IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

INNOVATION SCIENCES, LLC, Plaintiff, v. XIAOMI CORPORATION; XIAOMI, INC., Defendant.	Case No. 6:25-cv-00013 **Jury Trial Demanded**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Innovations Sciences, LLC (hereinafter, "Innovation Sciences" or "Plaintiff") files this Complaint against Defendants Xiaomi Corporation and Xiaomi, Inc. (hereinafter, collectively referred to as "Xiaomi" or "Defendants") for infringement of United States Patent Nos. 9,942,798; 9,912,983; 10,104,425; 10,136,179; 10,368,125; and, 10,469,898 (the "Patents-in-Suit"), attached as Exhibits 1-6, and alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq*.

THE PARTIES

2. Plaintiff Innovation Sciences, LLC is a limited liability company organized under the laws of Texas and has a principal of business at 5800 Legacy Circle, Suite 311, Plano, Texas 75024.

3. On information and belief, Defendant Xiaomi Corporation is a corporation organized and existing under the laws of the Cayman Islands with a principal place of business at the offices of Maples Corporate Services Limited, P.O. Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands. On information and belief, Defendant Xiaomi Corporation may be served with

process pursuant to the provisions of the Hague Convention. Xiaomi Corporation may also be served with process by serving the Texas Secretary of State at 1019 Brazos Street, Austin, Texas 78701 as its agent for service because it engages in business in Texas but has not designated or maintained a resident agent for service of process in Texas as required by statute.

4. On information and belief, Defendant Xiaomi Inc. is a corporation organized and existing under the laws of the People's Republic of China with a principal place of business at Xiaomi Office Building, 68 Qinghe Middle Street, Haidian District, Beijing, China 100085.

5. Defendant Xiaomi Inc. is a wholly-owned subsidiary of Defendant Xiaomi Corporation. Xiaomi Inc. may be served with process pursuant to the provisions of the Hague Convention. Xiaomi Inc. may also be served with process by serving the Texas Secretary of State at 1019 Brazos Street, Austin, Texas 78701 as its agent for service because it engages in business in Texas but has not designated or maintained a resident agent for service of process in Texas as required by statute.

6. On information and belief, Xiaomi is a leading manufacturer and seller of consumer electronics devices, including smart devices in the United States, including doing business in the State of Texas and within the Western District of Texas.

7. On information and belief, Xiaomi sells and offers to sell products and services throughout the State of Texas, including in this judicial district, as well as throughout the United States, and introduces products and services that perform infringing processes into the stream of commerce knowing that they would be used, offered for sale, or sold in this judicial district and elsewhere in the United States.

8. On information and belief, Xiaomi made, used, offered to sell, offered to sell access to, sold, and/or sold access to products and services, or makes, uses, offers to sell, offers to sell access to, and/or sells access to products and services, including, but not limited to, the following specifically accused products and services: (1) Xiaomi TV Products (*e.g.*, Xiaomi TV Box S (2nd) Gen, Mi Box S,

Xiaomi TV Stick 4K, Mi TV Stick (collectively and individually, "Xiaomi TV Box"), Xiaomi TV Max, Xiaomi TV S Mini LED, Xiaomi TV A, Xiaomi TV A Pro, Xiaomi TV Q1E, Xiaomi TV P1E, and Xiaomi TV F2 (collectively and individually, "Xiaomi TV")); (2) Xiaomi Home Security Products (*e.g.*, Xiaomi Smart Camera C500 Dual, Xiaomi Smart Camera C700, Xiaomi Outdoor Camera CW500, Xiaomi Outdoor Camera CW700S, Xiaomi Smart Camera C300, Xiaomi Smart Camera C301, Xiaomi Outdoor Camera BW300, Xiaomi Solar Outdoor Camera BW 400 Pro, Xiaomi Smart Camera C500 Pro, Xiaomi Outdoor Camera AW300, Xiaomi Smart Camera C200, Mi 360 Camera 1080p, Mi 360 Home Security Camera 2K, Mi Wireless Outdoor Security Camera 1080p, and Mi 360 Home Security Camera 2K Pro (collectively and individually, "Xiaomi Smart Camera")); (3) Xiaomi Robot Vacuum Cleaners (*e.g.*, Xiaomi Robot Vacuum X20 Max, Xiaomi Robot Vacuum E5, Xiaomi Robot Vacuum X10, Xiaomi Robot Vacuum X20 Pro, Xiaomi Robot Vacuum E10C, Xiaomi Robot Vacuum S10, Xiaomi Robot Vacuum T12, and Xiaomi Robot Vacuum G20 Max (collectively and individually, "Xiaomi Robot Vacuum Cleaners")); (4) Xiaomi Smart Appliances; (5) current or legacy products or services, which use, or have used one or more of the foregoing products and services as a component product or component service; (6) combinations of products and/or services comprising, in whole or in part, two or more of the foregoing products and services; and, (7) all other current or legacy products and services imported, made, used, sold, or offered for sale by Xiaomi that operate, or have operated in a substantially similar manner as the above-listed products and services. (As used herein, one or more of the foregoing products and services are individually and collectively referred to as the accused "Xiaomi Products and Services"). On information and belief, the Xiaomi Products and Services infringe at least one claim of each of the Patents-in-Suit.

JURISDICTION AND VENUE

9. This civil action arises under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq*. Accordingly, this Court has subject matter jurisdiction under at least 28 U.S.C. §§ 1331 and 1338(a).

10. This Court has general and specific personal jurisdiction over Defendants collectively (*i.e.*, Xiaomi) because Xiaomi regularly conducts and solicits business, or otherwise engages in other persistent courses of conduct in this judicial district, and/or derives substantial revenue from the use, sale, and distribution of goods and services, including but not limited to the accused Xiaomi Products and Services provided to individuals and businesses in this district.

11. Xiaomi has committed and continues to commit acts of infringement within this district and, thereby, giving rise to this action and establishing minimum contacts with this forum such that the exercise of jurisdiction over Xiaomi would not offend traditional notion of fair play and substantial justice. In addition, this Court has personal jurisdiction over Xiaomi at least for the following reasons: (1) Xiaomi has purposefully availed itself of the privileges of conducting business in the State of Texas; (2) Xiaomi has sought privileges, protections and benefit from the laws of the State of Texas; (3) Xiaomi regularly conducts business within the State of Texas and within this district, and Plaintiff's cause of action arises directly from Defendants' business contacts and other activities in the State of Texas and in this district, including deriving substantial revenue from the infringing Xiaomi Products and Services in the State of Texas and this district.

12. On information and belief, Xiaomi, on its own and/or via its subsidiaries, divisions, partners, affiliates, and parent maintain a commercial presence in the United States, including in State of Texas and in this judicial district, via at least (1) consumers residing in the Western District of Texas who purchase or utilize the Xiaomi accused Products and Services. Xiaomi actively opens, solicits, invites, advertises, and/or promotes the accused Xiaomi Products and Services to residents, citizens, and customers of the United States and this judicial district; or has opened, solicited, invited, advertised, and/or promoted the accused Xiaomi Products and Services and to residents, citizens, and customers of the United States and this judicial district.

13. This Court has personal jurisdiction over Xiaomi, at least, because it committed acts of infringement in this judicial district in violation of 35 U.S.C. §§ 271(a). Specifically, on information and belief, Xiaomi has made, used, offered to sell access to, and/or sold access to the accused Xiaomi Products and Services in this judicial district.

14. On information and belief, Xiaomi is subject to the Court's jurisdiction pursuant to due process and/or the Texas Long Arm Statute due at least because it regularly conducts and solicits business, or otherwise engages in other persistent courses of conduct in this judicial district, and/or derives substantial revenue from the use, sale, and services, including but not limited to the accused Xiaomi Products and Services provided to individuals and businesses in this judicial district.

15. On information and belief, Xiaomi has supported, marketed, made, distributed, offered to sell, and/or sold; or, supports, markets, makes, distributes, offers to sell, and/or sells, the accused Xiaomi Products and Services to consumers throughout the United States, the State of Texas, and residents of the Western District of Texas through various means.

16. On information and belief, Xiaomi derives substantial revenue within the state from the offer of infringing products and services.

17. On information and belief, Xiaomi, on its own and/or via its subsidiaries, divisions, partners, affiliates, and parent, infringe (either directly and/or indirectly) one or more of the claims of the Patents-in-Suit.

18. Venue is proper pursuant to 28 U.S.C. §§ 1391(b), (c), (d) and/or 1400(b). Venue is proper at least because Xiaomi is not resident in the United States. 28 U.S.C. § 1391(c)(3) states that "a defendant not resident in the United States may be sued in any judicial district." Furthermore, venue is proper in this District because Xiaomi has committed, and continues to commit, acts of patent infringement in the Western District of Texas.

THE ASSERTED PATENTS

United States Patent No. 9,942,798

19. On April 10, 2018, the USPTO duly and legally issued United States Patent No. 9,942,798 ("the '798 patent") entitled "Method and System for Efficient Communication" to inventors Tiejun Wang and Tiehong Wang.

20. The '798 patent is presumed valid under 35 U.S.C. § 282. A true and correct copy of the '798 patent is attached hereto as Exhibit 1.

21. Innovation Sciences, LLC owns all rights, title, and interest in the '798 patent.

22. Innovation Sciences, LLC has not granted Defendants an approval, an authorization, or a license to rights under the '798 patent.

23. The '798 patent relates to, among other things, providing systems and methods for efficient communication across various networks.

24. The claimed invention(s) of the '798 patent sought to solve technical problems in multimedia communications with different user terminals by delivering multimedia information to multiple user terminals concurrently, dynamically, and efficiently.

25. The claimed invention(s) of the '798 patent have numerous applications including but not limited to: efficiently directing communications on a network; directing a television display from a mobile terminal; conversion and routing of content to devices that employ differing communication protocols is provided; bidirectional conversion and routing of content to differing devices; remotely receiving and accommodating completion of multimedia content requests from a plurality of content sources; and methods for optimizing the delivery of content that is commonly requested by a plurality of users in a particular location is provided.

26. The inventions of the '798 patent can be implemented in various forms including, but not limited to: business processes, computer implemented methods, computer program products,

computer systems and networks, user interfaces, application programming interfaces as well as other similar areas.

United States Patent No. 9,912,983

27. On March 6, 2018, the United States Patent and Trademark Office ("USPTO") duly and legally issued United States Patent No. 9,912,983 ("the '983 patent") entitled "Method and System for Efficient Communication" to inventors Tiejun Wang and Tiehong Wang.

28. The '983 patent is presumed valid under 35 U.S.C. § 282. A true and correct copy of the '983 patent is attached hereto as Exhibit 2.

29. Innovation Sciences, LLC owns all rights, title, and interest in the '983 patent.

30. Innovation Sciences, LLC has not granted Defendants an approval, an authorization, or a license to rights under the '983 patent.

31. The '983 patent relates to, among other things, systems and corresponding devices that, *inter alia,* allow multimedia communications with different user terminals, and deliver multimedia information to multiple user terminals concurrently, dynamically, and efficiently.

32. The claimed invention(s) of the '983 patent sought to solve technical problems in multimedia communications with different user terminals by delivering multimedia information to multiple user terminals concurrently, dynamically, and efficiently.

33. The claimed invention(s) of the '983 patent have numerous applications including but not limited to: efficiently directing communications on a network; directing a television display from a mobile terminal; conversion and routing of content to devices that employ differing communication protocols is provided; bidirectional conversion and routing of content to differing devices; remotely receiving and accommodating completion of multimedia content requests from a plurality of content sources; and methods for optimizing the delivery of content that is commonly requested by a plurality of users in a particular location is provided.

34. The inventions of the ‘983 patent can be implemented in various forms including, but not limited to: business processes, computer implemented methods, computer program products, computer systems and networks, user interfaces, application programming interfaces as well as other similar areas.

United States Patent No. 10,104,425

35. On October 16, 2018, the USPTO duly and legally issued United States Patent No. 10,104,425 (“the ’425 patent”) entitled “Method and System for Efficient Communication” to inventors Tiejun Wang and Tiehong Wang.

36. The ’425 patent is presumed valid under 35 U.S.C. § 282. A true and correct copy of the ’425 patent is attached hereto as Exhibit 3.

37. Innovation Sciences, LLC owns all rights, title, and interest in the ’425 patent.

38. Innovation Sciences, LLC has not granted Defendants an approval, an authorization, or a license to rights under the ’425 patent.

39. The ’425 patent is a continuation of the ’983 patent. The ’425 patent specification is nearly identical to the specification of the ’983 patent and solves the problems described in the ’983 patent.

United States Patent No. 10,136,179

40. On November 20, 2018, the United States Patent and Trademark Office (“USPTO”) duly and legally issued United States Patent No. 10,136,179 (“the ’179 patent”) entitled “Method and System for Efficient Communication” to inventors Tiejun Wang and Tiehong Wang.

41. The ’179 patent is presumed valid under 35 U.S.C. § 282. A true and correct copy of the ’179 patent is attached hereto as Exhibit 4.

42. Innovation Sciences, LLC owns all rights, title, and interest in the ’179 patent.

43. Innovation Sciences, LLC has not granted Defendants an approval, an authorization, or a license to rights under the '179 patent.

44. The '179 patent is a continuation of the '983 patent. The '179 patent specification is nearly identical to the specification of the '983 patent and solves the problems described in the '983 patent.

United States Patent No. 10,368,125

45. On July 30, 2019, the USPTO duly and legally issued United States Patent No. 10,368,125 ("the '125 patent") entitled "Method and System for Efficient Communication" to inventors Tiejun Wang and Tiehong Wang.

46. The '125 patent is presumed valid under 35 U.S.C. § 282. A true and correct copy of the '125 patent is attached hereto as Exhibit 5.

47. Innovation Sciences, LLC owns all rights, title, and interest in the '125 patent.

48. Innovation Sciences, LLC has not granted Defendants an approval, an authorization, or a license to rights under the '125 patent.

49. The '125 patent is a continuation of the '983 patent. The '125 patent specification is nearly identical to the specification of the '983 patent and solves the problems described in the '983 patent.

United States Patent No. 10,469,898

50. On November 5, 2019, the United States Patent and Trademark Office ("USPTO") duly and legally issued United States Patent No. 10,469,898 ("the '898 patent") entitled "Method and System for Efficient Communication" to inventors Tiejun Wang and Tiehong Wang.

51. The '898 patent is presumed valid under 35 U.S.C. § 282. A true and correct copy of the '898 patent is attached hereto as Exhibit 6.

52. Innovation Sciences, LLC owns all rights, title, and interest in the '898 patent.

53. Innovation Sciences, LLC has not granted Defendants an approval, an authorization, or a license to rights under the ’898 patent.

54. The ’898 patent relates to, among other things, among other things, systems and corresponding devices that, *inter alia*, improve the efficiency of networks in delivering internet content, improve the ability to complete financial transactions, and improve the ability to notify and alert users of relevant issues related to monitoring of locations and activities.

55. The claimed invention(s) of the ’898 patent sought to solve technical problems in multimedia communications with different user terminals by delivering multimedia information to multiple user terminals concurrently, dynamically, and efficiently.

56. The claimed invention(s) of the ’898 patent have numerous applications including but not limited to: directing a television display from a mobile terminal such as a cellular phone; conversion and routing of content to devices that employ differing communication protocols; bidirectional conversion and routing of content to differing devices; remotely receiving and accommodating completion of multimedia content requests from a plurality of content sources; and methods for optimizing the delivery of content that is commonly requested by a plurality of users in a particular location is provided.

57. The inventions of the ‘898 patent can be implemented in various forms including, but not limited to: business processes, computer implemented methods, computer program products, computer systems and networks, user interfaces, application programming interfaces as well as other similar areas.

CLAIMS FOR RELIEF

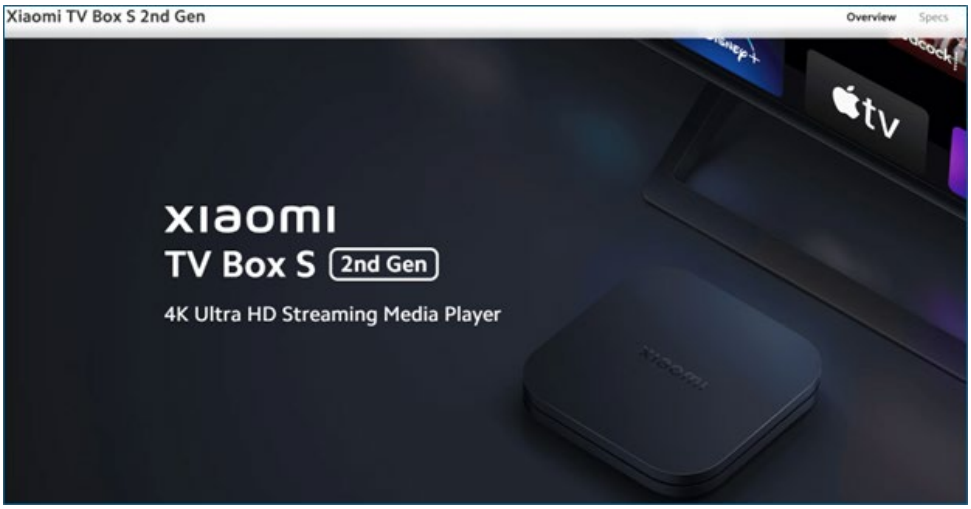
Count I – Infringement of United States Patent No. 9,942,798

62. Innovation Sciences repeats, realleges, and incorporates by reference, as if fully set forth here, the allegations of the preceding paragraphs above.

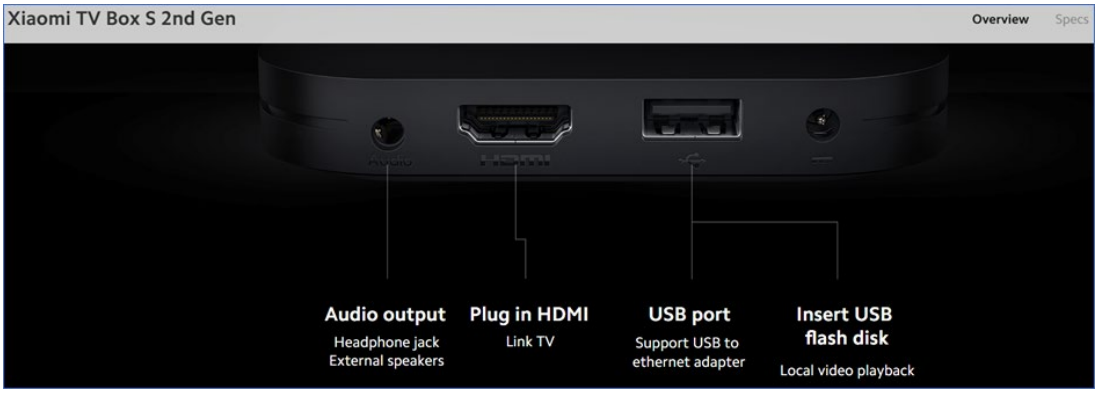
63. On information and belief, Xiaomi violated 35 U.S. C. § 271(a) with respect to one or more claims of the '798 patent.

64. On information and belief, Xiaomi (or those acting on its behalf) (i) makes, uses, sells, sells access to, imports, offers to sell and/or offers to sell access to the Xiaomi Products and Services in the United States that infringe (literally and/or under the doctrine of equivalents) at least claim 81 of the '798 patent.

65. On information and belief, Xiaomi Products and Services (*e.g.*, Xiaomi TV Box) provide a centralized hub system. On information and belief and as shown below, the Xiaomi TV Box connects to a television via an HDMI cable and enables 4K Ultra HD video streaming, Wi-Fi connectivity, and a Bluetooth voice remote.



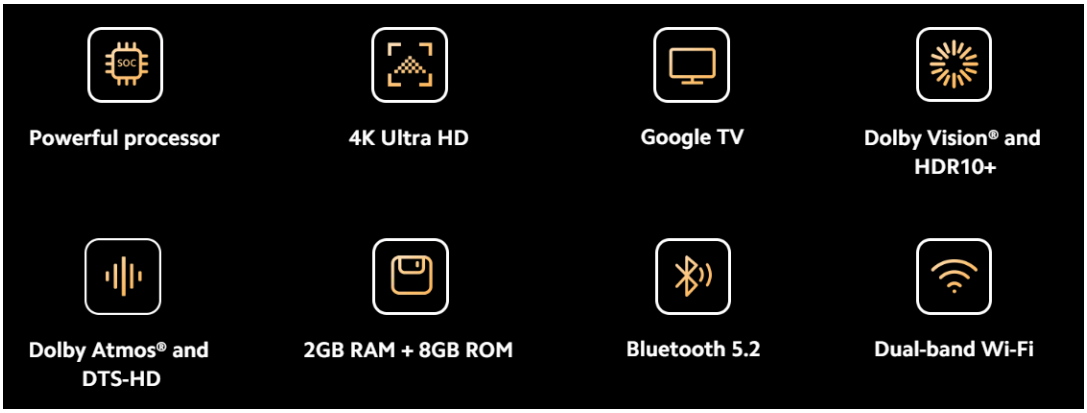
See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

66. On information and belief, Xiaomi Products and Services provide a centralized hub system comprising an input interface (*e.g.* Wi-Fi 2.4GHz/5GHz) configured to receive a multimedia signal through a wireless communication network (*e.g.*, the internet), the multimedia signal comprising a compressed digital video signal (*e.g.*, HEVC, MP4EV-ES). On information and as shown below, the Xiaomi TV Box features dual-band Wi-Fi, enabling it to connect to the internet for multimedia streaming. Further, it receives multimedia content in compressed digital video formats such as HEVC or MP4EV-ES.

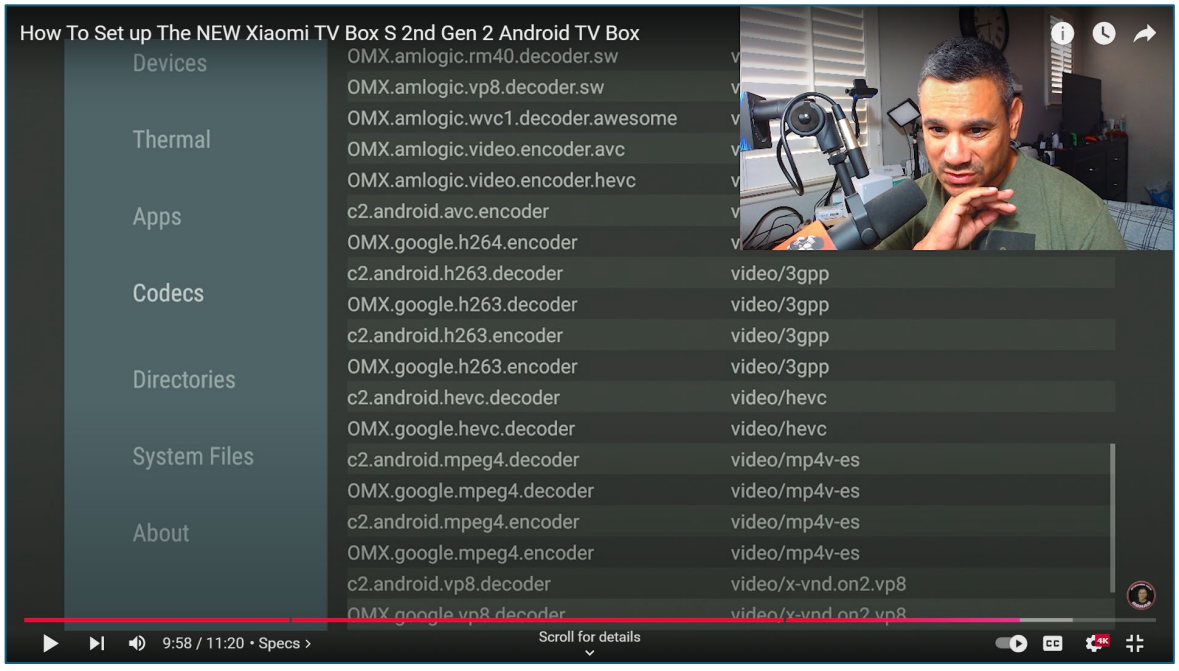


See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

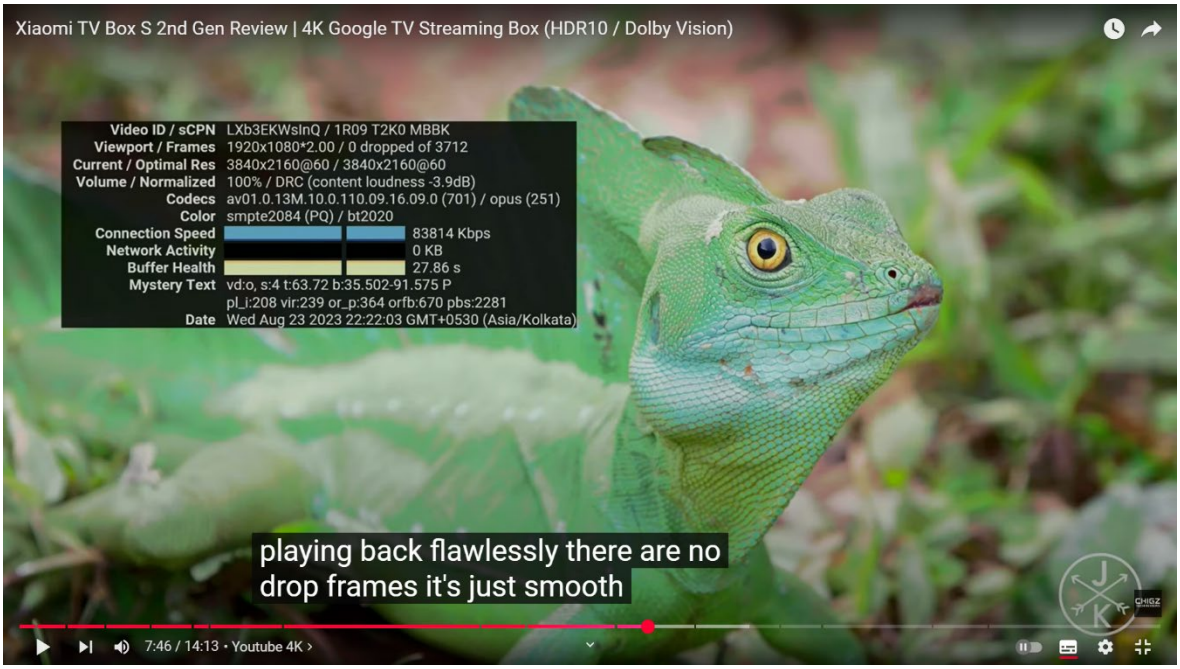
Wireless connectivity	Wi-Fi:	2.4GHz/ 5GHz
	Bluetooth:	5.2

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

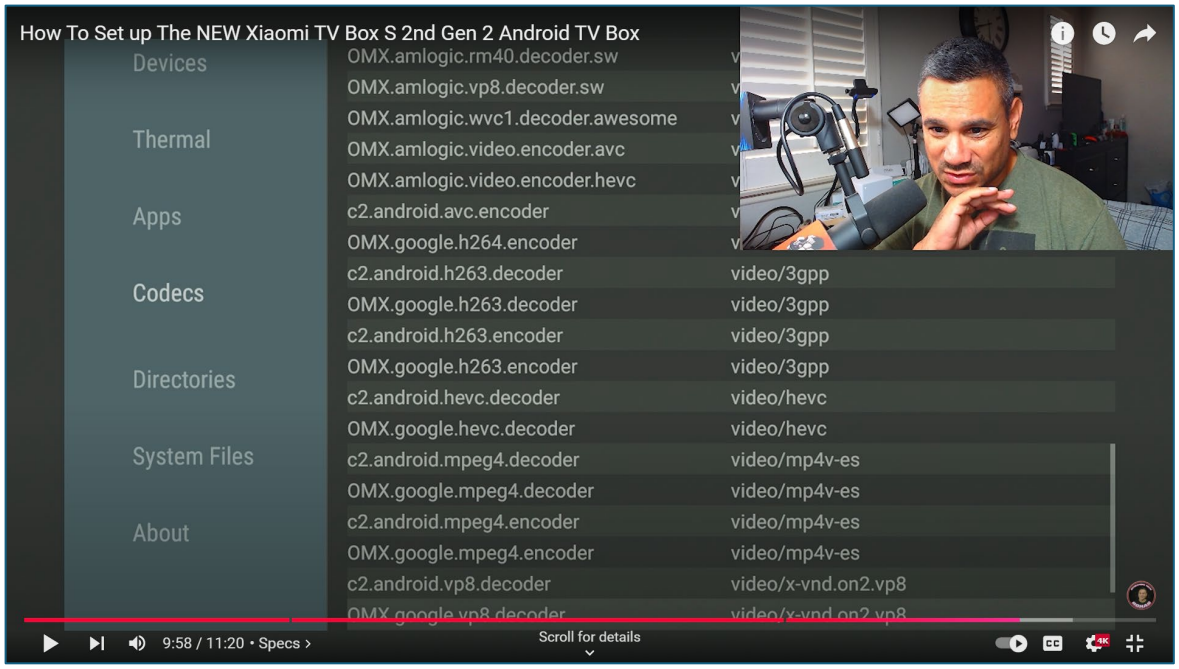


See https://www.youtube.com/watch?v=ul3XvLzMGww.



