



TRULY INNOVATIVE DIGITAL MIXING

Step up to a DiGiCo D Series digital console, and step into a new world of digital mixing.

Designed by sound engineers for sound engineers, the award-winning DiGiCo D Series combines superb sonic purity with powerful, user-friendly, instantly accessible control for every sound reinforcement, recording, film, post production and broadcast application.

DiGiCo D Series digital mixing systems broke the mould of digital live mixing, and today's comprehensive range continues to set the standard for advanced sound engineering, from concert touring and theatre to live events and houses of worship. The DS-00 and D4 bring the same abilities and innovations to studio and OB applications of every scale.

In every area – audio quality, controllability, recallability, simple and intuitive operation and cost effectiveness – the D Series is a world apart from conventional mixing.

The live range begins with the 'access all areas' D1 system, perfect for high quality installations, medium-sized and regional rental operations and as a logical companion console to a D5 Live system. In its simplest form the D1 provides a 25-fader, 64-channel worksurface and 40 input 24 output DiGiRack.

The award-winning D5 Live is capable of handling the most complex mix with ease, and in its dual worksurface FMX system form provides a complete, fully integrated front-of-house and monitor system linked by a fully redundant fibre optic loop. Extensively proven at the highest level the world over, the D5 Live is an immensely robust and versatile mixing powerhouse.

For those seeking the numerous technical advantages of the D5 over comparably priced consoles, but with no requirement for optical I/O, the CS-D5 brings you the full D5 feature set at a lower price point.

The D5T (Theatre) system sets a completely new standard for theatre sound mixing, combining the multiple benefits of scintillating digital sound and time saving total recall with a compact, space saving footprint. Designed in close co-operation with some of the world's leading theatre sound designers, its powerful feature set is dedicated to the specialist art of creative theatre sound.

The DS-00 provides similarly user friendly operation and robust, road proven technology to a new, highly flexible and compact format for film, post production, broadcast and music recording.

As a high end digital production console the D4 is in a class of its own, combining DiGiCo's unique touchscreen work surface topology with an incredibly powerful digital engine that provides for up to 320 full audio channels and 124 output busses – a production console to tackle the toughest and most demanding daily workload.

The D Series range is completed by an array of system options and custom I/O configurations. Options include an ultra-compact remote control worksurface for operation where space is at a premium (for example, a theatre auditorium) and an outboard audio engine for full redundancy.

All D Series mixing systems have at their heart the same innovative DiGiCo audio engineering and powerful, intuitive user interface, making it a simple matter for an engineer to move from one type of D Series console to another.

These complete, self-contained systems do away with the need for a multicore, splitters, line drivers, dynamics processors and an entire effects rack. You can store a complete show's settings on a tiny USB key, providing an instant backup of rehearsal or live performance settings and the ability to transfer your show from one desk to another in seconds.

In terms of sonic performance, D Series consoles are true thoroughbreds. With their D/A converters providing an impeccable noise floor while up to 40-bit floating point internal processing delivers pure, smooth, rich musicality. The powerful bespoke DSP engine runs every channel continuously – giving you the benefit of just 2mS latency from analogue input to analogue output, equal on every channel at all times.

Security modes prevent accidental changes during a live show, and there's



failsafe recovery with no audio loss on mirrored consoles.

The design team behind the D Series' engineering has 10 years of experience with the DiGiCo and Soundtracs family of digital recording consoles, and over 1000 digital sales worldwide.

The result is not only innovation, but road proven durability and the knowledge that whenever new features are created for the DiGiCo D Series, your console's software will be instantly updateable too.

The D Series digital mixing systems from DiGiCo.

A new world of mixing ideas.

Contents

Truly Innovative Digital Mixing	page 2	Effects and IPCs	page 29
User Interface	page 3	D Series System Overview	page 31
Input Channels	page 5	Recording	page 32
D5-00	page 7	Plug Ins	page 32
D4	page 11	System Options	page 34
D1	page 15	Multiple Console Systems	page 35
D5 & CS-D5	page 19	Gain Tracking™	page 36
D5T	page 23	V4 Software	page 37
D5T-12	page 24	Technical Specifications	page 39
D5Tc	page 27		
D5rc	page 28		
D5T Fader Pod	page 28		



INTUITIVE USER INTERFACE

The design of live digital consoles in the past has often been dictated by the desire to hide complex functions behind layers of menus and an assignable control surface.

With the D Series, DiGiCo set out not only to emulate the directness and simplicity of an analogue board, but to improve on it wherever possible.

The first impression is of a blend of the familiar – the input groups of long-throw motorised faders with a row of large illuminated buttons above them, three rows of rotary controls and input trim controls at the top – and the 21st century, in the shape of large, full colour backlit LCD TFT touchscreens and electronic ‘scribble strips’.

One glance at the innovative control surface tells you that the D Series has been designed for sound engineers by sound engineers. Virtually every feature is there to see at a glance, or at most a single, logical fingertip press away. The large LCD touchscreens present their facilities exactly as you'd expect to find them on an advanced analogue console, with instant access and a refreshing lack of menus to navigate. This thoroughly intuitive approach means that, despite the wealth of facilities, an engineer's learning curve is as short as the feature list is long.

At every step you'll find a wealth of clear tactile and visual information. The smooth, long-throw moving faders react precisely and predictably, and the moment you move one an adjacent backlit button shows you the level change in real time accurate to 0.1 dB. 24 VCA-style control groups are at your disposal, also on DI with V4 software (8 on DS-00 and D4) and you can swap inputs between physical faders and groups of faders to suit your needs in a second.

The worksurface is divided into input sections and the master section, whose touchscreen controls the master and matrix sections, automation and console set-up pages.

All touchscreens are pressure sensitive, requiring a light press to select a control or change a setting: this protects functions from accidental change by the sweat on a hand or an accidental brush with a finger. This type of tactile feedback is consistent throughout the desk and contributes to the feeling of security and predictability in mixing with it. Each screen shows the settings of eight input channels simultaneously and provides interactive control over all functions per fader via a combination of LCD buttons and 'real' controls, while an input channel overview can be displayed on the master screen.

With the D5 each of the surface screens has an equivalent dedicated VGA video output on the back of the console, which allows you to view a duplicate of each surface screen on an external colour monitor. There's also a dedicated VGA output allowing you to connect an optional external 'total console overview' monitor. All D Series consoles have a dedicated VGA output allowing you to connect any type of VGA monitor (standard, LCD or plasma) and the output provides up to 1280 x 1024 resolution.

Using the Layout page, each operator can decide what information is displayed on this screen, according to the demands of the project being worked on. The overview screen has the ability to display matrix outputs and all buss outputs for auxiliaries, groups and the main buss. Again, these show full metering, insert switching, mute and solo, and dynamic fader positions. You can also view the fader positions and muting status of VCA-style fader groups when these are in use. All channel strips can be displayed in full on the overview screen, showing peak LED, full channel metering, insert point switching, gain reduction, gate movement, muting and solo settings, and dynamic, real-time fader movement.

Each touchscreen has an adjacent bank of rotary encoder controls to allow instant, real-time adjustment of all equaliser and dynamics settings with an accompanying frequency curve display. It's all simple, direct and instantly displayed.

All live and theatre groups of channel faders have a row of illuminated, digitally labelled, fader bank buttons alongside them, allowing each fader group to be switched between six fader banks at a touch, the faders moving precisely to their memorised positions as you change banks. Labelling, in fact, is plentiful throughout: with the touch screen keyboard or the full-size QWERTY keyboard you can quickly assign names to the LCD scribble strip, screens, busses and fader banks.

Metering is comprehensive, while the 30-segment LED meter overbridge displays input level, gain reduction, gate activity, insert send level and direct output level. It also carries a console illumination strip of white LEDs which, in common with the touchscreens and scribble strips, can be dimmed down in steps when working in a light sensitive environment.

The combination of so much visual and tactile feedback, and the small footprint, makes it a very comfortable console to use live, with no need to stretch or crane your head to see the positions of controls or status settings.



Overview Screen



Fader Bank



Meter Bridge



Slideout Keyboard and Tracker Ball (D5 Live, CS-D5 & D5T)



INPUT CHANNELS

Each D Series input channel has its own analogue input gain and digital trim, with Gain Tracking™ switch and presets for the whole channel, along with phase reverse, phantom power, six-band EQ and a delay function which allows you to add 240ms of delay to any or all of the channels.

The input sections of all D Series consoles are essentially identical, providing instant access to virtually all the major features the sound engineer requires for mixing. The powerful touchscreen interface gives fast, intuitive and responsive control over EQ and dynamics, while further input channels, in banks of eight, are just one touch away using the dedicated bank selector buttons.

Each channel has four bands of fully parametric 20Hz-20kHz EQ, while the upper and lower bands can be switched between different curve types and shelving characteristics. On top of that are dedicated high and low pass filters, and a preset library, which allows you to save an almost unlimited number of EQ presets for instant recall.

The dynamics section for each input channel is called up with another press on the screen, displaying all the settings for the compressor / limiter and gate, and a powerful sidechain equaliser which allows frequency-conscious dynamics. The same press assigns that channel to the group of dedicated dynamics rotary controllers alongside the screen. The sidechain EQ can also be allocated to the compressor, providing a wide range of uses including highly effective de-essing. A dedicated user preset library accompanies the section.

Under the screens are three rows of versatile, user-assignable rotary controls, which are designed to give you the option of selecting the controls you use most often closest to you as physical controls. Functions can be assigned to them as you wish, including auxiliary sends, pans and dynamics controls. Access is available to any of the 40 busses (72 on D5T, 124 on D4), 36 (72 on D5T) of which can be assigned as either auxiliary busses or group busses. Auxiliaries can also be assigned to faders, allowing a visual feedback of aux levels by channel at the master fader section. The console is capable of stereo, LCR(S) and 5.1 mixing, while 5.1 joystick-style panners (one per 8-fader input section) provide instant sound image control. Assignment can be made either by touching the screen or scrolling to the buss required. Touching the aux on-screen brings up an expanded view of all auxiliary sends, and routing buttons show stereo or surround designations clearly. Input routing displays a warning if the signal is already in use, while the analogue output routing includes a -10dB switch.

Below these three rows on the D1, CS-D5, D5 and D5T is a row of large, backlit liquid crystal buttons, one above each physical fader. The buttons feed back an immense amount of information about what that individual fader is doing, using a combination of text and backlight colours which change automatically according to the button's status. The button displays channel number, mono or stereo status, whether the button is currently acting as a solo, fader to aux, safe switch, fader gang, and a fader level readout accurate to 0.1dB, which appears the instant a fader is touched. Alongside the button is the LCD assign button, displaying the liquid crystal button's various functions – Solo and Revert To Solo, Safe (which removes the channel from a snapshot and turns the button red as an alert), Aux Send to Master Faders, Fader Ganging, Solo Buss one or two assignment, Name Only and Solo and Revert To Solo.

The Gang function allows similar channels to be locked together in a gang so that level, EQ and dynamics settings can be applied to all of them simultaneously, confirmed by a coloured line in the touchscreen. If, for example, multiple channels require the same high pass filter settings, it's simple to gang the channels and make a single EQ adjustment. Multiple gangs can be built within each input section and an individual channel can be temporarily dropped out of the gang for individual adjustment by holding the Solo button. Fader assign and solo assign are further ways of assigning the channels to the hardware controls.

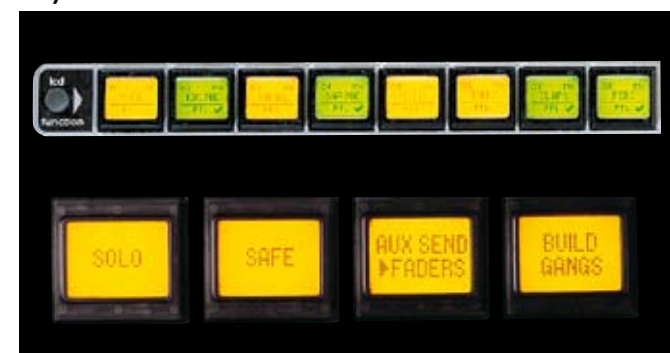
All D Series consoles provide extensive snapshot facilities. At any time you can commit the console's entire status to a snapshot memory and as there's almost no limit to the number of snapshots you can store, you can effectively record an entire show's mix settings. Then store it on a tiny USB key and recall the whole show on another continent with another D Series console. Snapshots can be self-timed, allowing automated sequencing; relative snapshots allow venue adjustments independently of scene changes; and current or master snapshots can be updated with one touch.



