





The DiGiCo SD7

One desk. Three configurations. Ultimate flexibility.

The DiGiCo name is synonymous with quality, usability, flexibility and reliability. Since its formation in 2002, and the launch of the D5 Live, the company has forged a reputation for understanding its customers and their requirements. The subsequent launch of the D5T was a true indication of this understanding and the desk took the theatre sound industry by storm.

The SD7 is no different. Since its launch to overwhelming praise in 2007 the desk has developed, spawning the SD7T (Theatre) and SD7B (Broadcast) both of which have become as widely used and regarded in these specialised areas as the SD7 has in the live world.

Accepted as being a rock solid, instantly usable, sonically pure desk throughout the world of pro audio, the SD7 family has increasingly been put through its paces in the most demanding of situations.

Now, DiGiCo adds the option for even more flexibility and cost effectiveness from a single console by providing the features of the SD7, SD7T and SD7B being just a simple click away. Need to use the console for a live band? Then fire up the desk in SD7 mode. Off to do a musical stage show? Unlock the theatre mode and instantly have access to extended cue management. Need the desk to mix a live broadcast then simply tick the relevant box and broadcast mode is

at your fingertips with access to everything you would expect on any dedicated console including surround mixing and monitoring, Backstop PFL and much more.

Updating your console couldn't be easier. Simply purchase the required extension package either at the time you order your new SD7 or retrospectively. A simple software upgrade is all that is required to give you access to these the additional feature-sets tuned specifically for the job at hand. Once it's installed, it's there forever. So, the next time you need it, it's simply a click away.





It is easy to see how this simple upgrade can make your console work three times as hard at a fraction of the cost!

When you're out on the road the SD7 is already flexible enough for either front of house or monitor mixing, and if you've got an SD7B in the OB truck parked outside they can all run on the same optical loop giving all engineers easy access to the same audio. With the advantages of Gain Tracking™, Video Network Link and the inimitable DiGiCo sound, brought to you by industry leading Stealth Digital Processing™ at the heart of every DiGiCo console, multiple desk, high channel-count events become a breeze. This simplicity, coupled with the full audio, processing and

operating system redundancy provided by the dual Digital Engines and power supplies built into every SD7 as standard, also means total piece of mind.

All this coupled with the incredible flexibility of the SD range of stage racks makes getting the audio in and out of the digital domain as easy as hot swapping an I/O card. With options for MADI, AES/EBU, Dante, ADAT and Aviom as well as AES-42 input cards, for your increasing use of digital microphones, you will never be out of options. And with everything running at a 96kHz sample-rate, coupled with the inimitable DiGiCo sound, you can be assured that every nuance of the performance is captured right through the desk to your master outputs.

Yet, all of this would be for nothing without the true understanding that DiGiCo has of your needs in the real world. In real life mixing environments, be it live, theatre or broadcast, the SD7 is instantly understandable. With its large touch screens, Hidden Till Lit interface, Dynamic Metering and easily accessible processing and routing, the SD7 in all its variations is designed to enable you to get the mix you want in the shortest possible time with the best possible results.

The SD7, SD7B and SD7T — think flexibility, think DiGiCo.

Stealth Digital Processing™ Engine

The latest generation of advanced digital signal processing and audio quality.

At the heart of every SD7 is the Stealth Digital Processing™ mixing and routing engine. Based on Super FPGA (Field Programmable Gate Array) technology and Tiger SHARC processors gives you one of the most powerful, dynamic and flexible digital mixing consoles available today.

Stealth is unlike any other audio processing technology. Just one chip gives you access to a maximum of 256 audio processing channels, 128 auxiliary or group busses running in mono, stereo, LCR or 5.1, a 32 by 32 matrix and up to 36 VCA style Control Groups.

32 Graphic EQs give you full control of your FOH or monitor system. Sweeten your mix with a powerful array of internal effects

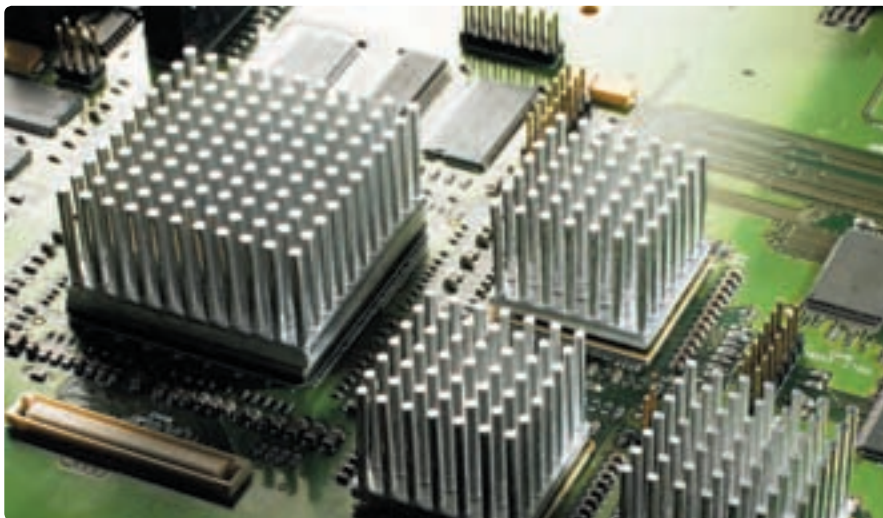
powered by Stealth Digital Processing™ providing you with a suite of delays, reverbs, choruses and much more.

Yet it's not just numbers. The Stealth Digital Processing™ engine gives you high resolution audio clarity. It can run at 48 and 96kHz giving you the full number of simultaneous signal paths and is 192kHz ready, allowing for ultimate audio quality should you only require a maximum of 128 audio processing channels.

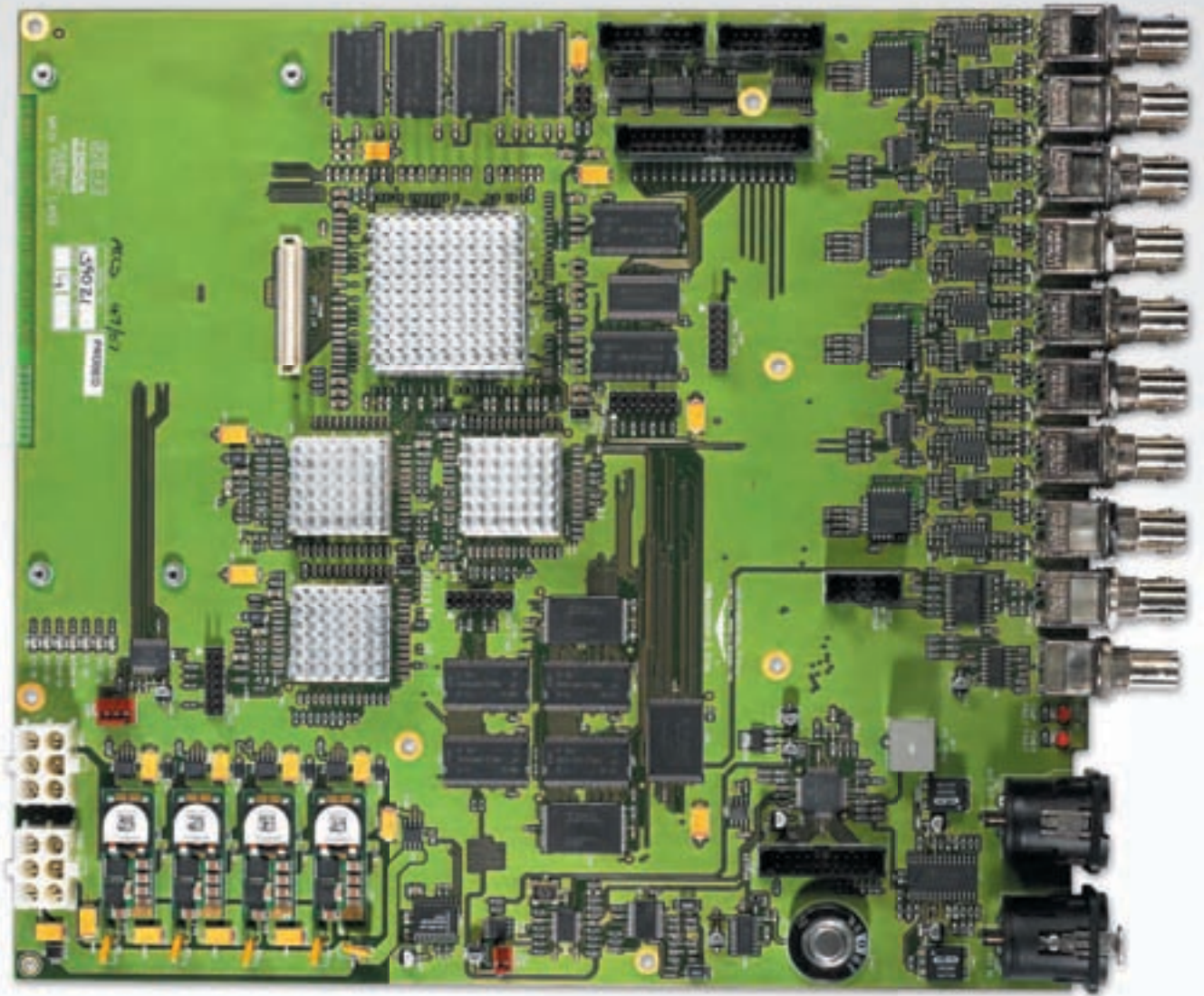
Stealth allows you to take full advantage of the 896 simultaneous optical, 224 MADI, 24 AES/EBU and 24 analogue connections making even the most complex show a breeze.