See https://www.youtube.com/watch?v=ht97YiL86o0.

67. On information and belief, Xiaomi Products and Services provide a centralized hub system comprising at least one processing unit (*e.g.*, decoders) configured to perform a conversion of the multimedia signal (*e.g.*, HEVC, MP4EV-ES). On information and belief and as shown below, the Xiaomi TV Box has decoders that enable conversion of compressed multimedia signal into a multimedia signal such as 4K Ultra HD or 1080p video content.



See https://www.youtube.com/watch?v=ul3XvLzMGww.

Decoder	Video decoder:	Up to 4K 60FPS Supports Dolby Audio® and DTS-HD Supports Dolby Vision® Supports HDR10+

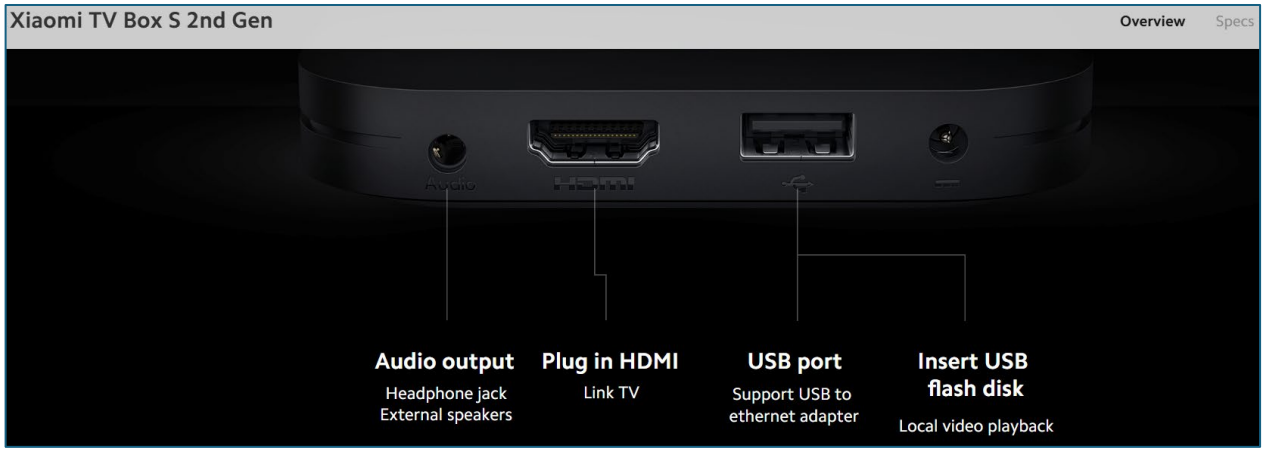
See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

68. On information and belief, Xiaomi Products and services provide a centralized hub system comprising a high definition digital output interface (*e.g.*, HDMI 2.1) configured to connect to a cable.

Socket	HDMI 2.1: 1
	USB 2.0: 1
	Power interface: 1
	Audio output: 1

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

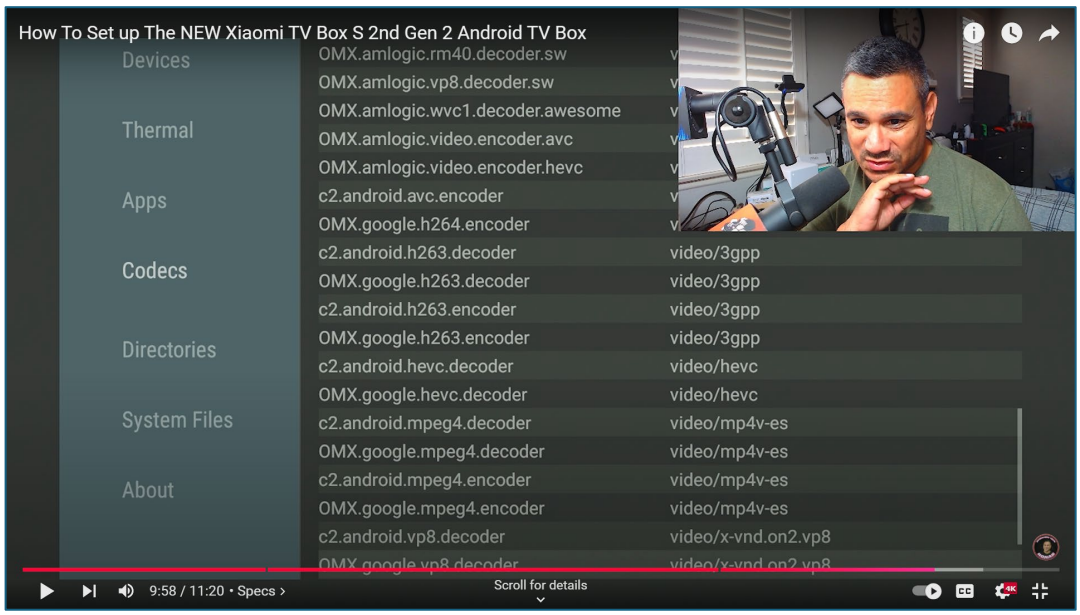
See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



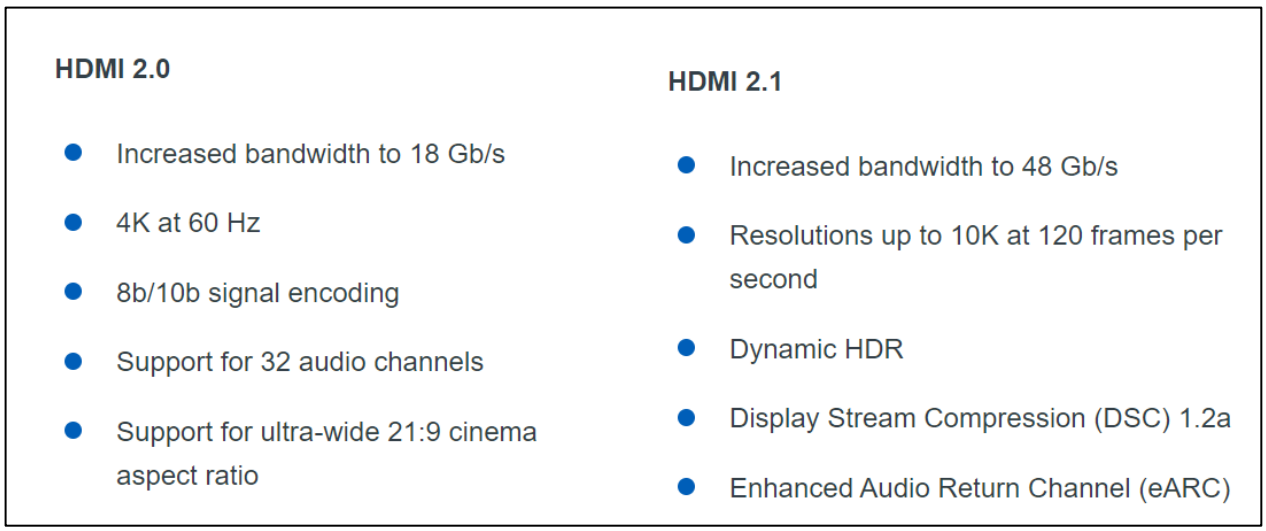
See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

69. On information and belief, Xiaomi Products and services provide a centralized hub system comprising wherein the conversion comprises decompressing, by a decoder (*e.g.*, OMX.google.hevc.decoder), the compressed digital video signal (*e.g.*, HEVC, MP4EV-ES) to a decompressed digital video signal, further followed by encoding, by an encoder (*e.g.*, HDMI TMDS, etc.), the decompressed digital video signal (*e.g.*, 4K Ultra HD, 1080p HD video, etc.) to produce an encoded decompressed digital video signal for transmission through the high definition digital output interface (*e.g.*, HDMI 2.1) to accommodate production of a corresponding multimedia content on a

high definition digital television.



See https://www.youtube.com/watch?v=ul3XvLzMGww0.



See https://www.eaton.com/us/en-us/products/backup-power-ups-surge-it-power-distribution/backup-power-ups-it-power-distribution-resources/cpdi-vertical-marketing/hdmi-explained.html#.

HDMI features

Transition-Minimized Differential Signaling (TMDS) – When digital data is transmitted, especially over long distances, it is susceptible to noise and signal loss. TMDS is a way of encoding an HDMI signal to protect it from interference as it travels from source to receiver. It works like this:

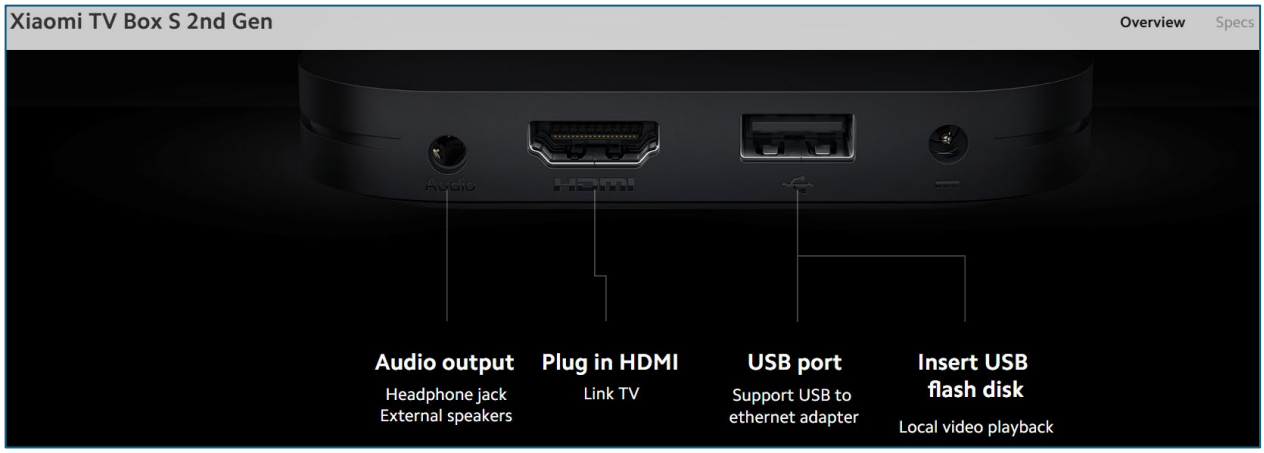
- The sending device encodes the signal, organizing the ones and zeros to reduce the chance that the signal will degrade.
- Two copies of the signal are transmitted over different internal wires, one an "out-of-phase" version of the actual signal.
- The receiving device puts the out-of-phase signal back in phase and compares the two versions, ignoring any differences (noise) between the two.

See https://www.eaton.com/us/en-us/products/backup-power-ups-surge-it-power-distribution/backup-power-ups-it-power-distribution-resources/cpdi-vertical-marketing/hdmi-explained.html#.

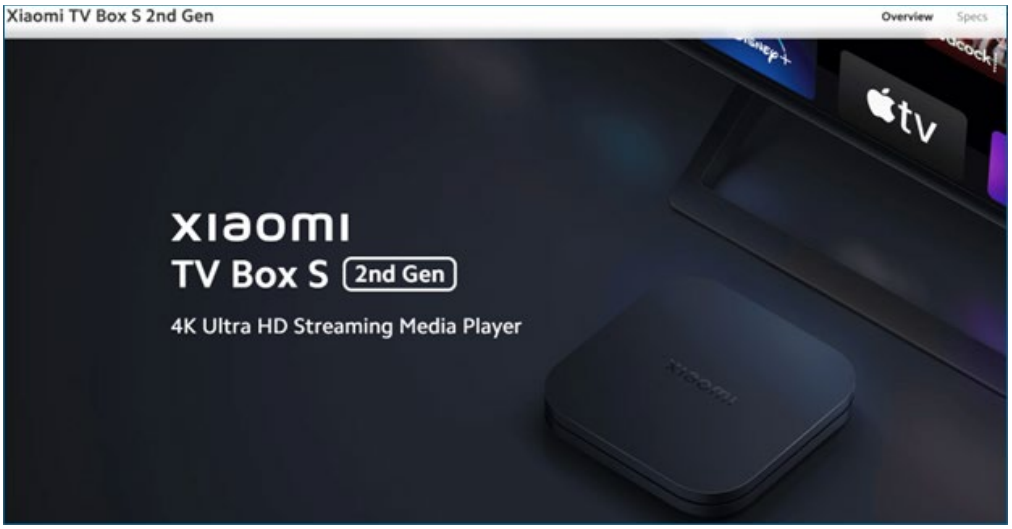
Socket	HDMI 2.1: 1
	USB 2.0: 1
	Power interface: 1
	Audio output: 1

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

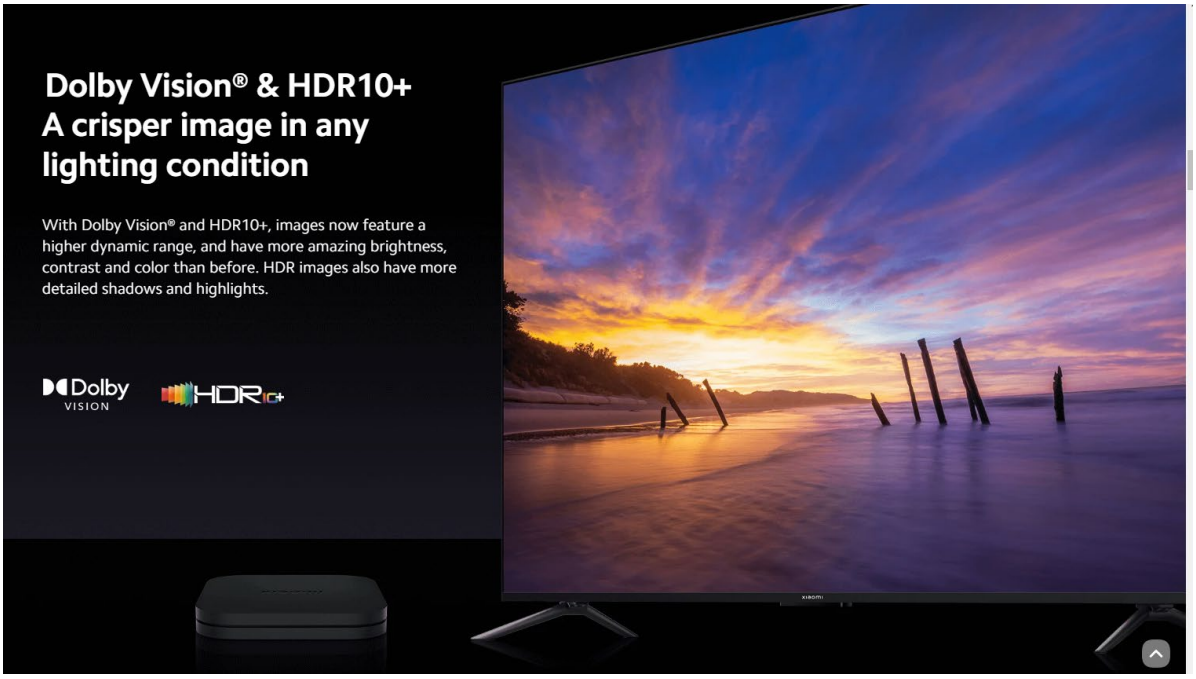
See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



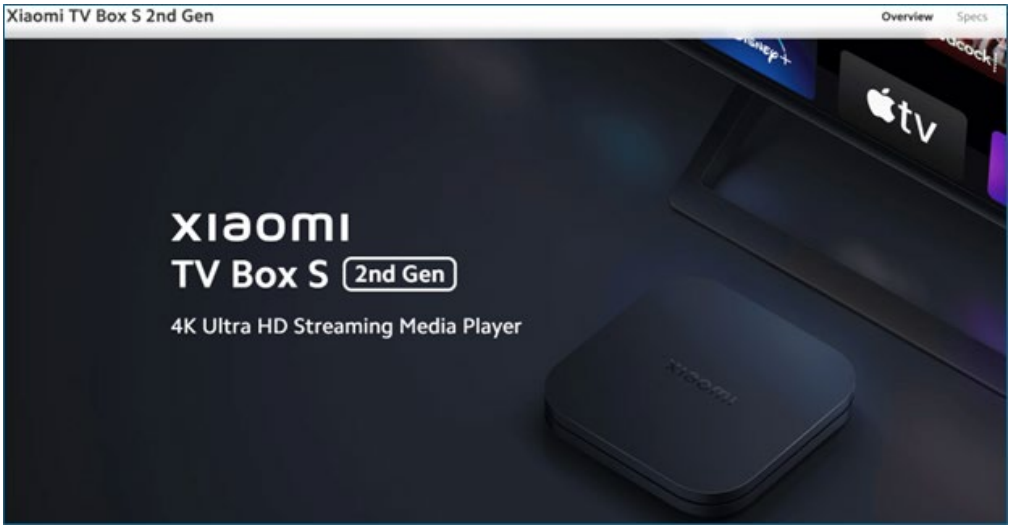
See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



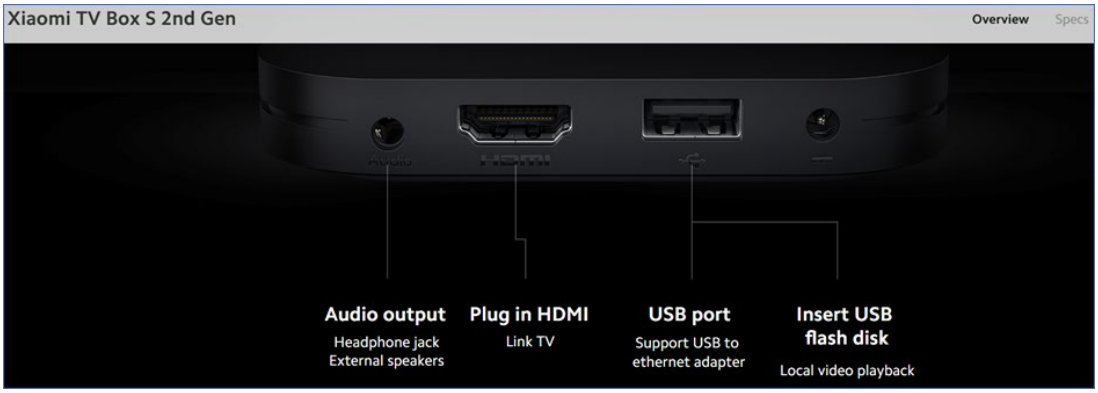
See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/#.

70. On information and belief, Xiaomi Products and services provide a centralized hub system comprising wherein the centralized hub system (*e.g.*, Xiaomi TV Box) is further configured to transmit the encoded decompressed digital video signal (*e.g.*, HDMI TMDS, etc.) to the high definition digital television through a predetermined communication channel (*e.g.*, HDMI Port and HDMI cable) in conjunction with a navigational command (*e.g.*, navigating between applications such as Netflix, YouTube, Prime Video, etc. using the Xiaomi remote) for the predetermined communication channel, the predetermined communication channel being the high definition digital output interface connected

to the cable (*e.g.*, HDMI Port and HDMI cable).



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

HDMI 2.0

- Increased bandwidth to 18 Gb/s
- 4K at 60 Hz
- 8b/10b signal encoding
- Support for 32 audio channels
- Support for ultra-wide 21:9 cinema aspect ratio

HDMI 2.1

- Increased bandwidth to 48 Gb/s
- Resolutions up to 10K at 120 frames per second
- Dynamic HDR
- Display Stream Compression (DSC) 1.2a
- Enhanced Audio Return Channel (eARC)

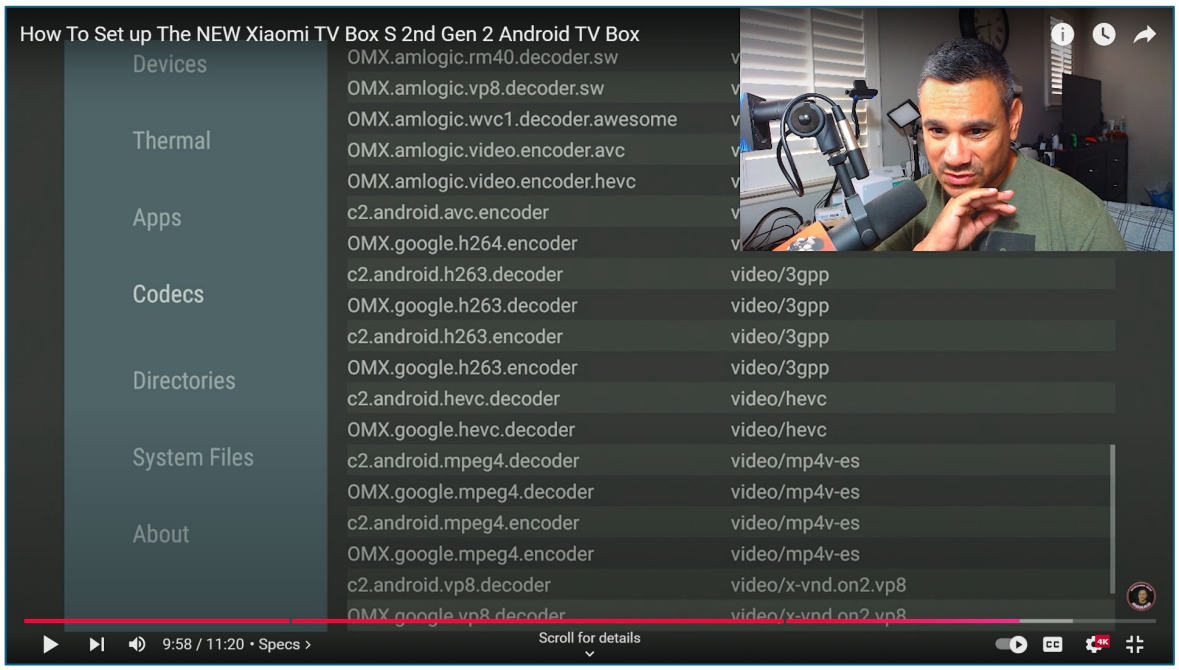
See https://www.eaton.com/us/en-us/products/backup-power-ups-surge-it-power-distribution/backup-power-ups-it-power-distribution-resources/cpdi-vertical-marketing/hdmi-explained.html#.

