System T S300-48

Next-generation networked broadcast production

Solid State Logic

OXFORD · ENGLAND

Introduction

The new S300-48 is a fixed layout 48+1 fader compact control surface that can be combined with the complete portfolio of SSL's ground-breaking System T consoles, remote tiles and screen interfaces, Tempest Processing Engines, and Network I/O options. It can be specified as part of a larger System T installation or in stand-alone configurations for smaller broadcast facilities or OB vehicles.

S300-48 provides a larger fader count and multi operator usage in the System T S300 form factor. Channel metering directly above each fader provides direct monitoring and control of signals on the current surface layers, with an overview providing metering of console wide signals. S300 sits alongside the larger S500 and S500m System T surface options which provide additional configurable metering capability for larger productions. TCR and T-SOLSA software brings System T to virtualised and remote-controlled studios, providing an audio console without the traditional control surface.

SSL System T's unique approach allows all surface variants to utilise the same software, this provides full flexibility and interoperability across the entire range. All surfaces benefit from all software features including full AoIP routing from the console, DAW control, immersive audio, Dynamic Automation, Access Control, Event Manager, Scene Automation and a fully featured onboard FX Rack.

AoIP functionality is further enhanced with Dante and DDM support directly in the console software. All System T and Network I/O devices simultaneously support Dante, ST 2110, ST 2022-7, ST 2059-2, PTPv2 and PTPv1. AoIP routing is available from the console software with immediate discovery of stageboxes and the ability to resource share directly from the console. Leverage the benefits of AoIP and let the workflow define the deployment. Enjoy the scalability, flexibility and dynamic scenarios an IP infrastructure can provide, immediately.

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S300-48 Control Surface

- Fixed layout 48+1 fader control surface

- Supports dual user position surface configuration or simultaneous control of remote consoles

- 60 fader layouts per tile, 15 layers of 4 banks providing 960 addressable paths per fader tile

- 100mm touch sense faders

- 3 internal multi-gesture touch screens with graphical user interface for control of all console parameters and configuration

- Up to 2 additional external touch screens for Overview, FX Rack, Automation and Setup apps

- On screen channel and bus signal metering for mono, stereo, LCR, 4.0, 5.1, 7.1, 5.1.2, 5.1.4, 7.1.2, 7.1.4 and 4.0.4 formats

- On screen Automix gain sharing metering

- On screen dynamics reduction metering

- 21 master section user soft keys

- 4 studio monitor outputs with assignable level control encoder, cut and talkback keys

- Dedicated control room main monitor level encoder with Dim, Cut, PFL to main, Main/Alt flip keys

- Dedicated hardware Monitor Ext 1 and Ext 2 keys, with soft keys for each 1-24 Ext source selector

- Monitor Misc level encoder for Dim, Alt Monitor, PFL Monitor out, AFL and PFL Bus level control

- Master section Focus fader can be locked to any bus or channel path

- Fanless control surface with internal redundant power supplies

- Per bay/tile individual power switches

- Inbuilt screen for Loudness, True Peak and Phase metering

Control Software

- 32 multiple and nested VCA groups
  - Moving or VCA style options
  - Multiple additive group mode (Live console mode)

- Unlimited number of Audio-Follow-Video events with total time envelope of 20s encompassing delay, rise, hold and fall times

- Path/Mic Live and On Air Transmission modes for 4 studio outputs and 2 control rooms speaker sets with global controls

- Fader control of all variable parameters

- Unlimited programmable events triggers for GPIOs, console functions, scene automation triggers, fader open/closed and ipMIDI PGM change messages with programmable logic using a GUI

- Scene Automation system with fade/switch times, store and recall filters for all parameters with per scene per path granularity

- Online/offline remote control software with 2 online remote slots per console

- DAW control for up to 4 DAWs including panning, sends and automation control

- Timecode Dynamic Automation with onboard SSL DAS software

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Signal Processing

- Flexible channel and bus architecture with up to 800 processing paths

- Dedicated Aux, Mix-Minus, Track, Stem (Group) and Master buses

- Add channels and buses or change path formats without interrupting audio

- Full processing on all channels and bus types:

