COMPACT 64 – SDI Audio Processor System for up to 4 SDI Streams

Belonging to the High Density range of digital audio processors, the Compact 64 is aimed at broadcast playout facilities with a large number of TV channels that require efficient and transparent loudness management for the maximum number of audio channels within the minimum amount of rack space.

For loudness management of multiple TV channels where rack space is at a premium, the Compact series offers the most efficient ratio of DSP performance and throughput with the smallest footprint requirement.
All current broadcast audio loudness standards are supported including ITU-R BS.1770 and recommended practices ATSC A/85, ARIB TR-B32, Free TV OP-59, Portaria 354 and EBU R128.

Overview
The Compact 64 consists of a 1RU 19" frame pre-installed with a C8702 controller. The optional C8492 card provides a combination of SDI de-embedding/embedding, Level Magic loudness management with dynamics and true peak limiting. Up to four C8492's can be added to process a maximum of four SDI streams and up to 64 channels of audio. Also a C8817 8x GPI/O card is available.

C8492 SDI/DSP Board
At the heart of the Compact series is the C8492 processing card that combines I/O functionality with a powerful DSP that can provide loudness processing on up to 16 channels of audio within the SDI stream. In its standard form, the card is configured for four channel operation (2x 2.0) with further licensing options available to increase this to eight or sixteen channels for multiple stereo and/or surround audio configurations. In surround mode, automatic Upmix and Downmix are included.

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.

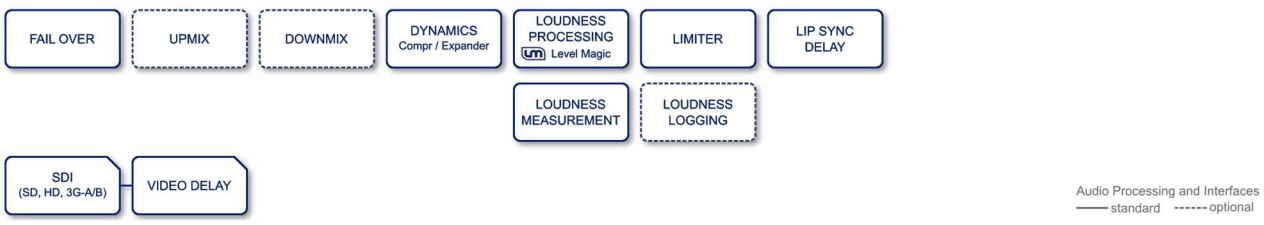
Dynamics Processing
The dynamics section comprises of an upward compressor that controls dynamic range but retains the micro dynamic structure, and an expander/gate to remove low-level noise without introducing artifacts.

Loudness Measurement and Logging
To check compliance with local regulations, loudness and true peak levels can be measured and transferred via Ethernet to the optional J*AM measurement and logging software. SNMP or GPI/O alarms can also be triggered if pre-set limits are exceeded. A real-time plot of input vs output levels can be displayed and the results logged to a destination folder anywhere on the network. A log file analyzer can rebuild the original plot for easy readout of historical measurements.

System Integration
All system parameters are remotely accessible allowing the unit to be integrated and remotely operated by broadcast control systems. An advanced built-in Event Management tool allows the remote loading of parameter presets either by 8 GPI/O's on the optional C8817 or by network commands using the Ember+ control protocol. This helps to apply individual processing to manage compliant and none compliant audio.

Web Configuration
A web interface allows easy and intuitive setup and configuration from anywhere in your network. With a small number of initial settings, the unit can be up and running on air within minutes.

Interfaces and System Security
Audio input for the C8492 is 3G/HD/SD SDI with two processed SDI outputs including video delay, and a separate pass through of the re-clocked input signal. A fail over function allows that should the primary embedded audio channels be lost, the card can automatically revert to alternative audio channels instead.
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 TV playout facilities.



