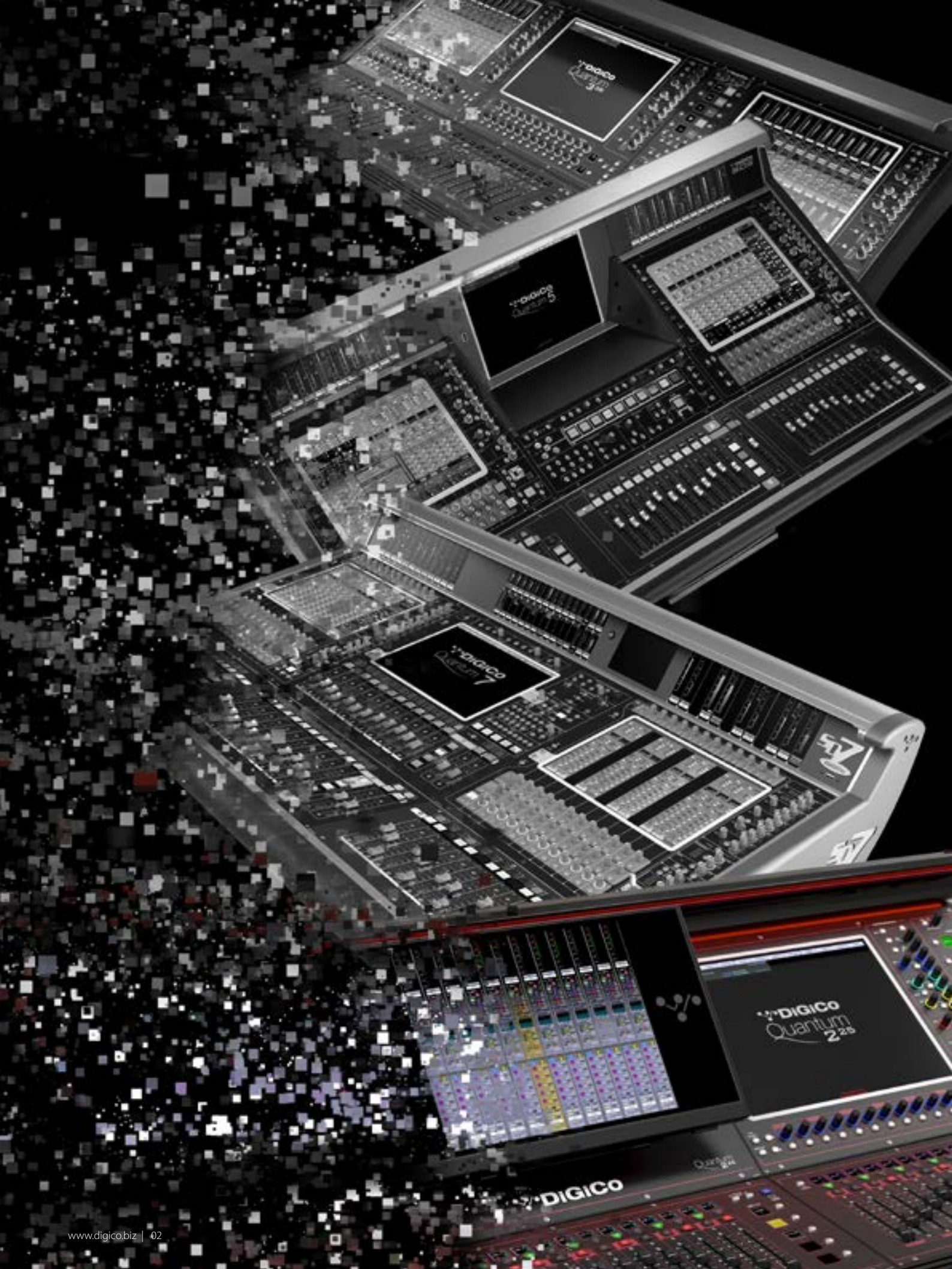


 **DiGiCo**

Quantum

Range







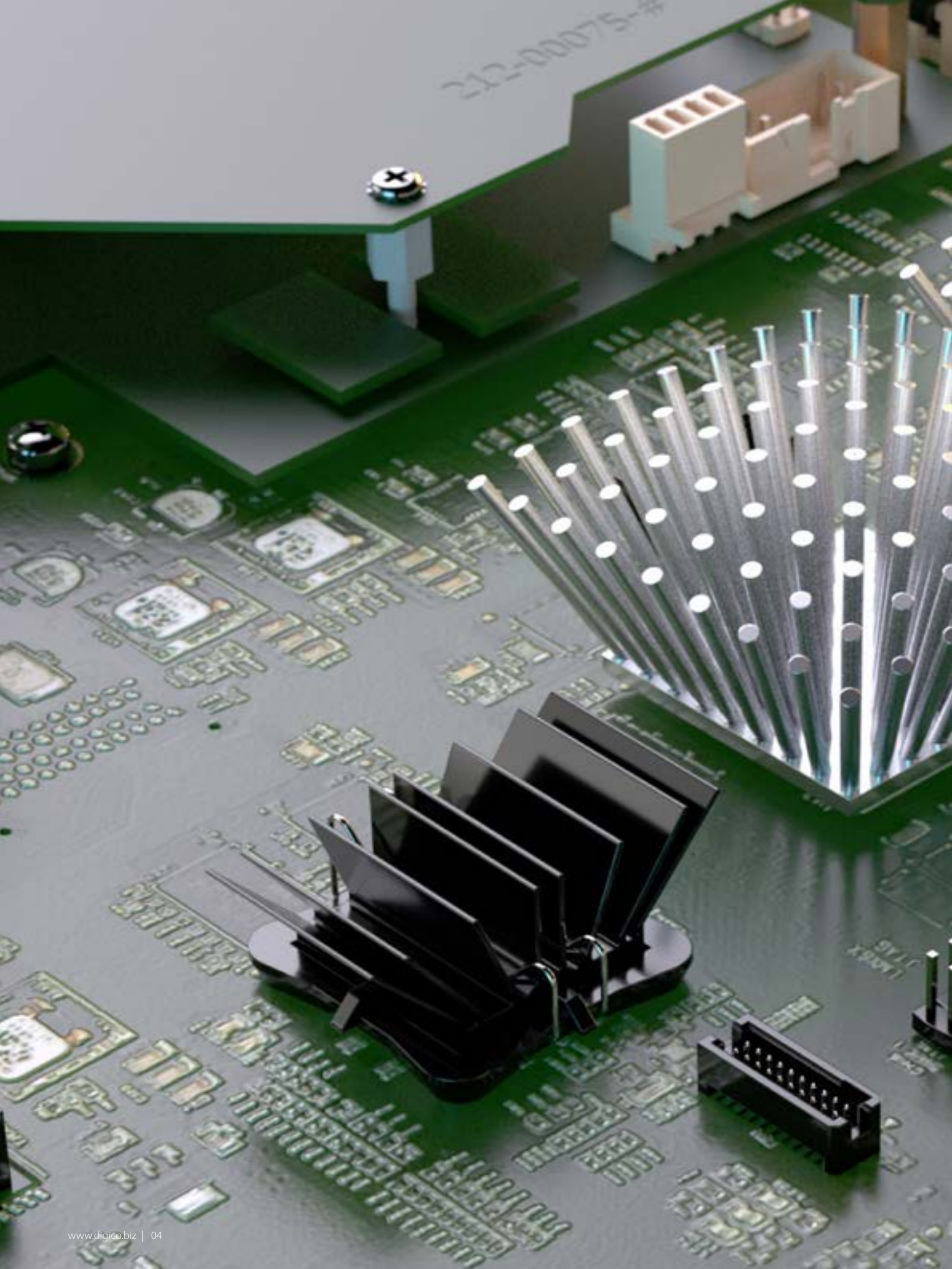
Quantum Range

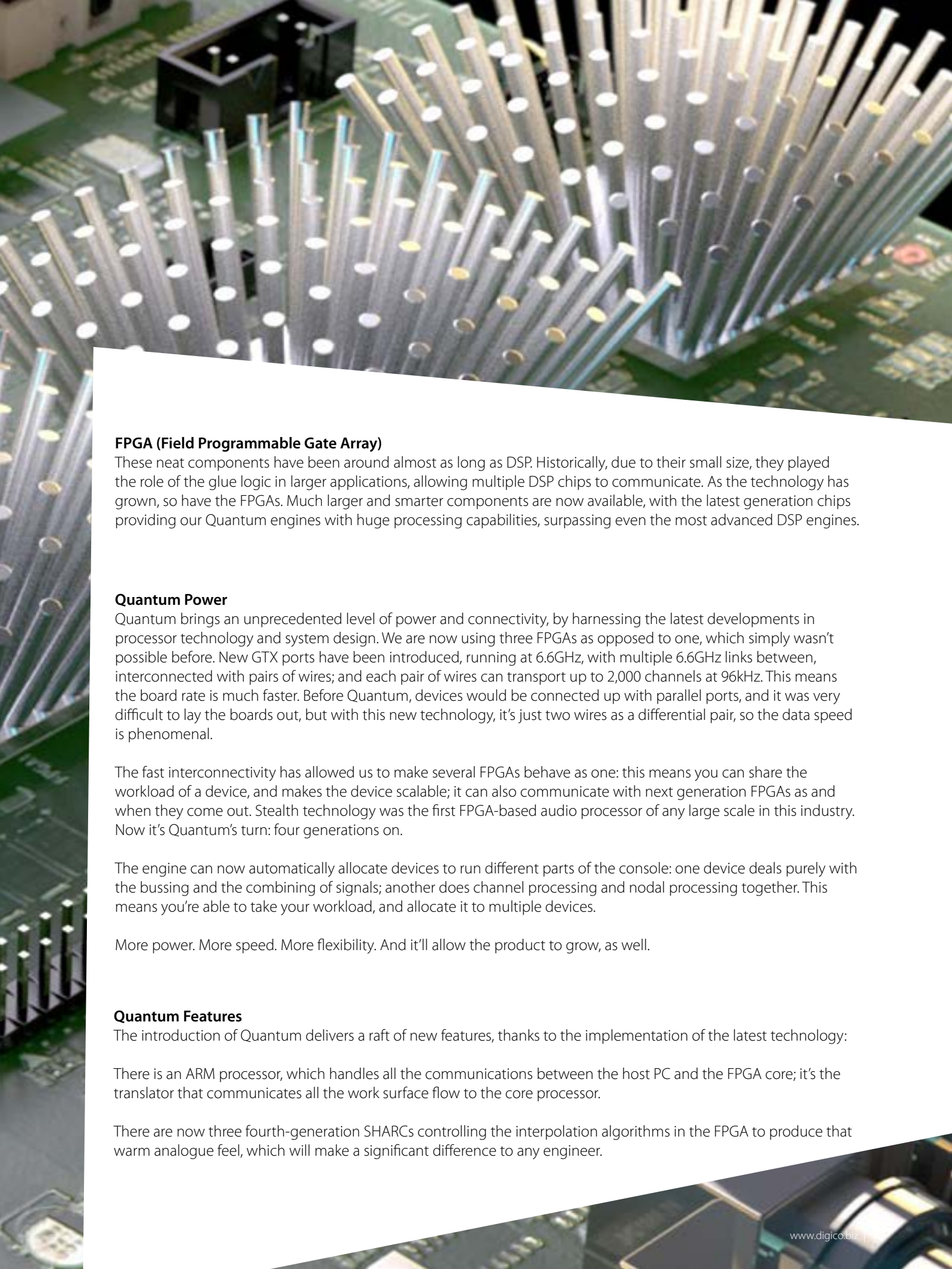
The Quantum range is more than just a family of advanced mixing consoles, it is DiGiCo fulfilling our promise to always look after the best interests of engineers.

The complexities demanded by modern live shows mean that you need more than ever before from your desk. However, the pressures of life on the road mean that you often don't have the time to learn a new system. The Quantum family removes this challenge completely to give you a huge performance upgrade with no learning curve.

The Quantum engine is at the heart of the new family. It can transport up to 2,000 channels across 458 processing paths at 96kHz. New GTX ports run at 6.6GHz while simple two wire connections ensure the fastest possible data speeds to reach a new pinnacle in mixing capability. Fully scalable and designed to communicate seamlessly with the next generation of FPGAs, the Quantum engine is a uniquely formidable platform for an ambitious industry.

Whether it is a new engine for your existing SD7 or SD5 frame, or completely new hardware you want, the Quantum range gives you the power to deliver the ultimate performance.





FPGA (Field Programmable Gate Array)

These neat components have been around almost as long as DSP. Historically, due to their small size, they played the role of the glue logic in larger applications, allowing multiple DSP chips to communicate. As the technology has grown, so have the FPGAs. Much larger and smarter components are now available, with the latest generation chips providing our Quantum engines with huge processing capabilities, surpassing even the most advanced DSP engines.

Quantum Power

Quantum brings an unprecedented level of power and connectivity, by harnessing the latest developments in processor technology and system design. We are now using three FPGAs as opposed to one, which simply wasn't possible before. New GTX ports have been introduced, running at 6.6GHz, with multiple 6.6GHz links between, interconnected with pairs of wires; and each pair of wires can transport up to 2,000 channels at 96kHz. This means the board rate is much faster. Before Quantum, devices would be connected up with parallel ports, and it was very difficult to lay the boards out, but with this new technology, it's just two wires as a differential pair, so the data speed is phenomenal.

The fast interconnectivity has allowed us to make several FPGAs behave as one: this means you can share the workload of a device, and makes the device scalable; it can also communicate with next generation FPGAs as and when they come out. Stealth technology was the first FPGA-based audio processor of any large scale in this industry. Now it's Quantum's turn: four generations on.

The engine can now automatically allocate devices to run different parts of the console: one device deals purely with the bussing and the combining of signals; another does channel processing and nodal processing together. This means you're able to take your workload, and allocate it to multiple devices.

More power. More speed. More flexibility. And it'll allow the product to grow, as well.

Quantum Features

The introduction of Quantum delivers a raft of new features, thanks to the implementation of the latest technology:

There is an ARM processor, which handles all the communications between the host PC and the FPGA core; it's the translator that communicates all the work surface flow to the core processor.

There are now three fourth-generation SHARCs controlling the interpolation algorithms in the FPGA to produce that warm analogue feel, which will make a significant difference to any engineer.



Nodal Processing

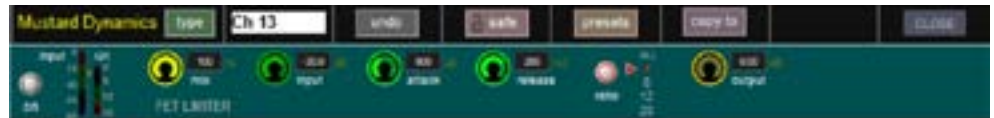
The patented Nodal Processing appreciates the demands on monitor engineers and sound designers to be able to provide creativity not only on the channels but actually on each channel aux send. A full complement of DiGiCo channel processing (including multiband compression and dynamic EQ) can be allocated to each aux send allowing a unique mix tailored for the artist or the audience. Using Nodal Processing essentially turns your Quantum console into a mixing console on the aux busses; users can now drop a whole channel's worth of processing on each one of those sends, literally turning an aux send into its own channel.

Nodal Processing opens engineers up to a new world of creative mixing possibilities. And Nodal Processing could even replace the requirement of a small monitor console in a West End or Broadway production.



True Solo

Quantum True Solo builds on Nodal Processing, focusing on the needs of the monitor engineer. With True Solo, users have the option of emulating output processing options into the solo buss; when inputs are soloed, selecting your artist's output buss in the True Solo panel emulates the output processing and you hear the signal exactly as the artist hears it. No guessing on how it will sound; just accurate true monitoring of your inputs. When combined with Nodal Processing, True Solo and Quantum deliver the ultimate set of tools for every monitor engineer.



Mustard Processing

Making use of the Quantum engine's seventh generation FPGA infrastructure, we've introduced Mustard processing – a brand new set of channel processing strips to work alongside your standard channel processing. Each Mustard processing strip provides a choice of two pre-amp modellers, a 4-band EQ (including all-pass filters), 4 different boutique style compressor models and a gate/ducker. What is more, Mustard processing strips can be used on any channel type.

Spice Rack & Chilli 6

The Spice Rack is a new processing rack that supports plugin style native processing options, allowing you to build a rack of insertable processors. To kick things off, we've launched the Chilli 6 – a 6-band multi-band compressor/expander. Allowing full control over all parameters, including our unique release shape control, the Chilli 6 is perfect for shaping vocals and instruments as well as focusing on problem frequencies with all the control you need.



Faders

Banks in blocks of 12

DiGiCo Quantum consoles are designed with banks of 12 faders plus master faders, all of which are assignable. Unlike the more common 8 fader banks that are found on the majority of digital consoles today, these provide the user with a much stronger platform from which to mix their audio palette. A good example of an application that really benefits from a 12 fader bank is working with a full drum kit: often, 8 channels just won't cut it, and it can lead to limitations; having 12 faders in one bank means there is literally more room to play with, which adds more flexibility in your mix. The same can be said for larger orchestral sessions, where more channels are needed in the same bank to get the job done properly.



HTL - The Guiding Light

Find what you need at the speed of light.

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 into 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, effects or sends currently displayed on the screen.

These RGB HTL rings can be found around all encoders on the hardware channel strips for quick adjustment of each EQ band and dynamics controls. They can also be found on every single row of assignable encoders on all Quantum consoles so that you can immediately find the controls you need.

HTL - The guiding light



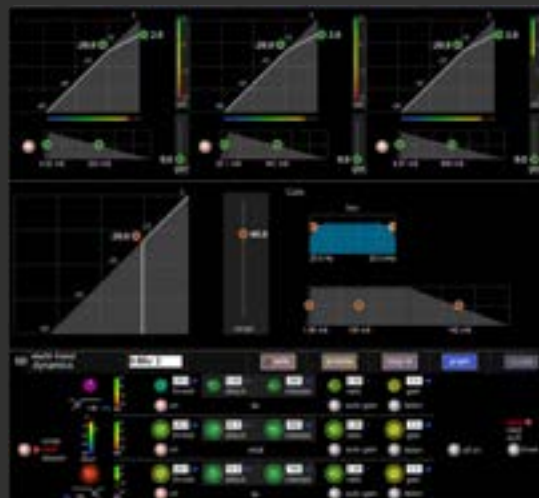


Dynamic EQ

Dynamic EQs are the holy grail of audio mixing; it allows the audio level to dynamically control the amount of EQ being applied to the signal. To perform these calculations in realtime requires a serious processing resource, which many of today's standard DSP systems simply cannot deliver, but DiGiCo's FPGA based processing easily handles the processing with all Quantum consoles having Dynamic EQ available on every input and output channel and Nodal Processor.

Multi-Band Compression

All Quantum consoles offer the option of multi-band compression on every channel, inputs and outputs, plus every Nodal Processor. Nice and simple.



FX

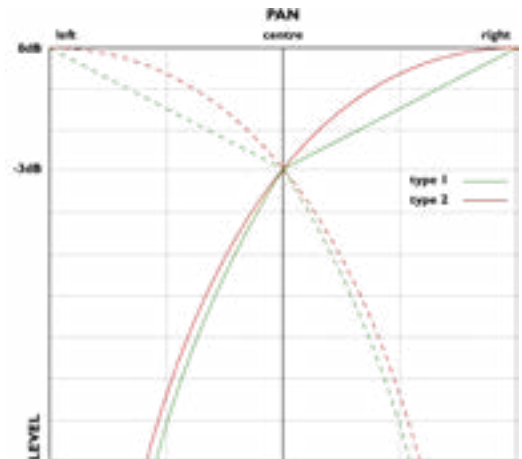
The Quantum range provides users with an FX rack to host high quality internal effects processors. With a selection of delay based and reverb effects to choose from, DiGiCo's FX provide a wide range of tools for every situation. Depending on the model of the Quantum console, the number of internal FX varies between 12 and 48 stereo FX where up to 16 of these can be DiGiCo's stereo floating point reverbs.

Buss Panning

There are two different methods of buss panning available:

Option 1 - Allows for a finer control to more centrally panned sources.

Option 2 - Studio sine-cosine buss pan law gives equal control of the pan across the full stereo field, and provides a fuller dynamic mix across a stereo buss, sounding "fuller & wider" with more space in the centre of the mix.

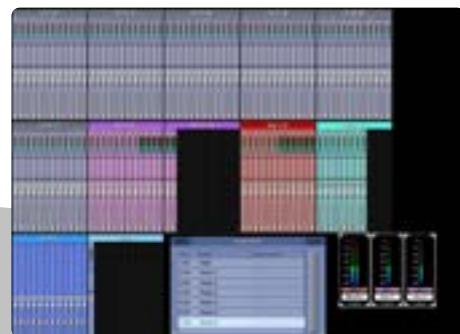


iPad® Control

DiGiCo's Quantum App allows you to control any of the major parameters of your Quantum console over WiFi with an iPad. Better still, the iPad is not only a remote control surface, but also an expansion of the control surface. The iPad Quantum App allows you to add an extra 256 Macro buttons so you can have your quick access go-tos in one hand (literally), while the console remains clear to mix the show on.

Overview Screen

This is an external DVI digital output that provides a complete overview of your console channels and metering; see all your channels, groups, auxes, matrices, control groups, metering, sub groups, and your master, all in an easy-to-navigate format.



Software Extensions

Broadcast

Advanced Monitoring System

The 48x6 Monitor Matrix allows operators to monitor up to 8 full 5.1 surround sources through up to 3 different speaker setups. The Monitor Matrix also offers speaker inserts, delays, level calibration, quick select buttons and the ability to completely customise the upmixing and downmixing rules.



Mix Minus Busses

It is often a requirement in broadcast settings to provide a copy of a mix without a particular input, for example a remote guest listening to the main broadcast mix but without their own input. With DiGiCo Broadcast software this can be done with a single button press. Every single mono channel can have its own mix minus output and these can be routed on-the-go, making them available whenever and wherever you need them.

Backstop PFL

Another important software feature that DiGiCo's Broadcast software adds is Backstop PFL / Overpress. Any channel can be sent to the PFL buss simply by pulling back the fader to preview the audio before it goes live. There are also options for auto solo on a per channel basis and dual AFL/PFL, allowing you to sculpt your workflow to suit every application.



Theatre

Advanced Auto-Update Cue System

DiGiCo's Theatre software offers the most sophisticated and advanced auto-update cue system on the market. Users can choose exactly which parameters are updated throughout the cue list and apply separate rules for custom groups of channels. This means that Principals could follow one set of rules and the band channels follow another. It also offers exclusions for those instances where different settings need to be recalled only for one cue, and a comprehensive system for keeping track of all these changes throughout the cue list and making changes as and when they are needed.



Aliases and Players

During many Theatre productions, Sound Designers are faced with the challenge of costume changes throughout the show that may require changes to a channel's processing. For this, DiGiCo's Theatre software offers the Aliases feature. Custom, unique parameters can be stored and recalled in every scene where this costume change appears, and these also follow the same auto-update rules as standard channels.

Another hurdle faced by Sound Designers is the accommodation of different actors playing the same role but requiring different processing. That is where Players comes in. Each input channel can have multiple Players with unique settings for each actor playing the role. What is more, these can be recalled at any time during the show in the event of an actor being taken ill mid show.



CG Membership

When programming Theatre shows the assignment of CG members is a vital part of a smoothly running show. The Control Group Cues panel allows for quick assignment of CG members throughout the cue list with its spreadsheet style workflow.



Matrix Nodal Delays and Aliases

Another valuable addition that comes with DiGiCo's Theatre software is individual delays on each of the cross point matrix points. This allows sound designers to position sound and provide localisation cues based on level and timing data, allowing full creativity and flexibility. Matrices also benefit from Matrix Aliases, allowing them to be repurposed and reused throughout the show with custom auto-update rules.



Waves SuperRack



C4 Multiband Compressor



CLA-2A

Waves Plugins

In addition to the Quantum's superb internal processing, you can also access all the plugins you know and love from the studio thanks to Waves SoundGrid®. Quantum consoles can connect to Waves SoundGrid devices through the built in SoundGrid Port or the optional SoundGrid Interface card providing 64 I/O channels. When using Waves SuperRack or MultiRack, there is also the built in DiGiCo integration that can be utilised to get quick access to the plugins you need, when you need to alter them.





