

PRO 4K

Dune HD Pro 4K is a premium compact 4Kp60 HDR media player and Smart TV box with Hi-End video quality, HD audio support, BD3D support, unique hybrid Linux + Android 7.1 software, automatic conversion of SDR to HDR, Widevine L1 and Netflix 4K support.



- Hi-End video quality (based on best-in-class Realtek RTD1295 SoC)
- 4Kp60 HDR 10-bit BT.2020 video decoding and output
- HD audio support (including Dolby Atmos and DTS:X)
- BD3D support, 23.976Hz support, autoframerate, autoresolution
- USB 3.0, SATA HDD port, HDMI input
- Wi-Fi ac 2.4+5 GHz, 2T2R, Bluetooth 4.2

- Newest RTD1295 chip revision B
- Famous Hi-End Linux-based Dune HD software
- Android 7.1, OpenWRT
- Widevine Level 1, Netflix 4K
- Advanced HDR processing engine, SDR to HDR conversion
- Professional-grade controls for video output parameters

What's New?

Comparing to the previous Dune HD models, Dune HD Pro 4K has the following additional features and enhancements:

1. 4Kp60 HDR and Other Latest Video Standards:

- 4Kp60, HDR, BT.2020, HDMI 2.0a - all are supported now, which enables the playback of the latest top-quality video content.

2. Unique Combination of Dune HD and Android Ecosystems:

- The famous Linux-based Dune HD software is now running simultaneously with Android OS, that combines all the benefits of classic Linux-based Dune HD media centers and Android Smart TV boxes in one device.
- The well-known Dune HD media center, various Dune HD applications and plugins, millions of Android applications -- are now available simultaneously.
- It is very easy to install and launch Android applications directly from Dune HD media center and switch back to Dune HD media center. Android applications can be used simultaneously with background media playback in Dune HD media center (for example, with playback of a music playlist, Internet radio, or a TV channel).

3. Skype, KODI, Chrome, Games, and Many Other New Applications:

- You can now use various Android applications, such as Skype, KODI, various games, various online video/TV/music services, and many others.
- Using a modern web browser (Chrome), you can now play video directly on web sites.

4. Premium Video Services with HD and UHD Video Quality:

- Widevine Level 1 DRM (the most advanced level) support makes it possible to watch premium online video services (such as Netflix) with HD and Ultra HD video quality. Most other Android Smart TV boxes on the market do not support Widevine Level 1 and can only output Standard Definition video in such services.

5. Netflix 4K:

- Netflix movies can be watched in Ultra HD (4K) video resolution, using Netflix application optimized for TV screen and remote control, and integrated with Dune HD Movies catalog.

6. Super-Smooth GUI and Improved Overall Performance:

- The new powerful multi-core CPU and GPU and the new specially optimized GUI engine ensure super-smooth GUI (up to 60 FPS), 2x more smooth than before. The CPU is now 4x more powerful than before.

7. Built-in Bluetooth:

- Built-in Bluetooth (version 4.2) enables wireless connection of headsets and speakers, radio remote controls, keyboards, game controllers, and other devices.

8. USB 3.0, HDMI input and Other New Hardware Features:

- Dune HD Pro 4K has new hardware features, which were not available in the previous models, such as: USB 3.0 host port, HDMI input, 2 GB RAM, 16 GB flash memory.

9. Various Other New Software Features:

- Dune HD software has been upgraded with various additional functions, such as automatic movie recognition in file browser, extended support for TV series in My Collection and Movies catalog, extended EPG information for TV channels, direct links from Movies catalog to online video services available via Android applications to support features such as "Play on Netflix", and more.

10. OpenWRT:

- Dune HD Pro 4K has also OpenWRT OS running simultaneously with Android and Dune HD software. OpenWRT OS provides various NAS (Network Attached Storage) functionality, such as SMB server, FTP server, DLNA server, etc.

Unique Features and Advantages

Comparing with typical RTD1295 media players from other vendors, Dune HD Pro 4K has the following unique features and advantages:

1. Newest RTD1295 chip revision:

- Dune HD Pro 4K uses the very newest revision of RTD1295 chip (revision B), which enables various new functions and improvements. The majority of competing media player models based on RTD1295 chip use the old revision A.

2. Android 7.1:

- Dune HD Pro 4K uses Android 7.1, while the majority of competing media player models based on RTD1295 chip use the old Android 6. Android 7.1 brings various improvements and performance optimizations and provides access to the newest Android features and APIs for Android applications.

3. Widevine Level 1:

- Widevine Level 1 DRM (the most advanced level) support makes it possible to watch premium online video services (such as Netflix) with HD and Ultra HD video quality. Most other Android Smart TV boxes on the market do not support Widevine Level 1 and can only output Standard Definition video in such services.