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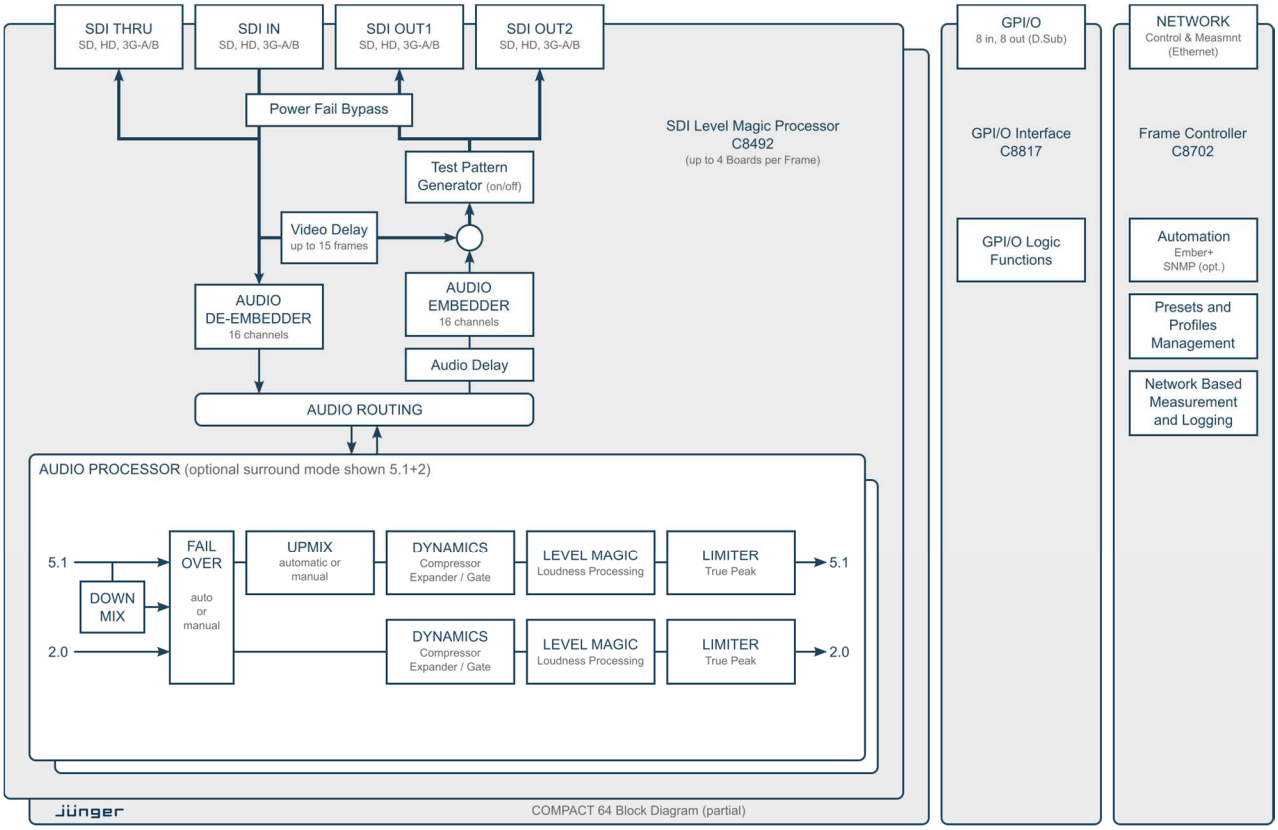

Key Features

- 19″/1RU frame, C8702 frame controller
- Space for 4 additional C8492 boards
- Optional C8817 GPI/O interface
- Scalable design for up to 64 audio channels in up to 4 SDI streams
- Level Magic loudness management according to: ITU-R BS.1770 (all revisions), EBU R128, ATSC A/85, ARIB TR-B32, Free TV OP-59 and Portaria 354
- True peak limiter
- Dynamics with downward compressor and expander/gate
- Upmix and Downmix (only with surround upgrade licenses)
- Fail Over with signal loss detection
- Adjustable audio and video delay for lip sync management
- Optional loudness logging software (J*AM)
- Power fail bypass relays
- Ethernet connectivity for setup and control via web browser
- External control via network or GPI/O's
- Dual redundant PSU's

Versions and Options

- Compact 64 – SDI Audio Processor for up to 4 SDI streams
- Option Board C8492 SDI/DSP (max 4 boards)
- License C8492 upgrade to 8ch stereo (4x 2.0)
- License C8492 upgrade to 16ch stereo (8x 2.0)
- License C8492 upgrade to 8ch surround (5.1+2.0) or (4x 2.0)
- License C8492 upgrade to 16ch surround 2x [(5.1+2.0) or (4x 2.0)]