



ULTRA **8K**

2026



DUNE HD ULTRA **8K**

Ultra 8K is the new flagship 8K media player from Dune HD for video and audio, combining high-quality local playback, official streaming video services, and a High-End audio source. It is not just the next step after Ultra Vision 4K, but a new model built around several major upgrades. At its core is a dual-system architecture with two physically independent media processors: the main Dune HD 8K media platform for local video and audio playback at maximum quality, and a separate certified Android TV system for official streaming services.

In a single high-end device, Ultra 8K effectively combines two premium playback sources, advanced HDMI 8K processing and HDMI audio extraction, a high-precision TCXO clock generator, a dual linear power supply with two shielded toroidal transformers, two front hot-swap HDD bays with vibration isolation, a larger full-aluminum chassis, and a completely redesigned audio architecture based on two ESS ES9038PRO DACs, premium MUSES operational amplifiers, and the new XMOS XU-316 audio processor.



- Dual System 8K + Android TV
- Linux+AOSP based main system (8K)
- Certified Android TV system (4K)
- Two media processors (S928X + S905X4)
- 12 GB RAM + 96 GB flash memory
- Netflix @ 4Kp60 DV + Atmos
- 2x HDMI outputs
- 2x HDMI inputs
- HDMI audio extraction
- Advanced 8K switching & processing
- HDMI chip as in HDFury VRROOM
- Dolby Vision on HDR projectors
- Dual ESS ES9038PRO DACs
- Premium MUSES op-amps
- XMOS XU-316 audio processor
- Full galvanic isolation of the DAC part
- All-linear audio power design
- Ultra-low-noise multi-stage LDO
- High-precision TCXO clock
- Dual linear power supply
- Two shielded toroidal transformers
- 2x vibration-isolated 3.5" HDD racks
- Up to 64 TB+ internal HDD storage
- Large heightall-aluminum chassis

Improvements over Ultra Vision 4K

1. Dual System architecture with certified Android TV streaming — Combines the main Dune HD media system with a separate certified Android TV hardware module, using two physically independent media processors: one dedicated to high-quality local media playback and one dedicated to official streaming apps.
2. New 8K media platform with higher performance — Ultra 8K uses the powerful Amlogic S928X platform, with 8Kp60 video decoding and 8Kp60 video output, a more powerful CPU and GPU, faster memory and storage, and significantly improved overall responsiveness.
3. AV1 video codec support — AV1 can deliver higher picture quality without increasing bitrate, or reduce video stream size while maintaining comparable quality. This is an increasingly important feature for modern video services and future content compatibility.
4. Increased built-in memory — Ultra 8K provides a total of 12 GB RAM and 96 GB flash memory across two systems: 8 GB / 64 GB for the main 8K system plus 4 GB / 32 GB for the separate Android TV module. Each system has its own dedicated resources for smooth operation, faster apps, responsive interface, and caching.
5. Advanced 8K HDMI switching and audio extraction — Ultra 8K adds two full-featured HDMI inputs with support for up to 8Kp60 HDR, 4Kp120, Dolby Vision, HDCP 2.3, video passthrough, and HD audio formats. Combined with dual HDMI outputs, this enables flexible video/audio routing and reduces the need for external HDMI switchers or splitters.
6. Advanced Dolby Vision processing — Ultra 8K integrates a dedicated HDMI processor that can effectively add Dolby Vision support and noticeably improve picture quality on high-end HDR projectors without built-in Dolby Vision support (the so-called LLDDV/HDR trick). It also provides additional tone-mapping adjustment options for HDR and Dolby Vision TVs. Previously, this kind of processing typically required external HDMI processors such as HDFury VRROOM. In Ultra 8K, a ready-to-use solution of the same class is already built in.
7. Larger full-aluminum chassis — The chassis height is increased to 128 mm, and the chassis is now made fully from thick aluminum, improving rigidity, heat dissipation, internal layout, and premium appearance.
8. 2x front hot-swap vibration-isolated HDD racks — Both HDD racks are now front-accessible, support convenient hot-swap operation, support 3.5" SATA HDDs and 2.5" SSD/HDDs via an adapter, and use vibration isolation to reduce HDD noise.
9. High-precision TCXO clock — An ultra-low-noise precision clock provides stable synchronization for the main processor and key digital audio/video processing and output circuits, helping improve A/V signal quality and stability by reducing the influence of jitter and timing instability.
10. Shielded linear power supply — Both transformers are now magnetically shielded, helping reduce noise transfer to the audio/video path.
11. Two ESS ES9038PRO DAC chips — Ultra 8K uses two flagship 8-channel ESS ES9038PRO SABRE PRO DAC chips in dual-mono configuration, with a dedicated DAC chip for each stereo channel. Each channel uses all 8 output lines of its dedicated ES9038PRO chip, improving precision, dynamics, channel separation, and analog output quality.