Equalisation



Dynamics



Multi-function, multi-colour LCD switches



Snapshot screen

DiGiCo D1 LIVE

The benefits of the D1 Live digital mixing system are as compelling as the D5's in a host of different applications, whether as a superbly versatile, high quality mixer in a fixed installation such as a theatre, conference hall or house of worship, in daily action with a midsized or regional rental company, or as the logical companion to a D5 Live.

Either way, you'll enjoy the same tactile, intuitive, hands-on simplicity of the worksurface with its clear, bright backlit TFT touch screens, snapshot controlled fully automated moving-fader mixing, powerful built-in dynamics and digital effects and complete recallability of every function.

The D1 Live provides simultaneous processing of 64 mono/stereo channels and can be expanded up to 160 channels, in any combination of mono/stereo with full access to 224 inputs and 224 outputs. Each channel provides full routing from the remote mic pre amps, 240mS delay, Hi and Low pass filters, 4 fully parametric EQs and dynamics with side chain filtering.

The 25 layered faders, are grouped in blocks of eight with six user definable fader banks per section.

The full digital effects system's six independent effect processors include everything from high quality reverbs, delays and pitch change to multiband compressors and 28-band graphic equalisers.

The 40 output busses can be used for up to 28 mono/stereo auxes or up to 36 mono/stereo/LCR (S)/5.1 surround busses, each with a limiter and insert point. It also provides a user configurable 38x8 matrix, all with insert points.

THE POWER OF DIGITAL MIXING.

THE SIMPLICITY OF AN ANALOGUE WORKSURFACE.

All 32 IPC's (V4 software) (Insertable Processing Channels – see page 30) include 6-band, fully parametric EQ, compressor and up to 510mS of delay. They can be inserted across any input or output, or used as individual output processors, making the D1 a powerful system controller. With 16 VCA style control/mute groups able to control inputs and outputs, D1 is ready for any kind of application, and the flexible, modular remote input and output racks make it easy to adapt it to any system.

FIVE WAYS TO OWN A D1 LIVE

For maximum versatility, the D1 Live is available in five main systems to suit different applications, complemented by a range of options which allow you to tailor the console to your own specific needs. All four main systems offer similar functionality to the D5 Live, with remote mic pre amps, studio quality equalisation and effects processing, but in a more compact worksurface frame.

D1 Live 40 System Package, with its 40 mic/line inputs, 64 channels and MADI connectivity, is the perfect addition to an installation or rental system. The 'local' DiGiRack, configured as 40 mic/line ins plus 24 line outs and located next to the console, performs the mic / line input channel conversion and enables theatres and regional audio companies to use an existing copper multicore from stage – thus creating a direct

The D1 Live 48DR (Dual Rack) System Package takes the D1 Live 48DP fully into the integrated digital domain, the inclusion of both local and stage-end DiGiRacks creating a totally digital signal path between stage and console. The latest implementation of the DiGiCo high performance MADI board in the D1 Live 48DR supports cable runs of up to 100 metres. The D1 Live 48DR includes both the effects system and insertable processing channels for superb functionality as a true dual-purpose (Front of House/Monitor) console.

The D1 Live 48Mini-DR (Mini-Dual Rack) System Package includes the same components as the D1 Live 48DR package, except that a Mini-DiGiRack is provided for the 'console end', for applications where a full local DiGiRack is not required.



replacement for an analogue console. Like the D5 Live, the D1 Live 40 is supplied with full input EQ, dynamics processing and onboard effects, 38x8 matrix, 24 VCA control groups (V4 software) and a full effects system, eliminating the need for most external processing.

The D1 Live 56 Mini-FM System Package is a fully enabled D1 Live system with two D1 Live worksurfaces, a local Mini-DiGiRack and a full stage end DiGiRack, two 100 metre drums of fibre optic cable for a fully redundant digital signal path, and 56 physical inputs on stage. This complete, self contained system does away with the need for a multicore, splitters, line drivers, dynamics processors and an entire effects rack. It offers similar functionality to the D5 Live 56EX but in a more compact worksurface frame.

Finally, the wide range of configurations and options (see pages 33-34) allow you to create a custom-specified system, based on any of the four standard systems, to suit your precise needs. Choose the input, output and interface options you require.

With all systems, you can record live direct to a MADI equipped HD recorder, as well as storing a complete show's settings on a tiny USB key for total portability from one DiGiCo D1 or D5 to another, as well as providing compatibility with the Soundtracs family of post production, broadcast and music recording consoles.

The D1 Live 48DP (Dual Purpose) System Package, which also has a single, 'local' DiGiRack and utilises existing copper multicore, extends the Live 40's facilities with a total of 48 mic/line inputs and 24 IPCs (V4 software). The IPCs give the D1 Live true dual purpose functionality, allowing the console to perform powerfully in both front-of-house and monitor roles, as well as providing an extensive onboard feature set for flexible but space and cost-saving installations in theatres and other live venues.

Add to that road-proven stability and reliability, the tough but comparatively lightweight physical design and small, space-saving footprint, and you have a mixing system that is suited to an enormous variety of live sound applications in every professional genre.





D1 LIVE MASTER SECTION

The D1 Live's master section, as well as the customary output groups and master fader, provides powerful control of the console's overall setup via a series of pages instantly selectable on the third touchscreen.

SESSION MENU: This menu stores, recalls and sets up individual sessions. As well as the standard default files, it includes features such as Load Preset Library for recalling user presets of EQ and dynamics settings, which can also be merged when, for example, two engineers are using the desk in the same session or show.

LAYOUT MENU: The Layout menu allows you to bring all the correct channels straight to the console's physical faders. On this page, too, are the extensive labelling facilities, enabling you to type in alphanumeric labelling on screen or using the supplied QWERTY keyboard. Channel settings may be copied or moved here from one to another, and a channel's settings can be copied to multiple channels using the Duplicate feature.

SNAPSHOT PAGE: The D1 Live's store-and-recall functions are comprehensive, providing both an almost unlimited number of desk status 'snapshots' and the ability to build these into complete scenes. All of these, along with their associated EQ, dynamics and optional effects preset libraries, can then be transferred to another D1 Live or D5 Live via the USB key.

Snapshots can be triggered either manually or automatically, and can be self-timed for automatic sequencing. The feature also allows you to decide which controllers on the channel will change including input gain and more! Direct send routing can also be changed with the snapshot. This is where you can make automated fader bank changes to prepare for the next band on stage or the next song. It also controls fader ganging, control groups and cross-fade times between snapshots.

OUTPUT PAGE: The on-screen scroller provides fast access to group, master output and auxiliary output routings, and a touch on the screen displays current routing settings. Each output has a brick-wall master limiter with variable threshold and variable release time, along with routing to allow the buss to be routed to as many of the outputs - analogue or digital - as desired. There's also an output buss insert point for an external processor. Auxiliary outputs are handled in exactly the same way with an additional pre/post fade switch.

The auxiliary master outputs are assigned here to the physical faders on the master fader bank. The master bank provides eight master faders which can be assigned as matrix outputs, group outputs, auxiliary outputs and control group masters.

Also here is Solo Assigns 'Aux to faders' or 'Aux to Rotaries'. Thus, when an aux master is soloed that aux send is assigned to the faders. Another function that is duplicated on the master touchscreen. This feature provides a fast and simple method of using the D1 Live as a monitor desk.

CONTROL GROUPS PAGE: Here you have the option of either VCA-style fader control in which the individual faders remain in position when the VCA group fader is moved, or digital-style in which all the moving faders physically follow the group fader. The choice of working method is yours; their functionality is identical.

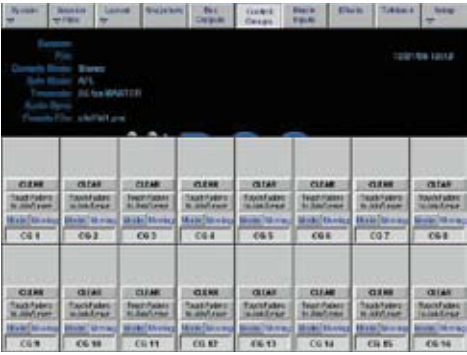
There are 24 control groups (V4 software), these can be moving fader or VCA style and can be assigned to inputs, outputs or both. Making a channel part of a group simply requires selecting Touch and then touching all the faders required for the control group. Further touches add or remove each fader from the group. Channels/busses can be assigned to multiple control groups, which also appear on screen.

The comprehensively-equipped 38 x 8 output matrix allows any channel, buss or physical input to be routed into the matrix, and then routed out to any of the physical outputs. The touchscreen gives you control over all the matrix inputs via a dedicated rotary control and a switch.

The output matrix faders appear in a dedicated bank on the master section.



Auxes screen



Control groups screen



Matrix screen



Macro switches and Graphic EQ

UNLIMITED MIXING POWER AT YOUR FINGERTIPS

Designed from the ground up to bring you superb sonic purity and powerful, instantly accessible control, the award winning D5 Live is a live music mixing system like no other.

The console is available in a choice of four different packages, providing options for the number of input channels and house and / or monitor configurations.

The D5 Live is the digital mixing system that changed the professional audio industry's perceptions of what a digital console can do, and how it should do it.

For the first time, the undisputed power and flexibility of digital audio is matched with unparalleled ease of use that meets or exceeds that of the finest analogue desks. For the first time, it's digital without compromise.

The D5 Live software gives you unparalleled flexibility in configuring your console precisely to suit the show. Whether you choose the 56 or 112 input version, your internal busses can be set up as mono or stereo auxiliaries and mono or stereo or surround busses (the console is fully 5.1-ready as well as for LCR(S), with three joystick surround sound panners for instant sound placement). And you can instantly select a basic set-up for either front-of-house or monitor mixing. With both types of console sharing the same fibre optic loop, automatic Gain Tracking™ allows either console operator to alter input gain without affecting the mix on either console.

There's Ethernet support for console mirroring or a remote control PC, 32 insertable processing channels and a powerful effects card complete with graphic equalisers.

The D5 Live comes in five basic packages. Each package then offers a range of options (detailed on pages 33-34).



The CS-D5 Live digital mixing system provides the full, extensive feature set of the D5 Live, with the exception of the optical I/O, creating a D5 Live at a price point that's competitive with more basic

consoles. The CS-D5's technical advantages include a full 48 busses – ideal for coping with the ever-increasing use of in-ear monitors, 128 input channels, which can be increased with extra DSP to 160. 224 inputs and 224 outputs can be connected to enable large routing capabilities for multi-stage events and large orchestral performances, while digital redundancy ensures the show will go on. 41 touch sensitive faders, four touch screens and multi-operator ability give direct instant access to crucial parameters, despite the compact frame size. MAD1 (standard) and Optocore™ (optional) interfaces improve versatility compared to proprietary systems, and the ability to share stage racks integrates live performance, broadcast, FOH and

monitors – and eliminates the need for mic splitters. Sound quality remains peerless, with the CS-D5's 40-bit floating point audio processing maintaining far greater dynamic range in a complex mix than other consoles' fixed point processing.

The D5 Live EX package provides a versatile and cost effective package solution, with a choice of 56 or 112 mic/line inputs on stage and up to a full 160-channel console worksurface.

The 56 EX Mini-Rack system comprises the console worksurface plus flightcase, a 8 analogue I/O and 8 AES EBU I/O fitted local Mini-DiGiRack, a 56-in, 8-out stage DiGiRack and a 150m drum of fibre optic cable.

The 56 EX system comprises the console worksurface plus flightcase, a 40 analogue I/O and 16 AES EBU I/O local DiGiRack, a 56-in, 8-out stage DiGiRack and a 150m drum of fibre optic cable.

The 112 EX version adds a second, 56-in, 8-out stage DiGiRack and a 5 metre fibre optic connection between the two stage DiGiRacks.

The D5 Live FMX package gives a full 112 Mic inputs on stage, with a worksurface for monitors and a second worksurface for front-of-house, both with their own local DiGiRacks. Three 150 metre drums of fibre optic cable are provided to allow for a digital split and full redundancy of your fibre multicore. The D5 Live FMX package can also be split into two independent, fully-featured D5 live 56 EX packages, therefore maximising rental flexibility.

