DUNE HD ULTRA VISION 4K

Flagship High-End full-sized 4Kp60 Dolby Vision & HDR10+ Media Player on Realtek 1619DR with 2 HDD racks and Hi-Fi audio.

Advanced connectivity, 2x HDD: hot-swap + internal, High-End ES9038PRO audio DAC, Hi-End power supply with two transformers, only High-End components.

Key features

Premium full-sized casing

- Standard 43 cm design fits perfectly into your audio/video rack.

Hi-End PSU

- Dual R-Type power transformers with totally separated power for digital and analog circuits to minimize interference and ensure outstanding video and audio quality.

Hi-End audiophile DAC

- ESS flagship SABRE PRO Hi-End DAC (ES9038PRO) with the industry's highest dynamic range of 140dB and extremely low distortion for outstanding sound quality. The built-in XMOS XU216 audio processor provides bit-perfect digital audio processing with original sample rate preservation, reclocking, ultra-low jitter. You can play music in the most advanced DSD format in "Direct DSD" mode, as well as in various lossless formats, including FLAC / PCM up to 384 kHz.

Hi-Fi analog audio outputs

- High-quality RCA connectors and professional balanced XLR connectors.

Headphone amplifier

- Headphone output on the front panel with built-in high-quality headphone amplifier connected directly to ESS SABRE PRO DAC.

Hi-End hardware design

- High-speed Schottky diodes in power rectifiers, low-noise voltage stabilizers in digital and analog audio circuits, dual Bipolar/JFET operational amplifiers.

Hi-End components from famous vendors

- NEUTRIK (Germany), Vishay Roederstein (Germany), WIMA (Germany), Nichicon (Japan).

Big OLED display

- Big matrix OLED display on the front panel displays current time, playback position, currently played song, and supports navigation through the menus of the media player even when the TV is switched off.

Two HDD racks

- Front panel hot-swap HDD rack can be used to easily and quickly insert and exchange 3.5" SATA HDDs. Rear panel HDD slot can be used to install 3.5" or 2.5" HDD or SSD.

Advanced silent cooling

- The media player has a silent cooling system based on 120mm Hi-End ultra-low-noise fan from Noctua.

RTD1619 media processor

- The newest RTD1619 media processor is the most advanced and the most powerful media processor from Realtek.

Two HDMI output ports

- The additional HDMI output port allows getting the best picture and audio quality in various scenarios, for example, when using a 4K/HDR TV and an A/V receiver without 4K/HDR support.

Dolby Vision and HDR10+

- The media player supports not only HDR technology (supported by the previous generation of media players), but also the most latest and advanced Dolby Vision and HDR10+ technologies. In conventional HDR technology, the brightness range is set at the beginning of the film and does not change during the film, so completely dark and completely bright scenes may have insufficient detail. In the latest Dolby Vision and HDR10+ technologies, the brightness range can vary from frame to frame, so the maximum picture detail is provided even in scenes that contain only dark or only light elements.

Dolby Vision VS10 video processor

- The advanced Dolby Vision VS10 video processing engine ensures maximum image quality when playing any type of content (SDR, HDR, Dolby Vision) with any type of video output signal (SDR, HDR, Dolby Vision), improves the SDR/HDR/Dolby Vision conversion quality, minimizes the effect of "posterization" ("banding") due to more advanced 12-bit video processing. This gives benefits even when using the media player with older TVs that do not support Dolby Vision.

Playback of Dolby Vision Blu-ray images

- The media player supports direct playback of full Blu-ray disc images (BMDV and ISO) in Dolby Vision format (MEL and FEL), even when using full Blu-ray menu. The extended Dolby Vision information is used and transmitted to the TV to improve the picture quality. This is possible due to the unique video playback and output engine created by Dune HD. Other RTD1619DR-based media players do not support this. Dune HD media players are the only hybrid network media players in the world that combine support for Dolby Vision Blu-ray disc images with support for Internet video services and Android applications in one device.

