The **C200 HD** is the ideal Live Production Console. It is a digital audio console with a traditional analogue style ‘knob per function’ control surface and an in-line channel format. Freelance audio engineers stepping from studio based music production into on-air mixing for TV are instantly familiar and comfortable with the **C200**. It offers all of the benefits of a digital audio console including instant reset, extremely flexible channel layout capability and capacity for dual operator configuration.

In a choice of frame sizes, the familiarity of **C200**’s discrete control surface is combined with the scalability of SSL’s Centuri™ core. Up to 512 I/O, and 60 GPIs are available from a single 15U core, with fibre connected stageboxes handling remote controlled microphone resource.

The console benefits from redundancy, fault tolerance and hot-swap features. Full diagnostic support and the security of proprietary design ensure robust long term performance.

- Freelance friendly, ‘analogue style’ control
- Dual faders (large and small) per channel strip
- Flexible in-line channel configurations
- 48 Multitrack busses with trim and fader path summing, redeployable as aux or group busses
- 12 Main busses for Stereo / 5.1 sub groups, (expandable to 36 using Multitrack busses)
- 2 Programme outputs (5.1 and Stereo)
- Independent pre and post fader direct outputs
- 12 Aux busses with odd/even stereo linking, (expandable to 36 using Multitrack busses)
- 12 stereo FX returns
- Sample-independent processing with options for 48kHz or 96kHz operation
- Dedicated processing per channel strip
- EQ and Dynamics DSP emulations
- Full 5.1 facilities for surround mixing
- Comprehensive dynamic automation and integrated 4-port machine control system
- Mobile configuration for space/weight savings
- DAW control
Superior Audio Quality
With options for 48 or 96kHz operation, the C200 delivers superior audio performance. All channels provide 4-band parametric EQ, high and low pass filters, and independent compressor/limiter and gate/expander sections.

Processing is dedicated to every channel so there’s no need to assign resources at the start of the setup, and emulations such as the SSL ‘E’ and ‘G’ Series EQ, and ‘Quad’ compressor, provide familiar and great sounding audio tools.

Secure Performance
SSL proprietary technology is used in all hardware and software design, guaranteeing robust and reliable performance.

Self-healing DSP, fast reboot times and power supply redundancy options are among some of the console’s fault tolerant features. Local and remote diagnostics provide trouble shooting tools from any location, with SSL’s network of offices offering training and service support.

Modular Construction
SSL’s proprietary Centuri core contains all audio and control processing, I/O options and GPI interfacing within a single, robust chassis.

Up to 512 inputs and outputs, at 48kHz (256 inputs and outputs at 96kHz), may be handled directly from the Centuri core. Card options include Analogue, AES/EBU Digital and MADI, all operating at 24-bit with sample rate conversion for digital I/O, both AES and MADI, as standard. A 60 channel GPI card may be fitted to provide programmable machine starts, cue lights, etc.

Mic sources are input through separate remote controlled stageboxes, with a choice of stagebox hardware options. Each unit provides mic inputs with foldback, with options for split feeds and PSU/fibre link redundancy.

All key control surface, Centuri core and stagebox elements are easily serviced, with features such as hot-swap fader cassettes and quick-release power supply assemblies fitted as standard.

Maximum Value
Each C200 console is tailored to meet production and budgetary needs, with all elements scalable: console surface, channel capacity and I/O. Configuration options, such as the C200 Mobile, enable 48 channel strips (105 faders) to fit across a width of 2.34m (92”). Alternatively, where space is less restricted, customised frame layouts can be used to create impressive real estate.
Fast Access to Many Channels
The C200’s Channel Banking feature provides fast access to two layers of channels with global and individual channel A/B access buttons. For smaller control surface configurations, ‘Virtual Bays’ provide additional layers, allowing access to all 128 in-line channels even on a console as compact as 16 fader strips.

Sweet Spot Operation for Optimum Listening
Any bay of 8 channels can be swapped into a designated central master bay, allowing parameters across multiple channel strips to be adjusted from the optimum listening position.

Multiformat Mixing
C200’s 12 main busses provide multiple 5.1 and/or stereo groups. A programmable matrix configures the independent 5.1 and stereo programme outputs. 5.1 and stereo monitoring paths include insertion points for matrix encoders and decoders, and external source selections.

