



DiGiCo

SD9



A world-class digital mixing system at an exceptional price

NOW AT 96 kHz



SD9

A world-class digital mixing system at an exceptional price

The future is here, and how. A compact, world-class digital mixing system at an exceptional price. Forget the limitations of conventional digital or analogue mixing. The DiGiCo SD9 is a class apart and a whole generation ahead.

At its heart is the same Stealth Digital Processing™ and unique Super FPGA technology that add up to the finest sonic quality yet heard in a digital mixing console.

This is what powers the pioneering, top-of-the-line DiGiCo SD7 and is the sound of the console chosen for U2's 360° tour,

The Killers' Get Six of the Best, Aerosmith Toys in the Attic, Massive Attack, Madonna's Sticky & Sweet tour and Rihanna's Diamonds tour, events such as the Montreux Jazz Festival and London 2012, television shows such as The X Factor and Britain's Got Talent and major theatrical productions such as Billy Elliot, Lion King and Love Never Dies.

Now, with the SD9, you can mix with that same, high-end audio quality in a smaller system and at a budget friendly price. Add in the elegant, moving fader work surface and giant full colour TFT LCD touch screen and the SD9 will bring back the joy of live mixing in real time - whatever your requirement.

What's more, the accompanying D-Rack means the SD9 is a complete, integrated system including mixing work surface, digital stage interface and CAT5E digital multicore. You can simultaneously record up to 56 channels direct to your favourite multitrack software or DAW, bring those tracks back in to remix or rehearse, and recall everything on the night via the SD9's powerful Snapshot facilities.

The DiGiCo SD9. Join the revolution.





DiGiCo SD9 Rack Pack

72 Mic inputs now at 96kHz

96 kHz

In 2012, to celebrate 40 years, DiGiCo unleashed some more Stealth Digital Processing FPGA power. The SD9 received a supercharged upgrade increasing facilities and processing power at no additional cost to new or existing customers alike.

To mark this significant achievement DiGiCo created a special package including 72 mic inputs with two stage racks, known as the "Rack Pack". This system offered a complete system at an incredible price and offering future proofing like no other console.

For 2013 DiGiCo has increased your SD9 sonic possibilities even further by increasing the SD9 sample rate to a maximum 96kHz. With traditional DSP architecture this would enforce some processing reductions, but once again Stealth Digital Processing rewrites the rule book. Switch your SD9 into 96kHz and the same full processing remains at your disposal*. Running higher sample rates not only increases the available dynamic range but on DiGiCo reduces your constant system latency.

DiGiCo were the first to offer advanced live sound digital recording, when as long ago as 2002 the now legendary D5 Live offered digital recording connection to almost all digital audio workstations. Others followed

but no other console brand offered the flexibility across platforms for show and sound check recording with seamless playback. 2013 sees the arrival of a system front end audio router, allowing for an even more flexibility in defining your desired recording and playback structure.

The user can define the recording path for every input in their system, whether from stage or local on the console for seamless recording and playback. All of the system I/O is made available in a cross point router format where any input can be copied to single or multiple outputs on any port. For playback, you simply press the "Listen To Copied Audio" button and any channels that were fed by copied live signals will then switch to your nominated playback sources.

Any input can be set to "Listen Safe" mode which allows you to quickly replace the playback signal with the live mic on a per channel basis.

DiGiCo offers a range of consoles for every demand, with the same user interface and audio quality. This advantage means you could always step from one model to another and know exactly how to drive the best from your system. Now your session will be able to travel with you thanks to the

new SD Convert application. This standalone piece of S/W allows the engineer to load his file from any console in the range into the application and then determine which model he would like to convert too.

The application allows the user to define their existing session with the resources available on the new console making it possible to freely move up and down the range depending on space, budget and system requirement.

SD9 Rack-Pack Features:

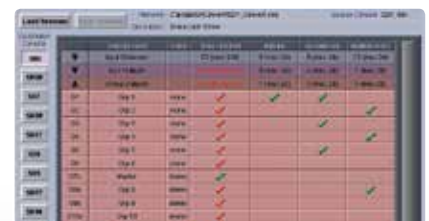
- ✓ 48 Flexi Channels (Equivalent to 96 channels of DSP)
- ✓ 47 Busses made up of 16 Flexi Busses plus L/R, L/C/R Master, 2 Solo Busses, 12x8 Matrix
- ✓ 8 DiGiTuBes Available
- ✓ 8 Dynamic Equalizers
- ✓ 8 Multiband Compressors
- ✓ 8 Digital Effects
- ✓ 16 x 31 Band Graphic EQ
- ✓ Multi Channel Folding
- ✓ Reorder Busses
- ✓ Two D-Rack Stage Boxes
- ✓ Two Digital Snakes



➤ 96kHz



➤ SD Convert Application



➤ Audio Router

* When running at 96 kHz sample rate on CAT5E the D-Rack I/O is 28 Mic input and 16 output

Stealth Digital Processing™ Audio Engine

The latest generation of advanced digital signal processing and audio quality - future proofed



- Stealth Digital Processing™, Super FPGA combined with Tiger SHARCS®.



- The SD9 engine allows for connection to two D - Racks and a MAD1 port for connection to other racks, consoles or simply recording and playback of the show for virtual soundcheck.

The SD9 incorporates the highly innovative Stealth Digital Processing™, initially designed for the pioneering SD7. Based on a single Super FPGA combined with Analogue Devices Tiger SHARCS® for an array of effects processing, it provides unrivalled audio quality, precision and processing power.

Allied to the already powerful SHARC® processor, in use at the heart of every DiGiCo console, is the very latest Tiger SHARC® FX engine, all underpinned by DiGiCo's Stealth Digital Processing™.

Super FPGA technology is literally two generations beyond the world of DSP and is a core component of DiGiCo's advances in console design.

This potent combination provides a stunning level of instant controllability over multiple functions. It supports a comprehensive control surface with 24 motorised faders, dedicated and multi-function control knobs and electronic labelling.

It also provides an extensive range of built-in, world-class effects, reverbs, dynamics, output matrix and more. Plus a huge, high resolution interactive touch screen that makes the SD9 Series a pleasure to mix on and, of course, the smoothest, cleanest and warmest digital console sound yet devised - at any price!

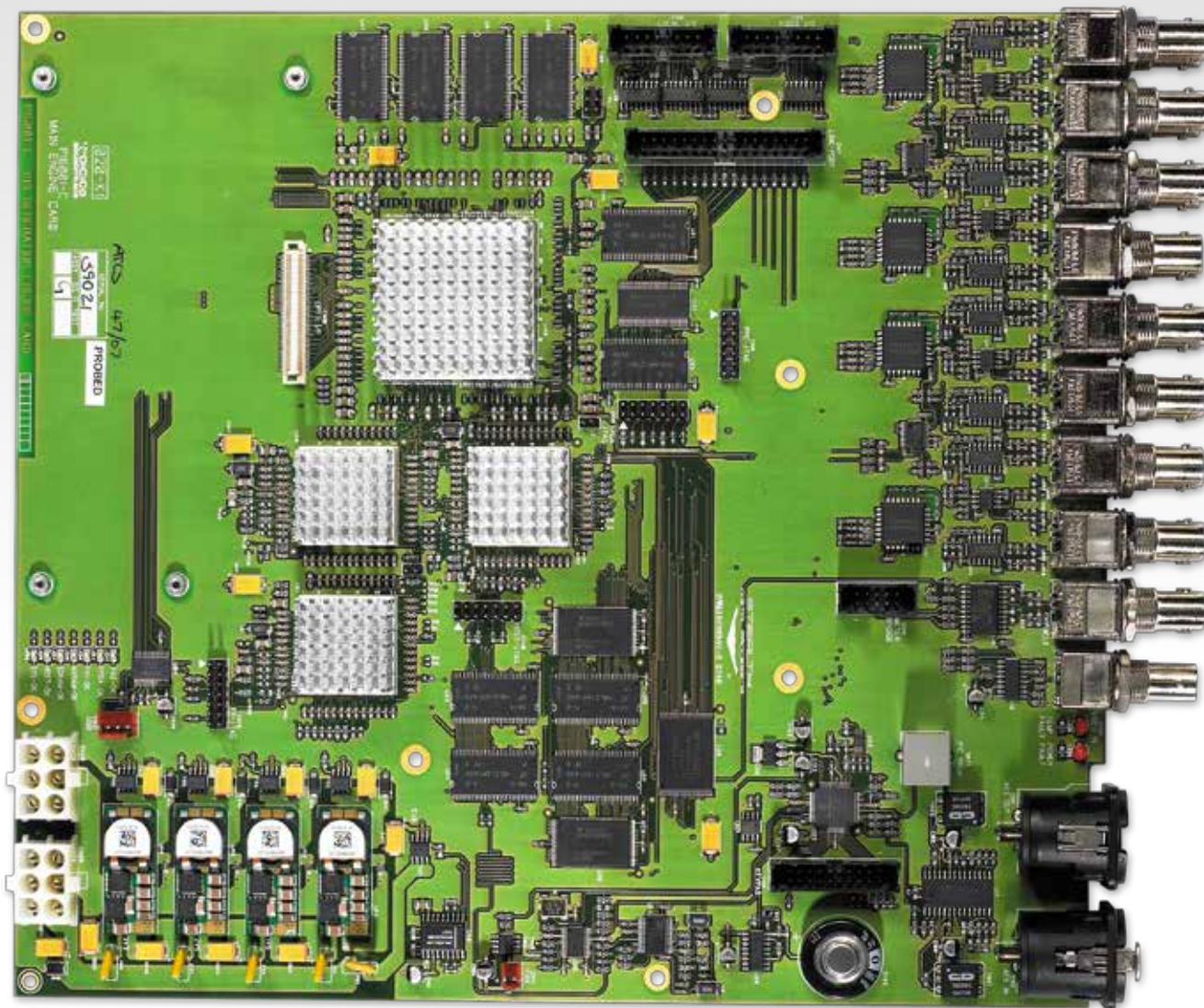
These facilities are constantly available across every one of the SD9 s' 48 Flexi Channels– the equivalent of 96 channels of full DSP processing. Thanks to the combined power of the SD9 Series technologies, the number and quality of effects, dynamics or other functions available to all channels simultaneously is never compromised or reduced, no matter how you have the console set up.

