DATASHEET

Quantum 2[25] / Pulse

Own the room with the compact and robust Quantum

OVERVIEW

The DiGiCo Quantum 2[25] / 2[25] Pulse is a 72/120 channel mixing console with 25 physical faders and 1 x 17" LCD high-resolution touchscreen. Like its larger counterpart, the Quantum 3[38], the Quantum 2[25] offers all of the Quantum features plus new design features and enhancements in a smaller format console.

KEY FEATURES

- 72/120 Input Channels with full processing
- 36/48 Aux/Sub-Group busses with full processing
- 12 x 12 Matrix with full processing
- 24/36 Insertable Mustard processing strips
- 32/48 Nodal processing instances
- True Solo function
- 41 TFT LCD displays
- 1 x 17" high-brightness, high-resolution touchscreen
- Mounting bracket for customisation of the left worksurface
- Assignable channel layout
- User programmable macros
- Capable of redundantly mirroring with another Quantum 2[25] console
- Redundant PSUs as standard
- 2 DMI Slots to expand the I/O as desired
- Integrated UB MADI
- Offline software
- iPad control
- Mix Minus

DiGiCo Quantum

Quantum is developed with seventh-generation FPGA devices that further expand audio processing power and ultimately allows DiGiCo to provide its users with an unrivalled amount of additional flexibility.

Quantum. Power. Connectivity. Flexibility

TECHNICAL SPECIFICATIONS

WORKSURFACE

25 x 100mm touch-sensitive, motorised faders
1 x 17" LCD high-brightness, high-resolution touchscreens
41 x Full Colour TFT LCD Displays
1 x ¼" Headphone socket
1 x 3.5mm Headphone socket
1 x USB 2.0 slot
Keyboard Light Bar
Integrated Light Bar
1 x Mounting Bracket

OPTIONS

Single or Dual Loop Optocore (HMA, OpticalCon or ST)
Upgrade to SingleMode Optocore
Waves Soundgrid Interface
Flightcase
Compatible DMI Cards: ADC / AES / AMM / Aviom / DAC / Dante / Dante 64@96 / Hydra 2 / KLANG / MADI B / MADI C / ME / Mic / Waves

REAR

2 x Redundant PSUs
8 x XLR Mic/Line Inputs
8 x XLR Line Outputs
2 x XLR AES/EBU Inputs (4 x channels)
2 x XLR AES/EBU Outputs (4 x channels)
4 x MADI BNC I/O @ 48k, 2 interfaces at 96k
2 x MultiMode Optocore Interfaces (Optional)
1 x Waves port (Optional)
2 x DMI Slots (up to 64 I/O per slot)
1 x UB MADI (USB Type B Audio I/O interface for recording and playback of up to 48 channels)
4 x Ethernet ports (switched together)
3 x USB 2.0 slots
2 x GPI 1/4" Jacks
2 x GPO 1/4" Jacks
1 x MIDI In/Thru/Out (5 pin DIN)
1 x Word Clock I/O BNC
2 x DisplayPort Outputs
1 x Quantum Lighting Bar

TECHNICAL SPECIFICATIONS

SIGNAL PROCESSING

72/120 Input Channels (Mono)
- Main & Alternative input
- Analogue Gain
- Phase Inversion Control
- Gain Tracking
- Digital Trim (-40dB to +40dB)
- Variable Delay (0ms to 1.3s)
- DiGiTube
- HPF/LPF (-24dB/Oct)
- 4 Band Parametric EQ / Dynamic EQ
- DYN 1: Compressor, Multiband Compressor, Desser
- DYN 2: Gate, Duck, External Input Compressor
- EQ/Dyn Order Control
- 2 Insert Points per Channel
- Channel Mute & Hard Mute
- Channel Direct Outputs

36/48 Aux/Sub-Group Busses
- Phase Inversion Control
- Digital Trim (-40dB to +40dB)
- Variable Delay (0ms to 1.3s)
- DiGiTube
- Merge Input
- Tone Generator
- HPF/LPF (-24dB/Oct)
- 8 Band EQ: 4 Band Parametric EQ and 4 Band Parametric or Dynamic EQ
- DYN 1: Compressor, Multiband Compressor, Desser
- DYN 2: Gate, Duck, External Input Compressor
- EQ/Dyn Order Control
- 2 Insert Points per Channel
- Channel Mute & Hard Mute

1 LR/LCR Master Buss (with full processing)

12 Input x 12 Output Full Processing Matrix

12 Control Groups (CGs)

2 Solo Busses

16 x 32-band GEQs

12 x Internal Stereo FX Processors
- Delays
- Audio Enhancer
- Choruses
- Pitch Shifters
- Reverbs