HDMI features

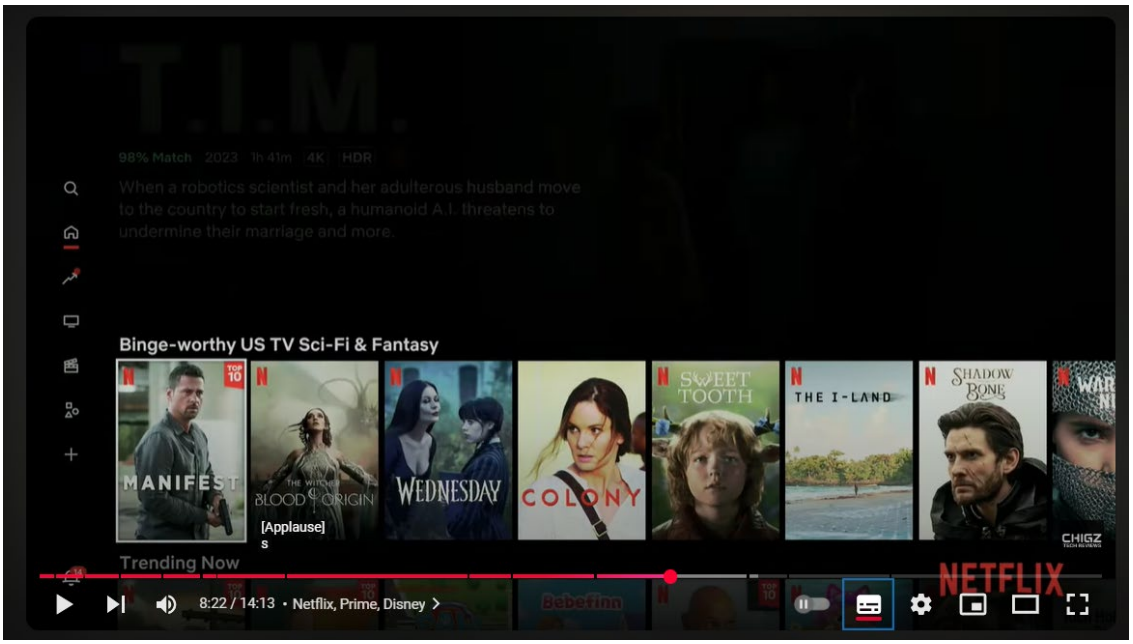
Transition-Minimized Differential Signaling (TMDS) – When digital data is transmitted, especially over long distances, it is susceptible to noise and signal loss. TMDS is a way of encoding an HDMI signal to protect it from interference as it travels from source to receiver. It works like this:

- The sending device encodes the signal, organizing the ones and zeros to reduce the chance that the signal will degrade.
- Two copies of the signal are transmitted over different internal wires, one an "out-of-phase" version of the actual signal.
- The receiving device puts the out-of-phase signal back in phase and compares the two versions, ignoring any differences (noise) between the two.

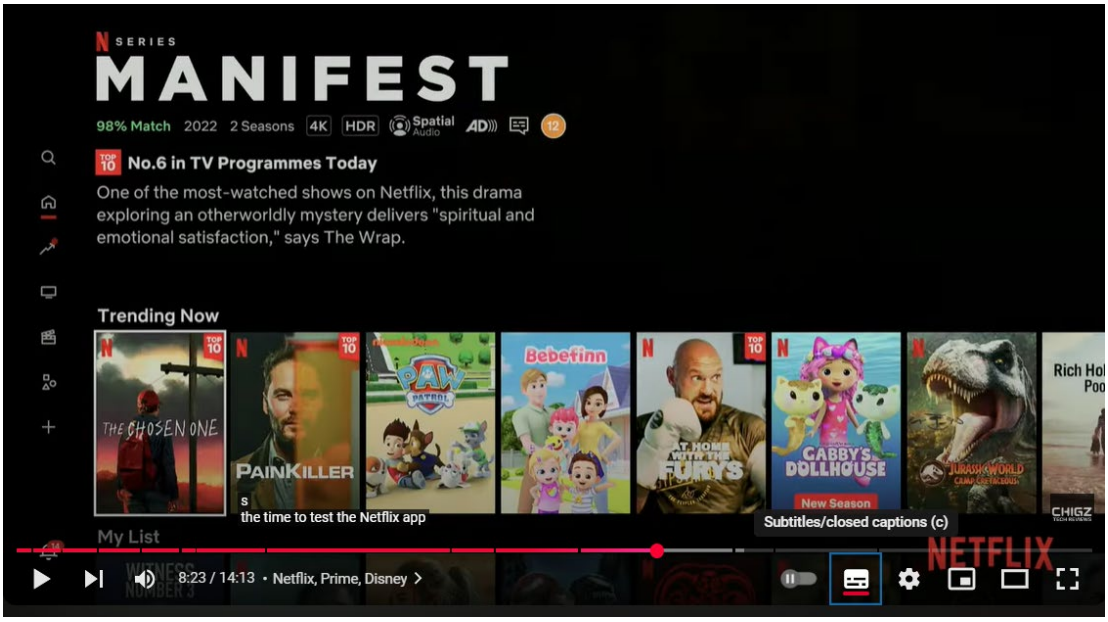
See https://www.eaton.com/us/en-us/products/backup-power-ups-surge-it-power-distribution/backup-power-ups-it-power-distribution-resources/cpdi-vertical-marketing/hdmi-explained.html#.



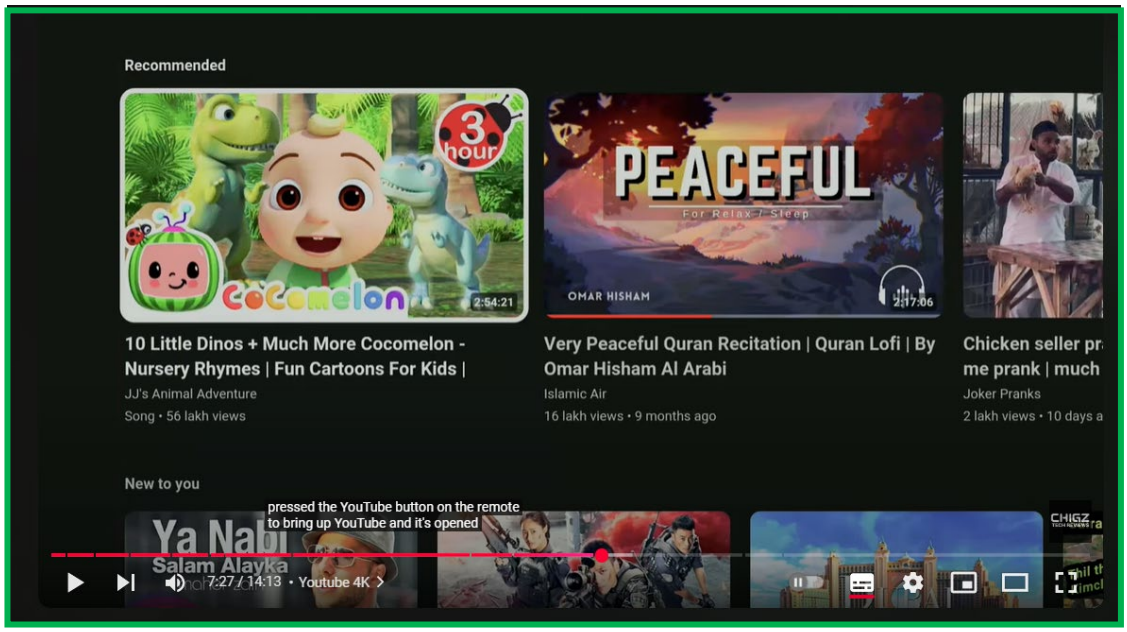
See https://www.youtube.com/watch?v=ul3XvLzMGww.



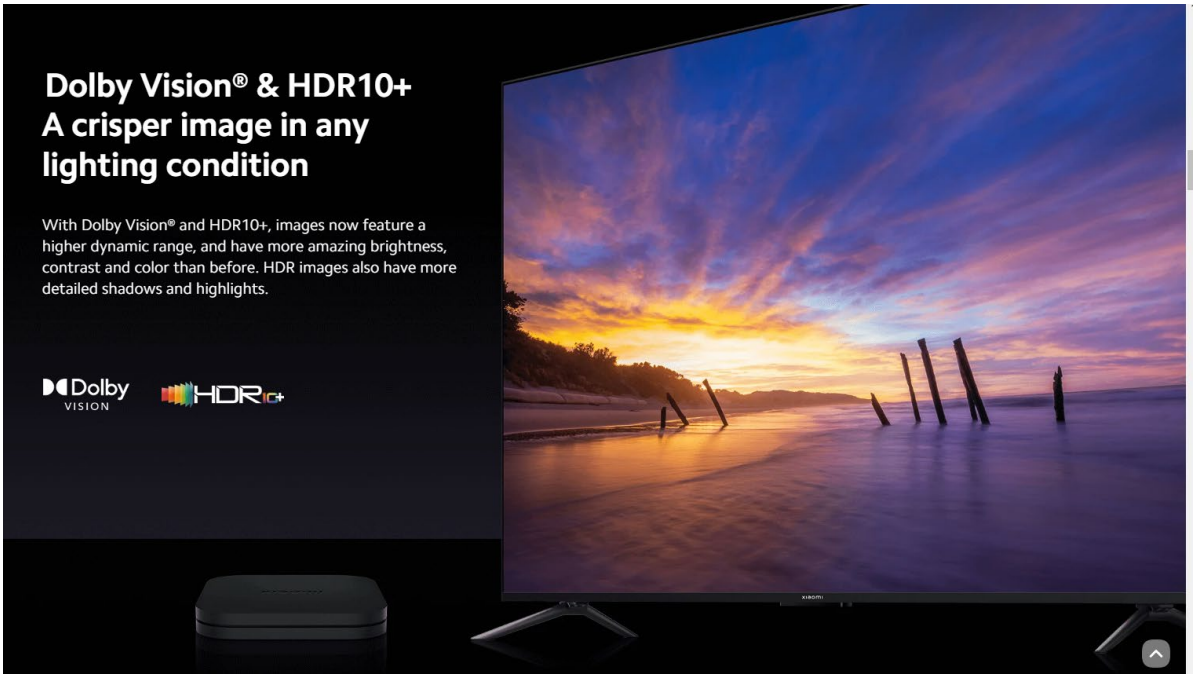
See https://www.youtube.com/watch?v=ht97YiL86o0.



See https://www.youtube.com/watch?v=ht97YiL86o0.



See https://www.youtube.com/watch?v=ht97YiL86o0.



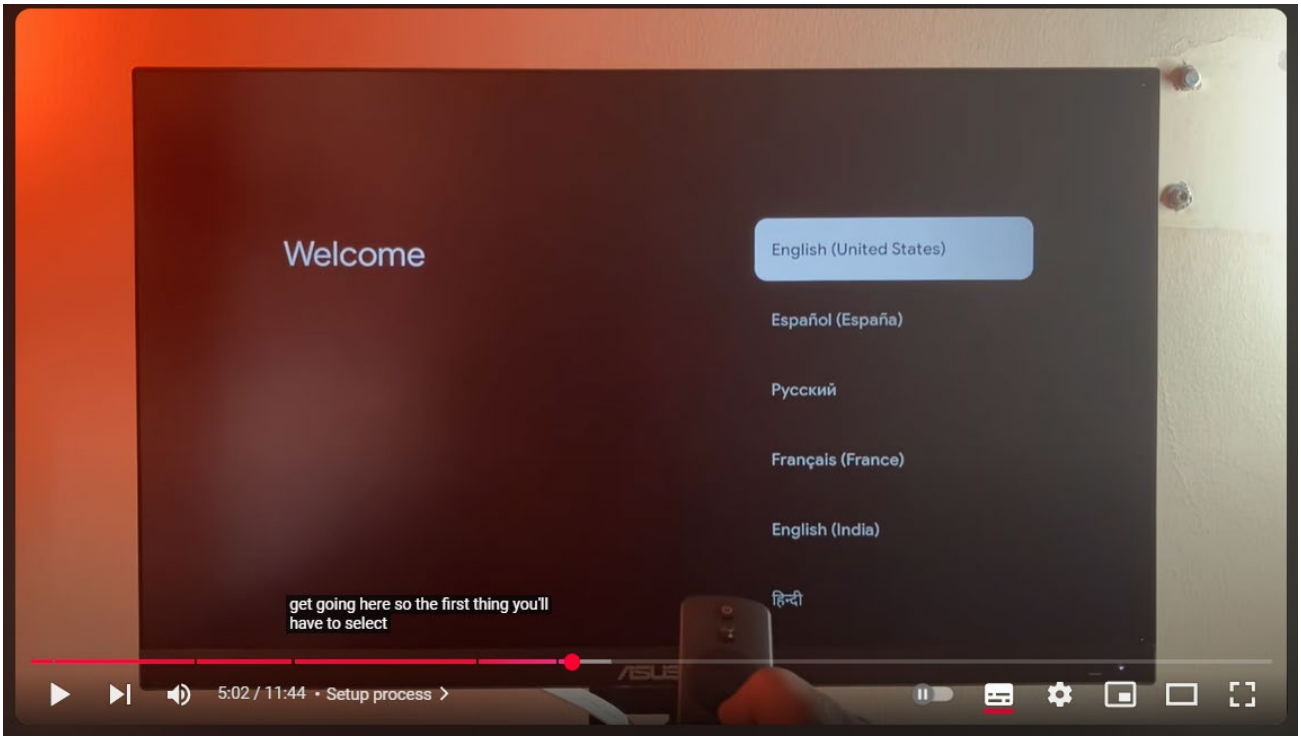
See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/#.

71. On information and belief, Xiaomi Products and services provide a centralized hub system comprising wherein the navigational command (*e.g.*, switching between media content) is from a channel button (*e.g.*, a remote).

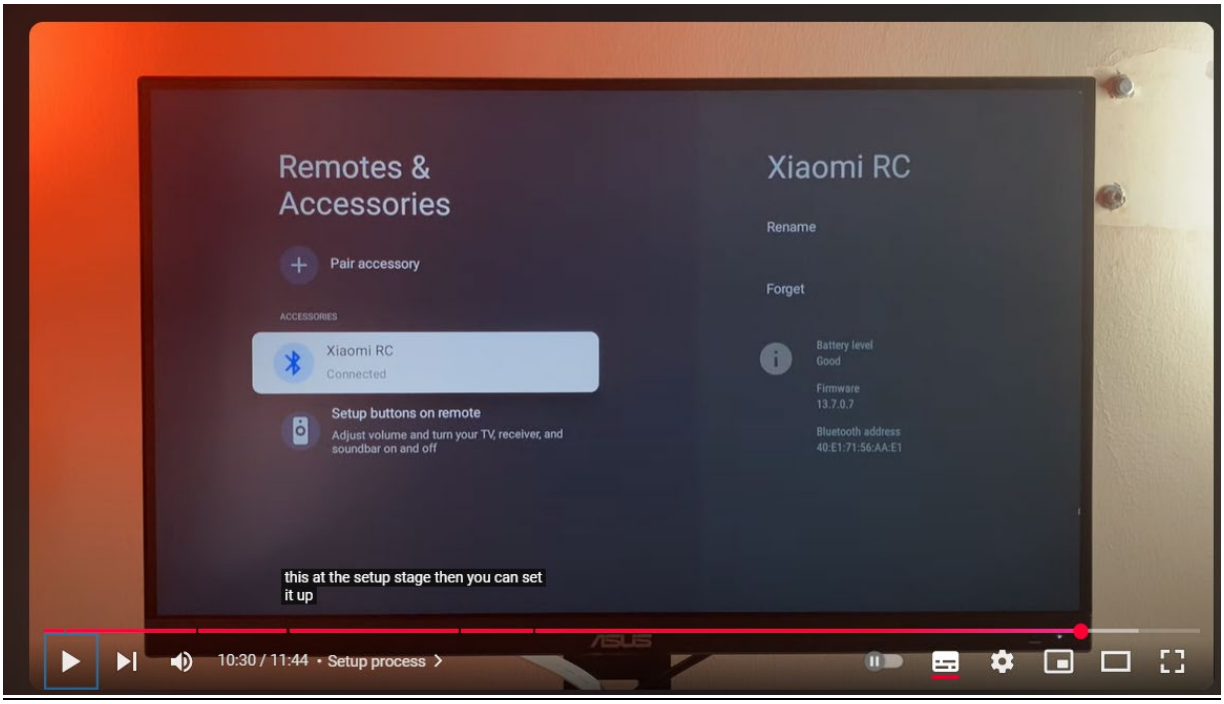
Packaging	Xiaomi TV Box S (2nd Gen): 1
	Remote control: 1
	User manual: 1
	Power adapter: 1
	HDMI cable: 1

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

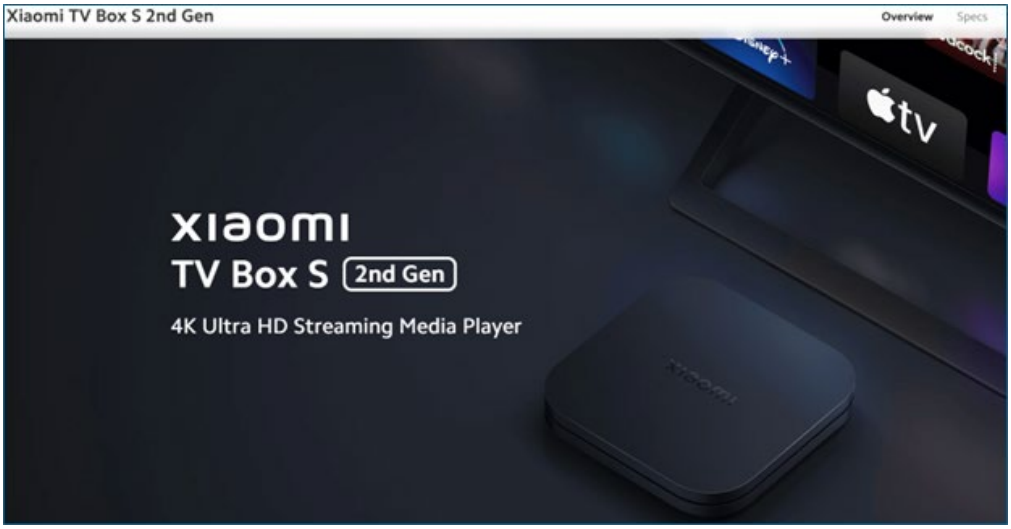


See https://www.youtube.com/watch?v=GfLB1-fwGro.

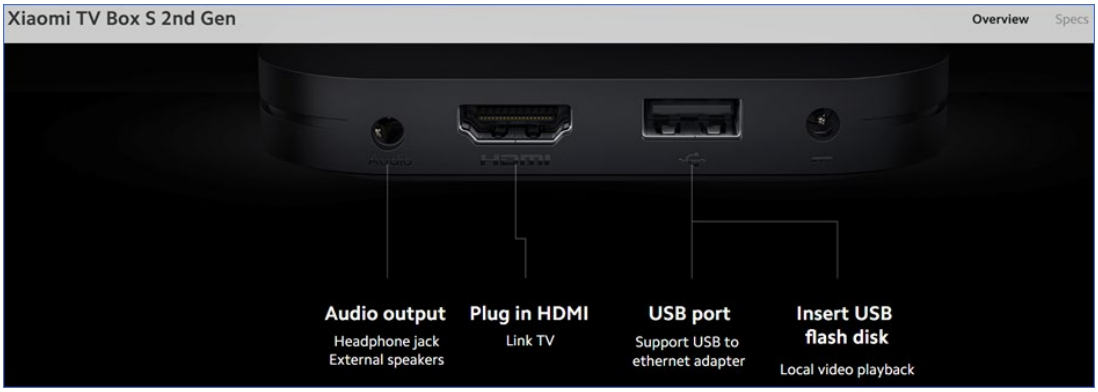


See https://www.youtube.com/watch?v=GfLB1-fwGro.

72. On information and belief, Xiaomi Products and services provide a centralized hub system comprising wherein the centralized hub system (*e.g.*, Xiaomi TV Box) is further configured to communicate information for managing an item status of an item (*e.g.*, Mi Camera, Mi Robot Vacuum, Mi RC, gamepad, etc.) based on a signal regarding an update status of the item (*e.g.*, device status, such as online/offline), the signal being triggered by a detection of the updated status (*e.g.*, low battery alerts, motion detection alerts, etc.).

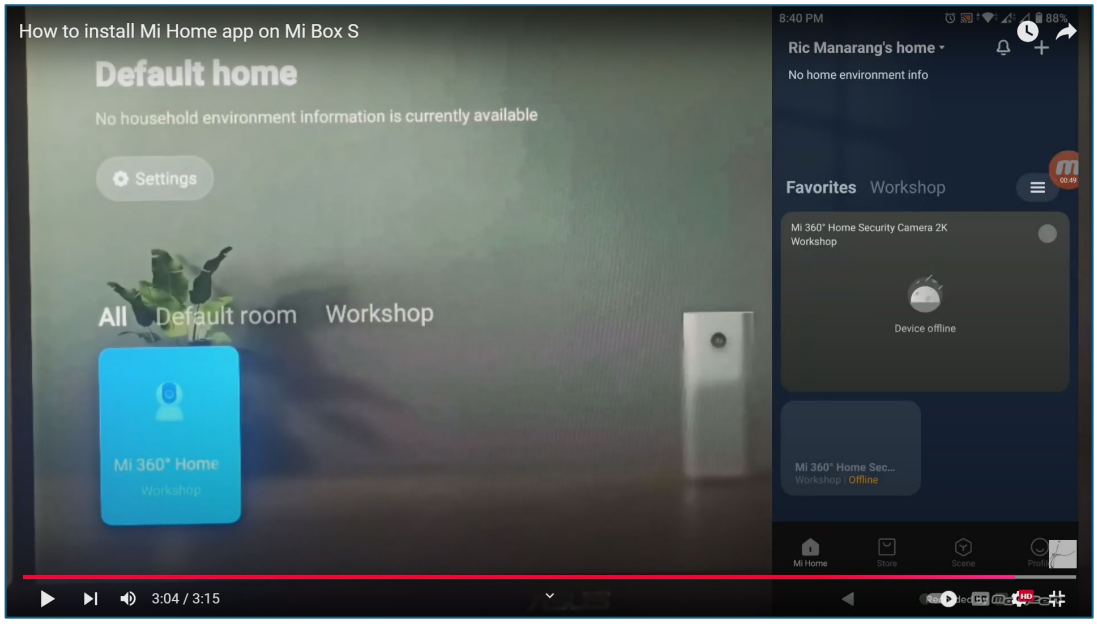


See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

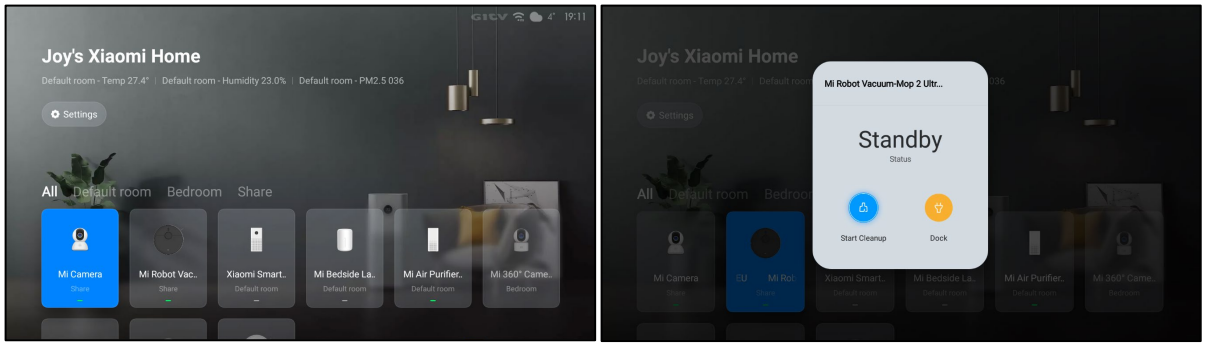


See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

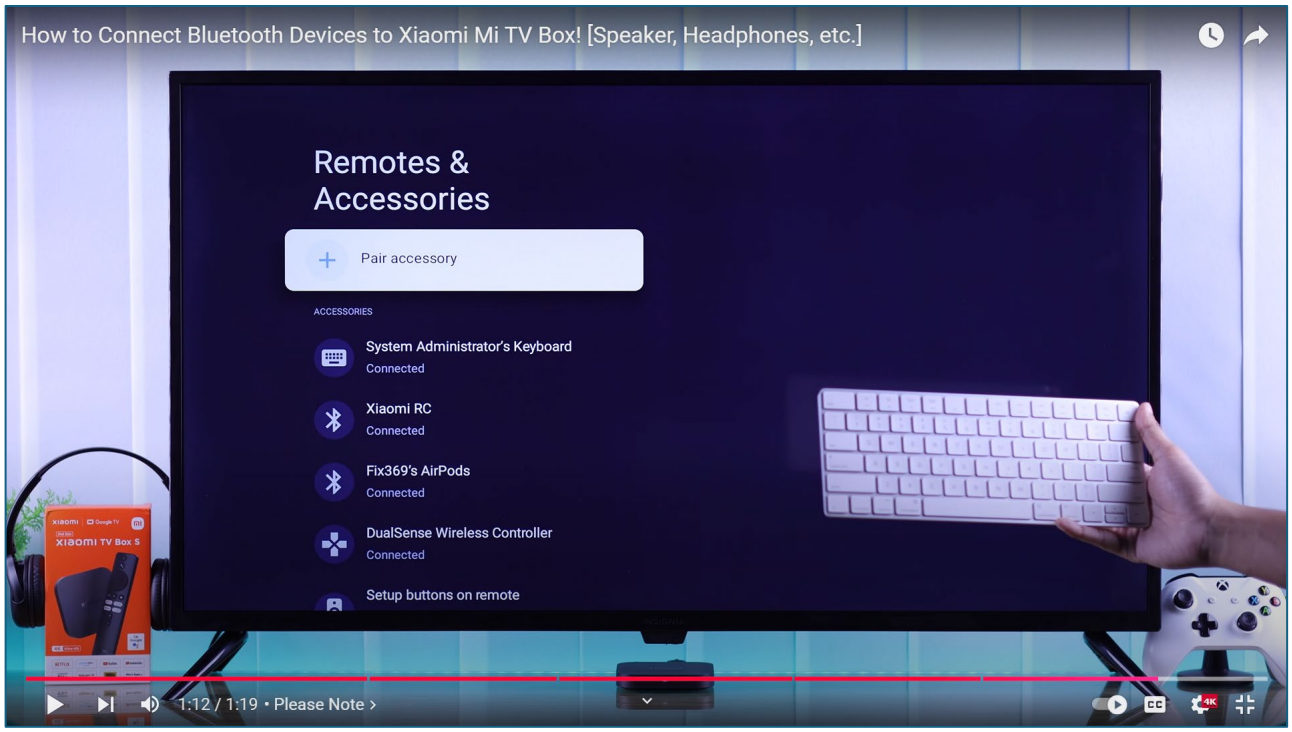
See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



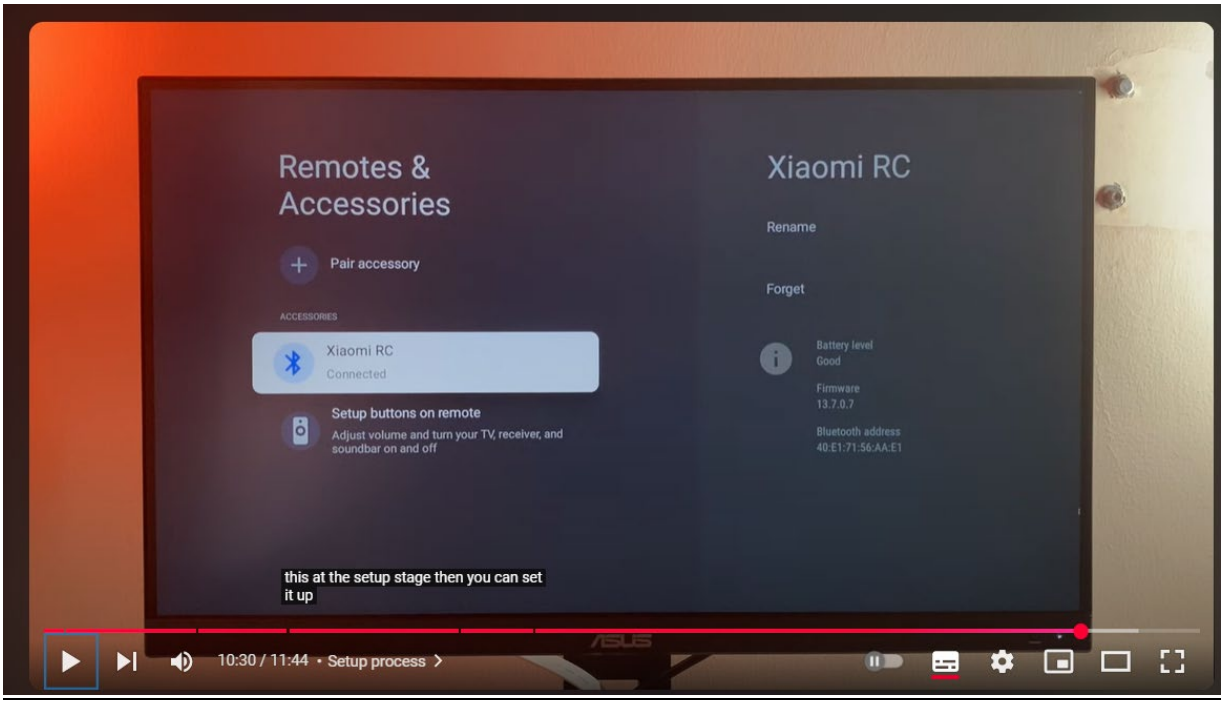
See https://www.youtube.com/watch?v=UPeJSixSS-Q&t=5s.



