

# SD10 : Technical Specifications

## General Specifications

- Faders 37 x 100mm Touch-Sensitive, Motorised (25 on SD10T-24)
- Screens 1 x 15" (38cm) LCD High - Resolution Touch Screen
- Meters 38 x 20-Segment LED Bargraph (26 on SD10T-24)
- Input Channels 96 Channels, 12 Flexi
- Busses 48 assignable that can be configured as 48 mono or 24 stereo groups / auxiliary busses + LR or LCR Master
- Solo Busses 2 Stereo Busses
- Matrix 16 x 16 Matrix (Additional to Busses Above)
- Control Groups 24, Selectable for VCA-style, Moving Fader, Mute Group
- Graphic EQ 24 x 32-band, Gain +/- 12dB
- Internal FX 16 Stereo FX Processors
- Local I/O 8 x Mic/Line I/O, 8 x AES/EBU I/O (Mono)
- MADi Interface 2 Redundant Interfaces, 75 Ohm BNC Connectivity
- Optic Interface Optocore (Optional Factory Fit Only)
- MIDI Interface In / Out / Thru
- VGA Port DB-15 Mini-Female (1024 x 768 Resolution)
- USB Ports (3) USB 2
- Light Connection (2) XLR3 1.2 – 12V
- Ext Sync Word Clock, AES, MADi, Optics
- Headphone TRS Unbalanced / 8-600 Ohms 1/4 Inch Jack
- SD10 Dimensions 1398mm (w) x 818mm (d) x 285mm (h)
- SD10 Weight 60Kg/132lbs (175Kg/385.80lbs with Optional Flightcase)
- SD10 Flightcase 1586mm (w) x 1158mm (h) x 504mm (d) Weight 115Kg/253.53lbs (Optional)
- SD10 Power Requirements 90-264 VAC, 47-63Hz Auto Sensing.235 watts

## Audio Specification

- Sample Rate: 48kHz, 44.1kHz or 96kHz
- Processing Delay: 2ms Typical @ 48k(60 Stereo 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: <90dBu Typical
- Noise: (20Hz - 20kHz)
- 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/Hi Shelf, 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  $\infty$  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: 4 band Parametric and 4 band parametric or Dynamic (Low/Lowshef, Lower-Mid/Lowshef, Upper-Mid/Hi Shelf, Hi/Hishef)
- 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  $\infty$  to + 10dB