

SD9 TECHNICAL SPECIFICATIONS

General Specifications

Faders 24 x 100mm touch-sensitive, motorised
Screens 1 x 15" (38cm) LCD high - resolution touch screen
Meters 24 x 8-segment LED bargraph
Input Channels 40 Mono or Stereo channels
Busses 16 Mono or Stereo busses + LR or LCR master
Solo busses 2 mono or stereo busses
Matrix 8 x 8 matrix (additional to busses above)
Control Groups 8, selectable for VCA-style, Moving fader, Mute Group
Graphic Eq 16 x 32-band, Gain +/- 12dB
Internal FX 4 Stereo FX processors
Local I/O 8 x mic/line I/O, 4 x AES/EBU I/O (mono)
MADI interface 1 75 ohm BNC connectivity
D-Rack interface 2 RJ45 shielded connectivity
MIDI interface In / Out / Through
VGA port DB-15 mini-female (1024 x 768 resolution)
USB ports (3) USB2
Ethernet port RJ45
Light connection (2) XLR3 1.2 – 12V
Ext Sync Word clock, AES, MADI
Headphone TRS unbalanced / 8-600 ohms 1/4 inch Jack
GPI 2. 1/4 inch Jack
GPO 2. 1/4 inch Jack
D-Rack
32 mic/line inputs on 3 pin female XLR
8 line outputs on 3 pin male XLR
Optional 8 line outputs on 3 pin male XLR or 4 stereo AES outputs on 3 pin male XLR
Interface to SD9 RJ45 shielded connectivity
Optional 19" rack ears
Mains Operating range
SD9 surface 90-264V 47-63Hz auto ranging
D-Rack 90-264V 47-63Hz auto ranging
Mains Power Consumption
SD9 surface 208W 232VA (with twin PSU's)
D-Rack 68W 108VA (with twin PSU's)
Operating temperature 1 degree C to 40 degrees C Range
Storage temperature -10 degrees to 60 degree C Range
Relative humidity range 0%-90% non-condensing
Weights and Dims SD9: 36KGS. 878W 785D 262H
Weights and Dims D-RACK: 7.4KGS. 412W 312D 179H

These specifications relate to both the D-Rack and SD9 local I/O

Analogue inputs:

Gain 10 to 60dB

Pad -20dB

Crosstalk Less than 90dB 100Hz to 10kHz

Input impedance 2500 ohms (no pad) 2650 ohms (with pad)

General Specifications (cont...)

Equivalent input noise Typically -127dB (150 ohm source)
Maximum input level +9dB no pad +28dB with pad

Analogue outputs:

Output noise typically less than -91dB
Maximum level +22dB
Output impedance Less than 50 ohms

Analogue I/O:

Distortion (30dB gain) 100Hz typically 0.005%
+10dB output 1kHz typically 0.009% 10kHz typically 0.05%
Frequency response 10Hz-20kHz +0/-1dB

Digital Inputs:

Standard AES/EBU
Sample rate converters Switchable
Input impedance 110 ohms

Digital outputs:

Standard AES/EBU
Sample rate converters non (console word clock only)
Output impedance 110 ohms

Digital I/O:

Frequency response 10Hz-20kHz +/-0.1dB
Distortion -1dBFS 100Hz typically 0.0002%
1kHz typically 0.0015%
10kHz typically 0.0015%

General:

Clocking
Clock sources Internal, MADI, Word clock
Clock output BNC TTL level
Clock accuracy +/-25ppm
Jitter <+/- 5nS 50Hz-100kHz

Processing Channel Specifications (Input Channel)

Name User-defined / Presets
Channel Selection Mono / Stereo
Input Routing Main & Alternate Input
Analogue Gain -20 to +60dB
Phase Normal / Reverse
Digital Trim -40 to +40dB
Delay <1.3 sec (coarse & fine control)
LPF 20 – 20kHz, 24dB / Oct
HPF 20 – 20kHz, 24dB / Oct
Insert A (pre eq/dyn) On/Off
Insert B (post eq/dyn) On/Off

Processing Channel Specifications (Input Channel) (cont...)

Equalisation 4 band PEQ (or Dynamic up to 8 Stereo Processing Paths with Overdrive Software)

(hi & lo bands switchable shelving or bell)

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

Compressor Single (or Multiband, up to 8 Stereo Processing Paths with Overdrive Software)

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

Gate on/off

Threshold; -60 – 0dB

Attack; 50us – 100ms

Hold; 2ms – 2s

Release; 5ms – 5s

Range; 0 - 90dB

Key; Any source

Key listen

Freq/width; 20 – 20kHz

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

Link; any channel / buss

Gate

on/off

Threshold; -60 – 0dB

Attack; 50us – 100ms

Hold; 2ms – 2s

Release; 5ms – 5s

Range; 0 - 90dB

Key; Any source

Key listen

Freq/width; 20 – 20kHz

EQ/Dyn order EQ/Dyn or Dyn/EQ

Processing Channel Specifications (Aux\Group\Matrix Output)

Name User-defined / Presets
 Phase Normal / Reverse
 Digital Trim -20 to +60dB
 Delay <1.3 sec (coarse & fine control)
 LPF 20 – 20kHz, 24dB / Oct
 HPF 20 – 20kHz, 24dB / Oct
 Insert A (pre eq/dyn) On/Off
 Insert B (post eq/dyn) On/Off
 Equalisation 4 band PEQ (or Dynamic up to 8 Stereo Processing Paths with Overdrive Software)
 (hi & lo bands switchable shelving or bell)
 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
 Compressor Single (or Multiband, up to 8 Stereo Processing Paths with Overdrive Software)
 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
 Gate on/off
 Threshold; -60 – 0dB
 Attack; 50us – 100ms
 Hold; 2ms – 2s
 Release; 5ms – 5s
 Range; 0 - 90dB
 Key; Any source
 Key listen
 Freq/width; 20 – 20kHz
 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