

 DIGICO

# S31

One step beyond...







## Pushing the boundaries further still

When the S21 was unveiled to the public, engineers were immediately drawn to it. Never before had a console so compact been capable of this standard of audio quality, power & flexibility... and it could fit in the back of your car!

Its two multi-touch touch screens broke the mould for small format consoles, with 21 faders, and bundles of I/O.

Now, DiGiCo has gone one step further. Meet the S31, the latest console in the S Series, which opens even more doors, allows for increased functionality and accessibility, all at an affordable price point. This time around, there are 31 faders, and three 10" multi-touch screens... And it'll still fit in the back of the car!



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Channel strip 1-10 interface showing 10 channels with parameters like Gain, Aux, and EQ.

USB In 1	USB In 2	USB In 3	USB In 4	USB In 5	USB In 6	USB In 7	USB In 8	USB In 9	USB In 10
Comp 1.81	Comp 1.81	Comp 1.81	Comp 2.01	Comp 3.81	Comp 1.61	Comp 1.81	Comp 3.01	Comp 3.01	Comp 1.61
Gain	Gain	Gain	Gain	Gain	Gain	Gain	Gain	Gain	Gain
Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1
Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2
Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3
Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4
Kick In	Kick Out	Snare B	Snare T	Hat	Tom 1	Tom 2	Tom 3	Ride	DH Sr

Channel strip 11-20 interface showing 10 channels with parameters like Gain, Aux, and EQ.

USB In 11	USB In 12	USB In 13	USB In 14	USB In 15	USB In 16	USB In 17	USB In 18	USB In 19	USB In 20
Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81
Gain	Gain	Gain	Gain	Gain	Gain	Gain	Gain	Gain	Gain
Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1
Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2
Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3
Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4
Ch4 SI	Guitar	Block	Perc	Clav	Korg	Les Low	Leslie ST	Rhodes	Miko

Channel strip 21-30 interface showing 10 channels with parameters like Gain, Aux, and EQ.

USB In 21	USB In 22	USB In 23	USB In 24	USB In 25	USB In 26	USB In 27	USB In 28	USB In 29	USB In 30
Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81	Comp 1.81
Gain	Gain	Gain	Gain	Gain	Gain	Gain	Gain	Gain	Gain
Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1	Aux 1
Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2	Aux 2
Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3	Aux 3
Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4	Aux 4
Nord	OASIS	Wurler	Bass DI	Bass Mic	Matches	Acoustic	Adam C	Adam D	Adam W

Fader section 1-10 with 10 vertical sliders and buttons.

Fader section 11-20 with 10 vertical sliders and buttons.

Fader section 21-30 with 10 vertical sliders and buttons.



## Scratching the surface

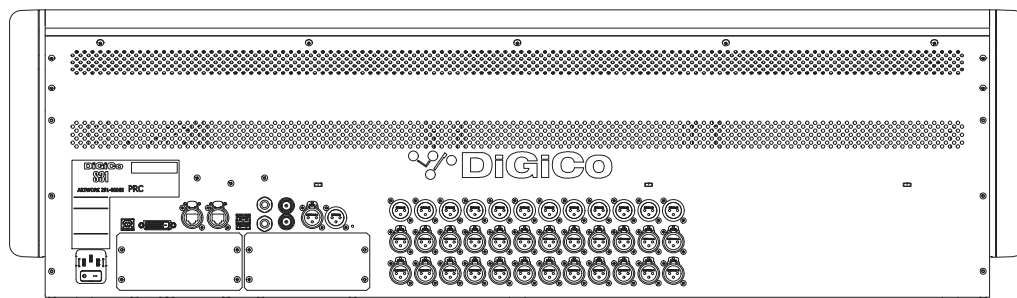
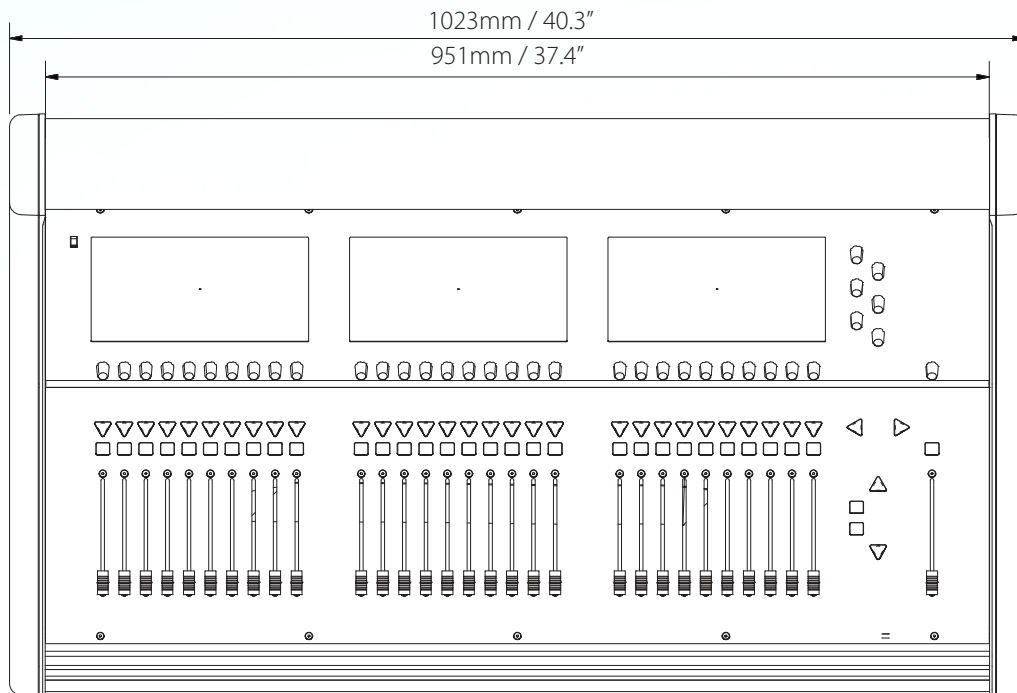
It's a given that with any DiGiCo product, audio quality is of paramount importance; the SD Series is testament to this, be it the rack mount SD11 or the flagship SD7, audio performance comes first. With the introduction of the S Series, DiGiCo used the same principles, developing a smart concept with the same core FPGA engine algorithms and processing, all running at 96kHz, which means no loss in audio quality or functionality.