The D5 Live FMX package eliminates the need for outboard gear, splitters and multiple line systems, reducing setup and get-out to a matter of minutes and taking up a fraction of the truck space of analogue and other digital solutions.

All D5 systems includes the digital effects card (see page 30) which allows you to run up to six digital effects per channel simultaneously, including dedicated reverb algorithms, flanging, phasing, double tracking, vocoder, delays, dynamics, compression and equalisation for up to 7.1 surround sound outputs and up to twelve 28 band graphic equalisers.

It also includes the Insertable Processing Channels (IPCs - see page 30) which provide a total of 32 IPCs, each complete with 6 bands of fully parametric equalisation, a fully featured compressor / limiter and digital delay of up to 510 milliseconds.

All routing, patching, effects parameter adjustments and user memory store and recall functions are performed on the touchscreens. All effects and their settings can be stored as part of the console's snapshots and sessions, and can be saved on the USB key for instant recall on another D5 Live or D1 Live.

In a complete house-and-monitor D5 Live system, Gain Tracking™, a world first for DiGiCo, allows either console operator to change any input gain without affecting the sound balance on either console - Gain Tracking™ is selectable on each channel independently on each console.



D5 LIVE MASTER SECTION

The D5 Live master section, as well as the customary output groups and master fader, provides powerful control of the console's overall setup via a series of pages instantly selectable on the fourth touchscreen.

SYSTEM PAGE: The first page, System, provides real-time diagnostics which constantly monitor the system, the MADI line, software versions, power supply levels, internal temperature and so on.

SESSION PAGE: This page stores, recalls and sets up individual sessions. As well as the standard default files, it includes features such as Load Preset Library for recalling user presets of EQ and dynamics settings, which can also be merged when, for example, two engineers are using the desk in the same session or show.

LAYOUT PAGE: The Layout page allows you to bring all the correct channels straight to the console's physical faders. On this page, too, are the extensive labelling facilities, enabling you to type in alphanumeric labelling on screen or the full-size slide-out QWERTY keyboard for the LCD scribble strip, screens, busses and fader banks.

Channel settings may be copied or moved here from one to another, and a channel's settings can be copied to multiple channels using the Duplicate feature.

SNAPSHOT PAGE: The D5 Live's store-and-recall functions are comprehensive, providing both an unlimited number of desk status 'snapshots' and the ability to build these into complete scenes. All of these, along with their associated EQ, dynamics and optional effects preset libraries, can then be transferred to another D5 Live via the USB key.

Snapshots can be triggered either manually or automatically, and can be self-timed for automatic sequencing. The feature also allows you to decide which controllers on the channel will change including input gain and more, how faders and auxiliaries interact and the input level. Direct send routing can also be changed with the snapshot. This is where you can make automated fader bank changes to prepare for the next band on stage or the next song. It also controls fader ganging, control groups and cross-fade times between snapshots.

MATRIX PAGE: The comprehensively-equipped 38 x 8 output matrix allows any channel, buss or physical input to be routed into the matrix, and then routed out to any of the physical outputs. The touchscreen gives you control over all the matrix sends via a dedicated rotary control and a switch. The output matrix faders can also be assigned to the master section faders.

OUTPUT PAGE: The on-screen scroller provides fast access to group, master output and auxiliary output routings, and a touch on the screen displays current routing settings. Each output has a brick-wall master limiter, variable threshold and variable release time, along with routing to allow the buss to be routed to as many of the outputs - analogue or digital - as desired. There's also an output buss insert point for an external processor. Auxiliary outputs are handled in exactly the same way with an additional pre/post fade switch.

CONTROL GROUPS PAGE: Here you have the option of either VCA-style fader control in which the individual faders remain in position when the VCA group fader is moved, or digital-style in which all the moving faders physically follow the group fader. The choice of working method is yours; their functionality is identical.

There are 24 control groups, these can be moving fader, VCA style or mutes and can be assigned to inputs, outputs or both. Making a channel part of a group simply requires selecting Touch and then touching all the faders required for the control group. Further touches add or remove each fader from the group. Channels/busses can be assigned to multiple control groups, which also appear on screen.

MASTER SECTION: The auxiliary master outputs are assigned here to the physical faders on the two master fader banks. The two master banks provide 16 master faders which can be assigned as matrix outputs, group outputs, auxiliary outputs and control group masters.

A Fader Flip function allows you to swap the two banks of eight faders, and there is the ability to build your own master banks, with the option to include control groups, input channels and so on by using the dedicated LCD assign button.

Also here, is Solo Assigns 'Aux to faders' or 'Aux to Rotaries'. Thus when an aux master is soloed that aux send is assigned to the faders. Another function that is duplicated on the master touchscreen. This feature provides a fast and simple method of using your D5 Live as a monitor desk.



Snapshot screen



Matrix screen



Buss output screen



Control group screen

DiGiCo D5T

D5T DIGITAL THEATRE SOUND MIXING SYSTEM

The DiGiCo D5T is designed to put powerful, versatile, creative audio control right in the hands of theatre sound designers and operators. Designed in collaboration with some of the world's leading theatre sound practitioners, it provides a unique range of functionality in a compact package.

'Theatre designers have agonised for years before committing to assignable consoles because of the lack of instant accessibility in an unpredictable working environment. The D5T concept thoroughly addresses these reservations. It's refreshing to come across a manufacturer who shows more than a passing interest in what you really need to do.'

ANDREW BRUCE (Autograph, London)

The D5T sets a completely new standard for theatre sound mixing, with audio quality, intuitive operation and flexibility that are a world apart from conventional analogue or digital consoles.

One glance at the innovative control surface tells you that this console has been designed for sound engineers by sound engineers, including several of the world's most renowned theatre sound designers.

Virtually every feature is there to see at a glance, or at most a single, logical fingertip press away. The four LCD touchscreens present their facilities exactly as you'd expect to find them on an advanced analogue console, with instant access and a refreshing lack of menus to navigate. This highly intuitive approach means that for anyone moving on from an analogue or digital console, the learning curve will be as short as the feature list is long.

The DiGiCo D5T combines a wealth of facilities in a compact, 1484mm W x 868mm D (58.43in W x 34.17in D) work surface that potentially will give back hundreds of seats a year to large productions.

Key features include dynamics processing with side chain EQ; up to 240ms of delay; four bands of parametric EQ, high and low pass filters; 72 user-assignable busses; 32 x 32 output matrix; group outputs each with delay, six bands of parametric EQ and compressor; and pre-equaliser group outputs for use by measurement systems such as SIM™; dedicated illuminated Next/Previous Cue buttons; full off-line DiGiCo Cue Composer Show Programming software; user definable I/O specification and high quality on-board digital effects.



The D5T gives you unparalleled flexibility in configuring your console to suit the show. Any of the 72 internal busses can be set up as mono or stereo auxiliaries and mono or stereo surround busses (the console is fully 5.1-ready as well as for LCR(S), with three joystick surround sound panners for instant sound placement).

The D5T 'family' makes sound production even more cost effective with the D5-RC remote control, an ultra compact operator's console. For the most complex shows the D5-TC Theatre Masters Controller provides extended master fader controls and eight programmable macro buttons and a dedicated script space.

The D5T also has the unique ability to configure multi-console setups to share common I/O within a redundant fibre loop, with the added advantages of remote control and console mirroring. This allows stage monitoring consoles to be connected to the same digital inputs, but with independent control, utilising the automatic Gain Tracking™ which allows either console operator to alter input gain without affecting the mix on either console.

External MADI hard disk recording and playback systems may be interfaced directly with the D5T, allowing audio playback, settings storage and complete rehearsal or live performance recording.

Three solo modes and two solo busses are provided, along with the facility to 'gang' groups of input faders together for single-fader control. The dynamics package offers comprehensive frequency-conscious gating, compression and limiting with powerful sidechain EQ, and a four-band fully parametric equaliser plus high and low pass filters. Underlining the ease of use, the moment you touch an EQ control the screen displays a real-time EQ curve, with the same instant, highly accurate visual feedback provided for every other feature.

The D5T provides powerful cue facilities. At any time you can commit the console's entire status to a cue memory and as there's no limit to the number of cues you can store, you can effectively record a complete show's mix settings. Then store it on a tiny USB key and, if the need arises, recall the whole show in another location with another D5T – ideal for multi-location productions. Cues can be self-timed, allowing automated sequencing; relative cues allow venue adjustments independently of scene changes; and current or master cues can be updated with one touch. The D5T software allows communication with Cue Editor software running on an external PC, and the console recognises Channel Aliases and pre-defined Sets and responds accordingly when synchronising with the Cue Editor.

Live Update is a major feature enhancement of D5T software, optionally allowing altered controller values to update themselves - without further operator intervention – throughout the cue list.

More innovations can be found throughout the D5T. The compact and lightweight rigid frame houses a slide-out keyboard for naming channels and groups on the electronic scribble strips. The powerful bespoke DSP engine runs every channel continuously – giving you the benefit of just 2ms latency from analogue input to analogue output, equal on every channel at all times.

The integral LED lighting behind the controls and the touchscreens can be dimmed, as can the elegant white LED illumination over the high resolution 30-segment LED meterbridge.

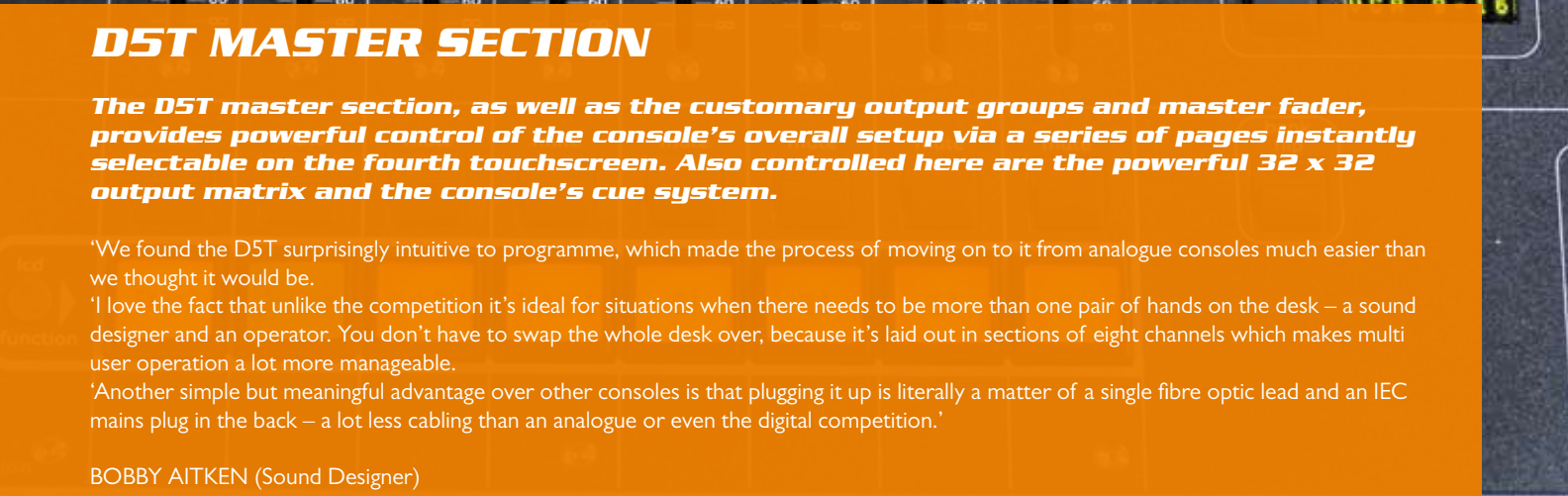
As with all DiGiCo D Series consoles you'll find a wealth of clear tactile and visual information, from the smooth, long-throw moving faders to the backlit buttons and large touchscreens.

Similarly, the D5T's sonic performance is matchless with 96kHz D/A converters and 32-bit floating point internal processing combining a low noise floor with pure, smooth, rich musicality.

The D5T from DiGiCo. A new world of theatre sound.

D5T₁₂

The D5T12 is a hybrid of the already successful D5T digital theatre mixing system, giving 12 faders, rather than the standard eight, to provide more VCA control within the standard console surface and footprint.



