

# DUNE HD MAX VISION 4K

Premium full-sized 4Kp60 Dolby Vision & HDR10+ Media Player  
on Realtek RTD1619 with 2 HDD racks and Hi-Fi audio.



Advanced connectivity, 2x HDD: hot-swap + internal, Hi-Fi audio DAC, High-End toroidal PSU, premium case.

## Key features

### Premium full-sized casing

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

### Hi-Fi analog audio outputs

- The media player has high-fidelity analog stereo audio outputs (2xXLR + 2xRCA) based on AK4493EQ premium 32-bit DAC with industry's leading level low distortion characteristics, with direct DSD support and support for 384KHz FLAC/PCM.

### Hi-End PSU

- Toroidal power transformer with separated circuits for digital and analog parts ensures excellent video and audio quality.

### 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 a 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.

## **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 operating memory**

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

## **32 GB flash memory**

- 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 RTD1619
- **Operating memory:** 4 GB
- **Flash memory:** 32 GB
- **Ethernet:** 10/100/1000 Mbit/s
- **Wi-Fi:** 802.11b/g/n/ac, Dual Band 2.4 + 5 GHz, 2T2R
- **Bluetooth:** Bluetooth 5.0
- **Connectors:** 3.5" SATA HDD rack, 3.5"/2.5" SATA HDD/SSD slot, 1x USB Type-C, 1x USB 3.1, 2x USB 2.0, HDMI 2.0b output, 2nd audio-only HDMI output, Hi-Fi RCA analog stereo audio, Hi-Fi XLR analog stereo audio, RCA composite video, RCA analog stereo audio, optical S/PDIF, coaxial S/PDIF, Ethernet 10/100/1000 Mbit/s, HDMI 2.0 input, 110-120V/220-240V AC input
- **HDR support:** HDR10, HDR10+, Dolby Vision
- **Dolby Vision support:** Dolby Vision VS10 engine, standard DV output, LLDV output
- **4K support:** 4Kp60 video decoding, 4Kp60 video output, 4K HDR10 / HDR10+ / Dolby Vision, HDMI 2.0b
- **Video codecs:** VP9 profile 2, HEVC (H.265) 10-bit, H.264, MPEG4, MPEG2, MPEG1, WMV, VC1
- **3D video formats:** Side-by-Side, Top-and-Bottom, 3D FullHD (BD3D MVC)
- **Video output modes:** Wide range of supported output resolutions and framerates (up to 4Kp60)
- **Video output framerate:** automatic (according to the played content) and manual; 23.976 Hz support
- **Video output resolution:** automatic (according to the played content) and manual
- **HD audio support:** Yes
- **Audio codecs:** MPEG-1/2 layer I/II/III, AAC, LPCM, FLAC, multichannel FLAC, Vorbis, WavPack, APE (Monkey's Audio), ALAC (Apple lossless), SACD (Super Audio CD), AC3, DTS
- **Audio file formats:** MP3, MPA, M4A, AAC, WAV, FLAC, Ogg/Vorbis, WavPack, APE (Monkey's Audio), ALAC (Apple lossless), SACD (Super Audio CD) (stereo), AC3, DTS, DTS-WAV
- **Media sources:** external SATA HDD, USB devices (USB HDD, USB flash drive, USB card reader, etc), micro SD card, PC and NAS in local network (SMB, NFS, UPnP/DLNA), other Internet and local network media sources
- **Mobile app:** DuneControl mobile app for iOS and Android mobile devices
- **Smart Home integrations:** Control4, Crestron, any other systems via IP Control HTTP API
- **Plugins and extensions:** Dune HD PHP plugins API, Dune HD skins, dune\_folder.txt mechanism, Dune HD JavaScript API, Dune HD IP Control HTTP API
- **OS:** Linux-based Dune HD OS + Android 9.0
- **Widevine DRM:** Widevine DRM L1
- **Filesystems:** FAT16/FAT32 (read-write), exFAT (read-write), NTFS (read-write), HFS/HFS+ (Mac OS X) (read-only), EXT2/EXT3/EXT4 (read-write), BTRFS (read-write)
- **Case:** Metal
- **Cooling:** 120mm Hi-End ultra-low-noise fan from Noctua for efficient silent cooling
- **Front panel display:** matrix OLED display
- **Remote:** Premium IR remote with learning and backlight + Bluetooth remote with AirMouse function and Microphone