

# SSL Live. Beautiful audio technology



“It was the only console that I thought could exceed the beautiful analogue sound that I had been used to.... Not just match it, but exceed it. There’s a clarity and a transparency that comes from the SSL platform that I have never experienced before.”

**Andrew Stone**, *Church On The Move*

# SSL Live

## Something special.

Solid State Logic has been at the leading edge of audio console design for more than 35 years. Many of the concepts, features and creative approaches to audio production taken for granted today as 'the way things are done' in Music, Broadcast and Film Post production came to life on an SSL. Our name has always been synonymous with design innovation, with inventing intelligent, ergonomically superior audio production tools that enable talented audio engineers to work efficiently, creatively and to make music sound great.

SSL Live consoles carry all of that DNA. We are confident that when you try them for yourself you will agree... SSL Live consoles carry forward the SSL tradition and deliver something special. As with everything we do, we have looked carefully at how the world's leading live engineers work, got under the skin of live audio and then taken a fresh approach. SSL Live consoles present a truly superb user interface that can work the way you work today and introduce a collection of powerful new features that could change the way you work tomorrow.

There are three control surfaces and two screen interfaces for SSL Live. The L200, L300 and L500 Plus consoles offer a selection of console configurations to suit a wide range of applications in Live, Theatre and House Of Worship applications. SOLSA the SSL On/Off Line Setup Application provides both off line pre preparation of Showfiles and real time remote control from any suitably equipped PC. The TaCo Tablet Control Application provides on-stage personal monitoring control on an IOS or Android tablet.



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# First Principles

The perfect balance of power and control.

## Take Control

We are all different. We all have our own way of doing things and for all of us, our own way is the right way. The SSL way is to provide solutions that aim to let everybody work how they want to. The key to a great control surface is a clear view of everything in your audio environment and finding exactly the control you need at your fingertips when you need it. Live control surfaces offer a genuinely intuitive combination of gestural touch screen & hardware control and a whole collection of innovative features designed to streamline workflow. All of the most commonly used functions are carefully arranged so that they sit within reach where your hands naturally fall on the console. There is a wealth of visual feedback with carefully considered colour change technology that will not fatigue the user during long periods of operation.



## The Power to Connect

SSL Live consoles are based on our 'Tempest' platform, developed using patented Optimal Core Processing™ technology to leverage latest generation CPU processors. We are of course very proud of our clever new processing technology, but at SSL our focus is always on what really matters and that is you having the power to do your job well. Live consoles harness Tempest's power in a sensibly flexible way to let you balance allocation of resource between signal processing and console architecture to suit each project. Thanks to the intrinsic flexibility of our approach, no matter how you configure it, when you compare the numbers, Live consoles give you more Inputs and Outputs, more Channels, Stem Groups, Auxes, VCA's and Masters, more processing tools and more signal processing power than many consoles with much bigger price tags.



"My favourite feature is that it actually sounds really good, like the best quality analogue board you've ever used in your life, but with a digital workflow,"  
**Simon Thomas**, FOH - *Sam Smith*

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# Control Surface Layout

## Up Close and Personal.

SSL Live control surfaces consists of four main elements; a multi-gesture touch screen, Fader Tiles, a Channel Control Tile and a Master Tile. The quantity, availability and layout of these elements differs but their functionality is common to L500 Plus, L300 and L200 consoles.

## Multi-gesture Touch Screen

A super bright, high resolution central touch screen is the hub of the console, giving constant visual feedback and access to Channel View & Overview interfaces, system configuration menus, the Layer Manager and the Effects Rack. The screen offers true tablet style multi-touch gesture control, delivering an unprecedented degree of on screen parameter manipulation.

## Fader Tile

Fader Tiles provide hands on control over signal paths. They are freely configurable to control any signal path, with clear bright variable colour coding. Users can lay out channel/path types across the console to precisely match their own workflow preferences. Fader Tiles are independent. Each Tile features 12 fader strips, with five bank and five layer keys (with individual LCD displays) giving up to 75 user assignable banks of 12 faders available per tile. Each strip includes a touch sensitive 100mm motorised fader, Solo/Mute, Query and Select buttons, individual LCD display and a set of Quick Controls. Alongside each channel fader are 14 segment level meter and separate gate and compression meters. A collection of menu buttons select various aspects of the Tile's functionality, including 'Swap' which allows any bank to be set as a 'Home' set of strips. A 'Screen' key assigns the entire Tile to the main screen.

An optional sprung boom arm enables a standard screen or laptop mount to be positioned on either the left or right side of the console. Screens can be used to display the Console Overview or Automation interface.

## Channel Control Tile

The Channel Control Tile provides instant physical control for a selected channel. The tile has a high resolution 5.7" touch screen surrounded by colour-coded push/select controls that map to adjacent screen functions. A collection of rapid access buttons instantly call to the Tile, various functions including; EQ, Dynamics, Insert Effects, Panning, Input section, All Pass Filter, Line Delay, Aux, Stem Group, Master, Fader, TB, VCA and Mute Group controls. 'Press and hold' on these rapid access buttons also calls the function to the Quick Controls across all the Fader Tiles. The Channel Control Tile combines with the Focus Fader in the Master Tile to form a 'Focus Channel'.

## Master Tile

The Master Tile gathers together Automation controls & Mute Group buttons alongside a Master Fader (which can be assigned and locked to any signal path), the Focus Fader (which can either follow the selected channel or be locked to a specified channel), and a set of assignable user keys. The Tile also features our flexible Solo and Talkback system. Two individual Solo Buses, each with dedicated push/select level controls, feed three Solo Channels which might be used for example with a wedge, headphones and in ear feeds. A mini matrix of Solo Select and Output Select buttons allow routing of either or both solo buses to any or all solo outputs quickly and easily. There are two Talkback Channels and two Talkback Output paths which also have dedicated controls and routing buttons that follow the same logic.



# Layout Workflow

## Managing your session.

Keeping control of even the largest sessions is very straightforward with Live. It is an open architecture system that allows the user to place any Channel, Stem Group, VCA, Aux, Master etc anywhere on the available Fader Tiles using a beautifully straightforward drag and drop **Layer Manager** interface. Whether at FOH or Monitors, Live allows you to create your own personal perfect layout. The combination of superbly elegant Layer & Banking and Super Q hardware controls and excellent touch screen layouts make navigating and controlling sessions extremely fast and superbly comfortable.



## Colour Function

Our consoles use colour beautifully. Within the fader strips a single large LED strip is used to identify and organise the type of signal path (VCA, Aux etc) or the instrument group (drums, vocals etc) assigned to the fader. The colours used are user definable. Controls designed for parameter editing (Aux send levels, EQ & Effect parameters etc) in the fader strips and in the Channel Control Tile also use colour coding. What is selected in the touch screens and the various sets of edit control hardware always follow each other.

## The Big Screen

The main touch screen is the heart of the console and can be used for system & I/O configuration, creating surface layouts using the Layer Manager, the Automation interface, the Effects Rack and two different views of your project; The Channel View and Console Overview.

The **Channel View** provides a clear and logically organised overview and interface for detailed channel information. This GUI lines up with the faders in the Fader Tile and provides touch access for all path functions. SSL Eyeconix displays ensure that channel identification is immediate. The meters can be expanded to give a large-scale view. Double tapping individual channels opens up detailed GUI's that provide intuitive configuration and multi-gesture control for a menu of operations including; routing assignments, VCA's, Aux's, Stem Groups, EQ, Dynamics, the All Pass Filter and Panning. Live allows changes in path processing order and bus architecture on the fly through straightforward drag and drop actions.

An at-a-glance view of the whole console's signal flow is essential. The **Console Overview** provides this on a touchscreen that enables the operator to immediately identify and access a channel or bus that needs attention. Selection of any channel or bus to the Focus Fader and Channel Tile is literally one press away at all times. With meters and bright red overload indicators for every input and output, identifying issues is easy and a single press brings a full set of path controls to hand.



## Super-Q

SSL's acclaimed Super-Q system offers unprecedented workflow flexibility from the touch of a single button. Super-Q allows the user to 'spill out' the contributing elements or destinations for a selected fader/path across the control surface. It works for all path types; pressing a channel's 'Q' button shows the mix busses to which the channel is routed. Querying a mix bus will show only the channels that are contributing to that mix. Pressing a VCA's Q button will show all channels under its control.

Super-Q also shows the send levels to and from mixes, allowing instant and accurate mix control, either from a channel- or mix-centric view. These contributions can be displayed either on the rotary encoders at the top of each fader strip or automatically 'flipped' onto the faders.