Also here is Solo Assigns 'Aux to faders' or 'Aux to Rotaries'. Thus, when an aux master is soloed that aux send is assigned to the faders - a function that is duplicated on the master touchscreen.





D5-TC MASTERS CONTROL

The optional D5-TC (Theatre Masters Controller) provides alternative control over the 24 control group masters, outputs and cues, as well as all the normal display modes from the D5T master section on a TFT touchscreen. A row of 16 widely-spaced master faders with scroll function buttons display either the first 16 or the last eight control groups and include a bright, eight-character alphanumeric display above each fader showing master channel names independently of the LCD buttons.

Eight programmable, interactive LCD macro buttons (and access button) allow access to definable user macros in three banks of eight, and there are four Mute-all buttons (inputs, auxes, subs and groups) and five Safe-all buttons (inputs, subs, groups, MIDI and events). Previous/Next Cue buttons beside the faders can be relocated to the left or right hand side of the console. Footswitch sockets on the rear panel allow remote firing of "Next".

Other features include a built-in permanent script tray to ensure that the controls are not obscured, while the tray conceals a lit internal QWERTY keyboard. The D5Ts meterbridge is absent on the D5TC, allowing a clear view of the stage. Master fader motors are disabled by default to suit theatre operation.

Custom options include spare modules on the left and right hand sides with a tunnel to the back panel, allowing individually-specified buttons and wiring loom to be installed. Tapped holes on the rear panel allow mounting of a bar to secure peripherals such as small LCD monitors, cue lights and the like.

Facilities are completed by a USB socket under the armrest for your storage device and possible future additions.

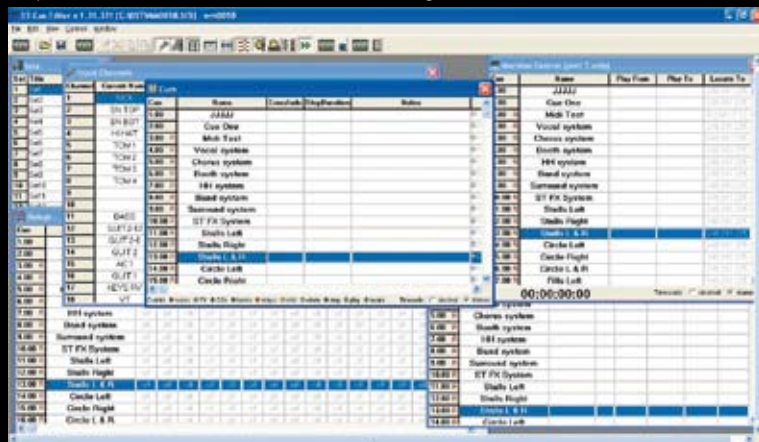
allows complete pre-programming of cues, aliases, sets, and more.

Facilities provided include: cue creation, cuelist renumbering and block moving functions; defining of up to 16 alias "character" names for any input source for the purpose of confining Live-Update within the currently selected alias; defining sets' membership; "one-click" assignment/unassignment of a predefined aliases or sets to Control Groups, enabling alias-switching and assignment of multiple channels in a fraction of the normal time taken to build control group memberships; auto muting/unmuting of all channels not under control group control; naming of external devices under MIDI control with offset selection according to US or Japanese protocol; entry and display of MIDI program change data; special data-entry and display window for multiple MIDI control commands; recording and editing of dynamic MIDI sequences in an acquisition window; attachment and display of any pre-recorded *.mid sequence to cues; entry and display of event data and machine control commands; user definable colour, background and text highlighting features per cue; cuelist display showing attached step-times and external triggers; upcoming cues state preview; "one-click" synchronisation between console and Cue Composer software; "Notes" screen.

CUE EDITOR PROGRAMMING SOFTWARE

DiGiCo's offline Theatre Cue Editor gives console programmers all the advanced programming facilities that they have come to expect of a dedicated theatre console – and more. It complements the D5T's own offline editor, which is designed for setting up console parameters, and is supplied as standard with the D5T.

Using a familiar spreadsheet-style graphical interface, the Cue Editor, which requires a Windows™ PC or Mac™ running Windows™ emulation software,



D5-RC REMOTE CONTROL

The D5-RC (Remote Controller) allows the greatest possible space saving in the auditorium for operating a show while maintaining full control of the D5T's facilities, as well as providing a compact and portable worksurface for show programming.

It features an identical 8-fader screen section to the D5T with six fader bank switches allowing blocks of eight input channels or group outputs (if so configured) to be assigned to the worksurface, complete with full functionality. The channels can be assigned in blocks of 8 to control any of the input channels or group outputs. To the right of that is a full-featured master section including the matrix screen.

A single Ethernet connection and mains connection allow the operator's console to be moved around the theatre during rehearsals and control the main console from almost anywhere.

The D5-RC is compatible with D5 Live, CS-D5 and D5T.

D5T-12-RE FADER POD

Allowing the ability to be able to remote control a redundant engine with 12 master faders, snapshot up/down and LCD buttons.





EFFECTS AND IPCs

EFFECTS CARD

The versatile digital effects card, fitted as standard to all D Series systems (except the DS-00), effectively replaces a rack full of external effects processing units with a fully integrated suite of high quality multi effects.

The D Series effects card features its own powerful, dedicated DSP engine which allows you to run up to six digital effects per channel simultaneously without any load being placed on the console's central DSP engine. The effects processor has the capacity to support the simultaneous use of every effect on every channel without loss of performance or audio quality.

The first effect slot offers a range of dedicated reverb algorithms of exceptional quality, subtlety and depth.

The next three slots also provide flanging, phasing, double tracking, vocoder and digital delays.

Effects slots five and six provide extra digital dynamics, compression and equalisation for up to 7.1 surround sound and up to twelve 28 band graphic equalisers

All routing, patching, effects parameter adjustments and recall functions are performed on the touchscreens. All effects and their settings can be stored as part of the console's session, and can be saved on the USB key for instant recall on another D5 Live.

INSERTABLE PROCESSING CHANNELS

Insertable processing channels (IPCs) add features for theatre-style venue applications, AV and monitors.

The flexibility of the D Series touchscreen-controlled work surface is demonstrated by the versatile IPC module.

The IPCs add a range of features that allow the console to perform powerfully as a monitor mixer or for installation in a theatre or other venue.

It will also effectively eliminate the need for racks full of processing hardware, saving considerable space and expense.

The module provides a total of 32 IPCs (16 on D1), each complete with 6 bands of fully parametric equalisation, a fully featured compressor / limiter and digital delay of up to 510 milliseconds. The expanded equaliser view now appears across the screen, and is linked to the rotaries for frequency, Q and level below the screen, so as to distinguish output EQ from input channel EQ.

The IPCs facilities are displayed and controlled via the console's backlit TFT touchscreens. When IPC mode is selected, the screen's background colour changes to alert the engineer to this status.

Unfortunately IPCs are not available on the DiGiCo D4.



Reverb effects screen



Other effects screen



Output processor screen



Insertable processing channels (IPCs) screen



(IPC) Six band parametric EQ and compressor screen

D Series System Overview



DSP

The DS-00, D1, CS-D5 and D5 have 40 busses and are capable of processing up to 160 input channels with 6 band EQ and dynamics processing.

This requires 5 DSP cards, each of which processes 32 channels of audio. Alternatively, DSP cards can be dedicated to providing an onboard effects package with 6 stereo multi-effects units or insertable processing channels with delay, 6 band parametric EQ and compression.

A D5 with a standard configuration of 5 DSP cards can therefore provide 96 input channels plus effects and 32 insertable processing channels.

A D1 will normally have 4 DSP cards and provides 64 Input channels plus effects and 32 insertable processing channels (V4 software) but a fifth card can be added to increase the input channels to 96.

The D5T and D5T-12 has 72 busses and a 32 Input/32 Output Matrix. It is capable of processing 128 input channels and its fifth DSP card is reserved for the processing of the 32 Matrix outputs. If the effects package is in use the input channel count is reduced to 96.

The D4 has the same big buss engine as the D5T and has 124 busses.



Audio Interface

The standard DiGiRack has 7 input card slots and 7 output card slots. Each card has 8 sockets and therefore a fully loaded rack has 56 inputs and 56 outputs. Bidirectional cards (AES, ADAT, TDIF and Ethersound) provide 8 inputs and 8 outputs per card. They are installed in the DiGiRack's input slots and the same numbered output slot must be left empty.

The MiNiRack which has 4 card slots which can accommodate combinations of up to 32 analogue input or output signals or 64 AES digital signals. Input, output or bidirectional cards may be fitted into any slot.

All D Series consoles are equipped with up to 4 x 56 channel MADI Ports and therefore 4 racks can be connected to any system. This provides a maximum of 224 inputs and 224 outputs.



Redundancy

D Series live and theatre consoles all feature dual redundant power supplies and dual flash drives for the storage of setups. Optical fibre connections can be arranged as a "loop" which also provides redundancy in the unlikely event of a break in the cable.

Two consoles of the same model can be run in "Mirror" mode, which effectively doubles the size of the control surface and also provides full audio engine redundancy with automatic switchover.

Redundant engines are also available for all consoles.

Connections

Any DiGiRack or MiNiRack can be connected to the control surface using a pair of coaxial MADI cables with a maximum length of 100m. The MADI stream can be split to feed two consoles using the Auxiliary MADI output which is a standard feature of all racks.

D5 and D5T are also equipped with Optocore™ connections for use with our 150m optical fibre cable drums; up to three of these can be connected together to cover longer distances. Other consoles in the range can also be equipped with Optocore™ connections as an option.

If Optocore™ connections are used, up to 4 D Series consoles can share the stage racks' input signals and each one can be set to independently compensate for any common gain change on the shared racks' microphone pre-amps. This is known as Gain Tracking™.



Remote Control

In addition to the DiGiCo dedicated hardware remote controllers, the RC and TC, there is also the possibility of using a standard laptop or desktop PC for remote control.

The PC can run any D Series console's software linked to the control surface by an Ethernet crossover cable or a wireless network.



Recording

The D Series consoles all have the facility to split each Stage Rack's 56 channel MADI stream from the rack's Auxiliary MADI Out.

If the rack is connected to the D5, D5T, D1, DS-00 or D4 control surfaces with optical fibre then this split can also be taken from the surface itself. Once split, the MADI stream can be sent to any MADI compatible recorder such as ADK's recording/plug-in machine or alternatively, the MADI stream can be sent to a third party converter (e.g. RME's ADI-648 MADI to ADAT converter) for increased compatibility options.

When the 56 - 160 channels of audio have been split and recorded from the control surface, the resulting playback can be monitored via a MADI Input Port through the same channels as the original microphones. This is achieved at the press of a single console button, without the need to reboot and is therefore an ideal facility for soundchecks.



Plug-Ins

From day one, all DiGiCo Live consoles have been shipped with MADI 4 as a spare port, which means it can now be used for 56 channels of I/O for external plug in devices.

A simple, two wire, coaxial connection allows an external device, such as the ADK 19" 4U recording/plug in machine, to connect and utilise a host of common platform software to interface third party plug ins with any DiGiCo product.

Additional hardware, such as TC Powercore and UAD, further increases the scope for third party plug ins.





Card Options

- A. Mic input card with 24-bit A/D on XLR connectors
- B. Line input card with 24-bit A/D on XLR connectors
- C. T-DIF input/output card with Local clock output
- D. ADAT input/output card with optical connections
- E. Analogue input card with 24-bit A/D, mic & line inputs
- F. Analogue output card with 24-bit D/A on XLR connectors
- G. AES/EBU input/output card with Bi-directional sample rate conversion
- H. Aviom D-16c A-Net Card - ultra-fast A-Net™ Pro I6 protocol connectivity
- I. Ethersound 8 channel input/output and control card
- J. DiGiCo D-Tube - Remote controllable tube mic preamp

A further option is the Combi Card, which provides 16 GPI's, 16 GPO's and an extra MIDI port.



SYSTEM OPTIONS

CUSTOM CONFIGURATIONS

A comprehensive range of I/O options allows you to tailor your D Series system precisely to your audio needs.

The options allow for connection with a variety of external digital recording and outside broadcast and analogue or digital input signal formats, as well as interfacing with a wide range of installation systems.

Also, as an extra cost option, a D5 Live worksurface can be supplied with a centre master section.