Widest support for Dolby Vision file formats

- Dolby Vision is supported for all popular file formats (BDMV, BD ISO, MKV, MP4, TS, M2TS). All popular Dolby Vision profiles (P4, P5, P7 MEL and FEL, P8) are supported. The media player supports the largest number of variations of Dolby Vision file formats of any other media player.

Dune HD Dolby Vision Purifier

- This technology, unique to Dune HD media players, optimizes Dolby Vision files on the fly for maximum compatibility with the Realtek RTD1619DR media processor. This helps to ensure the most stable playback, including incorrectly encoded files (which often cause freezes, stuttering, sound out of sync on other media players).

VP9 profile 2 and YouTube 4K HDR support

- The media player supports not only the old VP9 video codec (which does not support HDR), but also the newest VP9 profile 2, which supports HDR and which is used in YouTube for 4K HDR content

+77% faster CPU

- The media player has a 6-core ARM A55 CPU – which is +77% faster than 4-core ARM A53 used in the previous generation media players.

+50% faster GPU

- The media player has the new GPU Mali-G51 – which is +50% faster than Mali T-820 used in the previous generation media players.

4 GB RAM

- This is 2x more than in the previous generation media players, and gives better performance for the most heavy apps.

32 GB flash

- This is 2x more than in the previous generation media players, and gives more space for the most heavy apps and internal storage.

Android 9

- For Android applications, the media player uses a modern Android version 9.0. This provides improved support for the newest Android apps.

3 antennas

- 3 external antennas (two antennas for Wi-Fi 2T2R + one separate antenna for Bluetooth) improve the performance of Wi-Fi and Bluetooth.

Bluetooth 5.0

- The media player uses the new Bluetooth version 5.0 (the previous generation media players were using version 4.x).

Other key advantages over competitors

Best-in-class full Blu-ray menu support

- Realtek-based Dune HD media players have the best-in-class support for playback of Blu-ray disc images in full Blu-ray menu mode, including full support for BD-J, BD4K, BD3D, HD audio, obfuscated playlists and seamless branching. Blu-ray images can be played in any format (BD ISO file and BDMV folder) and from any source - local drive (USB, SATA) or network drive (SMB, NFS).

100% smooth Blu-ray playback (full support for seamless branching)

- Dune HD media players are the only Realtek-based players with a fully-functional robust Blu-ray playback engine, which implements 100% complete support for "seamless branching". This ensures smooth playback of the entire movie w/o any audio/video interruptions, contrary to all competitors.

Flicker-free framerate/resolution switching

- Dune HD media players implement its own advanced flicker-free approach for automatic framerate and resolution switching, which performs video mode switching before the start of file playback (rather than after). Most other Realtek-based media players perform video mode switching after the start of file playback, which causes unpleasant flickering.

Auto framerate/resolution switching for Android applications

- Dune HD media players are the only media players based on Realtek media processors which implement automatic framerate and resolution switching not only for file playback, but also for Android applications. With proper support for all framerates, including 23.976 and 24.0.

Professional-grade controls for video output parameters

- Advanced setup controls allow professional users and installers to fine tune the video output parameters in the best way for a particular setup. In particular, it is possible to configure what chroma subsampling modes should be used for each individual HDMI video mode. The majority of competing media player models do not have such controls.

Widevine L1 and premium video services

- Support for Widevine Level 1 DRM (the most advanced DRM level) makes it possible to watch premium online video services with HD and Ultra HD video quality. Media players w/o Widevine Level 1 support can only output Standard Definition video in such services.

Stereo and multichannel SACD playback

- You can play top quality Super Audio CD (DSD) music files in all any popular formats (ISO, DFF, DSF), including both stereo and multichannel files, including files which use DST compression. Multichannel DSD files can be output to HDMI as high quality multichannel PCM (up to 176.4 KHz). Stereo DSD files can be output to HDMI and S/PDIF as high quality stereo PCM (up to 176.4 Khz), and as native DSD to the built-in DAC.

Linux-based Dune HD OS

- The media player runs a unique hybrid OS which consists of a Linux-based Dune HD OS (to ensure stable operation and smooth media playback) and Android OS (to support Android applications), which run simultaneously.