SoundGrid Servers

A necessary component for a DiGiCo system with Waves integration is a server to run your plugins on. DiGiGrid have got you covered. The DGS-XL and the IOS-XL offer low latency real-time processing for all of your favourite Waves plugins at sample rates up to 96kHz. Their powerful i7 Extreme servers allow you to run as many plugins as you want, on as many channels as you've got, meaning they can handle even your heaviest sessions.



SoundGrid MADI Interfaces

An easy recording and playback solution, the MGB and MBO SoundGrid interfaces offer up to 128 channels at 48kHz or 64 channels at 96kHz with either coaxial connectivity or optical MADI connectivity. Perfect for virtual soundcheck or even being able to get more channels of audio into your server for processing.

And if that's not enough, the MGR offers twice the number of inputs and outputs in a compact 1U unit. That's 128 channels at 96kHz or 256 channels at 48kHz.





DiGiCo brought its DMI (Digital Multichannel Interface) into the pro-audio world via the Orange Box, and then to the S21 & S31, SD12 and Quantum Range of consoles.

DMI-KLANG

This card provides ultra low latency KLANG immersive processing for up to 16 2-channel mixes with 64 inputs at 48kHz or 96kHz.



DMI-MADI-B

This card can be used to connect a Standard MADI stream (64 channels in and out) at 48kHz or 96kHz or a DiGiCo Rack with the appropriate connector (D2-Rack, SD-Rack, SD-MINI Rack)



DMI-HYDRA 2

This card will provide 56 input and 56 output channels at 48kHz with Primary and Secondary (backup) optical connections.



DMI-AVIOM

This card provides 16 output channels at 48kHz (with SRC) and supports Aviom's proprietary A-Net Pro16 protocol. It has 1 CAT5E connection and faceplate DIP switched for Stereo output selection.



DMI-WAVES

This card will provide 64 input and 64 output channels at 48kHz or 96kHz to the SoundGrid™ Network with 2 CAT5E connections.



DMI-DANTE 64@96

This card provides 64 input and 64 output channels at both 48kHz and 96kHz. It is provided with Primary and Secondary (backup) Gigabit Ethernet ports for connection to the Dante network.





DMI-AMM

This card offers Quantum, SD-Range and S-Series consoles up to 64 channels of automatic microphone mixing which can be used on any console input channel.



DMI-MADI-C

This card can be used to connect to the DiGiCo D-Rack or D2-Rack, or another DiGiCo console with the RJ45 MADI connector.



DMI-ADC

This card provides 16 analogue inputs on 2 x 25 way "D" connectors. The ADC card is a line card only. There is no microphone amplifier or phantom power available. There is no gain control function for these inputs (only digital trim). Maximum input level +22dBu.



DMI-DAC

This card provides 16 analogue outputs on 2 x 25 way "D" connectors. The DAC card is line level only. Maximum output level +22dBu (Digital Full Scale).



DMI-AES

This card provides 16 inputs (8 pairs) and 16 outputs (8 pairs) on 2 x 25 way "D" connectors. All AES inputs are provided with sample rate conversion (SRC) by default. All AES outputs are synchronised to the mixer system clock.



DMI-ME

This card offers a 40 output interface to Allen & Heath ME-1 or ME-500 Personal Mixers. Multiple Personal Mixers can be connected to the DMI ME via the ME-U Hub.



DMI-MIC

This card provides 8 microphone preamp inputs on 1 x 25 way "D" connector. Each channel has individual, low noise gain control and phantom power. User interface is through a normal channel strip on your console. Maximum input level is +22dBu.

RACKS

D2-Rack

The 9U D2-Rack has a fixed format 48 inputs with 16 outputs fitted as standard. The output count can be increased to 32 by populating the 2 spare output slots with one or more of the 3 option modules – Line out or AES out or Aviom.

The 48 inputs can be specified as either 48 mic in or 24 mic/24 AES in.

As standard, there are 2 MADI Ports, available either as BNC or DiGiCo CAT5E connections that are available on the SD9 and SD11. These ports allow rack sharing between two DiGiCo consoles or digital splits for recording. When running at 96K, these 2 ports combine to create a single high definition 96K MADI connection with no reduction in I/O.

The D2-Rack has dual redundant power supplies as standard with LED indicators on the front panel.

The SD-Rack Style menu system allows for customised rack settings and the control and activation the D2-Rack's internal oscillator.

Optional Aviom, AES and or
Analogue Output cards



SD-NANO Rack

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.

SD-Rack

The SD-Rack is the finest I/O rack available, capable of delivering up to 192kHz high resolution analogue I/O converters and multiple digital formats simultaneously, be it MADI, AES/EBU, Dante, AES-42, ADAT, or Aviom.

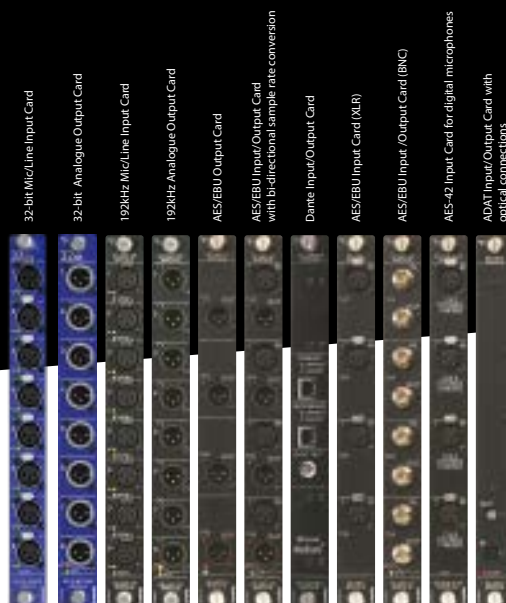
It's also based around the same Stealth FPGA technology present in the SD and Quantum console engines, so it can run the optical loop at 96kHz, while providing a down-sampled 48kHz feed to any additional console from one of the MADI output streams. This is industry-leading A/D conversion, and complete with DiGiCo's famous Gain Tracking™, all consoles benefit from +/-40dB of digital gain.

The gain can be set independently on a channel-by-channel basis: once it's set, each of the consoles on the loop can then Gain Track their own mixes; and if you do need to tweak any analogue gain settings, each Gain Tracked channel will automatically compensate, ensuring your mix stays the same. And what's really cool is, any of those 5 consoles on the loop can then take control

of an analogue gain should clipping occur, safe in the knowledge that everyone else's mix will be unaffected.

There are 14 slots on the SD-Rack, which amounts to 56 ins and outs, and it comes with or without optics. When running at 48kHz, the two MADI ins and outs provide 56 fully redundant input and output connections via a duplicate MADI aux; and if you need to run at 96kHz, you can get a full complement of 56 channels of MADI (in and out).

Each interface card is hot swappable, so the SD-Rack will automatically identify and configure each card for you; and because the power supplies are located at the top of the rack (also hot swappable, by the way), you won't find yourself battling through mountains of cable to get to them!



SD-MINI Rack

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 can have a maximum of 32 ins or outs or any combination in banks of 8 (8 in and 24 out for example). The MINI has MADI connectivity as standard, with optical as an option.

There is also the ability to run the Gain Tracking™ split outputs at other sample rates to be rack for compatibly with external devices.

RACKS

The DQ-Rack and MQ-Rack are the latest in addition to the range of high sample rate racks.



MQ-Rack

The MQ-Rack is exactly the same as the DQ-Rack except it has BNC MADI connectivity.

It features 2 BNC MADI ports to allow rack sharing between two DiGiCo consoles or digital splits for recording at 48kHz. When running at 96kHz, these 2 ports combine to create a single high definition 96kHz MADI connection with no reduction in I/O.

The MQ-Rack gives the familiar MADI connectivity for your touring infrastructure allowing it to integrate with your existing DiGiCo infrastructure.



DQ-Rack

The compact 6U MQ-Rack features 48 mic/line inputs with up to 24 line outputs and up to 8 AES channels out. Clever audio design allows the user to reconfigure 4 of the analogue line outputs to be either analogue outputs or dual AES outputs. This I/O flexibility and other configuration changes are managed from the rack's very own TFT Configuration screen.

The DQ-Rack comes with dual PSU and can operate at 48kHz or 96kHz. It also features 2 locking EtherCON ports. This includes a Primary and a Secondary Dante connection just like many familiar Dante devices. The DQ-Rack still benefits from the SD-Rack style menu system, but with an updated TFT LCD screen as first seen on the Quantum3³⁸ console. This allows for customised rack settings including control over the protocol used in the 4 flexible output XLRs and control and activation the DQ-Rack's internal oscillator.

The DQ-Rack with integrated Dante is perfect for AV installation and the demands of an AoIP networking environment.



 **Dante**[®]
SPOKEN HERE



3 SCREENS

FADER CONTROL
TOUCHSCREENS

LIGHT BAR

HEADPHONE
SUPPORT

DUAL DMI

FOUR ASSIGNABLE
MASTER FADERS



Quantum8⁵²

DiGiCo is proud to announce the launch of the next generation of large format live audio production mixing consoles. As you would expect from a brand-new console from DiGiCo, it has been designed from the ground up. Familiar, yet different, and with improved audio quality via enhanced algorithms, Quantum8⁵² delivers a massive leap forward in processing power. It is neatly packaged with 1000 nit LCD screens for full daylight operation and a newly designed worksurface, giving users the confidence that, true to the DiGiCo ethos, Quantum8⁵² has been designed not just for now, but for the future.

Quantum8⁵² is powered by five of the latest 7th generation FPGA's and next generation SHARC DSP processors, delivering a massive leap forward in performance. It's familiar design and workflow makes it instantly familiar as a DiGiCo, but its increase in power and speed will provide users with more possibilities in the mix.

Quantum8⁵². Same species. Different beast.



3 SCREENS



FADER CONTROL
TOUCHSCREENS



LIGHT BAR



HEADPHONE
SUPPORT



DUAL DMI



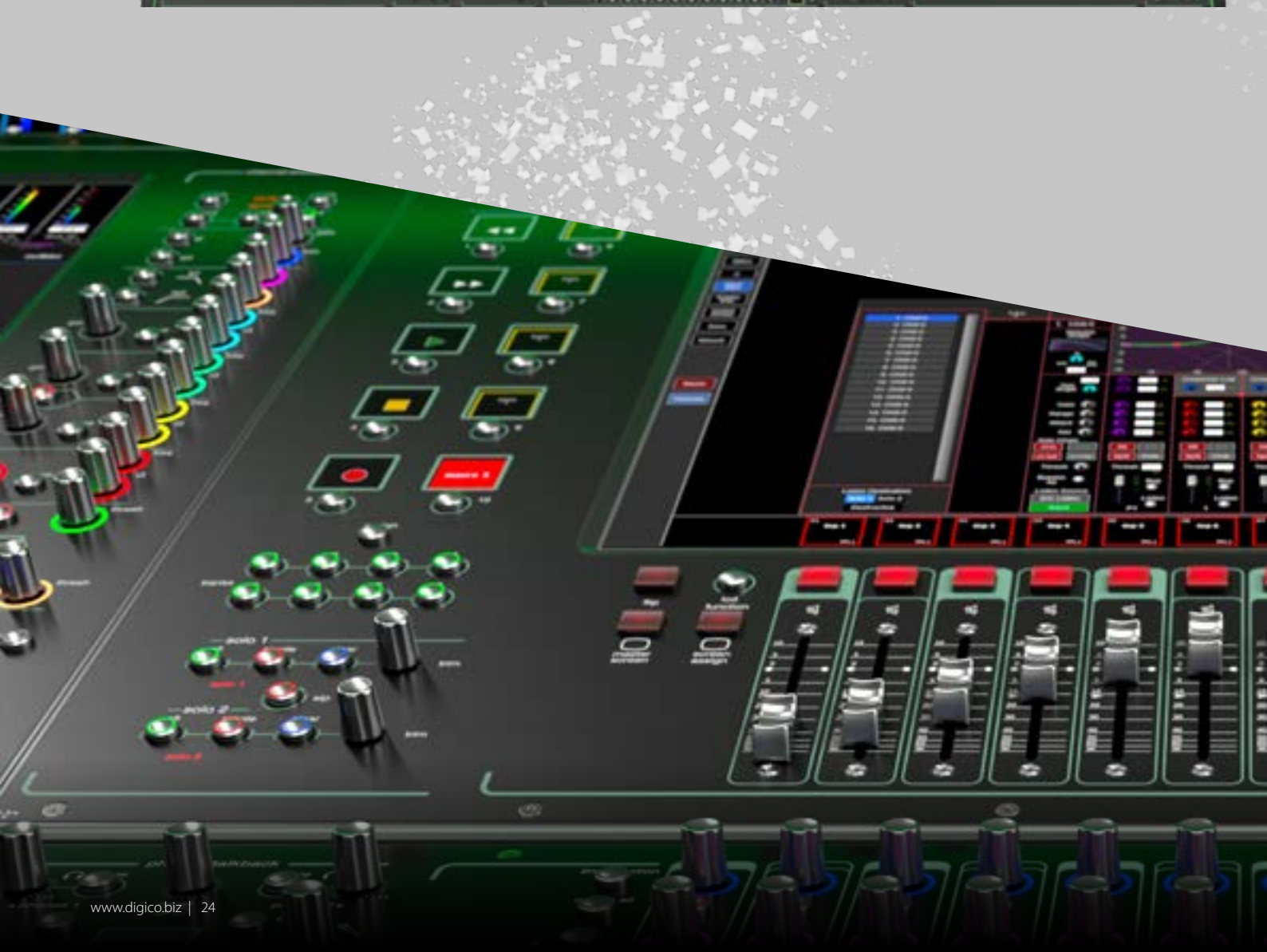
FOUR ASSIGNABLE
MASTER FADERS

Touchscreens Instant Control

Quantum8⁵² offers three 21.3" Touchscreens, super high-resolution, touch-sensitive TFT LCD backlit screens. These super large touch 1000 nit screens are one of the defining features of the DiGiCo Quantum8⁵², bringing all of the information and control to where you need it, quickly and easily.

The high-resolution screens are the hub of the user interface, and for realtime information, act as the primary command centre. They also work completely intuitively with every other control within the console, automatically displaying functions that are relevant to what the operator is working on there and then.

It's all about ease-of-use and speed with the Quantum8⁵².



Gold Power

Designed for the rigours of touring, the Quantum8⁵² features dual redundant quick release 1000W power supplies. With gold global 12V power bussing and local point-of-load architecture, Quantum8⁵²'s power bussing ensures your Quantum8⁵² performs flawlessly at every gig.



Local I/O

The Quantum8⁵² has local I/O in abundance. The Quantum8⁵² includes 12 Ultimate 'Stadius' 32 bit analogue inputs, 12 Stadius 32 bit analogue outputs, and 12 bit Perfect AES I/O (6 stereo).

Connectivity

Quadruple redundant MADI in/out (which can also be configured as 8 MADI I/O at 48kHz), dual DMI card slots, support for dual 2nd generation Optocore loops, 32 GPIO, MIDI In Out and through, 5 switched network ports, USB 2.0 and USB 3.0, and a digital Overview Monitor Output. Plus as standard there is a built in Waves SoundGrid Interface card giving you an extra 64 I/O for connecting to the SoundGrid Network.



Quantum8⁵²Layout

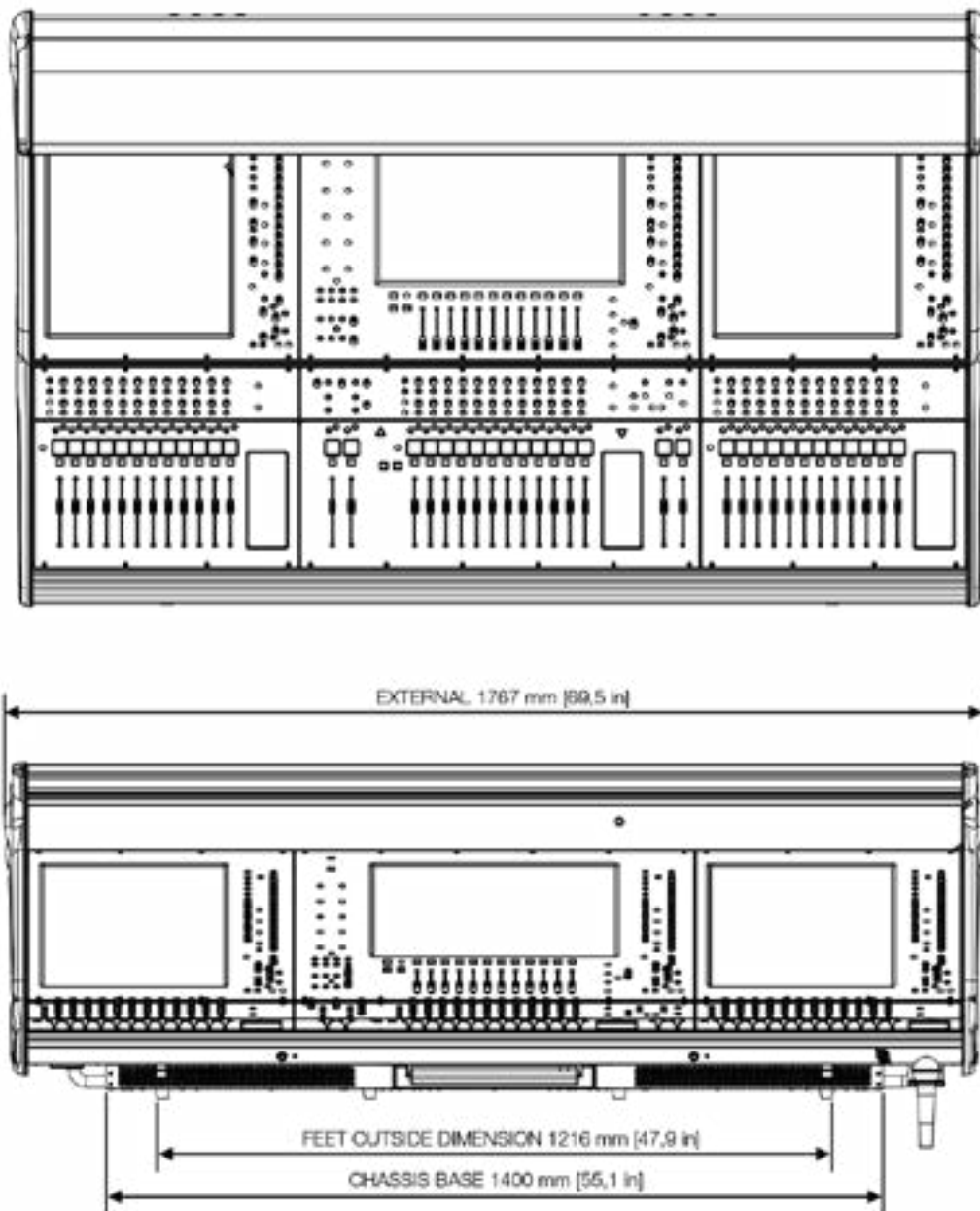


- | | | |
|-----------------------------|-------------------|--------|
| 1 Quantum 852 Engines | 4 Ethernet | 7 MADI |
| 2 Optocore (Single or dual) | 5 Video Reference | 8 GPIO |
| 3 Dual DMI Card Slots | 6 I/O Word Clock | 9 MIDI |

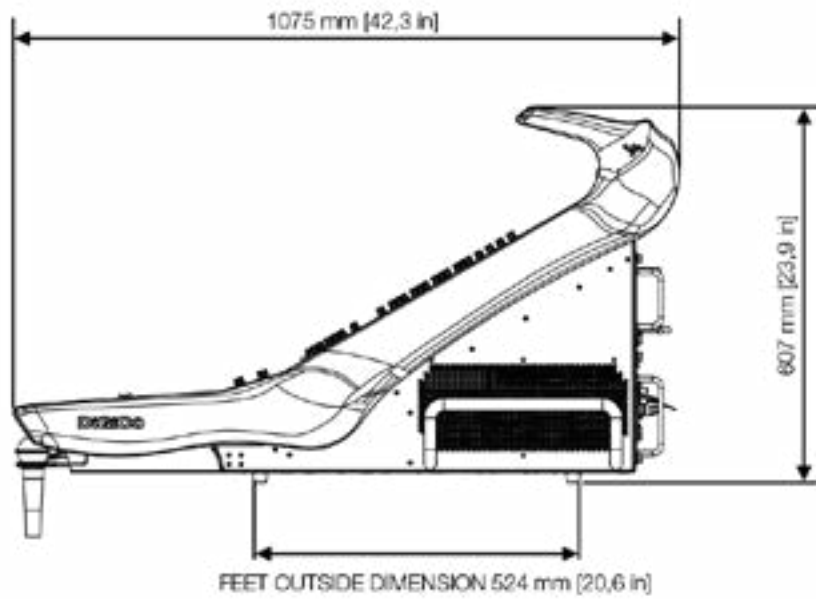


- 10 Video I/O
- 11 SMPTE I/O
- 12 Dual Redundant PSU
- 13 AES Sync
- 14 Local I/O

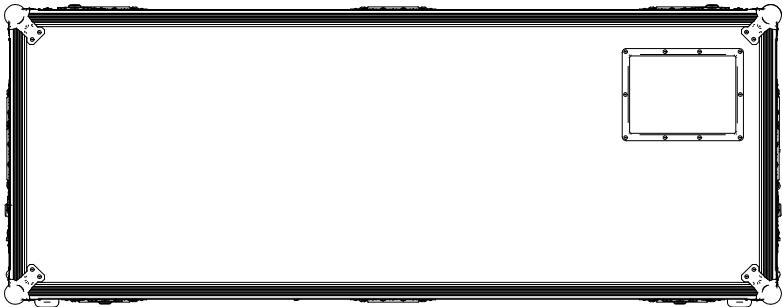
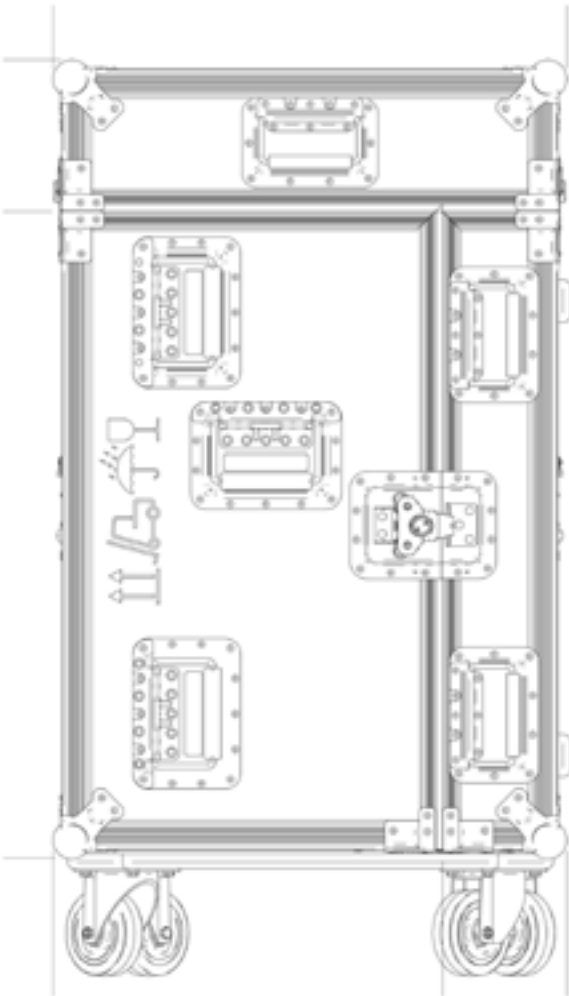
Quantum8⁵² Line Drawings

