

## **+LP LOUDNESS PROCESSOR SOFTWARE**

+LP options add 5.1-channel or stereo loudness processing to any Fusion3G® card, or any of numerous Compass® cards. Using Linear Acoustic® AEROMAX® technology, loudness control is applied on up to six channels of audio from any embedded, AES, or analog inputs sourced by the host card.

AEROMAX® algorithms use a sophisticated multiband approach to loudness processing. These algorithms can apply multi-faceted loudness correction specifically targeted to various frequency ranges and other characteristics within the program material, resulting in audio free from abrupt loudness or image shifts while preserving more of the original

content than available using less refined approaches. Because +LP processes audio loudness locally and in sync with the video, loudness is processed without the large accumulated latency delay found in other loudness processors.

Adding loudness processing is a simple software upload to the card, requiring less than one minute downtime and no removal of the card from its frame. Option +LP economically leverages from existing card functions and adds loudness processing with no added hardware or signal routing changes.

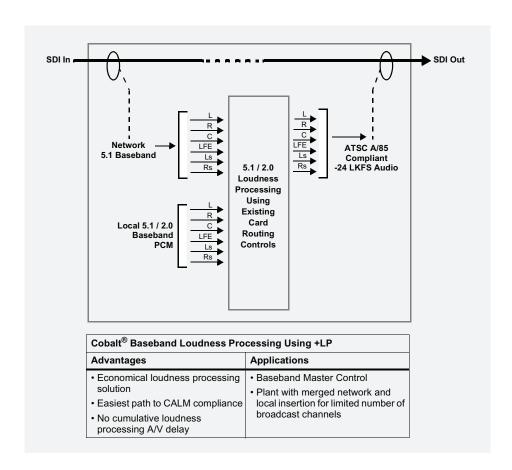
## FEATURES

High-quality, seamless Linear Acoustic® AEROMAX® loudness processing

Available for new cards or can be added to existing cards with simple software upload

Default set to provide ATSC A/85 -24 LKFS loudness when used with AC-3 -24 dialnorm; no parametric setup required

Multiple user-selectable loudness profile preset choices with configurable target LKFS



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## ORDERING INFORMATION

+LP51 5.1 Loudness Processor (for Compass® Cards)

+LP20 Stereo Loudness Processor (for Compass® Cards)

+2LP20 Dual Stereo Loudness Processor (for Compass® Cards)

Note: · If a +LP license is added to a card equipped with other DSP-based audio options (such as +UM Audio Upmixer Option), the card can support all of these options, however these options cannot be simultaneously enabled (the card drop-down selector will automatically limit choices to valid combinations).

The card hardware must be of sufficiently recent build (cards built within the last 3 years) as to be equipped with two DSPs (as shown in DashBoard Card Info > DSP field displaying "DSP Count: 2").

Host cards with framesync can provide for advancing the audio timing by 8 msec to compensate for processing delay added by loudness processing. However, on cards without framesync this 8-msec audio lag will be present in the output SDI video signal. (However, various trials have demonstrated that lip-sync issues only become apparent to viewers when exceeded by one frame (typically >32 msec)).

+LP51A, +LP51B (2) 5.1 Loudness Processors (for Fusion3G® Cards)

+LP20A, +LP20B, +LP20C, +LP20D (4) Stereo Loudness Processors (for Fusion3G® Cards)

Note: On Fusion3G $^{\circ}$ , +LP can be combined and simultaneously used with other audio DSP options such as +UM. See product page or datasheet for more information.

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