X96Q Android 10 Smart TV Box With New Soc Allwinner H313

Specifications	
Model No.	X96Q TV Box
CPU	Allwinner H313 Quad Core ARM Cortex A53
GPU	G31 MP2 Supports OpenGL ES 3.2/2.0/1.0, Vulkan 1.1, OpenCL 2.0
RAM	DDR3:1GB (Option:2GB)
Internal Storage	eMMC:8GB(Option:16GB)
OS	Android 10.0
WiFi	IEEE 802.11 b/g/n
Video&Audio CODEC	
Video	• H.265 Main10@L5.1 decoder up to 4K@60fps • VP9 Profile 2 decoder up to 4K@30fps • AVS2 JiZhun 10bit decoder up to 4K@30fps • H.264 BP/MP/HP@L4.2 decoder up to 4K@30fps • Multi-format 1080p@60fps video playback formats, including H.264 BP/MP/HP, H.263 BP, VP8, MPEG-1 MP/HL, MPEG-2 MP/HL, MPEG-4 SP/ASP@L5, AVS+/AVS JiZhun, WMV9/VC1, etc • H.264 BP/MP/HP encoder up to 1080p@60fps • JPEG snapshot performance of 1080p@60fps
Audio	• Two DAC channels • Supports 1 audio output interface (differential LINEOUTP/N or single-end LINEOUTL/LINEOUTR) • One Audio HUB, supporting internal mixing function • Embedded 3 I2S/PCM (I2S0 for extended audio codec, I2S2 for BT, I2S3 for digital power amplifier) • Supports Left-justified, Right-justified, Standard I2S mode, PCM mode, and TDM mode • I2S mode supports 8 channels, and 32-bit/192kbit sample rate • I2S and TDM modes support maximum 16 channels, and 32-bit/96kbit sample rate • One OWA OUT interface, supporting 16-/20-/24-bit inputs and outputs • Integrated digital microphone(DMIC), supporting maximum 8 digital PDM microphones
I/O	
1*HDMI	4K*2K UHD Output, HDMI 2.0a up to 4K@60fps
1*AV OUT	480i/576i standard definition output
2*USB	1*USB Host Port, 1*USB Device
1*IR Reciver	Remote Reciver Connect
1*RJ45	Ethernet Interface
1*TF CARD	Support 4GB/8GB/16GB/32GB/64GB
Power	DC 5V/2A，LED indicator. Working: blue
Others	
Image	HD JPEG, BMP, GIF, PNG, TIF
Language	English French German Spanish Italian etc multilateral languages
Option	Browse all video websites, support Netflix,Hulu,Flixster,Youtube, etc. Apps download freely form android market, amazon app store etc. Local Media playback, Support HDD, U Disck , TF Card.

allwinner H313 is a new-generation high picture quality 64-bit 4K@60fps decoding SoC provided by Allwinner for the OTT and IPTV markets. It integrates the quad core 64-bit CortexTM-A53 processor, and the new G31 GPU engine of ARM that supports OpenGL ES 3.2/Vulkan 1.1. Besides, H313 supports H.265 4K@60fps 10-bit ultra-HD video decoding, Allwinner self-developed SmartColor3.3TM picture enhancement engine, Dolby,and DTS audio processing.

Highlights:

• Quad Core ARM CortexTM-A53, 64-bit architecture
• High performance multi-core G31 GPU, supporting OpenGL ES 3.2/Vulkan 1.1
• H.265 4K@60fps decoding
• Low latency H.264 1080p@60fps video encoding
• Supports HDR10, HLG
• SmartColorTM 3.3 picture enhancement engine
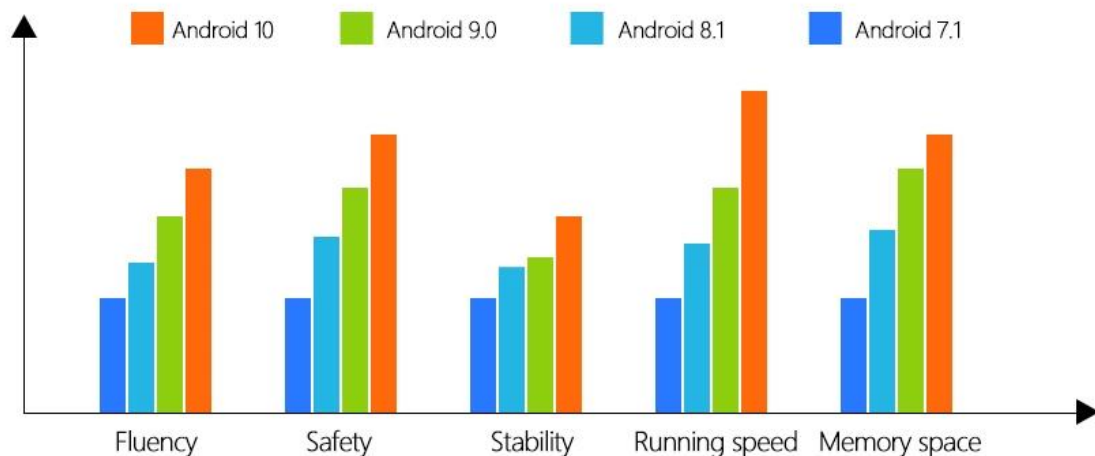
High Definiton Picture 4K STB