See https://play.google.com/store/apps/details?id=com.xiaomi.smarthome.tv.global4.



See https://www.youtube.com/watch?v=4ZEDTfqUTTQ.



See https://www.youtube.com/watch?v=GfLB1-fwGro.

1) Smart Device Connections

In order to provide you with Xiaomi/Mi Home services and to enable you to securely connect to and manage your smart devices, we will collect your Wi-Fi information, location information, account login information, information related to your mobile phone and smart device, and information associated with your Mi Account and smart device.

This information will be used to provide you with various functionalities, including pairing with and connecting to smart devices, discovering nearby devices, and device management. Specific examples involving the above information are set out below:

See https://trust.mi.com/docs/iot-privacy-white-paper-global/3/6.

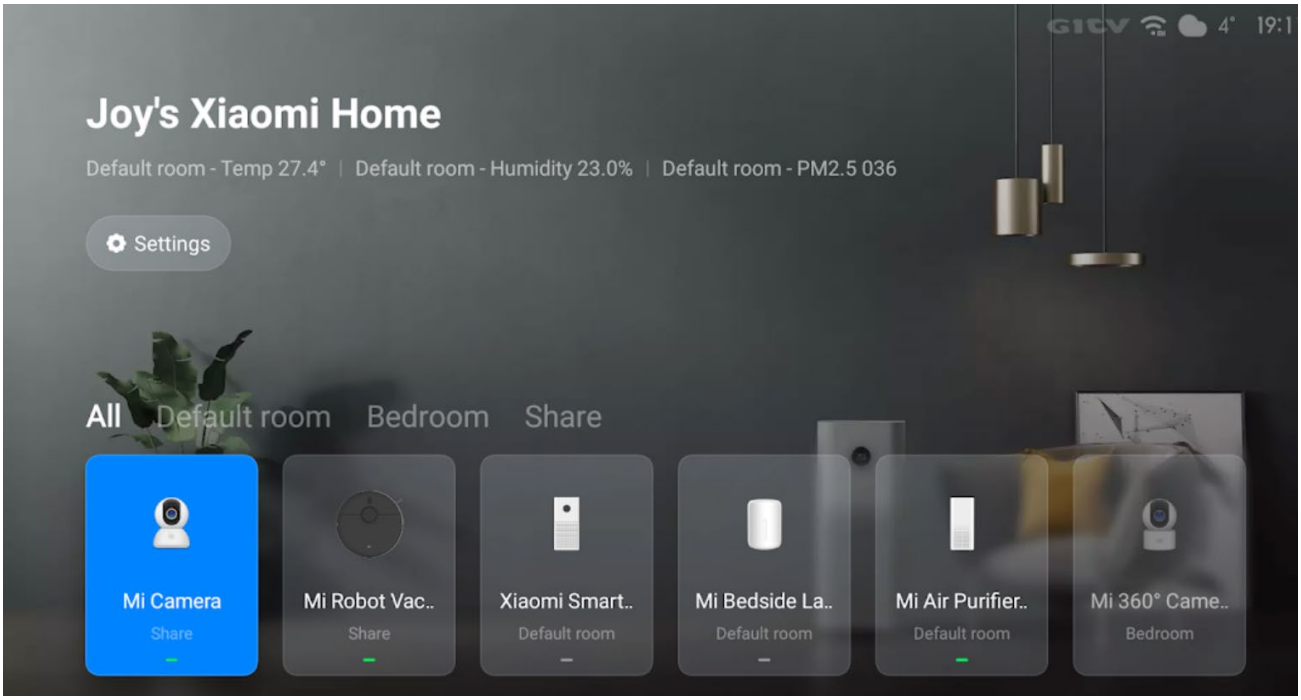
5) Smart Linkage Scenes

We provide support for you to configure certain rules to establish smart connections between devices under specific conditions. In order to enjoy this feature, we may collect your location information, smart scene rule settings, and designated device status so as to enable specific device functions to be executed according to the commands you give. For example, enabling a light to turn on whenever a sensor detects someone passing by. This functionality cannot be enabled without your explicit consent and configured rules.

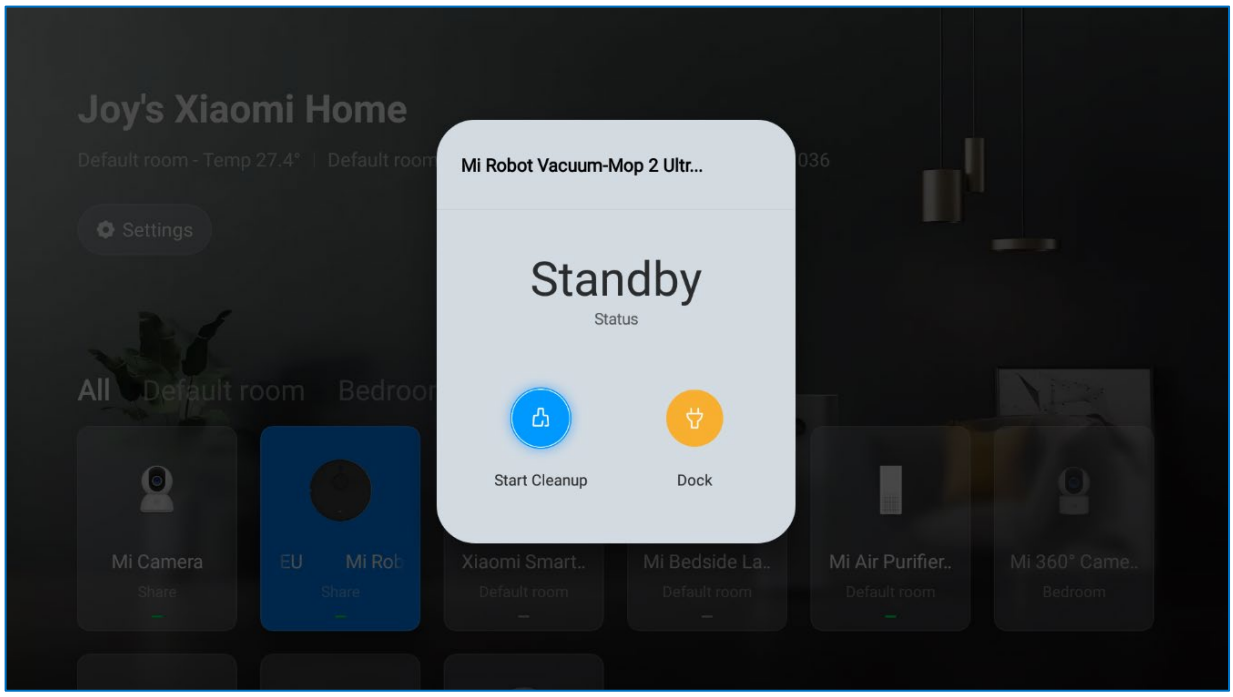
See https://trust.mi.com/docs/iot-privacy-white-paper-global/3/6.

73. On information and belief, Xiaomi Products and services provide a centralized hub system comprising wherein the signal regarding the updated status of the item (*e.g.*, device status such as online/offline, battery levels, etc.) comprises information corresponding to a unique identifier (*e.g.*,

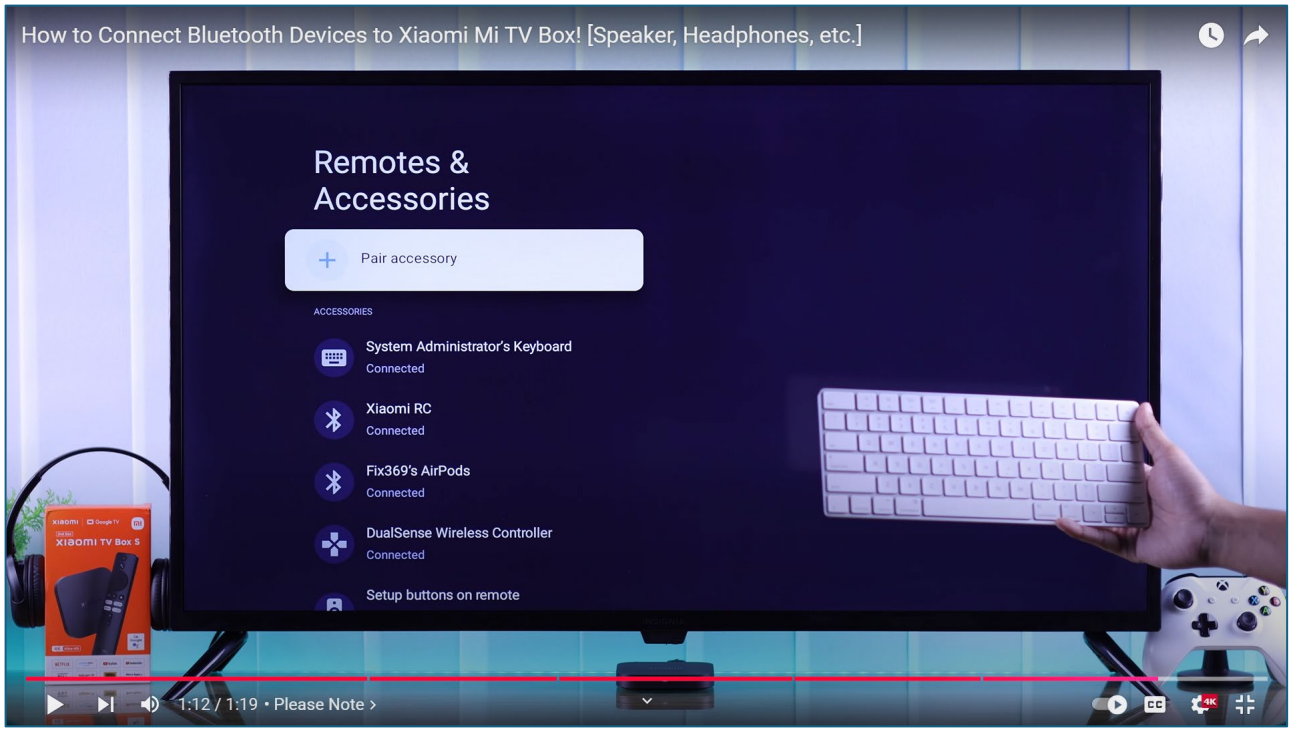
MAC address or Bluetooth address of the connected) associated with the item.



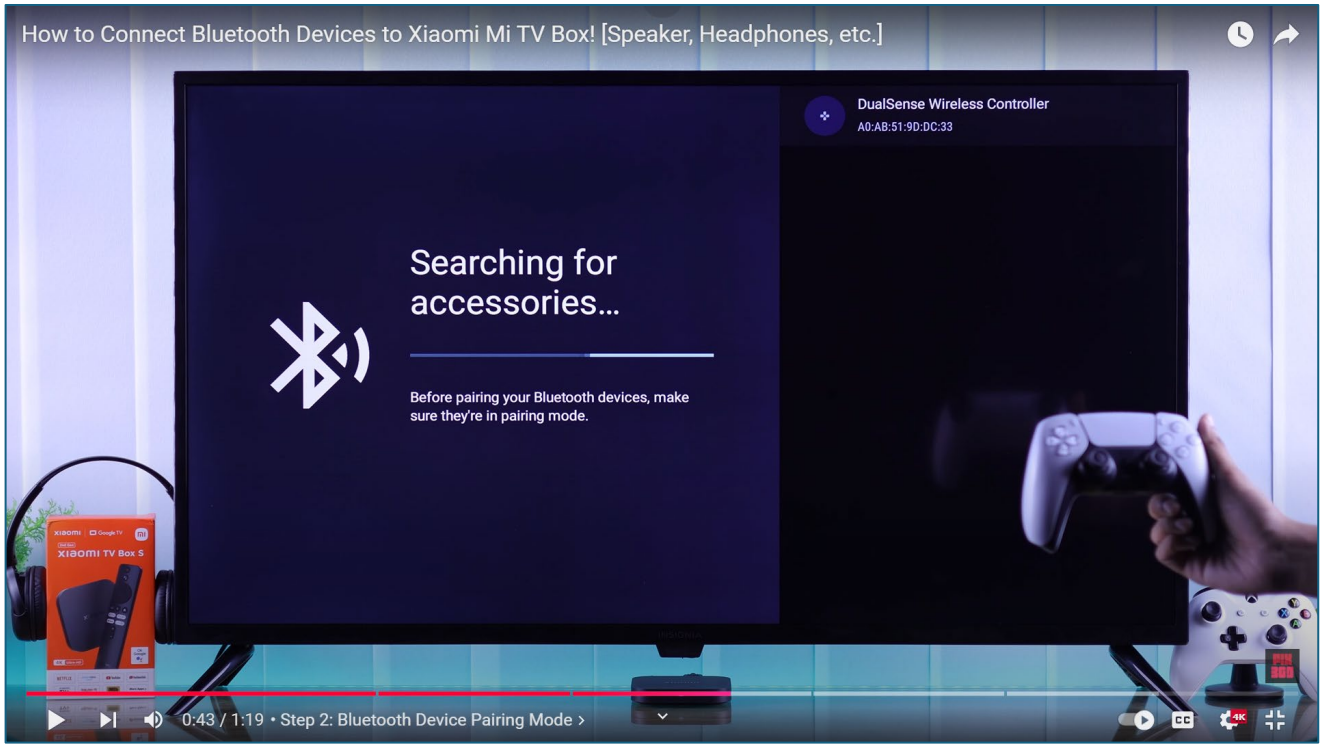
See https://play.google.com/store/apps/details?id=com.xiaomi.smarthome.tv.global4.



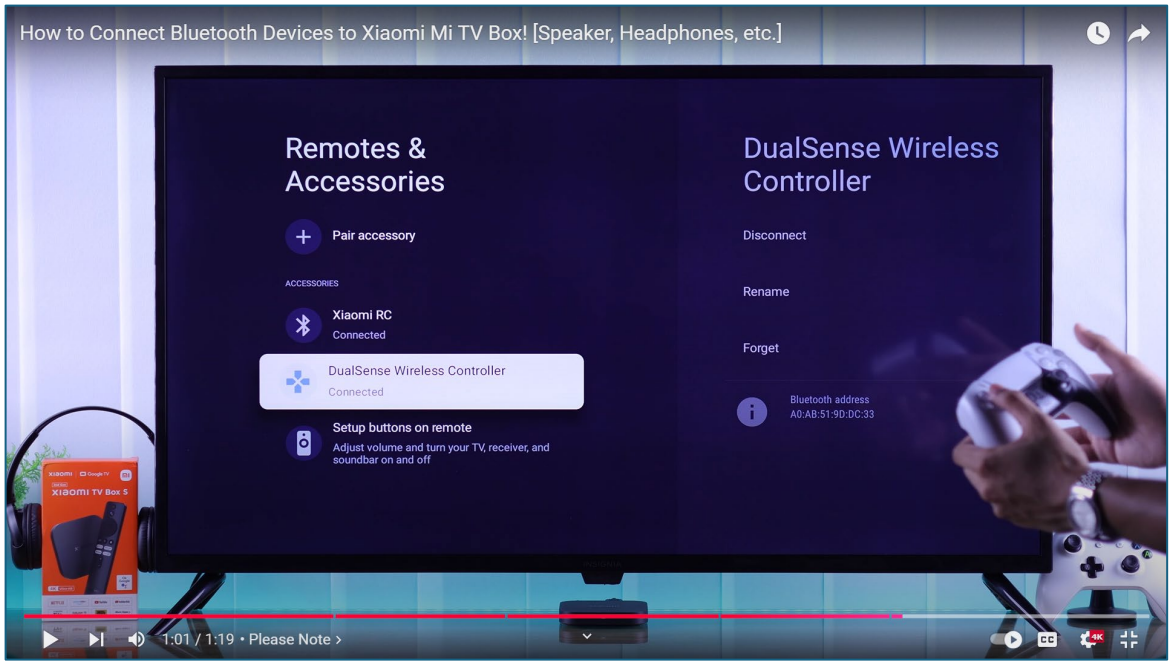
See https://play.google.com/store/apps/details?id=com.xiaomi.smarthome.tv.global4.



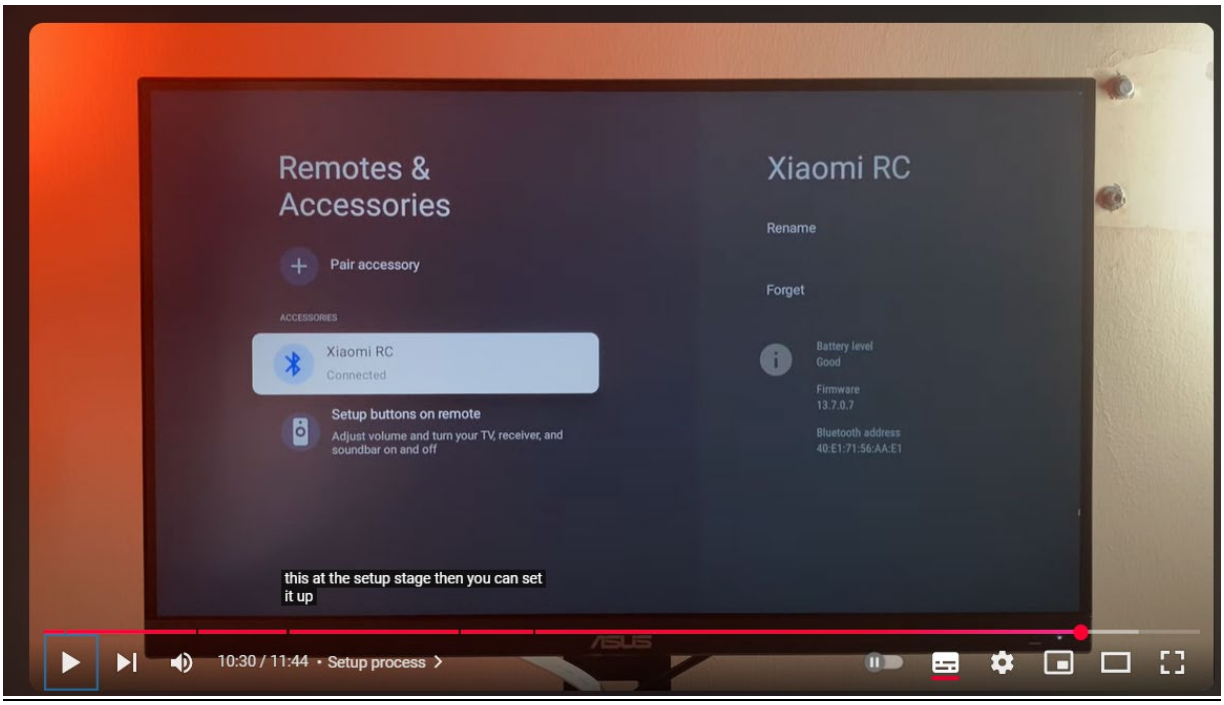
See https://www.youtube.com/watch?v=4ZEDTfqUTTQ.



See https://www.youtube.com/watch?v=4ZEDTfqUTTQ.



See https://www.youtube.com/watch?v=4ZEDTfqUTTQ.



See https://www.youtube.com/watch?v=GfLB1-fwGro.

74. On information and belief, Xiaomi directly infringes at least claim 81 of the ’798 patent in violation of 35 U.S.C. § 271(a) by making, using, selling, selling access to, importing, offering for sale, and/or offering to sell access to the Xiaomi Products and Services.

Innovation Sciences has been damaged by Defendants' infringement and has caused / continues to cause it to suffer irreparable harm and damages as a result of the infringement.

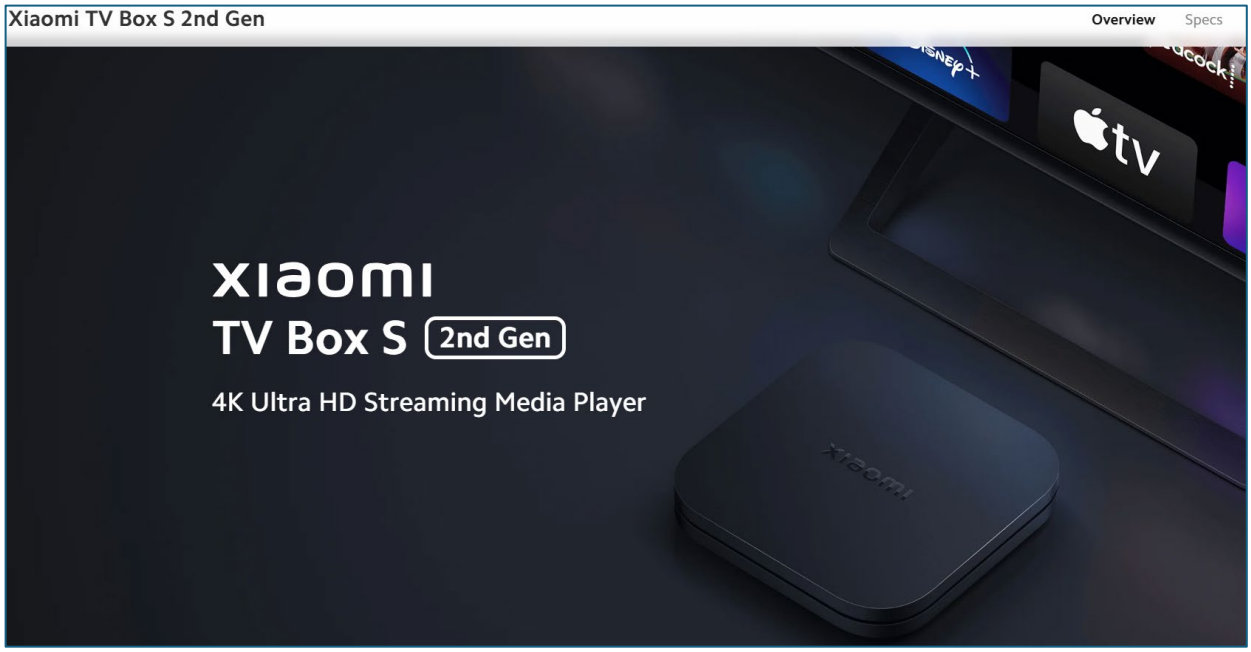
Count II – Infringement of United States Patent No. 9,912,983

62. Innovation Sciences repeats, realleges, and incorporates by reference, as if fully set forth here, the allegations of the preceding paragraphs above.

63. On information and belief, Xiaomi violated 35 U.S. C. § 271(a) with respect to one or more claims of the '983 patent.

64. On information and belief, Xiaomi (or those acting on its behalf) (i) makes, uses, sells, sells access to, imports, offers to sell and/or offers to sell access to the Xiaomi Products and Services in the United States that infringe (literally and/or under the doctrine of equivalents) at least claim 1 of '983 patent.