Integrated Routing Control
An integrated digital routing matrix removes the need for complex analogue patch bays and allows easy reconfiguration of complex setups.

Choice of Servo or VCA-style Fader Grouping
All large and small faders are motorised providing freely assignable moving fader grouping. Alternatively, choose SSL’s unique emulation of VCA-style fader grouping to view the balance and adjust slave positions whilst the group master fader is closed.

Dynamic Automation
The C200’s dynamic automation provides another dimension to its capabilities. Comprehensive on and off-line automation tools, an integrated 4-port machine control system, and refined user interface make the console ideal for off-line mixing applications.

Status Lock Provides Operational Peace of Mind
The Status Lock option on C200 disables potentially destructive console functions including Solo-in-place, dynamic automation, console status changes (e.g. Record to Mix) and tone or talkback to main bus outputs.

Backstop PFL
This popular broadcast console feature enables the operator to pre fade listen any input by simply pulling back on the channel fader.

Instant Snapshot Reset
Controls may be reset instantly using static ‘Snapshots’. Selective reset enables channels to be reconfigured whilst a production is live to air, for example, when handling an entertainment show with multiple live acts.

Full System Reconfiguration
The C200’s Project Management system enables full console reconfiguration for a new type of production. In addition to console parameters, this includes reset of routing, surround formats, GPIs, etc.
Flexible In-Line Design
The C200 console uses a traditional in-line design providing two independent signal paths per processing channel. These are known as the ‘Channel’ and ‘Monitor’ signal paths, each with dedicated input, output, motorised fader, cut, AFL/PFL/Solo and multiformat panning controls.

Global console statuses (RECORD, REPLAY and MIX) determine whether the large or small faders control the main Channel or secondary Monitor signal paths, providing fast reconfiguration for Recording, Overdubbing or Mixing.

Most live productions are run in MIX status, with the small faders controlling additional inputs to the mix. Alternatively, a live to tape production may be run in RECORD status allowing small faders to set record levels to multitrack and large faders to feed the main production balance.

Flexible Channel Configurations
The Centuri core provides a range of channel configurations. Options for either 48kHz or 96kHz operation determine how many DSP cards must be fitted to support each configuration. Regardless of sample rate, the console’s mix capacity remains fully featured with no loss of functionality.

Both faders may feed the 12 main busses simultaneously, effectively doubling the mix capacity of the console. The 48 multitrack busses may also be fed by either or both faders, or can be employed as additional aux or main busses.

A full set of High and Low Pass Filters, 4-band parametric EQ, Compressor/Limiter, Gate/Expander and external Insert point are available for each in-line channel, and may be switched between the large and small faders as required.

12 Stereo FX Returns
12 stereo FX returns are provided for assigning effects devices or external feeds to any of the 12 Main busses. They may be linked for multichannel use as required.

12 Main Busses
Programmable main busses provide multiple stereo and 5.1 audio sub group outputs, with assignable level control, delay and insert points.

48 Multitrack (MT) Busses
48 MT busses may be used to feed recorders, generate mix minuses, N-1s, and ancillary outputs. Busses may be fed from the large or small fader, or both. They can also be fed from a spare aux send (EFX, Extra FX send) which is floated away from the main aux bus to generate a dedicated level control to the MT busses, leaving both fader paths free to handle primary mix sources.

MT busses can also be employed as additional main busses (creating a 256 into 60 bussing structure, ideal for multiple stems), or additional auxes (using either fader). Each MT bus has an independent level trim, and AFL monitoring access is available from the centre section.

12 Aux Busses
The aux busses may be configured for mono or stereo operation, and are fed from both fader paths with independent send levels from large and small faders. Aux balances may be set quickly and easily using the ‘Set Aux to LF’ or ‘Aux Flip to Faders’ functions.

Pre and Post Fader Direct Outputs
Three direct outputs per channel strip are provided, with post fader Channel and Monitor paths, plus the pre fader insert send (Channel or Monitor path) available simultaneously for maximum flexibility.

Simultaneous 5.1 and Stereo Programme Outputs
The 12 main busses combine to form simultaneous 5.1 and Stereo programme outputs. A master 5.1 compressor, dedicated master fader and 8-channel insert point may all be applied to the programme outputs, with presets for easy recall of different format setups.
UNIQUE CONTROL FEATURES

Channel Banking
The C200 may access up to two banks of processing channels providing lots of mixing capacity from a compact control surface. Channel strips can be flipped individually, or with master buttons, and all control settings and displays update instantly without any affect on the audio.