DIGIRACK

The DiGiRack is a 9U-high, 19 inch rackmount unit which provides A/D conversion to and from the console's DSP and effects engines. One DiGiRack contains 14 slots, with slots 1-7 provided for inputs and slots 8-14 for outputs. Each slot handles eight individual connections, allowing a total of 56 inputs and 56 outputs per rack. Each D Series system is capable of supporting up to four racks simultaneously.

MINI-DIGIRACK

The MiNi-DiGiRack was designed to give even more flexibility to the D1 and D5 live systems. The 19 inch rack mount unit itself is just 4U high. It houses two power supplies with separate mains connectors and switches. The MiNi-DiGiRack can be fitted with a Standard MADI pod or even an Optical MADI pod. The back plane allows any slot to be either input or output for analogue connections, or both in and out for digital connections, such as AES/EBU.

The MiNi-DiGiRack is so flexible that it can perform many functions, for example:

It can be a local rack for front-of-house, allowing outboard equipment such as external effects, CD players and recorders to be connected to the console; it can be fitted with 32 AES/EBU for record and playback to external multitrack machines; it could have 32 Mic inputs and an optical interface, allowing 88 inputs from stage when added to an existing D5 Live 56EX; and 32 outputs could be fitted for extra feeds for a monitor console, extra IEM feeds or for multi-speaker venue applications such as theatre.

D-TUBE

The world's first integrated digital tube mic preamp

Valve/tube technology has long been considered an elegant means of reproducing music. Until now, the large dimensions of the traditional 19-inch rack mount valve/tube pre amps have been a consideration, especially in the touring market where space is often at a premium. Not to say tubes sound better but they do colour the sound of a vocal or a particular instrument and make it sound different. Typically, sound engineers like to experiment, so they insert them into their systems to provide characteristics they can't otherwise get from either analogue or digital mixing consoles. The new DiGiCo D-TuBe presents a unique alternative to this traditional technology by making it part of a digital console. This is true valve/tube-based technology, not a software emulation.

The D-TuBe was developed in conjunction with TL Audio and supplies no less than eight channels of tube pre amp. It has been designed to fit neatly into existing DiGiCo systems by simply replacing the last input module on a stage rack and moving the output module along one. This keeps the full complement of 56 inputs to the stage rack, with the last eight inputs now being TuBes.

As the D-TuBe is able to slot into the Stage DiGiRack, it has the shortest cable length between the mic and pre amp possible, giving exceptional signal to noise ratio. It has the same facilities as its solid state counterpart, including analogue and digital gain controls with Gain Tracking™. As the analogue gain is inserted before the D-TuBe it also acts as a drive control, and with digital gain after the D-TuBe a wide variation of colouration (DiGistortion™). And, as is standard on all DiGiCo products, these settings can be saved as part of the consoles snapshots and sessions.



RE' REDUNDANT ENGINE

Total audio engine redundancy with transparent automatic audio switching.

The D Series RE stand alone outboard engine system provides total audio engine redundancy through a few simple connections to any DiGiCo D Series console. The package is flight cased and contains a complete D Series engine assembly, two PSUs and trackball keyboard for set-up procedure.

To get up and running, the RE is daisy-chained to the console and stage racks via standard D Series optical fibre cables and additionally, connected from MADI port 2 on the RE to the auxiliary MADI port on the D Series local rack with two 5 metre BNC MADI cables (supplied). A crossed Ethernet networking cable is then connected between the CAT5 ports on console engine and RE and you are ready to sync sessions to enable the RE to mirror the D Series console.

Once set up, if in the unlikely event the master audio engine develops a problem, audio is automatically and transparently switched to the Redundant Engine without any interruption in program material.

The Redundant Engine always mirrors the master console's settings enabling the operator to transfer audio processing transparently back and forth between master console and RE at any time with the press of a single screen button.



Optical option

OPTICAL OPTION

Provides factory-fitted expanding beam optical chassis connectors, optical card interface and 150m of optical cable on a drum.

NOTE: If retro-fitted, customer pays freight to and from factory. Comes with full factory test and re-warranty.

TOURING FLIGHT CASE

Manufactured by Packhorse Cases to professional touring standards.

SUN SHADES

Provides individual sun shade one for each touchscreen; dual angle allows for mixing either sitting down or standing up.

TYPICAL MULTIPLE CONSOLE **OPTICAL** SYSTEM

DiGiCo D5 FMX

The D5 Live FMX and D1 Live 56 Mini-FM system packages provide complete (Front of House and Monitor) production mixing systems that offer exceptional value for money as well as stunning audio quality, versatility - and innovation.

The D5 Live FMX package gives a full 112 Mic inputs on stage, with a worksurface for monitors and a worksurface for Front of House both with their own local DiGiRacks. Also, three 150 metre drums of fibre optic cable are provided to allow for a digital split and full redundancy of your fibre multicore. The D5 Live FMX package can also be split into two D5 live 56 EX packages therefore maximising rental flexibility.

Stage DiGiRacks



Monitor Console and Local DiGiRack

FOH Console and Local MiNiRack

Recording / Plug-In Machine

TYPICAL MULTIPLE CONSOLE **MADI** SYSTEM

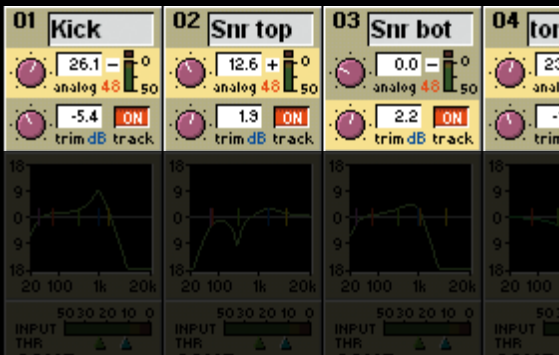
DiGiCo D1 Mini FM

The D1 Live 56 Mini-FM package gives a full 56 Mic inputs on stage, with a worksurface for monitors and a worksurface for Front of House. The FOH console has a local MiNiRack and the shared Stage rack is a DiGiRack. Two 100 metre drums of BNC cable are provided as standard to allow for a digital split, while optical fibre multicore is available as an extra cost option.



Gain Tracking™

In a complete house-and-monitor D5 Live FMX or D1 Live 56Mini-FM system, Gain Tracking™, a world first for DiGiCo, allows either console operator to change any input gain without affecting the sound balance on either console - Gain Tracking™ is selectable on each channel independently on each console.



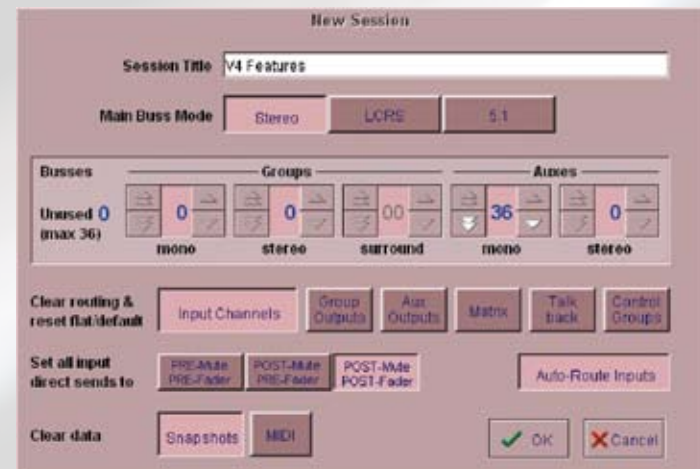
V4 FUNCTIONALITY EVOLVED

There are over sixty new features in V4 Software. Just a few features are highlighted below:

System Options

- If Solo Displays FX Insert is selected and internal effects are used on console insert points then soloing the relevant channel or output will automatically display the Effects controls for quick adjustment.
- If Solo Reverts to Buss is selected, when an output is in solo mode and then an input channel is soloed and released, the output solo will be switched on again.

Sessions & File Management



- A session can now contain up to 36 auxiliary busses.
- The New Session panel has an option to Auto-Route Inputs which will create a session with the first DiGiRack's inputs already selected in input channels from number one onwards.



- Partial Session Loading allows certain parts of a session to be loaded without changing other settings. These include specific sets of input channels, matrix settings, IPCs, snapshots and layouts.

Channel Functions

- The Channel Presets now have a "Recall Scope" and can include input routing.
- The Copy Level From function in Aux Buss Control allows auxiliary settings to be copied from the channel fader or any other auxiliary buss.
- Link Aux Pans to Channels allows the stereo aux pan to be automatically updated when the channel pan is adjusted.

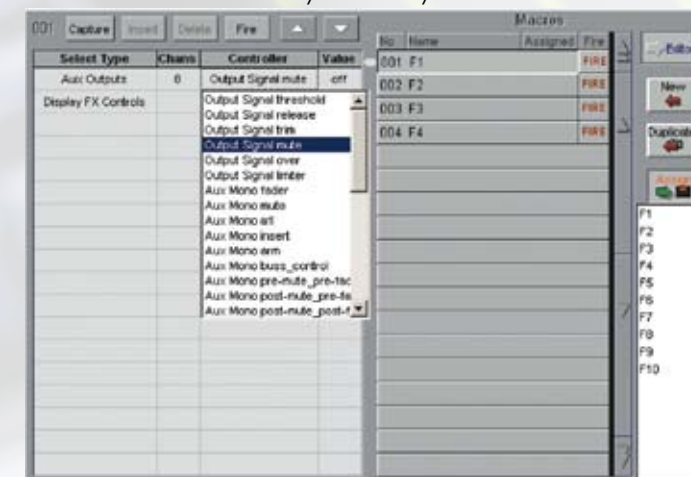


- Assign Buttons Aux to Masters in the channel LCD functions allows control of the channel's aux sends to be controlled by the buss master faders. This is activated by the channel's assignable switch.

Master Functions

- Output Phase +/- buttons have been added to the Aux, Group and Master busses and also the IPC's.
- Channels can now be assigned to Groups by touching faders with the Touch Faders to Join/Leave Groups button in the Group Buss Control panel.

- A Macros panel has been created to allow quick access to most console functions via the keyboard F Keys.



Monitoring Functions



- The console headphone output can now be fed by either Solo 1 or Solo 2 and if the Solo system is in Single Mode then any soloed signal will automatically feed the headphone output.
- The master level for Solo 1 or 2 can be assigned to either the monitor rotary or the master fader as a user option in the Monitoring panel.
- When no Solo buttons are pressed the console headphone output can be fed by any Aux, Group or Master buss according to the selection in the Monitor buss drop down menu.
- If Solo Reverts to Buss is selected, when an output is in solo mode and then an input channel is soloed and released, the output solo will be switched on again.

Effects Functions

- Effects presets can be created and recalled in the Effects panel enabling the copying of Effects and Graphics settings and the recall of these presets with Snapshots.
- The Effects panel can now display up to 6 stereo effects or 6 graphic EQ's at the same time and graphic EQ's can be selected by touching the screen or using the worksurface scroll buttons.



- Graphics EQ's can be ganged with relative offsets and individual faders can be reset using the worksurface LCD buttons.
- If Solo Displays FX Insert is selected and internal effects are used on console insert points then soloing the relevant channel or output will automatically display the Effects controls for quick adjustment.
- Effects decay times are now displayed in seconds.

Snapshot Functions

- FX presets can be changed with snapshots.

TECHNICAL SPECIFICATIONS

Analogue Inputs - up to 224

Quantization range	24-bits
Frequency response 20Hz-20kHz	+/-0.2dB
Level linearity deviation 0dB to -90dB	<0.3dB
Phase difference between channels 20Hz to 20 kHz	<2 degrees
Channel separation 100Hz to 10kHz	>90dB
Total harmonic distortion 100Hz to 10kHz	<0.004%
Maximum input level (at unity gain) mic and line	+22dBU
Microphone equivalent input noise (150 ohm, 60dB gain)	-127.5dB
Maximum analogue gain (mic and line)	+60dB
Mic input impedance	>1k ohms
All other analogue inputs impedance's	>5k ohms

Analogue Outputs - up to 224

Quantization range	24-bits
Frequency response 20Hz-20kHz	+/-0.2dB
Level linearity deviation 0dB to -90dB	<0.3dB
Phase difference between channels 20Hz to 20 kHz	<2 degrees
Channel separation 100Hz to 10kHz	>90dB
Total harmonic distortion 100Hz to 10kHz	<0.004%
Idle channel noise ratio	<112dB
Maximum output level	+22dBU
Output impedance	50 ohms

Digital I/O - up to 224

AES/EBU (with sample rate converters)	24bit
MADI	four ports each with 56 channels of 24 bit audio
OPTICAL	512 channel redundant optical loop

Clocking

Internal clock sources	44.1 and 48kHz using a high stability numerically controlled oscillator
External clock sources	From any digital input, Black burst 75ohm video, Wordclock
Sample range	30kHz to 50kHz

Power Requirements

Console	87 to 260v AC 50/60Hz autosensing 350 watts max
Audio rack	87 to 260v AC 50/60Hz autosensing 150 watts max

Note: All measurements are made with a 22Hz to 22kHz filter and RMS detector.