65. On information and belief, one or more components of the Xiaomi Products and Services provides an apparatus (*e.g.*, Xiaomi TV Box) for processing a multimedia signal (*e.g.*, streaming media) to accommodate real time production of a corresponding multimedia content on a high definition television. On information and belief and as shown below, Xiaomi TV Box S (2nd Gen) is capable of processing streaming media on a television.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

1.Q: What's Xiaomi Box? What function does Xiaomi Box have?

A: Xiaomi Box is a high-definition Internet TV box produced by Xiaomi.

1.Watch online videos, movies, TV series, variety shows, animations, documentaries, etc.

2.Listen to music and play games on TV.

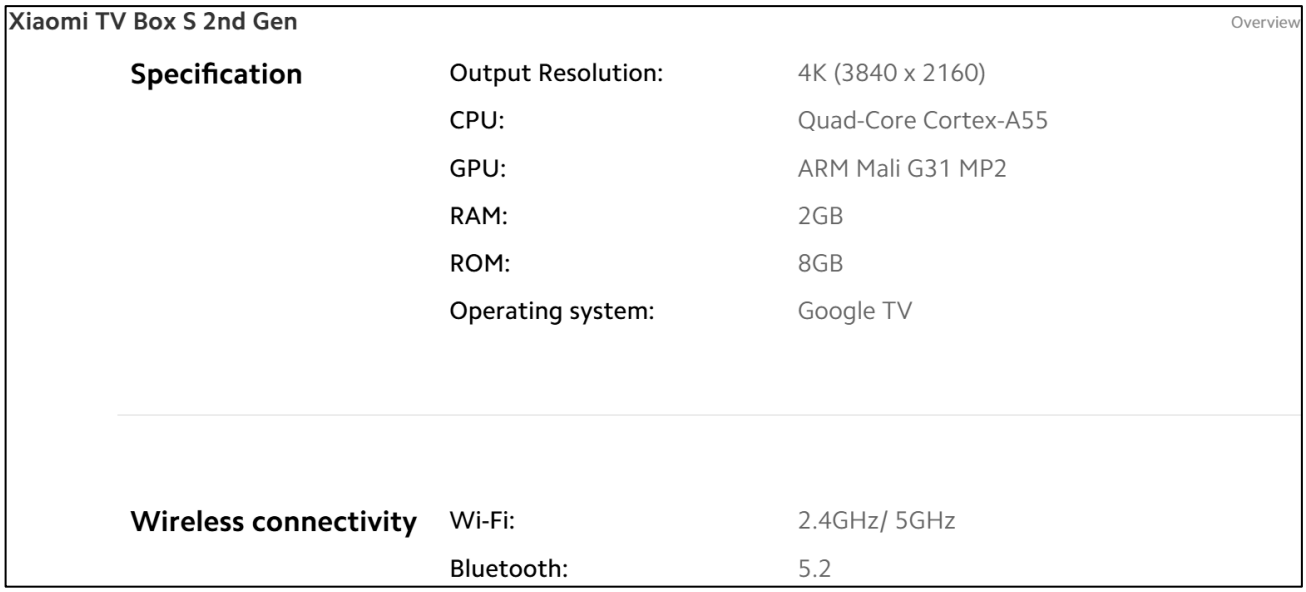
3.To demonstrate PPT documents on TV with Miracast function,

4.It can cast pictures and videos from Xiaomi phones, ipads, iphones and computers on TV, and operate Android phones, ipads, iphones and other devices as remote controls;

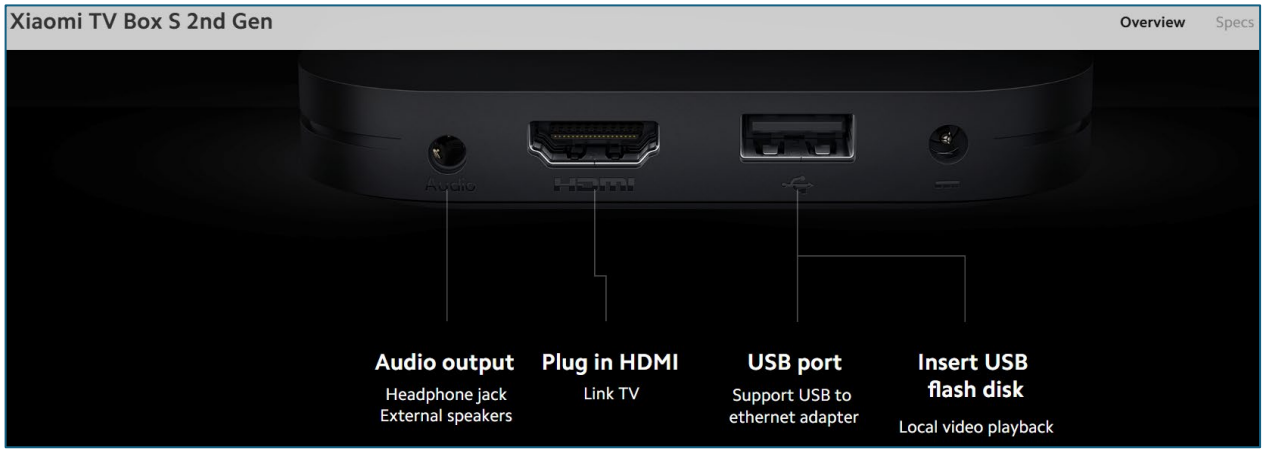
5.The box can directly play the video on the mobile hard disk, USB flash disk and computer, which needs to be shared by SMB network or with the help of OTG cable, insert usb flash disk or external mobile hard disk, support FAT and NTFS file system, support 1080P HD and DTS, Dolby Digital Plus audio decoding.

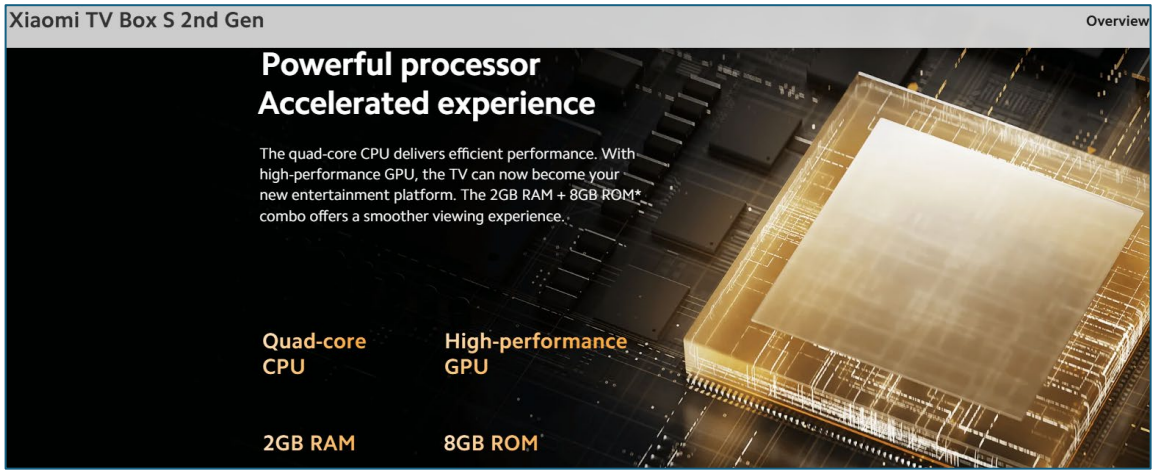
See https://www.mi.com/global/support/faq/details/KA-06557/.

66. On information and belief, one or more components of the Xiaomi Products and Services provides an apparatus for processing a multimedia signal to accommodate real time production of a corresponding multimedia content on a high definition television comprising an input interface (*e.g.*, via Wi-Fi); a buffer (*e.g.*, RAM/ROM); a decoder (*e.g.*, 'c2.android decoder', 'OMX.google' decoder, etc.); an encoder (*e.g.*, encoder using MPEG codec, HEVC codec); and a high definition digital output interface (*e.g.*¸ HDMI port). On information and belief and as shown below, Xiaomi TV Box S (2nd Gen) receives streaming media via Wi-Fi connectivity. Further, it has a decoder and encoder for signal conversion to accommodate suitable multimedia streaming on a television via a HDMI port, while maintaining the buffer (*e.g.*, buffer health indicating the presence of buffer within the RAM/ROM) for the user's smooth viewing experience.

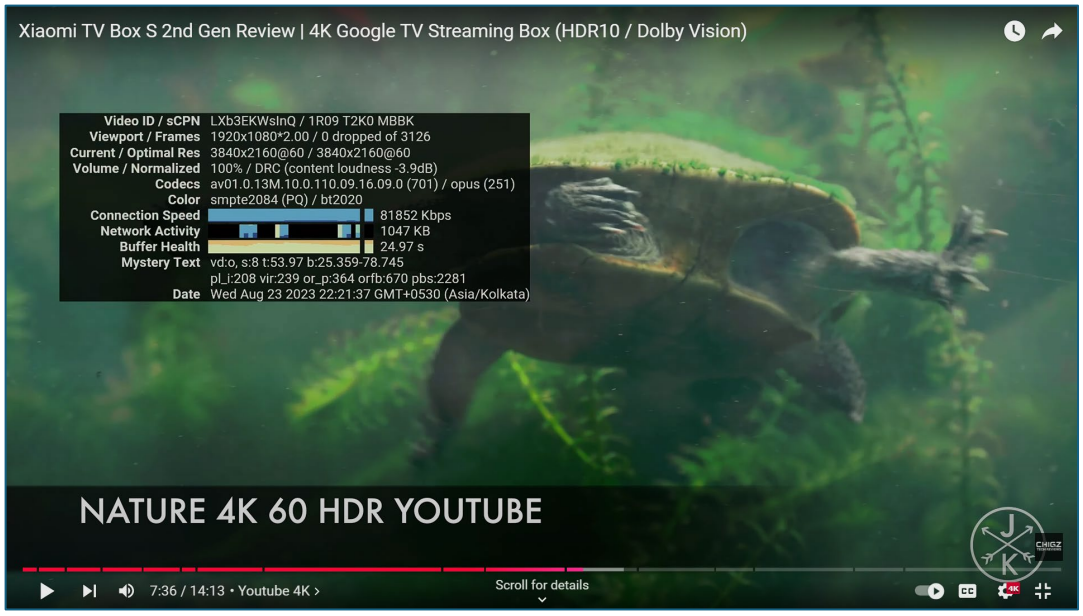


See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.

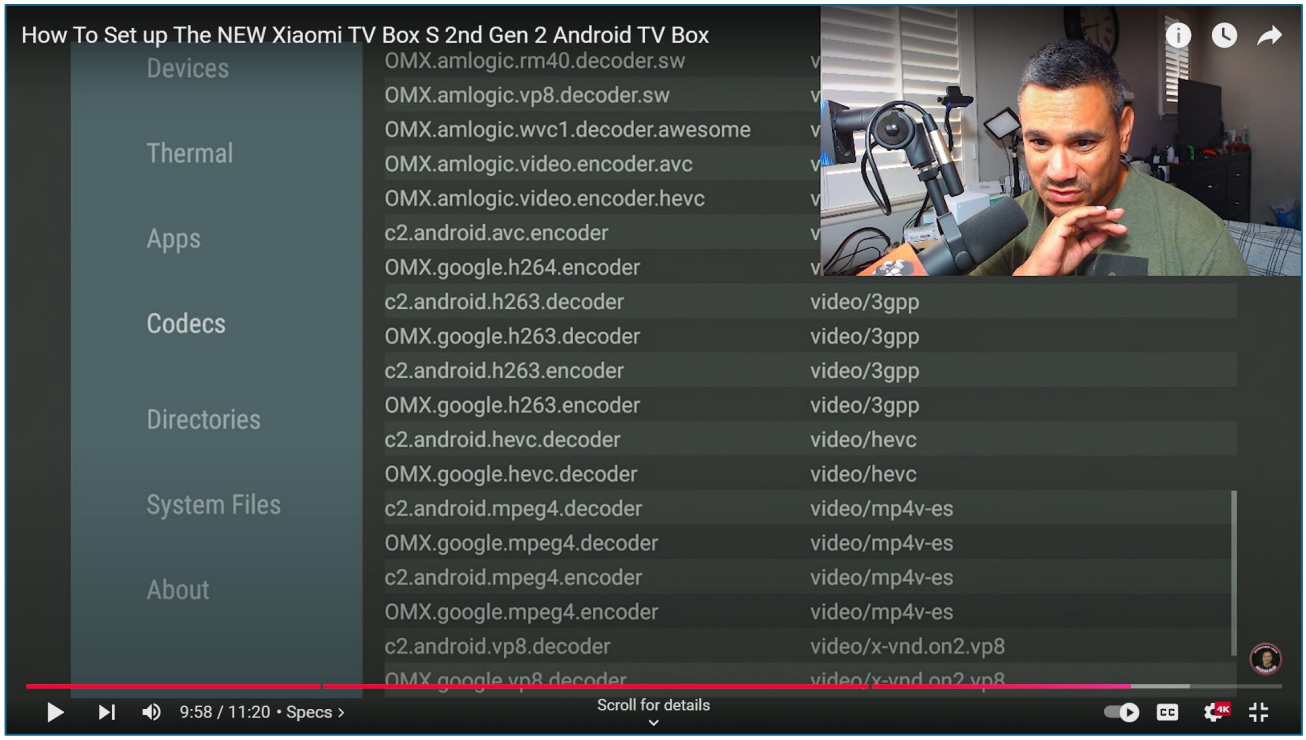




See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



See https://www.youtube.com/watch?v=ht97YiL86o0.



See https://www.youtube.com/watch?v=ul3XvLzMGww.

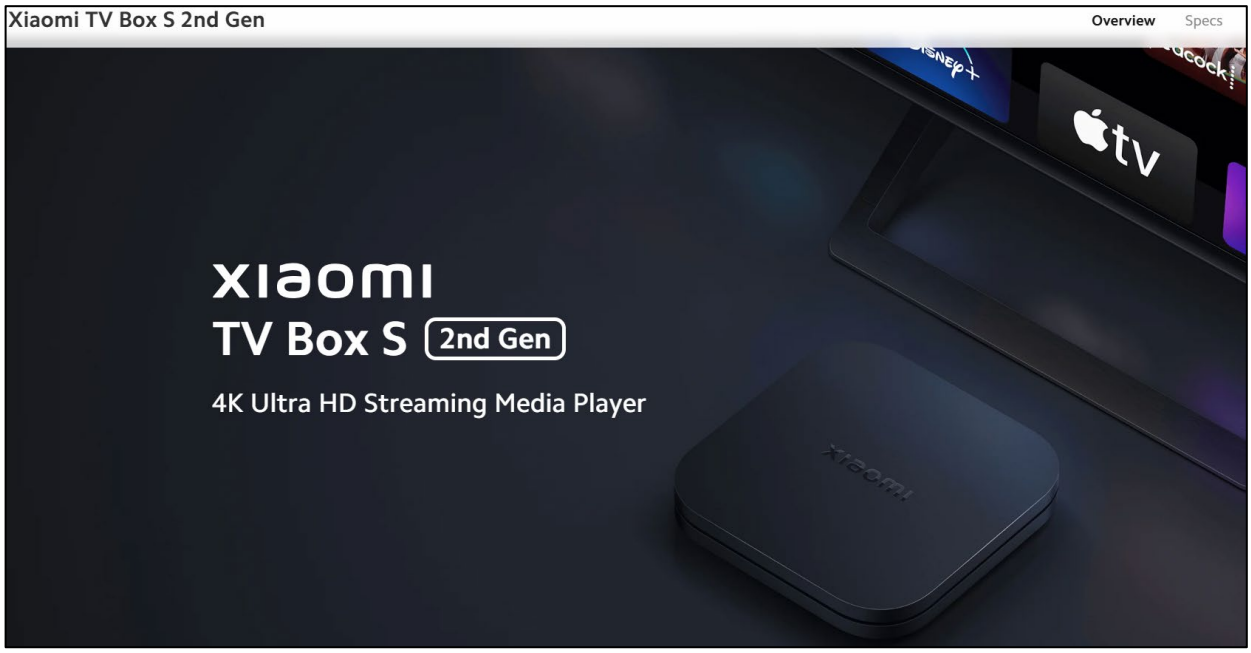
67. On information and belief, one or more components of the Xiaomi Products and Services provides an apparatus for processing a multimedia signal to accommodate real time production of a corresponding multimedia content on a high definition television comprising wherein

the input interface (*e.g.*, Wi-Fi connectivity) is configured to receive the multimedia signal (*e.g.*, streaming media) through a wireless communication network (*e.g.*, the Internet).

Xiaomi TV Box S 2nd Gen Overview

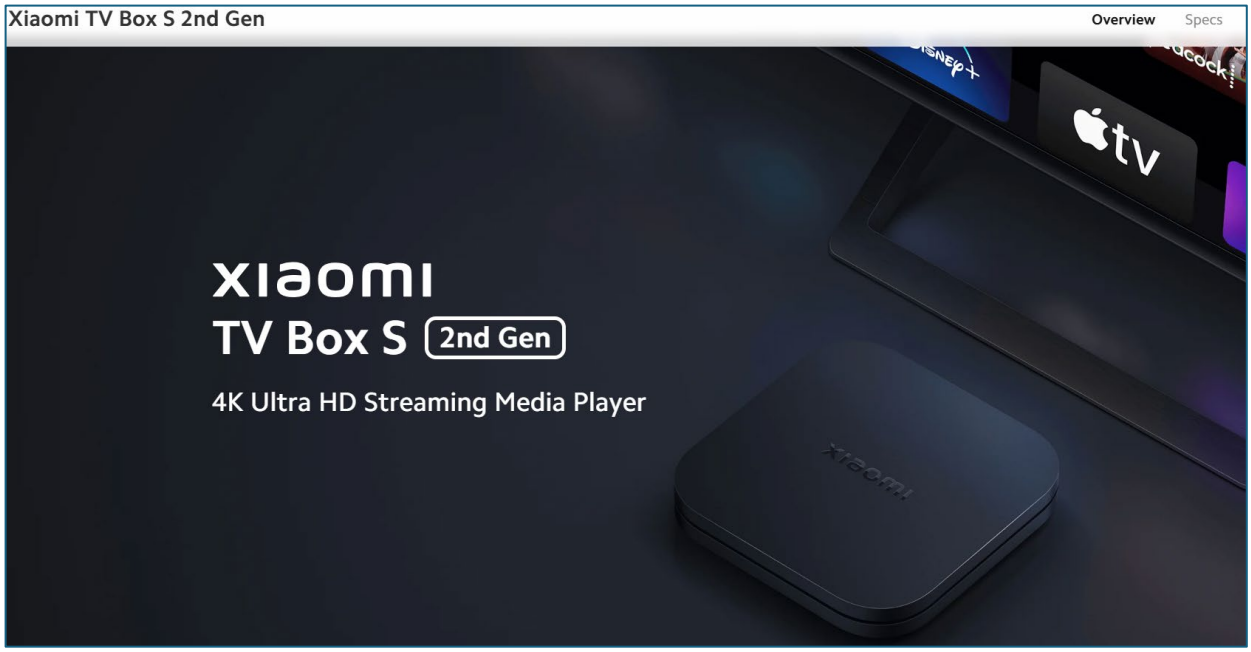
Specification	Output Resolution:	4K (3840 x 2160)
	CPU:	Quad-Core Cortex-A55
	GPU:	ARM Mali G31 MP2
	RAM:	2GB
	ROM:	8GB
	Operating system:	Google TV
Wireless connectivity	Wi-Fi:	2.4GHz/ 5GHz
	Bluetooth:	5.2

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.

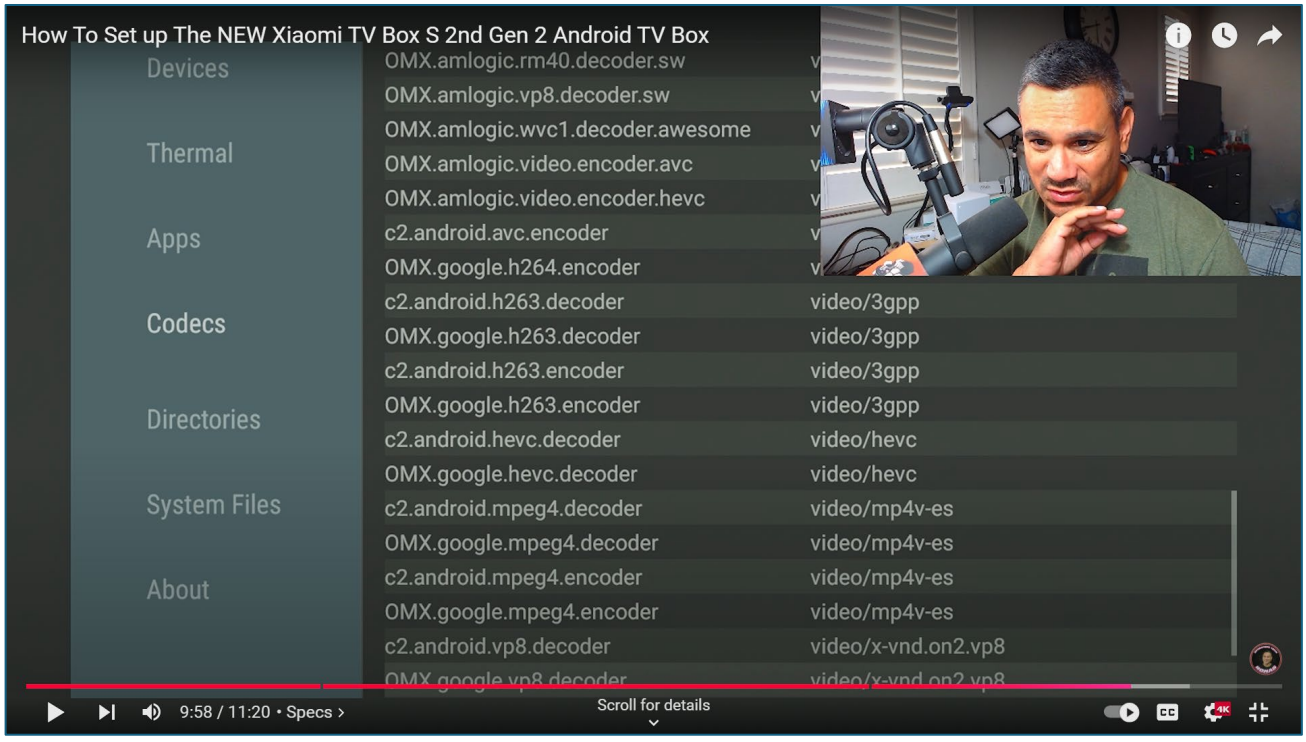


See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

68. On information and belief, one or more components of the Xiaomi Products and Services provides an apparatus for processing a multimedia signal to accommodate real time production of a corresponding multimedia content on a high definition television comprising wherein the apparatus (Xiaomi TV Box) is configured to perform a conversion of the multimedia signal (*e.g.*, streaming media), the multimedia signal comprises a compressed signal (*e.g.*, HEVC, MPEG-4); wherein the compressed signal is a compressed high definition digital video signal (*e.g.*, 4K/1080p). On information and belief and as shown below, Xiaomi Products and Services use video codecs (*e.g.*, HEVC, MPEG-4) for signal conversion of streaming media content. Further, the supported video codecs are a video compression standard that is used for compressing high quality (*e.g.*, 4K, 1080p, etc.) media content for streaming, Video-on-Demand, etc.



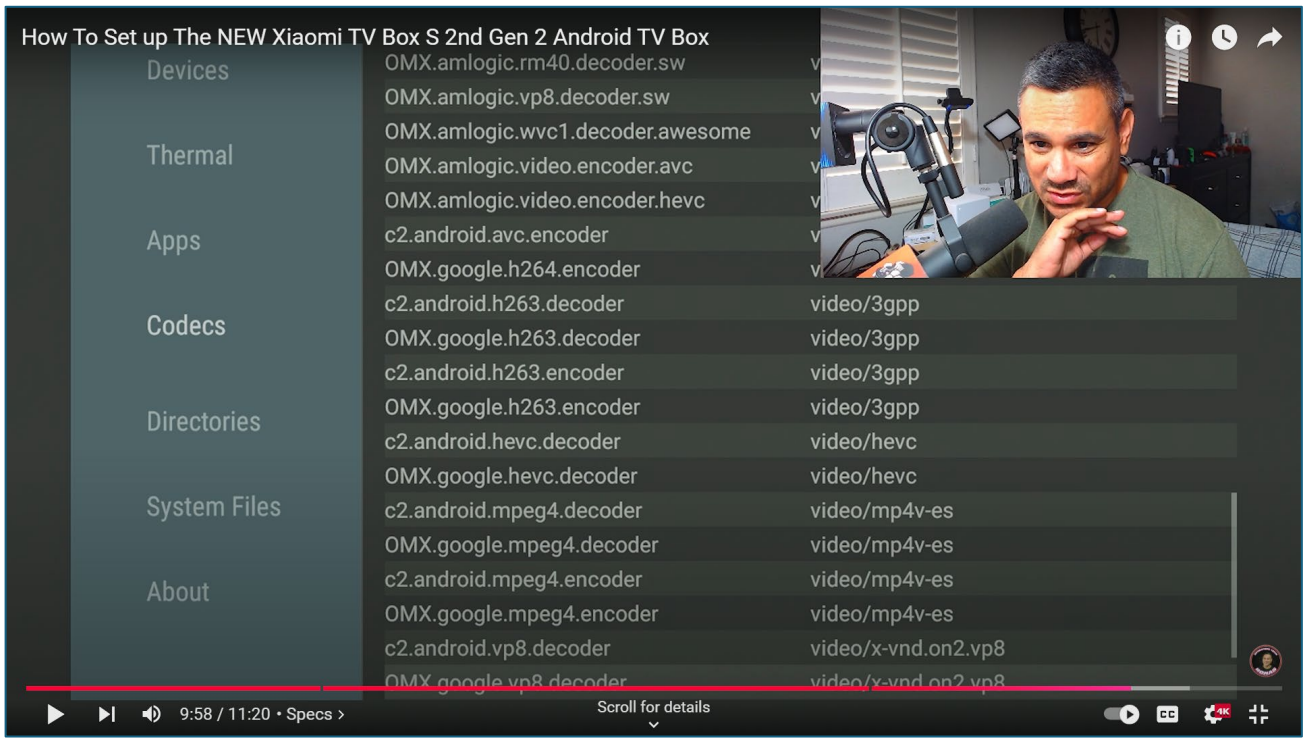
See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



See https://www.youtube.com/watch?v=ul3XvLzMGww.