Bay Swapping
Bay swapping allows the operator to adjust any bay of 8 channels from the optimum ‘sweet spot’ listening position. Simply press any of the dedicated bay swap buttons and that group of 8 channels is instantly swapped into the master section.

Virtual Bays
For smaller control surface configurations, ‘Virtual Bays’ provide access to all processing channels. For example, a 32 channel strip control surface, configured with an additional 2 virtual bays can access 96 in-line channels by swapping any physical or virtual bay into the master sweet spot position.

Freely Assignable Mono and Stereo Channels
Stereo channels can be freely assigned at any physical channel position by linking the upper (A) and lower (B) layers of banked channels. Both large and small fader paths are linked, enabling two stereo sources to be controlled from a single in-line channel.

When linked, the Channel Information Display will automatically update to stereo input metering. Stereo channels offer all the facilities of mono channels, with the addition of independent Left and Right input routing, Left/Right input balance control and stereo panning options.

A/B – button is inactive when layers are linked to create a stereo channel.

MONO L and MONO R
Mono’s the stereo channel, from either the Left or Right input, for reacting quickly to non stereo sources.

Width – press the SUB/DIV button to adjust stereo width for large and small fader paths.
**Input Source**
Centrally controlled input routing enables any source within the facility (Mic, Line or Digital) to be routed quickly and easily to any large or small fader path.

**Bus Routing**
The same central control panel is used to assign channels onto the console’s main and multitrack busses, and channels may be assigned using a variety of pan formats to enable mono, stereo or surround operation.

**Routing Arrays**
For both input and bus routing actions, assignments may be made to individual channels or across ranges. This can be used to route a range of microphones or assign multiple mix minus. For example, with channels 1-48 routed to all of busses 1-48, use the INC routing action to incrementally deselect channel 1 from bus 1, channel 2 from bus 2, etc. The result is 48 mix minus assignments in a couple of button presses.

**Mic Amp Settings**
Parameters are set within the stagebox but are remotely controlled from the console. They include phantom power (48V) and a 20dB attenuator (PAD), with C-SB stageboxes also offering a high pass filter (HPF) and a protection limiter (LIM).

**Mic Amp Gain**
Gain may be controlled from the channel or centrally, using the SET GAIN button and MISC level control. For example, trimming the levels for a range of audience microphones but keeping any individual offsets intact.

**Source Groups and Pan Formats**
These buttons are dual function with red engravings selecting a source group and black engravings selecting a pan format.

Sources are arranged into 9 logical groups depending on the number and type within the installation, for example MIC, MTrk, FX, etc. Each group contains up to 5 banks of 32 sources.

When assigning busses, channels may be routed in MONO, STEREO, LCR, etc.

**Path Selection**
Selects whether the route acts on the large fader (LF), small fader (SF), insert return (INSERT) or GROUP MONITOR INPUT.

**Channel Selection**
Selects the channel(s) for assignment. Channel numbers can be modified using the arrow buttons, or by pressing a SEL button on the desired channel’s fader cassette.

**Routing Action**
Selects channel input (SOURCE) or output (BUS) routing actions. INC will assign sources or busses incrementally when working on a range of channels.
### Channel Information Display
Each bay of the console is fitted with a high resolution TFT display, providing channel input metering, source names and bus routing assignments.

Four dedicated input meters show large (blue) and small (gold) faders on both the upper (fully lit) and lower (half lit) channel layers. This enables an operator to view all signal inputs simultaneously. On stereo channels, metering defaults to full brightness for Left and Right inputs.

Bus assignments for Multitrack and Main busses are colour coded for clear source indication, with large fader assignments in blue, small fader in gold and EFX in purple.

Input source names for large and small fader paths are displayed simultaneously; the arrow highlights the current active layer and automatically updates as channels are banked or swapped.

Mic gain indicator is momentarily displaced by other channel parameter values (e.g. EQ gain in dB) as they are adjusted.

### Input Gain
Channel gain control switches between digital input level trim (±20dB) and remotely controlled analogue mic gain. On stereo channels, input balance and independent Left/Right mic gain may also be adjusted.