  - Digital trim
  - High and low pass filters with 12/18/24dB per octave slope
  - 4 band EQ with different modes per band: shelving, constant Q, legacy & notch
  - 2 dynamics sections each with compressor/limiter and gate/expander:
      Dynamics sections include de-esser mode
      Ducker mode for the gate/expander
      Independent peak/r.m.s sensing for the compressor/limiter and gate/ expander
      Key input with separate gate/expander an compressor/limiter sidechain filters
      4xFs Oversampled true peak look ahead brick wall limiter
      32 compressor and 32 gate link busses
  - Insert point
  - Delay from 1 sample up to 3 seconds, configurable in sample, time or distance formats
  - Direct Output feedpoint switchable between post all, post fader, pre EQ or post trim
  - 2nd fader gain that can be controlled from AFV, Production Automation, Automix or manually

- Assignable processing order including ability to move dynamics into Mix Minus, Track Bus or Channel Direct Output send

- 64-bit floating point processing and mixing

- Mono, stereo, LCR, 4.0, 5.1, 7.1, 5.1.2, 5.1.4, 7.1.2, 7.1.4 and 4.0.4 path formats for any input channel and all busses

- Integrated additional Effects Processing engine (including reverb, multiband compression, all pass filter, de-esser, dynamic EQ, single ended noise reduction)

- A/B input on all channels

- Recorder and rehearsal loop on all channels and stem busses

- AFL buses: one 5.1, one stereo

- 2 stereo PFL buses

- Solo in place

- 12 Channel Monitor Section with two sets of 12 channel Monitor outputs plus two sets of stereo nearfield outputs.

  - Additional Stereo PFL Monitor Output
  - Dual 12 Channel Monitor Insert points
  - 49 12 Channel Monitor Inputs
  - Independent Level and Delay compensation for the main monitor outputs
  - Dual 5.1 monitor section mode

