

SD12 : Specifications

General Specifications

- Faders: 26 x 100mm touch-sensitive, motorised
- Screens: 2 x 15" 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 / 8 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
- Local I/O: 8 x mic/line I/O, 8 x AES I/O
- MADI interface: 2 Interfaces, BNC connectivity
- Optic interface: Optional
- Sampling rates: 48kHz / 96kHz
- GPI/GPO: 16
- Ext Sync: Wordclock, AES, MADI, Optics
- Physical: 1124 mm (w) x 795mm (d) x
- Dimensions: 389 mm (h)
- Weight: 42Kg (82 Kg with flightcase)
- Power : 90V-260V, 50-60Hz, 150VA
- Requirements: (140W)

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 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:
- Microphone Input: Better than -126dB 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: >1 sec (coarse & fine control)
- 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: >1 sec (coarse & fine control)
- 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
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- s/c source : Any source
- s/c listen : on/off
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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: trim, eq, dyn, fade/mute, inserts, outputs, full safe
- Output Routing: Outputs, Insert A, Insert B, FX
- Fader: 100mm motorised fader ∞ to + 10dB