11 – Specifications

General

Recording media
- CF card (CompactFlash card)

File system
- FAT32

File format
- BWF (Monophonic, Polyphonic)

Number of channels
- 8 channels (44.1/48/88.2/96 kHz)
- 8 channels + stereo mix (44.1/48 kHz)
- 4 channels (176.4/192 kHz)

Quantization bit rate
- 16 bit/24 bit

Sampling frequency
- 44.1/47.952/48/48.048/88.2/96/176.4/192 kHz
- (47.952/48.048: 48 kHz ± 0.1% pull-up/pull-down)

Reference clock
- Internal, Word in, Video in, Digital in (CH 1-2, CH 3-4, CH 5-6, CH 7-8)

Timecode frame rate
- 23.976, 24, 25, 29.97 DF, 29.97 NDF, 30 DF, 30 NDF

Built-in mic
- Omnidirectional, monaural

Limiter
- Attack time: 3 msec
- Release time: 300 msec
- Threshold: -5 dBFS
- Ratio: 32:1

Low cut filter
- Cut off frequency: 40/80/120 Hz
- Slope: –12 dB/OCT. –18dB/OCT

Input and output

Analog audio input and output

MIC IN/LINE IN connectors (1-8)
- Connector: XLR-3-31 (1: GND, 2: HOT, 3: COLD)
- When LINE is selected:
  - Input impedance: 10 kΩ
  - Nominal input level (Ref. level: –9 dB):
    + 6 dBu (1.55 Vrms)
  - Nominal input level (Ref. level: Other than –9 dB):
    + 4 dBu (1.23 Vrms)

- When MIC –25 is selected:
  - Input impedance: 2.4 kΩ
  - Minimum input level: –45 dBu (4.36 Vrms)
  - Maximum input level: +11 dBu (2.75 Vrms)

- When MIC 0 is selected:
  - Input impedance: 2.4 kΩ
  - Minimum input level: –70 dBu (0.25 mVrms)
  - Maximum input level: –14 dBu (0.15 Vrms)

LINE OUT connectors (L/R)
- Connector: XLR-3-32 (1: GND, 2: HOT, 3: COLD)
- Output impedance: 100Ω or less
- Nominal output level (Ref. level: –9 dB):
  + 6 dBu (1.55 Vrms)
- Nominal output level (Ref. level: Other than –9 dB):
  + 4 dBu (1.23 Vrms)
- Maximum output level: +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) [Selection]

PHONES connector
- Connector: 6.3 mm (1/4") stereo standard jack
- Maximum output level: 100 mW + 100 mW or more
  (THD+N 1% or less, into 32 Ω)

Digital audio input and output

DIGITAL I/O connector
- Connector: D-Sub 25 pin connector
- Format: AES3-2003/IEC60958-4 (AES/EBU)
- Minimum input voltage: 200 mVp-p
- Maximum input voltage: 7 Vp-p
- Output voltage: 3.5 Vp-p

DIGITAL OUT connectors
- Connector: BNC connector
- Format: AES3-2003/AES-3id-2001 (AES/EBU)
- Output voltages: 1 Vp-p/75Ω

Control inputs and outputs

EXT DC ---- IN connector
- Connector: XLR4-32 connector (1: –, 2: NC, 3: NC, 4: +)
- Input voltage: 11-16 V (2A)

CASCADE/WORD/VIDEO IN connector
- Connector: BNC connector
- Input voltage: 5 V TTL equivalent
- Input impedance: 75Ω ±10%
Allowable frequency deviation of external synch: ±100 ppm

**CASCADE/WORD OUT connector**
Connector: BNC connector
Output voltage: 5 V TTL equivalent
Output impedance: 75Ω ±10%
Sampling frequency: 44.1/47.952/48/48.048/88.2/96/176.4/192 kHz (47.952/48.048: 48 kHz ± 0.1% pull-up/pull-down)

**TIME CODE IN connector**
Connector: BNC connector
Input voltage: 0.5 - 5 Vp-p
Input impedance: 10 kΩ

**TIME CODE OUT connector**
Connector: BNC connector
Output voltage: 2.0 Vp-p
Output impedance: 600Ω

**USB port**
Port: USB B-type 4-pin
Format: USB2.0 HIGH SPEED (480 MHz)

**KEYBOARD connector**
Connector: mini-DIN connector (PS/2)

**Audio performance**

**Frequency response**
\[ \text{INPUT (MIC/LINE)} \rightarrow \text{LINE OUT}: \]
- 20 Hz - 20 kHz: 0 dB (±0.5 dB) Fs = ALL
- at 40 kHz: -1 dB (±1.0 dB) Fs = 88.2/96 kHz
- at 80 kHz: -3 dB (+1/-2 dB) Fs = 176.4/192 kHz

**Distortion**
\[ \text{INPUT (LINE)} \rightarrow \text{LINE OUT}: 0.003\% or less \]
(Reference level: When -20 dB, +23 dBu input, 1 kHz, AES-17 LPF)
\[ \text{INPUT (MIC -25)} \rightarrow \text{LINE OUT}: 0.02\% or less \]
(Reference level: When -20 dB, -10 dBu input, Trim +20 dB 1 kHz, AES-17 LPF)
\[ \text{INPUT (MIC O)} \rightarrow \text{LINE OUT}: 0.02\% or less \]
(Reference level: When -20 dB, -35 dBu input, Trim +20 dB 1 kHz, AES-17 LPF)

**S/N ratio**
\[ \text{INPUT (LINE)} \rightarrow \text{LINE OUT}: 110 dB or more (22 kHz LPF A-weighted) \]
\[ \text{INPUT (MIC -25)} \rightarrow \text{LINE OUT}: 100 dB or more (22 kHz LPF A-weighted) \]
\[ \text{INPUT (MIC O)} \rightarrow \text{LINE OUT}: 100 dB or more (22 kHz LPF A-weighted) \]

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**Computer compatibility**

See the TASCAM web site (www.tascam.com) for the most recent information about OS compatibility.

**Windows**
- Pentium 300 MHz or faster
- 128 MB or more memory
- USB port (USB 2.0)

**Macintosh**
- Power PC G3, G4, Intel Mac 266 MHz or faster
- 64 MB or more memory
- USB port (USB 2.0)

**Recommended USB host controller**
- Intel chipset

**Supported OS**
- Windows XP, Windows Vista, Windows 7
- Macintosh Mac OS X 10.2 or later

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**Other specifications**

**Power**
- AC 100-240 V, 50-60 Hz (AC adaptor PS-1225L)
- 10 AA batteries (Alkaline or NiMH)
- External DC battery (DC 11-16 V, 2A or more)

**Battery operation time (continuous operation)**
- NP type battery (Li-Ion: 14.8 V/4.6 Ah (68 W))
  - About 5 hours (JEITA playback time)
  - About 5 hours (JEITA recording time)
- AA type battery (NiMH)
  - About 2 hours (JEITA playback time)
  - About 2 hours (JEITA recording time)
  - (48 kHz, 24-bit, 8 ch, with phantom power OFF. Varies with operating conditions.)

**Power consumption:** 18 W

**Dimensions (W x H x D)**
- 270 x 99.7 x 260 mm (excluding protrusions)

**Weight:** 3.65 kg (not including batteries)

**Operating temperature range:** 0–40°C
11 - Specifications

Dimensional drawings

[Diagram showing measurements: 260 mm, 270 mm, 99.7 mm]