# Avid AirSpeed v.2.5



The Avid® AirSpeed® next-generation I/O server is a direct, single channel ingest and single or dual-channel playout system designed to integrate with the Avid nonlinear production environment—the most cost-effective and efficient means for the start and finish of a project or getting a story to air. With AirSpeed, direct acquisition of tapes and live feeds

into an Avid Unity<sup>™</sup> shared media network or standalone Airspeed directly into Avid editing systems without shared storage makes incoming footage available immediately to all contributors. With support for single channel capture and playout of Avid DNxHD<sup>®</sup> and uncompressed SD and two-channel playout support for DV25, DV50, IMX30, IMX50— AirSpeed offers significant time savings at each end of your HD or SD nonlinear workflow. Its compact, modular 3RU form factor reduces space requirements and its proven IT-based design integrates easily with your existing equipment, applications, and processes—including third-party automation systems.

## Faster workflow and FrameChase editing

Direct ingest to shared storage with FrameChase™ editing—in a variety of formats, without transcoding—means that workgroup and MXF-supporting editing systems can simultaneously edit or play any live feed within seconds after recording starts. AirSpeed systems virtually eliminate the time between acquisition and editing. At airtime, AirSpeed systems can play the story while the file is still transferring, speeding up both ends of the process in time-critical news, talk show, and sports production.

## No compromise end-to-end HD production

Avid AirSpeed 2.5 is the key to the fastest and highest quality HD production workflow possible. Linked with the award-winning DNxchange™ coprocessor, AirSpeed 2.5 captures any 1080i/50, 720p/59.94 or 720p/50 source, records Avid DNxHD media directly into an Avid Unity media network, and then plays out the finished project in the original format, maintaining pristine video and audio quality.

## More affordable cost of entry

The Avid AirSpeed multi-purpose media platform is a cost-effective and workflow-enabling replacement for VTRs or server technology that no longer fit your budget or your plans. Now, the same AirSpeed server that provides dedicated ingest, storage, and playout directly to and from Avid Unity shared storage is now available for capture and playout over the network to standalone Avid editing systems without shared storage.

## **Greater reliability**

Safe playout transmission is ensured by caching material from shared storage onto the AirSpeed system's internal storage. Grouping up to four AirSpeed systems in a Studio configuration provides redundancy and flexibility for even greater playout confidence, while adding a fifth unit can provide additional failover channels in conjunction with the AirSpeed CountDown™ playback control application.

## Software upgradeable codecs

Simply because formats change doesn't mean the entire server should. Once installed, the AirSpeed system can be software-upgraded to accommodate new codecs as needed. With new formats and resolutions emerging all the time, facilities and broadcasters can stay up to date without a total hardware replacement.

# Straightforward operation

The standard AirSpeed system can be operated from the LCD front panel or controlled using standard VTR control protocols—and its familiar UI requires minimal training. Users can operate the AirSpeed system over the network through included or optional applications. The AirSpeed system is also available without a front panel and with higher capacity drives for remote-only operation or more flexible HD workflow.

## **Extended access**

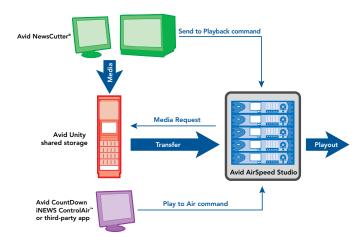
With AirSpeed systems, direct shared storage is as accessible to the feed room operations as it is to the connected editing clients—and over-the-network control applications give you freedom from the feed room.

## Modular scalability

The 3RU form factor and the ability to simply add ingest or playout channels (or easily reconfigure between them) means broadcasters or facilities can start small and grow affordably.

## Tight integration with production process

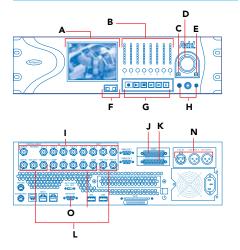
AirSpeed systems work in conjunction with MediaManager for easy search of ingested assets, bringing all attached clients (editors and non-editors alike) the power of integrated asset management embedded in the production process.



For exceptionally reliable, high-redundancy playout, up to five AirSpeed units can be grouped together in an AirSpeed "Studio" configuration, functioning as a single, multi-channel "virtual server" for precise playout—even as media is still being transferred, as well as for automatic failover.

# **Product highlights**

Users familiar with VTR operation will find it easy to use the AirSpeed server's front-panel control surface, which includes standard playback and audio level controls as well as buttons to mark "IN" and "OUT" points and locators. A complete range of video and audio I/O, control, and sync connections facilitates easy integration with a facility's existing signal and control infrastructure.