Super-Q has two modes; 'Compressed' mode shows a focussed view of only the audio paths contributing to or from the Queried path. 'Expanded' mode offers user-defined layers and banks, allowing the user to lay out exactly where they want each channel to appear on the surface. The modes are configurable on a per-path type basis, giving the user complete control of their workflow.

# The shock of the new

## Introducing the new L200.

The L200 is the latest addition to the SSL Live console range. The L200's striking design is driven by ergonomic considerations, placing all essential controls within easy reach. L200's unique layout allows for screen arms or laptop mounts to be attached to either or both sides of the console creating a compact yet extremely versatile working environment.

L200 brings the sound and operational excellence of SSL Live to new audiences with a new level of affordability, achieved through reduced processing capacity and I/O connectivity without any compromise in quality or feature set.

"The L500 mixes the functionality of a digital console with the sound of an analogue desk, including all of the transparency, clarity and transient response. I've never heard a digital console that sounds like this, ever."

**Chris Stephens**, FOH - *Jason Aldean*

"This is the first digital desk I've ever used where you can go past 3dB gain reduction without the input becoming smaller."

**Chris Rabold**, FOH - *Kenny Chesney*



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# Processing Control

Outstanding audio tools at your finger tips.

SSL Live consoles provide a comprehensive collection of audio processing tools and an exceptional interface that keeps the operator in complete control. There are usually at least three different approaches to hands on processing control which can be used individually or combined; via the touch screen, via the Fader Tile Quick Controls & Faders or via the Channel Control Tile.

## Multi Gesture Touch Screen

Touch screen technology is nothing new but our main display was the first true multi touch screen with tablet style control to be offered in a live sound console. It is also the brightest available and able to deliver pin sharp daylight viewable detail. Within the Channel View, a double tap on a selected channel opens a Channel Detail view with on screen multi-gesture control interfaces for EQ, Dynamics, Panning and Effects Rack GUI's. Gestural control like pinch and drag offer a responsive, creative physical approach to audio manipulation.

## Quick Controls

At its upper edge each Fader Tile has a row of twelve 'Quick Controls' (a push/select control and three buttons). The Quick Controls can be assigned to the same single parameter for all channels console wide (eg Input section, Aux's etc) in three different ways: using the Fader Tile controls, from the touchscreen in Channel View or via press and hold on the parameter selection buttons in the Channel Control Tile. Alternatively, the entire row of Quick Controls in the Fader Tile below the touchscreen can be used in Follow Detail mode as individual parameter controls for EQ, Dynamics, or Effects parameters etc. The Quick Control rotary functions can be flipped onto the faders.

## The Focus Channel

The Channel Control Tile and the Focus Fader in the Master Tile both follow the selected channel and effectively combine to form a 'Focus Channel'. The Focus Fader places a full single fader strip in an optimal ergonomic position on the console to provide the fastest possible means of addressing issues with any selected channel. The Channel Control Tile provides its own independent combination of multi-gesture touch screen and hardware control. It provides a streamlined way to assign all of the parameters of a specific processor on a selected channel to a set of hardware controls that will be immediately familiar to analogue console users.

# Channel Architecture

## Channels

Live channel architecture is easy to configure and extremely flexible. Channels have their own dedicated processing power and can be full with complete processing or dry and consume less processing power. Full channels have an unrivalled set of process tools with hi and lo-pass filters, four band parametric EQ which carries the legendary SSL tonal character (switchable between Legacy or constant Q), compressor with a new tube 'warmth' effect, expander/gate, delay, panning and all pass filter. There are two insert points. Dry channels have no processing tools, two inserts and use less processing power. The Channel setup panel in the touch screen makes configuration and routing fast and intuitive. Channels can be mono, stereo, LCR, 4.0 or 5.1 and there are configurable foldown options.

## Stem Groups

SSL Live consoles introduce a new and enormously powerful type of signal path which we are calling the Stem Group, offering incredibly flexible routing options not found on any other live console. A Stem Group is a unique type of hybrid mix bus that combines the key functions of a subgroup, an Input, an Aux, and a Matrix. Stem Groups provide 6 different routing feed points (post trim, pre/post fader, post insert A/B, post all processing) and can route to Aux's, Masters, Matrices and even other Stem Groups to create nested subgroups. As with all other path types they can be configured in mono, stereo, LCR, 4.0 or 5.1. Both full and dry versions are available. Stem Groups offer truly new and powerful ways to think about mixing and offer flexible solutions to manage your creative environment.

## Process Order

Unique to SSL Live consoles is the ability to change the order of path processing blocks for Channels, Stem Groups, Masters etc in real time. A simple 'block swipe' user interface in the main touchscreen allows elements to be dragged and dropped to any point in the signal path giving absolute flexibility.



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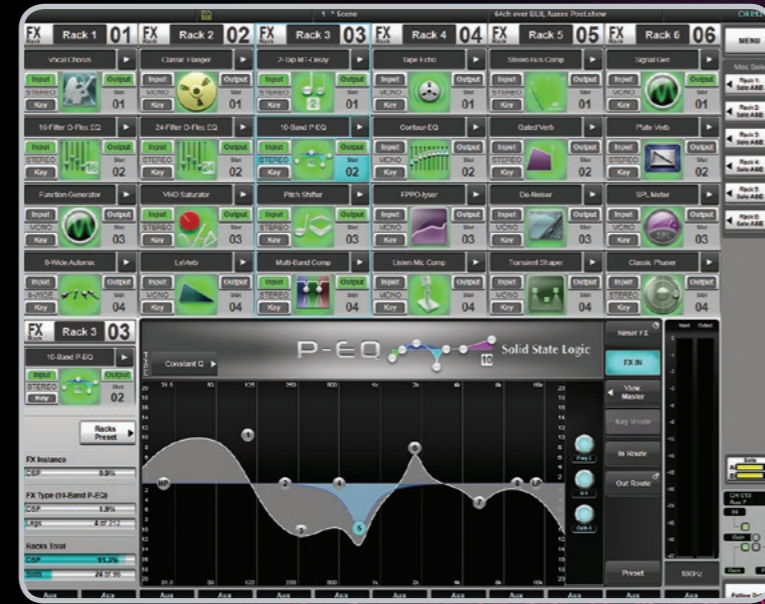
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# Stunning Audio Performance

## The finest studio sound on stage.

SSL has always set the audio performance benchmark for others to reach and sound quality is the primary design consideration of SSL Live consoles. Nothing is sacrificed so that the ultimate sonic performance can be delivered. The Live local I/O and Stageboxes use SSL's patented mic amp technology to deliver SSL SuperAnalogue™ performance with better than industry standard studio grade mic pre's combined with 24bit/96kHz DAC's to deliver a frequency response that is within 0.25 dB from 20 Hz to 20 kHz (within 1.3dB down to 10Hz) and a THD of 0.005%. The circuitry is DC coupled (no electrolytic capacitors in the signal path) and high input impedance. Mic amp gain is controlled with extreme precision in more than 16,000 steps ensuring totally smooth control, very good common mode rejection and extremely low distortion. 64-bit internal processing is used throughout guaranteeing maximum precision to support the highest standards of audio performance within all our processors. It all adds up to an exceptionally detailed sound we are sure you will love.

SSL Live consoles provide the audio processing toolkit that generations of SSL mix engineers have used to create countless hit recordings along with a suite of freshly developed processors. The full processing paths include a four band parametric EQ that can be switched between a precise constant Q mode and 'SSL Legacy EQ' with our well known unique tonal character, hi- and lo-pass filters with selectable slopes, SSL dynamics presented as separate compressor, analogue style tube emulator, expander/gate as well as a delay line and cleverly configured all pass filter. Our Live consoles also feature precision analysis tools such as the fixed point per octave spectrum analyser and the acclaimed Dialogue Automix system from SSL's broadcast consoles.



## Effects Rack

SSL Live consoles feature an internal effects rack that can be accessed via the insert points of Channels, Stems, Auxes and Masters as well as from the router. Designed to emulate a studio setup, the effects rack allows engineers to feel immediately comfortable creating complex effect routings with every parameter stored as part of the console automation. There are seven categories of studio quality, mono, stereo and multi-channel, ultra low latency effects designed specifically for live use. Reverbs, Delays, Modulation effects, EQ and even the famous SSL Stereo Bus Compressor are all included in a suite of more than 45 effects and tools. The effects rack has its own dedicated processing core with adaptive processing that intelligently reduces the overall processor overhead as you increase the effects load. Depending on the effect type up to 96 effects can be used in an L500 Plus and up to 48 in an L300.