4. Netflix 4K:

- Netflix movies can be watched in Ultra HD (4K) video resolution, using Netflix application optimized for TV screen and remote control, and integrated with Dune HD Movies catalog.

5. Advanced HDR processing engine:

- Dune HD Pro 4K includes advanced HDR processing engine, which supports HDR passthrough, HDR-to-SDR conversion and even SDR-to-HDR conversion. The majority of competing media player models do not support this.

6. Conversion of SDR to HDR:

- Dune HD Pro 4K can automatically convert SDR content (such as Blu-ray or DVD video) to HDR, improving their look. The majority of competing media player models do not support this.

7. Advanced automatic framerate and automatic resolution switching:

- Dune HD Pro 4K implements its own advanced approach for automatic framerate and automatic resolution switching, which switches video mode before playback is started, which enables much more pleasant experience. The majority of competing media player models based on RTD1295 chip perform video mode switching after playback is started, which causes unpleasant flickering.

8. Professional-grade controls for video output parameters:

- Dune HD Pro 4K provides advanced setup controls for 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.

9. 2x2 (2T2R) Wi-Fi:

- Dune HD Pro 4K has 2x2 (2T2R) Wi-Fi, which gives up to twice improved Wi-Fi performance in comparison with with 1x1 (1T1R) Wi-Fi. The majority of competing media player models have only 1T1R Wi-Fi.

10. Bluetooth 4.2:

- Dune HD Pro 4K has a newer Bluetooth version 4.2, while the majority of competing media player models have only Bluetooth 4.1.

11. Dune HD Software:

- The famous Hi-End Dune HD software, developed and polished during more than 10 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.

12. Dune HD Ecosystem:

- 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 huge user's community (over 1 million of users).

13. My Collection and Movies Encyclopedia:

- My Collection function organizes 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.

14. 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.

15. Built-in Convenient App Store for Android Applications:

- Android applications can be easily installed from any source, including APK files or the built-in App Store which is directly accessible w/o the need to use any user accounts and can be conveniently navigated via a standard remote control.

16. Proven History of Software Updates during Very Long Period:

- Dune HD is known for its reputation to listen to user's feedback and provide software updates during many years. For example, for some old models, software updates with additional functions are provided for more than 8 years already. This is possible due to 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).

Comparison with typical RTD1295 media players from other vendors

Feature	Dune HD Pro 4K	Typical other players
Newest RTD1295 chip revision B	Rev.B	Rev.A
Android 7.1	7.1	6.0
Widevine Level 1	Yes	-
Netflix 4K	Yes	-
Advanced HDR processing engine	Yes	-
Conversion of SDR to HDR	Yes	-
Advanced automatic framerate and automatic resolution switching	Yes	-
Professional-grade controls for video output parameters	Yes	-
2x2 (2T2R) Wi-Fi	2T2R	1T1R
Bluetooth 4.2	4.2	4.1
Dune HD Software (developed during more than 10 years)	Yes	-
Dune HD Ecosystem (plugins, extensions, skins, 3-party apps)	Yes	-
My Collection and Movies Encyclopedia	Yes	-
Dune HD Android Playback Accelerator Technology	Yes	-
Optimized App Store for Android Applications	Yes	-
Proven History of Software Updates during Very Long Period (8+ years)	Yes	-

Specifications

- **Case:** Metal
- **Media processor:** Realtek RTD1295
(CPU ARM Cortex A53 4-core, GPU Mali-T820)
- **RAM:** 2 GB
- **Flash memory:** 16 GB
- **Ethernet:** 10/100/1000 Mbit/s
- **Wi-Fi:** 802.11b/g/n/ac, Dual Band 2.4 + 5 GHz, 2T2R
- **Bluetooth:** Bluetooth 4.2
- **Connectors:** external SATA HDD (data + power), 2x USB 2.0, 1x USB 3.0, micro SD card slot, HDMI 2.0a, composite video and analog stereo audio (via 3.5mm A/V connector), optical S/PDIF, Ethernet 10/100/1000 Mbit/s, HDMI 2.0 input, 12V DC IN power connector
- **4K support:** 4Kp60 video decoding, 4Kp60 video output, 4K HEVC 10-bit, HDR, HDMI 2.0a
- **Video codecs:** HEVC (H.265), HEVC (H.265) 10-bit, H.264, MPEG4, MPEG2, MPEG1, WMV, VC1
- **HD audio support:** yes (including Dolby TrueHD, Dolby Atmos, DTS HD MA, DTS:X)
- **3D video formats:** Side-by-Side, Top-and-Bottom, 3D FullHD (BD3D MVC)
- **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
- **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
- **OS:** Android 7.1 + Linux-based Dune HD software + OpenWRT
- **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)
- **RCU:** Learning + BackLight
- **Front panel display:** Yes