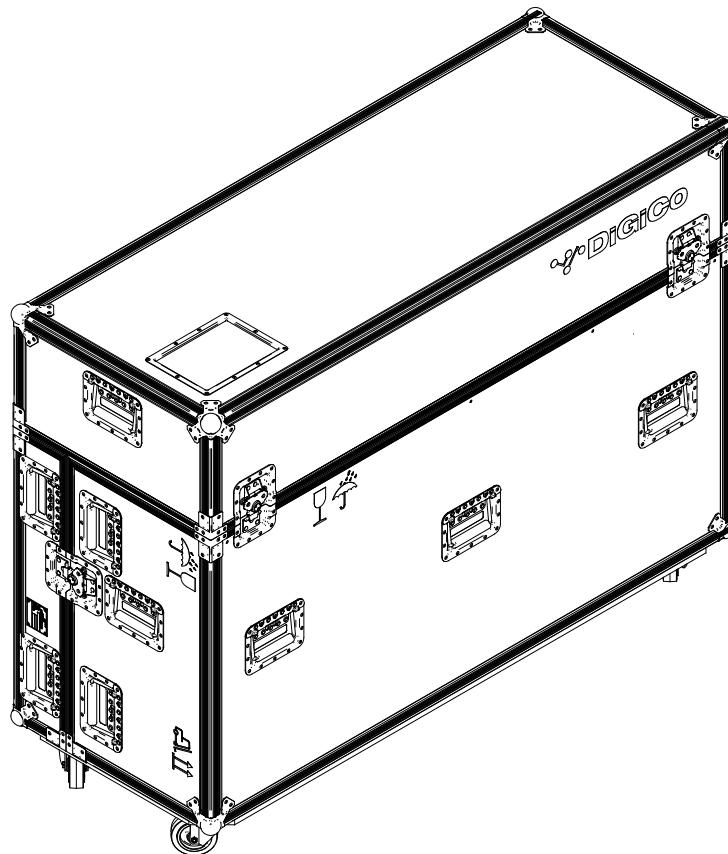
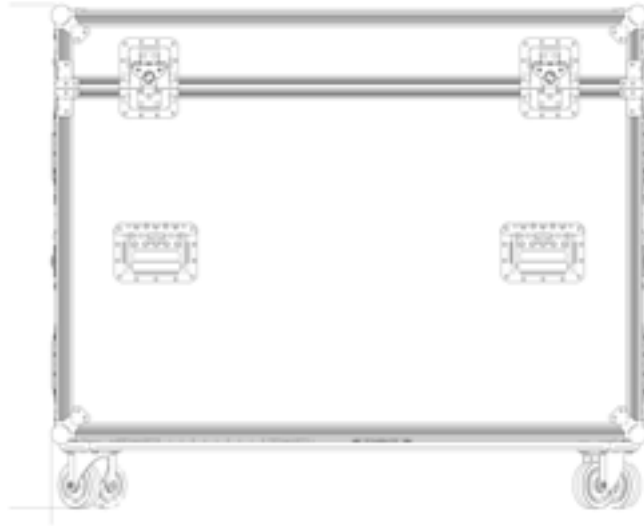


Weights and Dimensions
1767 (w) x 1075 (d) x 607 (h) mm
120Kg

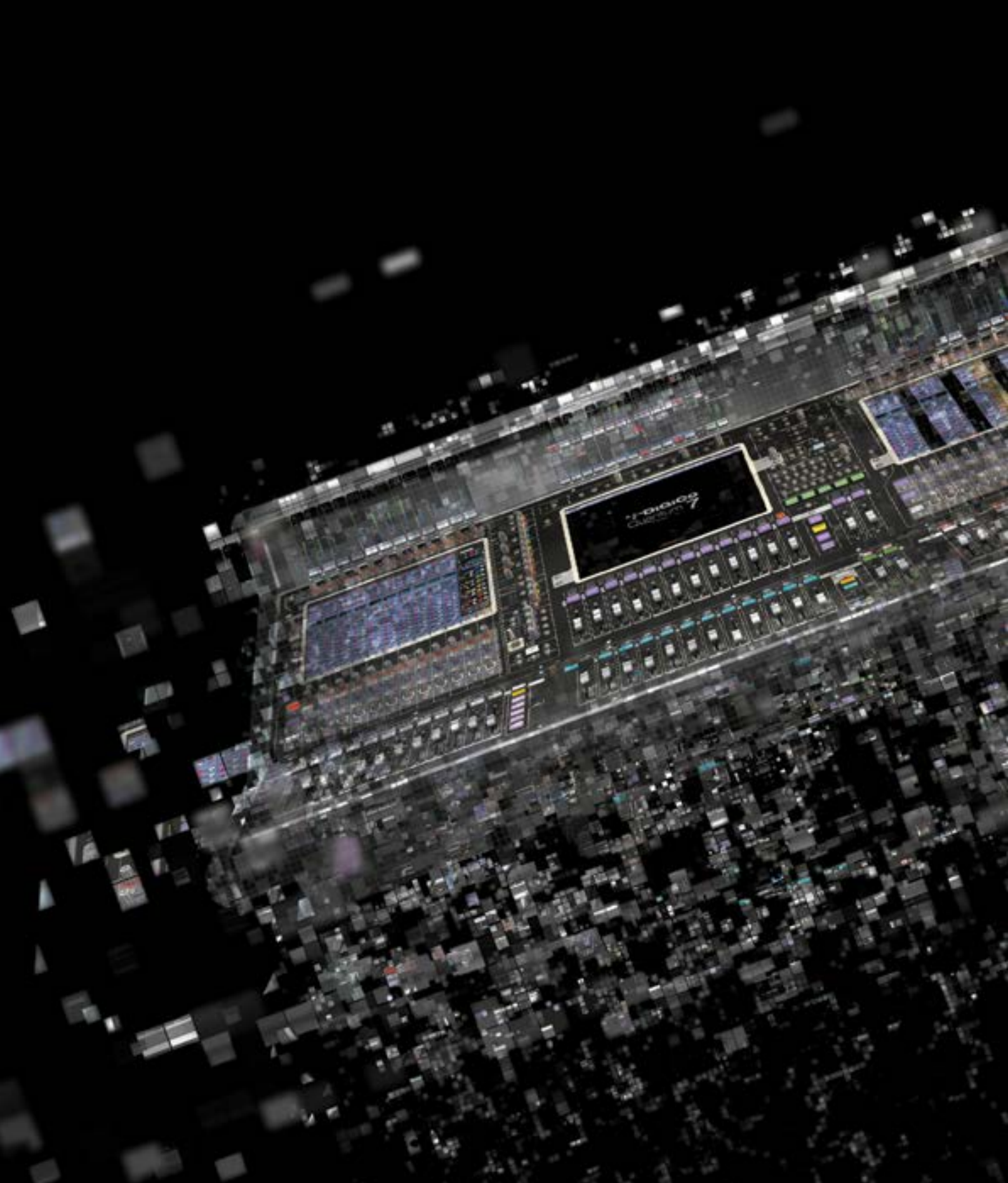


Quantum8⁵² Flight Case Line Drawings





Weights and Dimensions
 TBC



3 SCREENS

LIGHT BAR

HEADPHONE SUPPORT

UB ▶ MADI
RECORDING

DMI

DUAL ASSIGNABLE
MASTER FADERS

Quantum 7

When DiGiCo built the SD7, we never thought anyone would fill the console. However, with the constant rise in production values, and audiences demanding more and more from their favourite artists, tours are now regularly pushing multiple SD7s to maximum capacity. Shows are significantly bigger than they used to be and as a result, engineers are needing to handle many more inputs, outputs and channels. To address this issue, we have developed Quantum7, a newer, smarter engine which offers so much more to users on so many levels, and provides engineers with a major upgrade to new generation technology with no learning curve whatsoever. In creating Quantum7, we wanted to guarantee that our customer base could maintain a return on their historical investment by providing them an affordable engine upgrade for their existing work surface. We needed to make the next major technological step forward, and by using seventh generation FPGA technology, that's what Quantum has done.

Quantum7 makes shows easier to manage with plenty of room for growth; it's a more flexible system, four generations newer in processing capability, and a formidable platform for future development.

Faster, more efficient, future-proof, and way more powerful.



Touchscreens

Instant Control

15" Touchscreens, super high-resolution, touch-sensitive TFT LCD backlit display. Quantum7 offers three screens. These large touch screens are one of the defining features of the DiGiCo Quantum7, bringing all of the information and control to where you need it, quickly and easily.

The high-resolution screens are the hub of the user interface, and for realtime information, act as the primary command centre. They also work completely intuitively with every other control within the console, automatically displaying functions that are relevant to what the operator is working on there and then.

It's all about ease-of-use and speed with the Quantum7.



Gold Power

Designed for the rigours of touring, the Quantum7 features dual redundant quick release 500W power supplies. With gold global 12V power bussing and local point-of-load architecture, Quantum7 reinvents power busses for touring consoles and ensures your Quantum7 performs flawlessly at every gig.



Local I/O

The Quantum7 has local I/O in abundance. The Quantum7 includes 12 analogue inputs, 12 analogue outputs, and 12 AES I/O (6 stereo); 4 redundant MADI ports per engine (which can also be configured as 8 MADI ports at 48kHz), and 1 Optocore loop (with an optional second if required).

Connectivity

Quadruple redundant MADI in/out (which can also be configured as 8 MADI I/O at 48kHz), dual DMI card slots, support for dual 2nd generation Optocore loops, built-in UB MADI USB interface, 16 GPIO, MIDI, 4 switched network ports, USB, and a digital Overview Monitor Output. Plus as standard there is a built in Waves SoundGrid Interface card giving you an extra 64 I/O for connecting to the SoundGrid Network.



Quantum7 Layout

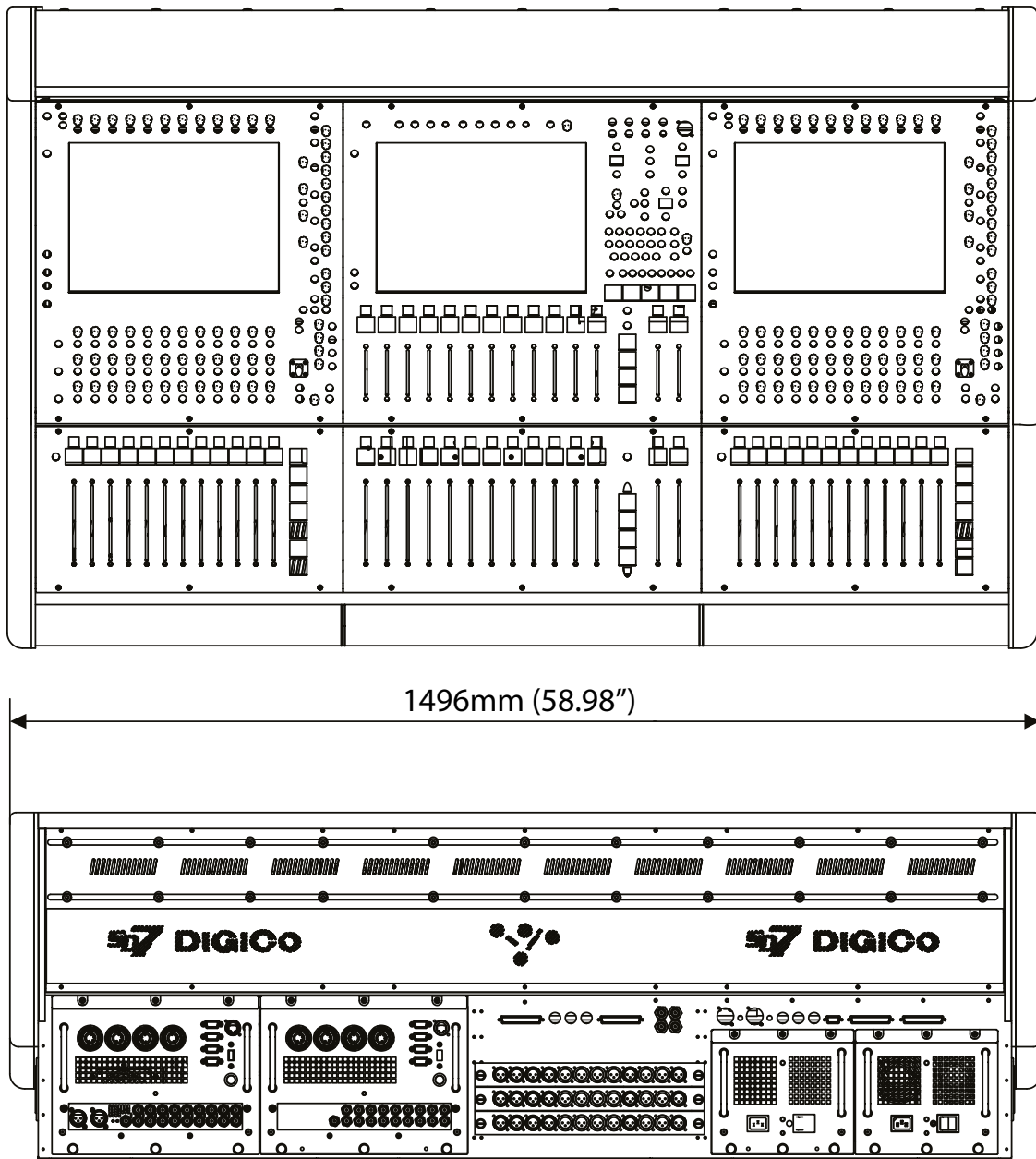


- | | | |
|-----------------------------|------------|------------|
| 1 Quantum 7 Engines (A&B) | 4 UB MADI | 7 Video Re |
| 2 Optocore (Single or dual) | 5 Ethernet | 8 I/O Wor |
| 3 Dual DMI Card Slots | 6 Waves | 9 MADI |
| 16 AES Sync | | |

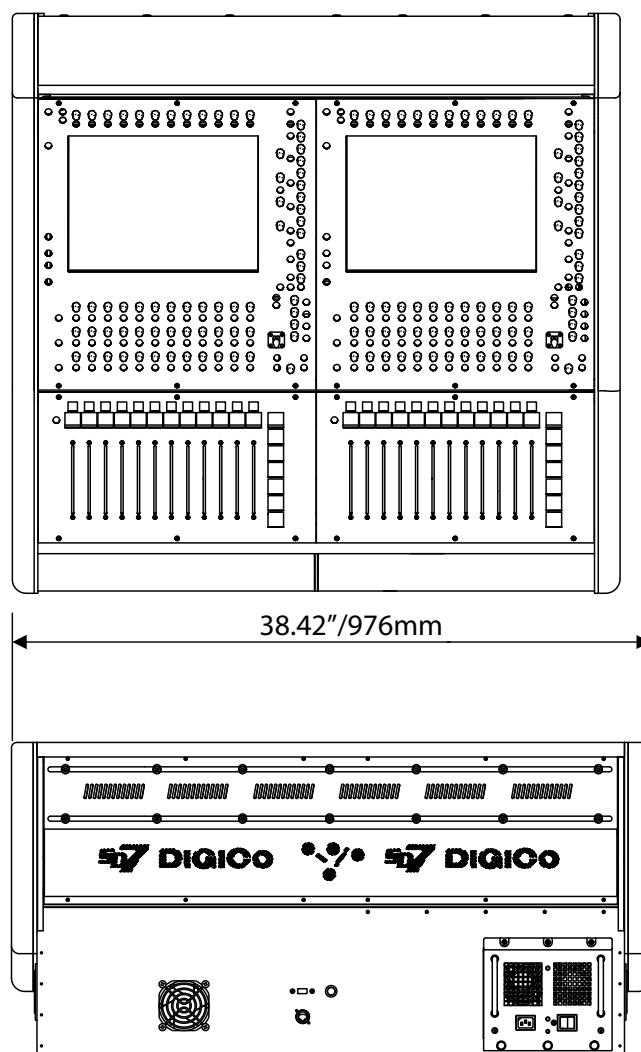
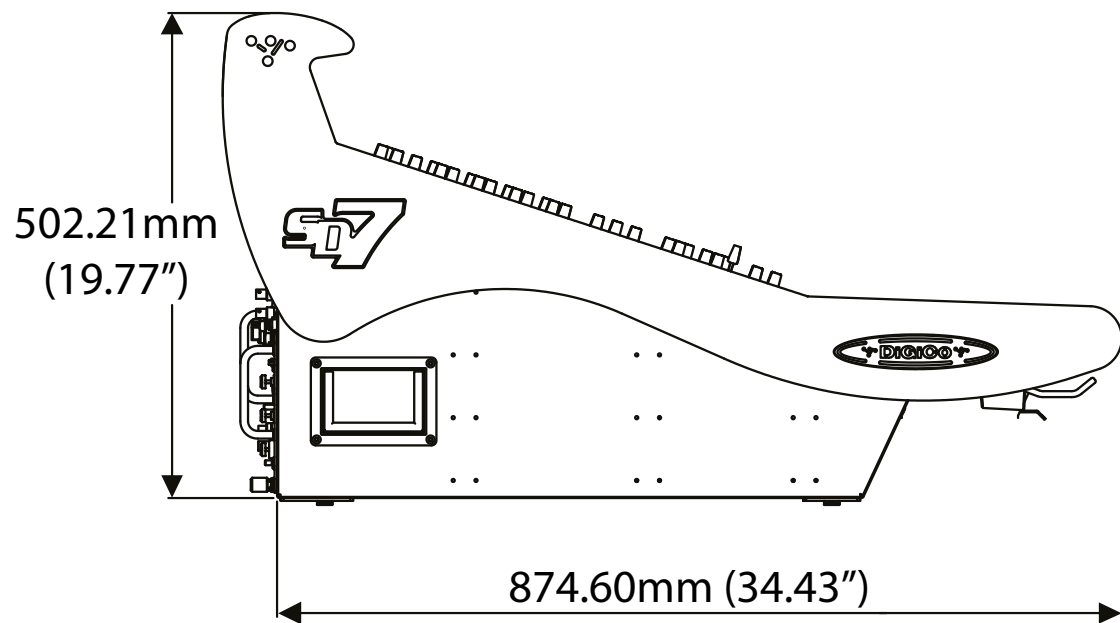


- | | | |
|-----------|--------------|-----------------------|
| Reference | 10 GPIO | 13 I/O |
| d Clock | 11 MIDI | 14 SMPTE I/O |
| | 12 Video I/O | 15 Dual Redundant PSU |

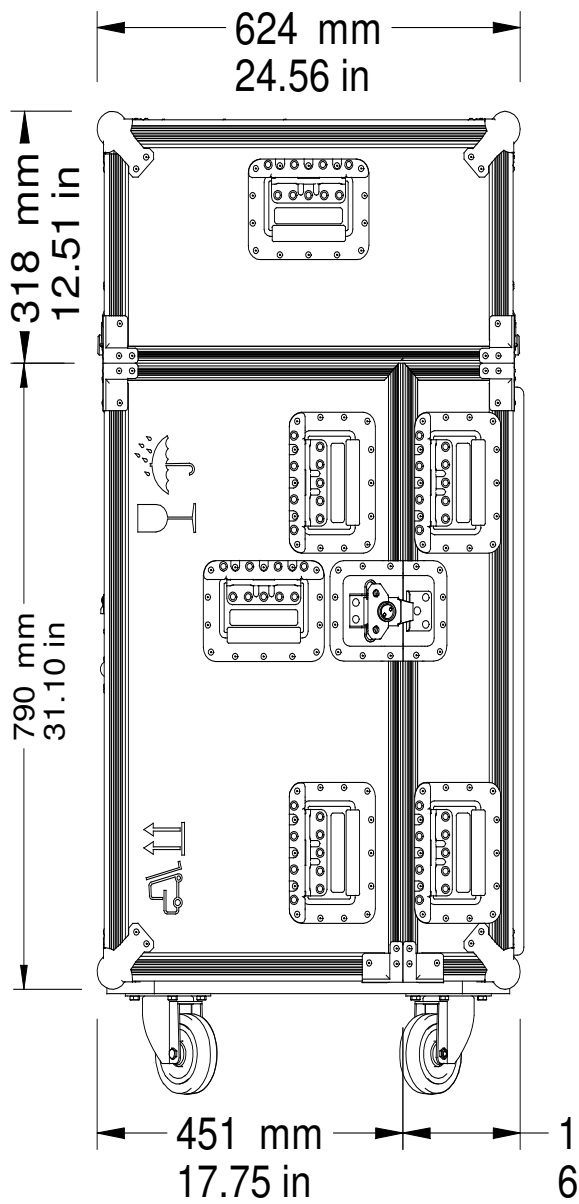
Quantum7 Line Drawings



Weights and Dimensions
1496(w) x 875(d) x 503(h). 112kg
58.9(w) x 34.45(d) x 19.8(h). 247lbs



Quantum7 Flight Case Line Drawings



Quantum7 Specifications

Quick Reference	
Max no of Input Processing Channels	256*
Max aux / sub-group busses	128 (full processing**)
Matrix (in addition to aux / sub - group)	48 x 48 (full processing**)
Solo busses	2 (with True Solo)
Max no. of inputs - Non optic consoles	N/A
Max no. of inputs - 1 console on optic loop	1281
Local I/O spec	12x mic/line, 12x line outputs, 12x AES/EBU I/O (mono streams)
Max no. of outputs	1280
Max no. of faders	52 (plus 48 if used with 2 x EX-007)
Screen	3 x 15"
Ext. overview screen	Yes
I/O expandability	Yes
Insert points / channel	2
Mustard Processing Strips	64
On Board FX	48 + 16 Spice Rack
Graphic Eqs (32-Band)	48
Dynamic EQ	694
Buss 8-band Parametric EQ	Yes
Multiband Compression	694
DiGiTuBes	438
Multi-channels	Yes
VCA - style control groups / Mute Groups	36
Nodal Processing Points	256
Set Spill	Yes
Reorder Busses	Yes
Multi-operator	Yes
Surround	Yes
MADI connectivity	8 x ports or 4 x Redundant ports @ 48k 4 x ports @ 96k
Optocore	Yes (including Dual Loop)
Snapshot Offline	Yes
Snapshot Auto-Update	Yes
Sampling rates	48kHz / 96kHz
Signal processing	FPGA, up to 40-bit floating-point
Audio processing and OS location	Surface
Redundant Processing and Computer	Standard
Redundant PSUs	Yes
Stage Rack spec	Up to 56 in / 56 out / MADI split x2 (@ 48kHz) D2-Rack (42-32), D-Rack (32-16), DQ-Rack (48-28), MQ-Rack (48-28)
Max no of Racks	24. On 2 loops = 38
Rack Interface	MADI / Optocore / RJ45 CAT5E / Dante (with optional DMI card)
Connector type for racks	BNC / HMA optics / ST / OpticalCON / RJ45 CAT5E (With Optional DMI Card)
Rack sharing FOH/MON	Gain Tracking™
Offline Software	Yes
DMI Slots	2
UB MADI (48 ch)	Yes
Optional Software Extensions	Theatre & Broadcast
Dimensions (mm) and Weight (kg)	1496(w) x 875(d) x 503(h) 112kgs
Dimensions (inches) and Weights (lbs)	58.9(w) x 34.45(d) x 19.8(h) 247lbs

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

** Full Processing - Includes Delay, DiGiTuBe, HP/LP Filters, 8 Band EQ, Dynamics 1 and Dynamics 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
Input Channels	256
Busses	Up to 128 plus masters Aux / Group busses with full processing Mono / Stereo / LCR / LCRS / 5.1
Matrix	Up to 48 Input / 48 Outputs with full processing
Control Groups	Up to 36, selectable for VCA-style, Moving fader, Mute Group
Graphic Eq	48 x 32-band, Gain +/- 12dB
Internal FX	Up to 48 stereo effects comprising of reverbs and delay/chorus/pitch/enhancer
Spice Rack	16 mono / 8 stereo Rack Slots
Mustard Proc	64 Processing Strips
Nodal Proc	256 Nodal Processors
Local I/O	12 x mic/line I/O, 12 x AES I/O
MADI interface	4 Interfaces, BNC connectivity
Optic interface	Yes (including dual loop)
Sampling rates	48kHz / 96kHz
GPI/GPO	16 (expandable to 32)
Ext Sync	Wordclock, AES, Video, MADI, Optocore
Physical Dimensions	1496mm (w) x 875mm (d) x 503mm (h)
Weight	112kg (250Kg with flightcase)
Power	90V-260V, 50-60Hz, 600VA
Requirements	

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
AD/DA Conversion	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 -126 dB 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	Up to 1.3 sec
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/hishelf, hi/ hishelf) 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
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Dynamics 1	Single or multiband (3-band)
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Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz Knee : hard, med, soft
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De-Esser	Threshold : 20us – 20ms Release : 1ms – 100ms Ratio : 1:1 – 50:1 Ess-band : Listen on/off Ess-band filter freq / width: 20Hz – 20kHz
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Dynamics 2	on/off
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Gate / Ducker	Threshold; -60 – 0dB Attack; 50us – 100ms Hold; 2ms – 2s Release; 5ms – 5s Range; 0 - 90dB Key; Any source Key listen Freq/width; 20 – 20kHz
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Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s
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Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz s/c source : Any source s/c listen : on/off s/c filter freq / width: 20Hz – 20kHz	
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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	Up to 1.3 sec
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/hishelf, hi/ hishelf) 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
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Dynamics 1	Single or multiband (3-band)
------------	------------------------------

Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz
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De-Esser	Knee : hard, med, soft Threshold : 20us – 20ms Release : 1ms – 100ms Ratio : 1:1 – 50:1 Ess-band : Listen on/off Ess-band filter freq / width: 20Hz – 20kHz
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Dynamics 2	on/off
------------	--------

Gate / Ducker	Threshold; -60 – 0dB Attack; 50us – 100ms Hold; 2ms – 2s Release; 5ms – 5s Range; 0 - 90dB Key; Any source Key listen Freq/width; 20 – 20kHz
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Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz s/c source : Any source s/c listen : on/off s/c filter freq / width: 20Hz – 20kHz
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Insert B	(post eq/dyn) On/off
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EQ/Dyn order	EQ/Dyn or Dyn/EQ
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Mute	Channel mute / hard mute
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Solo	Solo Buss 1 / Solo Buss 2 / Both, Auto solo
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Channel Safe	trim, eq, dyn, fade/mute, inserts, outputs, full safe
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Output Routing	Outputs, Insert A, Insert B, FX
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Fader	100mm motorised fader ∞ to + 10dB
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Mustard Processing

Preamplifier Tubes	Variable Drive Odd / Even / Overdrive / Distortion / Crunch / Hi Distortion Presets Variable Output Gain
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Preamplifier Amp	Variable Drive Odd/Even 1st stage Harmonics Bias & Saturate control Off/Odd/Even 2nd stage harm Variable HF Boost Variable Output Gain
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Equalisation	4 band EQ: Parametric (lowshelf / bell, lower-mid bell /all-pass, upper-mid bell / all- pass, hishalf / bell) HPF & LPF 4th order filters
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Dynamics 1	Classic VCA Compressor Vintage VCA Compressor Optical Compressor FET Limiter
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Dynamics 2	Gate / Ducker
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3 SCREENS

LIGHT BAR

HEADPHONE SUPPORT

UB ▶ MADI
RECORDING

DMI

DUAL ASSIGNABLE
MASTER FADERS



Quantum 5

With first the SD5 and then the Quantum7, DiGiCo broke new ground with what you can achieve with a mixing console. Now Quantum5 is here to take on that baton and help you accomplish even more.