### Compressor/Limiter and Gate/Expander
Independent Compressor/Limiter and Gate/Expander sections are provided, with a choice of profiles, optional automatic gain make-up and sidechain keying for multichannel operation.

<table>
<thead>
<tr>
<th>Gate/Expander</th>
<th>Compressor/Limiter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threshold</td>
<td>−60 to 0dBFS</td>
</tr>
<tr>
<td>Range</td>
<td>−50 to 0dB</td>
</tr>
<tr>
<td>Attack</td>
<td>0.03 to 150ms</td>
</tr>
<tr>
<td>Release</td>
<td>10 to 1500ms</td>
</tr>
<tr>
<td>Hold</td>
<td>0 to 1000ms</td>
</tr>
<tr>
<td>Threshold</td>
<td>−50 to 0dBFS</td>
</tr>
<tr>
<td>Ratio</td>
<td>1:1 to ∞:1</td>
</tr>
<tr>
<td>Attack</td>
<td>0.03 to 100ms</td>
</tr>
<tr>
<td>Release</td>
<td>10 to 1200ms</td>
</tr>
</tbody>
</table>

### Delay
A feed-forward delay is included with the dynamics section, and may be inserted into the signal path for lip-sync or acoustic delay correction.

### High and Low Pass Filters
Full ranging high and low pass filters normally follow the EQ, but may be SPLIT away for independent use, or inserted into the dynamics sidechain.

- HPF (24dB/octave) Off to 20kHz
- LPF (24dB/octave) Off to 20kHz

### EQ Section
The parametric equaliser section features four wide ranging, overlapping frequency bands which may be set to Parametric, Shelf or Filter characteristics. A choice of EQ profiles is available including SSL G and E Series analogue EQ emulations.

<table>
<thead>
<tr>
<th>Profiles</th>
<th>Gain Ranges</th>
<th>Q Ranges</th>
<th>Default Bands</th>
<th>Band Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>±20dB</td>
<td>0.4 to 20.4</td>
<td>HF Shelf</td>
<td>Shelf</td>
</tr>
<tr>
<td>20-20k</td>
<td>±20dB</td>
<td>dependent</td>
<td>HMF Par</td>
<td>LPF/HPF</td>
</tr>
<tr>
<td>292 G</td>
<td>±16dB</td>
<td>on Profile</td>
<td>LMF Par</td>
<td>Parametric</td>
</tr>
<tr>
<td>242 E Series</td>
<td>±16dB</td>
<td>and Band</td>
<td>LF Shelf</td>
<td></td>
</tr>
</tbody>
</table>

### EQ and Dynamics Copy
Both EQ and Dynamics settings may be freely copied from channel to channel. Simply select COPY (the button flashes) on the source channel followed by COPY (both buttons go out) on the destination and the operation is complete.

### EQ and Dynamics Preset Libraries
Favourite EQ or Dynamics settings may be stored and instantly recalled during different show setups. Presets are recalled from the central routing panel using the LOAD EQ or LOAD DYNAMICS buttons.

### Central Control Screen
Additional channel information may be displayed on the central control screen, providing an overview of EQ, Dynamics, Auxes, Panning and other channel parameters. The display automatically follows where you are working, updating each time you adjust controls on a different channel.

### Profiles
- Standard
- 20-20kHz
- 292 G
- 242 E Series

### Gain Ranges
- ±20dB
- ±16dB

### Q Ranges
- 0.4 to 20.4
- dependent
- on Profile
- and Band

### Default Bands
- HF Shelf
- Shelf
- HMF Par
- LPF/HPF
- Parametric
- LF Shelf
External Insert Point
Each channel features an external Insert point which may be assigned to any
analogue or digital device, and switched pre or post the channel processing in
either the Channel or Monitor signal paths, with full latency compensation.

Flexible Signal Processing Order
Each section of channel processing (Dynamics, Filters, EQ and external Insert) may be placed in
either the Channel or Monitor signal paths. The Process matrix provides colour coded feedback,
with the SET button selecting the order of EQ (Green) and Dynamics (Red).

Master Audio Display
A more detailed overview of signal processing
order is provided on the Master Audio Display in
the centre section of the console.

