



DATASHEET

SD5

The second coming of a classic console

OVERVIEW

The DiGiCo SD5 is a 253 channel mixing console with 37 physical faders and 3 x 15" LCD high-resolution touchscreens. Just as the iconic D5 Live once fuelled the growth of digital mixing, now the DiGiCo SD5 adds the immense power of Stealth Digital Processing and floating-point Super FPGA technology to the feature set that changed the world of professional audio.



KEY FEATURES

- Up to 253 Input Channels with full processing
- Up to 124 Aux/Sub-Group busses with full processing
- 24 x 24 Matrix with full processing
- Assignable channel layout
- User programmable macros
- Capable of redundantly mirroring with another SD5 console
- Redundant PSUs as standard
- Snapshots for seamlessly changing many parameters at once
- Offline software
- iPad control
- Broadcast software option



DiGiCo SD-Range

The SD-Range caters for everything audio: be it the biggest rock and roll show on the planet, a crucial global broadcast, the most sizeable House of Worship application, or an intimate theatre performance, there is an SD console that will tick the box.

Powerful. Versatile. Smart. Desirable.



TECHNICAL SPECIFICATIONS

WORKSURFACE

- 37 x 100mm touch-sensitive, motorised faders
- 3 x 15" LCD high-resolution touchscreen
- 2 x Custom mounted LCD high-resolution TFT-LCD Meterbridge screens
- 2 x ¼" Headphone socket
- 1 x USB 2.0 slot
- Integrated Light Bar

REAR

- 2 x Redundant PSUs
- 1 x Waves port (Optional)
- 8 x XLR Mic/Line Inputs
- 8 x XLR Line Outputs
- 4 x XLR AES/EBU Inputs (8 x channels)
- 4 x XLR AES/EBU Outputs (8 x channels)
- 1 x DSub37 GPI (16 inputs)
- 1 x DSub37 GPO (16 outputs)
- 1 x MIDI In/Thru/Out (5 pin DIN)
- 4 x Redundant MADI BNC I/O
- 1 x MultiMode Optocore Interface (expandable to 2)
- 1 x AES Sync I/O
- 1 x BNC Video Sync
- 1 x RS422 port
- 1 x Word Clock I/O BNC
- 1 x VGA Port
- 1 x Ethernet port
- 2 x USB 2.0 slots

OPTIONS

- Waves SoundGrid Interface
- Upgrade to Dual Loop Optocore (HMA, OpticalCon or ST)
- Upgrade to SingleMode Optocore
- Broadcast Software
- Flightcase

SIGNAL PROCESSING

Up to 253 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

Up to 124 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/LCRS/5.1 Master Buss (with full processing)

24 Input x 24 Output Full Processing Matrix

36 Control Groups (CGs)

2 Solo Busses

32 x 32-band GEQs

32 x Internal Stereo FX Processors

- Delays
- Audio Enhancer
- Choruses
- Pitch Shifters
- Reverbs

DiGiTubes available on every channel and Buss

Dynamic EQs available on every channel and Buss

Multiband Compressors available on every channel & Buss

Virtual Soundcheck

A&E SPECIFICATION

The DiGiCo SD5 shall have 37 faders split into 3 worksurface sections plus a master fader. The left and the right worksurface sections shall have 3 layers of 5 banks. The centre worksurface section 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 up to 256 processing channels, split into input channels, Auxes, Groups and Matrix Outputs. The individual channel type limits shall be up to 253 input channels, up to 124 Aux/Sub-group Busses, a LR/LCR/LCRS/5.1 Master Buss, 36 VCA style or mute group style Control Group channels, 2 Solo Busses, and a 24 input x 24 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 32 stereo FX can be added, comprising of 16 floating point reverbs and 32 delay/chorus/pitch/enhancer effects. An internal set of 32 32-band GEQs shall also be accessible.

Three 15" (38cm) LCD high-resolution touch screens shall be provided to show the channel strips. The centre screen shall also show the master screen. The view of the centre screen shall be controlled by a physical button on the worksurface. The two side screens shall each have a dedicated hardware channel strip, allowing control over filters, EQ, dynamics, insert points, aux sends and 5.1 panning. The master section below the centre screen shall have physical controls to allow control over some snapshot functions, control over basic Solo functions and source and speaker selection (Broadcast software). 7 quick select buttons shall be on the master section to allow easy reassignment of the underscreen rotaries. There shall also be 4 layers of 10 user-assignable LCD macro buttons on 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 rear panel shall have 8 Mic/Line inputs, 8 line outputs, 4 AES/EBU inputs (8 channels), 4 AES/EBU outputs (8 channels) and 4 redundant MADI interfaces. The console shall come with one loop of MultiMode Optocore as standard, providing 504 additional audio paths at 48kHz and 96kHz. The Optocore connection type shall be chosen from HMA, OpticalCon or ST. It shall also have 1 DSub37 GPI and 1 DSub37 GPO (16 inputs and 16 outputs), MIDI In, Thru and Out, AES sync, video sync, external Wordclock I/O, a VGA port, an ethernet port, 2 USB ports, and an RS422 port. It shall also have 2 redundant and hot-swappable power supplies.