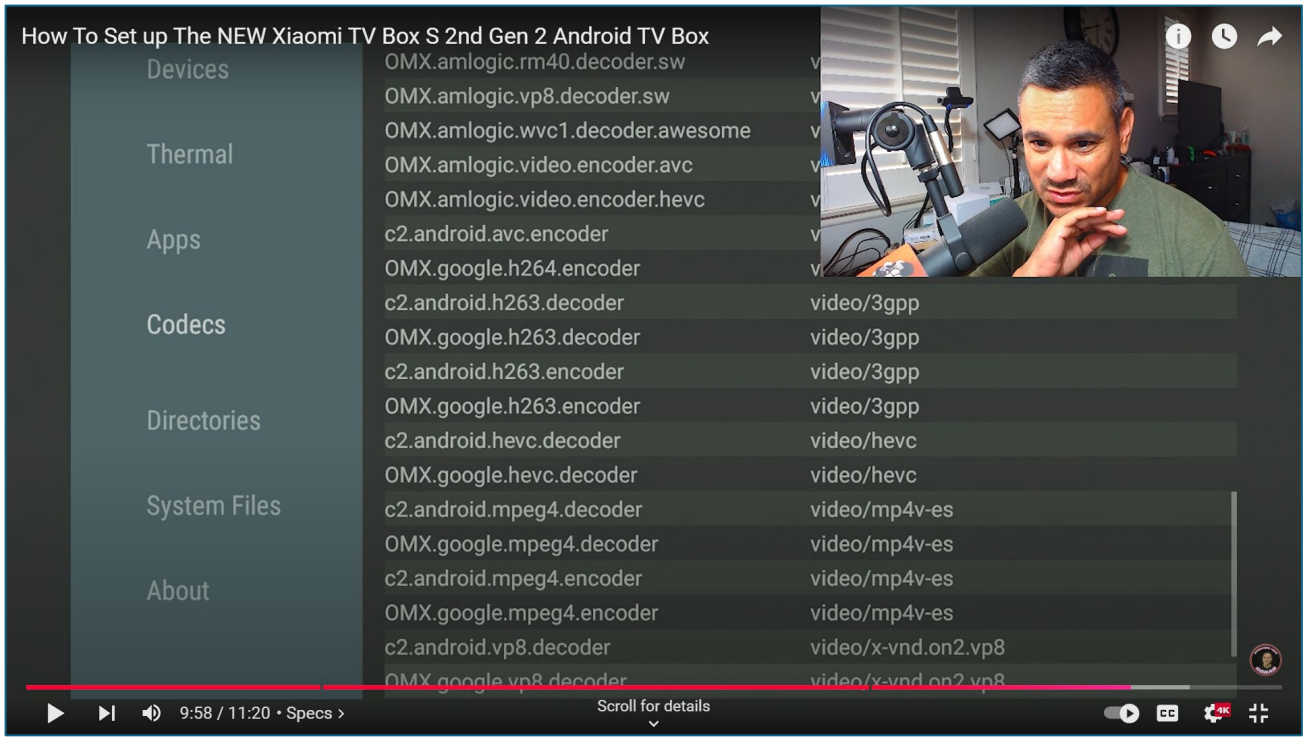
69. On information and belief, one or more components of the Xiaomi Products and Services provides an apparatus for processing a multimedia signal to accommodate real time production of a corresponding multimedia content on a high definition television comprising wherein

the conversion comprises decompressing (*e.g.*, decompressing using decoder) the compressed signal (*e.g.*, MPEG-4, HEVC, etc.).



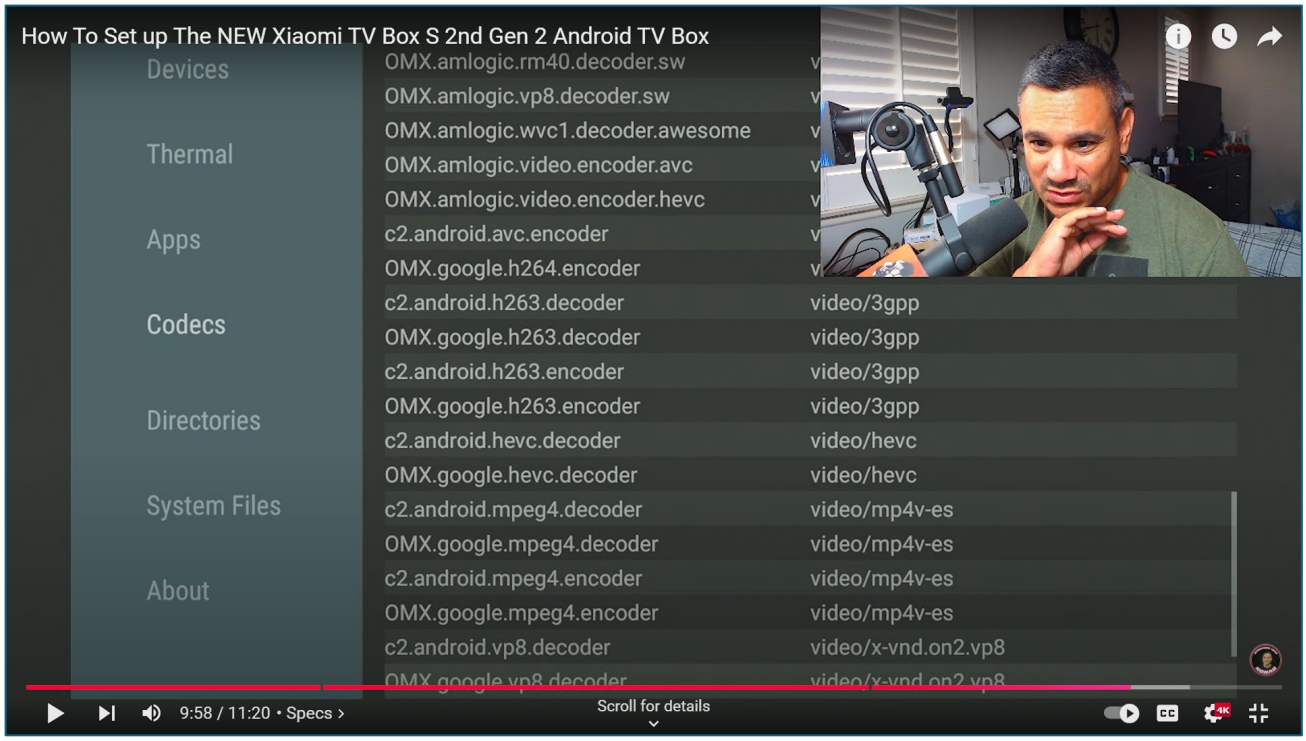
See https://www.youtube.com/watch?v=ul3XvLzMGww.

70. On information and belief, one or more components of the Xiaomi Products and Services provides an apparatus for processing a multimedia signal to accommodate real time production of a corresponding multimedia content on a high definition television comprising wherein the decoder (*e.g.*, 'c2.android' decoder, 'OMX.google' decoder, etc.) is configured to decompress the compressed signal (*e.g.*, MPEG-4, HEVC, etc.) to a decompressed signal (*e.g.*, decompressing to original 4K/1080p streaming media).

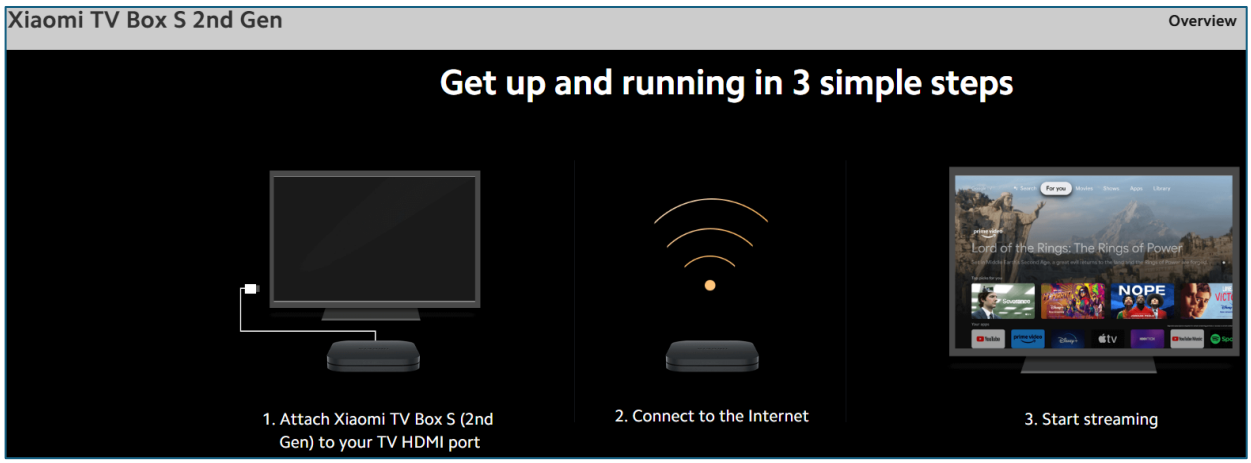


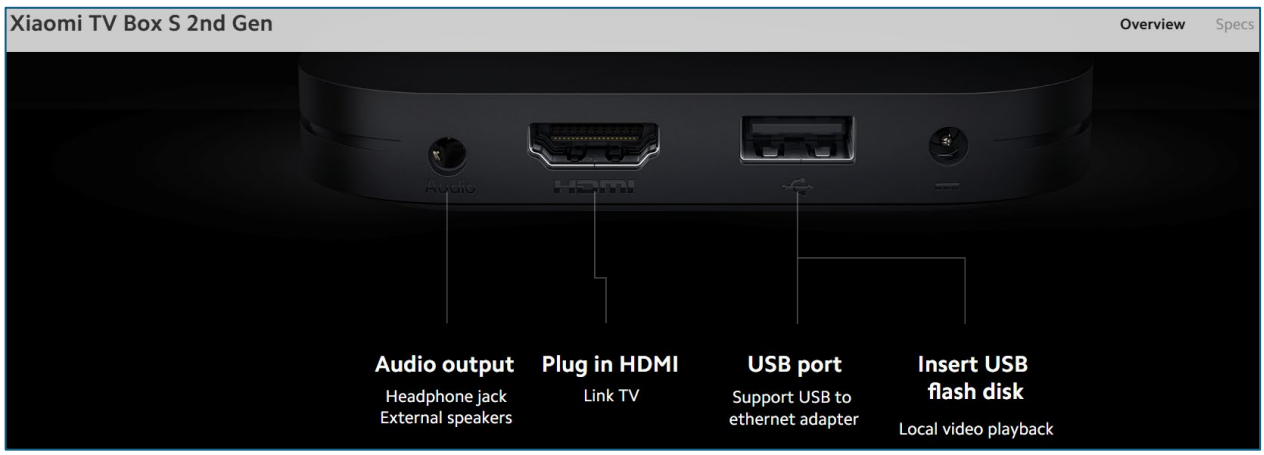
See https://www.youtube.com/watch?v=ul3XvLzMGww.

71. On information and belief, one or more components of the Xiaomi Products and Services provides an apparatus for processing a multimedia signal to accommodate real time production of a corresponding multimedia content on a high definition television comprising wherein the encoder (*e.g.*, encoder using MPEG codec, HEVC codec, etc.) is configured to encode the decompressed signal (*e.g.*, decompressed original 4K/1080p streaming media) to produce an encoded signal, the encoded signal comprising a decompressed high definition digital video signal (*e.g.*, 4K/1080p streaming media for output via HDMI port).

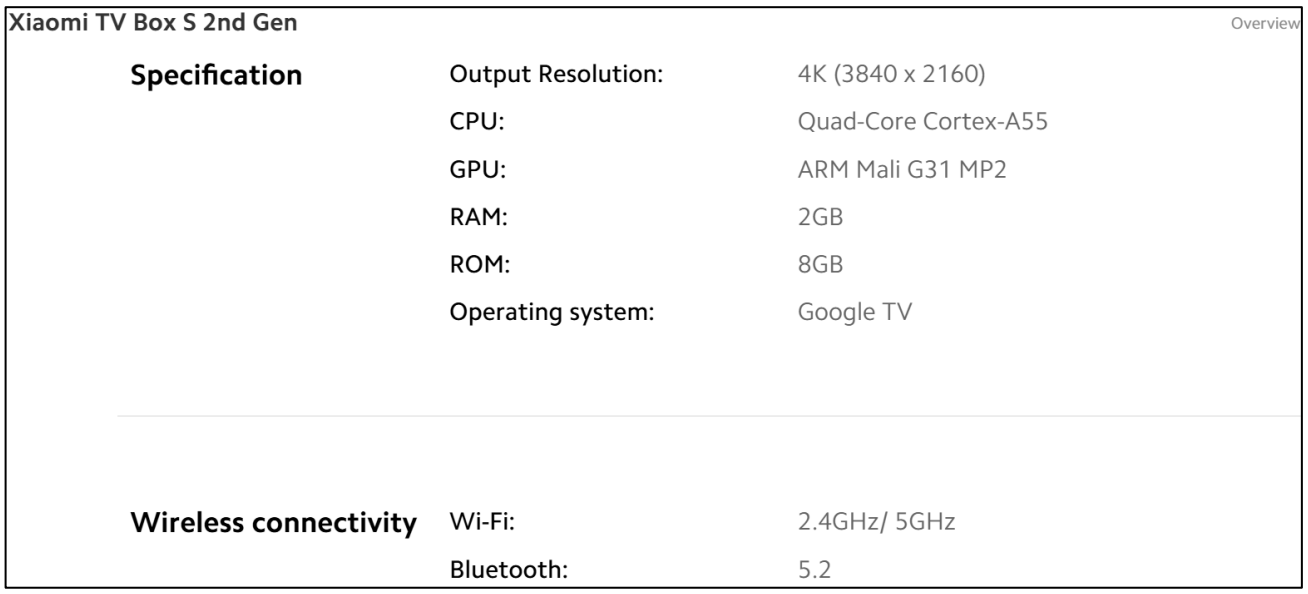


See https://www.youtube.com/watch?v=ul3XvLzMGww.



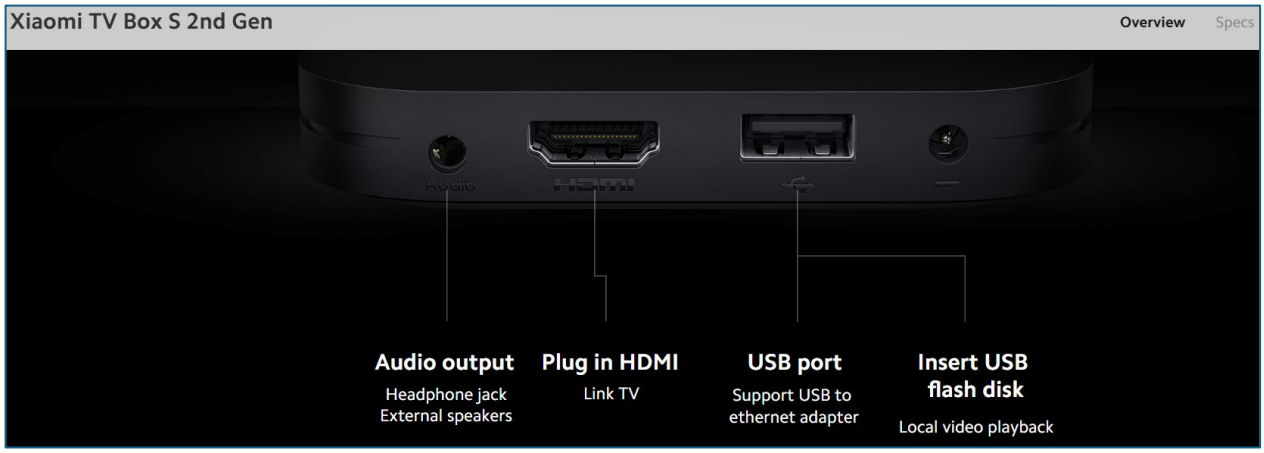


See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

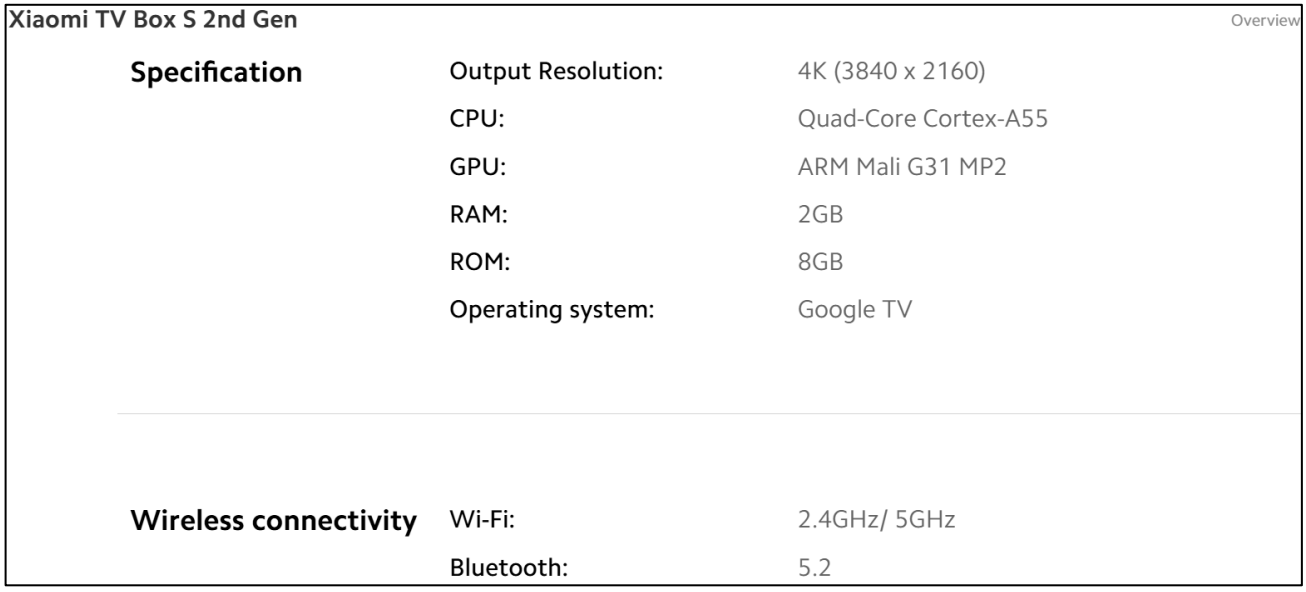


See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.

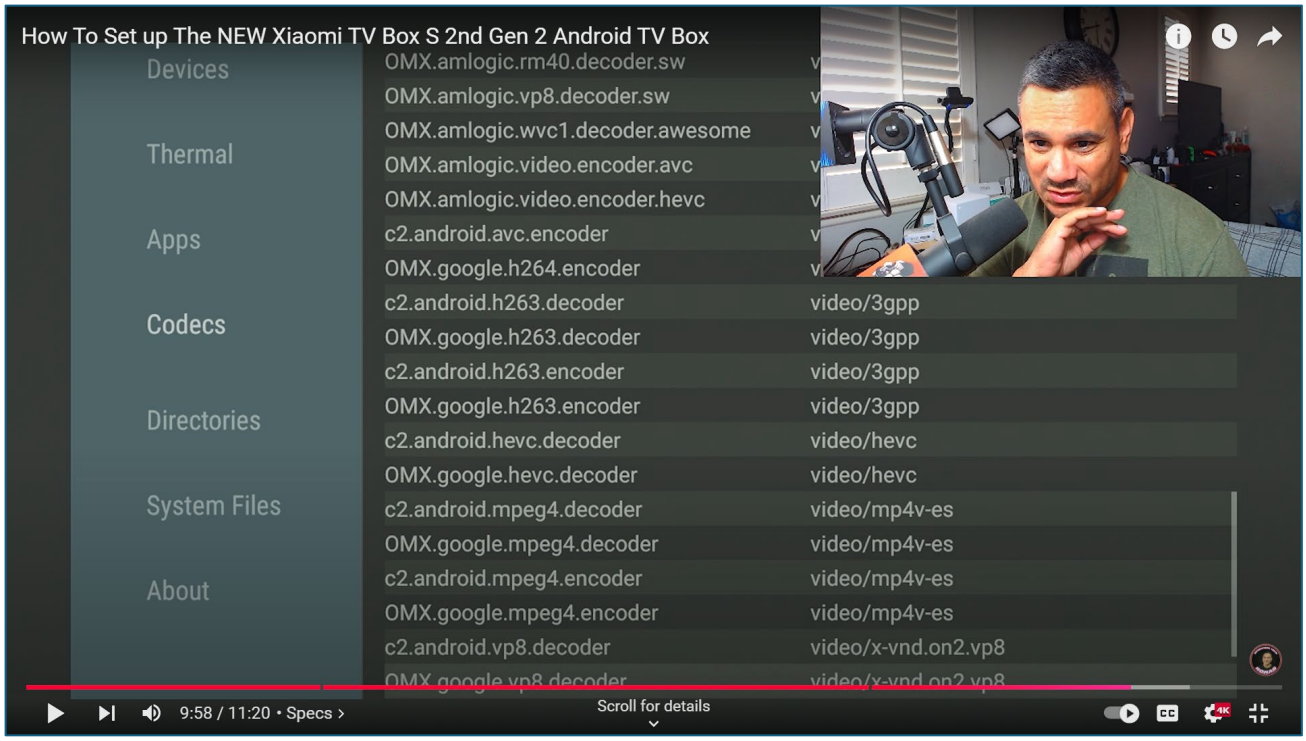
72. On information and belief, one or more components of the Xiaomi Products and Services provides an apparatus for processing a multimedia signal to accommodate real time production of a corresponding multimedia content on a high definition television comprising wherein the high definition digital output interface (*e.g.*, HDMI port) is configured to connect to a cable (*e.g.*, HDMI cable connecting Xiaomi TV Box to TV) to transmit the encoded signal (*e.g.*, encoded 4K/1080p media in MPEG-4, HEVC, etc.). On information and belief and as shown below, the Xiaomi TV Box S (2nd Gen) has the HDMI port that links with the TV to stream media in 4K/1080p via a HDMI cable.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

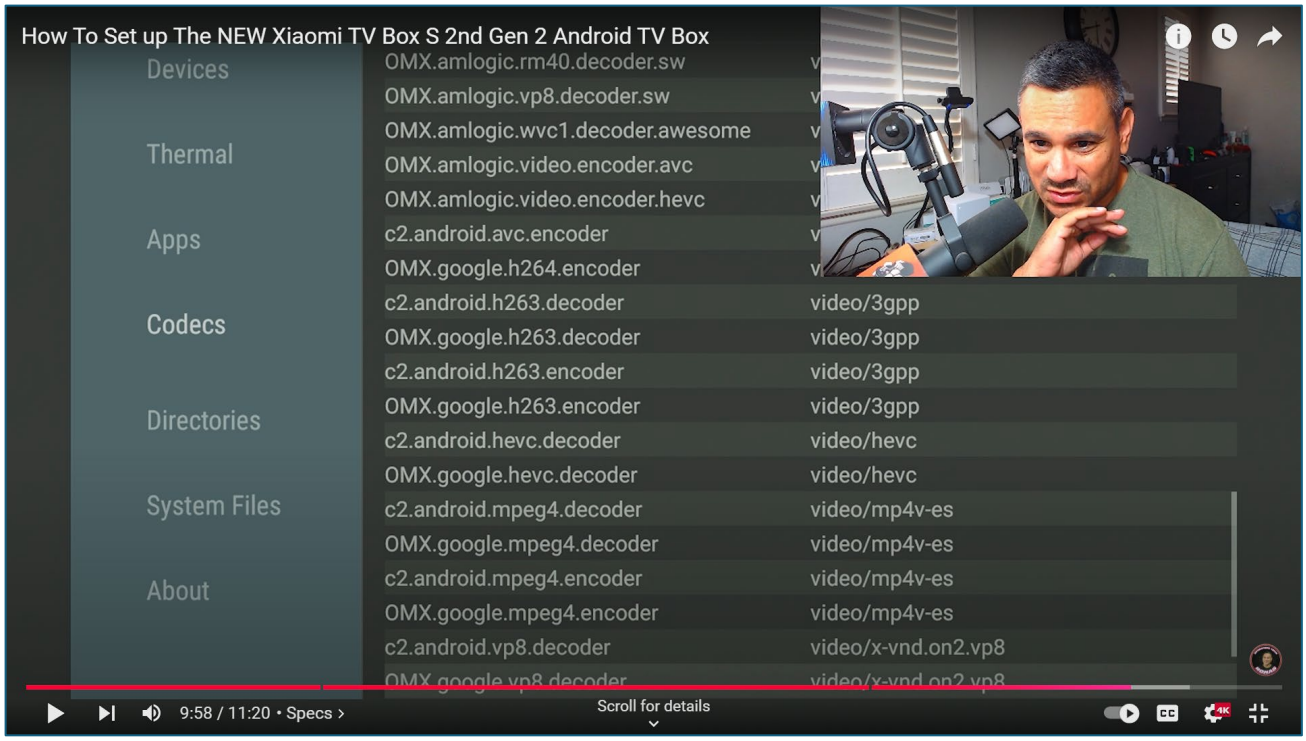


See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.