## EQ

In addition to the options included in the full processing channels the effects rack offers a range of EQ options: The G-Flex EQ (which comes in 8, 16, 24 & 32 filter versions) offers incredibly flexible Graphic EQ filters, a 10 or 6 band Parametric with a menu of selectable filter characteristics per EQ band and the smooth Contour program shaping EQ based on node selection operated with a familiar graphic EQ user interface. Allowing the creation of asymmetric EQ curves.



## Dynamics

In addition to SSL's renowned channel Dynamics in the full processing channels, a full complement of insert effects includes our famous Stereo Bus Compressor and Listen Mic Compressor along with high quality De-esser, Dynamic EQ, gate, Multiband Compressor and Transient Shaper.



## Noise & Warmth

The VHD Saturator is a digital emulation of the highly regarded SSL Variable Harmonic Drive (VHD) circuit that introduces variable amounts of 2nd or 3rd order harmonic distortion to give controllable blends of transistor grit or tube style warmth. There are 'Guitar Cabinet' and 'Bass Cabinet' emulations. Our Denoiser is the ideal processor for controlling noise polluted source material. Our Enhancer provides non EQ based frequency control tools and our Pitch Shifter is smooth and pure.

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# Effects



## Reverb

Our Reverb tool kit brings studio hardware grade depth and precision to on board console effects. There is a complete collection including Gated, Early Reflection, Ambient, Cathedral, Stadium, Recording Room, Tight ER and Plate reverbs, a superb vocal processor and the creative effect 'D Gen' processor.



## Delay

From simple delays to complex multi tap echoes, the Delay effects are ultra-versatile and processor friendly making complex delays easy to achieve. Delay types include: 'Classic' & Multi-Tap, Tape Echo, Ping Pong and feature modulation and filters. Delays can be set via numeric time, tempo tap or BPM (with note value scaler).



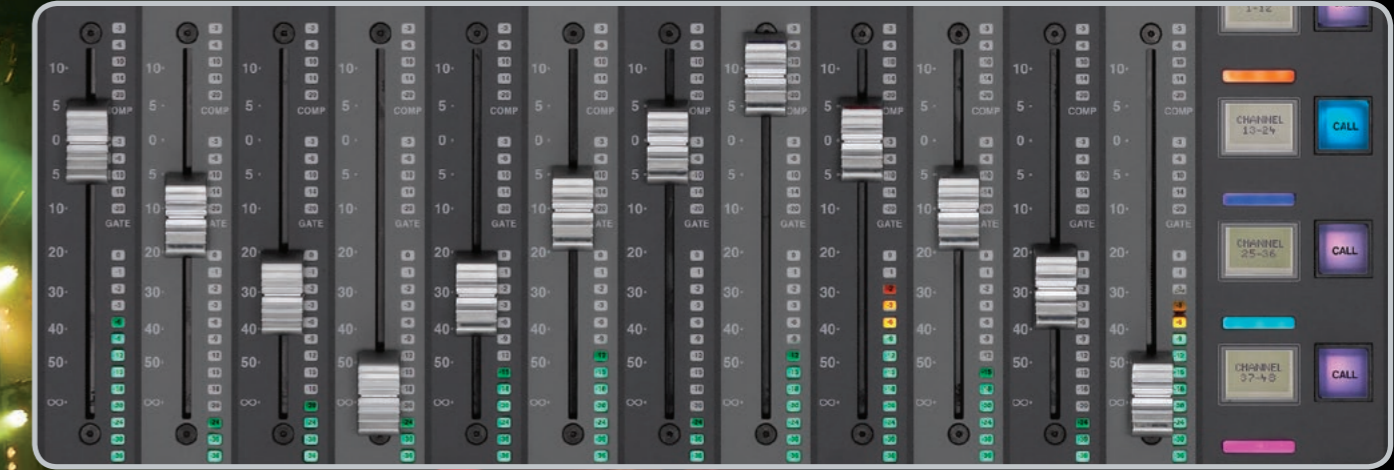
## Modulation

Taking inspiration from both studio and live standards, we have created a diverse and fully featured range of Modulation effects that have a classic warm sonic signature with lots of depth and character. The selection includes: Band Split Flanger, Classic Flanger, Envelope Flanger, Classic Phaser, Chorus and Guitar Chorus.



## Audio Toolbox

When it comes to setting up, there is a fully featured tone/noise generator, a precision SPL Meter, a Phase Scope and the FPPO-lyser; the only built in FFT Analyser that provides true Fixed Point Per Octave analysis and thus truly accurate frequency analysis throughout the frequency spectrum. The FPPO-lyser offers stereo analysis and two 'cross hairs'; one tracks the maximum level and frequency and the other can be set monitor the level of a specific frequency.



## Dialogue Automix

Taken directly from our broadcast consoles, our Dialogue Automix system is a powerful aid to the professional mix engineer. One of the most challenging tasks a mix engineer can face is riding the faders to maintain a smooth, balanced mix in something like an awards show with multiple presenters. Dialogue Automix allows the operator to set the relative mix of up to 12 microphones (per effect instance) and then automatically makes fast, transparent crossfades between them in response to incoming signal levels. It has two distinct benefits: it helps eliminate 'noises off' and uses a smart algorithm that maintains unity gain across the entire mic group, thus keeping the overall background noise level smoothly balanced. It frees the mix engineer to focus on balance and sound quality rather than be chained to the faders.

# Automation

## New improved advanced scene control.

As you would expect from the company that first introduced console automation over 30 years ago, SSL Live consoles feature an automation system that benefits from our unrivalled studio and broadcast background.

Automation is controlled via a full hardware interface in the Master Tile or via a software interface that can be manipulated via the main touchscreen or Channel Control Tile screen. The Automation interface can also be displayed on the optional external monitor.

The system can store virtually unlimited automation scenes. Extensive filters enable the user to choose exactly what settings the console stores or recalls not just on a global basis but also on a per scene basis. Scene groups enable absolute or relative editing of all selected scenes in a single operation. Scenes can be triggered manually or from external triggers. Scenes even include the Eyeconix images and display brightness settings.

# Built For The Road

## Ready For The All Weather Hard Knocks Life Of The Road.

SSL has a global reputation for the highest standards of build quality and first class support. With our Live consoles we have taken things to the next level. At their heart is a stainless steel chassis that is expecting a life on the road and it is well balanced with weight distributed carefully and well placed lifting points to make them a comfortable and safe two man lift. They are also designed for life in a wide range of environments... they aren't waterproof but are ready for any level of non-condensing humidity planet earth has to throw at them. They are designed to operate in a complete spectrum of lighting conditions. They have the brightest touch screens available on a live console and powerful colour change LED's throughout with the punch to remain crystal clear even in full daylight. There is a concealed light strip along the top of the front panel to illuminate the control surface in low lighting conditions. There are three front panel rotary controls to adjust brightness of the console: one each for the screens, control LED's and light strip. These brightness controls respond to automation to aid blackouts.

The Consoles are not the only ones who live on the road so there is a front panel USB port which is there to enable complete show files to be saved and loaded via a USB drive. SSL Live showfiles can be moved between L300 and L500 Plus consoles without the need for any external conversion process. The automation system features an extremely powerful filter system which allows the operator to define on a global or per scene basis which settings will be recalled, so that for example everything except Master Output EQ settings can be recalled for the show. SSL's On/Offline Setup Application (SOLSA) is described later in this brochure.



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# Which one?

## Three consoles one soul.

There are three models available in the SSL Live console range, the L500 Plus, the L300 and the L200. At SSL we believe that offering differently sized and specified consoles should not mean compromising on quality or features. All three consoles use the same Remote I/O, use identical audio conversion and internal audio engine technology. The combination and layout of Fader Tiles, Master Tile and Channel Control Tile varies but the controls available and feature set are identical. The consoles use the same software with identical architecture, routing capability and of course audio processing tool kit – so a full channel on the L500 Plus is the same as a full channel on the L300 or the L200 and they all offer exactly the same outstanding collection of insert Effects. The differences between the three models centre on physical size, available channel paths & processing power and available local I/O. The differences are so straightforward they are summed up extremely clearly in the comparison opposite.



