

HS-8

8-Track Audio Recorder/Player



The HS-8 is Tascam's first studio solution for professional multi-track recording and playback based on solid-state media. From studio surround recording to post production and broadcast playback of HS-P82 location recordings, this eight-track recorder fits a variety of multi-track roles. The HS-8 includes SMPTE timecode and all connections required by professionals including RS-422 serial control. Also true to Tascam tradition, audio is top-quality throughout with up to 192 kHz / 24-bit recording formats available.

A mixer is built into the HS-8 for monitoring, and the stereo mix can be recorded live as a separate stereo track. The unit has a colour touch-screen interface to access settings and tracks with ease. Audio files are created on secure CompactFlash media in Broadcast WAV format, and since a pair of CF card slots is available, data mirroring or extended recording times are possible (with future update). A remote control available as an option ([RC-HS20PD](#)) allows flash start operation from a separate room over RJ-45 connection.

The HS-8 is the ideal solid-state recorder for professionals, with the instant access, ease-of-use and sound quality recording, broadcast and post production studios demand.

Main Features

- **High-quality 8-track recorder for professional use**
- **Uses secure CompactFlash cards as recording media**
 - No moving mechanism for high reliability
 - Dual CompactFlash slot
 - UDMA support ensures direct, fast data transfer between internal memory and CF media
- **Uses broadcast wave format (BWF) with industry-standard iXML metadata**
- **Tracks available for recording/playback:**
 - 8 tracks with 2 additional tracks for a monitor mix at 48/44.1 kHz sample rates
 - 8 tracks at 96/88.2 kHz sample rates
 - 4 tracks at 192/176.4 kHz sample rates
 - Overdubbing is not supported
- **16/24-bit recording resolution**
- **World's first solid state recorder with multi-track flash start capability (instantaneous playback start by optional remote control, parallel control, RS-232C serial control or computer keyboard)**
- **Internal mixer for stereo monitoring and submix to an additional stereo track**
- **Easy to read and operate through TFT colour touch panel interface**
- **Pre-recording up to 5 seconds (audio is captured before the record button is actually pressed)**
- **Locate marker function (auto/manual)**
- **Auto Cue, Auto Ready, Incremental Play and Repeat functions**

Inputs and Outputs

- **8 balanced analogue inputs and outputs on 25-pin D-Sub connectors**
- **2 balanced XLR inputs and outputs for stereo mix track**
- **8 AES/EBU digital inputs and outputs on 25-pin D-Sub connector**
- **AES/EBU digital input and output (XLR) for stereo mix track**
- **8-track ADAT digital optical input and output**
- **Parallel control port**
- **Serial control port (RS-422 or RS-232C format)**
- **Remote connector for optional flash start controller ([RC-HS20PD](#))**
- **SMPTE Timecode input/output**
- **Video sync input (supports NTSC/PAL, BB and HD Tri-level)**
- **Word sync input/output (BNC)**
- **Computer keyboard (PS/2) connector for easy naming of files and folders**

Functions planned for future update

- **Mirroring and continuous recording between two CF cards**
- **Data exchange with external storage devices via USB connection**
- **Gigabit Ethernet connection for data transfer, remote control or remote monitoring**
- **Cascade input/output for synchronization of multiple machines (BNC)**
- **BWF-J file format support for broadcast applications**
- **Playlist function**

Specifications

Analogue audio inputs and outputs

The error for nominal and maximum levels is ± 1 dB for all input and output jacks except the PHONES jack