12. Premium MUSES op-amps — The analog output stage now uses high-grade MUSES operational amplifiers for refined high-end sound reproduction.

13. New X MOS XU-316 audio processor — Ultra 8K uses a newer-generation X MOS platform for advanced audio processing and improved future-proofing.

14. Fully galvanically isolated DAC subsystem — The DAC section is now fully galvanically isolated from the rest of the media player not only by power, but also across data and control lines, helping prevent digital noise from entering the audio path.

15. Improved all-linear audio power design — The DAC section uses an improved all-linear power architecture with multi-stage ultra-low-noise LDO regulation, delivering exceptionally clean and stable power to all DAC circuits.

16. ASYNC and SYNC DAC modes — In addition to the classic ASYNC mode used in most products based on ES9038PRO DACs, Ultra 8K now also supports a more advanced SYNC mode, where the DAC is clocked from the same high-precision master clock as the X MOS, bringing the audio path into a unified synchronous clocking architecture. Depending on the frequency family of the incoming audio stream, one of two master clocks is automatically used — for 44.1 kHz or 48 kHz.

17. Improved headphone amplifier — The new headphone amplifier based on OPA1622 provides improved support for high-impedance models up to 600 ohms and delivers a more confident, detailed sound. In addition, for maximum signal quality, it now internally uses a balanced connection to the DAC output stage.

18. Improved XLR output architecture — The balanced XLR output has been redesigned around a fully differential architecture with an improved op-amp stage and optimized matching with the ESS DAC output, ensuring more accurate signal transmission in the balanced audio path.

19. Adjustable analog output level — Ultra 8K now allows the output level of the built-in DAC to be selected for RCA, XLR, and headphone output. This helps better match the player with different amplifiers, preamplifiers, active speakers, and headphones.

20. Improved SPDIF digital output — The SPDIF output path benefits from improved linear and regulated power, improved galvanic isolation, and improved reclocking.

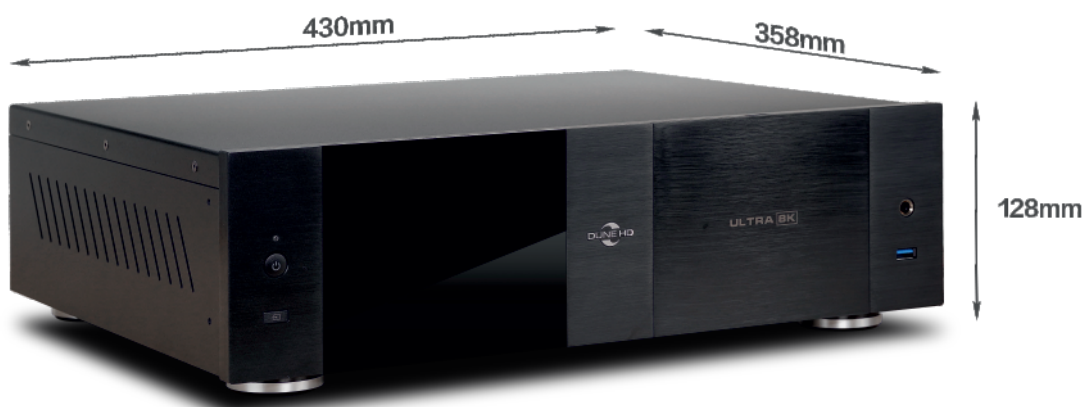
21. Dedicated USB audio output for external DACs — Ultra 8K now includes a separate USB audio output for connecting compatible external USB DACs. This output uses additional noise filtering and a gold-plated connector, helping reduce the transfer of electrical noise and provide a cleaner digital audio connection.