Recognising the ever growing need for many outputs to drive multiple loudspeaker arrays, monitors and more, the SD9 provides as standard a 12 x 8 output matrix – its 8 busses being additional to the console's 16 flexi, solo and master/LCR busses.

The SD9 offers an exceptional array of channels, processing and input and output flexibility thanks to its unique DiGiCo architecture. Unlike conventional DSP based consoles, the SD9 has Super FPGA (Field Programmable Gate Array) technology with floating-point processing at its heart . This is combined with an Analogue Devices Tiger SHARC® processor and underpinned by our Stealth Digital Processing™.

All of this power brings a host of benefits at every step of the signal path. For a start, you have no less than 96 input channel processing paths, all have superior headroom, up to 40 bit floating point processing and each is equipped with an extensive range of built-in, world-class EQ and dynamics sections. Additionally,





STEALTH™

DIGITAL PROCESSING

a pool of dynamic EQs and multiband compressors can be allocated to channels or busses.

These channels are configured as 48 channel strips that can be instantly switched between mono and stereo to meet the increased demand for stereo inputs with no compromise in channel count which is impossible to do with the limitations of DSP.

Onboard effects include eight comprehensive stereo effects, user-selected from the award winning suite of FX found on the SD7. You have the ability to add the Waves module option, opening the way to another 16 stereo plug-in racks, with eight plug-ins per rack, and you can

assign the 16 onboard graphic equalisers to any channel or buss.

With up to 64 inputs from a pair of D-Racks, 56 more via the SD9's MADI input, and not forgetting the eight analogue and four AES inputs on the console, you have a total pool of 132 inputs available (this is before the factory optic upgrade which adds a further 512 audio channels). This allows the SD9 to form the heart of a no-compromise recording and mixing system, or to extend a DiGiCo SD Series system with a DiGiCo Solutions LRB/LBB.

Its buss architecture is also unique at this price point, providing 16 stereo or mono busses simultaneously, together with

a Master buss that can be selectable as stereo, LCR or even 5.1 on the B version.– LCR is perfect for installed systems in Houses of Worship, conference centres and the like.

The high buss count, including two solo busses, makes the SD9 an excellent choice for mixing monitors as well as Front of House, and each channel's insert point is switchable to be either before or after the built-in processing and equaliser. For maximum output flexibility, there's also a well equipped 12 x 8 output matrix section with full processing on the output. There are no restrictions on matrix inputs. These can use any source: sockets, channels, busses, FX, etc.

Intuitive Design

Speed of Operation



➤ Bank Switches and Labels

The DiGiCo SD9 stunningly redefines what the world can expect from a compact digital mixer. With the accompanying D-Rack the SD9 provides you with a complete, integrated system including mixing work surface, digital stage interface and CAT5E digital multicore, with the ability to simultaneously record up to 56 channels direct to your favourite multitrack software or DAW.

And all at a price that makes it the perfect solution for touring bands, schools, conference centres, theatres, broadcast, HoW and a host of other applications requiring exceptional performance and great flexibility for your budget.

A first glance at the distinctive front panel shows you how the SD9's highly compact format embodies the DiGiCo heritage that has seen our SD Series consoles specified for so many of the world's leading artists and events.

The giant 15" full colour TFT LCD touch sensitive screen means you can forget complex menu-driven interfaces, because nothing is ever further than a touch away. Your effects, dynamics and equalisation can be summoned up for each channel in a split second, with no hunting through multiple menus. A physical fader, knob or backlit, electronically labelled button is either provided as standard for every major mix function, or can be programmed onto one of the user macro buttons. Your mix is created on a bank of 24 full-length

motorised faders with accompanying high resolution bar graph meters.

You'll love the SD9's snapshot flexibility – allowing you to capture and recall every setting for unlimited snapshots throughout a rehearsal, soundcheck or live performance. It provides such features as global scope, channel specific recall per snapshot, and a global cross-fade for each console section – and there are eight user Macros for fast access to presets. For users upgrading from analogue or another brand of digital desk, the SD9's snapshot and Macro facilities will open an exciting new realm of possibilities.

And behind it all is the powerful heart of all our latest consoles – Stealth Digital Processing™, now in its third generation, with Super FPGA technology incorporating floating point processing, for superior headroom, dynamic range and overall audio quality. The result is true high end: the smoothest, most accurate and yet thoroughly musical sonic performance you've ever heard from a mixing console.





> Dynamic EQ



> Multiband Dynamics



> Snapshots

A Master of Clarity



> Fader and Meter Strips

DiGiCo's award winning design team has focused from the very beginning on making it fast and easy for sound engineers to navigate the extensive feature set, and simply concentrate on enjoying the creativity of live mixing. The SD9 is no exception, and on a feature-packed control surface our signature LCD TFT touch screen (plus an external overview screen, if you wish) places you in a position of tremendous control combined with unrivalled clarity.

You'll enjoy instant controllability over multiple functions, 24 motorised faders, dedicated and multi-function control knobs and electronic labelling. And, of course, the same 15" interactive LCD TFT touch screen that you'll find on any DiGiCo console up to and including the market-leading SD7.

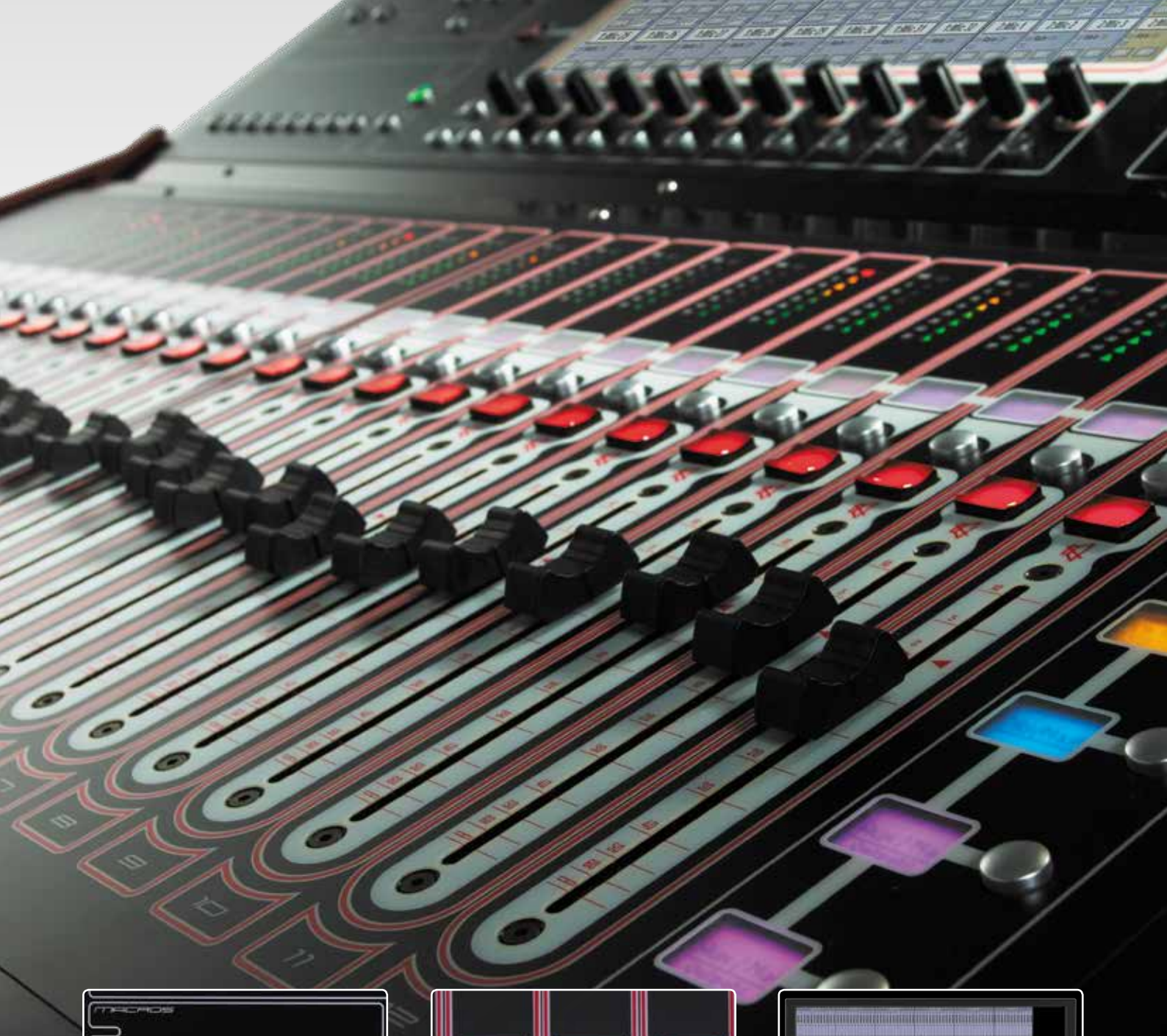
The super high resolution backlit display gives you an instant overview of the SD9's major controls, and a clear view of the complete signal path at every moment. A single touch can bring up each channel's fully parametric four-band equaliser, dynamics section, effects, routing and more.

