

Linear Acoustic® ARC Automatic Realtime Control



Next Generation Television Loudness Processor

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 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 up to four independent stereo or mono program sources that delivers the viewer-pleasing audio upon which Linear Acoustic has built its reputation.

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

ARC's 2-channel design is purpose-built for regions and installations where multi-channel and coded audio are not commonly employed. In its standard configuration, ARC provides loudness control for two program sources. Processing for two additional program sources is optional. Loudness logging for each program is included for compliance verification as a .csv file.

Setup is simple and straightforward: 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.

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.

I/O includes AES-3, 3GHz HD/SD-SDI, and Livewire+ AES67, making ARC compliant with SMPTE 2110-30.

SNMP is standard as are two robust auto-sensing internal power supplies.



Specifications

Processing

Linear Acoustic® APTO® Loudness Adaption technology. Processing for two stereo or mono programs standard; two additional programs optional. Downmixing of 5.1 content prior to processing on first program

Sample Rate/Resolution/Frequency Response

48kHz, 24-bit, 20Hz to 20kHz below threshold

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-31D-2001

SDI I/O

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

AoIP (Audio over IP)

16-channels of bi-directional Livewire+ AES67 audio via dedicated RJ-45 Ethernet port

Parallel GPI/O Control Port

15-pin female D connector, 0-5V TTL levels for 5 inputs and 5 outputs; GPI controls for loudness measurement start/stop/reset, loudness logging start/stop/reset, and preset recall for each audio engine, plus system configuration recall. GPO controls for loudness above/below target, loudness within target window, loudness measurement reset, logging on/off, reference change, and loss of reference.

Ethernet Connections

Two Gigabit Ethernet ports support; one for AoIP connections, one for remote control and monitoring via web interface

SNMP

SNMP support standard; 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 and reference

Power

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

Dimensions and Weight

1RU high; 1.75"H x 19"W x 9"D (44 x 483 x 229 mm); approximate net weight - 9 lbs (4 kg); approximate shipping weight - 12 lbs (5.4 kg)

Environmental

Operating range: 0 to 50 degrees C (32 to 122 degrees F); non-operating range: -20 to 70 degrees C (-4 to 158 degrees F)

Regulatory

NORTH AMERICA: FCC and CE tested and compliant, power supplies are UL tested and approved.

EUROPE: Complies with the European Union Directive 2002/95/EC on the restriction of the 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 2-year limited parts and labor

Specifications are subject to change without notice.