22. Expanded internal DAC usage — The built-in DAC can now be used not only with the main media system, but also with the Android TV system and HDMI input sources. The new internal audio routing architecture makes the DAC more flexible and functional, allowing it to be used in a wider range of playback scenarios and modes.

23. Bluetooth audio input — Ultra 8K can now work as a Bluetooth audio receiver: music from a smartphone or other Bluetooth source is received by the player and can be output via the built-in DAC, HDMI, and S/PDIF.

24. DLNA streaming — In addition to music playback via SMB/NFS, Ultra 8K can now work as a DLNA Renderer: Hi-Res music can be sent to the player from a smartphone or other source via DLNA and played through the built-in DAC in maximum quality with native sample-rate output. Output to HDMI and S/PDIF is also supported.

New audio player interface — A redesigned and more convenient audio player interface provides better organized playback information, switchable screen layouts, selectable backgrounds, a graphical spectrum analyzer, and enhanced control via the Dune Control mobile app.



Specifications

- Media processor: Amlogic S928X-K/J (main system), Amlogic S905X4-K (Android TV)
- Operating memory: Total 12 GB (8 GB – main system, 4 GB - Android TV)
- Flash memory: Total 96 GB (64 GB – main system, 32 GB – Android TV)
- Ethernet: 10/100/1000 Mbit/s
- Wi-Fi: 802.11b/g/n/ac/ax (Wi-Fi 6), Dual Band 2.4+5 GHz, 2T2R
- Bluetooth: 5.2
- USB ports: 2x USB 3.0 host (main system), 1x USB 3.0 ATV port (Android TV, for service and special needs)
- Built-in HDD racks: 2x 3.5" SATA HDD, each HDD up to 32 TB or more, hot swap, vibration isolation
- HDMI1 output: Main output (video + audio), HDMI 2.1a up to 8Kp60 HDR / 4Kp60 Dolby Vision, experimental support for 120 Hz (up to 4Kp120), full support for all HD audio formats (up to TrueHD Atmos and DTS:X)
- HDMI2 output: Audio-only output, HDMI 1.4, full support for all HD audio formats (up to TrueHD Atmos and DTS:X)
- HDMI inputs: 2x HDMI inputs, HDMI 2.1a up to 8Kp60 HDR / 4Kp60 Dolby Vision / 120 Hz (up to 4Kp120), full support for all HD audio formats (up to TrueHD Atmos and DTS:X), HDCP 2.3, video + audio passthrough to HDMI1 output, audio extraction to HDMI2 output, audio extraction to S/PDIF and built-in DAC
- Coaxial S/PDIF audio output: Basic digital audio output (from the main system, Android TV system, HDMI inputs, Bluetooth); supports stereo PCM up to 192/24 and compressed multichannel audio formats (Dolby Digital, DTS)
- Optical S/PDIF audio output: Basic digital audio output (from the main system, Android TV system, HDMI inputs, Bluetooth); supports stereo PCM up to 192/24 and compressed multichannel audio formats (Dolby Digital, DTS)
- USB audio output: One of the USB ports is optimized for connecting compatible external USB DACs and is equipped with a gold-plated connector; additional noise filtering is used to reduce the transfer of electrical interference from the media player to the external DAC; output from the main system only (stereo PCM up to 768 kHz, native DSD up to DSD512)
- Built-in DAC: 2x ESS ES9038PRO (dual mono)
- Op-amps: MUSES02 + AD826 (for RCA and XLR outputs), OPA1622 (for headphones)
- DAC sources: Main system, Android TV system, HDMI inputs (stereo PCM), S/PDIF inputs (stereo PCM), Bluetooth audio input