As you select a function the screen automatically displays parameters that are exactly relevant to what you're doing right now, (such as the full dynamics processing,

that appears under your fingertips when you press a channel strip and hit the dynamics section).

The menu-free, real-time approach is critical to being able to react instantly to what's happening on stage, with no fumbling for hidden commands. A physical fader, knob or backlit and electronically labelled button is either provided as standard for every major mix function, or can be programmed onto one of the user macro buttons.

The 24 highly accurate, durable and user-assignable channel faders have touch-sensitive fader caps to put even more intuitive controllability right where you need it. And each fader is accompanied as standard with an LED bargraph level meter integrated into the work surface with a polycarbonate overlay, eliminating the need for a bulky meter bridge.



> Macros



> Scribble Strips



> Overview Screen



SD9B

DiGiCo SD9 Broadcast

True power for complex productions

The DiGiCo SD9B builds on the proven platform of the SD9, providing high channel count processing within a small frame format. With 48 input Flexi-channels and 16 Flexi-busses, the Broadcast upgrade adds a full set of features and options tailored to this market sector.

The 24 fader surface with the large 15" digitally driven touch screen interface offers an ideal user interface. The SD9B easily interfaces to a wide range of systems thanks to a wealth of connectivity options. 8 Analogue Mic Line Inputs, 8 Line Outputs, and 4 mono AES I/O are provided, in addition to which users have the option to connect up to two DiGiCo D-Racks to the CAT5 ports. These each provide 32 Microphone Inputs and up to 16 outputs.

Further connections include a MADi Port, GPI/O, MIDI Word Clock, and the option of upgrading the SD9B with Optocore connectivity. This ultra-high channel count fibre connection allows the SD9B to be integrated into DiGiCo audio networks, sharing I/O resources with other SD consoles and I/O Racks. The fibre connected SD-Racks support protocols essential for broadcasters, including HD-SDI and AES3 on BNC connectors.

The standard set of SD9B channel processing includes advanced EQ and dynamic tools to rival much larger consoles. Dual input Flexi-channels provide fast "Main" and "Alt" channel switching, which are ideal for productions where a large number of spare microphones may be required.

All channels, both input channels and output busses, feature processing that includes channel delay, HPF and LPF with an industry leading 24db/Octave, 4 Band parametric EQ with the option of dynamic EQ processing, flexible dual dynamics processors including single and multiband compressors, de-esser, gate, ducker and a compressor with a side-chain input.

The Broadcast upgrade expands on this, introducing features including Backstop PFL, Surround Sound with 5.1 bussing, and a full Monitor Matrix.

The Monitor Matrix allows users to define 8 monitoring sources, each supporting a 5.1 surround input. This routes to 3 speaker sets, again each supporting full 5.1 surround. With insert points and calibrated listening levels, the monitoring capabilities of the SD9B cater for every broadcast requirement.

Backstop PFL and Auto (Fader) PFL, combined with 2 configurable solo busses, complete the monitoring setup.

5.1 Inputs and outputs are efficiently handled using the multi-channel capability. A single 5.1 input channel, or 5.1 Master buss, can be unfolded to display the individual "legs" allowing adjustment to the individual elements. LCR and LCRS formats are also supported for total flexibility.





DiGiCo SD9 Theatre

Essential tools for programming and running a theatrical production

The SD9T gives all the advanced theatre features of the flagship SD7T to the smaller SD9.

For over a decade, DiGiCo has been working with world-class sound designers, including Andrew Bruce (Les Misérables, Chess, Miss Saigon, Mary Poppins), to develop a software package that provides the tools needed to address the highly demanding discipline of live theatre sound reinforcement. The results have made the SD7T a standard on the majority of productions on Broadway and in the West End. This feature set is now available to an even wider selection of live theatre users around the world, thanks to the impressive specs of the smaller, more cost conscious, SD9T.

Some of the biggest problems in live theatre sound are those of 'imaging' as performers move around the stage whilst occasionally donning hats which profoundly affect their sound due to the proximity of the head-worn microphones.

As a result, a designer will build a show file with a long cue list and use our theatre specific programming tools, including the Auto Update system and Aliases for cue to cue changes, and Matrix nodal delays for precise sound positioning.

The theatre variant of the Auto Update function instantly updates the channel parameters to all cues, and by using Aliases, affect only those cues where that parameter is the same. For example, if you wanted to make an EQ change to character 'Bob', but not in the cues where Bob is wearing a hat, you would create an Alias 'Bob Hat,' and any changes you made to 'Bob' would track through the cues without updating the Alias 'Bob Hat' and vice versa.

Additionally, as theatre shows make much more use of Control Groups (CGs - also known as VCAs) than traditional live programming, DiGiCo provide a visual CG programming interface. This, along with the SD9T's 12 CG channels, allows the engineer to maintain control of the constantly

changing cast on stage, by quickly assigning and un-assigning CG members with reference to the cue list.

One of the newest time saving tools in the collection is the Players function. This allows the engineer to quickly deal with cast changes on stage. What was once a process of recalling the proper preset for each Alias is now simply a matter of selecting the actor performing that role. The show is then automatically updated with all the settings for that actor.

Additional features include template sessions and Sets (previously only available on SD7T), which has been enhanced to allow for 'Set Spill'. This allows the user to create Sets and, with a simple button press, change the console layout to display members of that Set.



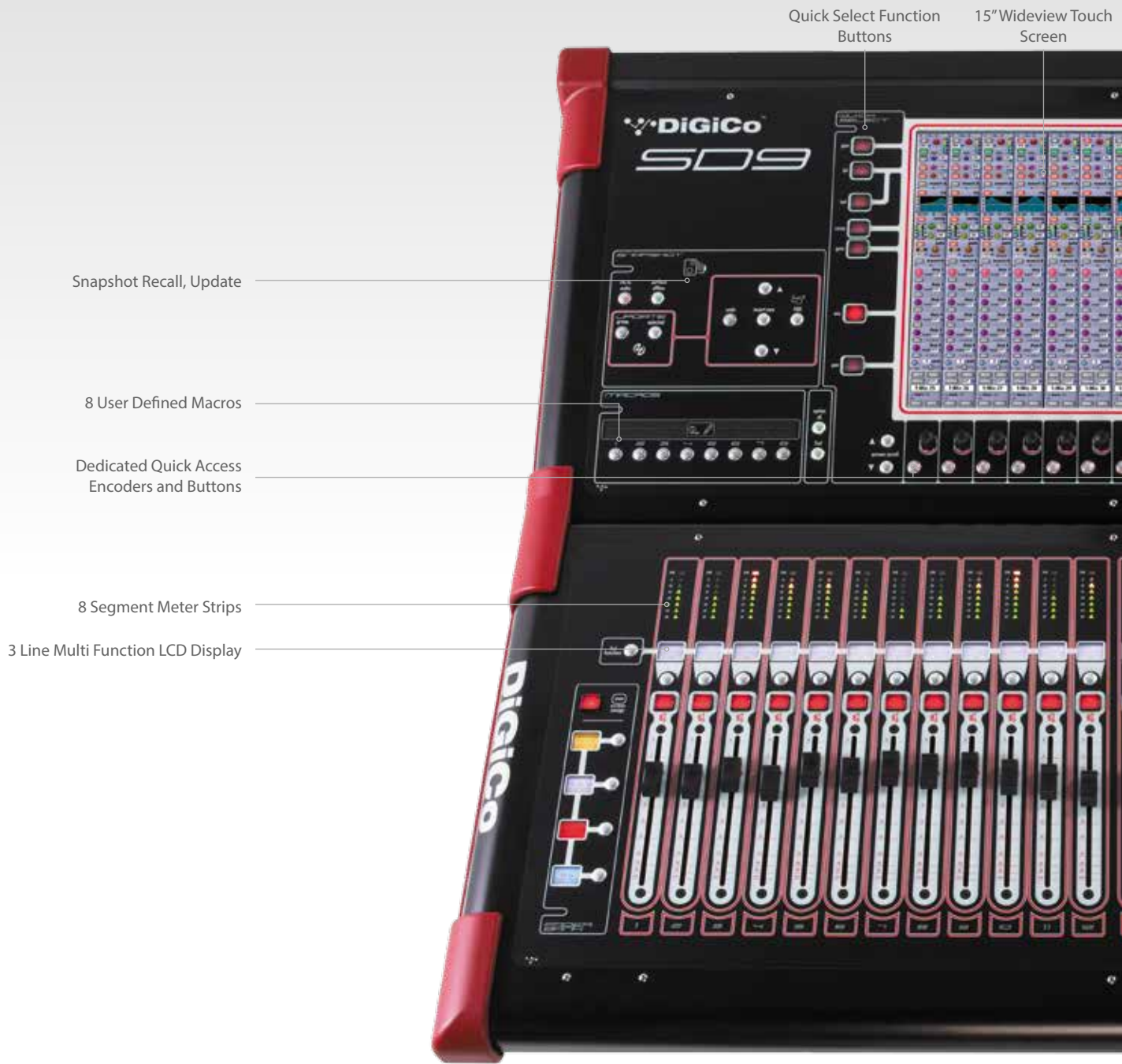
> Blue Man Group - Las Vegas



> Batman - Live Theatre Tour



> A Chorus Line





Channel Controls

USB Connection

Two Solo Buttons

Touch Turn Encoder and Button

Previous and Next

Screen Assign

Fader Bank Assign

100mm Faders

Headphone



3 Pin Light Connection

Local I/O

Network For Remote Control

Overview Screen

Word Clock Sync

MADI I/O
For Recording

Dual D- Rack CAT5E Connections



D-RACK

For Total Flexibility

The SD9 system is digital from start to finish – yet it's also compatible with your analogue equipment. The new D-Rack that's an integral part of the SD9 system comes with 32 microphone inputs, 8 line outputs and 8 modular outputs that can be selected as either analogue or AES, or even a full 16 channel Aviom card for all outputs, providing a maximum capacity of 32 ins and 16 outs. With a digital CAT5E cable to connect to the console work surface, the familiar problems of hum and noise from analogue multicores are a thing of the past.