Just as with Quantum7, Quantum5 has been designed to slot neatly into the existing frame of your SD5, meaning an engine upgrade is all that you need to deliver next generation processing from your current fleet. With three large-scale seventh generation FPGAs working in unison you will have unrivalled flexibility.

We wanted Quantum5 to be more than a simple upgrade – it represents a revolutionary step forward for engineers. Under the hood you will find the kind of power you have been longing for. Quantum5 offers more than 450 processing paths at 96kHz, including 288 processing channels configurable as up to 256 input channels and up to 128 busses, plus a 36 x 36 matrix.

When you add in our patented Nodal Processing, Mustard Processing, Spice Rack and True Solo, the Quantum5 becomes the tool you need to excel.

With Quantum5, you own the stage.



3 SCREENS



LIGHT BAR



HEADPHONE SUPPORT

UB►MADI
RECORDING



DMI



DUAL ASSIGNABLE
MASTER FADERS

Touchscreens Instant Control

15" Touchscreens, super high-resolution, touch-sensitive TFT LCD backlit display. Quantum5 offers three screens. These large touch screens are one of the defining features of the DiGiCo Quantum5, bringing all of the information and control to where you need it, quickly and easily.

The high-resolution screens are the hub of the user interface, and for realtime information, act as the primary command centre. They also work completely intuitively with every other control within the console, automatically displaying functions that are relevant to what the operator is working on there and then.

It's all about ease-of-use and speed with the Quantum5.



Local I/O

Local I/O is never an issue with the Quantum5. It includes 8 analogue inputs, 8 analogue outputs, and 8 AES I/O (4 stereo); 4 redundant MADI ports per engine (which can also be configured as 8 MADI ports at 48kHz), and 1 Optocore loop (with an optional second if required).

Connectivity

Like the Quantum7, the Quantum5 provides quadruple redundant MADI in/out (also configurable as 8 MADI I/O at 48kHz), dual DMI card slots, support for dual 2nd generation Optocore loops, built-in UB MADI USB interface, 16 GPIO, MIDI, 4 switched network ports, USB, and a digital Overview Monitor Output. Plus as standard there is a built in Waves SoundGrid Interface card giving you an extra 64 I/O for connecting to the SoundGrid Network.



Digico
Quantum 5



Quantum5 Layout



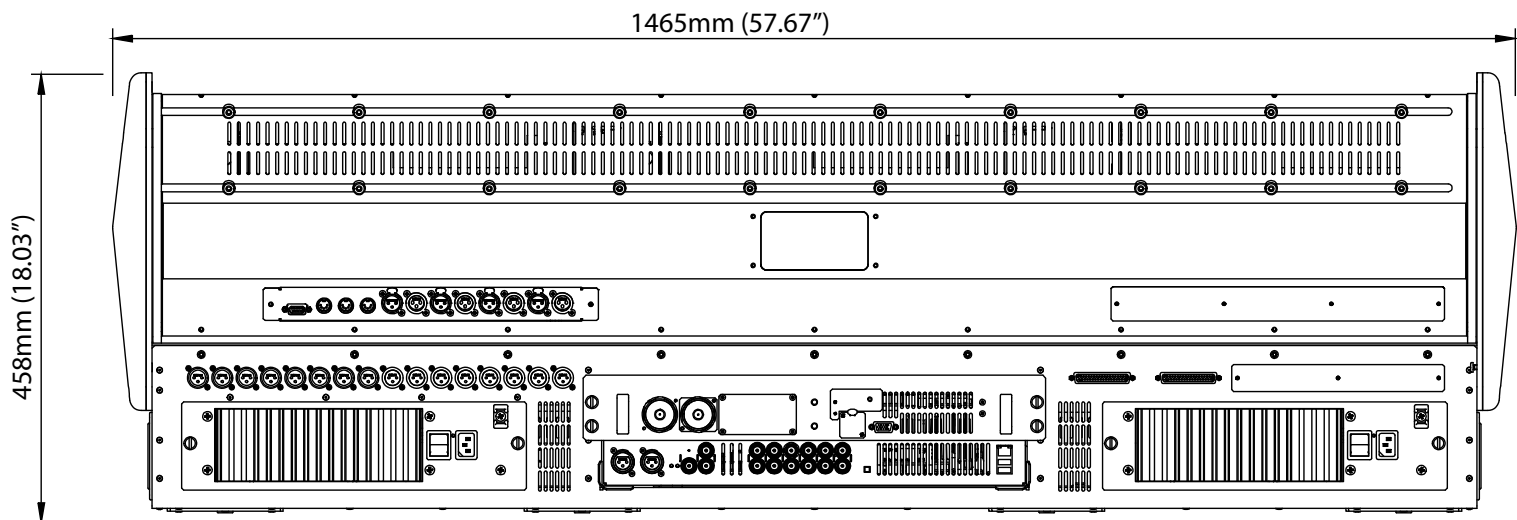
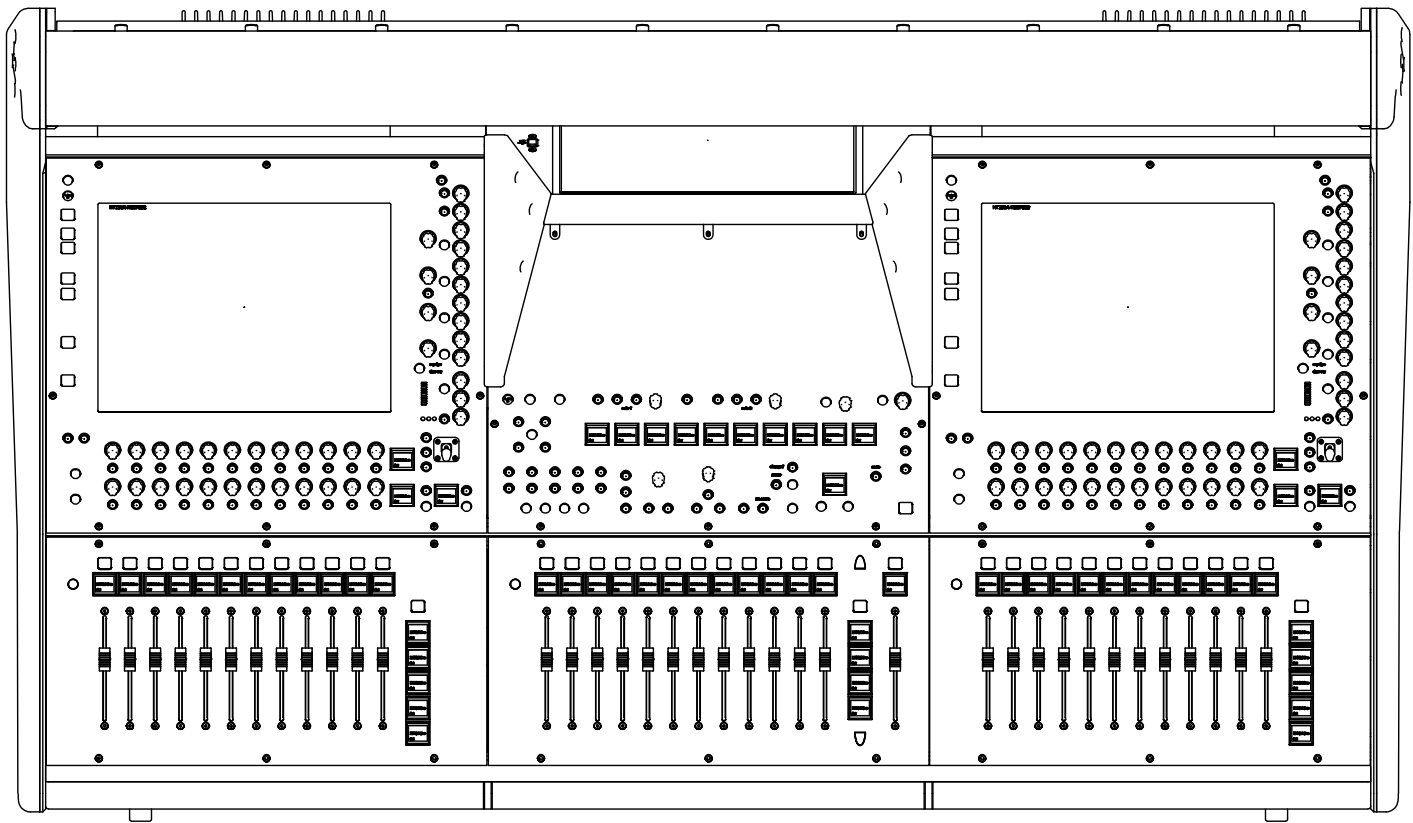
- | | | |
|-----------------------------|------------|------------|
| 1 Quantum 5 Engine | 4 UB MADI | 7 Video Re |
| 2 Optocore (Single or dual) | 5 Ethernet | 8 I/O Wor |
| 3 Dual DMI Card Slots | 6 Waves | 9 MADI |

Busses

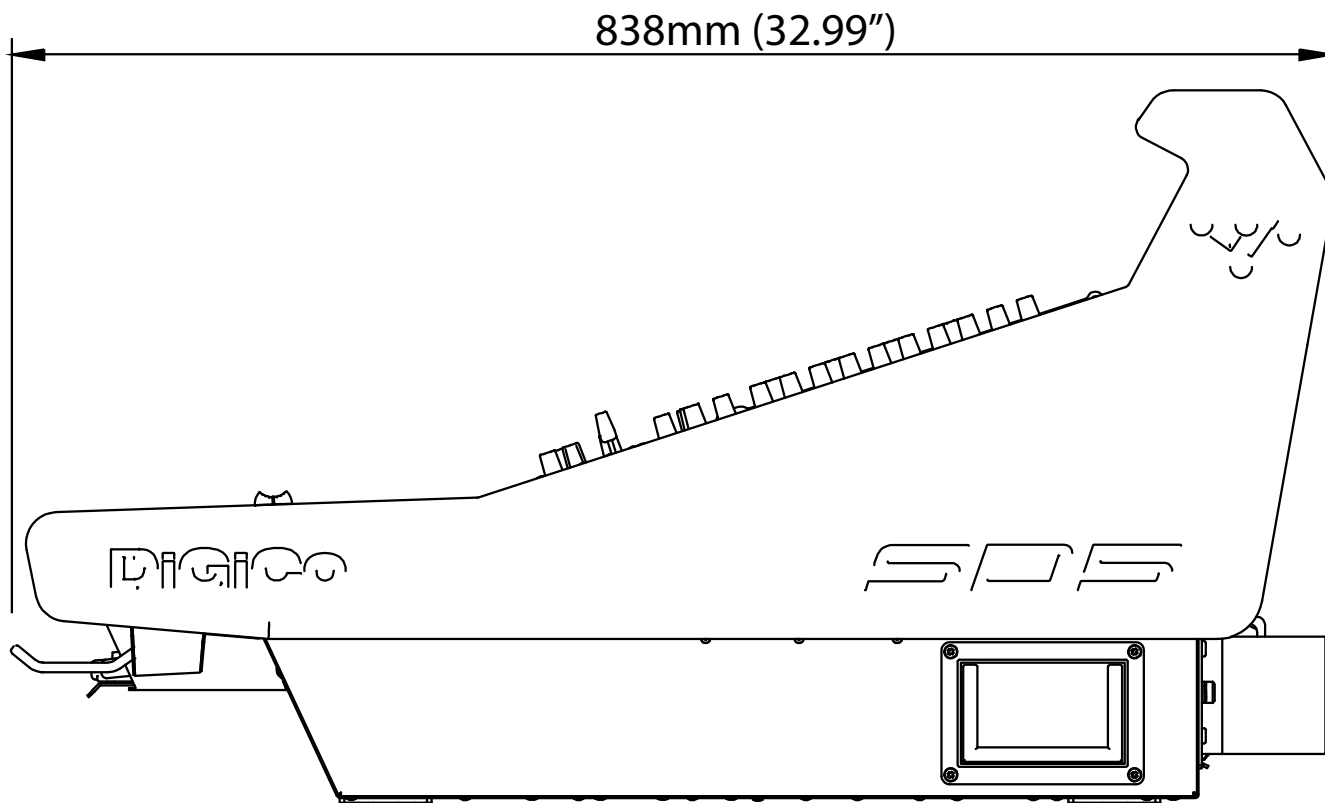


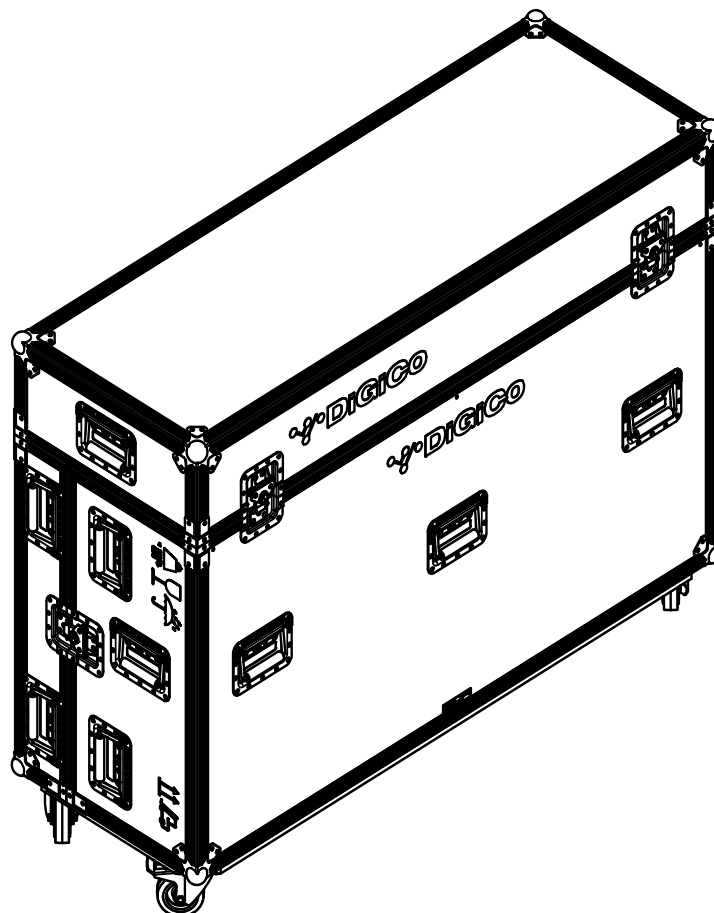
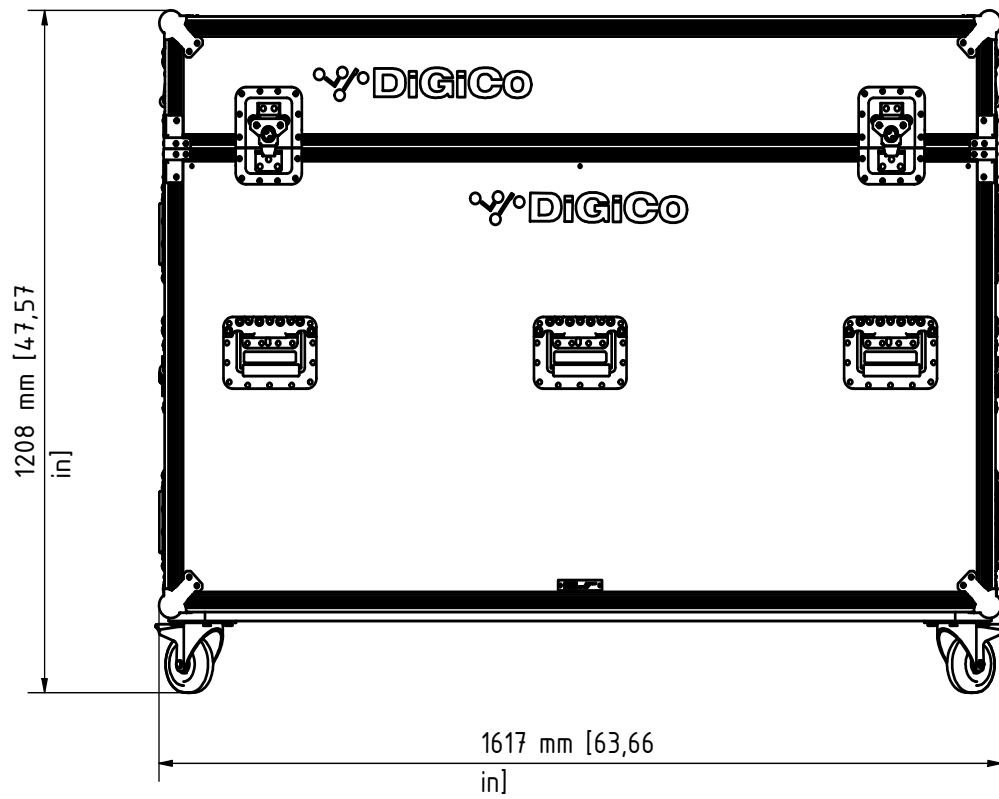
- Reference
- 10 GPIO
- 11 MIDI
- 12 Analogue I/O
- 13 AES I/O
- 14 AES Sync
- 15 Dual Redundant PSU

Quantum 5 Line Drawings

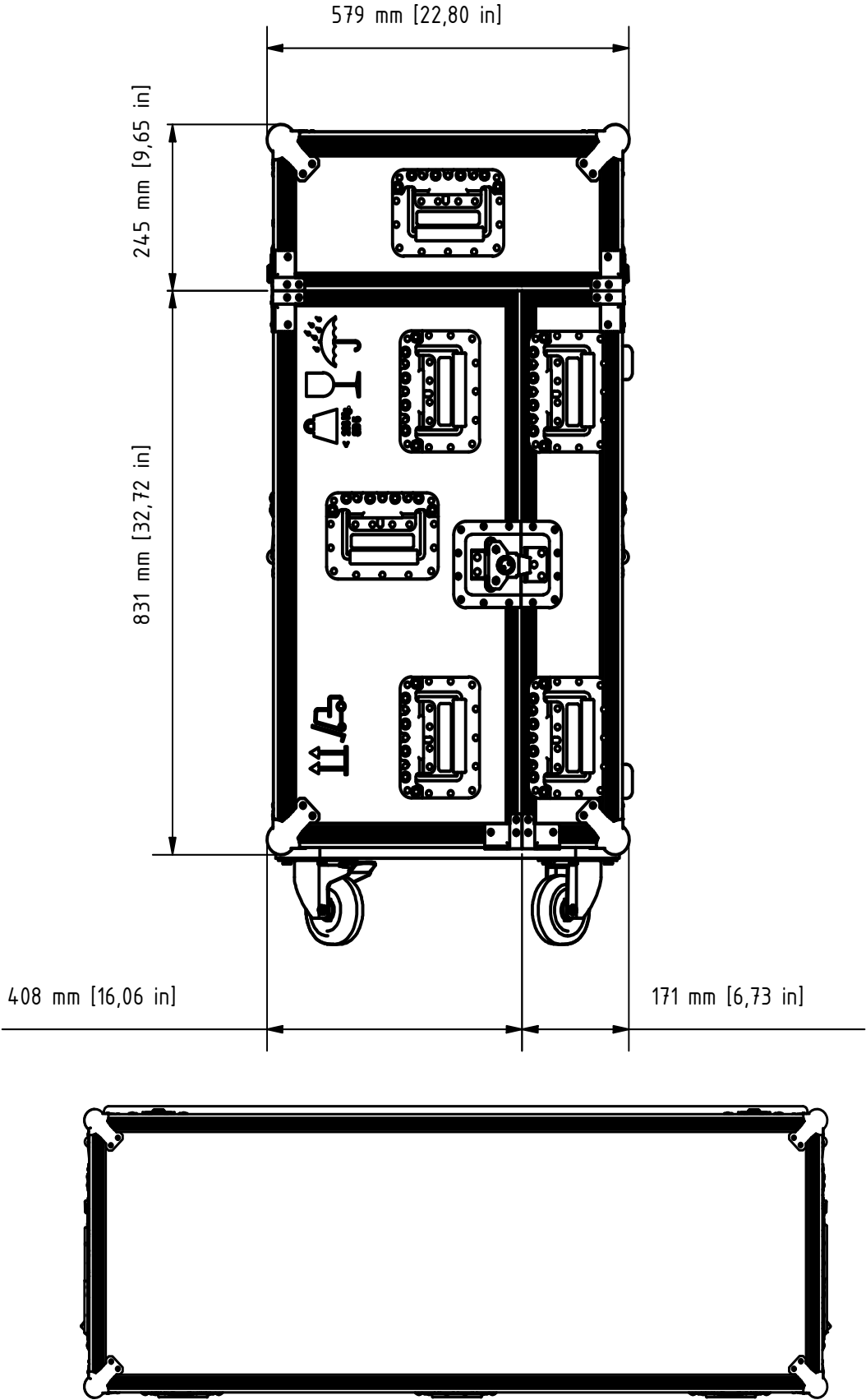


Weights and Dimensions
 1595(w) x 805(d) x 482(h). 70Kg
 62.80(w) x 31.70(d) x 18.98(h). 154lbs





Quantum5 Flight Case Line Drawings



Quantum 5 Specifications

Quick Reference	
Max no of Input Processing Channels	256*
Max aux / sub-group busses	128 (full processing**)
Matrix (in addition to aux / sub - group)	36 x 36 (full processing**)
Solo busses	2 (with True Solo)
Max no. of inputs - Non optic consoles	N/A
Max no. of inputs - 1 console on optic loop	1272
Local I/O spec	8x mic/line, 8x line outputs, 8x AES/EBU I/O (mono streams)
Max no. of outputs	1272
Max no. of faders	37
Screen	3 x 15"
Ext. overview screen	Yes
I/O expandability	Yes
Insert points / channel	2
Mustard Processing Strips	48
On Board FX	36 + 12 Spice Rack
Graphic Eqs (32-Band)	32
Dynamic EQ	458
Buss 8-band Parametric EQ	Yes
Multiband Compression	458
DiGiTuBes	330
Multi-channels	Yes
VCA - style control groups / Mute Groups	36
Nodal Processing Points	128
Set Spill	Yes
Reorder Busses	Yes
Multi-operator	Yes
Surround	Yes
MADI connectivity	8 x ports or 4 x Redundant ports @ 48k 4 x ports @ 96k
Optocore	Yes (including Dual Loop)
Snapshot Offline	Yes
Snapshot Auto-Update	Yes
Sampling rates	48kHz / 96kHz
Signal processing	FPGA, up to 40-bit floating-point
Audio processing and OS location	Surface
Redundant Processing and Computer	Yes (Dual Surface)
Redundant PSUs	Yes
Stage Rack spec	Up to 56 in / 56 out / MADI split x2 (@ 48kHz) D2-Rack (42-32), D-Rack (32-16), DQ-Rack (48-28), MQ-Rack (48-28)
Max no of Racks	24. On 2 loops = 38
Rack Interface	MADI / Optocore / RJ45 CAT5E / Dante (with optional DMI card)
Connector type for racks	BNC / HMA optics / ST / OpticalCON / RJ45 CAT5E (With Optional DMI Card)
Rack sharing FOH/MON	Gain Tracking
Offline Software	Yes
DMI Slots	2
UB MADI (48 ch)	Yes
Optional Software Extensions	Broadcast
Dimensions (mm) and Weight (kg)	1465(w) x 838(d) x 458(h). 116Kg
Dimensions (inches) and Weights (lbs)	57.68(w) x 32.99(d) x 18.03(h). 256lbs