- DAC audio formats: Stereo PCM up to 768 kHz, native DSD up to DSD512 (when playing audio on the main system)
- Bluetooth audio input: Audio output to the built-in DAC, coaxial and optical S/PDIF, HDMI
- Hi-Fi coaxial S/PDIF input: Stereo PCM up to 192 kHz; audio output to the built-in DAC
- Hi-Fi optical S/PDIF input: Stereo PCM up to 192 kHz; audio output to the built-in DAC
- Hi-Fi RCA analog stereo audio output: Audio output from the built-in DAC; 2.0/1.0/0.5/0.25 VRMS
- Hi-Fi XLR balanced analog stereo audio output: Audio output from the built-in DAC; 4.0/2.0/1.0/0.5 VRMS
- Hi-Fi 6.35mm headphone audio output: Audio output from the built-in DAC; 2.0/1.0/0.5/0.25 VRMS; up to 600 Ohm
- Hi-Fi coaxial S/PDIF audio output: Audio output from XMOS; stereo PCM up to 192 kHz
- XMOS audio processor: XMOS XU-316; audio output from the main system only; audio transmission to the built-in DAC and Hi-Fi S/PDIF; reclocking
- Clock generators: Separate dedicated high-precision clock generators for sample rates based on 44.1 and 48 kHz (45.1584 MHz for 44.1 kHz and 49.152 MHz for 48 kHz)
- DAC clocking modes: Standard ASYNC mode, advanced SYNC mode (can be chosen in setup menu)
- DAC galvanic isolation: Full galvanic isolation of the DAC from other parts of the media player (including power, data and control lines)
- DAC analog path: No coupling capacitors in the signal path; low-noise resistors with 0.1% tolerance are used
- DAC power: Dedicated toroidal transformer; fully linear power with multi-stage ultra-low-noise LDOs; a separate group of linear ultra-low-noise regulators is used for each ES9038PRO chip; separate ultra-low-noise linear regulators are installed for the operational amplifiers of the right and left channels; Panasonic OS-CON SEPF polymer capacitors are used in the regulator circuits of the digital section, and Nichicon MUSE Fine Gold audiophile capacitors are used in the analog path power supply
- Built-in power supply: Power supply with two shielded toroidal transformers and linear regulation; the transformers are fully independent: one powers the main digital system, the other powers the DAC
- Dedicated chassis ground connector: Yes
- Power: AC ~220-240/110-120V, 50/60Hz
- Case: Full-sized (43 cm), all-aluminum, brushed aluminum front panel
- Cooling: Passive (entire case as a super-efficient heatsink) and active (120mm premium ultra-silent fan from Noctua for extra HDD cooling)
- Front panel display: Multi-segment LED display HH:MM:SS; additional indicators for system status, active input source (media player / HDMI IN 1 / HDMI IN 2), active system (main system / Android TV)
- Front panel power button: Yes
- Front panel input selection button: Yes, selects the active input source (media player, HDMI IN 1, HDMI IN 2)
- IR receiver: Built-in IR receiver, supports Dune HD IR codes and Google IR codes
- IR input port: For connecting external IR receiver (included); 3.5mm minijack, T-R-S: 5V-IR-GND, L=14.5mm
- Antennas: 2x external Wi-Fi antennas (detachable) + external Bluetooth antenna (non-detachable, for Bluetooth remote and other Bluetooth devices) + external Bluetooth audio antenna (non-detachable, for Bluetooth audio input)
- Remote: Bluetooth remote with microphone (voice search), Air Mouse, IR learning, backlight, IR mode