

Linear Acoustic® ARC (Automatic Realtime Control) Next Generation Television Loudness Processor



OVERVIEW

The Linear Acoustic ARC is a budget-friendly, easy-to-use, 2-channel television processor specifically designed for regions and applications that do not require support for multi-channel, coded audio, but where no-compromise audio quality is valued.

FEATURES

- Audio processing using the Linear Acoustic APTO® loudness adaptation algorithm
- Compliance for any loudness recommendation or regulation including EBU R 128 and ATSC A/85 (CALM)
- Processing for two PCM stereo or mono program streams
- Ability to specify target loudness and True Peak values
- 3Gb/s HD/SD-SDI and AES-3 I/O
- AES67 I/O supports SMPTE ST 2110-30 workflows
- Rolling 6-hour loudness logging for each program
- Separate loudness event log to easily identify loudness issues plus system event log
- System event log
- SNMP
- Dual internal redundant auto-ranging power supplies
- Browser-based remote control

IN DEPTH

The Right Features at the Right Price

Until now, broadcasters looking for a straightforward, stereo, television processor had to make some difficult compromises.

Less costly solutions were budget-friendly, but the savings came at the expense of audio quality. Products that delivered excellent audio performance also included features such as support for multi-channel, coded audio and audience measurement watermarking that simply aren't required in many regions – and with a price tag that put them out of reach to smaller broadcasters.

Linear Acoustic ARC eliminates that compromise by offering a 1RU DTV audio processor for two independent PCM stereo or mono program sources that delivers the viewer-pleasing audio upon which Linear Acoustic has built its reputation.

APTO Processing

ARC features the Linear Acoustic APTO loudness adaptation algorithm which carefully controls levels in a way that preserves transients, sonic image, and the artistic intent of the original audio source while still ensuring full compliance with any loudness recommendation or regulation including EBU R 128 and ATSC A/85 (CALM).

Simple, Straightforward Setup

Setting up ARC couldn't be simpler: Select a suitable adaptation profile for your programming from the ample list of factory presets, adjust a single control to determine the amount of overall processing desired, set the desired loudness target, and walk away with confidence.

A front panel navigation cluster is used for initial setup, while a web-based, browser- and OS-agnostic remote user interface makes more detailed setup and monitoring easy and convenient on any computer or mobile device. A front panel color LCD display clearly shows audio levels and loudness information.

Ready for Today, Ready for the Future

I/O includes AES-3, 3Gb/s HD/SD-SDI, and AES67, making ARC suitable for use in today's typical broadcast facilities, but also compliant with SMPTE ST 2110-30.

SPECIFICATIONS

Processing

- Linear Acoustic APTO® Loudness Adaptation algorithm; processing for two stereo or mono programs

Logging

- Rolling 6-hour loudness logging for each program
- Separate loudness event log to easily identify loudness issues
- System event log

AES-3 I/O

- One 2-channel input and one 2-channel output via 75 Ohm BNC female connectors, internally terminated; signal levels per SMPTE 276M/AES-3ID-2001

SDI I/O

- One auto-sensing 3Gb/s HD/SD-SDI (SMPTE ST425/292M/259M) input and one output via 75 Ohm BNC female connectors, internally terminated; video formats up to 1080p/60/59.94/50Hz

AES67 I/O

- 16-channels of bi-directional AES67 I/O in support of SMPTE ST 2110-30 workflows

Reference

- 48kHz reference via SDI, PTP, AES-3, or internal clock

Sample Rate/Resolution/Frequency Response

- 48kHz, 24-bit, 20Hz – 20kHz

Ethernet

- Two Gigabit RJ-45 connections – one for AES67, one for networked remote control

Parallel GPI/O Control Port

- 15-pin female D connector, 0-5V TTL levels, 5 GPI/O inputs, 5 GPI/O output

SNMP

- Traps include loudness above/below target, loudness within target window, change in reference, and power supply status

Front Panel Controls and Indicators

- 5-key navigation cluster; graphical color LCD display; LED status indicators for each power supply, system status, and reference

Power

- Dual internal redundant auto-ranging power supplies, each rated at 100-264VAC, 50/60Hz, 40 Watts maximum

Dimensions and Weight

- 19" W x 9" D x 1.75" H (approximately 48.2 x 22.9 x 4.5 cm)
- Net weight: Approximately 9.0 lbs (4.08 kg)
- Shipping weight: Approximately 12.0 lbs (5.44 kg)

ARC | Next Generation Television Loudness Processor

Environmental

- Operating: 0 to 50 degrees C
- Non-Operating: -20 to 70 degrees C

Intended Location

- Telecommunications center or dedicated computer/machine room

Regulatory

- North America – FCC and CE tested and compliant with UL-approved power supplies
- Europe – Complies with European Union Directive 2002/95/EC on the restriction of use of certain hazardous substances in electrical and electronic equipment (RoHS), as amended by Commission Decisions 2005/618/EC, 2005/717/EC, 2005/747/EC (RoHS directive), and WEEE

Warranty

- Standard Telos Alliance 2-year limited parts and labor