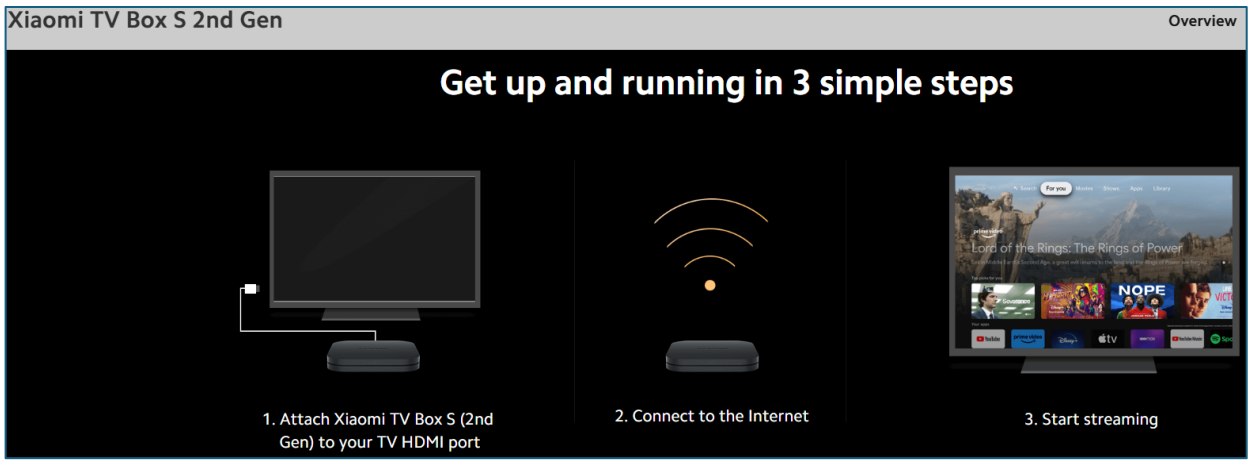


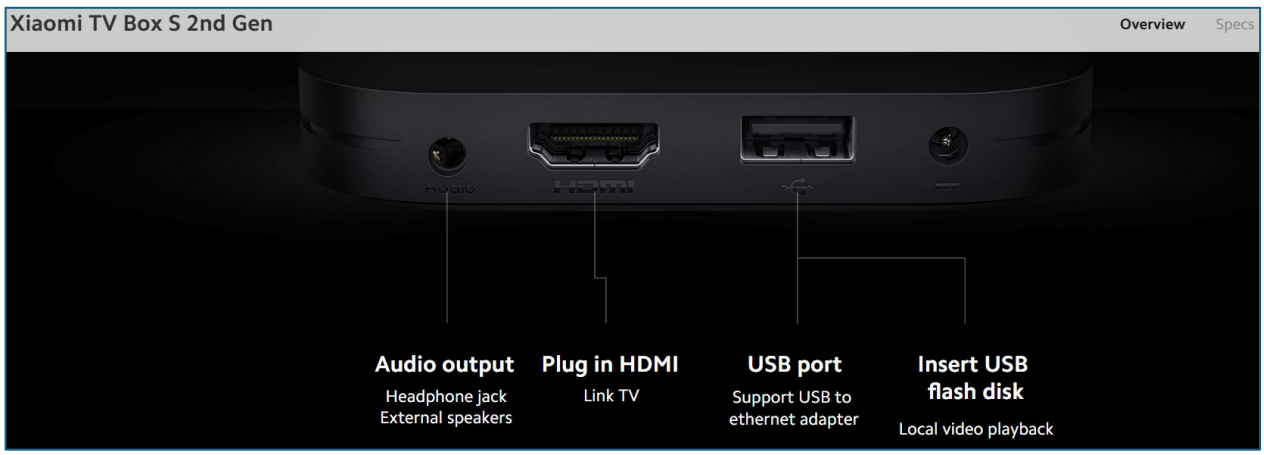
See https://www.youtube.com/watch?v=ul3XvLzMGww.

73. On information and belief, one or more components of the Xiaomi Products and Services provides an apparatus for processing a multimedia signal to accommodate real time production of a corresponding multimedia content on a high definition television comprising wherein the conversion comprises said decompressing, by the decoder (*e.g.*, 'c2.android' decoder, 'OMX.google' decoder, etc.), further followed by encoding, by the encoder (*e.g.*, encoder using MPEG codec, HEVC codec, etc.), the decompressed signal produced by the decoder to produce the encoded signal (*e.g.*, MPEG-4, HEVC, etc.) for transmission through the high definition output interface (*e.g.*, HDMI port).



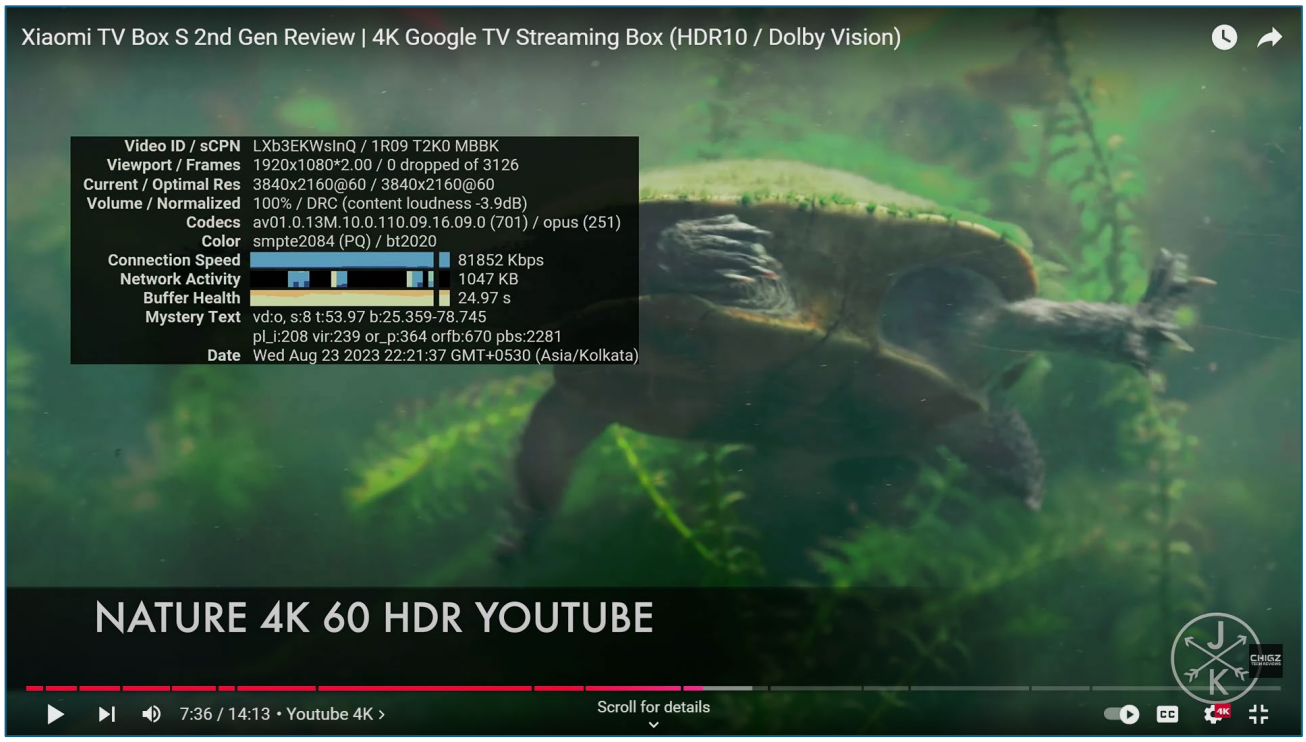
See https://www.youtube.com/watch?v=ul3XvLzMGww.



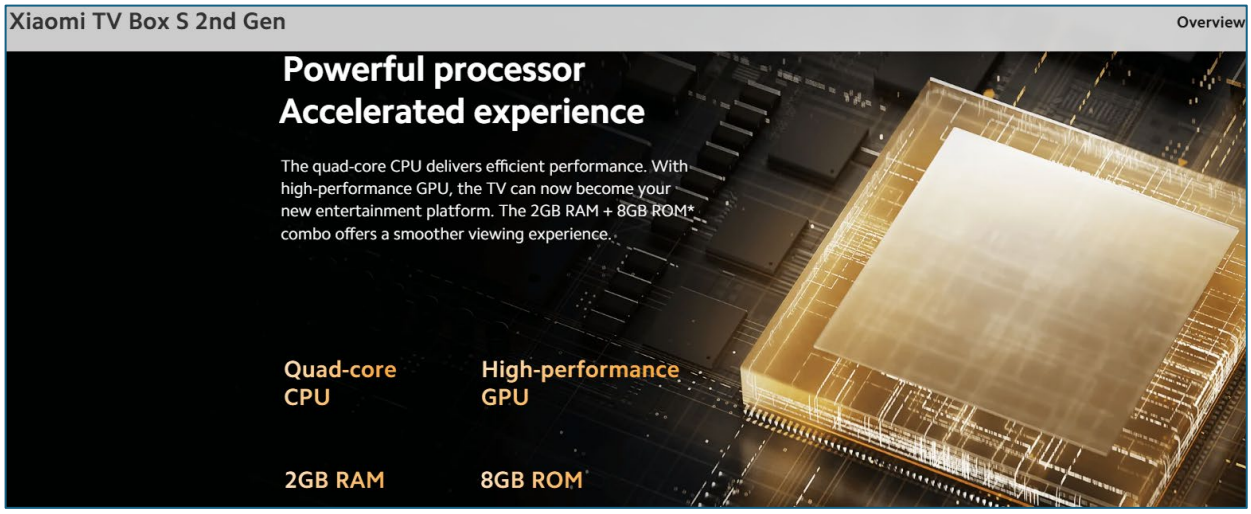


See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

74. On information and belief, one or more components of the Xiaomi Products and Services provides an apparatus for processing a multimedia signal to accommodate real time production of a corresponding multimedia content on a high definition television comprising wherein the buffer (*e.g.*, RAM/ROM) is configured to accommodate an adequate buffering and processing rate for said processing in support of the real time production of the corresponding multimedia content (*e.g.*, streaming media) on the high definition digital television (*e.g.*, streaming media in 4K/1080p resolution on a television).



See https://www.youtube.com/watch?v=ht97YiL86o0.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

Xiaomi TV Box S 2nd Gen — Overview

Specification	Output Resolution:	4K (3840 x 2160)
	CPU:	Quad-Core Cortex-A55
	GPU:	ARM Mali G31 MP2
	RAM:	2GB
	ROM:	8GB
	Operating system:	Google TV
Wireless connectivity	Wi-Fi:	2.4GHz/ 5GHz
	Bluetooth:	5.2

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.

75. On information and belief, Xiaomi directly infringes at least claim 1 of the ’983 patent in violation of 35 U.S.C. § 271(a) by making, using, selling, selling access to, importing, offering for sale, and/or offering to sell access to the Xiaomi Products and Services.

Innovation Sciences has been damaged by Defendants’ infringement and has caused / continues to cause it to suffer irreparable harm and damages as a result of the infringement.

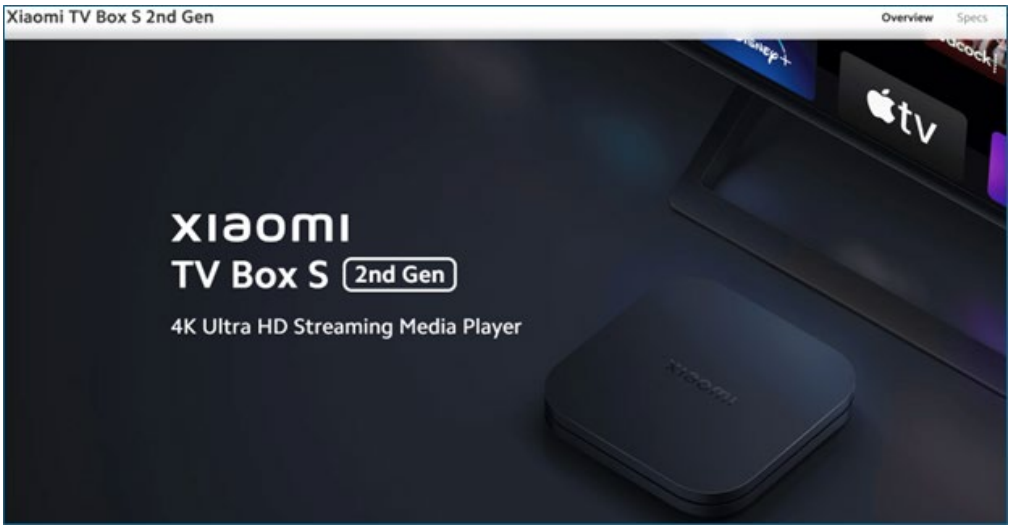
Count III – Infringement of United States Patent No. 10,104,425

76. Innovation Sciences repeats, realleges, and incorporates by reference, as if fully set forth here, the allegations of the preceding paragraphs above.

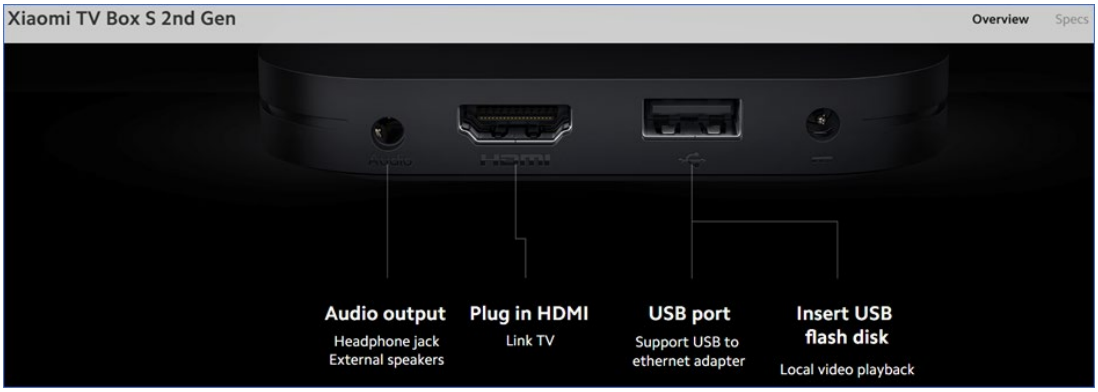
77. On information and belief, Xiaomi violated 35 U.S. C. § 271(a) with respect to one or more claims of the ’425 patent.

78. On information and belief, Xiaomi (or those acting on its behalf) (i) makes, uses, sells, sells access to, imports, offers to sell and/or offers to sell access to the Xiaomi Products and Services in the United States that infringe (literally and/or under the doctrine of equivalents) at least claims 14 and 44 of ’425 patent.

79. On information and belief, one or more components of the Xiaomi Products and Services (*e.g.*, Xiaomi TV Box) provides a mobile terminal (*e.g.*, Xiaomi TV Box).



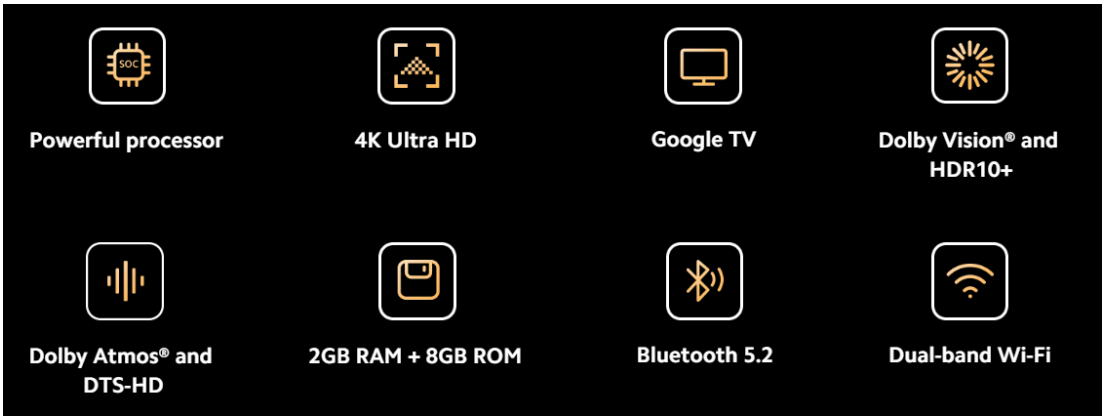
See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

80. On information and belief, one or more components of the Xiaomi Products and Services provides a mobile terminal comprising a wireless interface (*e.g.*, Wi-Fi 2.4GHz/5GHz) configured to communicate via a wireless network (*e.g.*, the internet).

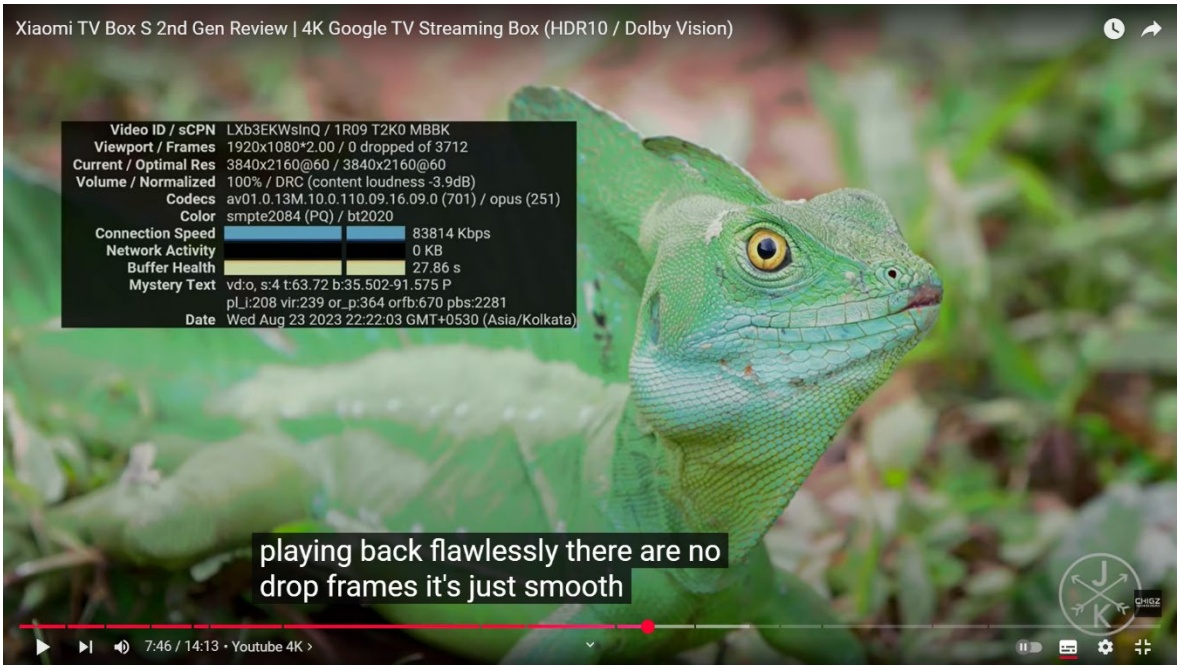


See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

Wireless connectivity	Wi-Fi:	2.4GHz/ 5GHz
	Bluetooth:	5.2

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

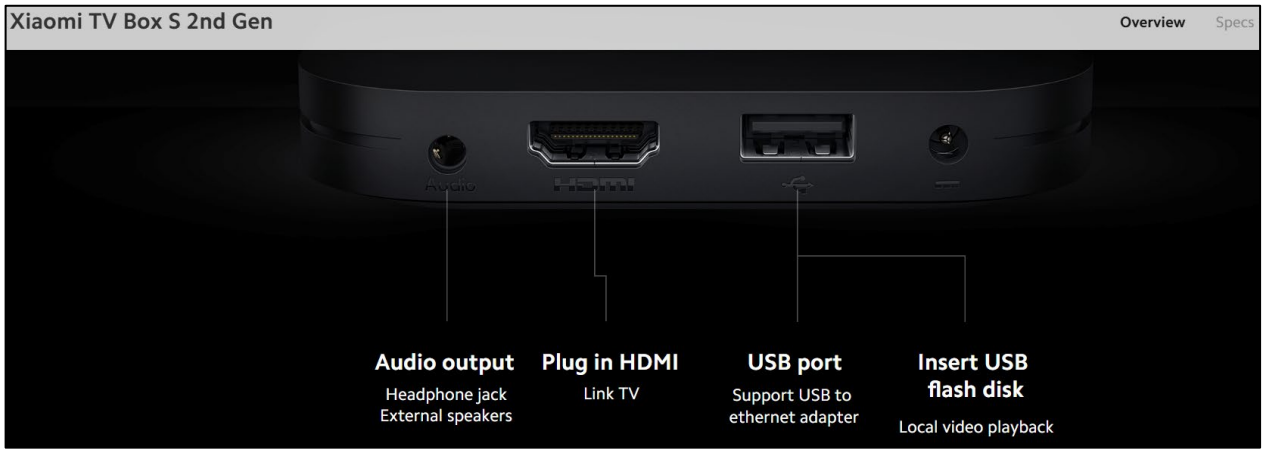


See https://www.youtube.com/watch?v=ht97YiL86o0.

81. On information and belief, one or more components of the Xiaomi Products and Services provides a mobile terminal comprising a high definition digital interface (*e.g.*, HDMI 2.1). Xiaomi TV Box uses a high definition digital interface (e.g., HDMI 2.1).

Socket	HDMI 2.1: 1
	USB 2.0: 1
	Power interface: 1
	Audio output: 1

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

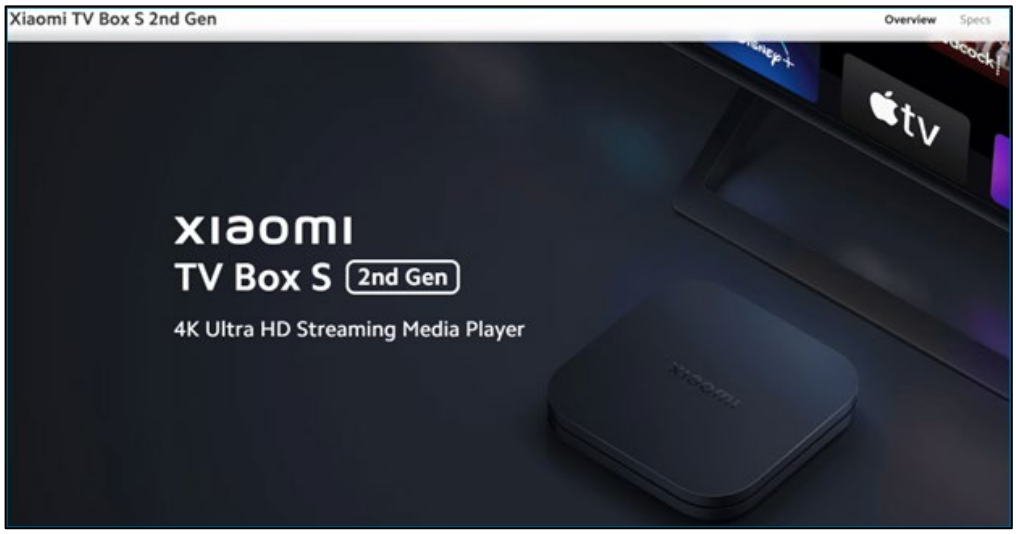
82. On information and belief, one or more components of the Xiaomi Products and Services provides a mobile terminal comprising a high definition digital multimedia conversion circuit coupled (*e.g.*, decoders, etc.) to the wireless interface (*e.g.*, Wi-Fi 2.4GHz/5GHz) and configured to process a compressed high definition digital multimedia content (*e.g.*, 4K/1080p streaming media in HEVC, MPEG-4, etc. and corresponding to high definition digital multimedia content such as 4K ultra HD video).