6 x Internal Spice Rack Slots
- 6 band Dynamic Multiband Compressor/Expander
- 6 band Dynamic EQ

24/36 x Mustard Processing Strips
- Tube
- Tube Emulation
- HPF/LPF (-24dB/Oct)
- 4 Band EQ: 2 Band Parametric EQ and 2 Band Parametric EQ or All Pass Filters
- DYN 1: Classic RMS/Peak Compressor, Vintage VCA Compressor, Optical Compressor, FET Limiter
- DYN 2: Gate, Ducker

32/48 x Nodal Processing
- 4 Band Parametric EQ / Dynamic EQ
- DYN 1: Compressor, Multiband Compressor, Desser
- DYN 2: Gate, Duck, External Input Compressor

Multiband Compressors available on every channel, Buss and Nodal Processor

Dynamic EQs available on every channel, Buss and Nodal Processor

DiGiTuBes available on every channel & Buss

Virtual Soundcheck

True Solo function

In a world as competitive for engineers as it is for console owners, you want the best tools you can lay your hands on. You also want a console and audio tools as well thought out for every major application as they are designed for the art and science of sound engineering.

QUANTUM 2[25] MOUNTING BRACKET

A&E SPECIFICATION

The DiGiCo Quantum2[25] shall have 25 faders split into 2 worksurface sections of 12 faders, plus a master fader. Both of the two sections shall have 3 layers of 4 banks. All faders can be assigned to control any of the channel types. The console shall be capable of 72/120 input channels, 36/48 Aux/Sub-group Busses, a LR/LCR Master Buss, 12 VCA style or mute group style Control Group channels, 2 Solo Busses, and a 12 input x 12 output full processing Matrix. All processing paths shall have full processing including Tube emulation, Dynamic EQ and Multiband Compression. Tube emulation, Dynamic EQ and Multiband Compression shall be available on every channel and Buss on the console. All processing shall be internal and FPGA-Based.

An internal FX rack shall allow users to pick from 34 different FX. Up to 12 stereo FX can be added, and shall be chosen from a selection of floating point reverbs, delay, chorus, pitch and enhancer effects. An internal set of 16 32-band GEQs shall also be accessible. There shall be an additional processing Rack called the Spice Rack, allowing up to 6 mono effects. There shall also be 24/36 insertable Mustard Processing Strips. The position of these, and of inserts, shall be chosen from pre-processing, pre-EQ/dynamics, mid-EQ/dynamics, pre-fader or post-fader. 32/48 instances of Nodal Processing shall also be available. These shall allow EQ and dynamics to be applied to the aux node of a channel.

One 17" (42cm) high-resolution, high-brightness TFT-LCD touch screen shall be provided to show the left or right bank of channel strips or the master view. This view shall be controlled by physical buttons on the worksurface. The screen shall have a dedicated hardware channel strip, allowing control over filters, EQ, dynamics and insert points. When viewing channels, the screen shall also have a built in meter bridge and 7 integrated quick select buttons for reassigning the underscreen rotary encoders. The screen shall have a row of rotary encoders underneath it to control various channel parameters.

The master section to the right of the screen shall have physical controls to allow control over some snapshot functions and control over basic Solo functions. There shall also be 4 layers of 4 user-assignable LCD macro buttons on the master section of the worksurface. The user shall also be able to program macros that can be triggered with fader movements, GPI, MIDI and keyboard functions. This master section shall also have a USB port. The console shall also have 41 full colour TFT displays including one for each fader and 4 macro displays. The front of the console shall have a pair of headphone outputs, with one 3.5mm and one ¼" jack. The left worksurface shall have a mounting bracket. This shall be a standard 75mm and 100mm VESA monitor mount. It shall be used for mounting either a second screen for the console, a KLANG:kontroller or a laptop/script tray. The recommended screen shall be the Planar® Helium™ PCT2235. There shall be options to mount the bracket at 2 different angles and at 2 different heights. There shall be a duct behind the mounting bracket through the console to allow neat cable runs.

The rear panel shall have 8 Mic/Line inputs and 8 line outputs. It shall also have 2 AES/EBU inputs (4 channels) and 2 AES/EBU outputs (4 channels), 4 sets of MADI I/O, giving up to 4 MADI interfaces or up to 2 redundant MADI interfaces at 48kHz or 2 interfaces at 96kHz, 2 DMI slots and inbuilt UB MADI (USB Type B audio I/O interface for recording and playback of up to 48 channels). It shall also have MIDI In, Thru and Out, 2 1/4" GPIs and 2 1/4" GPOs, external Wordclock I/O, 4 switched ethernet ports, 3 USB ports, 2 DisplayPorts, and 2 redundant power supplies.