Auxiliary sends
12 mono aux busses are available simultaneously from both large and small
fader paths, with access in two banks: 1-6 and 7-12.
On/Off, Pre/Post and Off to +10dB Gain are provided for each send.
Link any odd/even pair for stereo operation. Stereo auxes use one rotary control
for level, and the other for panning.
Reassign any mono or stereo send away from the main aux bus and to the 48
multitrack busses for controlling the level onto a clean feed output.
Use the ‘Set Aux to LF’ or ‘Aux Flip to Faders’ functions to quickly set a foldback
balance.
Multitrack bus versatility allows the number of aux busses to be expanded to 36.

Channel Banking
The A/B button provides instant access to upper and lower channel layers.

Monitor Path Input Section
The GROUP and TAPE buttons may provide fast alternate input selection for
the Monitor path, or multitrack monitoring capabilities. The red channel
GPI/Track arm key provides access to parallel or serial machine track arming,
GPI machine starts, cue lights, etc.

Small Fader Section
The C200’s small faders are motorised and may be freely assigned as group
masters or slaves. Dedicated SOLO (AFL, PFL or Solo-in-Place) and CUT
buttons are provided, with MONO Left and MONO Right buttons for use on
stereo channels. The section also contains mic amp status LEDs, and provides
small fader Status, Match, Play and Record functions when running dynamic
automation.

Panning
The global ‘Stereo’ or Surround pan statuses
determine whether the two channel pan controls
operate as L/R panners for the small and large
faders, or as LCR and Front/Back panners
switchable between the two paths.
5.1 specific features include a Subwoofer level trim
and ± Divergence. Width may be adjusted on
stereo channels.
Alternatively, panning may be controlled using the
console’s trackball, together with the on-screen XY
pan boxes.

AFL and PFL
Channel SOLO buttons default to AFL operation, with options for PFL
(individually selected for large and small faders) or Solo-in-Place. The large
fader features optional backstop PFL, and PFL cancel on fader open. Note that
Solo-in-Place is disabled for live broadcast work using the centre section’s Status
Lock facility.

Scribble Strip
An 8-character electronic scribble strip provides user labelling for each channel.

Large Fader
The motorised large fader is hot swappable with no loss of audio during
replacement. Features include programmable fader remote starts, 4-character
grouping and automation information display, dedicated signal presence
indicator and channel Select (SEL) button.
**Master Metering Display**
Displays the 12 Main Busses, 5.1 and stereo Programme, Follow and AFL Monitor, and the 12 Aux outputs. 24 user-selectable meters are controlled from a 10-way programmable selector.

**Oscillator and Talkback Control**
Integrated oscillator, with calibrated level and frequency control, switchable to Main and Multitrack outputs, plus master analogue talkback level control.

**Master Audio Control**
Master level, AFL and routing control for the Audio Sub Groups, Aux Masters, FX Returns, Foldback and SLS Outputs, plus control of the 12 Main Bus Delays and external MIDI FX devices. Controls are assigned in banks of four at a time, with the ability to change input and output routing for Aux and FX Return masters.

**5.1 Compressor and Main Output Control**
Dedicated master fader, plus 5.1 main output compressor with a choice of dynamics profiles including the SSL ‘Quad Bus’ analogue emulation. Alternatively, use the 8-channel mix insert to apply external processing.

**Console Statuses**
- Global console statuses (RECORD, REPLAY and MIX) provide fast reconfiguration of signal flow for different applications.
- Global pan statuses (SURR PAN and STEREO PAN) switch between simplified channel panning for stereo work, and full 5.1 surround operation.
- MIX ALIGN automatically compensates for external processing latency when working in MIX status.
- STATUS LOCK locks out certain console functions, such as Solo-in-Place, automation replay and master Status, Oscillator and Talkback switching.

**Main, Mini and PFL Monitoring**
- Two 5.1 Main, two stereo Mini, and an independent PFL monitor output.
- Optional simultaneous Mains and Minis monitoring enables the mixer to monitor Programme continuously, whilst auditioning sources on the Minis.
- Features include master level control in the analogue domain; two 12-way programmable external source selectors; Mono folddown for compatibility checking; separate 6-channel and 2-channel Insert points for 5.1 and LtRt matrix insertion.