	L200	L300	L500 Plus
<b>Paths</b>	144 (all full)	192 (144 full, 48 dry)	256 (208 full, 48 dry)
<b>Fader Tiles</b>	Three (36 +2 faders)	Two (24 +2 faders)	Three (36 +2 faders)
<b>Matrix</b>	4 x 32 inputs / 24 outputs	4 x 32 inputs / 36 outputs	4 x 32 inputs / 36 outputs
<b>VCA's</b>	24	36	36
<b>FX slots</b>	48	48	96
<b>FX types</b>	45+	45+	45+
<b>Sample rate</b>	96kHz or 48kHz	96kHz or 48kHz	96kHz or 48kHz
<b>Local analogue I/O</b>	12 mic/line, 12 line out	16 mic/line, 16 line out	32 inputs and 32 outputs
<b>Local AES/EBU I/O</b>	4 pairs (with SRC)	4 pairs (with SRC)	8 pairs (with SRC)
<b>MADI ports (coax/optical)</b>	8 (4 redundant pairs)	8 (4 redundant pairs)	12 (6 redundant pairs)
<b>MADI FX loop</b>	Optical in/out x 1	Optical in/out x 1	Optical in/out x 1
<b>SSL Blacklight</b>	One redundant pair	One redundant pair	Two redundant pairs
<b>Dante - IP Audio Network</b>	One 32x32 redundant pair	One 32x32 redundant pair	One 32x32 redundant pair
<b>Maximum I/O</b>	Up to 600 in /out	Up to 600 in /out	Up to 1008 in /out
<b>Channel Control Tile</b>	Not Available	Standard	Standard
<b>Main touch-screen</b>	17" 600 Nits	19" 600 Nits	19" 1,500 Nits
<b>Power Supply</b>	Two redundant	Two redundant	Two redundant
<b>Width</b>	1370mm (54")	923mm (36.3")	1,191mm (46.9")
<b>Weight</b>	88kg (194lbs)	81kg (180lbs)	90kg (200lbs)

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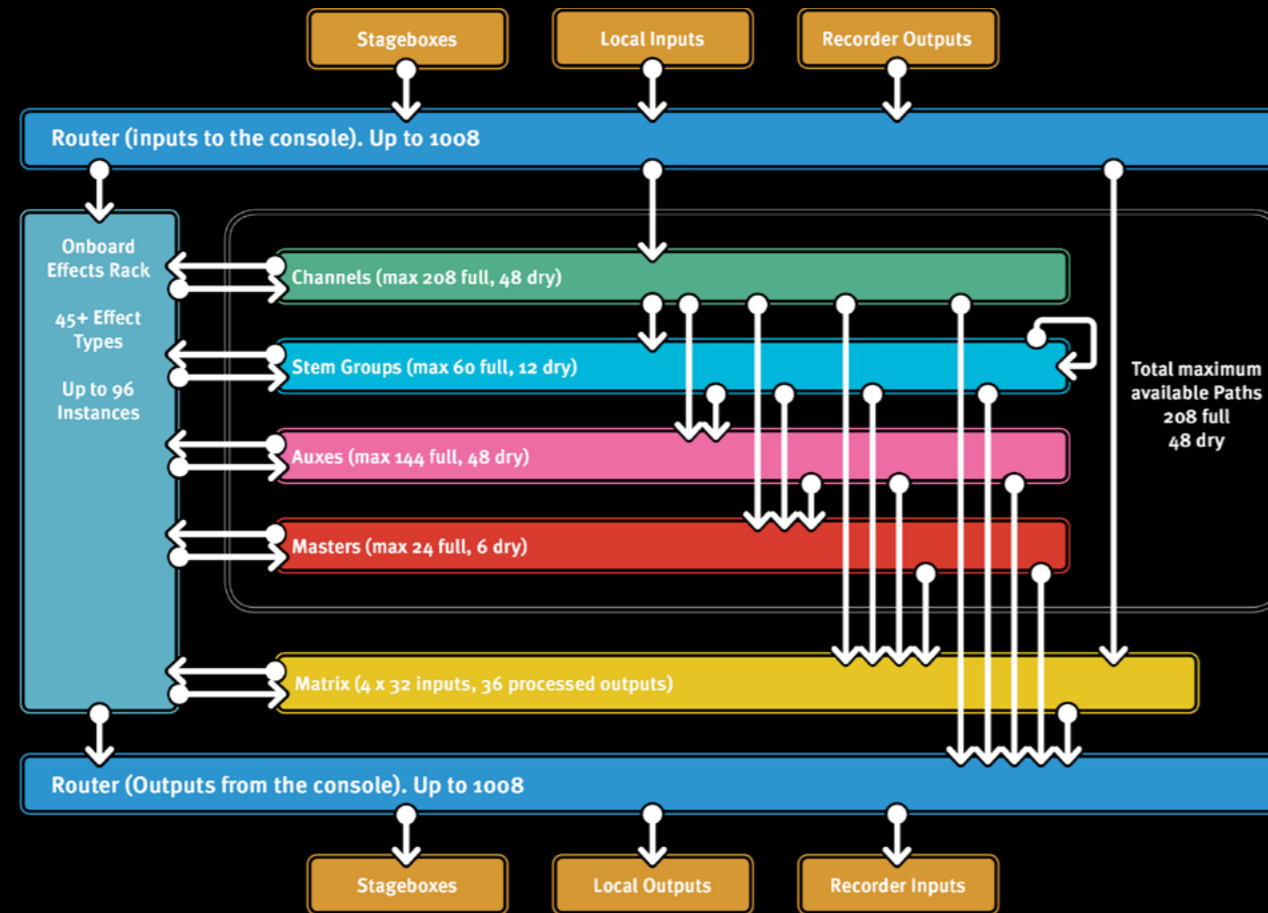
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# L500 Plus Architecture

## Absolute Power and Ultimate Flexibility.

L500 Plus processing power allocation and I/O architecture is extremely flexible. The console has up to 1008 inputs and 1008 outputs. It has 256 mix paths at 96kHz. These paths can be assigned as Channels, Stem Groups, Auxes and Masters to suit demands and configured as mono, stereo, LCR, 4.0 or 5.1. A mono Channel consumes one path, a stereo two, an LCR three a 4.0 path four and a 5.1 six. 208 of the mix paths are full processing paths and 48 are dry. The combination of full and dry path types can be allocated to suit different applications. Insert Effects have their own dedicated processing which is also dynamically allocated.

A 32 x 36 Output Matrix also has its own dedicated processing and can be segmented into four separate smaller matrices if desired. All 36 Matrix Output paths have High and Low Pass Filters, 4 band EQ, 2 seconds of delay and our unique All Pass Filters available. This is in addition to two inserts that can be used with both the internal Effects Rack and external processing.



# L500 Plus Local I/O

## Convenience and Connectivity.

L500 Plus is equipped with a fully featured collection of Input and Output connectivity with the capacity to serve both Front of House and Monitor applications. L500 Plus provides a versatile collection of local I/O built into the control surface so can operate without the use of any Stageboxes if required and has good connectivity for local peripherals when used in a pure FOH role. SSL Live consoles feature auto detection so identify any SSL Live I/O connected within the software routing pages.

Standard L500 Plus local analogue I/O configuration; 32 mic/line inputs (two of which are in parallel with the Talkback inputs), 2 front panel Talkback mic/line XLR inputs, 32 line outputs, 4 Headphone/Monitor outputs. 8 pairs of AES/EBU digital I/O inputs and 8 pairs of outputs. AES/EBU I/O has fully variable sample rate conversion. Twelve MADI ports (plus the FX loop) can be either coax or fibre, in sets of four (three cards). Each pair of ports can be configured as a redundant pair. The FX loop is a separate optical MADI port

(out/in), designed for connecting an external FX device such as a system using Waves Multitrack or a VST effects host. Two redundant pairs of SSL Blacklight II fibre connectors provide a huge 512 bi-directional channels at 96kHz between console and stage. A Dante card offers 32x32 channels of I/O at 96 kHz over a redundant Dante connection. The Dante interface offers Sample Rate Conversion between all Dante network rates. The back panel also accommodates connectors for MIDI, LTC, Wordclock and GP I/O. The console has redundant power supplies.

