TASCAM
TEAC PROFESSIONAL

HS-2000
Stereo Audio Recorder

The HS-2000 is Tascam's studio solution for professional stereo recording and playback based on solid-state media. The HS-2000 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.

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. A remote control available as an option allows flash start operation from a separate room over RJ-45 connection.

The HS-2000 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

- **Differences to HS-2 are marked in red**
- **High-quality stereo audio recorder for professional broadcast and recording applications**
- **Two operation modes:**
  - Timeline mode: Use the unit like a tape recorder
  - Take mode: Record/play separate audio takes, use playlists and flash start
- **Ideal replacement for current DAT, MD, MO or other recorders**
- **Fast boot time**
- **Easy to read and operate through TFT colour touch screen interface**
- **Dual CompactFlash slot with UDMA support**
- **Mirroring and continuous recording between two CFs**
- **Uses broadcast wave format (BWF) with mark function**
- **Sample rates: 192/176.4/96/88.2/48.048/48/47.952/44.1 kHz at 16/24-bit resolution**
- **Pre-recording up to 5 seconds (audio is captured before the record button is actually pressed)**
- **Flash start with optional flash start controller RC-HS20PD or RC-SS20**
- **Locate marker function (auto/manual)**
- **Online function with dedicated outputs for pre-listening and on-air playback**
- **Confidence monitoring**

- **Editing fuctions (divide, combine, erase)**
- **Projects can be exported in AES31 format**
- **Auto Cue, Auto Ready, Incremental Play and Repeat**
- **Playlist function**
- **Jog/Shuttle function**
- **2U rack-mount size**

Inputs and Outputs

- **Balanced analogue inputs and outputs (XLR)**
- **Additional balanced monitor output (XLR)**
- **AES/EBU input, main output and monitor output**
- **Parallel control port**
- **RS-422 serial control port**
- **RS-232C serial control port**
- **SMPTE Timecode input/output as standard**
- **Word sync input/output (BNC)**
- **Video sync input (BNC)**
- **Gigabit Ethernet connection for data transfer or remote control**
- **Remote connector for optional flash start controller**
- **USB connector for data exchange with external storage devices**
- **Computer keyboard (PS/2) connector for easy naming of files and folders**
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Specifications

General

Recording media	Compact Flash cards
File system	FAT32 (4 GB or more)
	FAT16 (2GB or less)
File formats	BWF (Broadcast Wave)
	WAV (Waveform Audio)
Number of channels	2 channels
Quantization bit rates	16-bit, 24-bit
Sampling frequencies	44.1/47.952/48/48.048/88.2/96/176.4/192 kHz
	(47.952/48.048: 48 kHz ±0.1% pull-down/pull-up)
Clock references	INTERNAL, WORD IN, VIDEO IN, DIGITAL IN
Timecode frames	23.976, 24, 25, 29.97DF, 29.97NDF, 30DF, 30NDF

Analog 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 IN (LINE) connectors (L/R)	XLR-3-31 (1: GND, 2: HOT, 3: COLD)
Input impedance	4.3 kΩ
Nominal input level	+4 dBu (1.23 Vrms) ±1 dB or –20 dBu (0.0775 Vrms) ±1 dB (selectable)
	(+6 dBu only when set to Max +15 dBu and Digital Ref. Level set to -9 dB)
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 (12.3 Vrms)
	–6 dBu (0.388 Vrms)
	–4 dBu (0.489 Vrms)
	–2 dBu (0.616 Vrms)
	0 dBu (0.775 Vrms)
ANALOG OUT (LINE) connectors (L/R)	XLR-3-32 (1: GND, 2: HOT, 3: COLD)
Output impedance	100 Ω or less
Nominal output level	+4 dBu (1.23 Vrms) ±1 dB or –20 dBu (0.0775 Vrms) ±1 dB (selectable)
	(+6 dBu only when Digital Ref. Level set to –9 dB)
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 (12.3 Vrms)
	–6 dBu (0.388 Vrms)
	–4 dBu (0.489 Vrms)
	–2 dBu (0.616 Vrms)
	0 dBu (0.775 Vrms)
ANALOG OUT (MONITOR) connectors (L/R)	XLR-3-32 (1: GND, 2: HOT, 3: COLD)
Output impedance	100 Ω or less
Nominal output level	When reference level set to –9 dB:
	+6 dBu (1.55 Vrms)
	When reference level set to any value other than –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 (12.3 Vrms)
PHONES jack	Standard 6.3-mm 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 [LINE] connector	XLR-3-31
Input signal voltage amplitude	200 mVpp to 10 Vpp
Input impedance	110 Ω ±20%
Format	AES3-2003/IEC60958-4 (AES/EBU) IEC60958-3 (SPDIF)
Supported sampling frequencies	44.1/47.952/48/48.048/88.2/96/176.4/192kHz (single/double/quad) (47.952/48.048: 48 kHz ±0.1% pull-down/pull-up) Note: When SRC is ON, the receivable range is 32–192 kHz.
DIGITAL OUT [LINE] connector	XLR-3-32
Output voltage	2–5 Vpp
Output impedance	110 Ω ±20%
Format	IEC60958-4 (AES3-2003, AES/EBU)
Supported sampling frequencies	44.1/47.952/48/48.048/88.2/96/176.4/192kHz (single/double/quad) (47.952/48.048: 48 kHz ±0.1% pull-down/pull-up)