The SD9 is also expandable, so if your I/O requirements are greater, simply add a second D-Rack to the system via an additional CAT5E – for a total of 64 inputs and 32 outputs on stage. The D-Rack can either be floor or rack mounted, and offers the option of a standard single power supply or optional dual redundant supplies.

A further option on the rear of the rack provides a fibre optic connection, allowing full compatibility with any DiGiCo SD Series console fitted with Optics, making the D-Rack ideal, as for example, a stage or orchestral submixer.

The console also provides a standard MADI connection, permitting up to 56 channels of direct recording output. This powerful facility gives you the ability to make live multitrack recordings of rehearsals and shows direct from your console.

Hook your laptop running Logic, Cubase, Nuendo, Samplitude, Reaper, Pro Tools or any other leading multitrack recording software to the dedicated MADI port and you have instant, low cost, studio quality 56 channel recording and playback set-up. Perfect, too, for fine-tuning scenes and settings at your leisure.





Recording and UB MADI

Simple 48 track recording and playback to USB

- > The UB MADI interface is so small and light you can slip it inside your pocket. No bulky power supply required —just a USB 2.0 cable to connect to your computer, two MADI cables to the desk and hit record.



- > The UB MADI works with a PC or a Mac so you won't be limited by your choice of operating system. In addition the UB MADI will work with virtually any digital audio workstation software. **

With the DiGiCo UB MADI USB 2.0 interface it is now even easier to get up to 48 channels of full duplex audio into and out of your PC or Mac. Simply connect the UB MADI to your computer via a USB cable and a MADI stream from the SD9 and you're away. Low latency recording and playback is there for you to complete your virtual sound-check or performance multi-track.

The UB MADI is small and robust and as it is not reliant on the USB's data clock for sync, jitter is not a problem. The device will take the first 48 channels of any 48k AES-10 compliant connected MADI stream or coaxial AES3 (AES/EBU) stereo audio and

clock directly to it. With no input connected the UB MADI will switch to its own, highly stable, internal clock.

UB MADI - It doesn't get much simpler than this.

** For more information on compatible DAW software and minimum recommended computer hardware specification please contact your DiGiCo dealer or DiGiCo technical support.



SD, SD-MINI Rack and SD-NANO Rack

Expand your system possibilities

The SD-Rack offers high resolution analogue to digital converters, incredible flexibility and superior sound quality to complement the power of your SD Series console. Running sample rates up to 96kHz, the SD-Rack can run multiple digital formats simultaneously including AES/EBU, Dante, HD-SDI, AES-42, MADI, ADAT and Aviom.

Based around the same Stealth FPGA technology as the Digital Engines in the SD range itself, the SD-Rack can run the optical loop at 96kHz while providing a down-sampled 48kHz feed to the broadcast truck from one of the MADI output streams even with Gain Tracking™.

Of course, it all starts with the mic pre-amplifier and here is the beginning of a high quality, sophisticated and sonically superior signal path. With the same FPGA technology onboard as the console itself the SD range of racks provide industry leading A/D conversion and DiGiCo's famous Gain Tracking™.

Gain Tracking™ gives all consoles +/- 40dB of digital gain which can be set independently on a channel-by-channel basis, ensuring that once the analogue gain is set each of the maximum of five consoles on the loop can Gain Track their own mixes. Should there be a need to adjust an analogue gain each Gain Tracked channel will automatically compensate – ensuring

your mix stays the same. Not only that but any of the five consoles on the loop can take control of an analogue gain should clipping occur, safe in the knowledge that everyone else's mix will be unaffected. The SD-Rack features 14 slots providing up to 56 ins and outs and comes with or without optics. Running at 48kHz the two MADI ins and outs provide 56 fully redundant input and output channels via a duplicate MADI aux. If you need to run at 96kHz you can get a full complement of 56 channels of MADI in and out.

Each interface card is hot swappable and the rack will automatically identify the type of card and configure it. The dual power supplies are also hot swappable and easily





- '48V present' LEDs confirm 48V is present per XLR. A further LED indicates signal present and clip at each analogue input, giving you a complete picture of activity on the SD-Rack itself.

- Dual hot swappable power supply units are located at the top of the rack for fast access, so that your connector looms can remain in place near floor level while the more frequently accessed components are right on top.

- The 56 input / 56 output arrangement, in blocks of eight, allows you to populate the SD-Rack with the I/O cards to suit your application. And the cards themselves are hot-swappable, with the SD-Rack automatically detecting the card that has been plugged in.

- Up to 14 rack IDs can be connected on a single optical loop.

accessible at the top of the rack ensuring you won't have to fight a mass of cables to get them out.

The SD-MINI and SD-NANO Racks are the latest additions to the DiGiCo range of high sample rate racks, complementing the SD and D racks to make a completely flexible remote rack solution for any situation.

The SD-MINI is a 4U rack and can accept SD input and output cards be they analogue or digital. Running purely digital the MINI can run up to 32 ins and outs or if it's all analogue you need then a maximum of 32 ins or outs is possible or any combination in banks of eight (8 in and 24 out for example). The MINI has MADi connectivity as standard with optical as an option. With the ability to multi sample rate to convert external devices via MADi and also the ability for Gain Tracking™.

At the smallest end of the spectrum is the SD-NANO Rack. This 2U stage box works almost exactly the same way as the MINI except it is half the size and therefore can only handle half the amount of inputs and outputs. The NANO is only available with optical connectivity.

So, when you need smaller racks distributed around a stage or building, the MINI and the NANO are there to provide you with flexible, affordable digital I/O totally compatible and controllable with the full range of DiGiCo consoles and the larger SD and D racks.

With up to a total of 14 racks on one optical loop, or 28 on a dual loop system, it is easy to see the potential for large corporate events, installations or just expansive stages. This, coupled with the ability for

any of the five consoles that can sit on one optical loop being able to address all inputs and individually address output slots on any rack, giving any engineer, or system designer the flexibility and power they need to make any complex situation easy and intuitive.



Little Red Box, Little Blue Box

Expand your connectivity

DiGiCo's Little Red Box is specifically designed to work with DiGiCo's SD9 or SD11 digital mixing consoles and allows you to connect a D-Rack or a MADI Rack (SD Rack or SD Mini Rack) to two SD9s or SD11s

Currently, a single D-Rack only allows you to connect to one SD9 (or SD11), with no way of sharing the rack. The Little Red Box, however, will allow you to plug in your D-Rack, main console and a secondary console. The main console controls all gains, as well as outputs on the rack, whilst the secondary console acts as a 'receive only' module for the inputs, allowing you to share a rack and operate either Front of House or monitors. DiGiCo's gain tracking system can be activated when required. The handy SPLIT MADI switch allows you to decide if you want to split a D-Rack or one of DiGiCo's other racks. On an SD9 (or

SD11), this connector is usually limited to 32 inputs and 16 outputs. By connecting a DiGi-Rack it allows all 56 I/O to run and is therefore a great way of expanding the I/O capabilities of an SD9 (or SD11).

The Little Red Box is powered via USB, with a second USB port acting as a 'thru', meaning there is no loss of available connections

DiGiCo's Little Blue Box, allows you to connect an SD9, SD11, D-Rack and MADI console (SD8, SD10, SD5, SD7), thus allowing you to share a D-Rack between two or three consoles. The SD9 / MADI switch allows you to select between the SD9 (or SD11), or whatever console is plugged in to the MADI connector to control the D-Rack. The Console RX. Auxiliary output is designed to be the

redundant run on an SD8, SD10, SD5 or SD7. Alternatively, it could be split off to another console with one SD9 (or SD11) using a CAT5 connection and one MADI pair for say an SD8, which could then feed off to a recorder or another console.

Once again, the Little Blue Box is powered via USB, with a second USB port acting as a thru.



> Little Red Box Connections



> Little Blue Box Connections



Waves SoundGrid®

Access the plugins you love



- > The SD9 already comes with its powerful Stealth Digital Processing™ powered suite of audio processing – but sometimes you want to access the plugins you know and love from the studio. Now it is so simple thanks to DiGiCo and Waves SoundGrid® giving you access to a wide range of Waves plugins in special bundles.
- > The choice doesn't only extend to the range of Waves effects - DiGiCo takes the concept of Waves integration even further than the norm. Unlike all other SoundGrid platforms, DiGiCo provides complete control of plug-in parameters, as well as recall of snapshots, simple loading and saving directly from the consoles' surface.
- > Console-based MultiRack software allows you to set up, control, recall, snapshot and save Waves plugin configurations as an integral part of your overall mix setup, while the processing power of the dedicated SoundGrid module allows the SD9's own processing power to remain dedicated to the task of driving the console and its work surface.
- > The DiGiCo Waves setup gives you instant access to up to 16 fully integrated, low latency Waves stereo processor racks, with up to eight plug-ins in each rack. Waves TDM plugins collections can be used too.