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

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

General Specifications

Faders	37 x 100mm touch-sensitive, motorised
Screens	3 x 15" LCD high - resolution touch screens
Input Channels	Up to 256
Busses	Up to 128 plus masters Aux / Group busses with full processing Mono / Stereo / LCR
Matrix	Up to 36 Input / 36 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 36 stereo effects comprising of reverbs and delay/chorus/pitch/enhancer
Spice Rack	12 mono / 6 stereo Rack Slots
Mustard Proc	48 Processing Strips
Nodal Proc	128 Nodal Processors
Local I/O	8 x mic/line I/O 8 x AES I/O
MADI interface	4 Interfaces, BNC connectivity
Optic interface	Yes (including dual loop)
Sampling rates	48kHz / 96kHz
GPI/GPO	16
Ext Sync	Wordclock, AES, Video, MADI, Optics
Physical Dimensions	1465 mm (w) x 838mm (d) x 458mm (h)
Weight	116Kg (235Kg with flightcase)
Power Requirements	100V-240V, 50-60Hz, 790VA

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
AD/DA Conversion	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	<90 dBu Typical (20Hz - 20kHz)
Microphone Input	Better than -126 dB 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	Up to 1.3 sec
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/hishelf, hi/ hishelf) on/off Freq; 20 – 20kHz Gain; +/- 18dB Q: 0.1 -20 (parametric) / 0.10- 0.85 (shelf) Dynamic Eq on/off Over/under Band on/off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1
Dynamics 1	Single or multiband (3-band)
Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz Knee : hard, med, soft
De-Esser	Threshold : 20us – 20ms Release : 1ms – 100ms Ratio : 1:1 – 50:1 Ess-band : Listen on/off Ess-band filter freq / width: 20Hz – 20kHz
Dynamics 2	on/off
Gate / Ducker	Threshold; -60 – 0dB Attack; 50us – 100ms Hold; 2ms – 2s Release; 5ms – 5s Range; 0 - 90dB Key; Any source Key listen Freq/width; 20 – 20kHz
Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option

	Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz s/c source : Any source s/c listen : on/off s/c filter freq / width: 20Hz – 20kHz
Insert B	(post eq/dyn) On/off
EQ/Dyn order	EQ/Dyn or Dyn/EQ
Mute	Channel mute / hard mute
Solo	Solo Buss 1 / Solo Buss 2 / Both, Auto solo
Channel Safe	Input, eq, dyn, aux, pan, fade/ mute, inserts, buss, directs, full safe
Output Routing	Buss, Insert A, Insert B, FX Direct: on/off, pre-mute / pre- fade / post-fade, level +/- 18dB
Fader	100mm motorised fader ∞ to +10dB

Processing Channel Specification

Aux / Group / Matrix Output

Name	User-defined / Presets
Phase	Normal / Reverse
Digital Trim	-20 to +60dB
Delay	Up to 1.3 sec
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/hishelf, hi/ hishelf) on/off Freq; 20 – 20kHz Gain; +/- 18dB Q: 0.1 -20 (parametric) / 0.10- 0.85 (shelf) Dynamic Eq on/off Over/under Band on/off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1
Dynamics 1	Single or multiband (3-band)
Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz Knee : hard, med, soft
De-Esser	Threshold : 20us – 20ms

	Release : 1ms – 100ms Ratio : 1:1 – 50:1 Ess-band : Listen on/off Ess-band filter freq / width: 20Hz – 20kHz
Dynamics 2	on/off
Gate / Ducker	Threshold; -60 – 0dB Attack; 50us – 100ms Hold; 2ms – 2s Release; 5ms – 5s Range; 0 - 90dB Key; Any source Key listen Freq/width; 20 – 20kHz
Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz s/c source : Any source s/c listen : on/off s/c filter freq / width: 20Hz – 20kHz
Insert B	(post eq/dyn) On/off
EQ/Dyn order	EQ/Dyn or Dyn/EQ
Mute	Channel mute / hard mute
Solo	Solo Buss 1 / Solo Buss 2 / Both, Auto solo
Channel Safe	trim, eq, dyn, fade/mute, inserts, outputs, full safe
Output Routing	Outputs, Insert A, Insert B, FX
Fader	100mm motorised fader ∞ to + 10dB

Mustard Processing

Preamplifier Tubes	Variable Drive Odd / Even / Overdrive / Distortion / Crunch / Hi Distortion Presets Variable Output Gain
Preamplifier Amp	Variable Drive Odd/Even 1st stage Harmonics Bias & Saturate control Off/Odd/Even 2nd stage harm Variable HF Boost Variable Output Gain
Equalisation	4 band EQ: Parametric (lowshelf / bell, lower-mid bell /all-pass, upper-mid bell / all- pass, hishelf / bell) HPF & LPF 4th order filters
Dynamics 1	Classic VCA Compressor Vintage VCA Compressor Optical Compressor FET Limiter
Dynamics 2	Gate / Ducker





Quantum 3³⁸

The DiGiCo Quantum3³⁸ builds on the Quantum7 in a mid format console, adding new design features and enhancements for a truly unique experience.

Quantum3³⁸ is the next step in the DiGiCo Quantum range of consoles. Delivering 128 Input channels into 64 busses, with additional processing for Master busses and Matrices, Quantum3³⁸ brings advanced processing functions and an ultimately flexible workflow to a wider user base.

Quantum3³⁸ incorporates an all new design with built-in keyboard lighting, 17" high brightness displays and individual TFT channel displays. The floating Quantum chassis features 36 channel faders plus 2 dedicated Master faders complete with high resolution metering.

Featuring our patented Nodal Processing, Mustard Processing, Spice Rack and True Solo, Quantum3³⁸ has all the features needed for every scale of production. And with built-in 32bit I/O, triple redundant MADi and Optocore it's equipped with all the connectivity you need.

Quantum3³⁸ delivers on every level.



Triple

Touch Screens

Instant Control



One of the defining features of the DiGiCo range of consoles is the large touch screens, bringing all of the information and control to where you need it, quickly and easily. Quantum338 is no exception, and features three 17" 1000 nit high-brightness PCAP (Projected capacitive touch) TFT screens, one for each section of the console.

The new high-resolution screens give an expansive view of the new Quantum Dark Application, with the extra screen real-estate providing room for on-screen quick select buttons and a full on screen meter-bridge.

Access to the channel strip and all of its features is just a touch away. Simply select your channel and use the Hidden Till Lit rotaries or Quick Select buttons to select or alter your required parameters. As you change fader banks, access Set Spills or fold and unfold multi-channel faders the information on the screens changes instantaneously to reflect the channel setup.

Multiple Touch Screens - See, Touch, Hear.



Quantum338 also features 70 TFT displays providing users with even more visual feedback. That's one for every channel, every row of assignable encoders, every fader bank and layer button, every macro, and one for snapshots.

Featuring channel and bank names, channel meters, channel colour coding, macro and snapshot info, the 96x96 resolution TFT's take surface feedback to a new level.

Furthermore, these channel meters aren't just for mono or stereo input channels. Even when working with busses up to 5.1, all of your metering information is right at your fingertips.

Quantum338 doesn't stop there when it comes to visual feedback. Every hardware channel strip also benefits from new Dynamics metering, and both master faders feature extra bright responsive meters next to the faders.

DiGiCo HOME

Quantum3³⁸ features the latest in DiGiCo software including the new DiGiCo HOME. Designed to make operation, configuration and routine maintenance easier, DiGiCo HOME is a new launcher portal that incorporates quick links to console applications and configuration setups.



Dark Application

The sleek dark mode application with its flat high contrast graphics refreshes the look of the Quantum application while helping to reduce eye fatigue and improve readability.

On Screen Quick Select Buttons

DiGiCo have always designed consoles with speed of use in mind, and Quantum3³⁸ is no exception to that. The larger screens on the Quantum3³⁸ have allowed on screen Quick Select buttons to be added for immediate reassignment of the underscreen rotary controls. Quickly reach all of the controls you need, when you need them.



DIGICO 32bit



32 bit local I/O

Quantum338 takes the built in console I/O to new levels of performance. The 8 local mic/line inputs and 8 local line outputs all feature the latest 32 bit "Ultimate Stadius" converters for our best sound yet. Plus there's 4 stereo AES/EBU in/out.



Connectivity

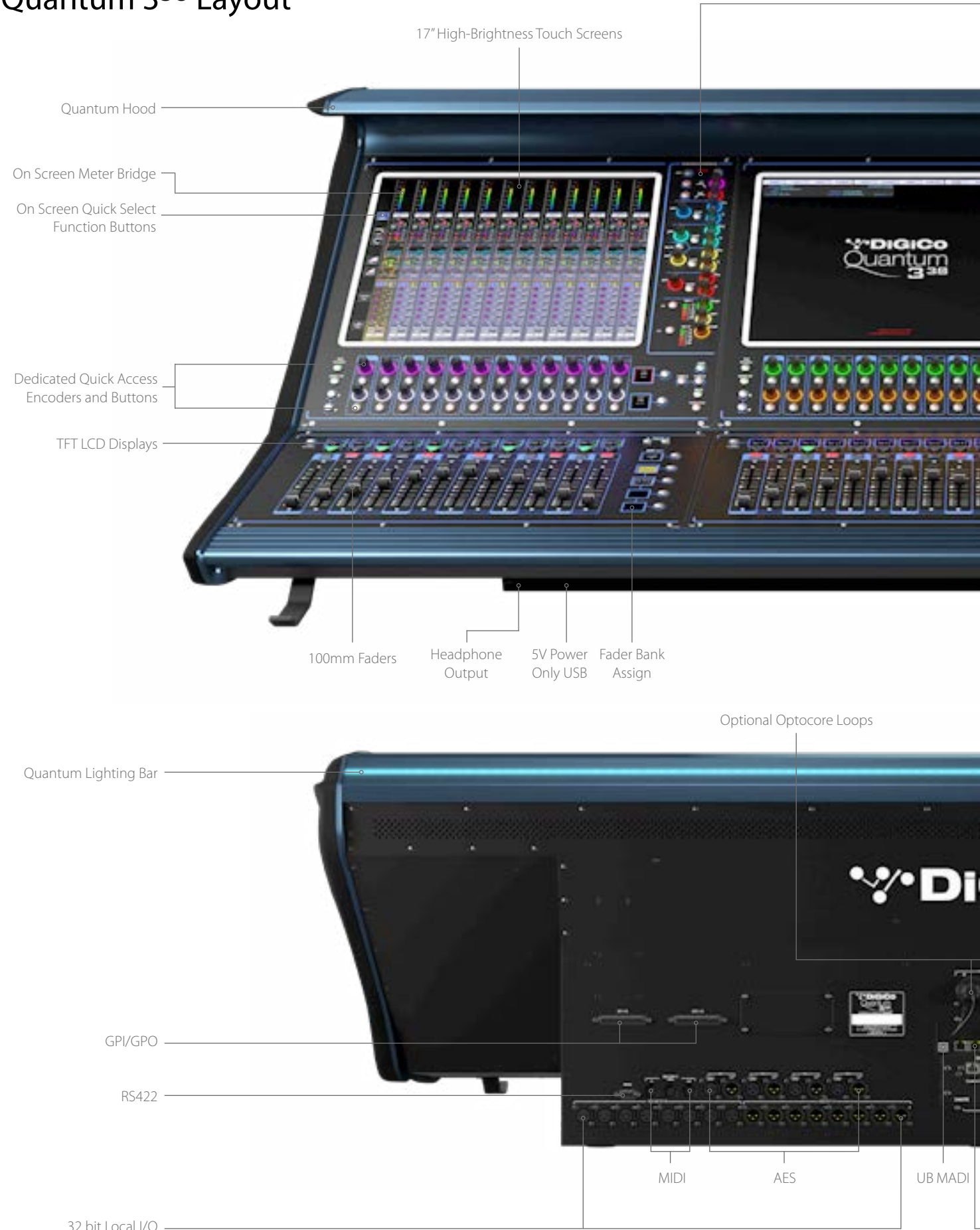
Triple redundant MADI I/O (which can also be configured as 6 MADI I/O at 48kHz), dual DMI card slots, support for dual 2nd generation Optocore loops, built-in UB MADI USB interface, 16 GPIO, MIDI, 4 switched network ports, USB, and a digital Overview Monitor Output. Plus you can add a Waves SoundGrid Interface card giving you an extra 64 I/O for connecting to the SoundGrid Network.

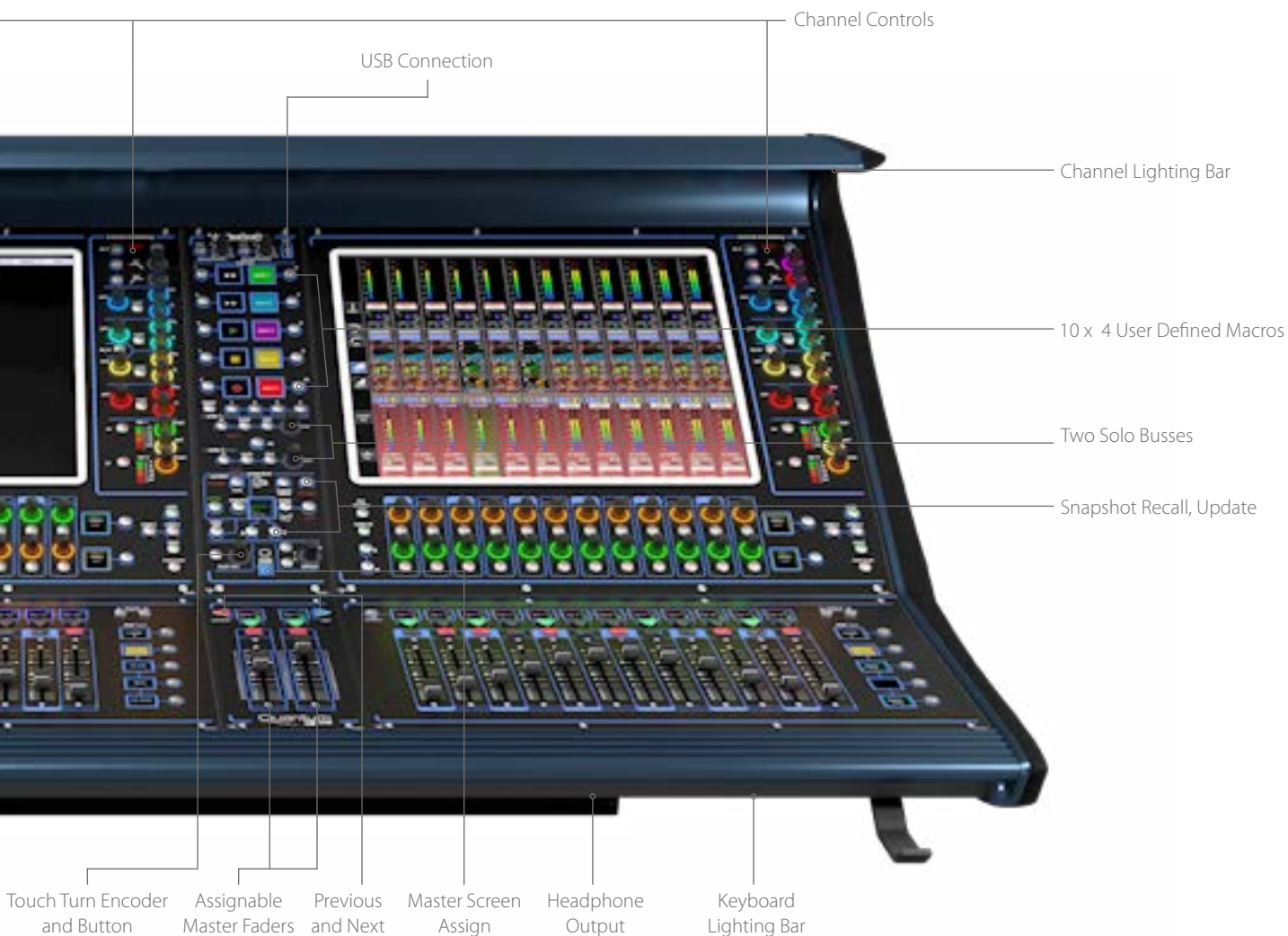


Gold Power

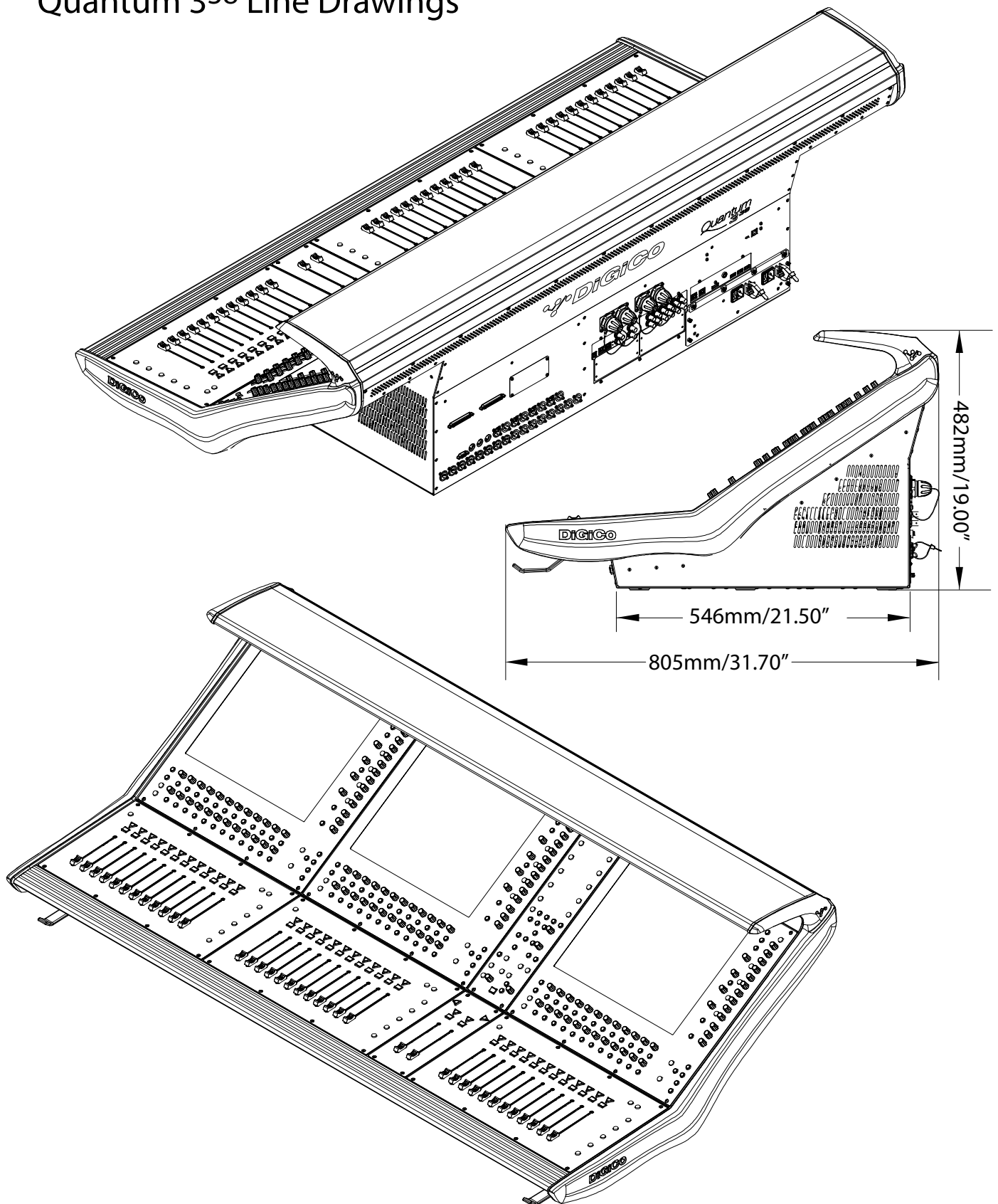
Designed for the rigours of touring, the Quantum338 features dual redundant quick release 500W power supplies. With gold global 12V power bussing and local point-of-load architecture, Quantum338 reinvents power busses for touring consoles and ensures your Quantum338 performs flawlessly at every gig.