**AFL, PFL and Solo Modes**
- The default Solo mode is non-destructive AFL.
- PFL may be actioned either from the fader backstop on large faders, or from the channel Solo buttons by changing the global Solo mode.
- AFL signals usually feed the Main speakers, with PFL feeding Minis; options are provided to reverse these selections or feed the dedicated PFL output.
- The third Solo option is for destructive Solo-in-Place, ideal for mixing off-line, and disabled by Status Lock for on-air applications.

**Communications and Signalling**
- Three stereo foldback and stereo SLS outputs with source selection, level controls and individual or ‘Talk to All’ (OMNI) facilities.
- Mono talkback output, for integration with external communication systems.
- Return talkback switched into the Mini monitor path.
- Red Light switching.
- Any large fader, channel GPI button or central macro may be programmed to activate machine starts, cue lights, cough switches, etc. via the Centuri’s 60 channel GPI card.
The Master Control section consists of the Central Control Screen, track ball and Master Control panel. A wide range of information may be displayed, with ultra-wide viewing angles providing feedback from any console position. Primary screen displays and console functions are driven from dedicated buttons on the Master Control panel. The track ball interface provides access to other setups, and is used for more advanced console features.

**Snapshot Reset**
Up to 62 Snapshots per Project version may be used to reset console parameters instantly. Recall may be global or selective, providing the ability to isolate areas of the console, such as presenter or audience microphones, from the reset.

**Project Recall**
The Project management system stores and recalls not only channel settings, but everything required to reconfigure the console for different types of production. Each Project is a directory in which individual files are stored for every element of the system. Elements, such as input routing, may be saved and loaded individually saving setup time for shows with common settings. For speed of access, Projects are stored on the processor’s internal hard disk. They may be copied onto an external Magneto Optical disk for long term archiving or transfers.

**Macros**
20 user-programmable macro buttons may be used for a variety of functions, including advanced mixing functions, GPI control, etc.

**Dynamic Automation and Machine Control**
Up to four external machines may be synchronised from the console’s integrated machine control system, with dedicated buttons for transport control and autolocation. The C200’s automation system is based on familiar SSL session tools with dedicated buttons for selecting statuses and automation modes. The system is non-linear enabling updates to be written at any speed, and includes optional MOTORS OFF operation.

**Group Master Faders**
Eight dedicated master faders may control any number of large or small faders, or be assigned to control Audio Sub Group levels, Cut and AFL. Operators may choose between working in ‘Servo’ (moving fader) or ‘VCA’-style mode, according to the type of control they are most comfortable with.

- In Servo mode, the physical position of the fader always corresponds to the actual level, and when faders are grouped, moving the master moves the slaves. Features include ‘group lockout’, where the master and slave balance is protected when the master is below a certain threshold. This prevents accidental changes to the master/slave relationships when a master is closed.
- Alternatively, SSL’s unique emulation of VCA fader grouping allows the mixer to work with master faders, whilst the physical position of the slave faders remain unchanged. This allows the balance between slaves to be viewed and adjusted prior to opening the master.

**Custom Meter Options**
Variants include analogue VU or PPM and digital DK Audio and RTW phase scopes.
**Console**
The **C200** console front panel provides operational controls and indicators, and communicates with the **Centuri** core via dedicated high-speed data links.

**Centuri Core**
The **Centuri** core provides a compact ‘all-in-one’ solution, with access to Audio DSP cards from the front of the unit, and other Audio I/O, Fibre Link and GPI cards from the rear.

**Remote Diagnostics**
The **Centuri** core includes a RS232 terminal port for local processor diagnostics.

Alternatively, diagnostics may be accessed using **NetBridge**, SSL’s secure interface into standard IT networks. **NetBridge** provides secure log-in facilities enabling trained staff or SSL engineers to remotely access diagnostic functions from any location worldwide.

**Channel Options**
At 48kHz, each Channel DSP card provides 32 in-line channels of processing. At 96kHz, the number of cards is doubled to support similar channel configurations without loss of functionality.

**Audio I/O Options**
Up to eight audio Input/Output cards of any type may be fitted in the **Centuri** core:

- **24-channel ADC/DAC card:** High quality 24-bit conversion for line level analogue inputs and outputs, supporting a range of line-up levels for different broadcast environments.
- **64-channel (32 AES/EBU) DIO card:** AES/EBU inputs and outputs with 24-bit SRCs on every input and output pair as standard.
- **64-channel MADI card:** Conveniet and cost effective multichannel interfacing to existing plant infrastructure, with full SRC.