Dune HD Android Playback Accelerator technology

- This unique technology intellectually manages the resources of Android OS to minimize the influence of Android OS on the media playback engine and ensure smooth and high-quality video and audio playback.

Dune HD ecosystem

- Based on open Dune HD SDK and APIs, various TV-optimized applications, plugins, extensions, GUI skins, collection management solutions, integrations with home automation systems are available via official Dune Store, 3-party vendors, and from the huge user's community.

Dune HD UI

- The famous Dune HD UI, developed and polished during more than 12 years, specially optimized for the use on TV screens and operation via a standard remote control, tuned for the best possible usability, makes it easy and convenient to use the media player.

Dune HD movies organizer and movies encyclopedia

- "My Collection" function organizes a user's movies collection into a nice looking catalog. A comprehensive movies encyclopedia provides the information about hundreds of thousands of movies with detailed descriptions, posters, cross-links between movies and persons, trailers, direct links to online video services, etc. Advanced file browser automatically recognizes movies.

Dune HD mobile app

- The unique Dune HD mobile app (Dune Control) for iOS and Android mobiles devices provides full access to all functions of Dune HD media player in a very convenient and powerful way. It fully replaces the standard IR remote control, allows browsing and choosing the media content directly on your mobile device (the menu shown on the mobile device mirrors the menu shown on the TV screen), and includes Now Playing section for convenient media playback control.

Smart home

- The media player provides the powerful IP Control interface and has a lot of options for integration into Smart Home and Home Automation systems, such as Control4 and Crestron.

Proven history of software updates during a very long period

- Dune HD is known for its reputation to listen to user's feedback and provide software updates for many years. For example, for some old models, software updates with additional functions are provided for more than 10 years already. This is possible due to the unique "single code base" approach, which means that firmware for all Dune HD models is based on the same software (continuously developed and improved according to user's feedback).

Other key features

HD audio support

- The media player can output HD audio to the A/V receiver.

Full 3D support

- Support for Side-by-side, Top-to-bottom and MVC (BD3D) formats ensures perfect playback of Full HD video in 3D.

Optical disc drive support (USB)

- You can connect an external USB optical disc drive to play media files and BD/DVD images from optical discs (not encrypted only).

Dual-band 802.11ac 2T2R Wi-Fi and 1Gbit Ethernet

- The media player is equipped with dual-band Wi-Fi supporting 802.11b/g/n/ac (2.4 GHz + 5.0 GHz), with 2T2R support (double performance) and two external Wi-Fi antennas, which allows you to play a high-bitrate content through the air. The 1Gbit Ethernet port allows you to get maximum performance with a wired connection.

Built-in Bluetooth

- The built-in Bluetooth interface allows you to easily connect various remote controls, wireless keyboards, mice, joysticks, audio speakers, headphones, headsets and other devices.

Premium IR remote with learning and backlight

- The premium IR remote control has backlight and a learning function that allows you to configure the remote control to control not only a media player, but also a TV or other equipment.

Bluetooth remote with AirMouse function and Microphone

- An additional Bluetooth remote controls the set-top box via a radio channel, provides the AirMouse function for convenient control of Android applications not optimised for controlling via a conventional remote, and provides the Microphone function for Voice Search in applications which support it.

IR input

- The IR input port allows connecting an IR extender, which improves player installation flexibility.

Power button on the front panel

- You can conveniently switch the media player on and off also using the button on the front panel.

Specifications

- **Media processor:** Realtek RTD1619DR

- **Operating memory:** 4 GB

- **Flash memory:** 32 GB

- **Wi-Fi:** Dual Band 2.4+5 GHz 802.11b/g/n/ac 2T2R, two external Wi-Fi antennas

- **Bluetooth:** Bluetooth 5.0, separate external Bluetooth antenna

- **Case:** metal

- **Cooling:** 120mm Hi-End ultra-low-noise fan from Noctua for efficient silent cooling

- **Front panel display:** matrix OLED display

- **Power supply:** dual R-Type power transformers with totally separated power for digital and analog circuits