- A. UI and playback monitor
- B. Audio indicators and gain controls
- C. Mark IN button
- D. Built-in jog and shuttle wheel
- E. Mark OUT button
- F. Channel select buttons
- G. Operational controls
- H. Headphone control
- I. Digital audio inputs and outputs
- J. GPIO connector
- K. Analog audio output
- L. Serial digital interface and analog reference connectors
- M. Video outputs
- N. Longitudinal Timecode (LTC) input and output
- O. Monitor output

System specifications subject to change.

## **Avid Total Services**

Providing faster return on your investment by getting your systems and personnel up and running quickly, maximizing workflow efficiency, and meeting your production schedules. To learn more about Avid Total Services, please visit: www.avid.com/services.

# System specifications

## **Physical**

## Dimensions

- inches: 19.00 (w) x 5.2 (h) x 27 (d) • cm: 48.3 (w) x 13.2 (h) x 68.6 (d)
- Rack units: 3RU

## Weight

pounds: 54kilograms: 24.3

#### Power

 100 to 240 VAC, 50/60 Hz auto ranging, 470 watts

#### **Environmental**

• 10°C to 35°C, 90% RH non-condensing

#### **Audio interfaces**

- Channels: 8 channels of AES/EBU capture;
   8 channels of AES/EBU audio playback
- Sampling: 48 KHz, 16- or 24-bit resolution, balanced differential
- Embedded audio: 48 KHz 20 bit sample resolution; 8 channels in and out
- Audio monitoring: 8 balanced outputs (2-channel monitoring at a time through headphones)

## Analog audio output

- Frequency response: 20 20 kHz
   < 0.5 dB deviation</li>
- Dynamic range: 82 dB unweighted
- THD plus noise: 78 dB unweighted at 0 dBFS
- Inter channel crosstalk: < 60 dB at 1 kHz
- Inter channel gain mismatch: < 0.5 dB
- Output impedance: 50 ohm
- Minimum headphone impedance: 32 ohm\*
- Maximum headphone output level: 18 dBu\*

## Video

### Video channels

- 1 record or 2 play channels
- 525/625 selectable (SMPTE 259m)

#### Video input

• 1 SDI-SMPTE 259m or SMPTE 305M (when used with external DNxchange coprocessor)

### Video outputs

• 2 SDI-SMPTE 259m or SMPTE 305M (when used with external DNxchange coprocessor)

## Video monitoring

- NTSC/PAL composite monitor outputs: 1 clean feed and 1 burned-in TC
- YPbPr/GBR component monitor out (selectable)
- 2 SDI outputs
- Front panel LCD composite/VGA monitor (SD only)\*

## Video compression

- Internal: 25 Mb/s (4:1:1 and 4:2:0) DV, 50 Mb/s, (4:2:2) DV, IMX 30 and IMX 50, Uncompressed SD
- External: Avid DNxHD 1080i/59.94, 1080i/50, 720p/59.94, 720p/50 using DNxchange coprocessor
- Analog I/O connector: 25-pin female

# Control and synchronization

## **External control**

- Sony BVW with Avid extensions
- VDCP
- Application Program Interface (API)

#### Manual control

- Graphical user interface\*
- Record, play, trimming, locators, and configuration\*

## Timecode (record)

- LTC SMPTE 12M balanced I/O
- VITC SMPTE 266 with selectable input and output lines

## Reference

 Analog black burst reference, looping input

## **Output timing (playout)**

• Variable +/- 1/2 H line 2 pixel steps

### Internal time

 Derived from VITC on composite reference input or LTC input

## **Closed caption**

 Closed caption data carried in line 21 (525 line) and line 22 (625 line) is preserved independent of SD compression format

#### Data

- Keyboard/mouse port
- SMPTE alarm
- Ethernet 10Base-T, 100Base-T, or 1000Base-T connectivity

# Rear panel connections

- Serial remote x2: 9-pin female D connector, RS-422
- Analog I/O connector: 25-pin female
   D connector
- LTC timecode in: 1 XLR female connector
- LTC timecode out: 2 XLR male connectors
- AES/EBU digital audio in: 4 BNC connectors
- AES/EBU digital audio out: 4 BNC connectors
  Component monitor out: 3 BNC connectors
- Composite monitor out: 1 BNC connector
- SDI in: 1 BNC connector
- SDI out: 2 BNC connectors
- Reference in: 2 BNC connectors with passive looping
- SMPTE alarm: 1 BNC connector
- GPIO connector: GPO: Record Tally, Play Channel 1 Tally, Play Channel 2 Tally, Server Ready GPI: Cue Channel 1, Cue Channel 2, Play Channel 1, Play Channel 2, Stop Channel 1, Stop Channel 2, Start Record, Stop Record
- \* Not available on all models