**Fibre Link and GPI Options**
Two card slots hold routing and GPI cards:

- **Routing and Fibre Link expansion cards:** The **Centuri**’s internal routing card may be fitted with up to 4 fibre expansion cards; each daughter card handling up to 2 fibre links. This provides capacity for 8 (4x2) C-SB or 3U Stagebox fibre links. (Redundant connections use 2 links).
- **60-channel GPI (General Purpose Interface) card:** 60 relay closures and opto-isolated inputs for machine starts, cue lights, cough switches, etc.

**96kHz Operation**
At 48kHz, the **Centuri** core handles up to 512 inputs and outputs. For 96kHz operation, this number is halved to 256.

**PSU Redundancy**
Optional dual redundant PSUs may be fitted for added resilience.

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**C-SB Remote Mic Stagebox**
Purpose-designed C-SB Stageboxes provide cost effective remotely-controlled mic resource. Each Stagebox may be fitted with up to 48 mic inputs. The unit may be fan-less for location within the live production area, and the standard multimode fibre optic connection allows each Stagebox to be sited up to 550m from the **Centuri** core. With dedicated split outputs and remarkable resilience to common mode voltages, the C-SB addresses the challenges of even the harshest environment.

**C-SB Stagebox Options**

<table>
<thead>
<tr>
<th>8-channel Mic Card</th>
<th>max. 6 cards (48 mics)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-channel FB &amp; GPI</td>
<td>max. 1 card (in addition to 4 internal DACs)</td>
</tr>
<tr>
<td>Redundant PSU</td>
<td>1 (2 PSUs total)</td>
</tr>
<tr>
<td>Redundant Fibre</td>
<td>1 (2 Fibre Links total)</td>
</tr>
</tbody>
</table>

**3U Remote Stagebox**
Providing highly configurable, high quality audio acquisition, C200’s 3U stagebox offers 56 channels of MADI I/O. Each of the 14 card slots can accept a wide range of cards, including the following:

- 4 balanced XLR mic/line inputs with remote pre-amp control
- 4 balanced XLR line outputs
- 4 balanced inputs and outputs over 5-pin XLRs

**Analogue cards come in a range of maximum input/output levels, including headphone level.**

- AES/EBU or SPDIF XLR I/O with converters and SRC options
- HD-SDI – 1 Input and 4 Output HD/SD-SDI BNCs, offering 8ch embedder or de-embedder, or 4+4ch embedder/de-embedder.
**Proprietary Design**
SSL’s proprietary technology is used in all aspects of hardware and software design. Freedom from reliance upon third party materials and complete control over all elements of the system, guarantees robust and reliable performance.

**Fault Tolerant Control Surface Connections**
Each bay of 8 channels connects separately into the master front panel interface card. This reduces the impact of a control surface failure such that a fault is localised; the remainder of the console continues to function, and with the ability to bay swap any bay into the sweet spot, full operation of all channels can continue.

**Power Supply Redundancy**
Optional dual redundant PSUs may fitted to both the Centuri core and front panel. If the main supply fails, the system automatically changes over to the backup supply without interruption. LED displays on the control surface give continuous status feedback of all PSUs.

**Self Healing DSP**
SSL’s ‘self healing’ DSP provides fault tolerance without the need for additional hardware. On board diagnostics software constantly monitors and repairs any DSP failure, providing near instantaneous and automatic recovery from a DSP error.

**Airflow Mapped Chassis Design**
Cooling within the Centuri core is designed with optimum air flow characteristics, enabling all components to run well below their specified temperatures. This ensures minimal thermal stress and results in long term reliability for internal components.

**Quick Fit Assemblies**
All C200 assemblies are serviced from the front of the console providing fast, simple replacement access. Dual redundant power supplies are accessed from beneath the console, whilst the flip-up top trim provides fast access to the TFT Channel Information displays.

Easy access is also provided for all Centuri core assemblies. Power supply units are fitted to the front of the Centuri core and may be replaced quickly by ejecting the unit.

All processing and utility cards fitted in the core can be replaced quickly and easily using the robust Telecomms card ejector mechanism.