Quantum 3³⁸ Layout



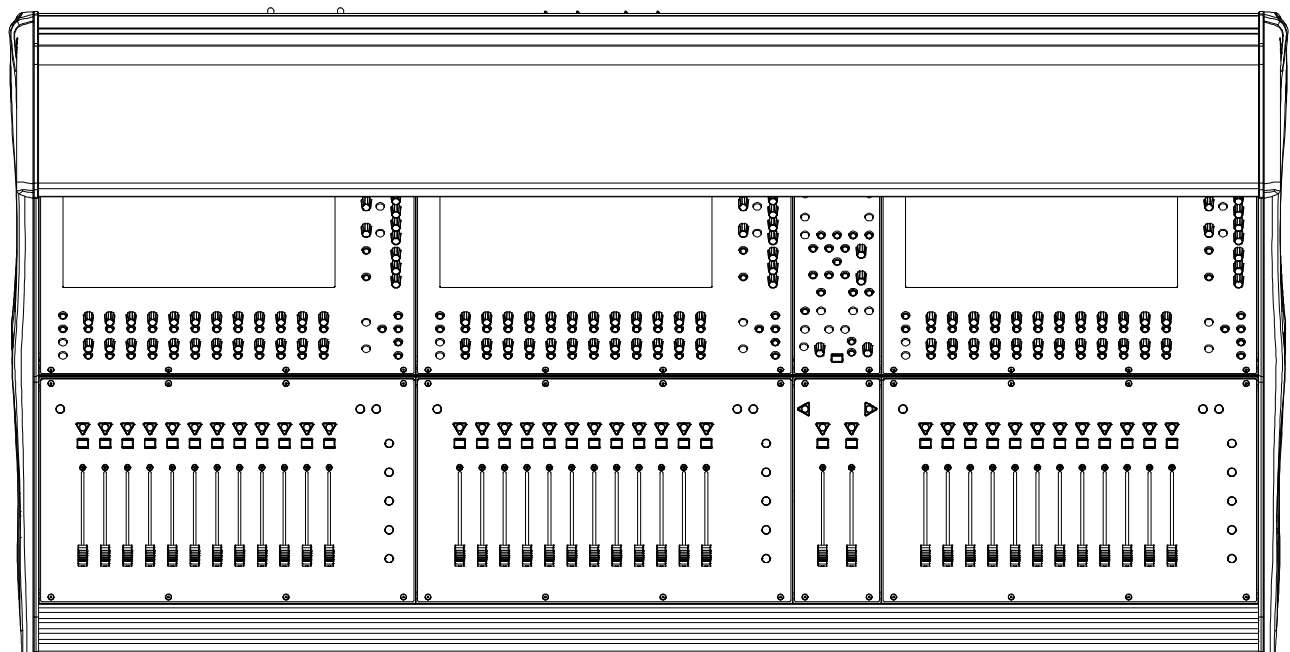
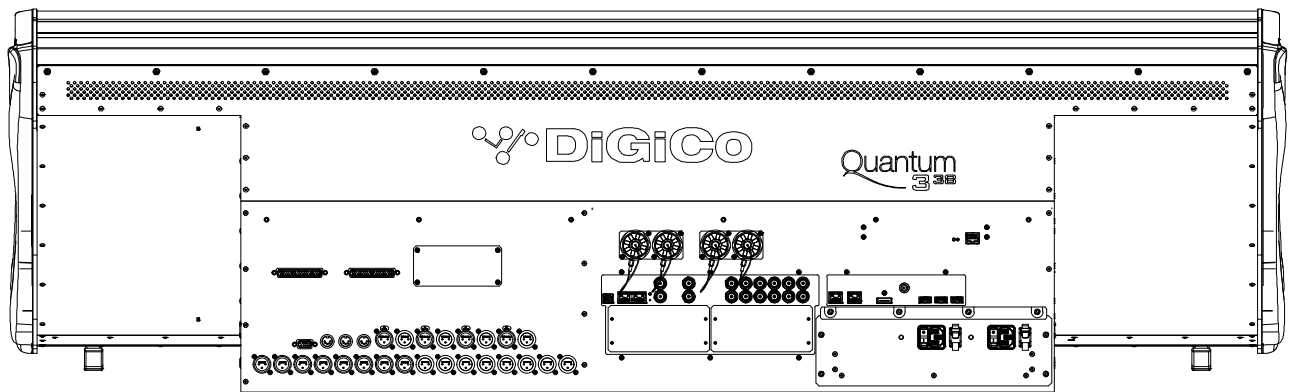
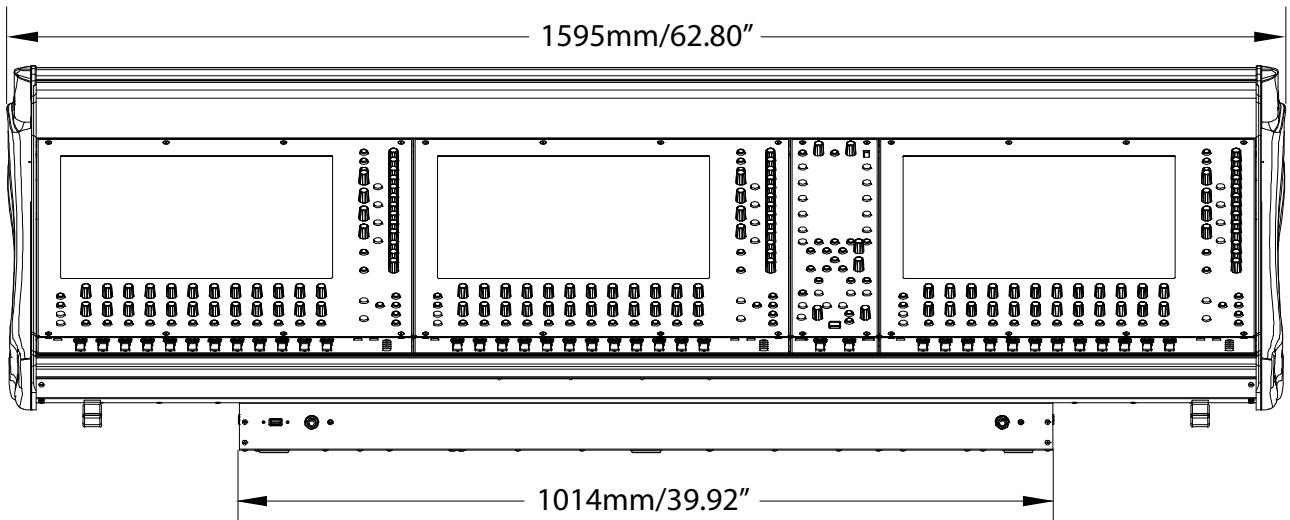


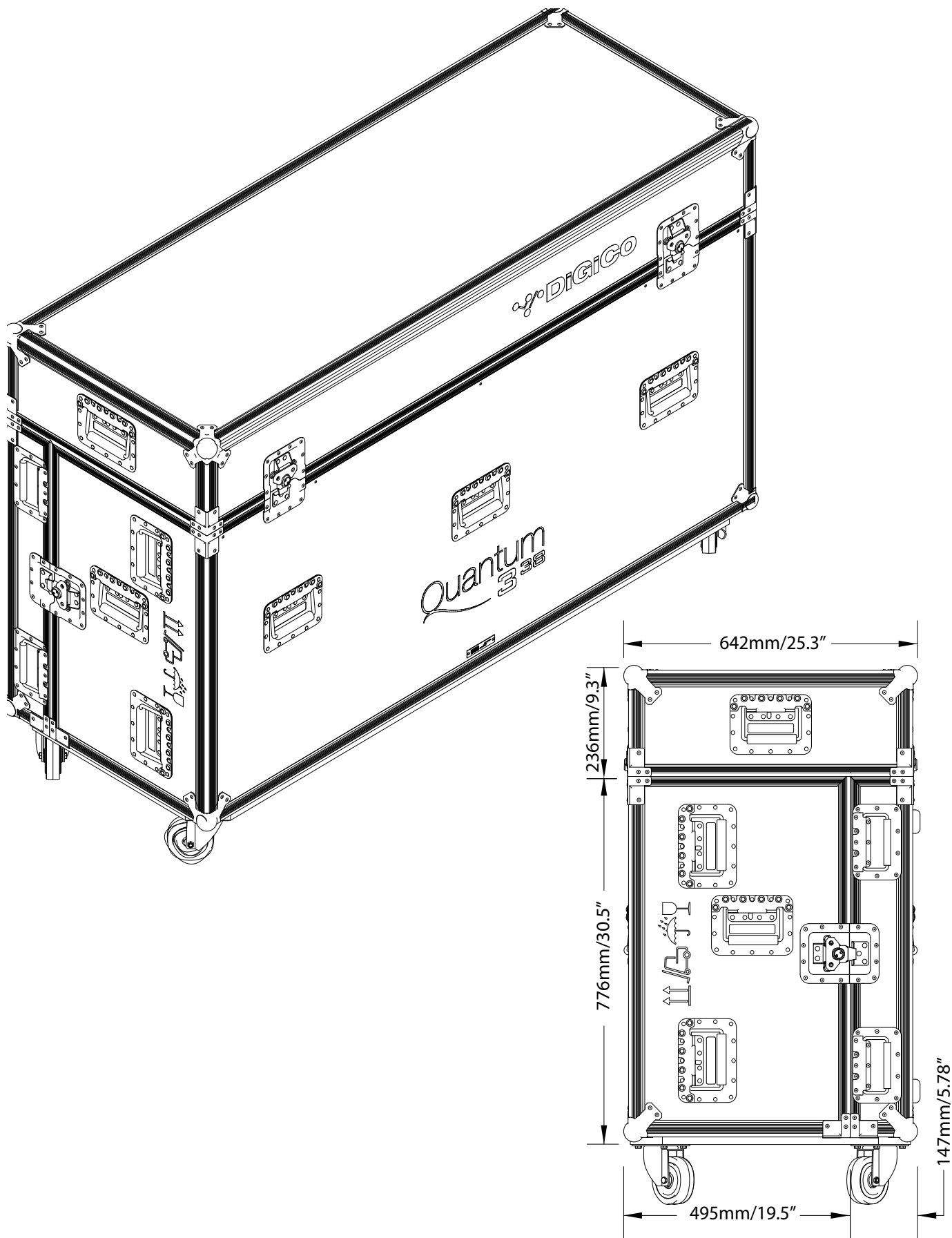
Quantum 3³⁸ Line Drawings



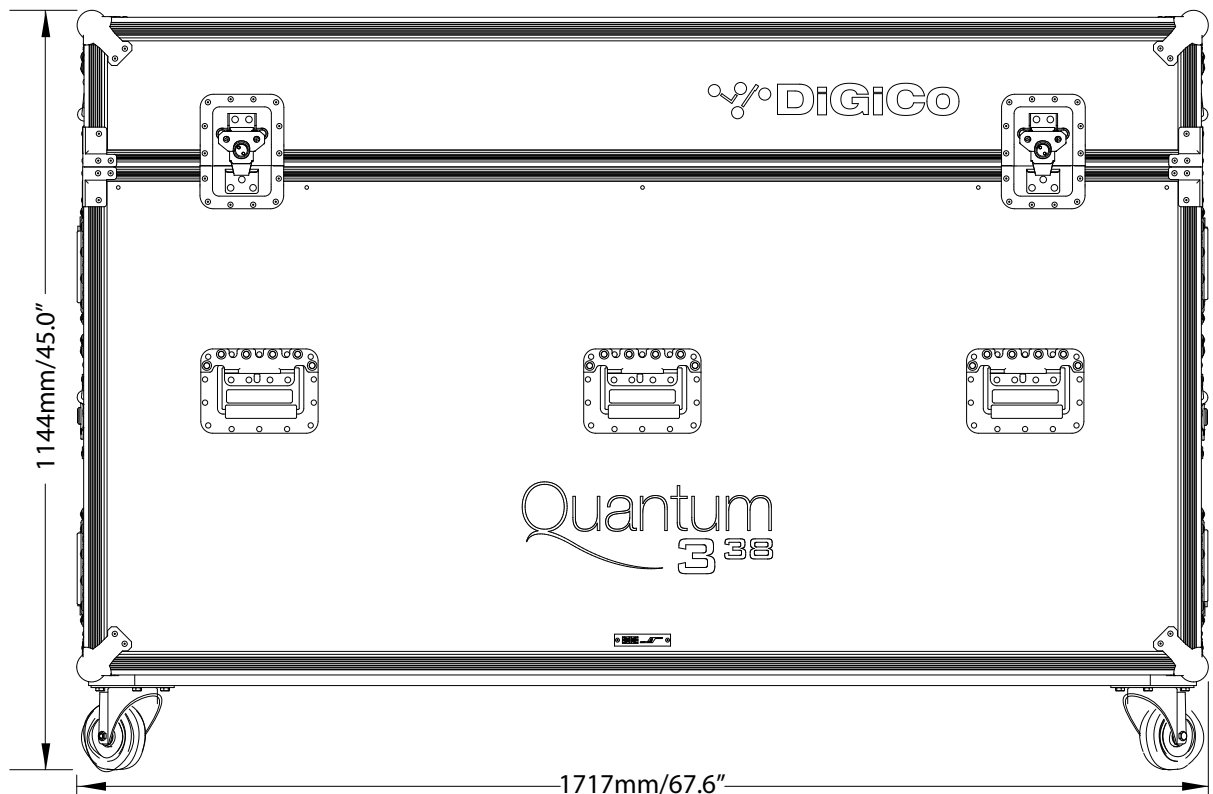
Weights and Dimensions

1595(w) x 805(d) x 482(h). 70Kg
62.80(w) x 31.70(d) x 18.98(h). 154lbs





Quantum 3³⁸ Flight Case Line Drawings



Quantum 3³⁸ Specifications

Quick Reference	
Max no of Input Processing Channels	128*
Max aux / sub-group busses	64 (full processing**)
Matrix (in addition to aux / sub - group)	24 x 24 (full processing**)
Solo busses	2 (with True Solo)
Max no. of inputs - Non optic consoles	640
Max no. of inputs - 1 console on optic loop	1144
Local I/O spec	8x 32bit mic/line, 8x 32bit line outputs, 8x AES/EBU I/O (mono streams)
Max no. of outputs	1144
Max no. of faders	38
Screen	3 x 17" capacitive touch
Ext. overview screen	Yes
I/O expandability	Yes
Insert points / channel	2
Mustard Processing Strips	36
On Board FX	24 + 8 Spice Rack
Graphic Eqs (32-Band)	24
Dynamic EQ	286
Buss 8-band Parametric EQ	Yes
Multiband Compression	286
DiGiTuBes	222
Multi-channels	Yes
VCA - style control groups / Mute Groups	24
Nodal Processing Points	64
Set Spill	Yes
Reorder Busses	Yes
Multi-operator	Yes
Surround	Yes
MADI connectivity	6 x ports or 3 x Redundant ports @ 48k 3 x ports @ 96k
Optocore	Optional (Dual Loop)
Snapshot Offline	Yes
Snapshot Auto-Update	Yes
Sampling rates	48kHz / 96kHz
Signal processing	FPGA, up to 40-bit floating-point
Audio processing and OS location	Surface
Redundant Processing and Computer	Yes (Dual Surface)
Redundant PSUs	Yes
Stage Rack spec	Up to 56 in / 56 out / MADI split x2 (@ 48kHz) D2-Rack (42-32), D-Rack (32-16), DQ-Rack (48-28), MQ-Rack (48-28)
Max no of Racks	22. On 2 loops = 36
Rack Interface	MADI / Optocore / RJ45 CAT5E (with optional DMI card)
Connector type for racks	BNC / HMA optics / ST / OpticalCON / RJ45 CAT5E (With Optional DMI Card)
Rack sharing FOH/MON	Gain Tracking
Offline Software	Yes
DMI Slots	2
UB MADI (48 ch)	Yes
Optional Software Extensions	Theatre
Dimensions (mm) and Weight (kg)	1595(w) x 805(d) x 482(h). 70Kg
Dimensions (inches) and Weights (lbs)	62.80(w) x 31.70(d) x 18.98(h). 154lbs

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

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

General Specifications

Faders	38 x 100mm touch-sensitive, motorised
Screens	3 x 17" LCD high - resolution touch screens
Input Channels	128
Busses	Up to 64 plus masters Aux / Group busses with full processing Mono / Stereo / LCR
Matrix	Up to 24 Input / 24 Outputs with full processing
Control Groups	Up to 24, selectable for VCA-style, Moving fader, Mute Group
Graphic Eq	24 x 32-band, Gain +/- 12dB
Internal FX	Up to 24 stereo effects comprising of reverbs and delay/chorus/pitch/enhancer
Spice Rack	8 mono / 4 stereo Rack Slots
Mustard Proc	36 Processing Strips
Nodal Proc	64 Nodal Processors
Local I/O	8 x 32bit mic/line I/O 8 x AES I/O
MADI interface	3 Interfaces, BNC connectivity
Optic interface	Optional dual loop
Sampling rates	48kHz / 96kHz
GPI/GPO	16
Ext Sync	Wordclock, AES, MADI, Optics
Physical Dimensions	1595 mm (w) x 805mm (d) x 482mm (h)
Weight	70Kg (198Kg with flightcase)
Power Requirements	100V-240V, 50-60Hz, 295VA

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
AD/DA Conversion	32-bit Converter Bit Depth
Frequency response	+/- 0.15dB (20Hz – 20kHz)
THD	<0.002% @ unity gain, 0dB input @ 1kHz
Channel Separation	Better than 120dB (40Hz – 15kHz)
Residual output noise	<100 dBu Typical (20Hz - 20kHz)
Microphone Input	Better than -128 dB 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	Up to 1.3 sec
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/hishelf, hi/ hishelf) on/off Freq; 20 – 20kHz Gain; +/- 18dB Q: 0.1 -20 (parametric) / 0.10- 0.85 (shelf) Dynamic Eq on/off Over/under Band on/off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1
Dynamics 1	Single or multiband (3-band)
Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz Knee : hard, med, soft
De-Esser	Threshold : 20us – 20ms Release : 1ms – 100ms Ratio : 1:1 – 50:1 Ess-band : Listen on/off Ess-band filter freq / width: 20Hz – 20kHz
Dynamics 2	on/off
Gate / Ducker	Threshold; -60 – 0dB Attack; 50us – 100ms Hold; 2ms – 2s Release; 5ms – 5s Range; 0 - 90dB Key; Any source Key listen Freq/width; 20 – 20kHz
Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option

	Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz s/c source : Any source s/c listen : on/off s/c filter freq / width: 20Hz – 20kHz
Insert B	(post eq/dyn) On/off
EQ/Dyn order	EQ/Dyn or Dyn/EQ
Mute	Channel mute / hard mute
Solo	Solo Buss 1 / Solo Buss 2 / Both, Auto solo
Channel Safe	Input, eq, dyn, aux, pan, fade/ mute, inserts, buss, directs, full safe
Output Routing	Buss, Insert A, Insert B, FX Direct: on/off, pre-mute / pre- fade / post-fade, level +/- 18dB
Fader	100mm motorised fader ∞ to +10dB

Processing Channel Specification

Aux / Group / Matrix Output

Name	User-defined / Presets
Phase	Normal / Reverse
Digital Trim	-20 to +60dB
Delay	Up to 1.3 sec
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/hishelf, hi/ hishelf) on/off Freq; 20 – 20kHz Gain; +/- 18dB Q: 0.1 -20 (parametric) / 0.10- 0.85 (shelf) Dynamic Eq on/off Over/under Band on/off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1
Dynamics 1	Single or multiband (3-band)
Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz Knee : hard, med, soft
De-Esser	Threshold : 20us – 20ms

	Release : 1ms – 100ms Ratio : 1:1 – 50:1 Ess-band : Listen on/off Ess-band filter freq / width: 20Hz – 20kHz
Dynamics 2	on/off
Gate / Ducker	Threshold; -60 – 0dB Attack; 50us – 100ms Hold; 2ms – 2s Release; 5ms – 5s Range; 0 - 90dB Key; Any source Key listen Freq/width; 20 – 20kHz
Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz s/c source : Any source s/c listen : on/off s/c filter freq / width: 20Hz – 20kHz
Insert B	(post eq/dyn) On/off
EQ/Dyn order	EQ/Dyn or Dyn/EQ
Mute	Channel mute / hard mute
Solo	Solo Buss 1 / Solo Buss 2 / Both, Auto solo
Channel Safe	trim, eq, dyn, fade/mute, inserts, outputs, full safe
Output Routing	Outputs, Insert A, Insert B, FX
Fader	100mm motorised fader ∞ to + 10dB

Mustard Processing

Preamplifier Tubes	Variable Drive Odd / Even / Overdrive / Distortion / Crunch / Hi Distortion Presets Variable Output Gain
Preamplifier Amp	Variable Drive Odd/Even 1st stage Harmonics Bias & Saturate control Off/Odd/Even 2nd stage harm Variable HF Boost Variable Output Gain
Equalisation	4 band EQ: Parametric (lowshelf / bell, lower-mid bell /all-pass, upper-mid bell / all- pass, hishelf / bell) HPF & LPF 4th order filters
Dynamics 1	Classic VCA Compressor Vintage VCA Compressor Optical Compressor FET Limiter
Dynamics 2	Gate / Ducker




1 BRACKET 1 SCREEN


TFT METERS


QUANTUM LIGHT BAR


HEADPHONE SUPPORT

UB ▶ MADI
RECORDING


DMI


ASSIGNABLE
MASTER FADER



Quantum 2²⁵

The DiGiCo Quantum2²⁵ takes the now familiar Quantum features and brings the power of Quantum in a compact and robust worksurface.

Quantum2²⁵ is the next step in the DiGiCo Quantum range of consoles. Delivering 72 Input channels into 36 busses, with additional processing for Master busses and Matrices, Quantum2²⁵ brings advanced processing functions and an ultimately flexible workflow to a wider user base.

Quantum2²⁵ incorporates the successful design features found on the Quantum3³⁸ with built-in keyboard lighting, a 17" high brightness display and individual TFT channel displays. The worksurface also features 24 channel faders plus a dedicated Master faders complete with high resolution metering.

With all of the Quantum features seen in its larger counterparts, including our patented Nodal Processing, Mustard Processing, Spice Rack and True Solo, Quantum2²⁵ provides you with all the tools you need.

Quantum2²⁵. Ready when you are.



Mounting Bracket

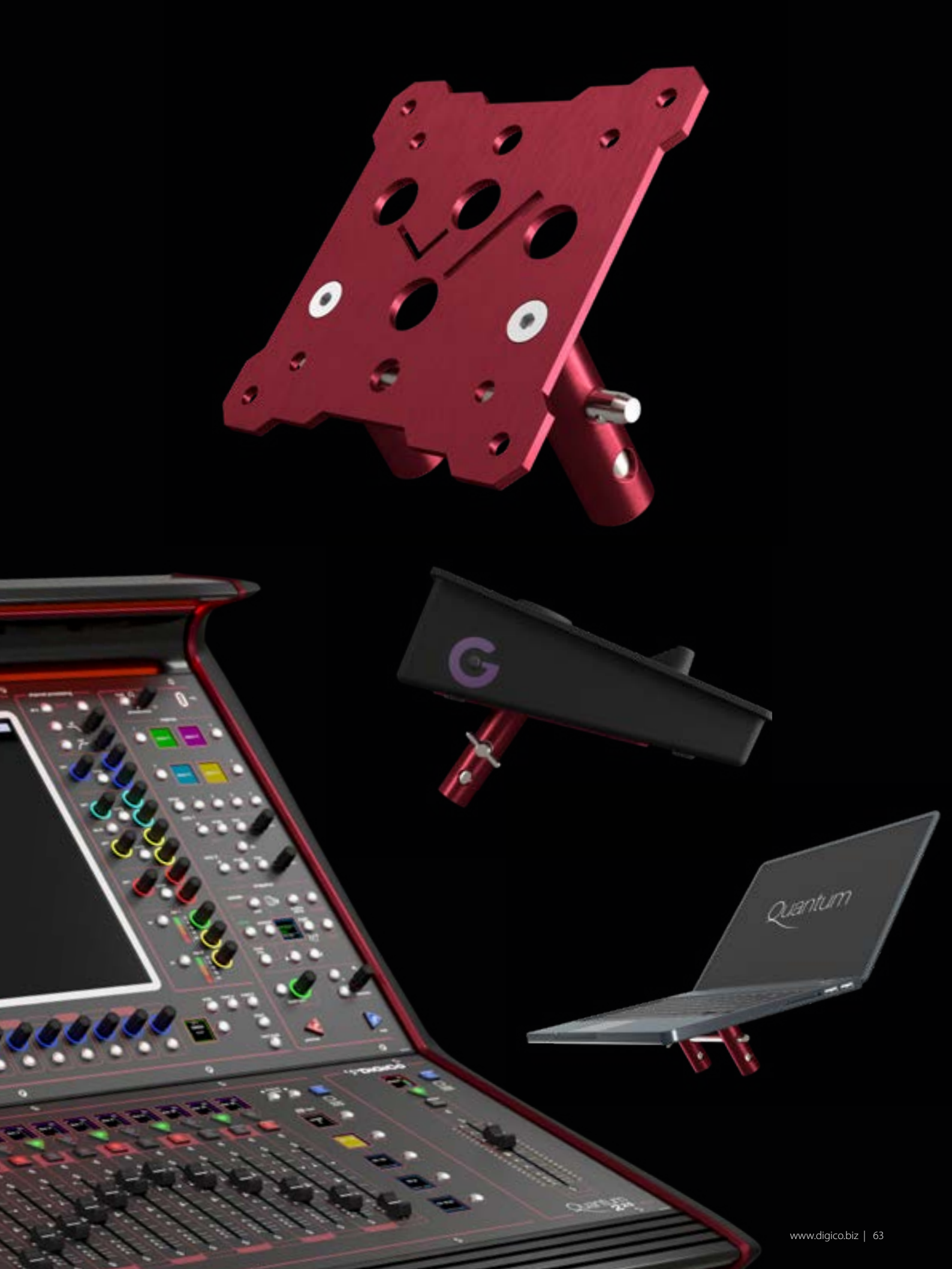
Adapt and customise your worksurface

The unique feature of the Quantum225 is its custom designed, multi-purpose mounting bracket that attaches quickly and easily to the left-hand panel of the console. Mount a screen* to transform the console into a dual screen console, or a KLANG:kontroller for the perfect monitoring solution with all of the immersive control you need. You could even mount a laptop/script tray to add creative control and make your work station even more compact.

The skillfully designed mounting bracket securely attaches to your console with a quick release rigging pin. It can also be mounted at 2 heights and 2 angles, ensuring complete adaptability for any situation.

*Recommended screen is the Planar® Helium™ PCT2235





DiGiCo HOME

Just like Quantum338, Quantum225 features DiGiCo HOME. Designed to make operation, configuration and routine maintenance easier, DiGiCo HOME is a launcher portal that incorporates quick links to console applications and configuration setups.



Dark Application

The sleek dark mode application with its flat high contrast graphics refreshes the look of the Quantum application while helping to reduce eye fatigue and improve readability.

On Screen Quick Select Buttons

DiGiCo have always designed consoles with speed of use in mind, and Quantum225 is no exception to that. By making use of the newer 17" super bright touchscreens seen on Quantum338, Quantum225 is also able to benefit from the on screen Quick Select buttons immediate reassignment of the underscreen rotary controls. Quickly reach all of the controls you need, when you need them.





Connectivity

Double redundant MADI I/O (which can also be configured as 4 MADI I/O at 48kHz), dual DMI card slots, support for dual 2nd generation Optocore loops, built-in UB MADI USB interface, 2 GPIO, MIDI, 4 switched network ports, USB, and a digital Overview Monitor Output. Plus you can add a Waves SoundGrid Interface card giving you an extra 64 I/O for connecting to the SoundGrid Network. And that's not all. The Quantum225 offers 8 analogue mic inputs, 8 analogue line outputs and 2 AES I/O (4 channels).