Yet, it's not just the power – it's the size. The high density architecture of the FPGA and Tiger SHARC chips mean that two complete processing engines come with every SD7 console, providing complete redundancy and peace of mind.

Stealth Digital Processing™ — power you can hear.



DIGICO



STEALTH™

DIGITAL PROCESSING

HTL (Hidden Till Lit)

Find what you want at the speed of light.



- › Keep anything instantly accessible. Here the second row, in violet, gives constant access to auxillary settings. You decide what you want where.
-



- › It's not just the processing you need at your fingertips. A group of channels selected on the touch screen have their specific parameters available to grab and control, highlighted by HTL.
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When it comes to operating a console in a live or other high pressure environment it is fundamentally important that the desk works with the operator to provide the fastest and simplest way to create the mix you want.

Fast access to channels, easy control of gain and quick intuitive management of all of the sends, dynamics, effects and EQ is where HTL comes in to its own. Even operators with little or no experience of digital consoles will instantly be able to see which control on the desk alters which parameter, as HTL dynamically colour codes each rotary encoder to reflect the colour scheme of EQ, processing or sends currently displayed on the screen.

Bring up your dynamics on a channel and watch as the two rows of rotary encoders directly below change colour exactly mirroring the controls on the screen.

HTL - The guiding light





› All of your auxiliary sends available all the time. HTL mirrors the colour coding on the screen ensuring you easily identify the right controller.



› Compressor and Gate controls displayed on screen are instantly colour coded by HTL guiding you to the relevant parameter quickly and easily.



› Multiple bands of Dynamic EQ are no problem either as HTL matches the display on the touch screen for each band. It's fast and intuitive, making your job simpler.



- › IDM shows you DiGiTuBe processing, on both mono and stereo input channels, in addition to easy monitoring of compressor gain reduction and input signal levels at a glance.
- › IDM makes input signal monitoring flexible. Mono, stereo, LCR and 5.1 are all right there in front of you. Clearly displayed giving you the information you need when you need it.
- › IDM centre display shows all bussing, masters, outputs plus control groups and solos.



IDM (Interactive Dynamic Metering)

Instantly see all the meters you need on every channel

When mixing live sound in any context one of the most important aspects of a digital console is ease of use. That is why we at DiGiCo go to great lengths to ensure that our desks work effortlessly in any situation — and that's what Interactive Digital Metering is all about. We believe a digital console should give you all the information you need when you need it and IDM provides it.

All metering on the SD7 is via the dedicated TFT displays making them infinitely flexible in the information they can display. The high resolution, backlit display provides fast, clear and accurate readings. All this coupled with their 180 degree viewing angle means wherever you are on the desk the display is crystal clear.

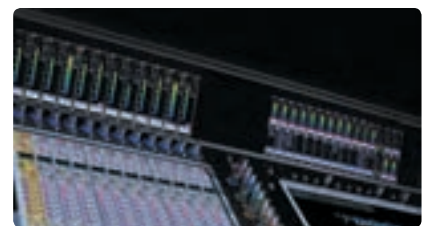
So, why is it interactive? Because it adapts to the situation as you need it. IDM is not just limited to signal level indication - it works with you as you build your channel from level to all of the associated dynamics processing, instantaneously displaying the information you need.

Need a stereo channel? IDM switches to a stereo pair of meters. 5.1 channel? No problem, IDM gives you all the meters you need right in front of you. If you want to add dynamics to your mix simply insert a compressor on your channel and up pops your gain reduction meter alongside your other metering. Multi-band compression is also no problem, everything you need is there. Gating shows you the status of the gate, open or closed, and IDM can even display your direct channel output levels and channel delay time.

Interactive Digital Metering — all of your meters all-of-the time.



- › The bright, high resolution, backlit displays dynamically adapt to represent any kind of input or output channel on the desk, ensuring all the information you need is right in front of you.



- › Across the desk, IDM show you all of your meters all of the time, no matter where you are on the console, IDM reflects the relevant input and output meters instantaneously.

VNL (Video Network Link)

Video and instant messaging at your fingertips.

You know the problem. The band is about to come on stage but you can't quite see from your front of house position. Or, you need to take your cue from the Musical Director who just happens to be in the pit completely out of view. Or, how about, on a large scale touring production your mix position is actually under the stage – what chance have you got to see what you need for your cue?

It is of course possible to run an extra line down to FOH for video, but why not simply drop it onto the optical loop or MADI link you have already run for the console? You could setup yet another monitor, but why not use the integrated one on your meter bridge? Infact, you can grab any video signal that is on the optical loop and display it on the VNL monitor. Getting the video feed onto the loop is as simple as plugging the source into one of the two BNC video input connectors on the rear of the desk.

Now you have access to a total of seven selectable video sources configurable from within the console and, to make them simple to access, you can even record which VNL input you want as part of your snapshot. So, should you need to see a particular feed when you start the show, there it is, automatically appearing right in front of you when you recall your snapshot or cue.

Working on the optical loop makes VNL incredibly flexible. Why not take a feed from the broadcast truck.

If the band is too loud to use your talkback you can even use DiGiCos integrated instant messenger client, this enables text chat to any SD7 on the optical network.

VNL — see what you need to hear.





- › A camera connected to the optical loop at front of house can be accessed, via VNL, by any other console also on the loop.
- › Monitor engineers are often left in the dark, but not with VNL. Easily access any camera connected to the optical loop and see what you want to hear.
- › During a theatrical production, ensuring the front of house engineer can see the Musical Director is always important. Using VNL and a loop connected camera it is simple to recall the video along with the pre show snapshot ensuring everyone is in sync!

FX and Graphics

Enhance and control your mix with the power of Stealth Digital Processing™

The SD7's in-built effects are powered by a single Super FPGA chip and three Tiger SHARC DSPs giving you instant access to all the processing you need. There has never been a better reason to ditch your FX racks and instead build them virtually, taking advantage of effects including lush choruses, warm reverbs, accurate pitch shifters and much more. You can even take the studio with you by taking advantage of the optional Waves SoundGrid giving access to all of your favourite Waves plugins. What's more you don't have to worry about all of your processing diminishing your channel count or overwhelming the other capabilities of the desk or vice versa. You will always have up to 48 stereo effects across the desk without reducing any of other audio capabilities of the SD7. These 48 effects consist of 16 stereo 'floating point' reverbs and up to 32 stereo delay/chorus/pitch/enhancers.