Plugin Bundles

Bundles and existing Waves plugins available online at www.waveslive.com or from Waves dealer/distributor



SSL-G Channel



Vocal Rider



Waves MultiRack



C4 Multiband Compressor



CLA-2A



Renaissance Equalizer

SD9 Specifications

General Specifications

Faders	24 x 100mm Touch-sensitive, motorised
Screens	1 x 15" (38cm) LCD high - resolution touch screen
Meters	24 x 8-Segment LED bargraph
Input Channels	48 Flexi channels Mono or Stereo
Busses	16 Flexi* (full processing**) 1x Surround + 16 Flexi* or 2x Surround + 13 Flexi* or 3x Surround + 10 Flexi*
Solo Busses	2 Stereo Busses
Matrix	12 x 8 Matrix (additional to busses above)
Control Groups	8/12, Selectable for VCA-style, Moving Fader, Mute Group
Graphic EQ	16 x 32-band, Gain +/- 12dB
Internal FX	8 Stereo FX Processors
Local I/O	8 x Mic/Line I/O, 4 x AES/EBU I/O (Mono)
MADI Interface	In / Out / Through
Optic Interface	Optocore (Optional Factory Fit Only)
MIDI Interface	In / Out / Thru
VGA Port	DB-15 Mini-Female (1024 x 768 Resolution)
USB Ports (3)	USB 2
Light Connection (2)	XLR3 1.2 – 12V
Ext Sync	Word Clock, MADI
Headphone	TRS Unbalanced / 8-600 Ohms 1/4 Inch Jack
GPI	2 x 1/4" Jack TF
GPO	2 x 1/4" Jack TF
SD9 Dimensions	878mm (w) x 785mm (d) x 262mm (h)
SD9 Weight	36Kg (105Kg with optional flightcase)
SD9 Flightcase (Optional)	1063mm (w) x 1131mm (h) x 472mm (d)
SD9 Power Requirements	90-264 VAC, 47-63Hz Auto Sensing. 208 watts, 232VA
Redundancy	Internal PSU x 2 (Optional)

Application Specific Versions:

- SD9T
- SD9B

Audio Specification

Sample Rate	48kHz, 44.1kHz or 96kHz
Processing Delay	2ms Typical @ 48k (60 Stereo Channels, Stage Input Through L-R Buss to Stage Output) 1.1ms @ 96k
Internal Processing A>D & D>A	Up to 40-bit, Floating Point 24-bit Converter Bit Depth
Frequency Response	+/- 0.6dB (20Hz – 20kHz)
THD	<0.05% @ Unity Gain, 10dB Input @ 1kHz
Channel Separation	Better Than 90dB (40Hz – 15kHz)
Residual Output Noise	<90dBu Typical (20Hz - 20kHz)
Microphone Input	Better Than -126dB Equivalent Noise
Maximum Output Level	+22dBu
Maximum Input Level	+22dBu

Processing Channel Specification

Input Channel

Name	User-Defined / Presets
Channel Selection	Mono / Stereo / Multi
Input Routing	Main & Alternate Input
Analogue Gain	-20 to +60dB
Phase	Normal / Reverse
Digital Trim	-40 to +40dB
Delay	>1 Sec (Coarse & Fine Control)
DiGiTuBe	Drive 0.01 - 50.0 Bias 0 - 6
LPF	20 – 20kHz, 24dB/Oct
HPF	20 – 20kHz, 24dB/Oct
Insert A	(Pre EQ/Dyn) On/Off
Equalisation	4 Band EQ: Parametric or Dynamic (Low/Lowshelf, Lower-Mid/Lowshelf, Upper-Mid/Hi Shelf, Hi/Hisshelf) On/Off Freq; 20 – 20kHz Gain; +/- 18dB Q: 0.1 -20 (Parametric) / 0.10-0.85 (Shelf) Dynamic EQ On/Off Over/Under Band On/Off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1



Dynamics 1 Compressor	Single or Multiband (3-Band) On/Off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain Option Link; Any Channel/Buss Hi Crossover; 20Hz – 20kHz Lo Crossover; 20Hz – 20kHz Knee : Hard, Med, Soft
De-Esser	Threshold : 20us – 20ms Release : 1ms – 100ms Ratio : 1:1 – 50:1 Ess-Band : Listen On/Off Ess-Band Filter Freq / Width: 20Hz – 20kHz
Dynamics 2 Gate / Ducker	On/Off Threshold; -60 – 0dB Attack; 50us – 100ms Hold; 2ms – 2s Release; 5ms – 5s Range; 0 - 90dB Key; Any Source Key Listen Freq/Width; 20 – 20kHz
Compressor	On/Off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain Option Link; Any Channel / Buss Hi Crossover; 20Hz – 20kHz Lo Crossover; 20Hz – 20kHz S/C Source : Any Source S/C Listen : On/Off S/C Filter Freq/Width: 20Hz – 20kHz
Insert B	(Post EQ/Dyn) On/Off
EQ/Dyn order	EQ/Dyn or Dyn/EQ
Mute	Channel Mute / Hard Mute
Solo	Solo Buss 1 / Solo Buss 2 / Both, Auto Solo
Channel Safe	Input, EQ, Dyn, Aux, Pan, Fade/ Mute, Inserts, Buss, Directs, Full Safe
Output Routing	Buss, Insert A, Insert B, FX Direct: On/Off, Pre-Mute / Pre-Fade / Post-Fade, Level +/- 18dB
Fader	100mm Motorised Fader ∞ to +10dB

Processing Channel Specification

Aux / Group / Matrix Output

Name	User-Defined / Presets
Phase	Normal / Reverse
Digital Trim	-20 to +60dB
Delay	>1 Sec (Coarse & Fine control)
DiGiTuBe	Drive 0.01 - 50.0 Bias 0 - 6
LPF	20 – 20kHz, 24dB / Oct
HPF	20 – 20kHz, 24dB / Oct
Insert A	(Pre EQ/Dyn) On/Off
Equalisation	4 Band EQ: Parametric or Dynamic (Low/Lowshelf, Lower-Mid/Lowshelf, Upper-Mid/Hi Shelf, Hi/Hisshelf) On/Off Freq; 20 – 20kHz Gain; +/- 18dB Q: 0.1 -20 (Parametric) / 0.10-0.85 (Shelf) Dynamic EQ On/Off Over/Under Band On/Off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1
Dynamics 1 Compressor	Single or Multiband (3-band) On/Off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain Option Link; Any Channel / Buss Hi Crossover; 20Hz – 20kHz Lo Crossover; 20Hz – 20kHz Knee : Hard, Med, Soft
De-Esser	Threshold: 20us – 20ms Release: 1ms – 100ms Ratio: 1:1 – 50:1 Ess-Band: Listen On/Off Ess-Band Filter Freq/Width: 20Hz – 20kHz
Dynamics 2 Gate / Ducker	On/Off Threshold; -60 – 0dB Attack; 50us – 100ms Hold; 2ms – 2s Release; 5ms – 5s Range; 0 - 90dB Key; Any Source Key Listen Freq/Width; 20 – 20kHz

Compressor	On/Off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain Option Link; Any Channel/Buss Hi Crossover; 20Hz – 20kHz Lo Crossover; 20Hz – 20kHz S/C Source : Any source S/C Listen : On/Off S/C Filter Freq/Width: 20Hz – 20kHz
Insert B	(Post EQ/Dyn) On/Off
EQ/Dyn Order	EQ/Dyn or Dyn/EQ
Mute	Channel Mute / Hard Mute
Solo	Solo Buss 1 / Solo Buss 2 / Both, Auto Solo
Channel Safe	Trim, EQ, Dyn, Fade/Mute, Inserts, Outputs, Full Safe
Output Routing	Outputs, Insert A, Insert B, FX
Fader	100mm Motorised Fader ∞ to +10dB

SD9 Quick Reference

Quick Reference	Live	Broadcast	Theatre
Maximum Number of Input Processing Channels	48 Flexi*	48 Flexi*	48 Flexi*
Maximum Buss Count	47***	47***	53***
Max Aux / Sub-Group Busses	16 (full processing**)	16 (full processing**) 1x Surround + 16 Flexi* or 2x Surround + 13 Flexi* or 3x Surround + 10 Flexi*	16 (full processing**)
Matrix (In Addition to Aux/Sub - Group)	12 x 8 (full processing**)	16 x 16 (full processing**)	16 x 16 (full processing**)
Solo Busses	2 (Stereo)	Stereo + Mono or 5.1 + Mono	2 (Stereo)
Max Number of Inputs - Non Optic Consoles	180	180	180
Max Number of Inputs - 1 Console on Optic Loop	576	576	576
Max Number of Inputs - 2 Consoles on Optic Loop	632	632	632
Local I/O Spec	8x mic/line, 8x line outputs , 4x AES/EBU I/O (mono streams)		
Max Number of Outputs	576	576	576
Max Number of Faders	24	24	24
Screen	1x 15" touch	1x 15" touch	1x 15" touch
External Overview Screen	Yes	Yes	Yes
I/O Expandability	Yes	Yes	Yes
Insert Points / Channel	1	1	1
On Board FX	8	8	8
Graphic EQs (32-Band)	16	16	16
Dynamic EQ	8	8	8
Buss Parametric EQ	Yes 4	Yes 4	Yes 4
Multiband Compression	8	8	8
DiGiTuBes	8	8	8
Multi-Channels	Yes	Yes	Yes
VCA - Style Control Groups	8	8	12
Set Spill	Yes	Yes	Yes
Mute Groups (Part of Control Groups)	8	8	12
Reorder Busses	Yes	Yes	Yes
Multi-Operator	By remote only	By remote only	By remote only
Surround	No	Yes	No
MADI Connectivity	1 x Port	1 x Port	1 x Port
Optics	Yes, with new factory order	Yes, with new factory order	Yes, with new factory order
Snapshot Offline	Yes	Yes	Yes
Snapshot Auto-Update	No	No	Yes
Sampling Rates	48 / 96 kHz	48 / 96 kHz	48 / 96 kHz
Signal Processing	FPGA, up to 40-bit floating-point		
Audio Processing and OS Location	Surface	Surface	Surface
Redundant Processing and OS	Yes (Dual Surface)	Yes (Dual Surface)	Yes (Dual Surface)
Redundant PSU's	Yes - Option	Yes - Option	Yes - Option
Maximum Single Stage Rack Spec	D-Rack (32 - 16) - SD-Rack (56-56)		
Maximum Number of Racks Non Optic	3 (With Little Red Box)	16	16
Rack Interface	MADI / RJ45 CAT 5E / Optics		
Connector Type for Racks	BNC / CAT 5E / Optics		
Rack sharing FOH/MON	Gain Tracking	Gain Tracking	Gain Tracking
Offline Software	Yes	Yes	Yes
Recording	Virtual Soundcheck up to 56 channels		
Dimensions (mm) and Weight (kg)	878(w) x 785(d) x 262(h) - 36Kgs		
Dimensions (inches) and Weights (lbs)	34.57(w) x 30.90(d) x 10.31(h) - 80lbs		