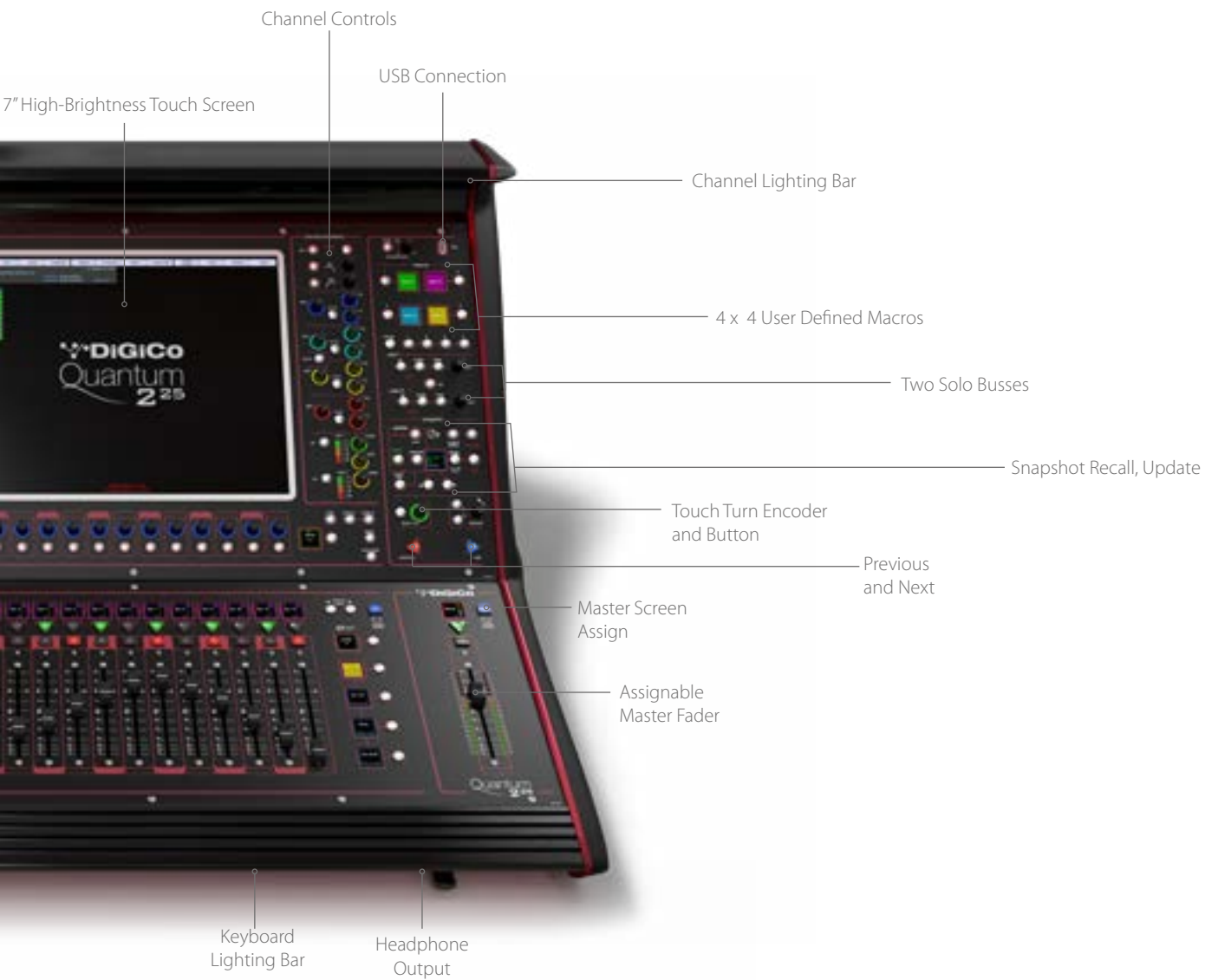


Gold Power

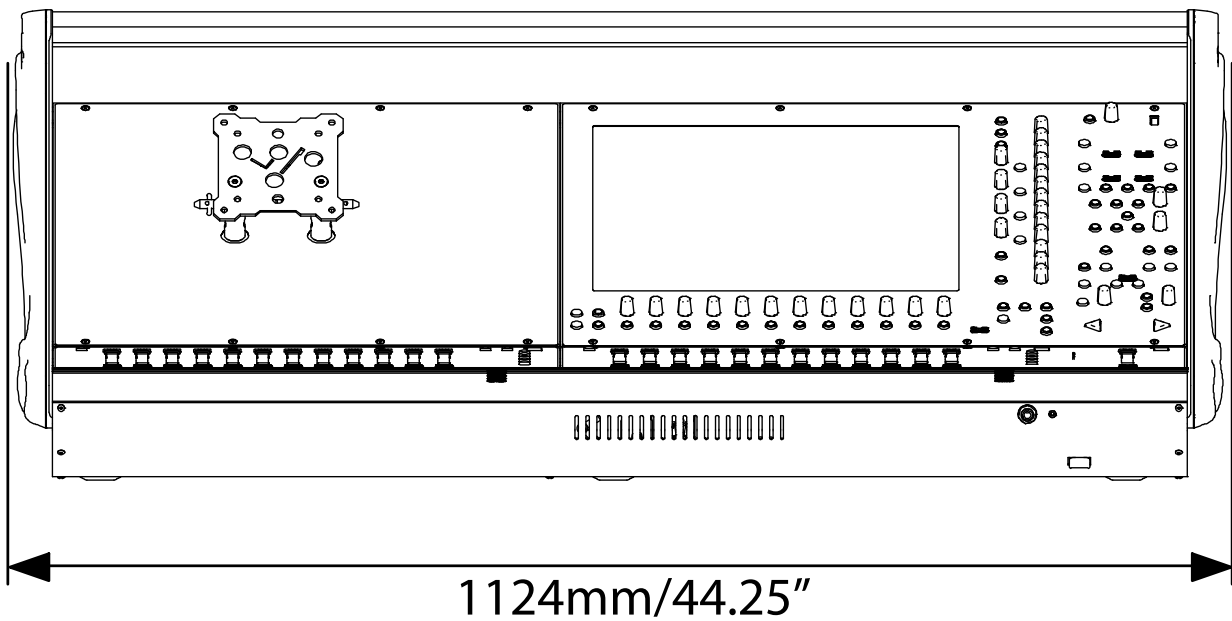
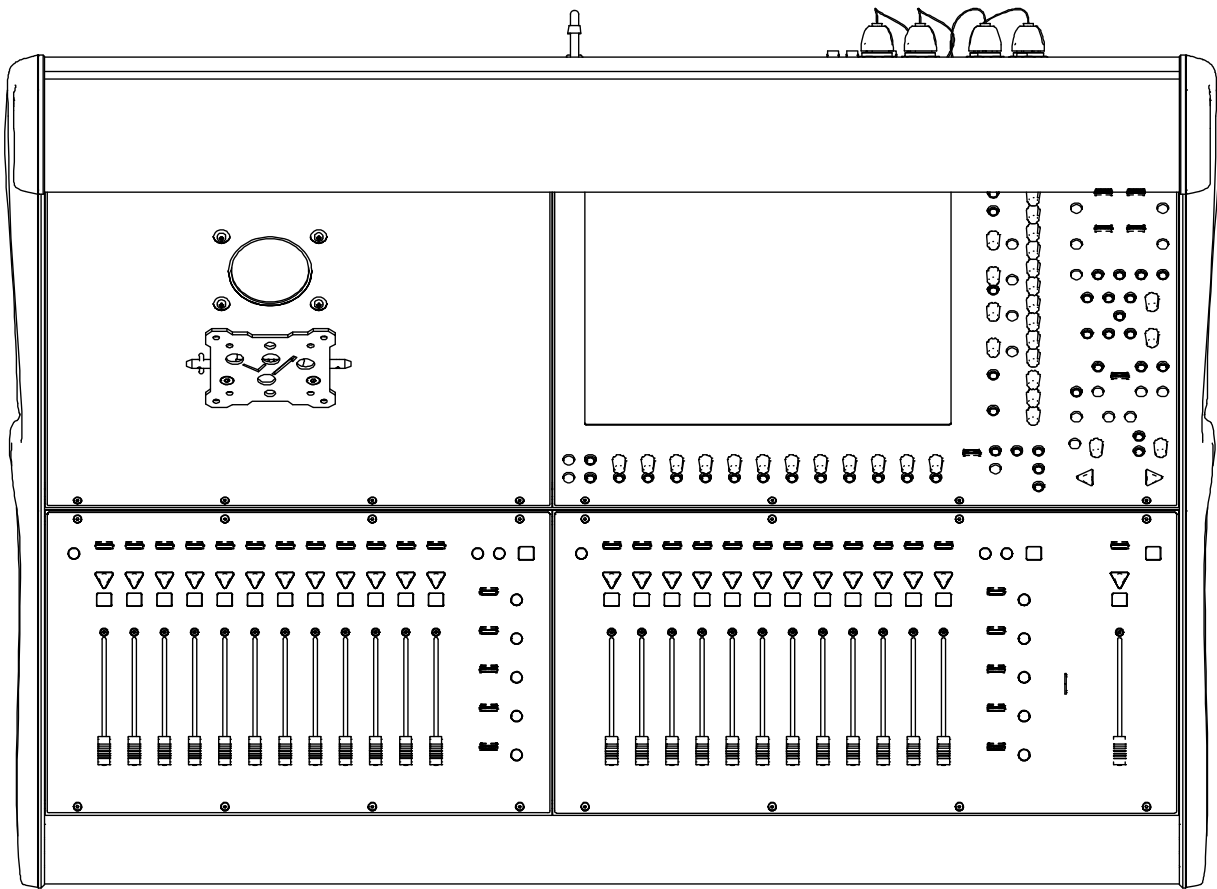
Designed for the rigours of touring, the Quantum225 features dual redundant 500W power supplies. With gold global 12V power bussing and local point-of-load architecture, Quantum225 reinvents power busses for touring consoles and ensures your Quantum225 performs flawlessly at every gig.

Quantum 2²⁵ Layout

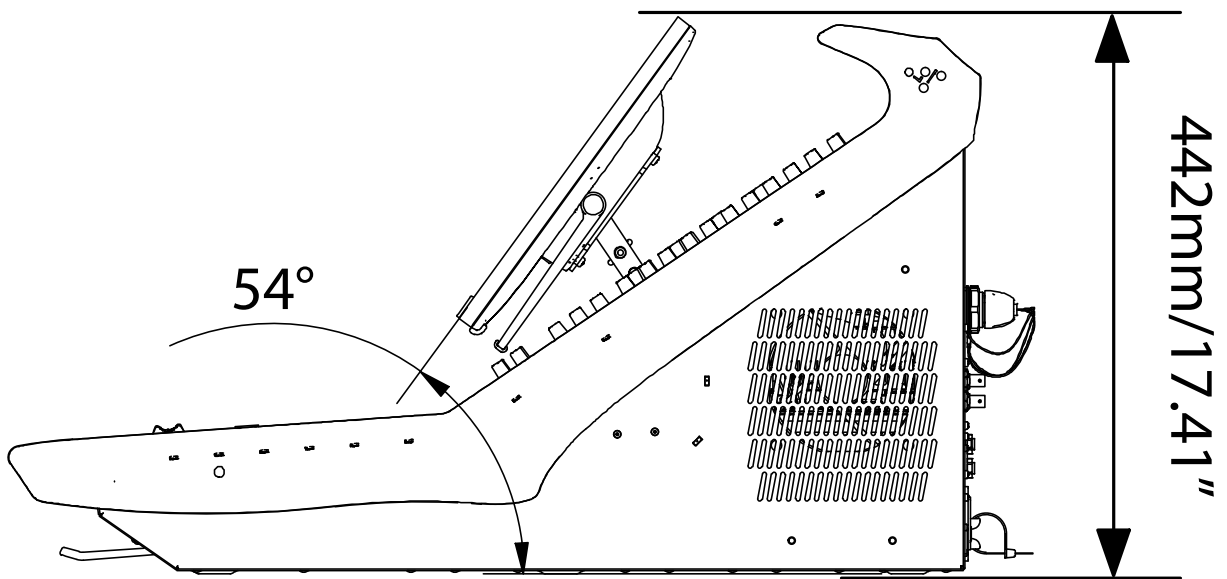
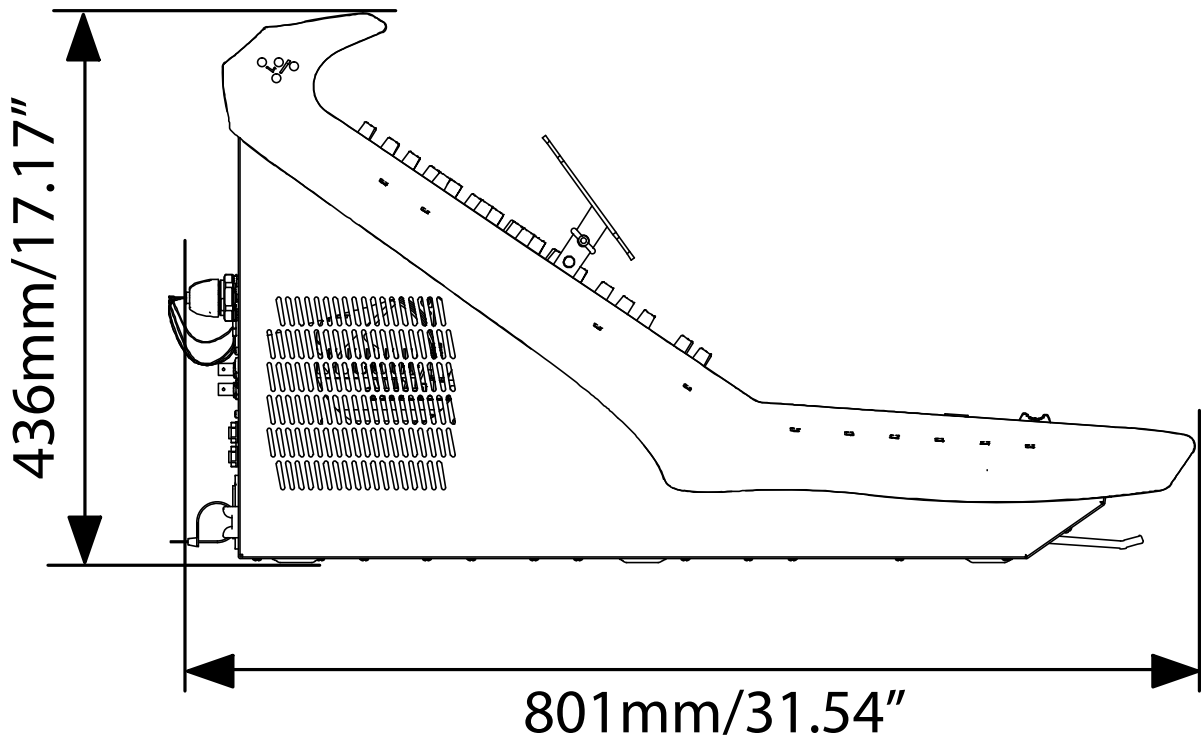




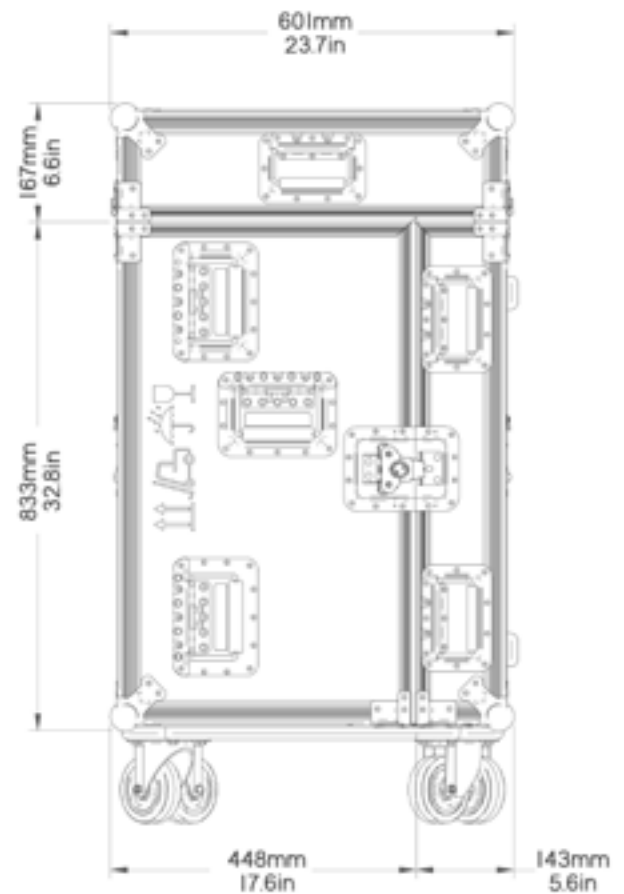
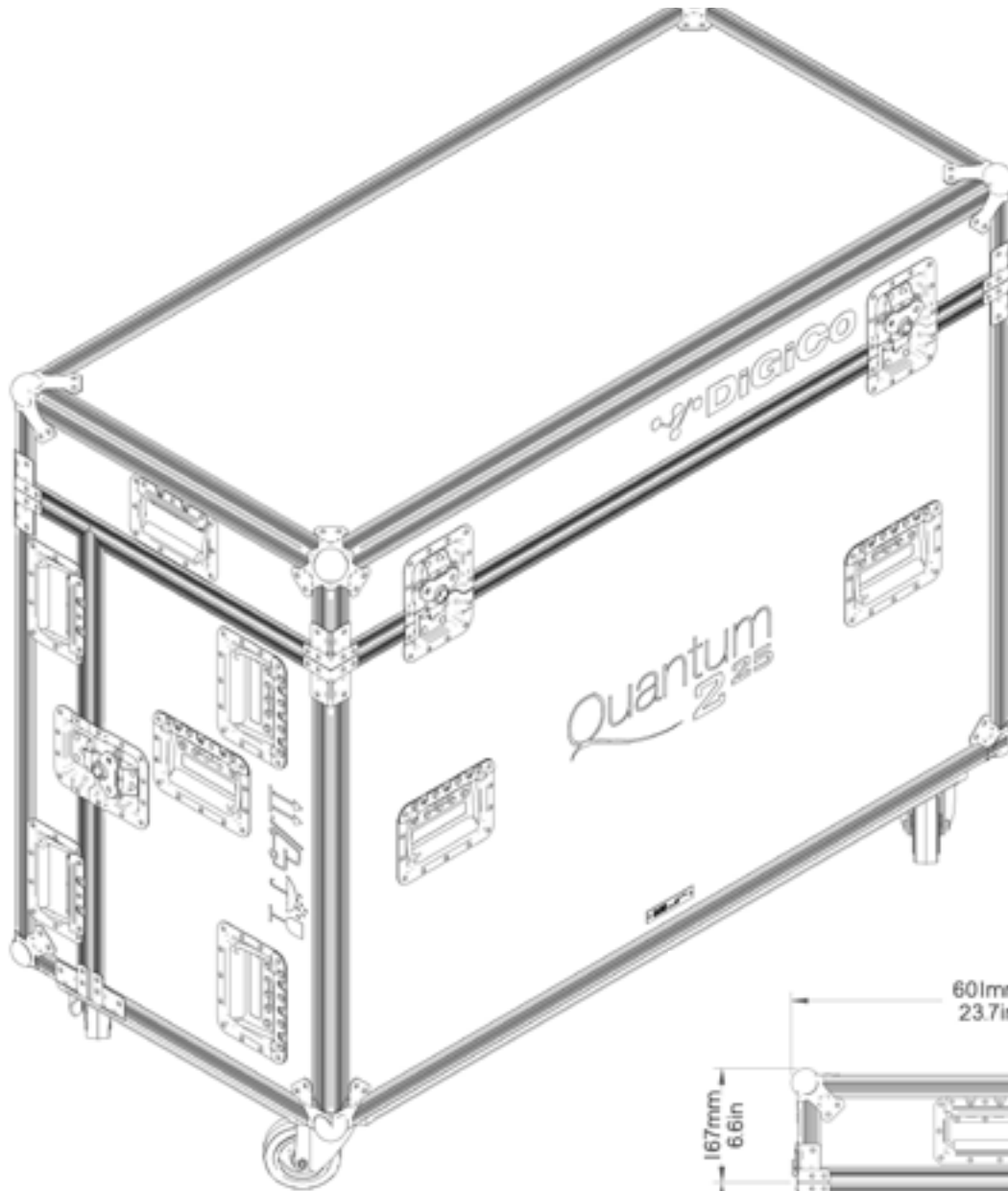
Quantum 2²⁵ Line Drawings



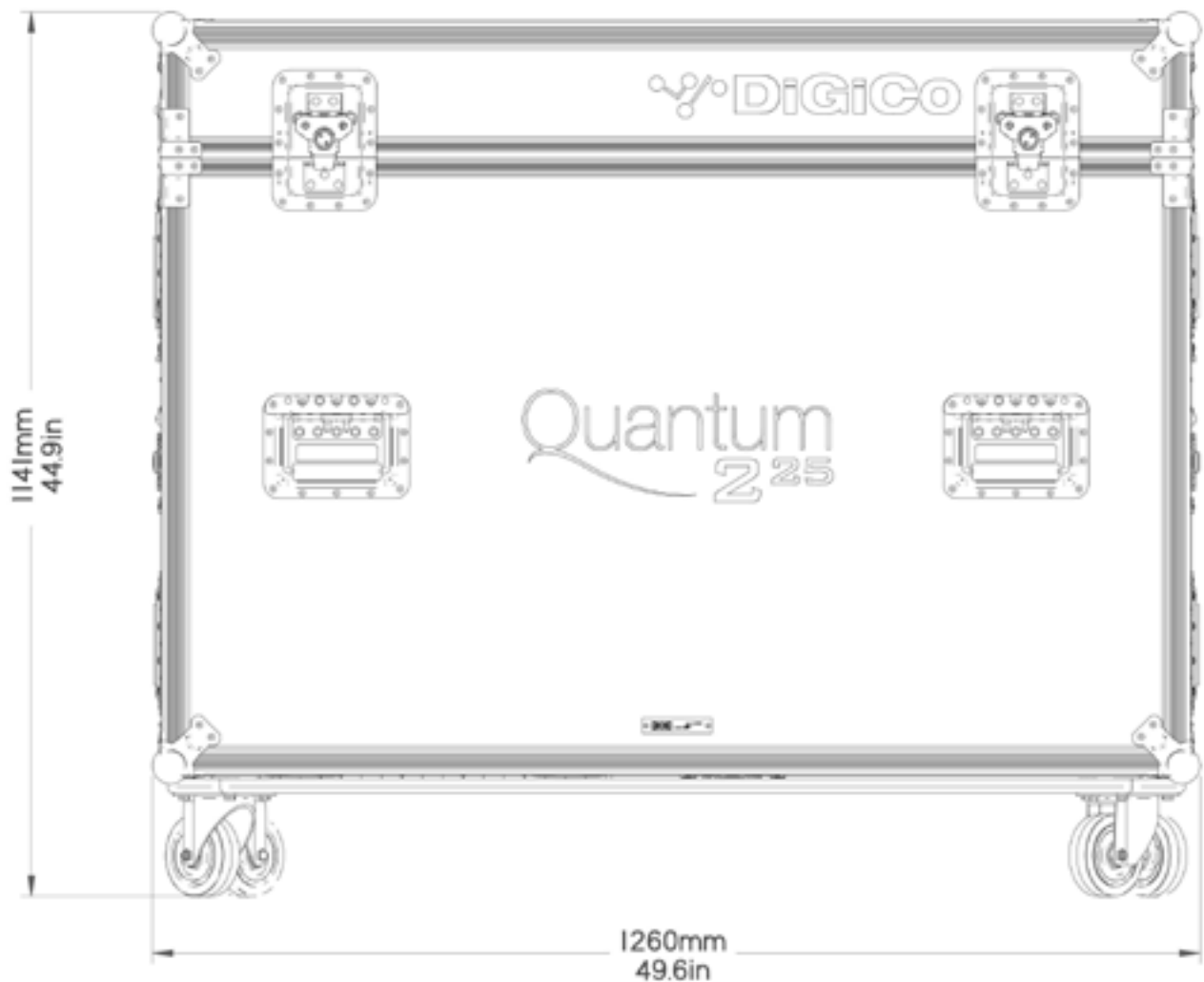
Weights and Dimensions
1124(w) x 801(d) x 436(h). 43Kg
44.25(w) x 31.54(d) x 17.17(h). 95lbs