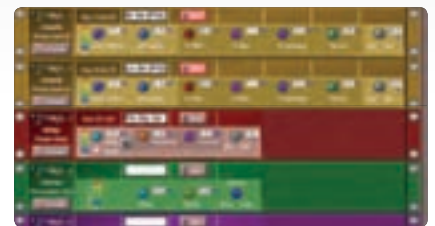
Effects can be directly inserted into channels or routed as normal and, of course, all of the parameters are directly accessible via the HTL (Hidden Till Lit) controls or via the touch screen – quickly and easily. To give you even more flexibility, and to ensure simplicity during a complex mix, all the effects parameters can also be included in your snapshots, recalling all

your settings and routing, at the press of a button.

Snapshot recall also applies to the 32 graphic equalisers that are built directly into the console. Being DiGiCo we have thought of everything to ensure that the control surface is as user friendly as possible. So, when you're controlling the graphics via the fader banks the fader becomes centre-detented. Even when you're not looking you will always know where 0dB is. It's just like being at home!

So whether it is mixing a large band, orchestra or a multi-input television production you can rely on the SD7 and the power of Stealth Digital Processing™ to give you all the processing you need effortlessly.

Stealth effects - Hidden power to enhance your mixes.

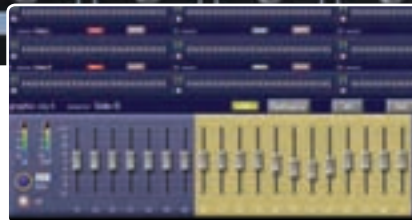


- › Up to 48 stereo effects can be loaded into each rack and all auxiliary or group assignments can be instantly seen.



- › Build your FX racks simply using the central touch screen and select from a wide range of powerful, built in, natural sound effects including reverbs, delays, choruses, pitch shifting and more.





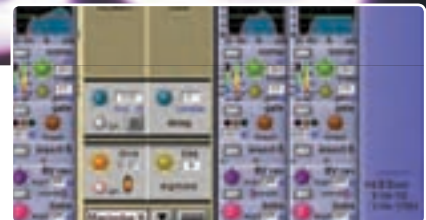
- › Altering the graphic by the top row of faders in the centre of the console. The on screen highlight shows which faders are effecting which frequencies. In graphic mode the faders also become centre detented ensuring you always know where 0dB is.
- › See all of your graphics in one place as well as their gang status. Graphic EQs ganged together ensure that what happens on one happens on the other. Perfect for stereo pairs or groups of loudspeakers.



› Dynamic EQ is perfect for dealing with those troublesome frequencies that only rear their head as the band really get going. Control the high-mid on an electric guitar as the passion of the solo starts to become uncomfortable or deal with unexpected sibilance on a vocal mic automatically.



› Multi-band compression is perfect for use with in ear monitor mixes, keeping the artist safe from damaging high frequencies or just smoothing out the tonal balance of the mix simply and effectively allowing you to concentrate on mixing the show.



› Warm up the sound of your input channel with DiGiTuBe tube emulation. Easily create the quality of yesterday today without using any additional console resources.



DiGiCo

Dynamic EQ, Multiband Compressor and DiGiTuBe

Take full control of your mix

Creating a great sounding mix requires a combination of skill and the right tools. Inside every SD7 is a winning combination of powerful, flexible and great sounding dynamics and EQ that allows you to express your creativity with ease.

Experienced engineers know that after the mic pre-amp the next most important thing to consider is the accuracy and quality of your EQ section, and the SD7 provides one of the most flexible, dynamic and musical sounding EQ sections of any digital desk. Yet, we are not just talking standard EQ here, this is dynamic, giving you the real opportunity to shape your mix and alter your EQ settings in real time — automatically.

Every channel on the SD7 offers four band fully parametric equalisation, or you can select to use the Dynamic EQ giving you threshold, attack, release and to control the amount of EQ applied in each of the four bands. The ability to make each band either static or dynamic EQ is further enhanced by the ability to set the threshold to be triggered by either an over or under signal level.

Every output has eight bands of fully parametric equalisation and even has the capability of dynamic EQ on four of the bands.

The multi-band compressor, also available on every channel or output, gives you full control over the dynamics of your mix across three frequency bands as well as the option of auto makeup gain and variable cross over frequencies. This coupled with the ability to turn each band on or off independently provides the widest possible control of channel dynamics.

If all this control wasn't enough you can enhance the already great sounding input channel with the warmth of DiGiTuBe tube emulation. Simply switch it in on and you can alter the drive and bias giving your input signal that characteristic glow!

The SD7 provides all the tools you need to create the mix you want.



- › Four band Dynamic EQ is displayed on the touch screen, giving options to control frequency, EQ and gain as well as threshold, attack, release, ratio as well as minimum or maximum threshold levels. Each band can also be independently activated on each channel.



- › Multi-band compression over three selectable frequency bands gives you full control of the dynamics of your mix. With tunable crossover frequencies, gain makeup as well as standard threshold, attack, release and ratio control, dynamic compression is as flexible as you want it to be.

Waves® SoundGrid.

Access the plugins you love

The SD7 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. These include the Prelude Bundle, which comes complete with the L1 Ultramaximizer, Renaissance Channel, compressor and De-esser or the SD7 Pro Bundle that includes the Aphex Vintage Aural Exciter, SSL E and G channels as well as MaxxBass and Vocal Rider plus much more.

Setup is simple and takes no processing power away from the console as all of the audio is processed on the Waves SoundGrid server. By connecting the Waves SoundGrid card and server to a network switch and then to the SD7 you will have access to MultiRack SoundGrid allowing you to build racks in the same way as you would any other effects rack on the console.

With 32 stereo processing racks and eight simultaneous plugins per rack you will never be short of the processing you need.

When building your console with a Waves SoundGrid attached you will be presented with an additional 32 stereo inputs and outputs allowing you complete flexibility to integrate your Waves plugins directly into your desk configuration. And of course, being DiGiCo, the latency is extremely low and will not effect your mix or the way you work. Additionally, you retain all the power and security offered by the SD7 dual Stealth Processing Engine with total snapshot integration.

Waves SoundGrid — expand your creativity.



Q10 Paragrophic Equalizer



SSL-G Channel



Vocal Rider



› 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 MultiTrack 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 SD7's own processing power to remain dedicated to the task of driving the console and its worksurface.

› The DiGiCo Waves setup gives you instant access to up to 32 fully integrated, low latency Waves stereo processor racks, with up to eight plug-ins in each rack. Waves TDM plug-ins collections can be used too.



Plugin Bundles

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



Waves MultiTrack



C4 Multiband Compressor



CLA-2A



Renaissance Equalizer



SuperTap



- › Two digital engines and operating systems are installed in each SD7 by default, providing dual redundancy for hardware, audio, operating system, software and optical or MADI.



- › Dual power supplies run simultaneously keeping your desk up and running at all times.



Redundancy

Peace of mind

On a big show, be it live or broadcast, there are often no second chances. That is why the SD7 offers the ability to have two redundant optical loops and four pair MADI ports, giving you total piece of mind and up to 224 duplicate connections on MADI and 896 on the optic loop.

Of course it doesn't stop there. Every SD7 console and DiGiCo rack has dual redundant power supplies and the SD-Racks also have completely hot swappable modules, making even the most drastic replacement as simple and quick as possible.





The SD7's redundancy is unique. It's not just the two Stealth FPGA powered Digital Processing Engines that will come to your rescue in the unlikely event that you run into a problem. The SD7 also has complete power and operating system redundancy.

So be it hardware or software the desk will continue to operate seamlessly. Of course, you won't lose audio either. The console will continue to pass your mix as intended while the SD7 seamlessly swaps from one Digital Processing Engine to the other.

SD7 Redundancy - You'll love it, but you'll rarely use it.



Multiple Touch Screens

The SD7 work surface: seeing is believing

At the heart of the SD7 worksurface are three large 15" TFT LCD touch screens giving you the information you need at the touch of a finger. Each of the screens sit above 12 faders and display all of the information relating to those channels, making operation intuitive, quick and easy.

You can access everything you need directly from the screens or in conjunction with more familiar knobs and faders. The screens also mirror the colours displayed by DiGiCo's 'Hidden Till Lit' colour coded, context sensitive controllers, ensuring you reach for the right control every time.

The central touch screen also gives you access to the desk configuration screens and all of the 'under the hood' options you don't want to see while running the show.

Of course, for those of us with chunky fingers, there is always the option to use the hidden, slide out keyboard and mouse





tucked away under the front of the console, complimenting the touch screens.