- **Power:** AC ~220-240/110-120V, 50/60Hz

- **Dimensions (W x H x D):** 430x100x350 mm

- **OS:** Linux-based Dune HD OS + Android 9.0Media processor: Realtek RTD1619

- **Media sources:** internal HDDs (SATA), external HDDs (USB), USB devices (USB flash drive, USB card reader, etc), external optical disc drives (USB), PC and NAS in local network (SMB, NFS, UPnP/DLNA, HTTP), other Internet and local network media sources

- **3.5" SATA HDD rack:** install 3.5" SATA HDD directly into the media player

- **3.5"/2.5" SATA HDD/SSD slot:** install 3.5" or 2.5" SATA HDD or SSD

- **1x USB Type-C host:** connect the most modern USB Type-C storage devices

- **1x USB 3.1 host:** enjoy the great performance of USB 3.1

- **3x USB 2.0 host:** conveniently connect USB HDDs, USB flash drives, USB card readers, USB DVD/BD drives, USB hubs and other USB devices

- **HDMI 2.0b output:** output any video signal up to the most modern 4Kp60 HDR

- **2nd audio-only HDMI output:** output audio separately via the second HDMI output when needed (e.g. when using legacy HDMI Hi-End audio equipment w/o 4K HDR support)

- **Hi-Fi RCA analog stereo audio:** output Hi-Fi audio from the built-in DAC using high-quality RCA connectors

- **Hi-Fi XLR balanced analog stereo audio:** output Hi-Fi audio from the built-in DAC using professional balanced XLR connectors

- **Hi-Fi 6.35mm headphone audio output:** output Hi-Fi audio from the built-in DAC using built-in microphone amplifier

- **Hi-Fi coaxial S/PDIF audio output:** output Hi-Fi digital audio (stereo PCM) using high-quality S/PDIF connector (also with ultra-low jitter and reclocking due to the XMOS XU216 audio processor)

- **Coaxial S/PDIF input:** connect external digital audio sources via coaxial S/PDIF and use your media player as an audio DAC.

- **Optical S/PDIF input:** connect external digital audio sources via optical S/PDIF and use your media player as an audio DAC.

- **RCA composite video + RCA analog stereo audio:** connect to any A/V equipment

- **Coaxial S/PDIF and Optical S/PDIF:** output digital audio to A/V receiver or external DAC via S/PDIF

- **Ethernet 10/100/1000 Mbit/s:** ensure the best performance when connecting to your local network via cable

- **HDMI 2.0 input:** connect an external HDMI source and display it fullscreen or picture-in-picture (non-protected video w/o HDCP, PCM audio)

- **IR input:** connect an IR extender for improved player installation flexibility

- **Power input:** AC ~220-240/110-120V, 50/60H

- **4K Dolby Vision & HDR10+ video playback:** decode 4K video content in various popular formats including H.265 10-bit and VP9 profile 2 up to 4Kp60 HDR, HDR10+ and Dolby Vision

- **4K Dolby Vision & HDR10+ video output:** output 4K content up to 4Kp60 HDR, HDR10+ and Dolby Vision with pixel-to-pixel precision to 4K TV

- **HEVC:** play video encoded using the latest H.265 codec. 2x picture quality increase over H.264

- **VP9 profile 2:** play YouTube 4K HDR content

- **10-bit color encoding:** play video encoded using the latest standards, with support for 1 billion of colors

- **HDR:** play video in the newest HDR (High Dynamic Range) format. Superb picture contrast and details

- **HDR10+:** the most latest and advanced HDR technology from Samsung. More details in bright and dark scenes

- **Dolby Vision:** the most latest and advanced HDR technology from Dolby. More details in bright and dark scenes and best possible picture quality

- **Dolby Vision VS10 engine:** advanced Dolby Vision VS10 engine for best possible processing of SDR, HDR and Dolby Vision content

- **Standard Dolby Vision output:** output standard Dolby Vision signal for full Dolby Vision processing on TV side (TV-Led Dolby Vision)