Allwinner H313	CPU Cortex A53	GPU Mali G31	HEVC H.265	4K 60fps	10	Wi Fi 2.4G

Product comparison

Chip / Parameter	H313	RK3229 / RK3228A	H3	S905W
CPU	Quad Core Cortex-A53	Quad core Cortex-A7	Quad-core Cortex-A7	Quad Core Cortex-A53
GPU	Mali G31 OPenGL 1.0/2.0/3.2	Mali 400 OpenGL ES 1.1/2.0	Mali 400 OpenGL 2.0	Mali-450 OpenGL ES 2.0
H.265 decoding	4K@60fps	4K@30fps	4K@30fps	4K@30fps
OS	Android 10	Android 7.1	Android 9.0	Android 7.1
Frequency	1.35GHz	1GHz	1GHz	1.2GHz
Run Score	42417	15503	19165	17193

* The running score data is only a single test result of professionals

Android 10

First to support Google 's new system Android 10, and greatly optimized for the system, can support a minimum of 1GB of memory

feature IOS	Android 10
Fluency	The system natively supports Vulkan 3D technology. Android 10 UI preferentially uses Vulkan for drawing, which has higher efficiency and lower load.
Safety	File encryption technology based on Google Adiantum algorithm, enabled by default to avoid data leakage caused by Flash
Stability	Smarter background memory management technology (LMKD-PSI), small memory application, faster killing process, foreground process is less affected by background process
Running speed	Virtual machine code optimization to improve execution efficiency
Memory space	New dynamic partitioning technology, flexible allocation of Flash partitions, saving storage space

Legend: Android 10, Android 9.0, Android 8.1, Android 7.1

Categories: Fluency, Safety, Stability, Running speed, Memory space

* Data analysis chart is for reference only

GPU low power consumption, high performance density, no pressure to play games

GPU: support Vulkan, support OPENGL ES3.2

Mali-G31:Exceptional User Experience in the Smallest Area

GPU

Bringing the Bifrost architecture to Ultra Efficient devices.

20%	20%	12%
Smaller total area	Better performance density	Better UI performance

CPU	H313	RK3318	S905W	RK3229/RK3228A	H3
GPU framework support	Vulkan OpenGL3.2	OpenGL2.0	OpenGL ES2.0	OpenGL ES1.1/2.0	OpenGL2.0

3D noise reduction, more thorough image, more delicate and pure picture

No noise reduction
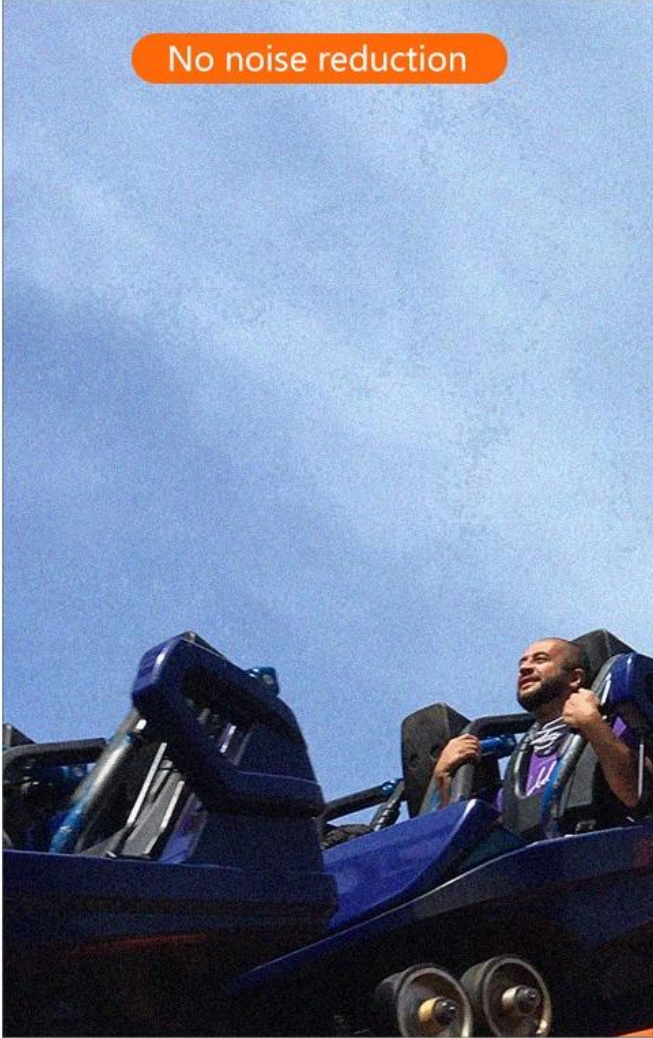
Noise reduction

Debounce, more stable image and smoother viewing

Jitter effect

Elimination jitter effect

HDR to SDR

SmartColor ™ optimized HDR dynamic curve for better HDR video experience.