With 22" Monitor



Quantum 2²⁵ Flight Case Line Drawings



Quantum 2²⁵ Specifications

Quick Reference	
Max no of Input Processing Channels	72*
Max aux / sub-group busses	36 (full processing**)
Matrix (in addition to aux / sub - group)	12 x 12 (full processing**)
Solo busses	2 (with True Solo)
Max no. of inputs - Non optic consoles	508
Max no. of inputs - 1 console on optic loop	1012
Local I/O spec	8x mic/line, 8x line outputs, 4x AES/EBU I/O (mono streams)
Max no. of outputs	1012
Max no. of faders	25
Screen	1 x 17" capacitive touch
Ext. overview screen	Yes
I/O expandability	Yes
Insert points / channel	2
Mustard Processing Strips	24
On Board FX	12 + 6 Spice Rack
Graphic Eqs (32-Band)	16
Dynamic EQ	155
Buss 8-band Parametric EQ	Yes
Multiband Compression	155
DiGiTuBes	123
Multi-channels	Yes
VCA - style control groups / Mute Groups	12
Nodal Processing Points	32
Set Spill	Yes
Reorder Busses	Yes
Multi-operator	Yes
Surround	No
MADI connectivity	4 x ports or 2 x Redundant ports @ 48k 2 x ports @ 96k
Optocore	Optional (Dual Loop)
Snapshot Offline	Yes
Snapshot Auto-Update	Yes
Sampling rates	48kHz / 96kHz
Signal processing	FPGA, up to 40-bit floating-point
Audio processing and OS location	Surface
Redundant Processing and Computer	Yes (Dual Surface)
Redundant PSUs	Yes
Stage Rack spec	Up to 56 in / 56 out / MADI split x2 (@ 48kHz) D2-Rack (42-32), D-Rack (32-16), DQ-Rack (48-28), MQ-Rack (48-28)
Max no of Racks	20. On 2 loops = 34
Rack Interface	MADI / Optocore / RJ45 CAT5E / Dante (with optional DMI card)
Connector type for racks	BNC / HMA optics / ST / OpticalCON / RJ45 CAT5E (With Optional DMI Card)
Rack sharing FOH/MON	Gain Tracking
Offline Software	Yes
DMI Slots	2
UB MADI (48 ch)	Yes
Optional Software Extensions	n/a
Dimensions (mm) and Weight (kg)	1124(w) x 801(d) x 436(h). 43Kg
Dimensions (inches) and Weights (lbs)	44.25(w) x 31.54(d) x 17.17(h). 94.8lbs

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

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

General Specifications

Faders	25 x 100mm touch-sensitive, motorised
Screens	1 x 17" LCD high - resolution touch screens
Input Channels	72
Busses	Up to 36 plus masters Aux / Group busses with full processing Mono / Stereo / LCR
Matrix	Up to 12 Input / 12 Outputs with full processing
Control Groups	Up to 12, selectable for VCA-style, Moving fader, Mute Group
Graphic Eq	16 x 32-band, Gain +/- 12dB
Internal FX	Up to 12 stereo effects comprising of reverbs and delay/chorus/pitch/enhancer
Spice Rack	6 mono / 3 stereo Rack Slots
Mustard Proc	24 Processing Strips
Nodal Proc	32 Nodal Processors
Local I/O	8 x mic/line I/O 4 x AES I/O
MADI interface	2 Interfaces, BNC connectivity
Optic interface	Optional dual loop
Sampling rates	48kHz / 96kHz
GPI/GPO	2
Ext Sync	Wordclock, MADI, Optics
Physical Dimensions	1124mm (w) x 801mm (d) x 436mm (h)
Weight	43Kg (138Kg with flightcase)
Power Requirements	100V-240V, 50-60Hz, 255VA

Audio Specification

Sample rate	96kHz / 48kHz
Processing delay	TBC
Internal processing	Up to 40-bit, floating point
AD/DA Conversion	24-bit Converter Bit Depth
Frequency response	TBC
THD	TBC
Channel Separation	TBC
Residual output noise	TBC
Microphone Input	TBC
Maximum Output Level	TBC
Maximum Input Level	TBC

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	Up to 1.3 sec
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/hishelf, hi/hishelf) on/off Freq; 20 – 20kHz Gain; +/- 18dB Q: 0.1 -20 (parametric) / 0.10-0.85 (shelf) Dynamic Eq on/off Over/under Band on/off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1
Dynamics 1 Compressor	Single or multiband (3-band) on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz Knee : hard, med, soft
De-Esser	Threshold : 20us – 20ms Release : 1ms – 100ms Ratio : 1:1 – 50:1 Ess-band : Listen on/off Ess-band filter freq / width: 20Hz – 20kHz
Dynamics 2	on/off
Gate / Ducker	Threshold; -60 – 0dB Attack; 50us – 100ms Hold; 2ms – 2s Release; 5ms – 5s Range; 0 - 90dB Key; Any source Key listen Freq/width; 20 – 20kHz
Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz s/c source : Any source s/c listen : on/off s/c filter freq / width: 20Hz –

	20kHz
Insert B	(post eq/dyn) On/off
EQ/Dyn order	EQ/Dyn or Dyn/EQ
Mute	Channel mute / hard mute
Solo	Solo Buss 1 / Solo Buss 2 / Both, Auto solo
Channel Safe	Input, eq, dyn, aux, pan, fade/mute, inserts, buss, directs, full safe
Output Routing	Buss, Insert A, Insert B, FX Direct: on/off, pre-mute / pre-fade / post-fade, level +/- 18dB
Fader	100mm motorised fader ∞ to +10dB

Processing Channel Specification

Aux / Group / Matrix Output

Name	User-defined / Presets
Phase	Normal / Reverse
Digital Trim	-20 to +60dB
Delay	Up to 1.3 sec
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/hishelf, hi/hishelf) on/off Freq; 20 – 20kHz Gain; +/- 18dB Q: 0.1 -20 (parametric) / 0.10-0.85 (shelf) Dynamic Eq on/off Over/under Band on/off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1
Dynamics 1 Compressor	Single or multiband (3-band) on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz Knee : hard, med, soft
De-Esser	Threshold : 20us – 20ms Release : 1ms – 100ms Ratio : 1:1 – 50:1 Ess-band : Listen on/off Ess-band filter freq / width: 20Hz – 20kHz
Dynamics 2	on/off

Gate / Ducker	Threshold; -60 – 0dB Attack; 50us – 100ms Hold; 2ms – 2s Release; 5ms – 5s Range; 0 - 90dB Key; Any source Key listen Freq/width; 20 – 20kHz
Compressor	on / off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 10ms – 10s Ratio; 1:1 – 50:1 Gain; 0 to +40dB with Autogain option Link; any channel / buss Hi crossover; 20Hz – 20kHz Lo crossover; 20Hz – 20kHz s/c source : Any source s/c listen : on/off s/c filter freq / width: 20Hz – 20kHz
Insert B	(post eq/dyn) On/off
EQ/Dyn order	EQ/Dyn or Dyn/EQ
Mute	Channel mute / hard mute
Solo	Solo Buss 1 / Solo Buss 2 / Both, Auto solo
Channel Safe	trim, eq, dyn, fade/mute, inserts, outputs, full safe
Output Routing	Outputs, Insert A, Insert B, FX
Fader	100mm motorised fader ∞ to +10dB

Mustard Processing

Preamplifier Tubes	Variable Drive Odd / Even / Overdrive / Distortion / Crunch / Hi Distortion Presets Variable Output Gain
Preamplifier Amp	Variable Drive Odd/Even 1st stage Harmonics Bias & Saturate control Off/Odd/Even 2nd stage harm Variable HF Boost Variable Output Gain
Equalisation	4 band EQ: Parametric (lowshelf / bell, lower-mid bell /all-pass, upper-mid bell / all-pass, hishelf / bell) HPF & LPF 4th order filters
Dynamics 1	Classic VCA Compressor Vintage VCA Compressor Optical Compressor FET Limiter
Dynamics 2	Gate / Ducker



Quantum Comparison

Max no. of Input Channels*
Max aux / sub-group busses (full processing**)
Surround
Matrix (in addition to aux / sub - group) (full processing**)
Solo busses
Max no. of inputs - Non optic consoles
Max no. of inputs - 1 console on single optic loop
Local I/O spec
Max no. of outputs
Max no. of faders
Screens
Ext. overview screen
I/O expandability
Insert points / channel
Mustard Processing Strips
On Board FX
Graphic Eqs (32-Band)
Dynamic EQ
Buss 8-band Parametric EQ
Multiband Compression
DiGiTuBes
Multi-channels
VCA - style Control Groups/Mute Groups
Set Spill
Nodal Processing Points
True Solo
Reorder Busses
Multi-operator
MADI connectivity
Optocore
Snapshot Offline
Snapshot Auto-Update
Sampling rates
Signal processing
Audio processing and OS location
Redundant Processing and Computer
Redundant PSU's
Stage Rack spec
Max no of Racks
Rack Interface
Connector type for racks
Rack sharing FOH/MON
Offline Software
Virtual Soundcheck
DMI Slots
UB MADI (48ch)
Dimensions (mm) and Weight(kg)
Dimensions (inches) and Weight (lbs)

* Full Processing - Includes Delay

** Full Processing - Includes Delay



Quantum 7 / Quantum 7T / Quantum 7B	Quantum 5 / Quantum 5B	Quantum338 / Quantum338T	Quantum225
256	256	128	72
128	128	64	36
Yes	Yes	Yes	No
48 x 48	36 x 36	24 x 24	12 x 12
2	2	2	2
N/A	N/A	640	508
1281	1272	1144	1012
12x mic/line, 12x line outputs, 12x AES/EBU I/O (mono streams)	8x mic/line, 8x line outputs, 8x AES/EBU I/O (mono streams)	8x 32bit mic/line, 8x 32bit line outputs, 8x AES/EBU I/O (mono)	8x mic/line, 8x line outputs, 4x AES/EBU I/O (mono streams)
1280	1272	1144	1012
52 (plus 48 if used with 2 x EX007)	37	38	25
3 x 15" touch	3 x 15" touch	3 x 17" capacitive touch	1 x 17" capacitive touch
Yes	Yes	Yes	Yes (plus external second screen)
Yes	Yes	Yes	Yes
2	2	2	2
64	48	36	24
48 plus 16 Spice Rack Slots	36 plus 12 Spice Rack Slots	24 plus 8 Spice Rack Slots	12 plus 6 Spice Rack Slots
48	32	24	16
694	458	286	155
Yes	Yes	Yes	Yes
694	458	286	155
438	330	222	123
Yes	Yes	Yes	Yes
36	36	24	12
Yes	Yes	Yes	Yes
256	128	64	32
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
8 x ports or 4 x Redundant ports @ 48k, 4 x ports @ 96k	8 x ports or 4 x Redundant ports @ 48k, 4 x ports @ 96k	6 x ports or 3 x Redundant ports @ 48k, 3 x ports @ 96k	4 x ports or 2 x Redundant ports @ 48k, 2 x ports @ 96k
Yes (including dual loop)	Yes (including dual loop)	Optional dual loop	Optional dual loop
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
48 / 96 kHz	48 / 96 kHz	48 / 96 kHz	48 / 96 kHz
FPGA, up to 40-bit floating-point	FPGA, up to 40-bit floating-point	FPGA, up to 40-bit floating-point	FPGA, up to 40-bit floating-point
Surface	Surface	Surface	Surface
Standard	Yes (Dual Surface)	Yes (Dual Surface)	Yes (Dual Surface)
Yes	Yes	Yes	Yes
Up to 56 in / 56 out / MADI split x2 (@ 48kHz)	Up to 56 in / 56 out / MADI split x2 (@ 48kHz)	Up to 56 in / 56 out / MADI split x2 (@ 48kHz)	Up to 56 in / 56 out / MADI split x2 (@ 48kHz)
24. On 2 loops = 38	24. On 2 loops = 38	22. On 2 loops = 36	20. On 2 loops = 34
MADI / Optocore / RJ45 CAT5E / Dante (with optional DMI card)	MADI / Optocore / RJ45 CAT5E / Dante (with optional DMI card)	MADI / Optocore / RJ45 CAT5E / Dante (with optional DMI card)	MADI / Optocore / RJ45 CAT5E / Dante (with optional DMI card)
BNC / HMA optics / ST / Opticalcon / CAT5E (with optional DMI card)	BNC / HMA optics / ST / Opticalcon / CAT5E (with optional DMI card)	BNC / HMA optics / ST / Opticalcon / CAT5E (with optional DMI card)	BNC / HMA optics / ST / Opticalcon / CAT5E (with optional DMI card)
Gain Tracking™	Gain Tracking™	Gain Tracking™	Gain Tracking™
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
2	2	2	2
Yes	Yes	Yes	Yes
1496(w) x 875(d) x 503(h) - 112kgs	1465(w) x 838(d) x 458(h) - 116Kg	1595(w) x 805(d) x 482(h) - 70kgs	1124(w) x 801(d) x 436(h) - 43kgs
58.9(w) x 34.45(d) x 19.8(h) - 247lbs	57.68(w) x 32.99(d) x 18.03(h) - 256lbs	62.80(w) x 31.70(d) x 19.00(h) - 154lbs	44.25(w) x 31.54(d) x 17.17(h) - 95lbs



THEATRE

From a mixing perspective, theatre is a notoriously tough sector to work in, as so much is going on all of the time. With this in mind, we designed a theatre (T) extension to the standard Quantum software, which opens more doors for operators working in that environment, and provides more flexibility. Many theatre operators still like to mix hands-on, so we've added some cool additional elements that allow the console to take care of more of the 'behind the scenes work' for you: a more powerful cue list automation and editing, and the ability to alter your cues on the fly, are prime examples.

The Quantum7T and Quantum338T are everything their standard counterparts are but with a theatrical twist, adding the most advanced set of cue processing tools known to man (or should that be machine?). For this reason, DiGiCo Theatre software is the standard in theatre mixing worldwide. There are several key benefits for theatre operators to get excited about: DiGiCo's Advanced Cue Update system, Channel Aliases, and Matrix Nodal Delays. The Nodal Delays can add more than 2,000 individually recordable delay settings, which are super-crucial in theatre world when it comes to aligning groups of speakers, and getting your positioning spot-on within the sound field.



Marriott Show - Lincolnshire Illinois



Autograph Sound Recording

As with everything DiGiCo, the Cue Update programming tools have been developed in conjunction with some of the world's leading sound designers, which has resulted in an Auto Update System which offers precise control over the update and recall of channel settings in every single cue. The Aliases come into play when an actor needs to change costume or character: channel settings will change, but the actor won't, so this cool function populates the show with that person's unique channel settings (EQ, dynamics, etc.), so all the programming and cue-to-cue changes are retained, they're just updated with new actor specific settings.

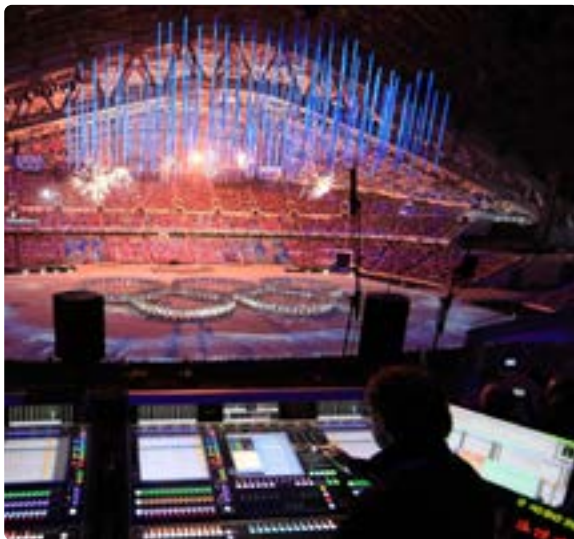
Many of today's leading international theatre productions incorporate child actors, who are limited by law in terms of how many working hours they are allowed to put in, so several child actors will often be assigned the same role, and they'll alternate shows. This also means different tonal and dynamic qualities will appear in their respective voices, and from the operator's point of view, much like when an understudy is taking the lead for a performance, they're not always sure until the last minute who is going to play that character on the night. This is where the DiGiCo Players tool comes in: operators are able to apply settings for numerous actors under the same character name, and then choose which actor is playing a particular role; the production is then automatically updated with all of the correct settings (EQ, dynamics, filters, etc.) but without destroying the specific cue-to-cue programming you've made.

Another neat little tweak is the addition of a VCA programming map, which allows the operator to see (and plan) changes throughout the show. Poor programming can make the life of a theatre operator pretty hellish, especially as the shows are so cue-heavy, but a function like this helps alleviate all that stress, and stops the operator from losing his or her mind when trying to keep up!



BROADCAST

Broadcast applications can be particularly demanding to mix, which led to us designing a bespoke broadcast (B) extension to the standard Quantum software, which goes that stage further. As well as extra facilities the console's routing flexibility has rocketed, to allow for LCRS and 5.1 mixes as well as the usual stereo and LCR. And that's just for starters.



Sochi Winter Olympics

The Quantum7 and Quantum5 always include surround capability, of course, but the B software also adds solo options, Backstop PFL, Dual AFL and PFL, Auto Fader PFL, and Surround Solo Busses. The Solo options integrate with a fully customisable monitor matrix, where you can make multiple speaker selections, catering for up to 5.1.

Furthermore, we've included Mix Minus busses, which are also perfect for applications such as radio phone-ins, or remote satellite feeds; and any mono busses can be used as a Mix Minus.

What's really great and unique about these application-specific enhancements is, there is no hardware change, so from a rental company's point of view, for example, it's perfect: to turn your existing Quantum console into an QuantumT or a QuantumB all you need to do is get a software extension, which takes just a few seconds; and in a few more seconds, you can return it back to its live self, as a regular Quantum7 or Quantum5. There is no need to add to your inventory, because the Quantum Range is the gift that keeps on giving.

"I've had the opportunity to collaborate with and deploy DiGiCo on a number of large scale Broadcast events and truly appreciate the performance, flexibility and reliability of both the product and the support team."

Kevin Cleary Broadcast Audio Producer

"The console is the most powerful, problem-free device in the whole truck!"

Rodney Kobayakawa, GM, NEP Hawaii

"A lot of our events are setup, shoot and strike and in a single, 10-hour day and I've got to give individuals that have never operated the console before a generic overview in less than an hour. I believe I'm able to do that rather well because the console is very easy to use. And DiGiCo's training and customer service in that area is exceptional."

Kory Loy, Engineer in Charge, Sure Shot Transmissions





Live Sound

The trusted choice of the world's most respected sound engineers

From sold out stadiums to intimate live performance venues, sound engineers agree on one thing – for the best digital mixing consoles for live sound, the only name that matters is DiGiCo.

As the recognised worldwide standard for live audio mixing, DiGiCo consoles are renowned for their industry leading sound quality and ease of use. From the compact and affordable S21 all the way up to the pioneering power of Quantum7, DiGiCo delivers the workflow, the feature-set and the absolute reliability that the world's biggest tours rely upon.

Since the arrival of the seminal D5 Live, DiGiCo has stood at the forefront of the digital mixing revolution, transforming the world of touring sound with a succession of innovations. With the launch of the SD7 console came Stealth Digital Processing and vast new reserves of power, functionality and flexibility. Now the DiGiCo legacy is continuing with Quantum7 – a digital mixing platform that's designed to exceed the ambitions of tomorrow's touring productions.

No matter how big the show or ambitious your vision, for live sound there is only one choice – DiGiCo.

APPLI

Installed Sound

Advanced, versatile and robust solutions for installed sound

When today's permanent audio installations require versatility and reliability in equal measure, DiGiCo has the answer.

With 4REA4, DiGiCo is pushing the boundaries of commercial audio and simplifying the most complex multi-stage and multi-space venues. The 4REA4 Processing Engine combines with a range of external I/O and multi-layer, programmable controllers to form an expandable, easy-to-operate solution for installed sound. Drawing on DiGiCo's vast experience in the creation of industry standard user interfaces and workflows, 4REA4 is highly intuitive for end-users, combining the highest quality audio performance with total flexibility of deployment.

From 4REA4 to the EX-007 fader expansion unit, bringing 100m remote operation over CAT5 to the Quantum7...

DiGiCo continues to innovate the solutions that systems integrators need.



CATIONS



House of Worship

Feature-packed, intuitive digital mixing for worship

For every house of worship audio team, the decision to invest in a professional digital console is not just about choosing the best mixer for church sound, it's an opportunity to transform how you deliver the message to your congregation.

From compact and affordable digital mixing consoles such as the S21 up to the immense power of the Quantum7, the most trusted large format mixing desk for live sound, DiGiCo has the solution you need to raise up your service to the next level. Professional and volunteer sound teams alike trust in DiGiCo to deliver deep functionality and ease of use – no matter whether you're an experienced audio technician or a newcomer to the church sound team.

From dynamic worship bands and intimate spoken word sermons, when Sunday arrives, you need to know that your digital mixer won't let you down.

For thousands of houses of worship worldwide as well as the world's most respected sound engineers, there is only one choice – DiGiCo.

Theatre

Dedicated world-class digital mixing for theatre sound design

From plays on the fringe to Broadway musicals and West End spectacles, the world's most successful theatre sound designers and producers agree on one thing – for the best digital mixing consoles for theatre sound, the only name that matters is DiGiCo.

As sound design in theatre becomes ever more ambitious, DiGiCo continues to lead the way forward with its easy-to-use and efficient workflow, rock solid reliability and pioneering adoption of new technologies. No matter whether your sound design features the latest in immersive audio and sound localisation or makes a star of the simple spoken word, DiGiCo has the solution you need to raise your technical production to the next level.

With a bespoke feature-set designed to suit the unique demands of theatre-sound, the DiGiCo SD9T, SD10T, SD7T, SD12T, Quantum7T and Quantum 338T represent a range of industry-leading solutions for every size of show.

For world-class theatre sound, there is only one choice – DiGiCo.





DiGiCo's digital evolution really began with the release of the D5 Live – a breakthrough console that turned the pro-audio world on its head, and raised eyebrows across the industry. A super-powerful and slick piece of kit, with a massive feature set, which would set the standard for years to come.

Fast-forward 5 years, and the first of the SD-Range was born – another real trend setter, combining a quick and intuitive user interface, and sonic capabilities that are still yet to be beaten. Each console in the range retains that classic analogue feel, with the ultimate in digital processing.

The SD-Range raised the bar in many ways: not only in terms of power and flexibility, but creativity; never before had engineers experienced Super FPGA technology, which allowed for massive I/O capabilities, and the ultimate dynamic toolbox, easily accessible at the press of a button or via the touch screen.

From the rackmount SD11, all the way up to the flagship SD7, and everything in between, there is an SD console suited to every possible audio application - and they all pack a similar punch. Be it a bar or club gig, a stadium world tour, or a massive broadcast event such as The Grammys or The Oscars, the SD-Range is so often the go-to.

In 2015, DiGiCo launched the S-Series: S21 and S31, which brought serious power in a super-small package; and in 2016, Stealth Core 2 software multiplied the power of the SD-Range.

In 2017, DiGiCo released the SD12; a small footprint, powerful, and highly advanced console, with all the functionality and processing power you'd expect from an SD console, but at an unbelievable pricepoint. Suited to any application, from live touring to broadcast, it brought industry firsts, as well as dual 15-inch touchscreens, that familiar DiGiCo workflow, and advanced connectivity.

In 2018, DiGiCo delivered the first in a new generation of console, Quantum7. Once again turning the pro-audio world on its head, Quantum7 showed the immense power that can be provided with three seventh generation FPGAs working in unison. With huge channel counts and all new features like Nodal Processing and True Solo, the start of the Quantum range gave a dramatic leap forward in power and connectivity.

Following on from the huge success of Quantum7, 2020 saw the expansion of the Quantum range with Quantum5 and Quantum3³⁸. Providing all of the Quantum features, Quantum3³⁸ gives all new hardware features such as "Ultimate Stadium" 32bit local I/O and the three huge 17" super bright, high resolution, PCAP touchscreens, making sure that you won't miss a thing.

Now in 2021, the new Quantum2²⁵ unleashes the power of Quantum on all new markets due to its compact and robust worksurface. Designed to be agile and flexible, the Quantum2²⁵ is able to adapt to the demands of our changing world.