The S31 is now the bigger version of the S21. The S31's expanded work surface offers 10 additional faders for more control and another multi touch screen for faster access and more visual feedback. Ideally suited to applications where more instant control and feedback are critical to the operator.

We at DiGiCo also know that many engineers like to keep their VCAs separate; this is now easily achieved, without compromising your preferred workflow with the option of dedicating a section to your VCA's. Naturally these faders are in groups of 10, so there's plenty of space to build a full production: why not layout a whole drum kit on one bank, an entire strings section on the second, and the band on the third? It just makes everything that little bit more accessible.

The S31 still offers the same flexibility as the S21, with 24x Mic inputs and 12x line outputs on the rear of the console, for straightforward audio connection. There are also 2x DMI ports as standard on the console as well as the UB MADI interface for DAW recording. It goes to show that big things do come in small packages.





### Dimensions

W 1023mm x D 586mm x H 295mm, 40.3" x 23.1" x 11.6"

**Weight** 25kg/55.11lb

### Dimensions inc Flightcase

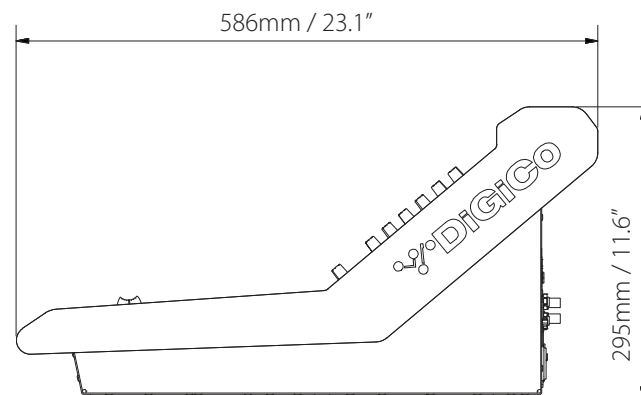
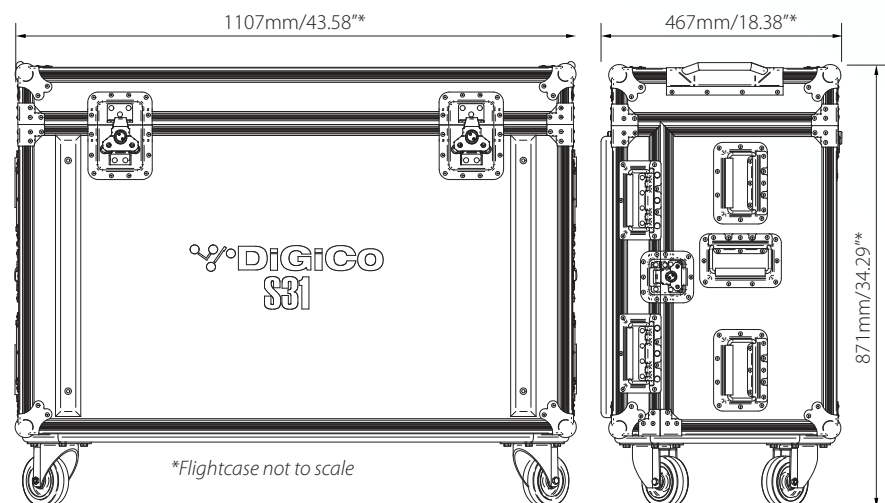
W 1107mm x H 871mm x D 467mm, 43.58" x 34.29" x 18.38"

**Weight inc Flightcase** 78kg/172lb

### Dimensions inc Cardboard Box

W 1160mm x D 750mm x H 460mm, 45.66" x 29.52" x 18.11"