The SD7:
Keeping you in touch with your mix.



- › Instantly identifiable settings, signal indicators, physical, grabbable controls and tactile, responsive touch screens. From the high resolution, context sensitive meterbridge and giant 15" LCD displays to the touch sensitive motorised faders and colour-coded electronic scribble strips, you always know exactly where you are.



- › The central touch screen provides all the information you need to configure your SD7 before the show and setup your graphics, load your FX racks, access the matrix as well as give you all your channel information during the show.

Expansion (EX-007)

More of what you need, where you need it

The SD7 is undoubtedly flexible and powerful, but sometimes you just need a little more. Often you just need a little more instant access to faders and controls, for large channel count productions or multi-operator scenarios such as large scale live and broadcast events.

DiGiCo naturally have the answer in the form of the EX-007. Connecting up to two EX-007s directly to the main console gives you additional control for up to 48 channels of your mix. The expandability of the SD7 along with the application specific software makes using the desk on a studio floor for TV shows or award ceremonies a dream. In a live performance mixing an orchestra or large event becomes even easier.

Of course the EX-007 doesn't only come with faders, it also features two additional 15" TFT LCD touch screens and HTL encoders and its own dedicated control PC and power supply. All this together with the use of CAT5 to connect to the main console means the fader expansion unit can be used up-to 100 meters away from the main desk — should you need to!

The EX-007: the best hands on hands down.





Local I/O

Connect and go

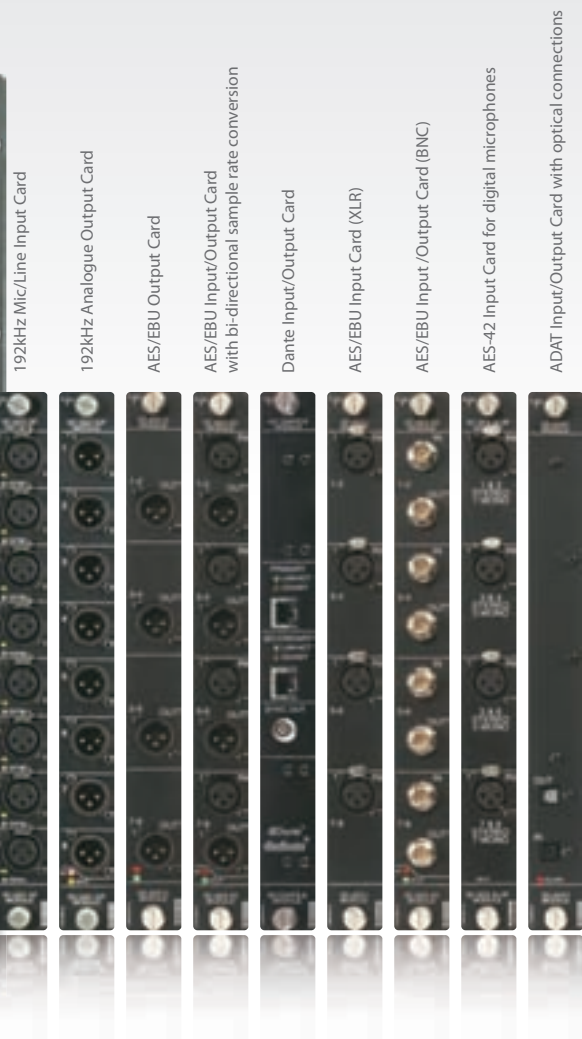
There are times when you might want to run your old favourite effects or dynamics processor by plugging it in to the back of the desk. With digital consoles and remote stage boxes this has sometimes been more complicated than it needs to be.

Not any more. The SD7 has 12 mic/line XLR inputs and 12 XLR line outs in addition to 6 pairs of AES/EBU I/O. In the real world this means that to configure your console you don't even have to have the stage box connected to get up and running. Connect your audio playback straight to the back of the desk and you're away. If you have a visiting engineer who insists on plugging up a rack of old processors for their band it is as simple as it used to be with analogue. Plug and rock!

Local I/O: It's supposed to be simple.







SD and D-Rack

It's all about flexibility

The SD-Rack offers high resolution analogue to digital converters, incredible flexibility and superior sound quality to complement the power of your SD7 console. Running sample rates up to 192kHz (coming soon), the SD-Rack can run multiple digital formats simultaneously including AES/EBU, Dante, AES-42, MADI, ADAT and Aviom.

Based around the same Stealth FPGA technology as the Digital Engines in the SD7 itself, the SD-Rack can run the optical loop at 96kHz while providing a down-

sampled 48kHz feed to the broadcast track 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.



HD-SDI Card

Aviom D-16c A-Net Card



- › '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 ID's can be connected on a single optical loop. An SD7 has an optional second optical port giving up to 28 racks of I/O in a system.

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 compliment 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 accessible at the top of the rack ensuring

you won't have to fight a mass of cables to get it out.

The next rack in the DiGiCo series of high sample rate interfaces is the D-Rack. It comes complete with CAT5 audio as standard or with optional optical connection and can run sample rates up to 96kHz. Additionally, the D-Rack will now also support the new Aviom interface and provides 32 inputs and 8 outputs as standard, with the option of eight modular outputs that can either run AES or analogue. This small, flexible rack is

designed to sit on the floor, but can just as easily be rack mounted using the optional ears.

SD and D-Rack: It's all about connections.



D-Rack (with optics)

32 Mic in 8 Analogue out (as standard) showing optional 8 AES Mono Stream outputs, 8 Analogue outputs, Aviom Module and 19" Rack Ears



SD-MINI Rack and SD-NANO Rack

Size is not important - it's what it can do

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 including AES/EBU, Dante, AES-42, ADAT, HD-SDI and Aviom. 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 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.

SD-MINI and SD-NANO racks -
When size isn't everything.





NANO Rack showing 8 Mic in and 8 Line out



NANO Rack showing 16 AES streams in and out



NANO Rack rear showing dual power supplies



MINI Rack rear showing dual power supplies



THEATRE

Application specific extension

When running a theatrical production there are many powerful options that the SD7T software provides you with giving you greater flexibility than ever before.

In theatre mode you have access to more powerful cue list automation and editing. Now you can easily update specific parameters, across all cues automatically, using Auto Update mode, which gives you the ability to alter your cues on the fly.

Channel Aliases are also introduced allowing a collection of channel parameters to be applied to any channel on the desk. Simply by assigning a different channel alias from one cue to the next applies the alias parameters, giving you the option to essentially re-use the channel and swap back to the original alias with ease. Using

Auto Update in this scenario will only effect the alias you are working on, keeping your alternatives safe.

Complex parameter specific custom aliases can also be created allowing the operator to change only that which is needed from one alias to another — power that makes EQ alteration due to costume changes a breeze for example.

Copying aliases from channel to channel or from cue to cue is also now quick and easy, making programming a pleasure. The use of Channel Sets is yet another step forward allowing easy allocation of groups of channels to VCAs when building cues. In the real world this would make assigning a woodwind or brass section to a VCA a one step process.

Most theatrical productions use a distributed loudspeaker system and the powerful 32 x 32 matrix provides individual crosspoint delays on each of the matrix nodes with times up to 1.3 seconds. These delays on each and every individual node can be recorded in the cue list giving accurate control of audio placement and time alignment.

This powerful toolset complements the standard high quality, efficient workflow processes that are built into every SD7 giving you the tools you need to get the job done in a logical and methodical manner allowing more time to concentrate on being creative.



BROADCAST

Application specific extension

Broadcasters often work in demanding situations, running high channel counts and various formats of input and output channels from mono to surround.

Running the SD7 in broadcast mode allows full surround workflows for 5.1 with a true surround panner and joystick control as well as independent LFE send and divergence settings. The SD7 can also be configured to use accepted mix up and down rules or you can now define your own for special circumstances — coming into play should you route a stereo feed to a 5.1 buss or vice versa.

Instantaneously have access to industry standard backstop PFL ensuring the console works in the way that you are used to or choose Auto PFL, selectable on a channel by channel basis, giving you the

option to PFL anything that is not in the mix automatically. Alternatively work in Fader PFL mode ensuring anything that is soloed on the console is automatically un-soloed as soon as the channel is faded into the mix.

