

Specifications

Specifications are subject to change without prior notice.
For the latest information available on all Sound Devices products,
visit our website: www.sounddevices.com.

FREQUENCY RESPONSE

10 Hz to 80 kHz \pm 0.5 dB (192 kHz sample rate, re 1 kHz)

THD + NOISE

0.005% max (mic in, 1 kHz, 22 Hz–22 kHz BW, trim at 20, fader at 0, -10 dBu in)

EQUIVALENT INPUT NOISE

-131 dBV (-129 dBu) max (mic in, A-weighting, 76 dB gain, 150 ohm source impedance)

PROCESSING ENGINE

Highly extensible, full FPGA-based audio processing, 3 FPGAs
Six-way ARM multiprocessor system
64-bit audio processing precision

AUDIO OVER ETHERNET

Dante, AES67 compatible
16 channels in, 16 channels out (up to 192 kHz)
1 Gb/s Ethernet, 1 port, transformer-balanced

INPUTS

Mic/Line inputs: 8 total, all fully featured; 4 on full-size XLR, 4 on TA3
Mic-level inputs: (XLR, TA3): Class-A, discrete differential long-tail pair, 4k ohm input impedance
Line-level inputs: (XLR, TA3): active-balanced, 4k ohm input impedance
48V phantom: full 10 mA to all 8 inputs simultaneously
AES3 or AES42 available on XLR input 1
AES42: +10 V, 250 mA available, mode-1, auto-ASRC
Rtn A (TA3): unbalanced 2-channel, 4k ohm input impedance
Rtn B (3.5 mm): unbalanced 2-channel, 4k ohm input impedance
Com Rtn (TA3) balanced, 1-channel, 8k ohm input impedance
External Slate Mic (TA5): balanced, 8k ohm input impedance, menu-selectable 12 V phantom

MAXIMUM INPUT LEVEL

Mic: +8 dBu (2.0 Vrms)
Line: +28 dBu (19.5 Vrms)
Rtn A, B: +18 dBu (6.2 Vrms)
Com Rtn: +24 dBu (12.3 Vrms)
External Slate Mic: +12 dBu (3.2 Vrms)

HIGH-PASS FILTERS

Adjustable 10 Hz to 320 Hz, 18 dB/oct. 1st stage analog (before preamp), 2nd stage digital.

LIMITERS

Limiters available at all channels, buses, headphones, for all sample rates
Analog first stage, all subsequent stages digital
Attack time: 1 ms
Release time: adjustable, 50 ms to 1000 ms
Threshold: adjustable, -2 dBFS to -12 dBFS
Selectable ratio: inf:1, 20:1, 18:1, 16:1, 14:1, 12:1, 10:1

DELAY

Channel Adjustable 0-50 ms
Output Adjustable 0-500 ms

MAXIMUM GAIN

Trim stage (mic input): 76 dB
Trim stage (line input): 50 dB
Fader stage: 16 dB
Bus stage: 16 dB
Headphone stage: 20 dB
Mic-to-Line: 108 dB
Mic-to-Headphone: 112 dB
TA5 (along with mic input pins) for single connection to headset + mic
High output, 4 ohm output impedance, 400 mW + 400 mW at each connector, all individually driven
Compatible with headphones of any impedance

OUTPUTS

XLR (L, R) active-balanced, 250/3.2k/120 ohms (mic/-10/line)
TA3 (X1-X4) active-balanced, 250/3.2k/120 ohms (mic/-10/line)
3.5mm (X5, X6, X7, X8): unbalanced, stereo, 1.8k ohms

HEADPHONE OUTPUTS

¼", 3.5 mm
TA5 (along with mic input pins) for single connection to headset + mic
High output, 4 ohm output impedance, 400 mW + 400 mW at each connector, all individually driven
Compatible with headphones of any impedance

MAXIMUM OUTPUT LEVEL

(all into 10k load)
Line: +20 dBu (7.8 Vrms)
"-10": +6 dBu (1.5 Vrms)
Mic: -20 dBu (0.078 Vrms)
X5/X6 Out: +6 dBu (1.5 Vrms)
Headphone outputs (¼", TA5, X7/X8): +14 dBu (4.0 Vrms)

A/D CONVERTERS

32-bit, 120 dB, A-weighted dynamic range typical
Sampling rates 44.1 kHz, 47.952 kHz, 48 kHz, 48.048 kHz, 88.2 kHz, 96 kHz, 192 kHz

DIGITAL OUTPUTS

AES3 transformer-balanced, in pairs; 1-2 (XLR-L), 3-4 (XLR-R)
110 ohm, 2 V p-p, AES and S/PDIF compatible

RECORDING

Internal 256 GB SSD, two removable SD Cards
10% over-provisioned for optimum performance
Simultaneous recording to internal SSD and the two SD cards
exFAT formatting
20 tracks (16 ISO channels, 4 buses)
Broadcast WAV monophonic and polyphonic file format
64-bit WAV (RF64) monophonic and polyphonic; support for files > 4 G
AAC 2 track at 48 kHz, selectable bit rate 32, 64, 128, 192, 256 kbps

AUTOMATIC MIXING

Dugan Automixer up to 16-channels on left and right mix bus
MixAssist up to 16-channels on Left and Right bus

USB

USB-C (USB 3.1 type 1) for file transfer of internal SSD, both SD Cards
USB-A host for keyboard, external controller, external USB hubs supported for connecting multiple devices

TIMECODE AND SYNC

Modes Supported: Off, Rec Run, Free Run, 24h Run, External, including External Auto-Record and Continuous modes.
Frame Rates: 23.98*, 24, 25, 29.97 DF, 29.97 ND, 30 DF, 30 ND
Sample/Timecode Accuracy: 0.1 ppm (0.25 frames per 24 hours)
Timecode Input: 20k ohm impedance, 0.3 V - 3.0 V p-p (-17 dBu - +3 dBu)
Timecode Output: 75 ohm impedance, 5 V p-p (+12 dBu)
Word Clock Input: 10k/75 ohm selectable impedance, 1-5 V p-p input sensitivity
Word Clock Output: 75 ohm impedance, 5 V p-p output, at SR

REMOTE CONTROL

Sound Devices CL-12 Linear Fader Controller
USB MIDI MCU Control - supported 3rd party fader controllers
SD-Remote Android app
USB Keyboard
External Timecode Record Trigger

LCD

320x240, transfective, excellent sunlight visibility
Larger touchscreen display available via USB-connected SD-Remote app

POWER

External: 10-18 V input on locking TA4 connector, pin-4 = (+), pin-1 = (-)
Dual rear-mount Sony-style L-mount batteries with chargers
Current Draw, at 12 V no battery charging:
All mic preamps off: 0.90 A
All mic preamps on: 1.12 A
All mic preamps on, 192 kHz sample rate, recording to 2 SD Cards: 1.29 A
All mic preamps on, 192 kHz sample rate, recording to 2 SD Cards, Dante enabled: 1.56 A
Intelligent power-down of unused mic preamps and other internal circuits
Smart Battery telemetry supported via DC Input

ENVIRONMENTAL

Operating: -20° C to 60° C, 0 to 90% relative humidity (non-condensing)
Storage: -40° C to 85° C

DIMENSIONS (H X W X D)

5.1 cm x 24.5 cm x 18.5 cm
2.0 in. x 10.0 in. x 7.3 in

WEIGHT

4.0 lbs (unpackaged, without batteries)
1.83 kg (unpackaged, without batteries)