**Weight** 35kg/77.16lb



# S31 Audio Specification

<b>Sample Rate</b>	48kHz, 96kHz
<b>Processing Delay</b>	2ms Typical @ 48k (60 Stereo Channels, Stage Input Through L-R Buss to Stage Output) 1.1ms @ 96kHz
<b>Internal Processing</b>	Up to 40-bit, Floating Point
<b>A&gt;D &amp; D&gt;A</b>	24-bit Converter Bit Depth
<b>Frequency Response</b>	+/- 0.6dB (20Hz – 20kHz)
<b>THD</b>	<0.05% @ Unity Gain, 10dB Input @ 1kHz
<b>Channel Separation</b>	Better Than 90dB (40Hz – 15kHz)
<b>Residual Output Noise</b>	<90dBu Typical (20Hz - 20kHz)
<b>Microphone Input</b>	Better Than -126dB Equivalent Noise
<b>Maximum Output Level</b>	+22dBu
<b>Maximum Input Level</b>	+22dBu

## Processing Channel Specification

### Input

<b>Name</b>	User-Defined
<b>Channel Selection</b>	Mono / Stereo
<b>Input Routing</b>	Main Input
<b>Analogue Gain</b>	-20 to +60dB
<b>Phase</b>	Normal / Reverse
<b>Digital Trim</b>	40 to +40dB
<b>Delay</b>	0 - 682ms
<b>DiGiTuBe</b>	Drive 0.01 - 50.0 Bias 0 - 6
<b>LPF</b>	20 – 20kHz, 24dB/Oct
<b>HPF</b>	20 – 20kHz, 24dB/Oct
<b>Insert A</b>	(Pre EQ/Dyn) On/Off

<b>Equalisation</b>	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) / 0.10-0.90 (Shelf)
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<b>Dynamics 1</b>	Single or 4 x Multiband (3-Band)
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<b>Compressor</b>	On/Off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 5ms – 5s Ratio; 1:1 – 50:1 Gain; 0 to +40dB Hi Crossover; 20Hz – 20kHz Lo Crossover; 20Hz – 20kHz Knee : Hard, Med, Soft
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<b>Dynamics 2</b>	On/Off
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<b>Gate / Ducker</b>	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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<b>Compressor</b>	On/Off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 5ms – 5s Ratio; 1:1 – 50:1 Gain; 0 to +40dB Link; Any Channel / Buss S/C Source : Any Source S/C Listen : On/Off S/C Filter Freq/Width: 20Hz – 20kHz
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<b>Insert B</b>	(Post EQ/Dyn) On/Off
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<b>Mute</b>	Channel Mute
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<b>Solo</b>	Solo Buss 1 / Solo Buss 2 / Both,
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<b>Channel Safe</b>	Socket Properties, Input Route, Mono/Stereo, Label, Filters, Trim, Delay, Tube, Insert A, EQ, Dyn1, Dyn2, Insert B, Aux, Group Assigns, Pan, Fade, Mute, Direct Outs, Full Safe
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<b>Output Routing</b>	Buss, Insert A, Insert B, Direct: Post-Fade
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<b>Fader</b>	100mm Motorised Fader ∞ to +10dB
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## Processing Channel Specification

### Aux / Group / Matrix Output

<b>Name</b>	User-Defined
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<b>Phase</b>	Normal / Reverse
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<b>Digital Trim</b>	-40 to +40dB
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<b>Delay</b>	0 - 682ms
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<b>DiGiTuBe</b>	Drive 0.01 - 50.0 Bias 0 - 6
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<b>LPF</b>	20 – 20kHz, 24dB / Oct
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<b>HPF</b>	20 – 20kHz, 24dB / Oct
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<b>Insert A</b>	(Pre EQ/Dyn) On/Off
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<b>Equalisation</b>	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) / 0.10-0.90 (Shelf)
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<b>Dynamics 1</b>	Single or 4 x Multiband (3-band)
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<b>Compressor</b>	On/Off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 5ms – 5s Ratio; 1:1 – 50:1 Gain; 0 to +40dB Hi Crossover; 20Hz – 20kHz Lo Crossover; 20Hz – 20kHz Knee : Hard, Med, Soft
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<b>Dynamics 2</b>	On/Off
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<b>Gate / Ducker</b>	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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<b>Compressor</b>	On/Off Threshold; -60 – 0dB Attack; 500us – 100ms Release; 5ms – 5s Ratio; 1:1 – 50:1 Gain; 0 to +40dB Link; Any Channel/Buss S/C Source : Any source S/C Listen : On/Off S/C Filter Freq/Width: 20Hz – 20kHz
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<b>Insert B</b>	(Post EQ/Dyn) On/Off
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<b>Mute</b>	Channel Mute
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<b>Solo</b>	Solo Buss 1 / Solo Buss 2 / Both,
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<b>Channel Safe</b>	Mono/Stereo, Bus Mode, Label, Filters, Trim, Delay, Tube, Insert A, EQ, Dyn1, Dyn2, Insert B, Group Assigns, Fade, Mute, Direct Outs, Full Safe
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<b>Output Routing</b>	Outputs, Insert A, Insert B
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<b>Fader</b>	100mm Motorised Fader ∞ to +10dB
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