Delay Channel

IPC

Channel and IPC Equalisers (IPC Eq has two extra bands with individual band switching)

High pass filter	-12dB/octave
High pass slope	20Hz to 20kHz
High pass frequency range (-3dB)	
Low pass filter	
Low pass slope	-12dB/octave
Low pass frequency range (-3dB)	200Hz to 20kHz
High band	
Mode 1:	Bell
Gain range	+/-18dB
Frequency range	20Hz to 20kHz
Q range	0.1 To 20
Mode 2:	High Shelving
Gain range	+/-18dB
Frequency range	20Hz to 20kHz
Q range	0.1 to 0.85
Mode 3:	Low Pass
Low pass slope	-12dB/octave
Low pass frequency	20Hz to 20kHz
Upper mid band	
Gain range	+/-18dB
Frequency range	20Hz to 20kHz
Q range	0.1 To 20
Lower mid band	
Gain range	+/-18dB
Frequency range	20Hz to 20kHz
Q range	0.1 To 20
Low band	
Mode 1:	Bell
Gain range	+/-18dB
Frequency range	20Hz to 20kHz
Q range	0.1 To 20
Mode 2:	Low Shelving
Gain range	+/-18dB
Frequency range	20Hz to 20kHz
Q range	0.1 to 0.85
Mode 3:	High Pass
High pass slope	-12dB/octave
High pass frequency	20Hz to 20kHz

Dynamics

Compressor channel and IPC

Threshold range	-50dB to 0dB
Attack range	500uS to 100mS
Decay range	10mS to 10S
Ratio range	1:1 to 50:1
Gain make up range	0 to 40dB
Gate	
Threshold range	-50dB to 0dB
Attack range	50uS to 100mS
Decay range	5mS to 5S
Hold range	2mS to 2S
Gate depth range	0 to -90dB
Output buss limiter	
Attack time	1 audio sample
Threshold range	0 to -50dB
Release range	5mS to 5s

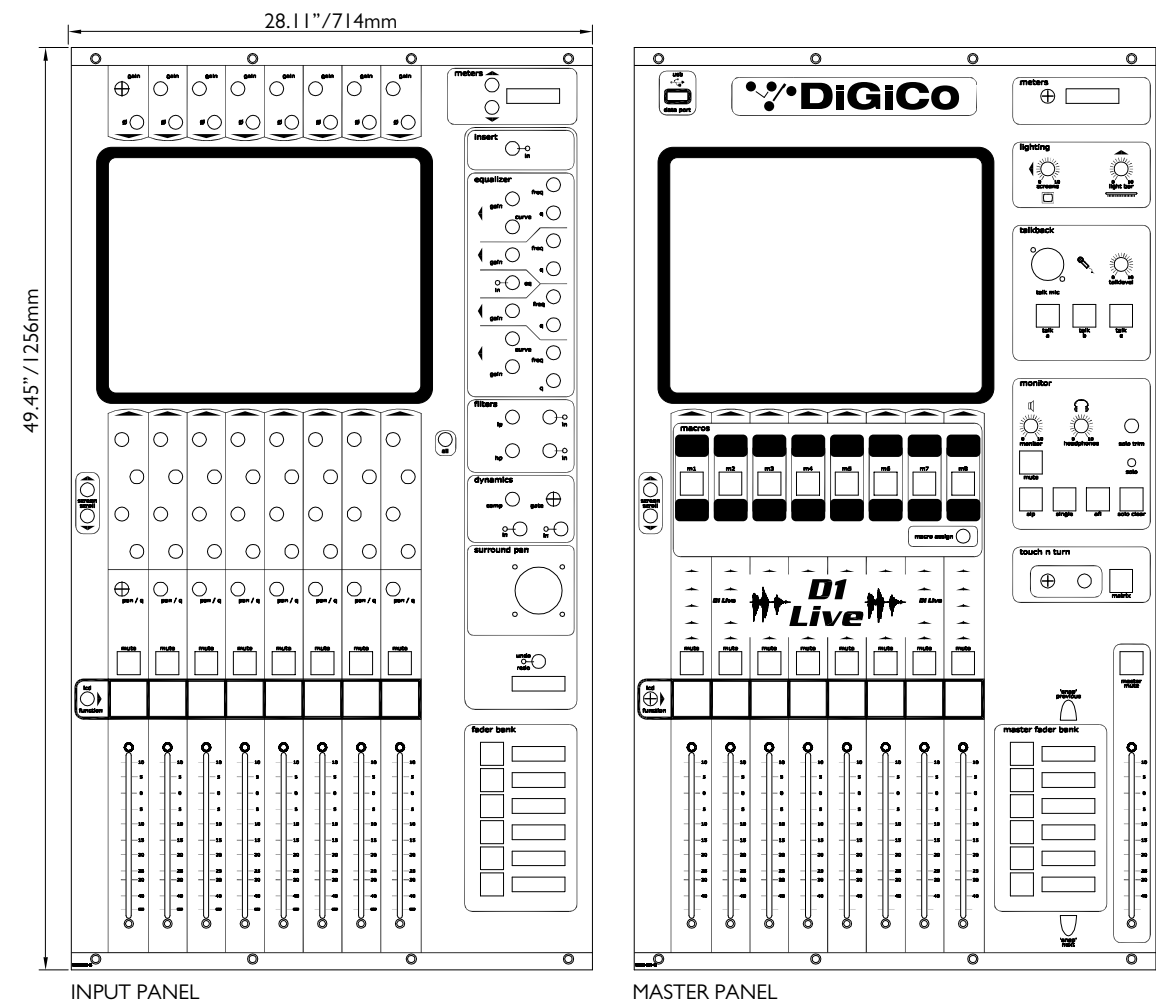
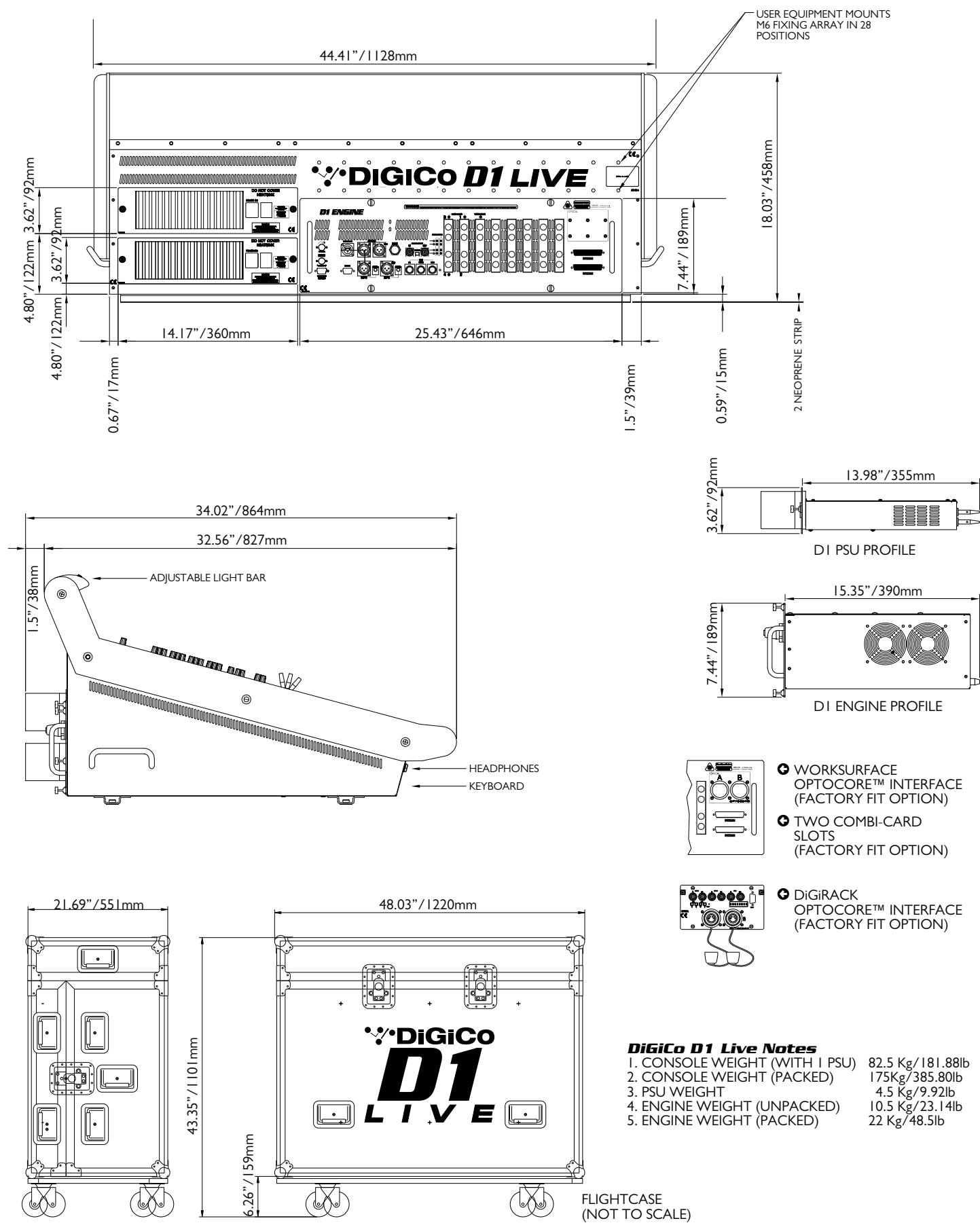
Effects Module - 6 Slots

dialog box tab	effects type	name
reverb	halls	large hall clear hall warm hall bright hall stage hall
large reverb in FX1 only		ambient hall live hall soft hall vocal hall small hall
reverb in any/all FX slots	plates	silky plate bright plate hard plate ambient plate perc plate
	rooms	wood room clear room percussion room rehearsal room hard room
	spaces	lounge kitchen bathroom corridor car boardroom factory subway courtyard forest

Effects Module - continued

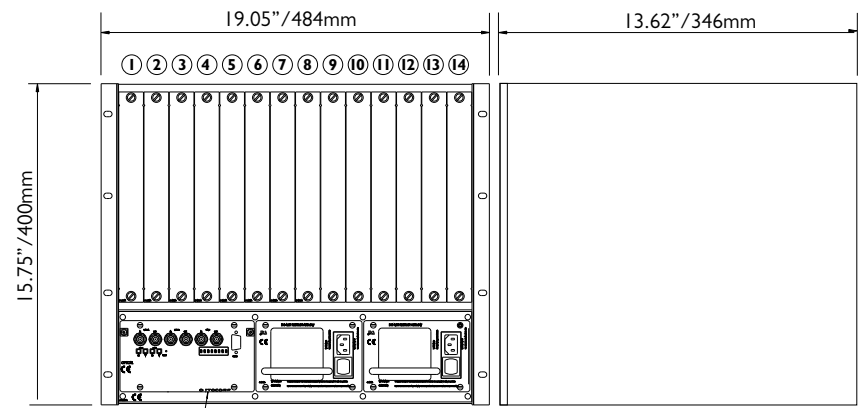
dialog box tab	effects type	name
other FX	delays	simple delay studio delay pingpong stereo 4 tap chorus & echo
delay in FX2..FX6 only one delay unit available		public address phone thru the wall congregation comms
choruses in any/ all FX2..FX6	choruses	piano chorus strings chorus strum chorus pick chorus lo chorus deep flange light flange vibrato robo
pitch shifters in any/ all FX2..FX6	pitch	dual pitch stereo pitch 12 string vox thicken vox double vocoder
vocoders in any/ all FX2..FX6	vocoder	
auto-panners in any/ all FX2..FX6	autopan	autopan
output processing slots FX5 and/or FX6 multiband compressor, soft clipping, limiter 4 band parametric eq and filters, and normalisation available up to 8 channels wide.	mastering processors	stereo LCR (S) 5.1 7.1
slots FX5 and/or FX6 28 band proportional Q Pairs selectable as stereo	graphic equalisers	6 mono (per slot)