Other models: dark sky background

Our model: clear sky background

Clear is not enough, we need to be clearer

The new-generation SmartColor ™ 3.1 image quality engine and 14 image quality improvement algorithms bring consumers the best large screen experience. It can achieve 4K / 60fps video, vertical keystone correction, and does not occupy any CPU / GPU resources.

Clear

Android 10, new dynamic partitioning technology, more user storage space

You can choose and install different applications according to your personal preferences to meet your diverse needs.

🚀 Faster & Safer response

🛡️ Save 20% RAM in Space

♻️ More stable with applications

Airplay

DLNA

Mirecast

ENJOY BIG SCREEN
SUPPORT DLNA, MIRACAST, AIRPLAY
You can play games and watch movies on the big screen

Provide wired and wireless networks

Support WiFi and network cable connection, and support USB local playback, convenient and easy to use

WiFi and network cable transmission signal is stable

Supports the transmission and download of high-definition videos and big data files. Line installation application.

USB supports local playback and installation of applications

Connect a mobile hard disk or a USB flash drive to play local movies, and install applications such as games and videos.

Suitable for various TVs

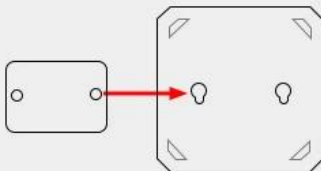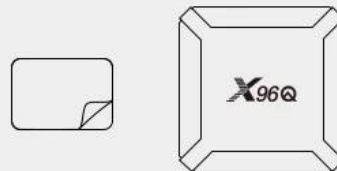With AV interface & HDMI interface , support a variety of LCD TVs and old TVs.

OTT TV BOX

LCD TV

Old TV

Hang the wall mount on the back of the device

Paste the device on the wall or the back of the TV

Rich interface, simple connection

Small interface, big effect, can meet various entertainment needs.

88.4mm

88.4mm

18.6mm

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① DC: Power line interface   ② ETHERNET: Network cable interface   ③ HDMI: HDMI cable interface

④ AV: Plug in the AV cable and connect the old TV   ⑤ IR: IR cable interface

⑥ USB: USB interface   ⑦ USB: USB interface   ⑧ CARD: Card slot

Package Contents

Device

Remote Control
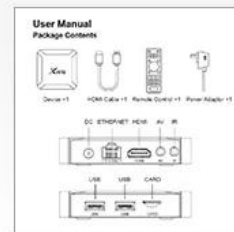(Battery not Included)

Power Supply   Wall Hanging   HD data cable   IR cable   User Manual

X96Q Android 10 Smart TV Box is a cutting-edge streaming device that redefines your TV viewing experience. Here's why it stands out:

1. **New Soc Allwinner H313**: Powered by the latest Soc Allwinner H313 chipset, enjoy faster processing speeds and improved graphics rendering for seamless streaming and gaming.

2. **Android 10 OS**: Experience the latest Android 10 operating system, offering enhanced performance, security, and compatibility with a wide range of apps and services.

3. **4K Ultra HD Resolution**: Immerse yourself in stunning 4K Ultra HD resolution, delivering crystal-clear visuals and vibrant colors for an unparalleled viewing experience.

4. **Advanced Connectivity**: Equipped with multiple connectivity options, including HDMI, USB, Ethernet, and Wi-Fi, ensuring seamless integration with your home entertainment setup and easy access to online content.

5. **Compact and Stylish Design**: The sleek and compact design of the X96Q TV box blends seamlessly with any home decor, while its sturdy construction ensures long-lasting durability.

6. **Versatile Entertainment**: Access a world of entertainment with support for popular streaming apps, gaming platforms, social media, and more, offering endless possibilities for entertainment and productivity.

7. **User-Friendly Interface**: Navigate through your favorite content effortlessly with the intuitive user interface, featuring customizable menus, quick access shortcuts, and voice control capabilities.

8. **Multimedia Compatibility**: Play your favorite media files seamlessly with support for a wide range of audio and video formats, ensuring compatibility with your existing media library.

9. **Regular Software Updates**: Stay up-to-date with the latest features, security patches, and performance enhancements through regular over-the-air software updates.

10. **Affordable and Cost-Effective**: Enjoy premium entertainment features at an affordable price, making it a cost-effective solution for upgrading your TV experience without breaking the bank.

Upgrade your home entertainment setup with the X96Q Android 10 [Smart TV Box](#) and enjoy a world of entertainment at your fingertips.