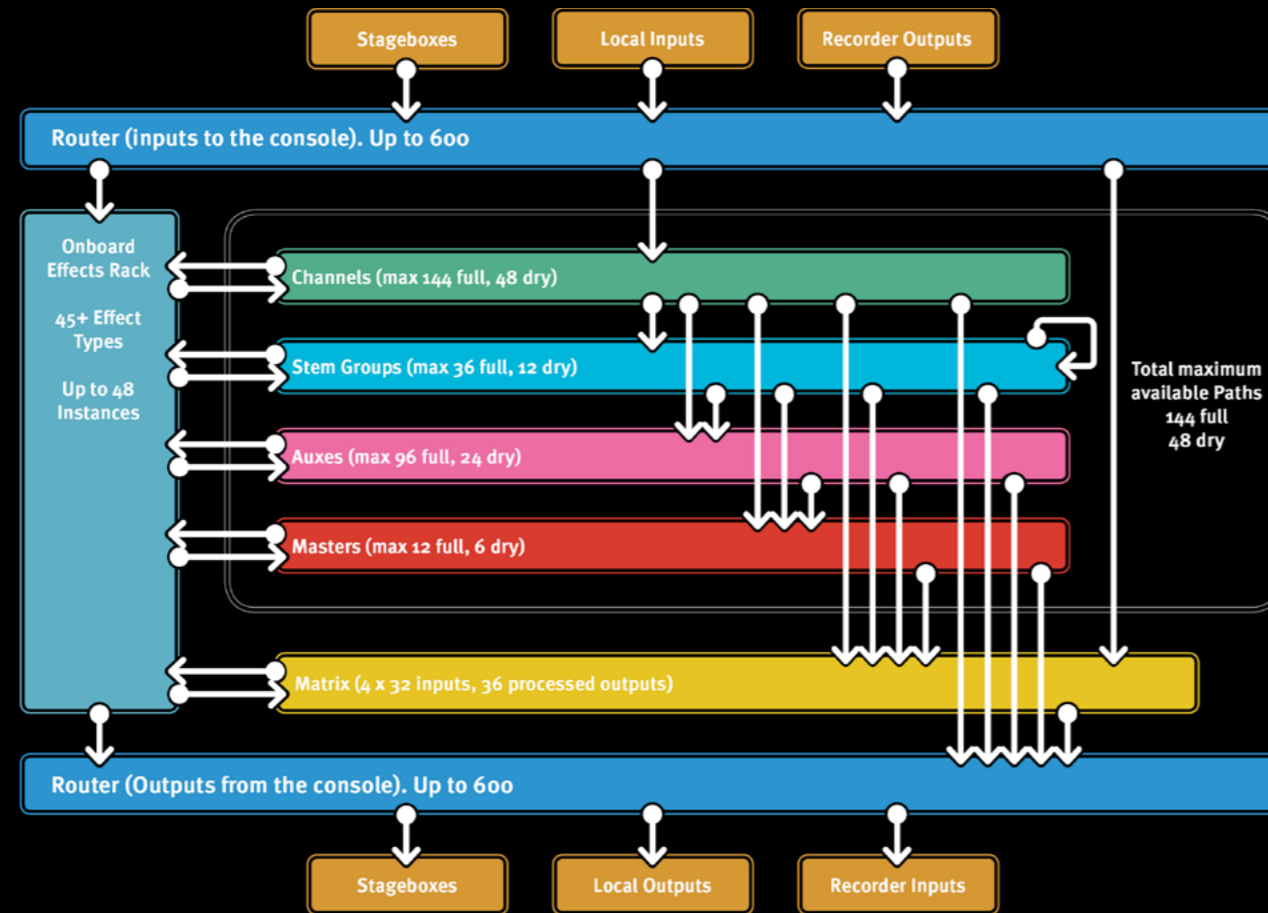


# L300 Architecture

Smaller but still mighty.

L300 processing power allocation and I/O architecture is extremely flexible. The console has up to 600 inputs and 600 outputs. It has 192 mix paths at 96kHz. These paths can be assigned as Channels, Stem Groups, Auxes and Masters to suit demands and configured as mono, stereo, LCR, 4.0 or 5.1. A mono Channel consumes one path, a stereo two, an LCR three a 4.0 path four and a 5.1 six. 144 of the mix paths are full processing paths and 48 are dry. The combination of full and dry path types can be allocated to suit different applications. Insert Effects have their own dedicated processing which is also dynamically allocated.

A 32 x 36 Output Matrix also has its own dedicated processing and can be segmented into four separate smaller matrices if desired. All 36 Matrix Output paths have High and Low Pass Filters, 4 band EQ, 2 seconds of delay and our unique All Pass Filters available. This is in addition to two inserts that can be used with both the internal Effects Rack and external processing.



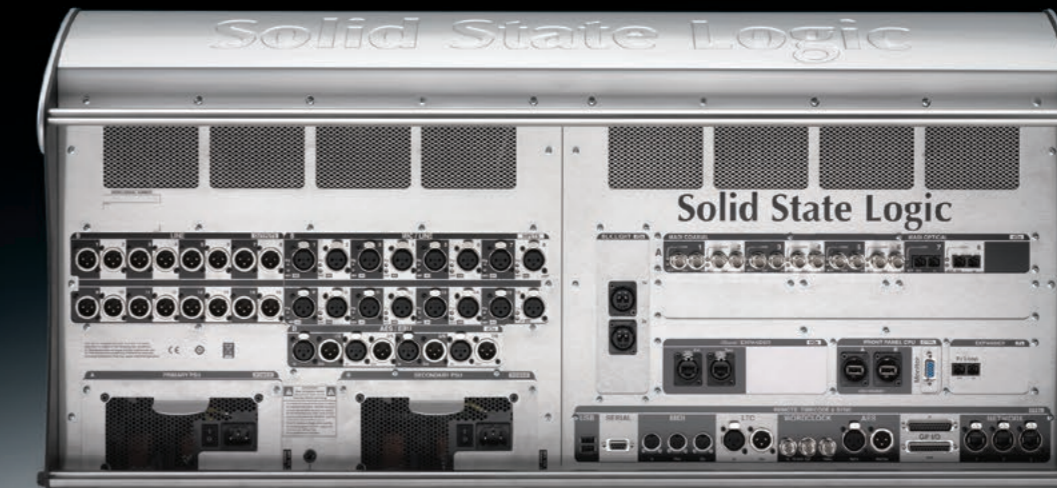
# L300 Local I/O

Convenience and Connectivity.

L300 is equipped with a fully featured collection of Input and Output connectivity with the capacity to serve both Front of House and Monitor applications. L300 provides a versatile collection of local I/O built into the control surface so can operate without the use of any Stageboxes if required and has good connectivity for local peripherals when used in a pure FOH role. SSL Live consoles feature auto detection so identify any SSL Live I/O connected within the software routing pages.

L300 local analogue I/O configuration; 16 mic/line inputs in (two of which are in parallel with the Talkback inputs), 2 front panel Talkback mic/line XLR inputs, 12 line outputs, 4 Headphone/Monitor outputs. AES/EBU digital I/O configuration: 4 pairs of inputs and 4 pairs of outputs. AES/EBU I/O has fully variable sample rate conversion.

There are eight MAD1 ports; three pairs of coaxial and one pair of fibre which can be used independently or in a redundant configuration. There is an additional FX loop, a separate optical MAD1 port (out/in), designed for connecting an external FX device such as a system using Waves Multitrack or a VST effects host. A redundant pair of SSL Blacklight II fibre connectors provide 256 bi-directional channels at 96kHz between console and stage. A Dante card offers 32x32 channels of I/O at 96 kHz over a redundant Dante connection. The Dante interface offers Sample Rate Conversion between all Dante network rates. The back panel also accommodates connectors for MIDI, LTC, Wordclock and GP I/O. A 2nd redundant power supply is standard.



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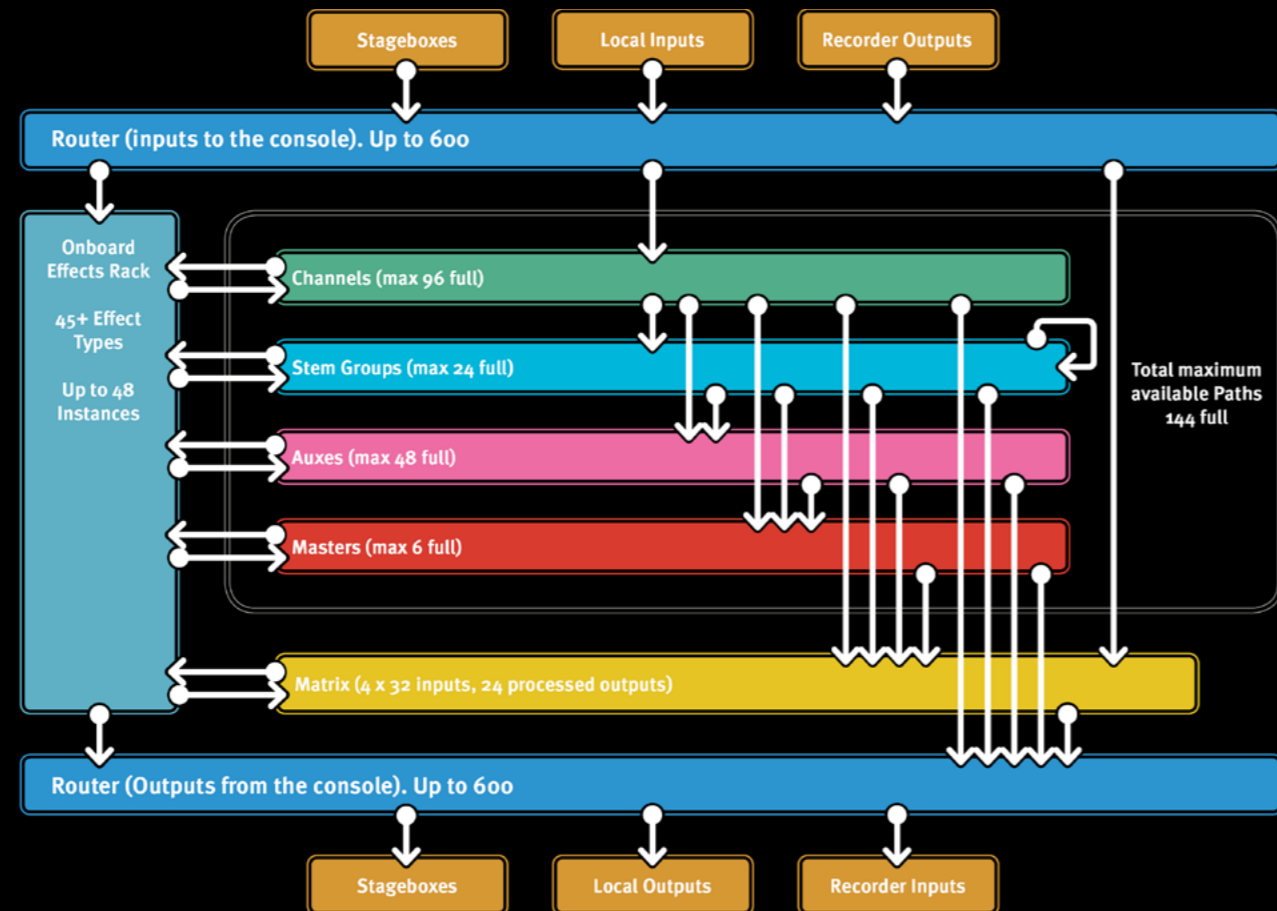
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# L200 Architecture