**Hot Swappable Spares**
Each fader cassette is an independent, ‘hot swappable’ unit which may be exchanged without interruption to the channel’s audio. Simply remove the existing fader, fit the spare, and the new fader automatically resets to the correct level for that channel.
Centuri Core
Physical and Environmental Specification:
Height 15U
Max Depth (no cables) 635mm (25”)
Mounting 19” rack mount
Weight (8 cards fitted) ~40kg (~88lbs)
Power (100-240V AC) 300W – 1kW dependent on options
Cooling Method Front-to-back fan assisted
Timing Reference Black & Burst/Composite Video

Technical Specification:
24-channel ADC/DAC card
Input impedance >10kΩ
Max input +24dBu
Input trim, 0dBFS adjustable in 0.5dB steps
Output impedance <30Ω
Max output +24dBu
Output trim, 0dBFS adjustable in 0.5dB steps
Resolution 24-bit
Breakouts DL

64-channel MADI card
Input sample rate 64-ch: 48kHz fixed, with 24-bit SRC
56-ch: 48kHz ±12.5% with 24-bit SRC
Output sample rate 32, 44.1, 48, 96kHz, or clocked from input
Sync input Wordclock, AES (75Ω), int. or MADI
Resolution 24-bit
MADI breakout BNC, coaxial

64-channel (32-pair AES/EBU) DIO card
Impedance 110Ω
Input sample rate Variable with 24-bit SRC
Output sample rate 32, 44.1, 48, 96kHz, or clocked from input
Resolution 24-bit
Breakouts 25-way D-type

Fibre Link expansion card
Fibre connections Multimode (up to 550m)
Single mode on request
Breakout options Fischer/Lemo connector panel

60-channel GPI card
Breakouts 50-way D-type

C-SB Remote Mic Stagebox
Physical and Environmental Specification:
Height 14U
Max Depth (no cables) 460mm (18.1”)
Mounting 19” rack mount
Weight (48 Mics fitted) ~27kg (~59lbs)

Technical Specification:
Impedance 1.2kΩ
Phantom Power 48V
PAD +20dB
High Pass Filter –3dB at 30Hz
Protection Limiter Threshold –2dB FS, Headroom 17dB
Input Range, 0dB FS = –60dBu to +23dBu (with PAD & Lim)
Mic Split Outputs prior to the variable-gain stage
Resolution 24-bit
Audio Breakouts XLR (Mics), D-type (Splits)
& 25-way D-type (DACs)
Fibre Breakouts see Centuri Fibre Link Specification

3U Remote Stagebox
Physical and Environmental Specification:
Height 3U
Max Depth (no cables) 375mm (14.76”)
Mounting 19” rack mount
Weight (card-dependent) ~5.5kg (~12lbs)

Technical Specification: (card dependent)
Mic Phantom Power 48V
Mic PAD +12dB
Input Range, 0dB FS = –60dBu to +18, 24 or 26dBu, depending on card.
Resolution 24-bit, up to 96kHz
Fibre Breakouts see Centuri Fibre Link Specification

For full 3U Stagebox card specifications, please see the MORSE specification guide.
The **C200** console is constructed in bays of 8 channel strips, providing flexible frame options. The position of the centre section may be located at any bay boundary, and a variety of frame options, including producer sections, angles, split points for shipping and installation, and a script tray, may also be specified.

**Physical and Environmental Specification**

- **Max Height**: 1124mm (44.25”)
- **Max Width (see diagram above)**: 721mm (28.39”)
- **Each channel bay adds**: 334mm (13.15”)
- **End trim adds**: 128mm (5.04”)
- **Max Depth**: 1144mm (45.04”)
- **Height Adjustment**: ±22.5mm (±0.9”)

- **Weight (48 channels)**: ~354kg (~780lbs)
- **Each bay (inc centre) adds**: ~40kg (~88lbs)
- **Legs add**: ~33kg (~73lbs)

- **Power (40ch with 100-240V AC)**
  - Continuous: <1.2kW
  - Dependent on frame size

**Cooling Method**: Convection

The **C200 ‘Mobile’ Configuration**

Where space and weight restrictions apply, an alternative version of the console frame is available. The single width centre section of the **C200 Mobile** configuration enables a 48 channel strip (105 fader) console to fit across a width of 2.34m (92”). Please refer to the **C200 Mobile** specification sheet for full details.