Any fader on the desk can also be configured to run in fader start mode. In turn fader start triggers a user defined macro, which can for example, control a GPO relay to turn on a cue light or start a CD player.

In broadcast mode the Monitor Matrix allows the assignment of any group of channels, busses or auxes to 12 programmable Monitor Matrix buttons on the consoles ensuring quick and easy monitoring of any part of your mix or external devices such as a CD player or other playback device. Additionally, assign

your loudspeaker feeds to a Monitor Matrix button enabling you to listen in stereo, LCR and 5.1 surround instantly. Also, when it comes to monitoring, broadcast mode offers you the ability to run the console's metering in PPM style with accurate ballistics.

And for times when you need outside interactions to your live broadcast, mix minus channels are provided as standard and being DiGiCo we like to keep your options open. That is why there is no need to define the number of mix minus busses as part of the console configuration – just decide as you work.

SD7B — everything you would expect from a broadcast console and a whole lot more.



SD7 Specifications

Quick Reference	
Input Channels	Up to 256 processing paths
Busses (Aux / Group)	Up to 128 configurable
Solo Busses	2
Matrix	32 x 32 (nodal delay on 'T' model only)
Master	LR / LCR / LCRS / <i>(Surround - Broadcast Only)</i>
Dynamic EQ	256
Buss 8-band Parametric EQ	Up to 128
Multiband Comp	256
DiGiTubes	256
FX	Up to 48 stereo
GEQ	32 x 31 band
CG	36
Multi Inputs	Yes
Set Spill	Yes
Macros	5 x 4 RGB backlit
Insert Points	2 <i>(1 pre channel, 1 post channel processing)</i>
Reorder Busses	Yes
Aux send to masters	Yes
Snapshot Offline	Yes
Snapshot Auto-update	Yes
Faders	52 (up to 100 with optional EX007s)
MADI	4 redundant ports
Optics	1 loop as standard (14 ids), Optional 2 nd loop
PSU	2

General Specifications

Faders	38 x 100mm touch-sensitive, motorised 14 x 60mm touch sensitive, motorised
Screens	3 x 15" LCD high - resolution touch screens
Meterbridge	3 x Custom Mounted LCD high-resolution TFT-LCD screens
Redundancy	Internal removable engine x 2 Internal hot-swappable PSU x 2
Processing Channels	Up to 256 (combination of Input Channels / Aux / Solo Group Busses)
Busses	Up to 128 Aux / Group busses with full processing Mono / Stereo / LCR / 5.1
Matrix	Up to 32 Input / 32 Outputs with full processing
Control Groups	Up to 36, selectable for VCA-style, Moving fader, Mute Group
Graphic Eq	32 x 32-band, Gain +/- 12dB
Internal FX	Up to 48 stereo effects comprising 16 floating point reverbs and 32 delay/chorus/pitch/enhancer
Local I/O	12 x mic/line I/O, 12 x AES I/O
MADI interface	4 redundant interfaces, BNC connectivity
Optic interface	Fibreoptic optic
Sampling rates	48kHz / 96kHz / 192kHz (processing capabilities halved at 192kHz)
GPI/GPO	16 as standard, expandable to 32
Video	Inputs x 2, Outputs x 2
Ext Sync	Wordclock, AES, Video, MADI, Optics
Physical Dimensions	1496mm (w) x 875mm (d) x 503mm (h)
Weight	107Kg (267Kg with flightcase)
Power Requirements	90V-260V, 50-60Hz, 600VA



Audio Specification

Sample rate	96kHz / 48kHz
Processing delay	1ms Typical (channel, SD Rack input through L-R buss to stage output @96kHz)
Internal processing	Up to 40-bit, floating point A>D & D>A 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

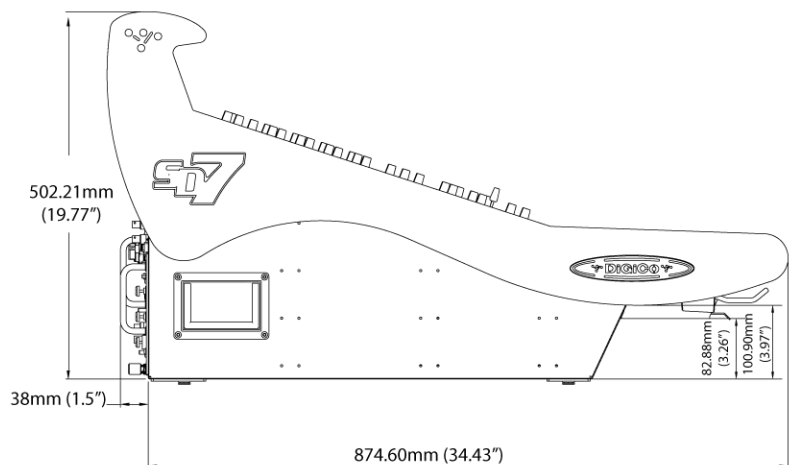
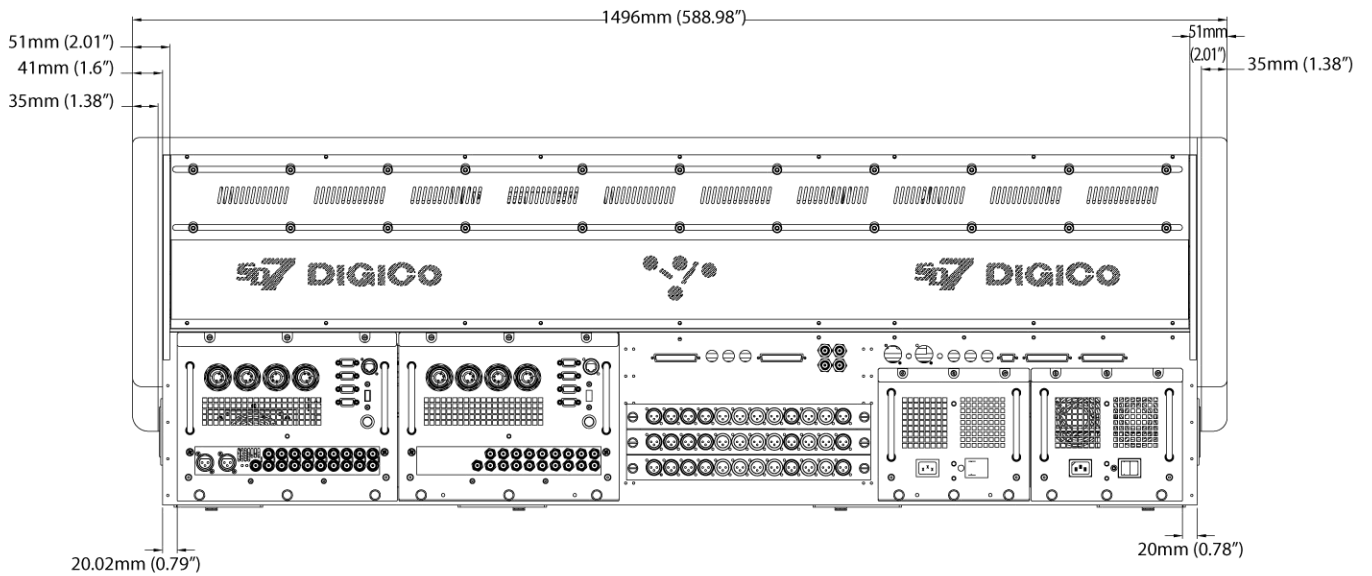
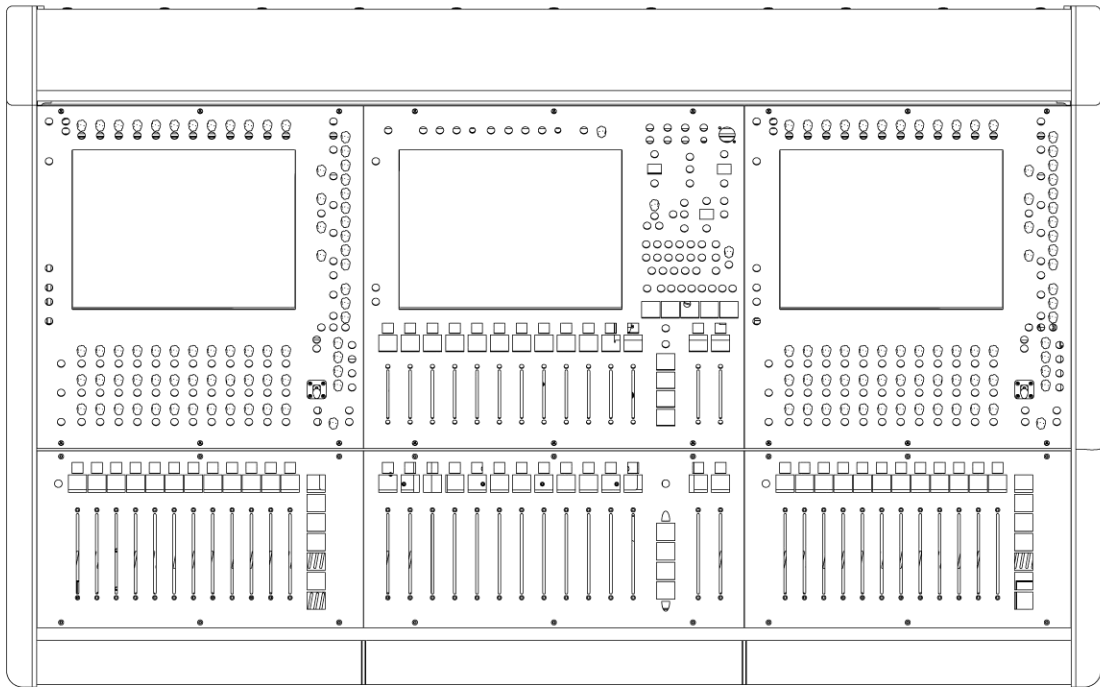
Processing Channel Specification