Control inputs and outputs

RS-422 connector	D-sub 9-pin (female, inch-standard)
RS-232C connector	D-sub 9-pin (female, inch-standard)
PARALLEL connector	D-sub 25-pin (female, inch-standard)
Timecode INPUT connector	XLR-3-31
Signal voltage amplitude	0.5–10 Vpp
Input impedance	10 kΩ
Format	SMPTE 12M-1999 compliant
Timecode OUTPUT connector	XLR-3-32
Signal voltage amplitude	2 Vpp
Output impedance	100 Ω
Format	SMPTE 12M-1999 compliant
WORD/VIDEO IN connector	BNC
Input voltage	5V TTL equivalent (WORD IN)
Signal voltage amplitude	1 Vpp (VIDEO IN)
Input impedance	75 Ω ±10%
Allowable frequency deviation of external synchronization	± 100 ppm
Input frequency (WORD)	44.1/47.952/48/48.048/88.2/96/176.4/192kHz (47.952/48.048: 48 kH ±0.1% pull-down/pull-up)
Input signal (VIDEO)	24/25/29.97/30 Frame (NTSC/PAL Black burst, HDTV Tri-Level)
WORD/VIDEO THRU/OUT connector	BNC (OUT/THRU switch included)
Signal voltage amplitude	5V TTL equivalent
Output impedance	75 Ω ±10%
Output frequency (WORD)	44.1/47.952/48/48.048/88.2/96/176.4/192kHz (47.952/48.048: 48kHz±0.1% pull-down/pull-up)
Frequency stability	±10 ppm or less (Ta = 20º C)
ETHERNET connector	RJ45
Supported standards	100BASE-TX, 1000BASE-T
KEYBOARD connector	Mini-DIN (PS/2)
USB connector	USB A-type 4-pin
Protocol	USB 2.0 HIGH SPEED (480 Mbps)
REMOTE connector	etherCON (CAT6 compatible)
Power supply voltage	13 V/41 V
Signal	LVDS serial

Audio performance

Frequency response, ANALOG IN to ANALOG OUT	20 Hz – 20 kHz: ±0.5 dB (Fs = 44.1/48 kHz, JEITA, recording and playback) 20 Hz – 40 kHz: +0.5 dB/−2 dB (Fs = 88.2/96 kHz, JEITA, recording and playback) 20 Hz – 80 kHz: +0.5/−5 dB (Fs = 176.4/192 kHz, JEITA, recording ar playback)
Distortion, ANALOG IN to ANALOG OUT	0.005% or less (JEITA, recording and playback)
S/N ratio, ANALOG IN to ANALOG OUT	100 dB or more (JEITA, recording and playback)

Power supply and other specifications

Power	AC 100-240 V, 50-60 Hz
Power consumption	25 W
External dimensions (W x H x D)	483 mm x 94 mm x 317 mm (not including protrusions)
Weight	5.1 kg
Operating temperature range	5–35 ºC

Design and specifications subject to change without notice.