What you need where you need it.

L200 processing power allocation and I/O architecture is extremely flexible. The console has up to 600 inputs and 600 outputs. It has 144 mix paths at 96kHz. These paths can be assigned as Channels, Stem Groups, Auxes and Masters to suit demands and configured as mono, stereo, LCR, 4.0 or 5.1. A mono Channel consumes one path, a stereo two, an LCR three a 4.0 path four and a 5.1 six. All 144 of the mix paths are full processing paths. Insert Effects have their own dedicated processing which is also dynamically allocated.

L200 features an output matrix which has four x 32 inputs and 24 outputs. All 24 Matrix Output paths have High and Low Pass Filters, 4 band EQ, 2 seconds of delay and our unique All Pass Filters available. This is in addition to two inserts that can be used with both the internal Effects Rack and external processing.



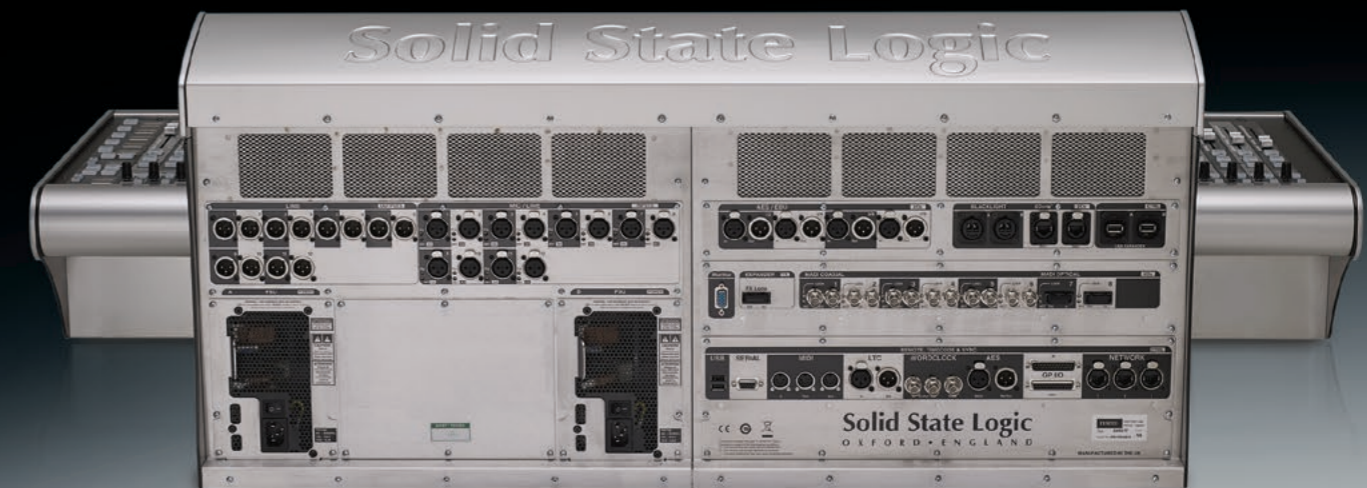
# L200 Local I/O

Convenience and Connectivity.

L200 is equipped with a fully featured collection of Input and Output connectivity with the capacity to serve both Front of House and Monitor applications. L200 provides a versatile collection of local I/O built into the control surface so can operate without the use of any Stageboxes if required and has good connectivity for local peripherals when used in a pure FOH role. SSL Live consoles feature auto detection so identify any SSL Live I/O connected within the software routing pages.

L200 local analogue I/O configuration; 12 mic/line inputs in (two of which are in parallel with the Talkback inputs), 2 front panel Talkback mic/line XLR inputs, 12 line outputs, 4 Headphone/Monitor outputs. AES/EBU digital I/O configuration: 4 pairs of inputs and 4 pairs of outputs. AES/EBU I/O has fully variable sample rate conversion.

Standard MADi port configuration: eight MADi ports; six pairs of coaxial and two pairs of fibre which can be used independently or in a redundant configuration. There is an additional FX loop, a separate optical MADi port (out/in), designed for connecting an external FX device such as a system using Waves Multirack or a VST effects host. A redundant pair of SSL Blacklight II fibre connectors provide 256 bi-directional channels at 96kHz between console and stage. A Dante card provides 32x32 channels of I/O at 96 kHz over a redundant Dante connection. The Dante interface offers Sample Rate Conversion between all Dante network rates. The back panel also accommodates connectors for MIDI, LTC, Wordclock and GP I/O. A 2nd redundant power supply is standard.



Live. This is SSL.

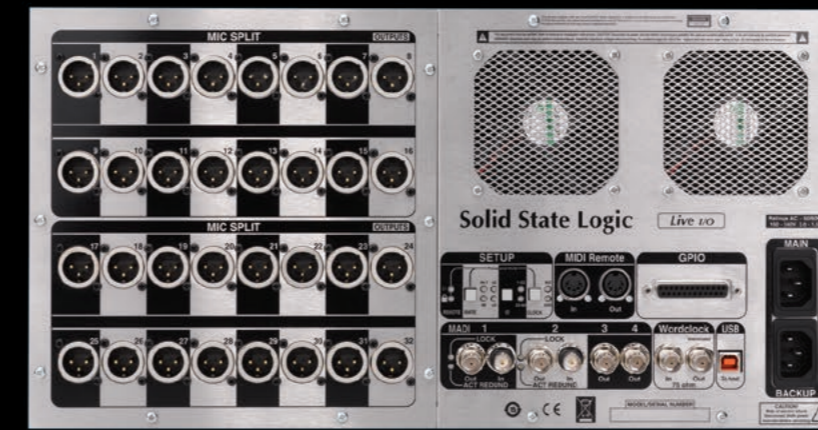
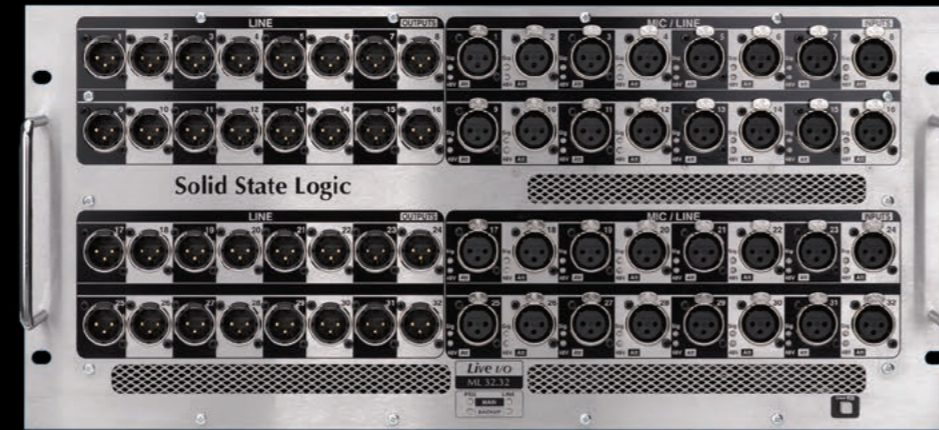
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# Remote I/O - MADI

## Flexibility and Scalability.

A fully scalable set of remote I/O units are available for SSL Live consoles including analogue, AES/EBU digital, MADI and Dante devices. Interconnection between console and stage is via MADI or Dante. Remote gain control data can be carried by either MADI or Dante. For simpler systems standard coaxial MADI can be used to connect the console directly to analogue and/or digital AES/EBU Stageboxes.