- **Low Latency Dolby Vision output:** output Dolby Vision signal in the modern LLDV format (Player-Led Dolby Vision)

- **Video output framerate:** automatic (according to the played content) and manual; 23.976 Hz support

- **Auto framerate:** output video with original framerate to ensure absolute smooth playback for all kinds of content

- **Auto resolution:** output video with original resolution for best picture via Hi-End external video processing

- **True 24p output:** ensure perfectly smooth playback of Hollywood movies due to full support for 23.976 framerate

- **Flicker-free auto framerate/resolution switching:** HDMI video mode switching exactly before playback start, not after

- **Professional-grade controls for video output parameters:** detailed configuration of HDMI chroma subsampling modes

- **Blu-ray menu:** enjoy full Blu-ray menu navigation or use simple BD Lite menu at your discretion

- **Best-in-class full Blu-ray menu support:** support for BD-J, BD4K, BD3D, obfuscated playlists and seamless branching

- **Advanced media player:** play video in MKV and other modern video file formats, including top quality 4K and HD with very high bit rates (100 Mbit/s+)

- **Video file formats:** MKV, MPEG-TS, MPEG-PS, M2TS, VOB, AVI, MOV, MP4, QT, ASF, WMV, BD ISO, BDMV, DVD-ISO, VIDEO_TS

- **Video codecs:** MPEG2, MPEG4, XVID, WMV9, VC1, H.264, H.265, H.265 10-bit, VP9, VP9 profile 2; support for very high bitrate video up to 100 Mbit/s and higher

- **Video upscaling:** high-quality upscaling of DVD and any other SD video content to 4K, Full HD 1080p and other HD resolutions

- **3D video:** play all popular 3D video formats, including MVC (BD3D ISO), Side-by-Side, Top-and-Bottom

- **HLS:** ensure the best quality of Internet video using Apple HLS adaptive bitrate streaming protocol

- **DASH:** get access to the newest Internet video services using MPEG-DASH adaptive bitrate streaming protocol
- **HD audio:** output HD audio to your A/V receiver
- **Hi-End music:** play music files in various Hi-End audio formats: 192/24, FLAC, Monkey's Audio APE, WAV/PCM, Super Audio CD (stereo and multichannel), etc
- **Super Audio CD:** play top quality SACD music files in various formats (stereo and multichannel)
- **Audio codecs:** MPEG-1/2 layer I/II/III, AAC, LPCM, FLAC, multichannel FLAC, Vorbis, WavPack, APE (Monkey's Audio), ALAC (Apple lossless), SACD DSD (stereo), AC3, DTS
- **Audio file formats:** MP3, MPA, M4A, AAC, WAV, FLAC, Ogg/Vorbis, WavPack, APE (Monkey's Audio), ALAC (Apple lossless), SACD ISO, SACD DSF, SACD DFF, AC3, DTS, DTS-WAV
- **Subtitle formats:** SRT (external), SUB (MicroDVD) (external), text (MKV), SSA/ASS (MKV, external), VobSub (MP4, MKV, external SUB/IDX), PGS (Blu-ray, TS, MKV)
- **Online subtitles:** Automatically download subtitles from Internet
- **Picture file formats:** JPEG, PNG, BMP, GIF
- **Photo viewer functions:** slideshow, transition effects, picture rotation, zoom, browse playlist, repeat, shuffle
- **Playlist file formats:** M3U, PLS, CUE
- **Filesystems:** FAT16/FAT32 (read-write), EXT2/EXT3/EXT4 (read-write), NTFS (read-write), exFAT (read-write), HFS/HFS+ (Mac OS Standard/Extended) (read-only), BTRFS (read-write)
- **Widevine Level 1 DRM:** enjoy premium online video services with High Definition video quality
- **IP control:** integrate the media player with various Home Automation systems via network
- **Control4:** integrate seamlessly into Smart Home installations based on Control4 technology via ready-to-use Control4 driver
- **Crestron:** integrate seamlessly into Smart Home installations based on Crestron technology via ready-to-use Crestron driver
- **iOS and Android mobile apps:** control the media player via the powerful Dune Control mobile application