ANALOG INPUT (1-8)	D-sub 25-pin
Input impedance	10 k Ω
Nominal input level	When reference level is -9 dB: +6 dBu (1.55 Vrms) When reference level is not -9 dB: +4 dBu (1.23 Vrms)
Maximum input level (selectable)	+15 dBu (4.36 Vrms), +18 dBu (6.16 Vrms), +20 dBu (7.75 Vrms), +22 dBu (9.76 Vrms), +24 dBu (12.28 Vrms)
ANALOG INPUT (L/A, R/B)	XLR-3-31 (1: GND, 2: HOT, 3: COLD)
Input impedance	10 k Ω
Nominal input level	When reference level is -9 dB: +6 dBu (1.55 Vrms) When reference level is not -9 dB: +4 dBu (1.23 Vrms)
Maximum input level (selectable)	+15 dBu (4.36 Vrms), +18 dBu (6.16 Vrms), +20 dBu (7.75 Vrms), +22 dBu (9.76 Vrms), +24 dBu (12.28 Vrms)
ANALOG OUTPUT (1-8)	D-sub, 25-pin
Output impedance	100 Ω
Nominal output level	When reference level is -9 dB: +6 dBu (1.55 Vrms) When reference level is not -9 dB: +4 dBu (1.23 Vrms)
Maximum output level (selectable)	+15 dBu (4.36 Vrms), +18 dBu (6.16 Vrms), +20 dBu (7.75 Vrms), +22 dBu (9.76 Vrms), +24 dBu (12.28 Vrms)
ANALOG OUTPUT (A/B)	XLR-3-32 (1: GND, 2: HOT, 3: COLD)
Output impedance	100 Ω
Nominal output level	When reference level is -9 dB: +6 dBu (1.55 Vrms) When reference level is not -9 dB: +4 dBu (1.23 Vrms)
Maximum output level (selectable)	+15 dBu (4.36 Vrms), +18 dBu (6.16 Vrms), +20 dBu (7.75 Vrms), +22 dBu (9.76 Vrms), +24 dBu (12.28 Vrms)
PHONES connector	6.3-mm standard stereo jack
Maximum output power	45 mW + 45 mW or more (THD+N 0.1 % or less, into 32 Ω)

Digital audio inputs and outputs

DIGITAL IN/OUT (AES/EBU)	D-sub, 25-pin
Minimum input voltage	2 Vpp
Maximum input voltage	7 Vpp
Output voltage	2–5 Vpp
Format	AES3-2003/IEC 60958-4 (AES/EBU)
DIGITAL I/O (ADAT)	ADAT optical
Format	ADAT
DIGITAL INPUT A-B	XLR-3-31
Input voltage	2–7 Vpp at 110 Ω
Format	AES3-2003 (AES/EBU)
DIGITAL OUTPUT L-R	XLR-3-32
Output voltage	2–5 Vpp at 110 Ω
Format	AES3-2003 (AES/EBU)

Other inputs and outputs

RS-422	D-sub, 9-pin
RS-232C	D-sub, 9-pin
PARALLEL	D-sub, 25-pin
CASCADE IN	BNC
Input voltage	TTL equivalent (5 V)
Input impedance	75 Ω \pm 10 %
	Allowable frequency deviation of external synchronization: \pm 100 ppt
CASCADE OUT	BNC
Output voltage	TTL equivalent (5 V)
Output impedance	75 Ω \pm 10 %
Sampling frequency	44.1/47.952/48/48.048/88.2/96/176.4/192 kHz (47.952/48.048: 48 kHz \pm 0.1% pull-down/pull-up)
TIME CODE IN	BNC
Input voltage	0.5–5 Vpp
Input impedance	20 k Ω
TIME CODE OUT	BNC
Output voltage	2–5 Vpp
Output impedance	600 Ω \pm 10
WORD/VIDEO IN	BNC
Input voltage	TTL equivalent (5 V)
Input impedance	75 Ω \pm 10 %
	Allowable frequency deviation of external synchronization: \pm 100 ppt
WORD/VIDEO THRU/OUT	BNC
	OUT/THRU switch included (OUT is for WORD OUT only)
Output voltage	TTL equivalent (5 V)
Output impedance	75 Ω \pm 10 %
Sampling frequency (when using WORD)	44.1/47.952/48/48.048/88.2/96/176.4/192 kHz (47.952/48.048: 48 kHz \pm 0.1% pull-down/pull-up)
ETHERNET	RJ45
Keyboard	Mini-DIN (PS/2)
USB	USB A-type, 4-pin
Protocol	USB2.0 HIGH SPEED (480 Mbit/s)

Audio performance (analogue input to analogue outp

Frequency response	
20 Hz - 20 kHz	\pm 0,5 dB (all sampling rates)
at 40 kHz	+0,5 dB/–2 dB (Fs = 88.2/96 kHz)
at 80 kHz	+0,5 dB/–5 dB (Fs = 176.4/192 kHz)
Distortion	\leq 0.005% (Reference level: –20 dB, input level: +23 dBu, 1 kHz, AES 17LPF)
S/N ratio	\geq 100 dB(A) (22 kHz LPF)

Power requirements and other specifications

Power requirements	100–240 V AC, 50–60 Hz
Power consumption	26 W
Dimensions (W x H x D)	483 mm x 88 mm x 288 mm
Weight	4.8 kg
Operating temperature range	5–35 $^{\circ}$ C

Design and specifications subject to change without notice.

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