There shall be an option to add a Waves Soundgrid port, providing 64 inputs and 64 outputs to the SoundGrid Network at 48kHz and 96kHz. There shall be an option to add a second Optocore loop. This shall give an additional 504 audio paths at 48kHz and 96kHz. The Optocore interface can also be upgraded to SingleMode.

There shall also be a Broadcast Software option available that shall provide a Monitor Matrix, Backstop PFL and Mix Minus Busses.

The dimensions of the SD5 shall be: 1465 (w) x 838 (d) x 458 (h) mm
The weight of the SD5 shall be: 116kg
The DiGiCo SD5 shall be supplied with a dust cover.

AUDIO SPECIFICATIONS

Sample Rate: 48kHz or 96kHz

Processing Delay: 2ms Typical @ 48K (253 Channels, Stage input Through L-R Buss to Stage Output) 1.1ms @ 96k

Internal Processing: Up to 40-bit, Floating Point

A>D & D>A: 24-bit Converter Bit Depth

Frequency Response: +/- 0.6dB (20Hz - 20kHz)

THD: <0.05% @ Unity Gain,; 10dB Input @ 1kHz

Channel Separation: Better Than 90dB: (40Hz-15kHz)

Residual Output Noise: <90dBu Typical (20Hz-20kHz)

Microphone Input: Better Than -126dB: Equivalent Noise

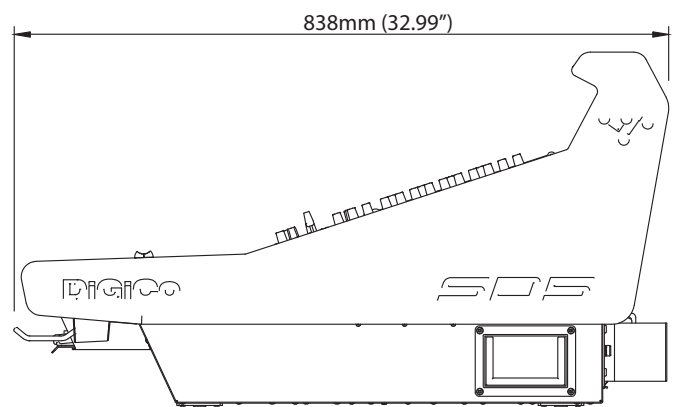
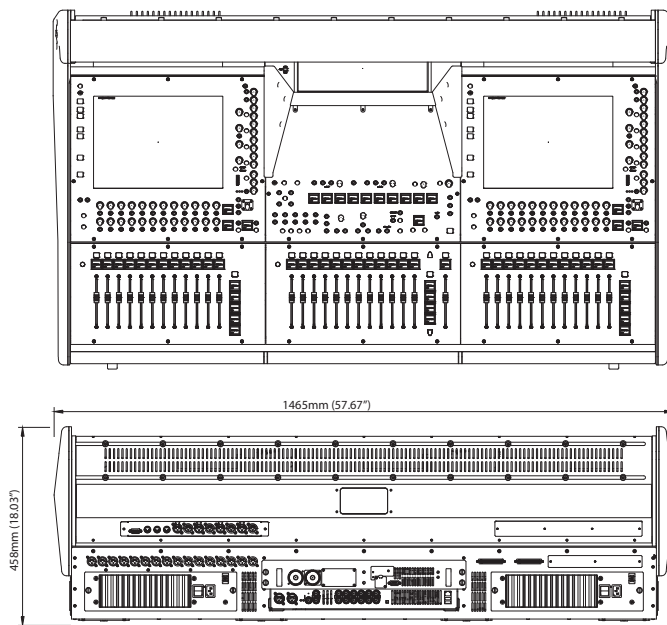
Maximum Output Level: +22dBu

Maximum Input Level: +22dBu

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.

LINE DRAWING

All dimensions in mm



PHYSICAL

Dimensions: 1465mm (w) x 838mm (d) x 458mm (h)

Weight: 116kg (235kg with optional flightcase)

Flightcase: 1600mm (w) x 600mm (d) x 1200mm (h) (Optional)

Power Requirements: 90-260 V, 50-60Hz, 532VA (340W)

Redundancy: Internal PSU x 2

Product Code: X-SD5-WS-OP (HMA optics)

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DiGiCo SD5 Datasheet