control protocol. This helps users to apply individual processing to their programs or content and thereby ensure maximum audio performance in all situations.

Interfaces and System Security

Audio I/O's range from onboard AES3 to optional 3G SDI including video delay, MADI, Dante™ audio over IP and analog. With power fail bypass relays, dual redundant PSU's and SNMP integration, the unit ensures maximum operational safety and peace of mind for today's critical 24/7 broadcast or content delivery facilities.



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Key Features

- Multi channel / Multi format audio processing
- Flexible feature set, configurable by licenses
- True peak limiter
- Level Magic™ loudness management (optional) according to: ITU-R BS.1770 (all revisions), EBU R128, ATSC A/85, ARIB TR-B32, Free TV OP-59 and Portaria 354
- Optional Upmix and Fail Over functionality
- Optional audio encoding & decoding: Dolby® Digital Plus, Dolby® Digital, Dolby® E, Pro Logic II, AAC, HE-AAC v1/2
- Dolby® Metadata management and optional emulation
- Loudness measurement supporting all worldwide standards
- Optional loudness logging software (J*AM)
- I/O modularity via 2 interface slots (e.g., 2 SDI streams)
- Ethernet connectivity for setup and control via web browser
- External control via network or GPIO's
- Power fail bypass relays
- 19", 1RU device, redundant PSU

Versions and Options

- **D*AP8 FLX:** D*AP8 base unit with flexible feature set
- **X*AP RM1:** hardware remote control linked via Ethernet



- Option Board 16ch SDI I/O (3G/HD/SD)
- Option Board 4ch analog I/O, Option Board 8ch analog Out
- Option Board 8ch AES/EBU I/O, Option Board 16ch MADI I/O
- Option Board 16ch Dante™ Audio over IP
- Option Board Dolby® D / D+ / E decoder, Pro Logic II (dec/enc), Dolby® Metadata emulation
- Option Board Dolby® D / D+ / AAC / HE-AAC encoder
- Option Board Dolby® E encoder
- Option Board FM Conditioner Coprocessor
- Option Board GfK Watermarking Coprocessor
- License Level Magic™ loudness management
- License Dynamics with compressor and expander
- License EQ with parametric EQ and Spectral Signature™
- License Fail Over and Automatic Upmix, License Voice Over