* Flexi - Configurable Mono or Stereo without the loss of any resources

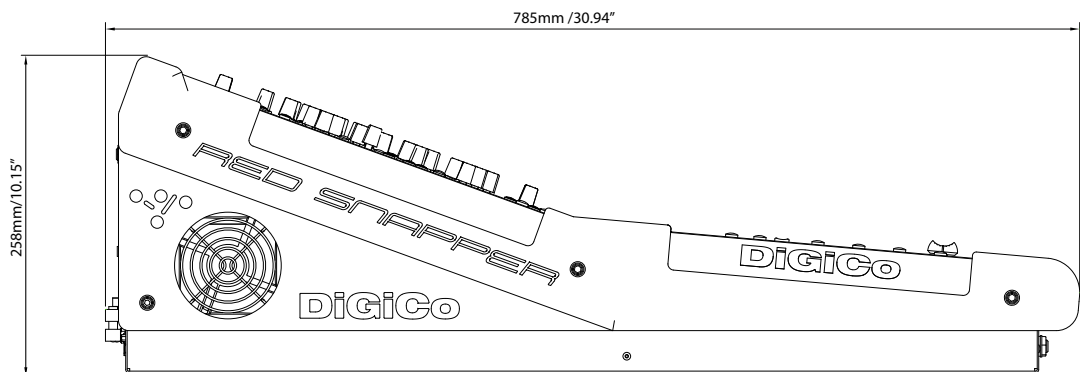
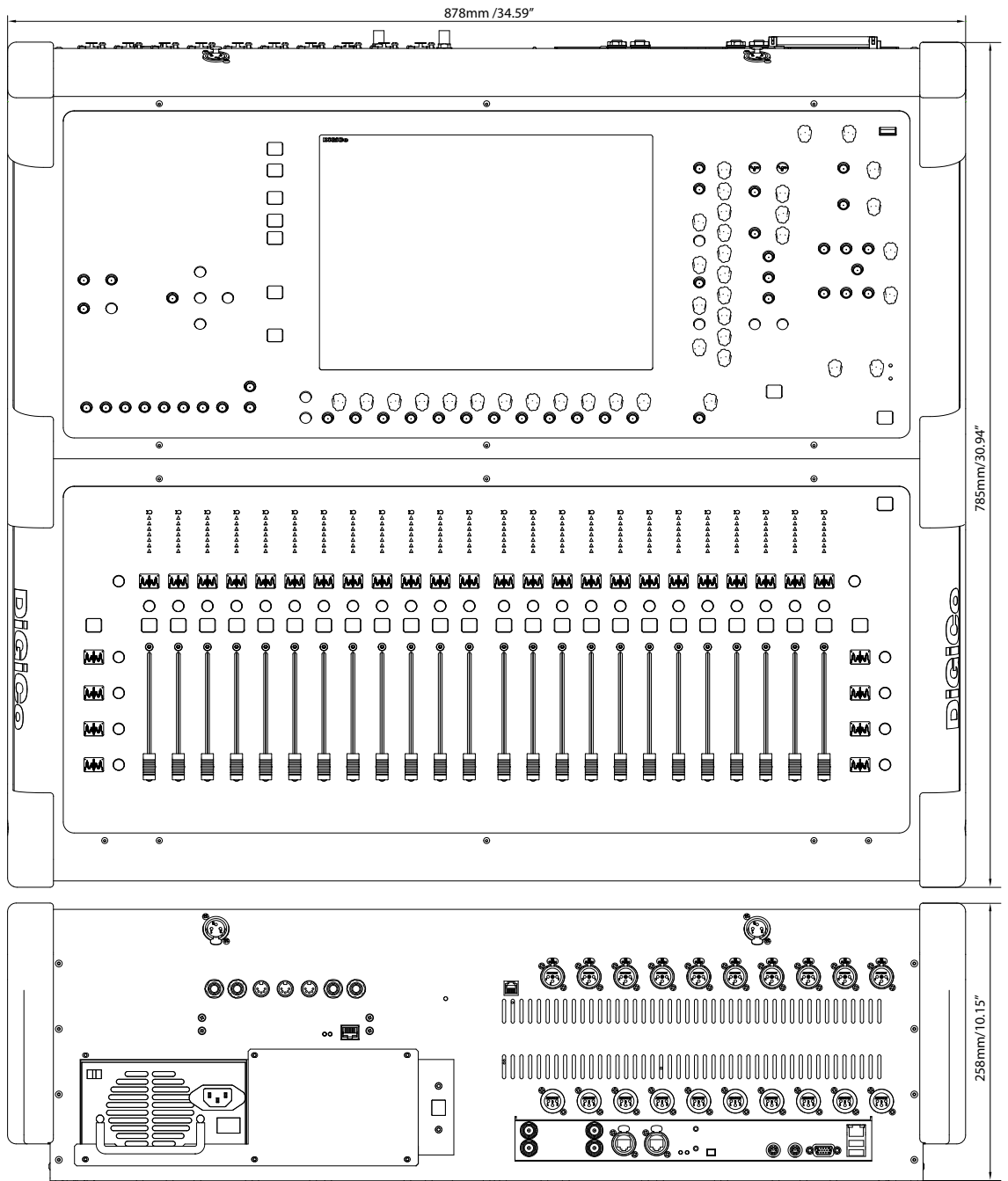
** Full Processing - Includes Delay, DiGiTuBe, HP/LP Filters, 4 or 8 Band EQ, Dynamics 1 and Dynamics 2.

*** Max Buss Count is Calculated as Aux / Group Buss + Master Buss (LCR or 5.1 depending on Product) + Matrix Buss + 2 Solo Busses (up to 5.1 Depending on Product)