There shall be an Optocore option, providing either single or dual loop. Each loop shall give 504 additional audio paths at 48kHz and 96kHz. The Optocore connector type shall be chosen from HMA, OpticalCON or ST. The Optocore Mode shall be chosen from MultiMode or SingleMode. There shall also be a Waves Soundgrid option providing 64 inputs and 64 outputs to the SoundGrid Network at 48kHz and 96kHz.

The dimensions of the Quantum 2[25] shall be: 1124 (w) x 801 (d) x 436 (h) mm
The weight of the Quantum 2[25] shall be: 43kg
The DiGiCo Quantum 2[25] shall be supplied with a dust cover.

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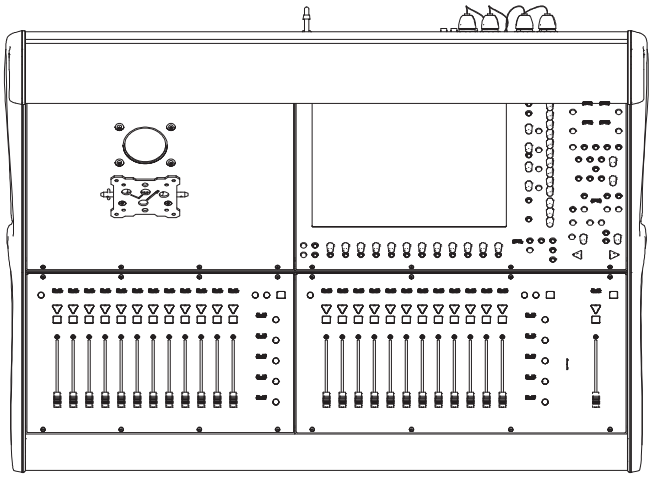
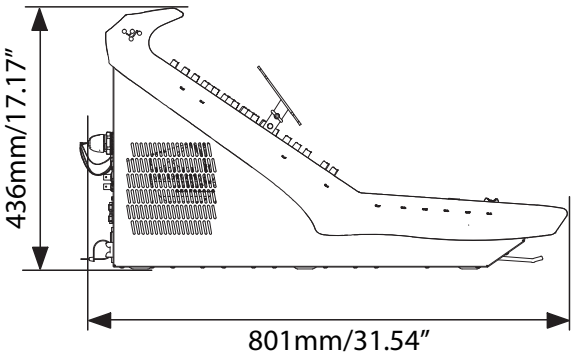
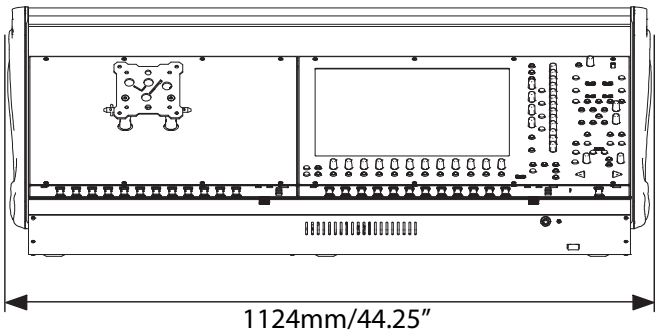
LINE DRAWING

All dimensions in mm







PHYSICAL

Dimensions: 1124mm (w) x 801mm (d) x 436mm (h)
Weight: 43kg (138kg with optional flightcase)
Flightcase: 1260mm (w) x 601mm (d) x 1141mm (h) (Optional)
Power Requirements: 100-240V, ~5A, 50-60Hz, 300W, 255VA
Redundancy: Internal PSUs x 2
Product Code: X-Q225-WS + X-Q225-WS-F

AUDIO SPECIFICATIONS

Sample Rate: 48kHz or 96kHz
Processing Delay: 2ms @ 48kHz, 1ms @ 96kHz
Internal Processing: Up to 40-bit, Floating Point
A>D & D>A: 24-bit Converter Bit Depth
Frequency Response: (Mic In to Line Out): +/-0.25dB (20Hz -20kHz)
THD+N: Mic In to AES Out): <0.003% (-10dBFS out, 0dB gain, 22Hz-20kHz)
THD+N: (AES In to Line Out): <0.003% (+16dBu out, 22Hz - 20kHz)
Channel Separation (Mic In to Line Out): >100dB @ 10kHz
Residual Output Noise: <-94dBu (22Hz-20kHz, A-weighted)
Equivalent Input Noise (EIN): <-127dBu (22Hz-20kHz, A-weighted)
Maximum Input Level: +22dBu
Maximum Output Level: +22dBu

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