For higher channel count MADI based systems, SSL's proprietary **Blacklight II** high bandwidth multiplexed MADI can be used to provide point to point connectivity with a single or redundant pair of cables. Blacklight II carries 256 @ 96kHz audio signals, equivalent to eight MADI connections, bi-directionally down a single multimode fibre (single mode fibre option also available). A MADI Concentrator box located at the stage is then used to distribute standard coaxial MADI to MADI based analogue and AES/EBU Stageboxes, a second SSL Live console or other MADI devices. When two or more SSL Live consoles are connected to the same I/O, arbitrated gain sharing allows specification of which console has master gain control. All I/O stageboxes are fitted with dual redundant power supplies.



## ML 32.32 - Analogue Stagebox

The 5U ML 32.32 analogue stagebox has 32 remote controlled SSL SuperAnalogue™ mic/line inputs and 32 line outputs on the front panel. Multiple units can be used to create larger systems. Remote switchable phantom power is available to all inputs. A/D D/A conversion takes place within the stagebox and the standard unit has two pairs of coaxial MADI In/Out configured as a redundant pair on the rear panel. I/O sharing between SSL Live consoles is made possible via an additional pair of coaxial MADI outputs. There is an optional rear-mounting 32 analogue mic output split panel. There are sample rate and clock setup buttons and a pair of wordclock connections. MIDI and GPIO connections are also supplied for alternative remote control methods.

## D 32.32 - AES/EBU Stagebox

The D 32.32 is a 2U digital stagebox providing 16 x AES/EBU pairs via front panel XLRs. The unit offers sample rate conversion from the standard 96 kHz operating rate to other rates. The rear panel features exactly the same connectivity as the analogue stagebox.

## BL II.D - MADI Concentrator

This 2U unit features two redundant pairs of SSL's proprietary Blacklight II connectors on the front panel. Each connection carries 256 channels of audio at 96 kHz and is used for efficient cable connection to the console. The rear panel provides 8 redundant pairs of coaxial MADI connectors. This high density MADI I/O device delivers digital audio interconnection between any configuration of analogue and digital stageboxes and facilitates I/O sharing.

## Network I/O: MADI-Bridge

Provides an interface between a Dante IP Audio Network and MADI. It has on board Sample Rate Conversion so can deliver 32 channels at 96kHz into a 48kHz Dante network. It has dual MADI, IP Network ports and PSU which can be used as a fully redundant solution or in Split Mode to connect two 96kHz MADI streams to a 48kHz Dante Network (and vice versa). It also offers a unique front panel headphone confidence monitoring system.

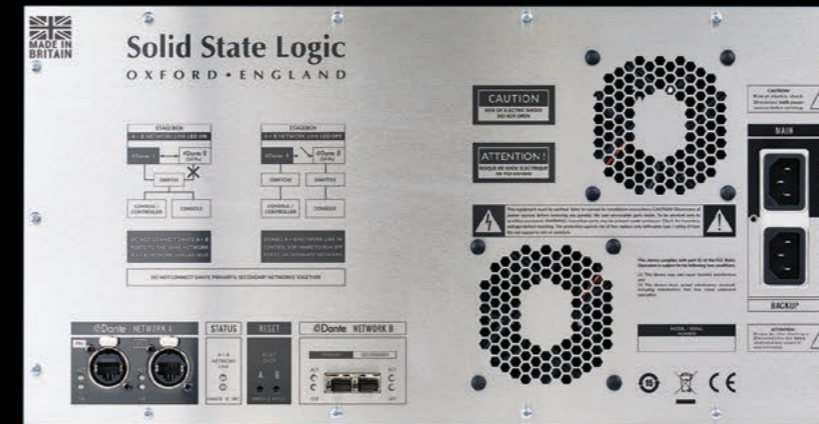
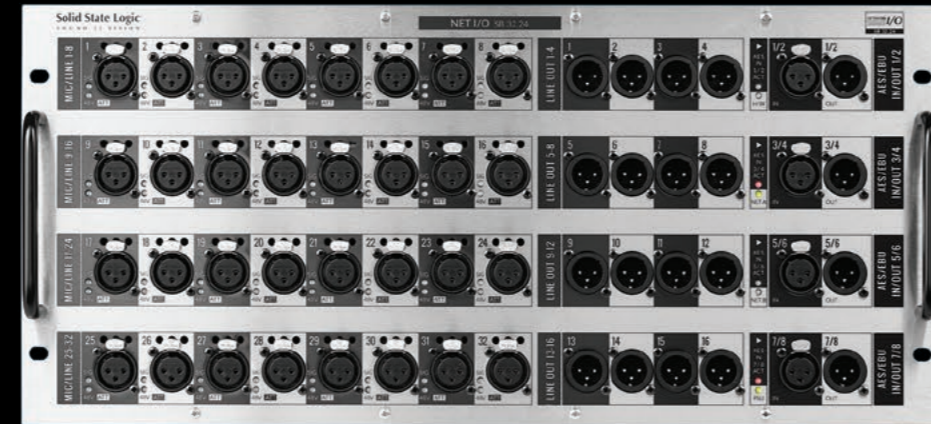
# Remote I/O - Dante

## Built for a fully networked world.

A fully scalable set of remote I/O units are available for SSL Live consoles including analogue, AES/EBU digital, MADI and Dante devices. Interconnection between console and stage is via MADI or Dante. Remote gain control data can be carried by either MADI or Dante. For simpler systems standard coaxial MADI can be used to connect the console directly to analogue and/or digital AES/EBU Stageboxes.

SSL's Network I/O range of Dante devices provide analogue, AES digital or even embedded SDI bridging. Dante networks offer an extremely flexible and powerful solution to audio routing and asset sharing in a wide range of on stage and installed systems. SSL Network I/O Stageboxes place the exemplary audio performance of SSL's renowned SuperAnalogue™ mic pre technology at the heart of your system. When two or more SSL Live consoles are connected to the same I/O, arbitrated gain sharing allows specification of which console has master gain control. All I/O stageboxes are fitted with dual redundant power supplies.

SSL's Network I/O range is also fully compatible with our System T broadcast audio technology, making truly cross-functional system design possible. Broadcast oriented Network I/O units provide SDI Embed-De-Embed options if required.



## SB 32.24 - Stagebox

SB32.24 is a 5U ruggedised enclosure featuring dual redundant power supplies, 32 mic/line inputs, 16 analogue line outputs and 8 digital inputs and outputs on 4 AES3 input/output pairs. It has a pair of redundant RJ45 Dante network connections in addition to a user configurable SFP port that can be fitted with RJ45 or optical connectors. These can be used for network extension or to provide network separation for the gain-compensated Dante "split", for connection to a second Dante-equipped console or appropriately equipped device on a different network. It has individual signal present, clip and phantom power LED's as well as global indication of PSU, Network A and B and Hardware status. SB32.24 can operate at 96kHz or 48kHz sample rates.

## Network I/O SB 8.8 & SB i16

These 2RU units offer slightly different configurations but share identical features. The SB 8.8 offers eight mic/line inputs and eight line level outputs. SB i16 offers sixteen mic/line inputs. Both models feature a pair of redundant RJ45 Dante network connections, a pair of network extension connections, GPIO connectivity and redundant PSU's. They have individual signal present, phantom power and local attention LEDs to provide intuitive front panel feedback. They feature inbuilt limiters and SSL's innovative AutoPad system that automatically applies a Pad according to gain setting. The AutoPad is applied if the gain is set at a low value that would require a pad to achieve making the entire possible mic gain range seamlessly available at all times. An Audition feature allows individual channels to be monitored over the network (using an SSL console or App) without the signal actually being routed to a network destination.

## Network I/O BL II-Dante HC Bridge

SSL's BL II-Dante HC Bridge (not shown) is a 1U unit that provides a bi-directional bridge between SSL's Blacklight II high bandwidth MADI format and a Dante HC connection, delivering 256 channels of ultra low latency 96kHz audio in and out of a Dante network.