- Loudness Metering according to EBU R128, ATSC A/85, ARIB TRB-32 (or any user entered parameters) for up to 282 paths with no loss of channel or bus processing
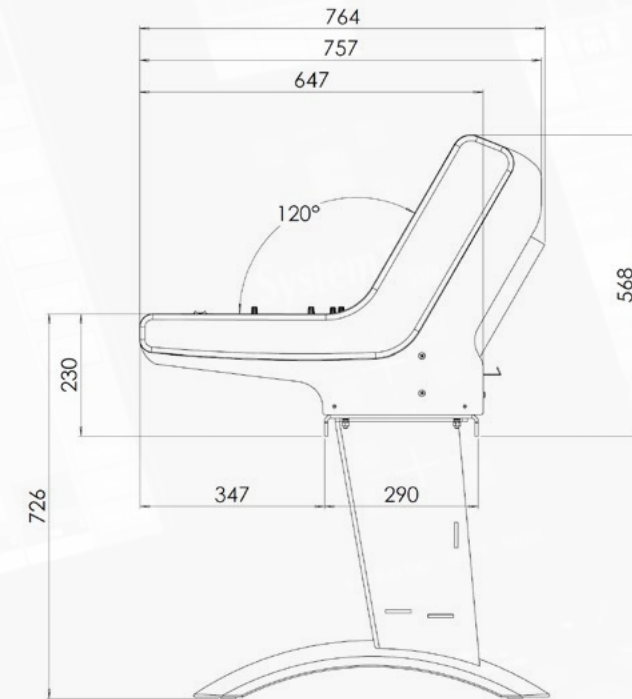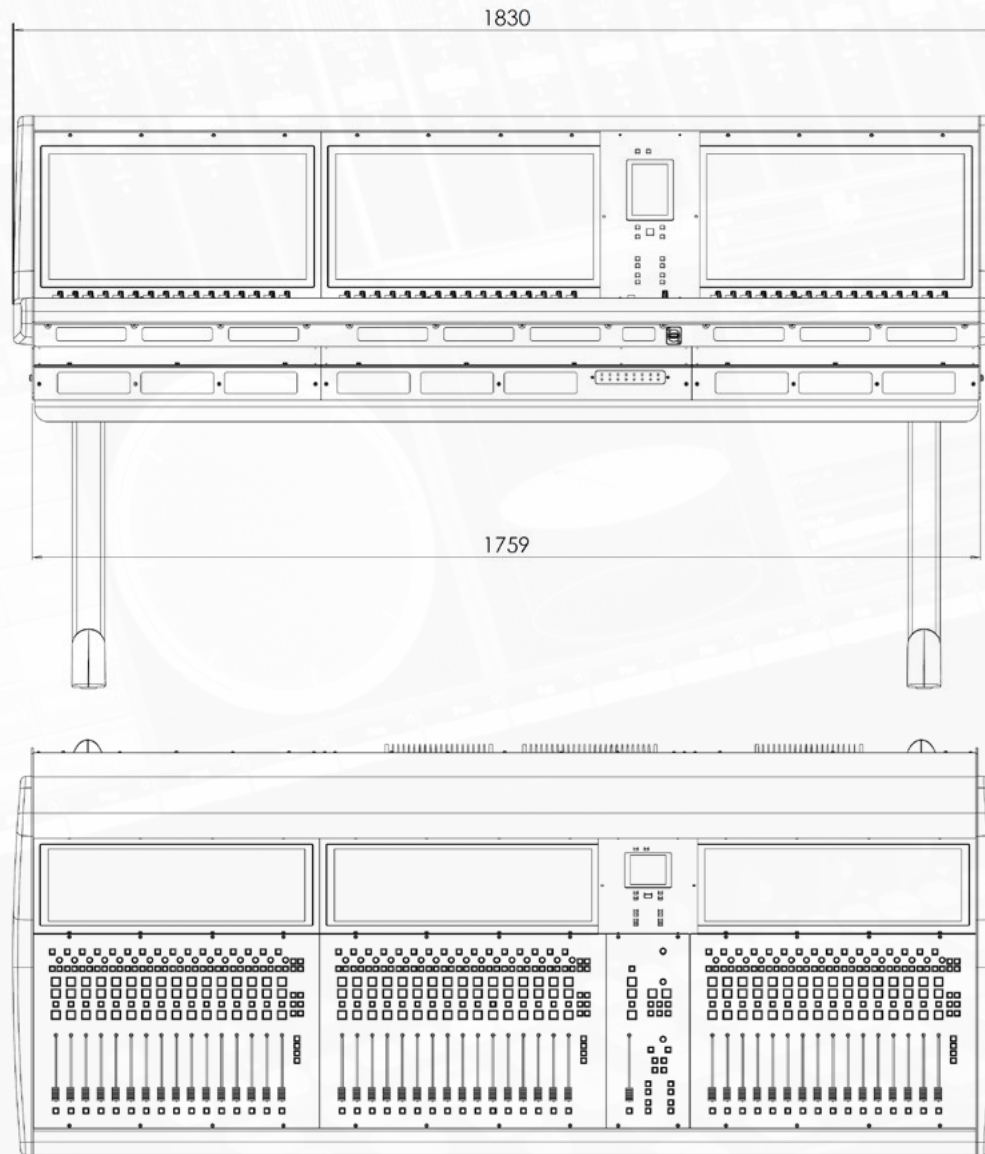
Routing & Interfaces

- Native AoIP: AES67, Dante, SMPTE 2110-30

- Console software automatically discovers and can immediately route audio between any Dante product including all third-party equipment

- Redundant Dante AoIP connections

- 48kHz and 96khz operation (other sample rates and SRC capability available across I/O range)

- Networked Mic/Line in, Line in, Line out, AES3, 3G SDI, HD-SDI, MADI, GPIO interfaces

- Synchronisation options across processing and IO hardware; Tri-level, Black and burst, PTPv1, PTPv2, AES3, MADI - high availability of multi-redundant options with auto changeover

- Routing from third-party IP routing control system with Dante API

- Production Automation control from Grass Valley Ignite, Ross Overdrive, Sony ELC, Vizrt Viz Mosart, Axon Cerebrum

- ipMIDI connectivity

- Hardware MIDI and LTC connectivity option

- EMBER+

- SNMP

- TSL UMD V5

Dimensions and Specifications

Height (table top)	528mm
Height (on legs)	1062mm
Width (flat trim)	1759mm
Width (contoured trim)	1829mm
Depth	764mm
Weight (no legs)	Approx. 111kg
Weight (with legs and leg plate)	Approx. 136kg
Power	Typical 310W, max 320W
Surface acoustic noise (fanless variant)	Silent

Drawings (mm)

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