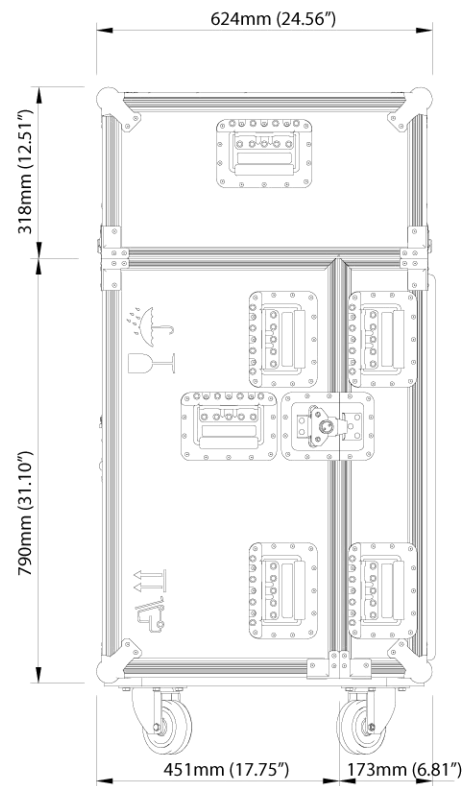
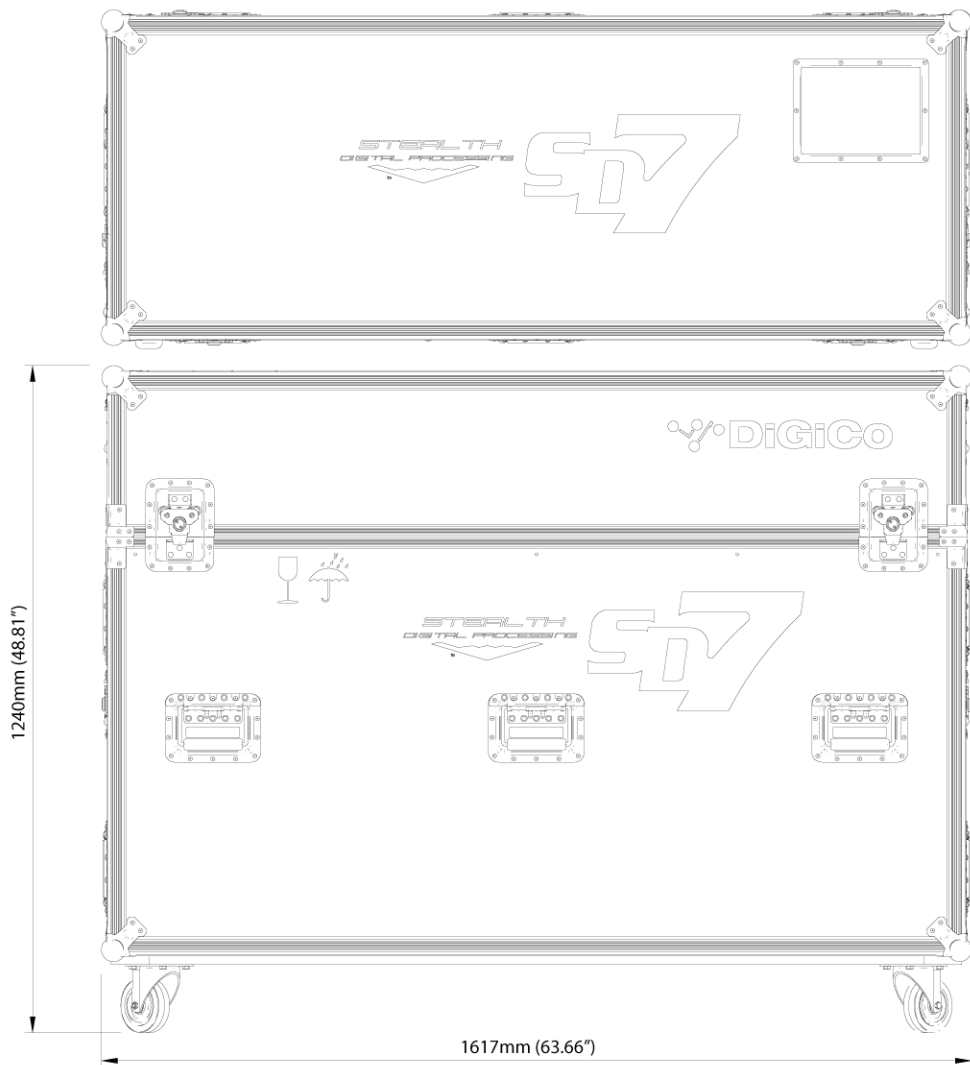
Input Channel	
Name	User-defined / Presets
Channel Selection	Mono / Stereo / Multi
Input Routing	Main & Alternate Input
Analogue Gain	-20 to +60dB
Phase	Normal / Reverse
Digital Trim	-40 to +40dB
Delay	>1 sec (coarse & fine control)
DiGiTube	Drive 0.01 - 50.0 Bias 0 - 6
LPF	20 – 20kHz, 24dB / Oct
HPF	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/hisshelf, 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
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
Gate	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
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

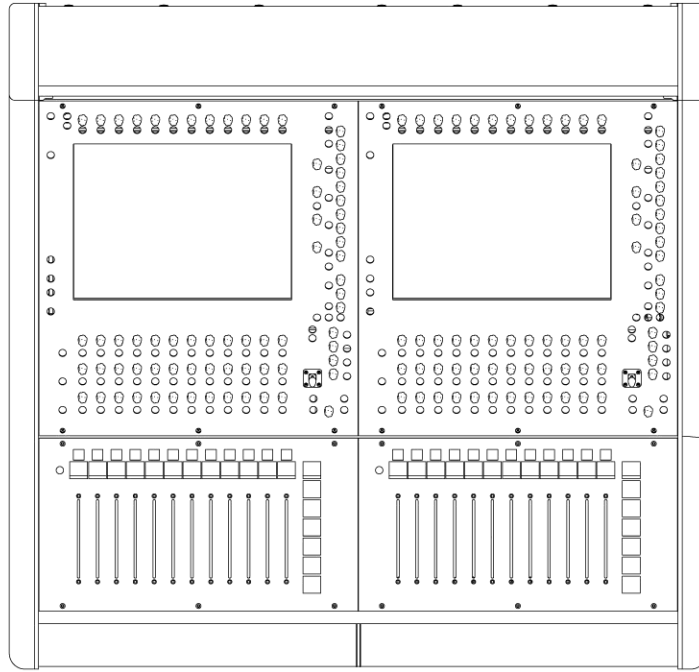
Aux / Group / Matrix Output	
Name	User-defined / Presets
Phase	Normal / Reverse
Digital Trim	-20 to +60dB
Delay	>1 sec (coarse & fine control)
DiGiTube	Drive 0.01 - 50.0 Bias 0 - 6
LPF	20 – 20kHz, 24dB / Oct
HPF	20 – 20kHz, 24dB / Oct
Insert A	(pre eq/dyn) On/off
Equalisation	8 band EQ: Parametric or Dynamic 4 band EQ: Parametric Only (low/lowshelf, lower-mid/lowshelf, upper-mid/hisshelf, 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
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
Gate	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
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