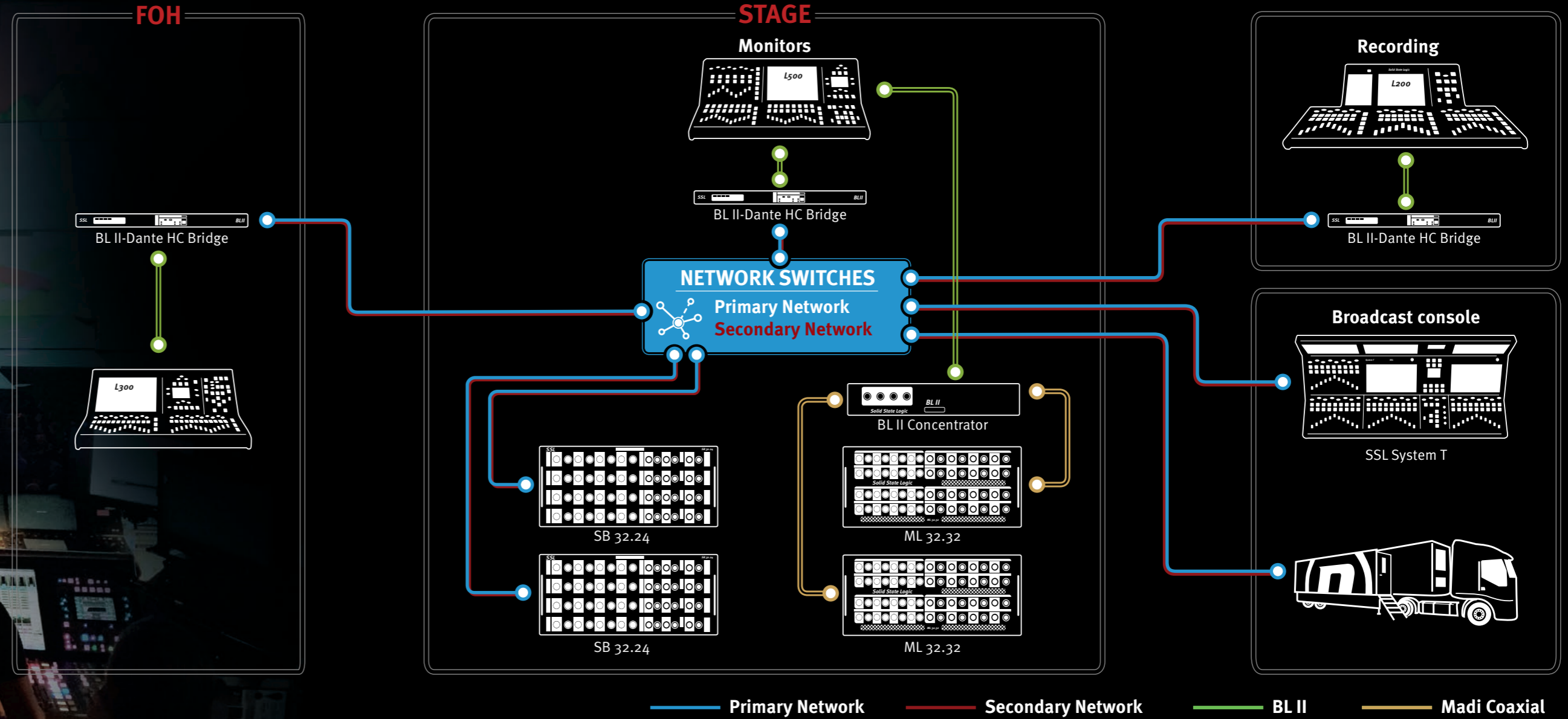


# SSL Networked I/O Ecosystem

Leading edge high bandwidth system technology.

Opposite is an example of an SSL combined audio ecosystem showing integration of MADI, BlackLight and Dante protocols to provide an extremely flexible and robust distributed audio network for live sound reinforcement, recording and simultaneous broadcast.

In this example, SSL Live consoles connect to the system via SSL Blacklight II to provide 256 ch@96kHz via a pair of redundant connections. The BL II-Dante HC Bridge provides a bridge between SSL's Blacklight II high bandwidth MADI format and a Dante HC connection, delivering 256 channels of ultra low latency 96kHz audio to a Dante network. A pair of Primary and Secondary network switches are used to create a redundant Dante network with SSL SB stageboxes connected as required. SSL System T broadcast consoles and OB/Recording units connect via Dante. Standard MADI is also shown used for distribution between an SSL BL II Concentrator unit and SSL ML stageboxes.



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# Remote Control & Offline Setup Software

Your show preparation and remote control toolkit.

SSL's SOLSA (SSL On/Off Line Setup Application) allows creation and editing of Live console Showfiles on your laptop or desktop PC. Almost anything that can be done on a console can be manipulated and configured using SOLSA. This includes console architecture configuration and setup of Fader Tile Layers and Banks, Stageboxes and I/O routing can also be assigned along with the creation of scenes and other automation editing. SOLSA also allows you to add effects, manipulate channel processing settings, bus routing and VCA assignments. SOLSA includes a copy of the Live console Help System, providing a user guide with tutorials and reference sections.

The SOLSA PC application can be connected to a console using a wired or wireless connection\* for real time control of the console from a laptop or tablet PC. SOLSA can also be used 'offline' when access to a console is not possible for preparation of show files.

*\*Wireless access point required.*



## Remote Expander

The Remote Expander feature 24 or 36 faders and one touch screen and provides remote hardware control for a main console. Multiple Expanders can be connected remotely using a standard Ethernet connection. Expanders can also be connected to a console in parallel with SOLSA, for a highly flexible remote control solution. Remote Expander does not add more audio processing capacity!



# 'TaCo' Tablet Control App

On stage mix control for artists and engineers.

The SSL Live TaCo (Tablet Control) mix app provides wireless\* tablet control of SSL Live consoles from iPad and Android devices. Designed for use by both monitor engineers and artists, the app can be limited to control an individual Aux mix or unlocked to quickly and easily control all mixes from a single screen. Multiple tablets can be connected simultaneously for providing mix capabilities to each performer on stage.

TaCo utilises the same Query technology as the Live console, meaning only the channels routed to the selected Aux are displayed. Using the Live console's Stem groups, input channels can be combined into logical sub groups to provide the performer with a simplified set of faders.

*\*Wireless access point required.*





“SSL definitely did their homework to make it sound as analogue as possible. This console is the most analogue-correct digital console I’ve ever encountered. It sounds phenomenal. It’s very intuitive and user-friendly. There are a lot of options as to how you can set up SSL Live. Everything is built-in, the reverbs sound glorious and it’s all on board, I don’t have to go out and buy a console and then say, ‘Okay, now I need some external piece of software or hardware to get what I want.’ Everything I need is right there in one box to make the sound how I need to make it, which makes my job easier.”

**Kenny Kaiser.** FOH. The Killers.



“Once I finally got to see the console, it drew me right in. I actually never heard the console before I decided to use it. I know what an SSL sounds like in the studio; they’re sonically incredible. For me, it’s mostly about design, use, accessibility and how I could lay the desk out for what I need to do. I don’t have any static mixes with the band, every song is different, so there’s never quite the same setup each night. I have to have a console that I can get around on very rapidly. This setup lets me have multiple modes of accessibility to my work surface, which is key.”

**Brian Montgomery.** Monitors. Santana.



“The first thing to say about Live is that it sounds really quite good and makes mixing live audio very easy. You get lots of separation and clarity. The EQ is musical, never harsh, and the dynamics are transparent even when compressing a signal hard, as you would expect from an SSL console. The mixes come together quickly when starting from scratch. Because the audio is very clearly defined, you have more options regarding relative levels, so elements of a mix that may normally be masked with another console are still clearly audible. This leads to accomplishing the often illusive third dimension to a mix that live engineers strive for — and that is a real sense of depth.”

**Ben Findlay.** FOH. Peter Gabriel.

## Solid State Logic



International HQ: Begbroke, Oxford, England OX5 1RU · Tel +44 (0)1865 842300 · sales@solidstatelogic.com

Cologne: Tel +49 7001 8658 42300 · sales@solidstatelogic.com

Los Angeles: Tel +1 213 249 9229 · lasales@solidstatelogic.com

New York: Tel +1 212 315 1111 · nysales@solidstatelogic.com

Paris: Tel +33 (0)1 48 67 84 85 · frsales@solidstatelogic.com

Singapore: Tel +65 6438 2272 · sales@solidstatelogic.com

Thailand: Tel +66 2 587 5111 · akaraphol@ssl-bkk.com

Tokyo: Tel +81 (0)3 5474 1144 · jpsales@solid-state-logic.co.jp

Zagreb: Tel +38 513 079 405 · sales@solidstatelogic.com

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