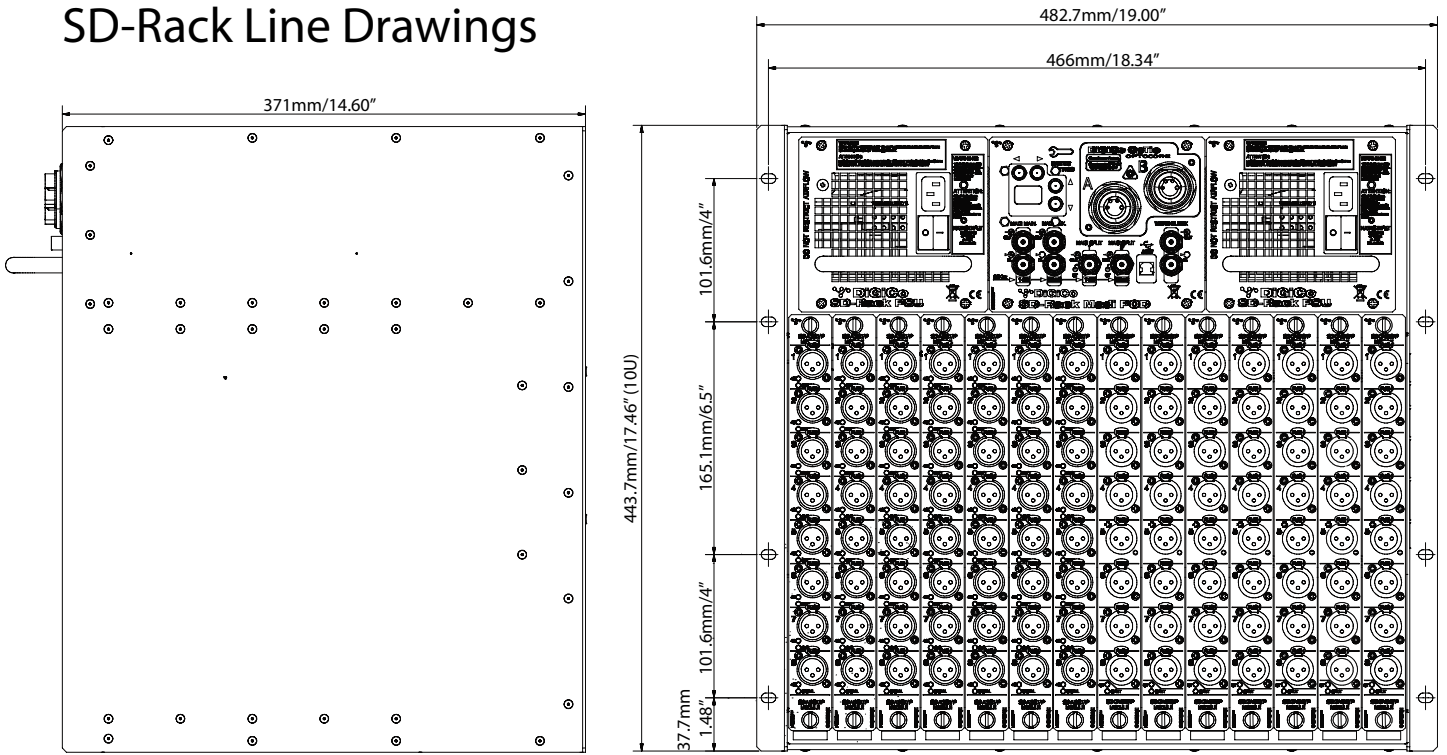


DIGiCO SD9

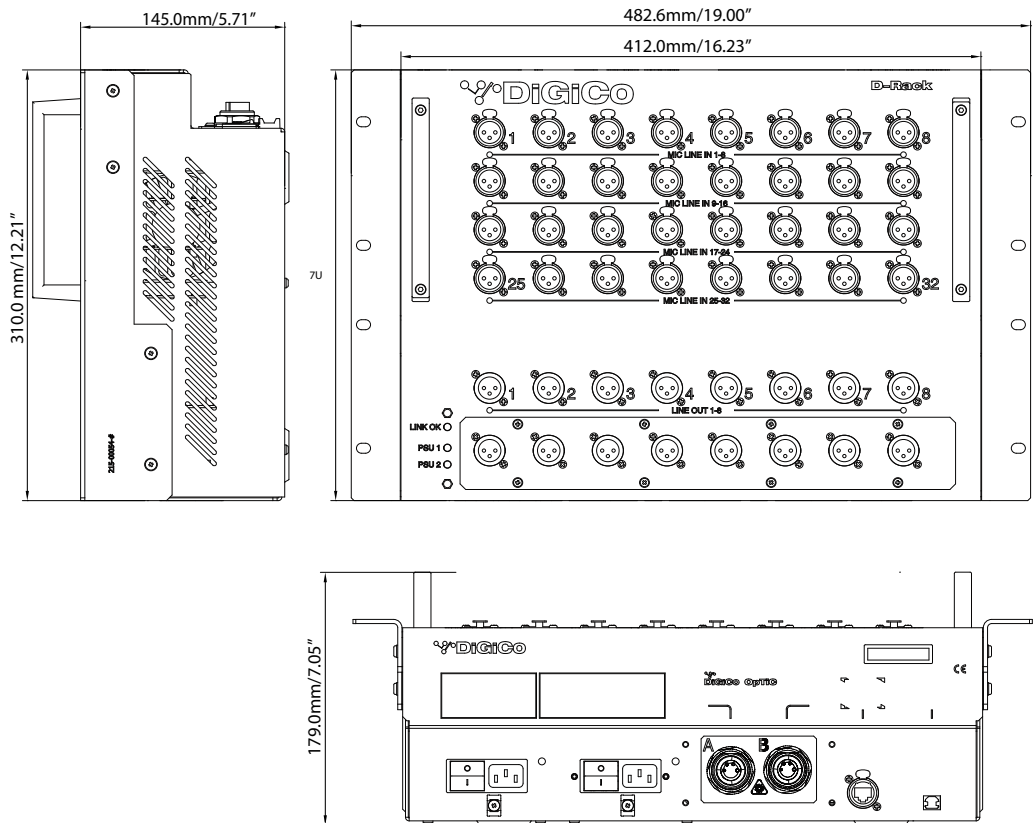
ALL DRAWINGS
(NOT TO SCALE)



SD-Rack Line Drawings



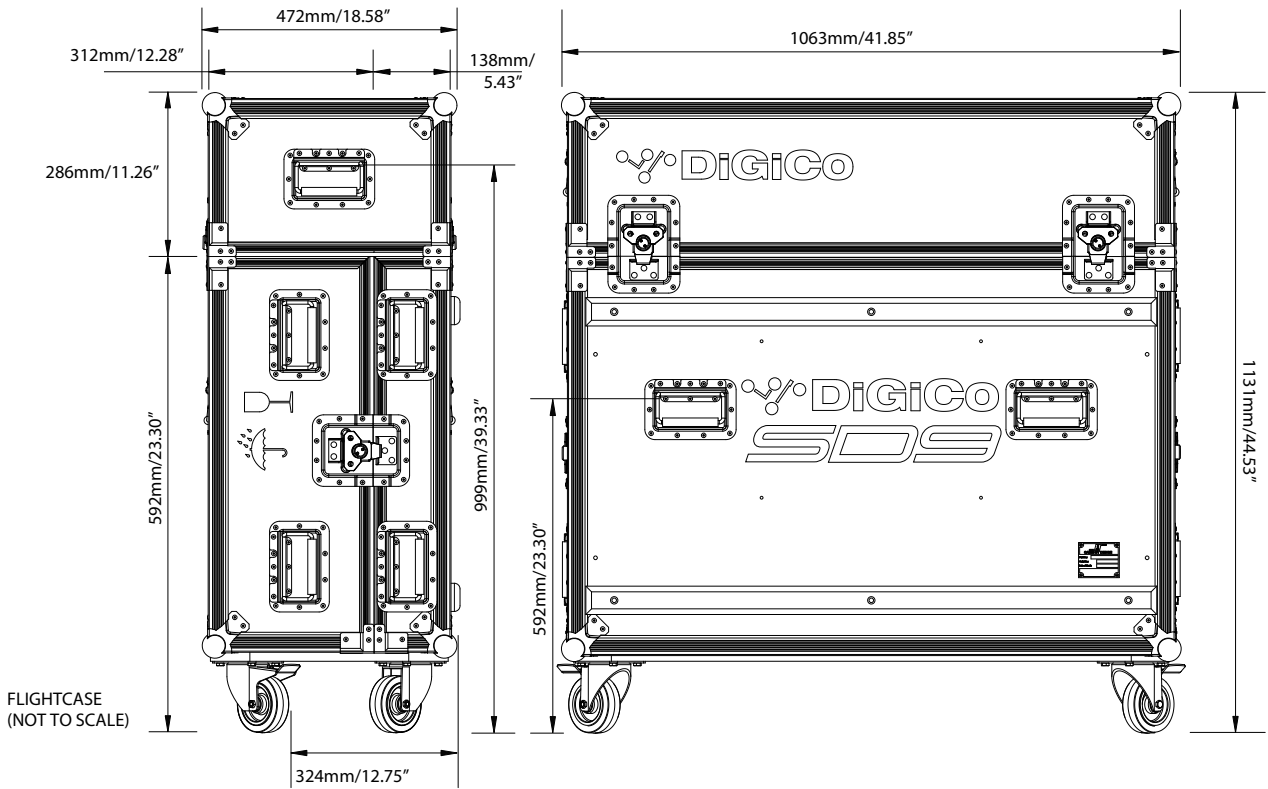
D-Rack Line Drawings



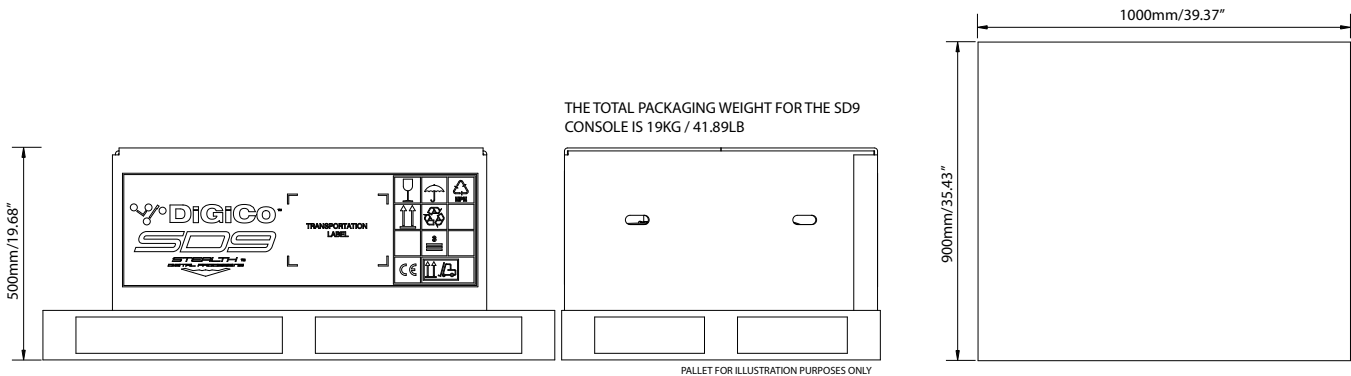
DiGiCo SD9 Notes

- | | |
|-------------------------------------|----------------|
| 1. SD9 WEIGHT | 36Kg/79.37lb |
| 2. SINGLE PSU | 1.6Kg/3.52lb |
| 3. PSU CHASSIS COMPLETE WITH 2 PSUs | 6Kg/13.22lb |
| 4. RACK WEIGHT | 7.4Kg/16.31lb |
| 5. FLIGHT CASE | 79Kg/174.17lb |
| 6. FLIGHT CASE (PACKED) | 115Kg/253.53lb |

For MADI Rack plus LBB and LRB details please go to www.digico.biz



FLIGHTCASE
(NOT TO SCALE)