DiGiCo D1 Technical Specification

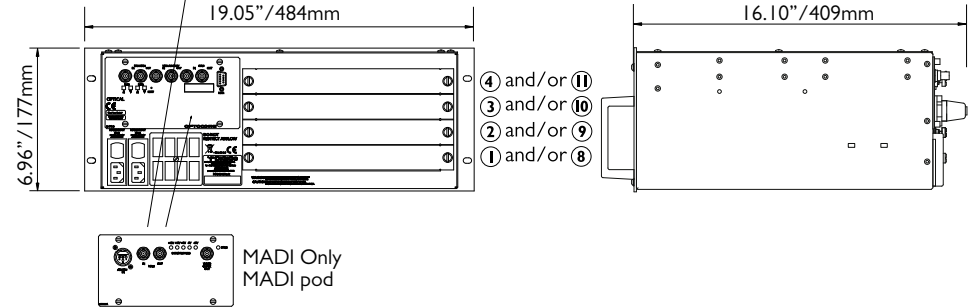


WORK SURFACE LAYOUT (NOT TO SCALE)

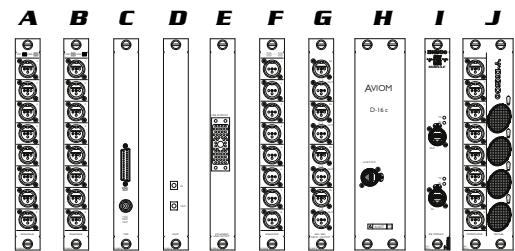
DiGiRACK
9U 19" Rack Mount Weight (Unpacked) 36kg/80lb Weight (Packed) 56kg/124lb
Optional Configurations (1-7 Inputs 8-14 Outputs)



Mini DiGiRACK
4U 19" Rack Mount/Weight (Unpacked) 14kg/30.86lb Weight (Packed) 20kg/44.09lb
Optional Configurations (1-4 Inputs 8-11 Outputs)

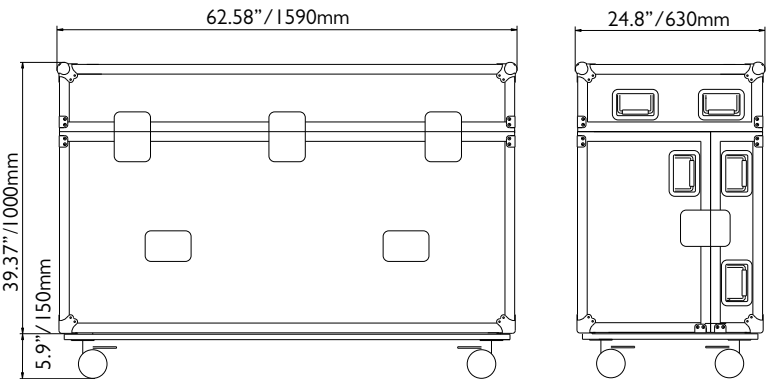
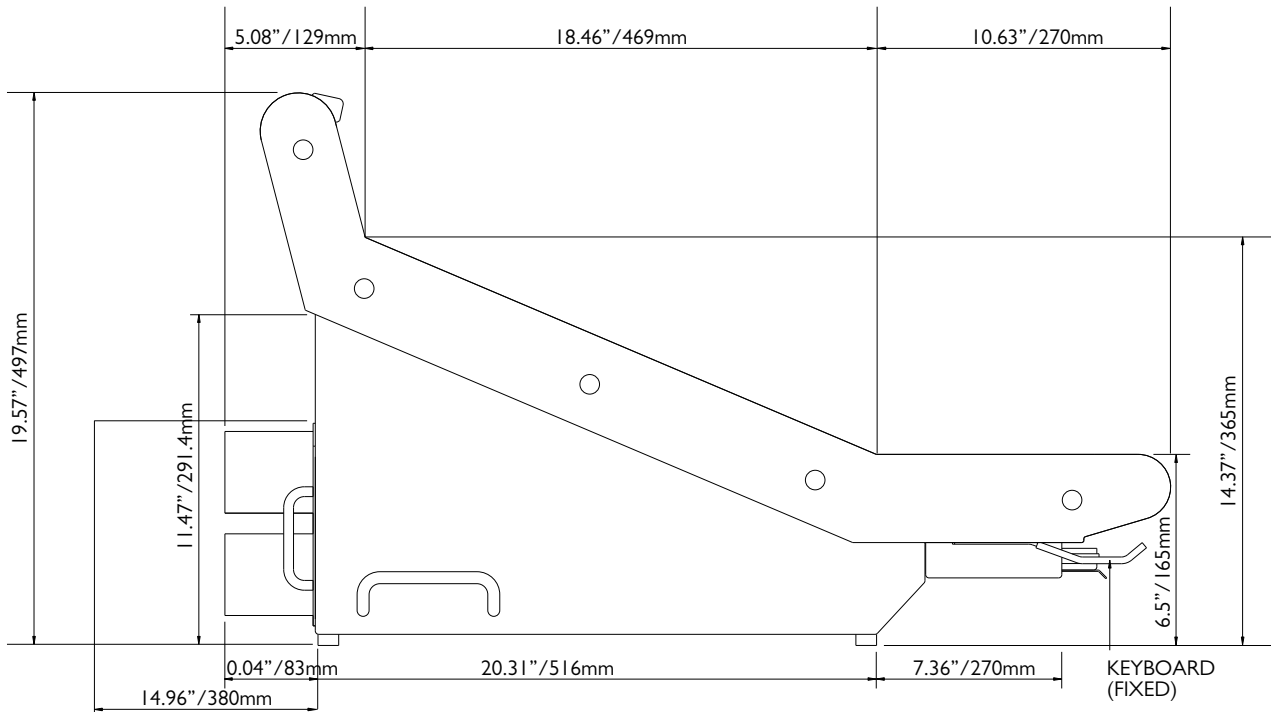
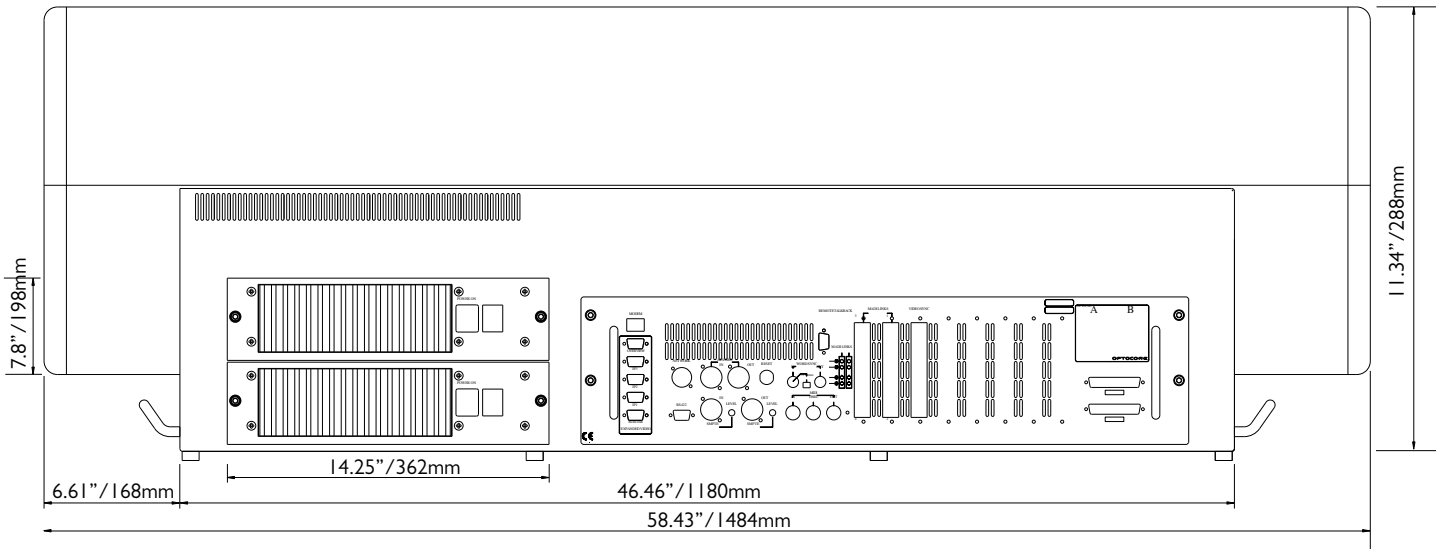


Card Options
DiGiRack and MiNiRack



- A. Mic input card**
with 24-bit A/D on XLR connectors
- B. Line input card**
with 24-bit A/D on XLR connectors
- C. T-DIF input/output card**
with local clock output
- D. ADAT input/output card**
with optical connections
- E. Analogue input card**
with 24-bit A/D, mic & line inputs
- F. Analogue output card**
with 24-bit D/A on XLR connectors
- G. AES/EBU input/output card**
with Bi-directional sample rate conversion
- H. Aviom D-16c A-Net Card**
ultra-fast A-Net™ Pro I6 protocol connectivity
- I. Ethersound I/O Card**
8 channel input/output and control card
- J. DiGiCo D-Tube**
Remote controllable tube Mic pre amp

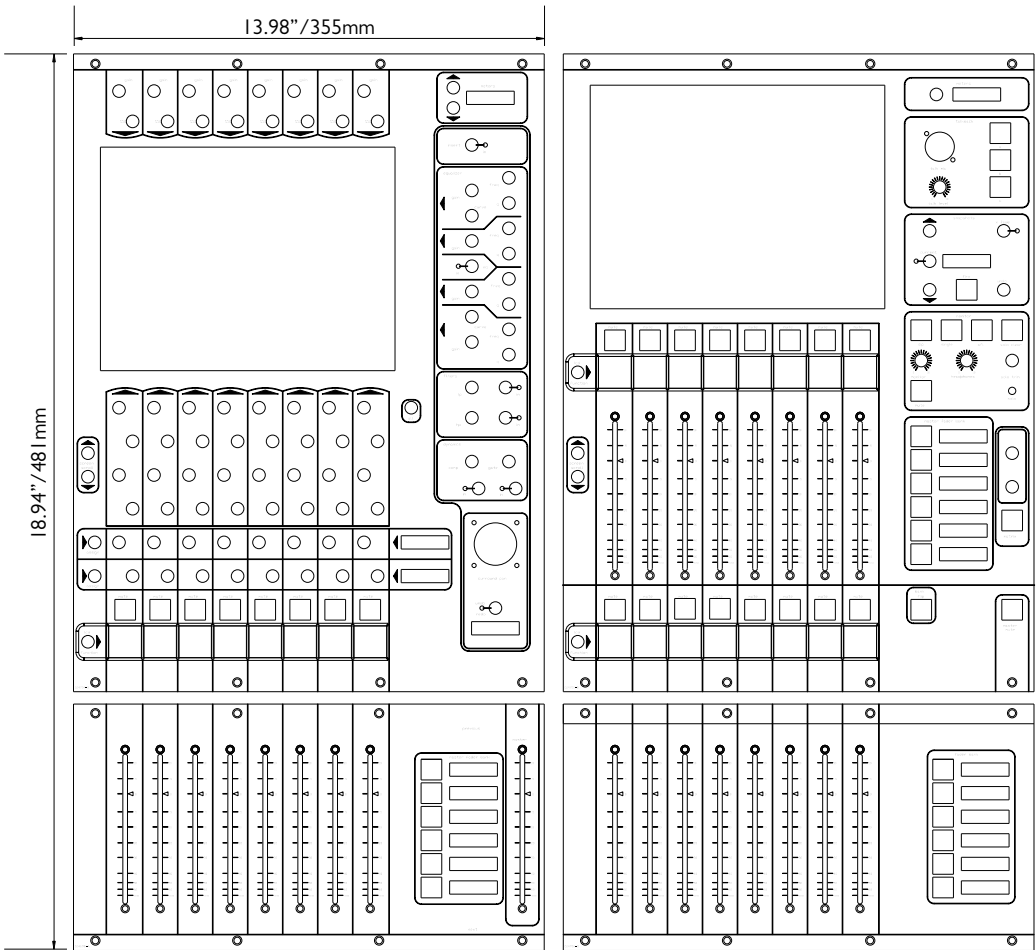
DiGiCo D5 and D5T Technical Specification