SD7 Line Drawings





EX007 Line Drawings

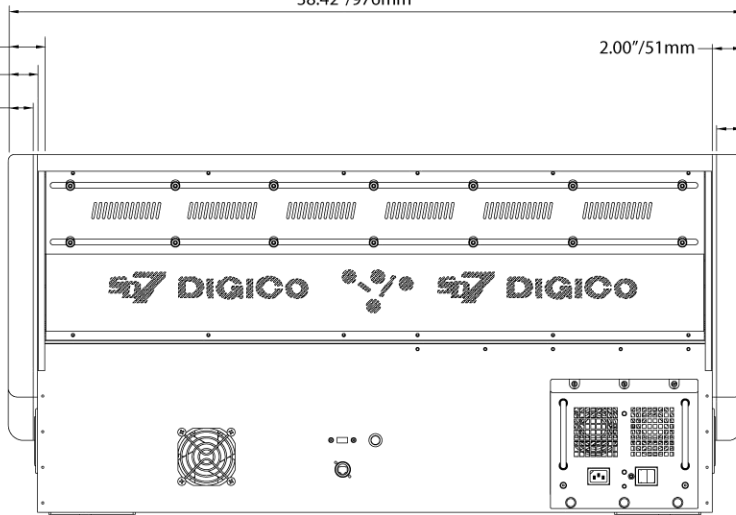


38.42"/976mm

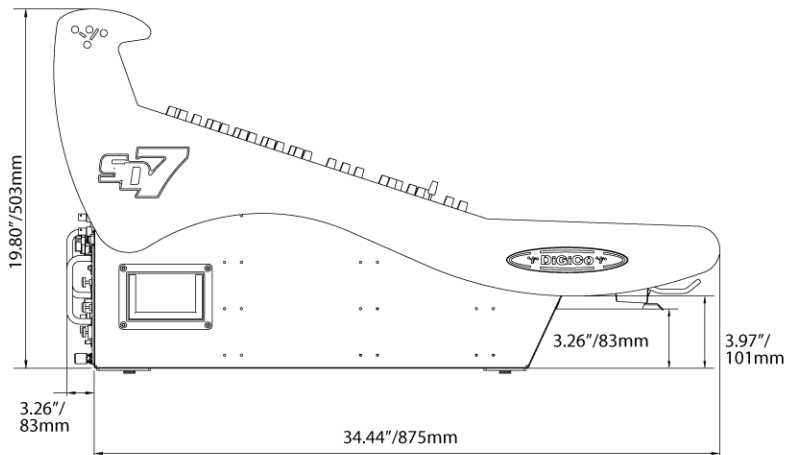
2.00"/51mm
1.61"/41mm
1.37"/35mm

2.00"/51mm

1.37"/35mm



0.82"/21mm



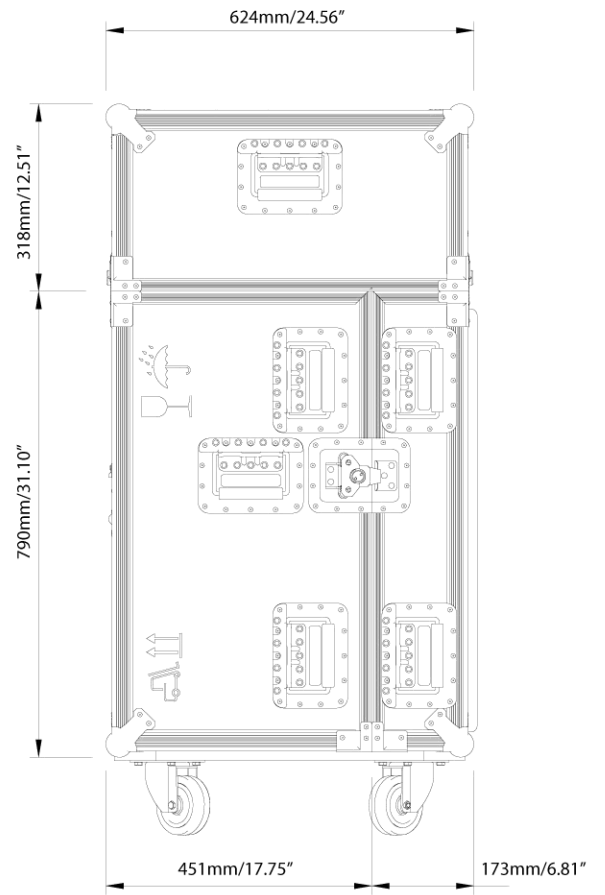
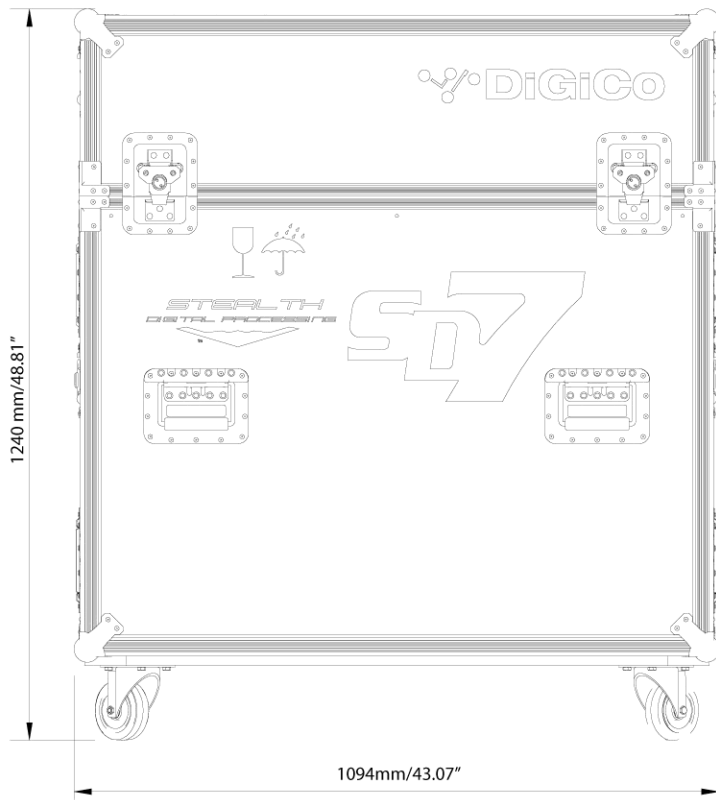
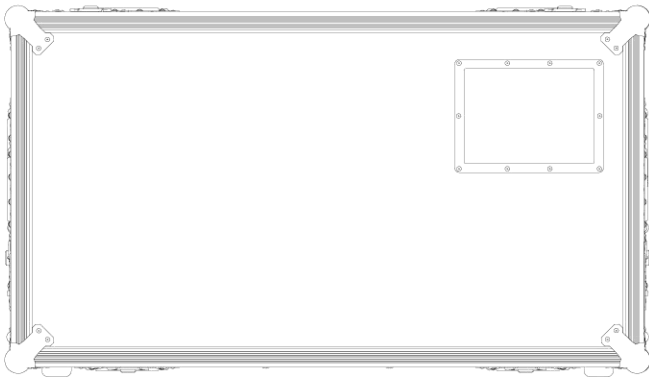
19.80"/503mm