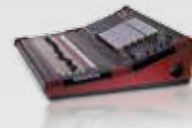


Product Comparison



	SD7/SD7B/SD7T	SD5
Max no of Input Processing Channels	253	124
Maximum Buss Count	160***	87***
Max aux / sub-group busses	128 (full processing**) (inc 2x solo buss)	56 (full processing**)
Matrix (in addition to aux / sub - group)	32 x 32 (full processing**)	24 x 24 (full processing**)
Solo busses	2	2
Max no. of inputs - Non optic consoles	N/A	N/A
Max no. of inputs - 1 console on single optic loop	696	632
Max no. inputs - 2 consoles on single optic loop	752	688
Local I/O spec	12x mic/line, 12x line outputs, 12x AES/EBU I/O (mono streams)	8x mic/line, 8x line outputs, 8x AES/EBU I/O (mono streams)
Max no. of outputs	696	632
Max no. of faders	52 (plus 48 if used with 2 x EX007)	37
Screen	3 x 15" touch	3 x 15" touch
Ext. overview screen	Yes	Yes
I/O expandability	Yes	Yes
Insert points / channel	2	2
On Board FX	48	24
Graphic Eqs (32-Band)	32	32
Dynamic EQ	256	24
Bus 8-band Parametric EQ	Yes	Yes
Multiband Compression	256	24
DiGiTubes	256	24
Multi-channels	Yes	Yes
VCA - style control groups	36	24
Set Spill	Yes	Yes
Mute Groups (part of control groups)	36	24
Reorder Busses	Yes	Yes
Multi-operator	Yes	Yes
Surround	Yes	Yes
MADI connectivity	4x Redundant ports	3x Redundant ports
Optics	Yes (including dual loop)	Yes
Snapshot Offline	Yes	Yes
Snapshot Auto-Update	Yes	Yes
Sampling rates	48 / 96 / 192 kHz	48 / 96 / 192 kHz
Signal processing	FPGA, up to 40-bit floating-point	FPGA, up to 40-bit floating-point
Audio processing and OS location	Surface	Surface
Redundant Processing and Computer	Standard	Yes (Dual Surface)
Redundant PSU's	Yes	Yes
Stage Rack spec	Up to 56 in / 56 out / MADI split x2 (@ 48kHz)	Up to 56 in / 56 out / MADI split x2 (@ 48kHz)
Max no of Racks	18. On 2 loops = 32	17
Rack Interface	MADI / Optocore	MADI / Optocore
Connector type for racks	BNC / HMA optics / ST / Opticalcon	BNC / HMA optics / ST / Opticalcon
Rack sharing FOH/MON	Gain Tracking	Gain Tracking
Offline Software	Yes	Yes
Recording	Virtual Soundcheck up to 224 channels	Virtual Soundcheck up to 168 channels
Dimensions (mm) and Weight (kg)	1496(w) x 875(d) x 503(h) - 107Kgs	1465(w) x 850(d) x 753(h) - 116Kgs
Dimensions (inches) and Weights (lbs)	58.9(w) x 34.45(d) x 19.8(h) 236lbs	57.68(w) x 33.46(d) x 29.65(h) - 256lbs





SD10/SD10B/SD10T	SD8	SD9/SD9B/SD9T	SD11/SD11i/SD11B
96 channels, 12 Flexi*	60 Flexi*	48 Flexi*	32 Flexi*
71/77***	67***	47/53***	39/45***
48 (full processing**)	24 Flexi* (full processing**)	16 Flexi* (full processing**) 1x Surround + 16 Flexi* or 2x Surround + 13 Flexi* or 3x Surround + 10 Flexi*	12 Flexi* (full processing**) 1x Surround + 12 Flexi* or 2x Surround + 9 Flexi*
16 x 16 (full processing**)	16 x 12 (full processing**)	12 x 8 (full processing**)	8 x 8 (full processing**)
2	2	2	2
128	128	180	130
576	576	628	578
632	632	684	634
8x mic/line, 8x line outputs, 8x AES/ EBU I/O (mono streams)	8x mic/line, 8x line outputs, 8x AES/ EBU I/O (mono streams)	8x mic/line, 8x line outputs, 4x AES/ EBU I/O (mono streams)	16x mic/line inputs, 8x line outputs, 2x AES/EBU I/O (mono streams)
576	576	180 (Non Optics)	122 (Non Optics)
37	37	24	12
1x 15" touch	1 x 15" touch	1x 15" touch	1x 15" touch
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
2	2	1	1
16	12	8	6
24	24	16	12
16	10	8	6
Yes	No (4 band only)	No (4 band only)	No (4 band only)
16	10	8	6
16	10	8	6
Yes	Yes	Yes	Yes
24	12	8/12	8
Yes	Yes	Yes	Yes
24	12	8/12	8
Yes	Yes	Yes	Yes
By remote only	By remote only	By remote only	By remote only
No/Yes	No	No/Yes	No/Yes
2x Redundant ports	2x Redundant ports	1x Port	1x Port
Yes	Yes	Yes, with new factory order	Yes, with new factory order
Yes	Yes	Yes	Yes
Yes	Yes	No	No
48 / 96 kHz	48 / 96 kHz	48 / 96 kHz	48 / 96 kHz
FPGA, up to 40-bit floating-point	FPGA, up to 40-bit floating-point	FPGA, up to 40-bit floating-point	FPGA, up to 40-bit floating-point
Surface	Surface	Surface	Surface
Yes (Dual Surface)	Yes (Dual Surface)	Yes (Dual Surface)	Yes (Dual Surface)
Yes	Yes	Yes - Option	Yes - by remote PSU option only
Up to 56 in / 56 out / MADI split x2 (@ 48kHz)	Up to 56 in / 56 out / MADI split x2 (@ 48kHz)	D-Rack (32 - 16) SD-Rack (56-56)	D-Rack (32 - 16) SD-Rack (56-56)
16	16	17	16
MADI / Optocore (option)	MADI / Optocore (option)	MADI / RJ45 CAT 5E / Optocore (option)	MADI / RJ45 CAT 5E / Optocore (option)
BNC / HMA optics / ST / Opticalcon (option)	BNC / HMA optics / ST / Opticalcon (option)	BNC / CAT 5E / HMA optics / ST / Opticalcon (option)	BNC / CAT 5E / HMA optics / ST / Opticalcon (option)
Gain Tracking	Gain Tracking	Gain Tracking	Gain Tracking
Yes	Yes	Yes	Yes
Virtual Soundcheck up to 108 channels	Virtual Soundcheck up to 112 channels	Virtual Soundcheck up to 56 channels	Virtual Soundcheck up to 56 channels
1398/*982(w) x 818(d) x 285(h) - 60/*45Kgs	1347/*923.5(w) x 811(d) x 254(h) - 71.3/*50Kgs	878(w) x 785(d) x 262(h) - 36Kgs	483(w) x 577(d) x 232(h) - 24Kgs
55.04/*38.66(w) x 32.2(d) x 11.22(h) - 132/*99.2lbs	53.03/*36.35(w) x 31.93(d) x 10(h) - 157/*111.23lbs	34.57(w) x 30.90(d) x 10.31(h) - 80lbs	19.02(w) x 22.72(d) x 9.13(h) - 53lbs

* Smaller frame size weights and dimensions

* Flexi - Configurable Mono or Stereo without the loss of any resources

** Full Processing - Includes Delay, DiGiTuBe, HP/LP Filters, 4 or 8 Band EQ, Dynamics 1 and Dynamics 2.

*** Max Buss Count is calculated as Aux / Group Buss + Master Buss (LCR or 5.1 depending on product) + Matrix Buss + 2 Solo Busses (up to 5.1 depending on product)



Company Profile

The Ultimate in Digital Consoles



Concert Sound
(U2 360° Tour)

When the professional audio world first set eyes on the DiGiCo D5 Live there was a collective sharp intake of breath. Here was the digital mixing console that gave you the best of analogue working practices and audio finesse with all the versatility and feature richness that the digital environment could offer.

A decade on, the SD Series is the new standard setter and its fast, engineer friendly user interface has yet to be beaten. And to many engineers it continues to offer the optimum sonic combination of analogue smoothness and digital clarity.

But expectations continue to rise. In a world as competitive for engineers as it is for console owners, you want the best tools you can lay your hands on. You also want a console as well



Permanent Install
Wolftrap Arts Centre

thought out for every major application as it is designed for the art and science of sound engineering.

Above all, you want to do more. That's why we've added yet more depth and versatility to the SD Series, in which the DiGiCo SD7 is complemented by the new SD5, powerful SD Ten, compact SD8, the ultra compact SD9 and rackmount SD11.

What Makes the SD Series different from the D Series and other digital consoles?

The SD Series gives you more. More power, more flexibility and more creativity, wrapped in frames which are more serviceable, more compact and more user-friendly than ever.



Houses of Worship
Gateway Church Southlake Texas

Selected features include:
All audio processing on one chip Stealth Digital Processing™
From input to output all the audio processing on an SD Series console is carried out on one chip using Super FPGA technology with floating-point processing, resulting in enhanced clarity, unique sound characteristics and a smaller console footprint.

The Power of Waves The SD Series is the world's first range of digital mixers to offer the power of Waves SoundGrid® as a fully integrated option, complementing the array of built-in Stealth digital effects.

Slicker Interface With 15inch touch screen LCD TFT technology and user defined RGB back lit LCD scribble strips delivering uninterrupted user feedback.



Musical Theatre
Mother Courage

Advanced Software UI
Building on the fine qualities of over 20 years of digital development, our engineers have delivered a user experience that's even faster, easier and more productive than ever.

After the briefest introduction it's clear that the DiGiCo range was designed for audio engineers by audio engineers.



Designed and manufactured in the UK.



Unit 10, Silverglade Business Park, Leatherhead Road, Chessington, Surrey, KT9 2QL
tel: +44 (0) 1372 845600 fax: +44 (0) 1372 845656
email: info@digiconsoles.com web: www.digico.biz