FLIGHTCASE
(NOT TO SCALE)

DiGiCo D5 NOTES

- | | |
|-----------------------------|-----------------|
| 1. WEIGHT (UNPACKED) | 115Kg/253lb |
| 2. WEIGHT (PACKED) | 215Kg/474lb |
| 3. PSU WEIGHT | 4.5 Kg/9.92lb |
| 4. ENGINE WEIGHT (UNPACKED) | 10.5 Kg/23.14lb |
| 5. ENGINE WEIGHT (PACKED) | 22 Kg/48.5lb |



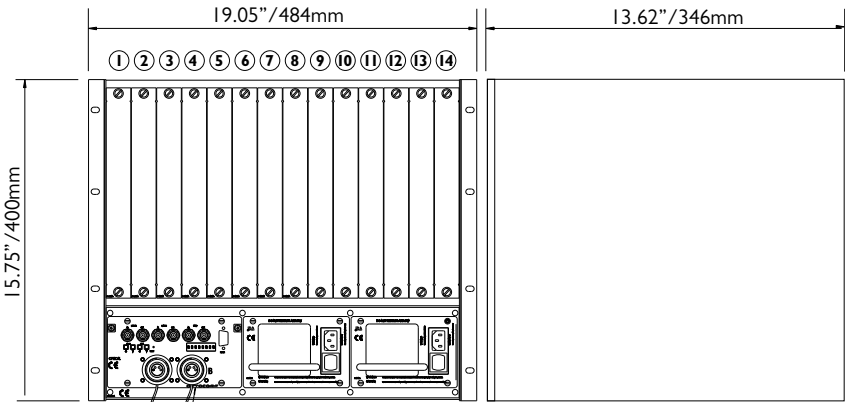
WORK SURFACE LAYOUT
(NOT TO SCALE)

INPUT PANEL

MASTER PANEL

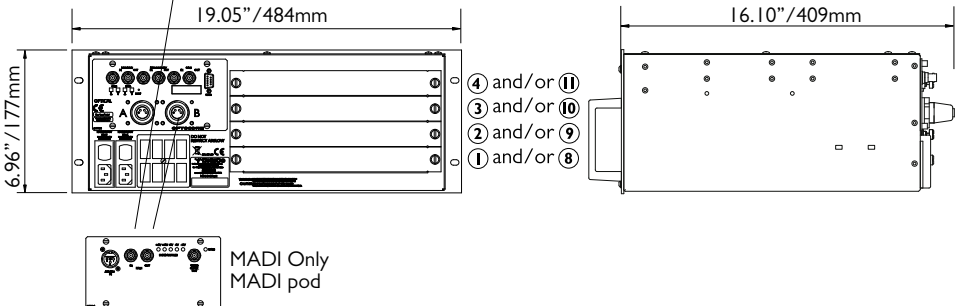
DiGiRACK

9U 19" Rack Mount Weight (Unpacked) 36kg/80lb Weight (Packed) 56kg/124lb
Optional Configurations (1-7 Inputs 8-14 Outputs)



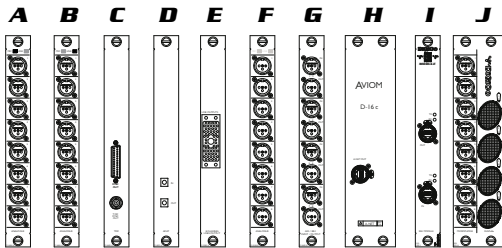
Mini DiGiRACK

4U 19" Rack Mount Weight (Unpacked) 14kg/30.86lb Weight (Packed) 20kg/44.09lb
Optional Configurations (1-4 Inputs 8-11 Outputs)



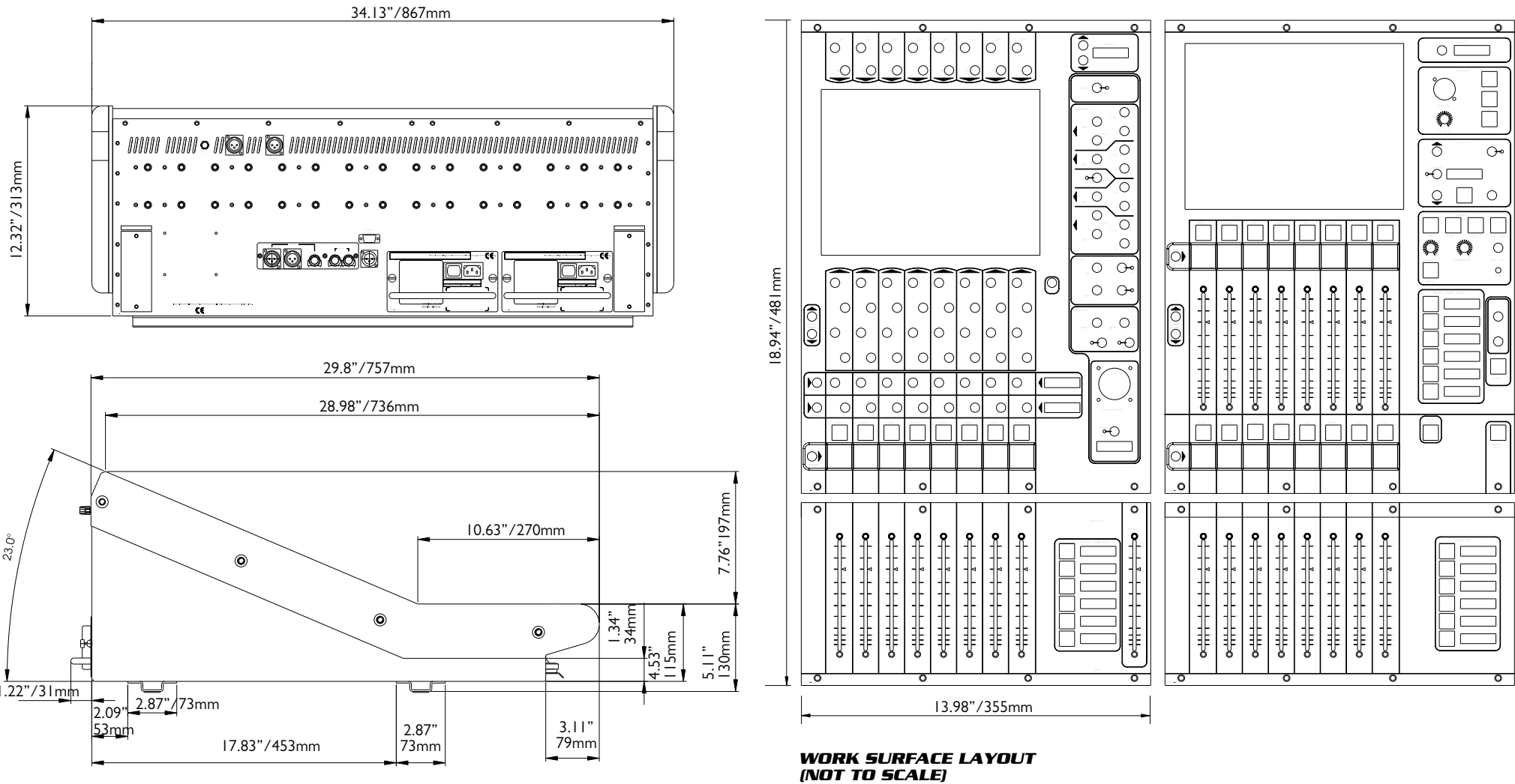
Card Options

DiGiRack and MiniRack



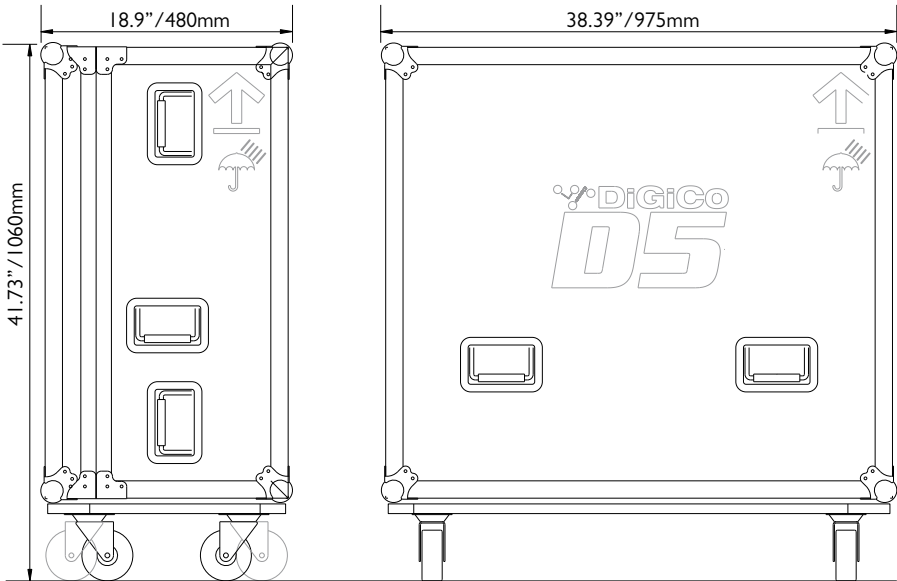
- A. Mic input card**
with 24-bit A/D on XLR connectors
- B. Line input card**
with 24-bit A/D on XLR connectors
- C. T-DIF input/output card**
with local clock output
- D. ADAT input/output card**
with optical connections
- E. Analogue input card**
with 24-bit A/D, mic & line inputs
- F. Analogue output card**
with 24-bit D/A on XLR connectors
- G. AES/EBU input/output card**
with Bi-directional sample rate conversion
- H. Aviom D-16c A-Net Card**
ultra-fast A-Net™ Pro I6 protocol connectivity
- I. Ethersound I/O Card**
8 channel input/output and control card
- J. DiGiCo D-Tube**
Remote controlable tube Mic pre amp

DiGiCo D5 RC Technical Specification

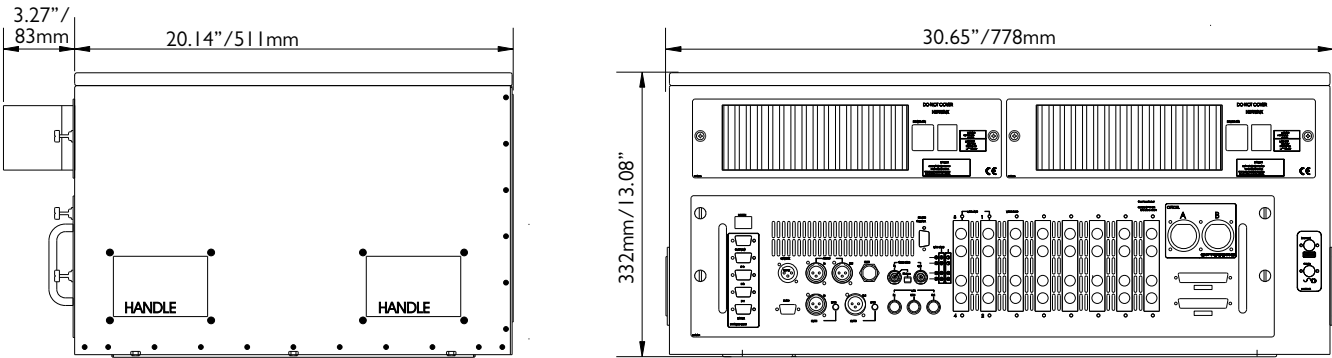


NOTES
1. POWER 87 to 260v AC 50/60Hz autosensing. 300 watts max

D5RC OPTIONAL FLIGHTCASE (NOT TO SCALE)



DiGiCo D-Series RE Technical Specification



NOTES
1. DIGITAL I/O
2. MADI 56 channels of 24 bit audio
3. OPTICAL 512 channel redundant optical loop
4. POWER 87 to 260v AC 50/60Hz autosensing. 300 watts max

D-Series RE FLIGHTCASE (NOT TO SCALE)