3.26"/83mm

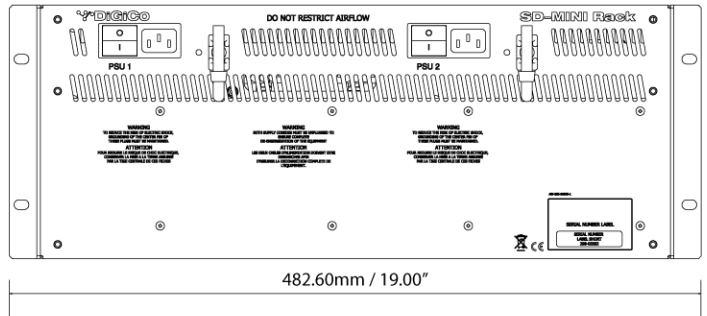
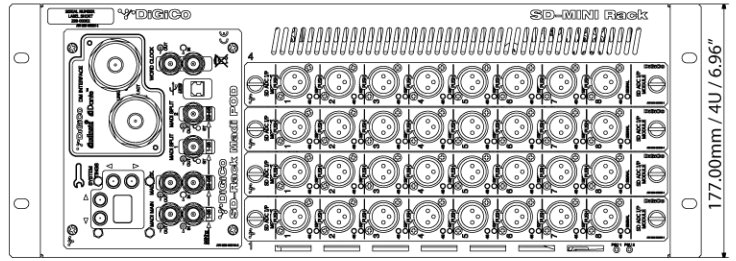
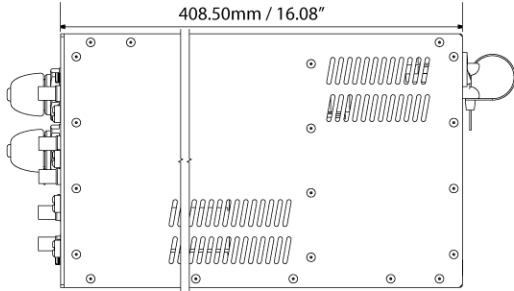
34.44"/875mm

3.26"/83mm

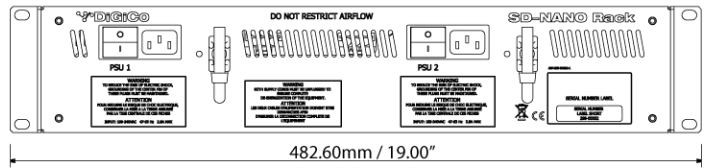
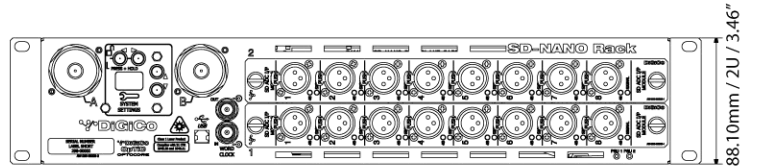
3.97"/101mm



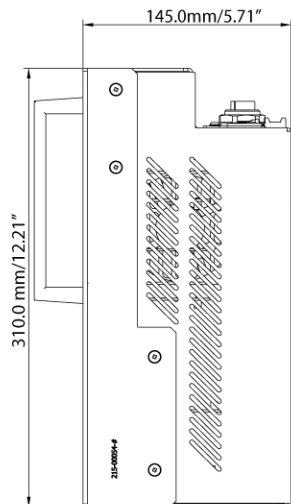
SD-MINI Rack Line Drawings



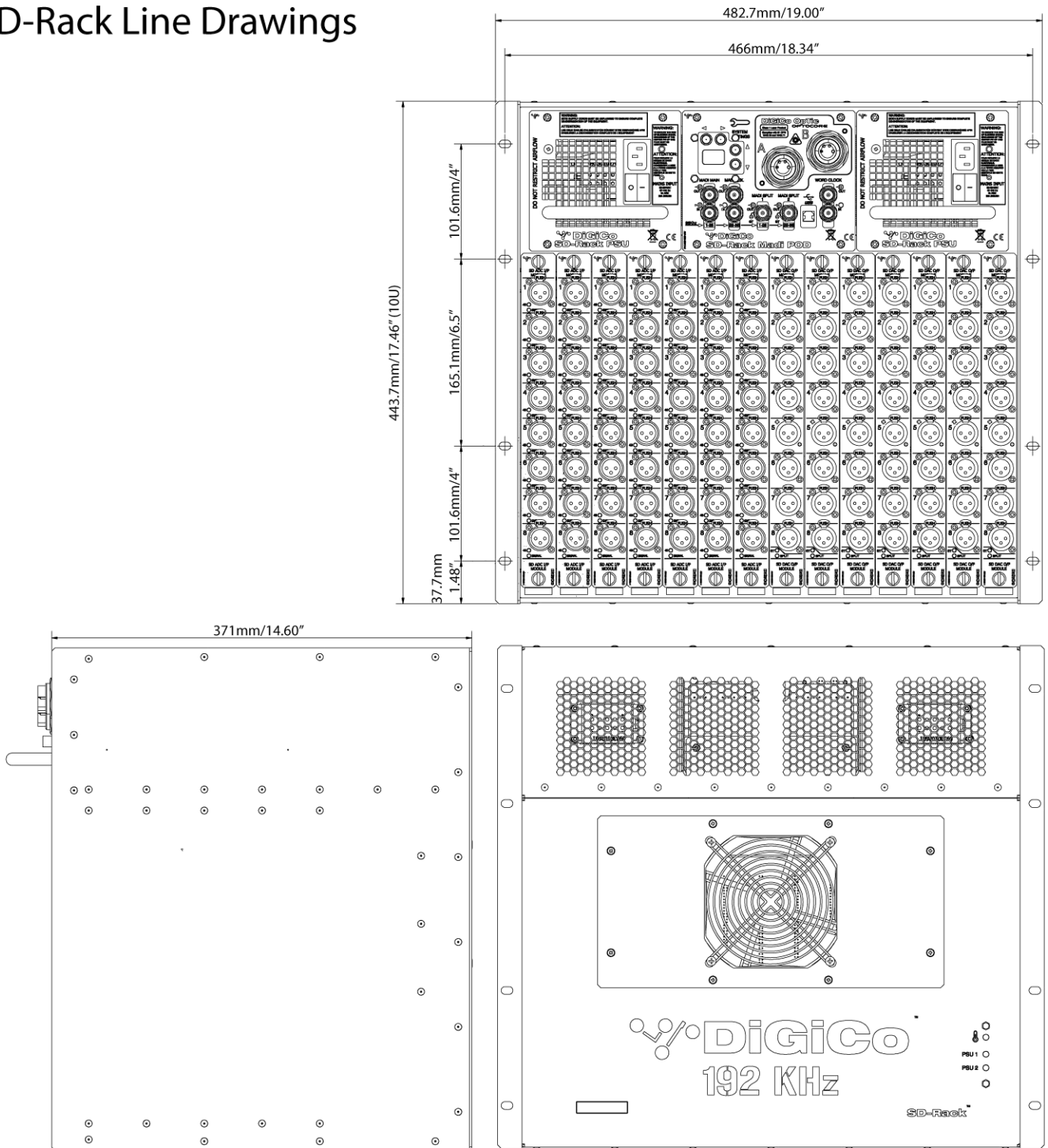
SD-NANO Rack Line Drawings



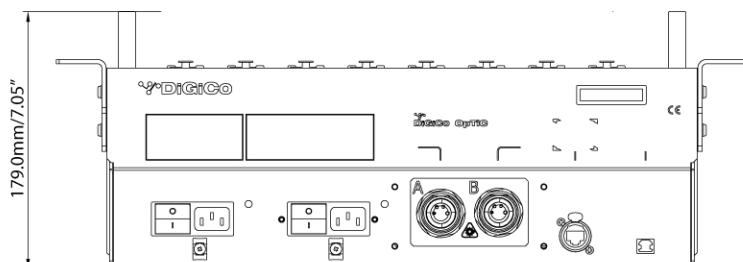
D-Rack Line Drawings



SD-Rack Line Drawings



D-Rack Line Drawings





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 compact SD8, the ultra compact SD9 and rackmount SD11 and, now, the powerful SD Ten and SD Ten B.

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. Selected features include:



Houses of Worship
Gateway Church Southlake Texas

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.



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