Wireless connectivity	Wi-Fi:	2.4GHz/ 5GHz
	Bluetooth:	5.2

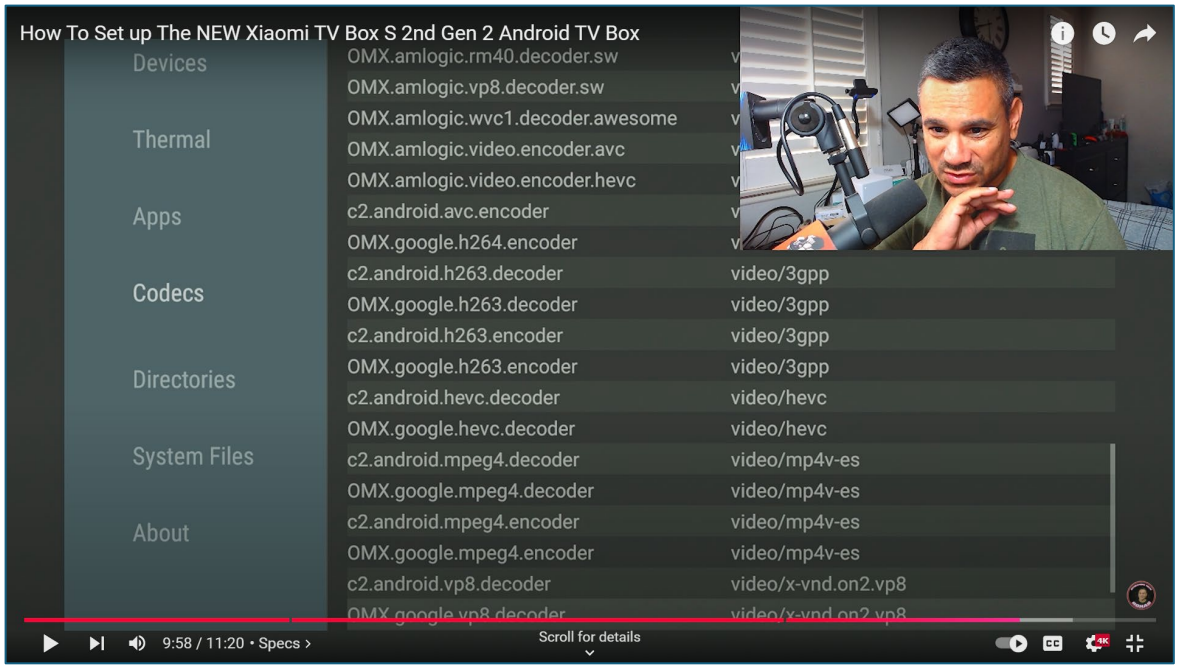
See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

Decoder	Video decoder:	Up to 4K 60FPS
		Supports Dolby Audio® and DTS-HD
		Supports Dolby Vision®
		Supports HDR10+

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

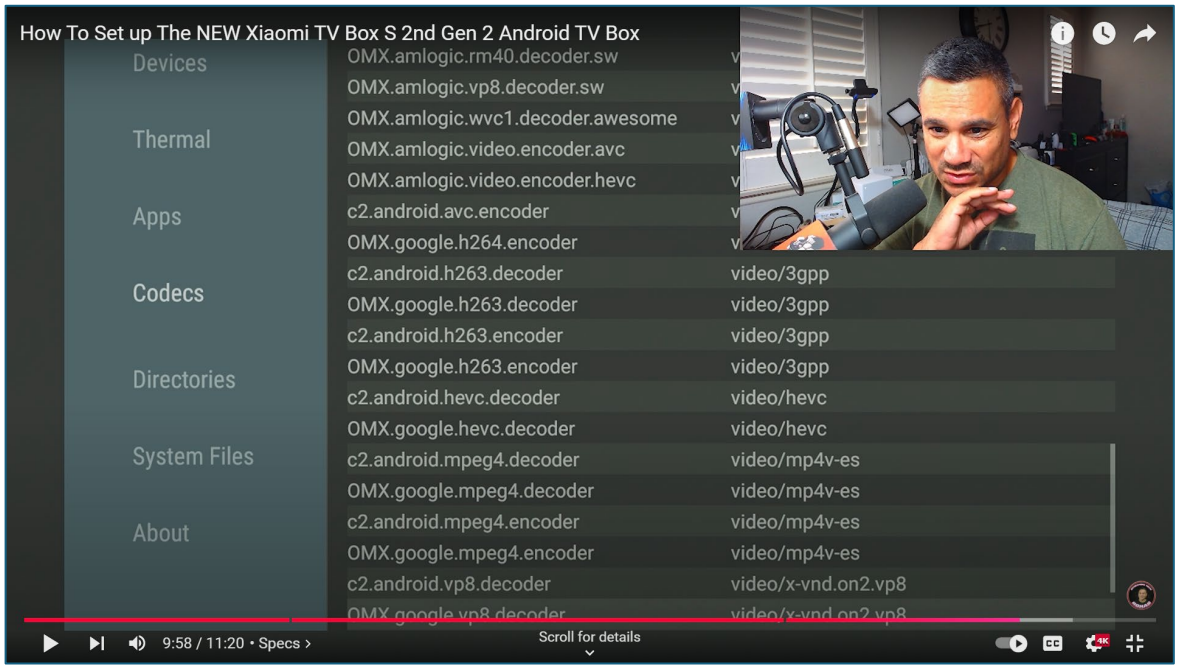


See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



See https://www.youtube.com/watch?v=ul3XvLzMGww.

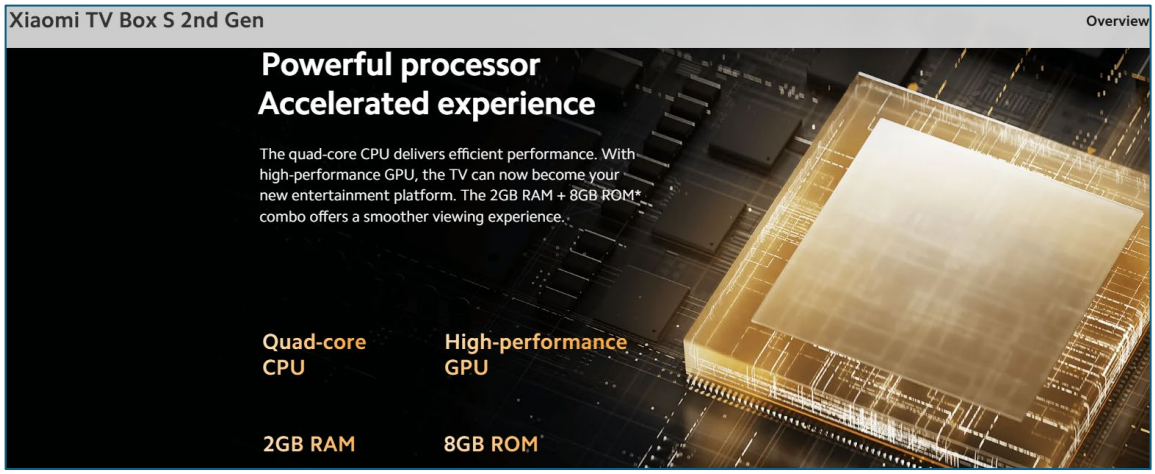
83. On information and belief, one or more components of the Xiaomi Products and Services provides a mobile terminal comprising a buffer (*e.g.*, RAM) coupled to the high definition digital multimedia conversion circuit (*e.g.*, decoders).



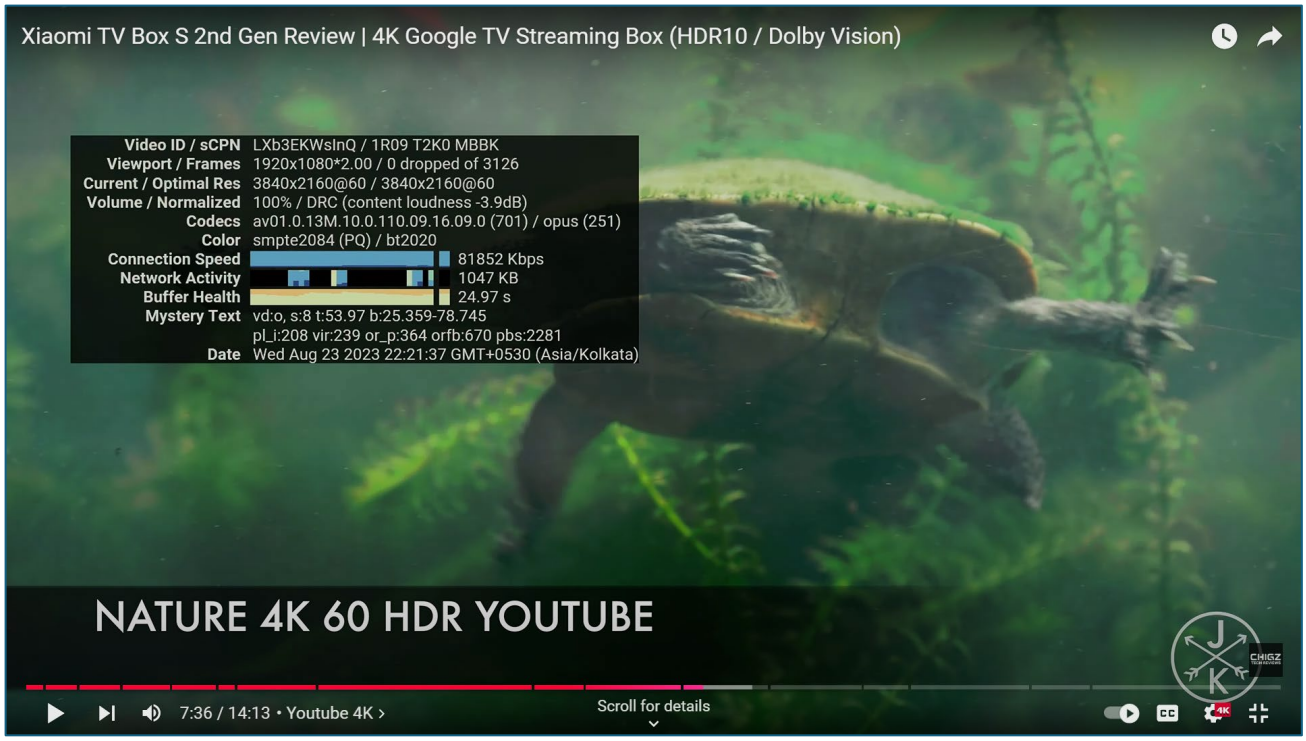
See https://www.youtube.com/watch?v=ul3XvLzMGww.

Specification		
	Output Resolution:	4K (3840 x 2160)
	CPU:	Quad-Core Cortex-A55
	GPU:	ARM Mali G31 MP2
	RAM:	2GB
	ROM:	8GB
	Operating system:	Google TV

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

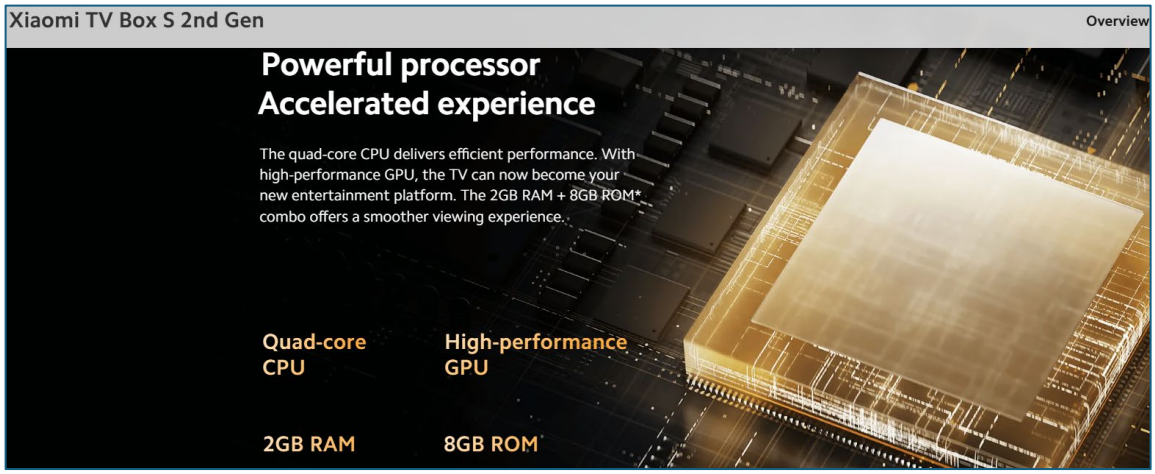


See https://www.youtube.com/watch?v=ht97YiL86o0.

84. On information and belief, one or more components of the Xiaomi Products and Services provides a mobile terminal comprising a processor (*e.g.*, Quad-Core Cortex-A55).

Specification	Output Resolution:	4K (3840 x 2160)
	CPU:	Quad-Core Cortex-A55
	GPU:	ARM Mali G31 MP2
	RAM:	2GB
	ROM:	8GB
	Operating system:	Google TV

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

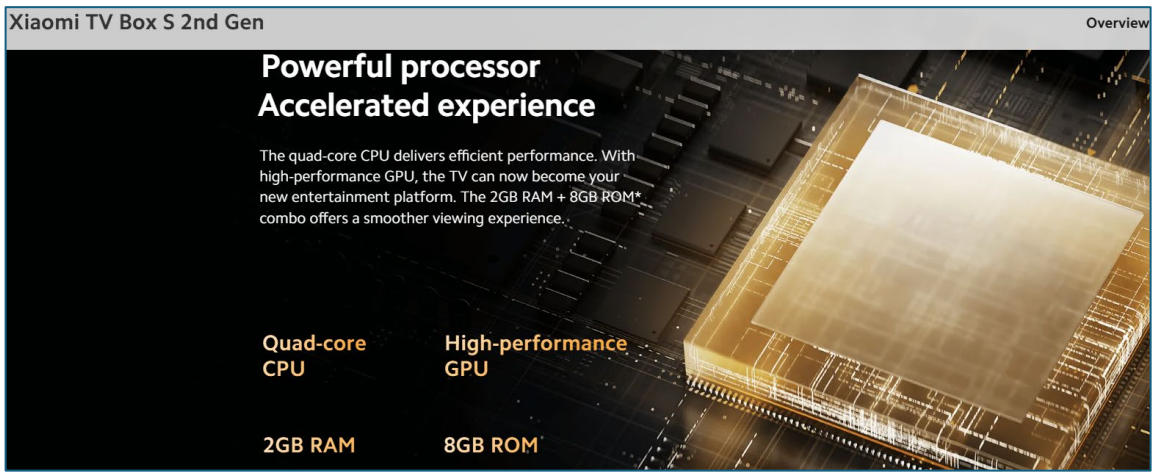


See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

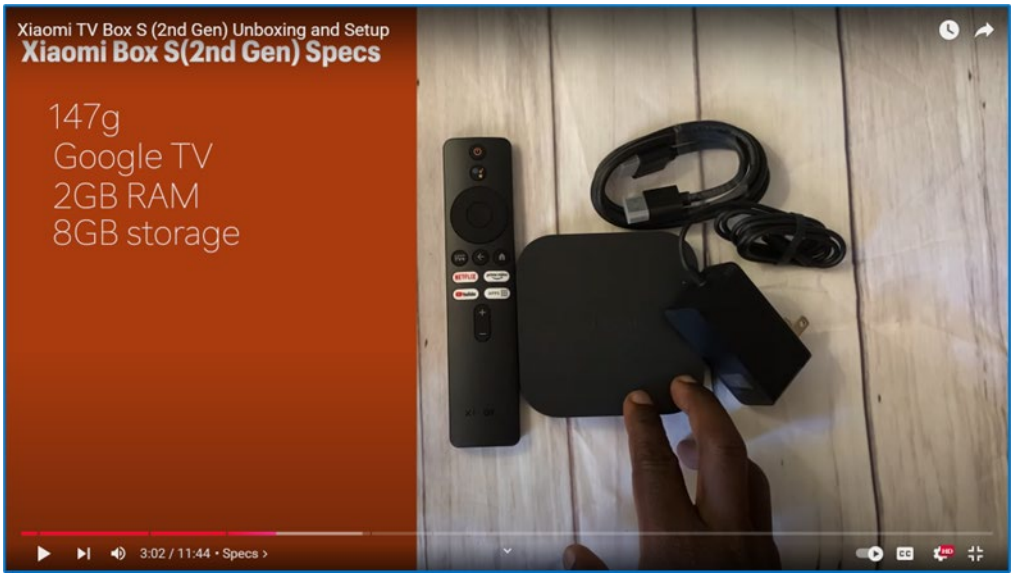
85. On information and belief, one or more components of the Xiaomi Products and Services provides a mobile terminal comprising a memory (*e.g.*, ROM) storing instructions that, when executed by the processor, cause the processor to perform operations comprising.

Specification	Output Resolution:	4K (3840 x 2160)
	CPU:	Quad-Core Cortex-A55
	GPU:	ARM Mali G31 MP2
	RAM:	2GB
	ROM:	8GB
	Operating system:	Google TV

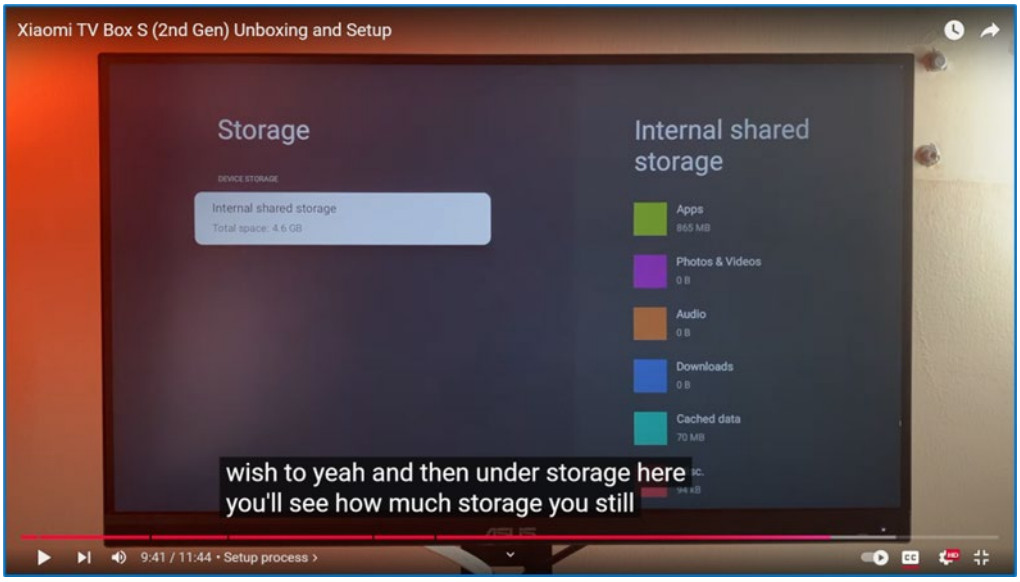
See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.



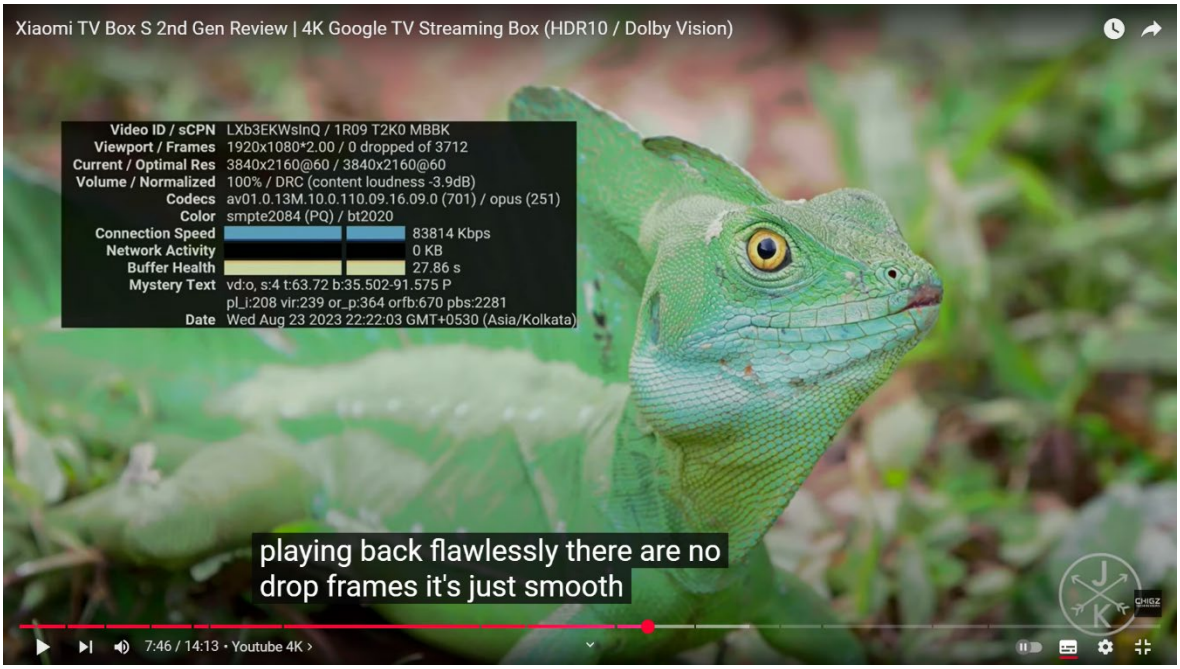
See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



See https://www.youtube.com/watch?v=GfLB1-fwGro.



See https://www.youtube.com/watch?v=GfLB1-fwGro.

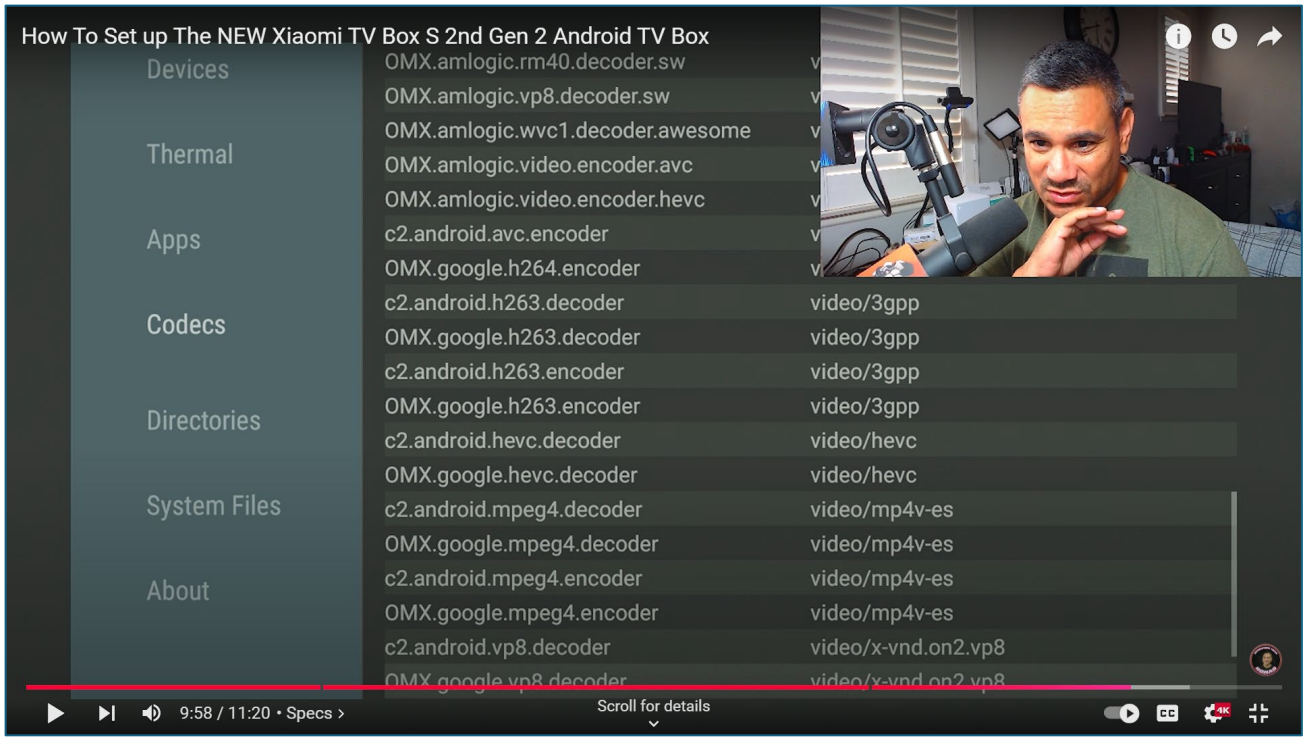


See https://www.youtube.com/watch?v=ht97YiL86o0.

86. On information and belief, one or more components of the Xiaomi Products and Services provides a mobile terminal comprising receiving, via the wireless interface (*e.g.*, Wi-Fi), the compressed high definition digital multimedia signal (*e.g.*, HEVC, H.264, MPEG-4, etc.) appropriate for displaying the high definition digital multimedia content (*e.g.*, 4K ultra HD, 1080p, etc.) on the mobile terminal (*e.g.*, Xiaomi TV Box).

Wireless connectivity	Wi-Fi:	2.4GHz/ 5GHz
	Bluetooth:	5.2

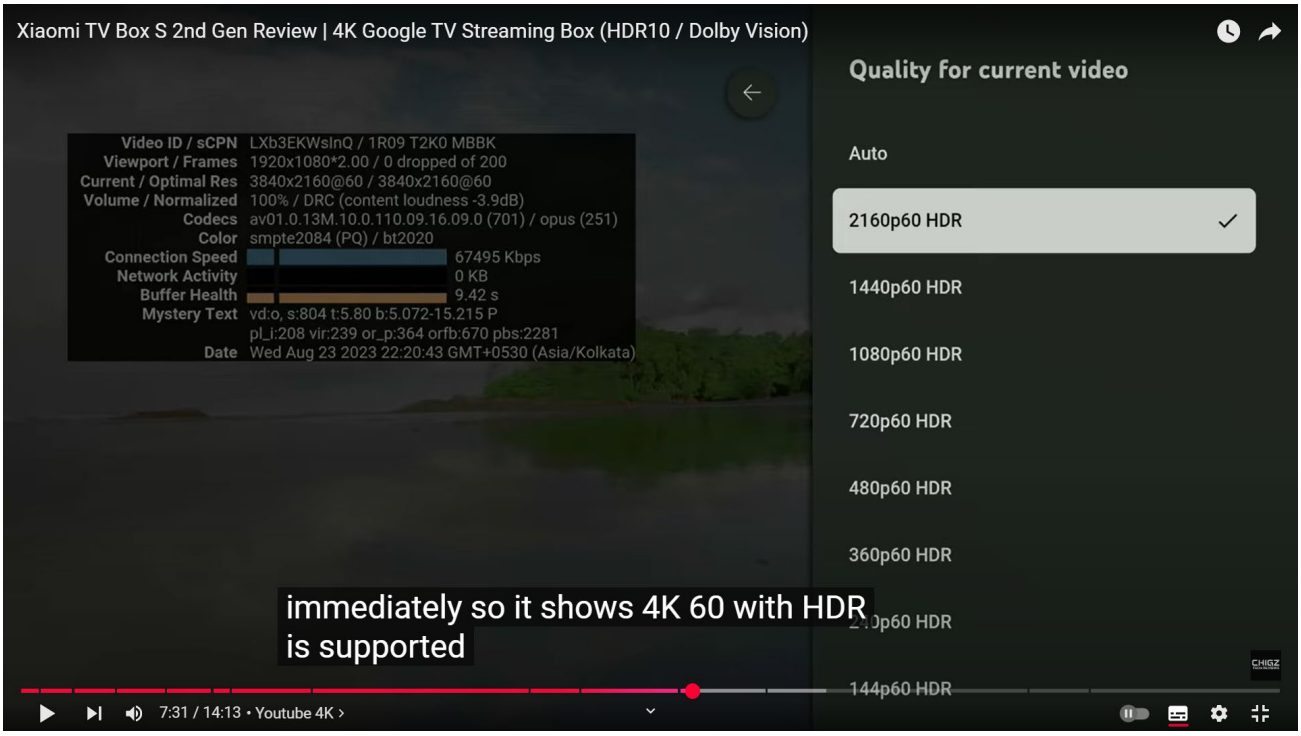
See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.



See https://www.youtube.com/watch?v=ul3XvLzMGww.

Decoder	Video decoder:	Up to 4K 60FPS Supports Dolby Audio® and DTS-HD Supports Dolby Vision® Supports HDR10+

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.



See https://www.youtube.com/watch?v=ht97YiL86o0.

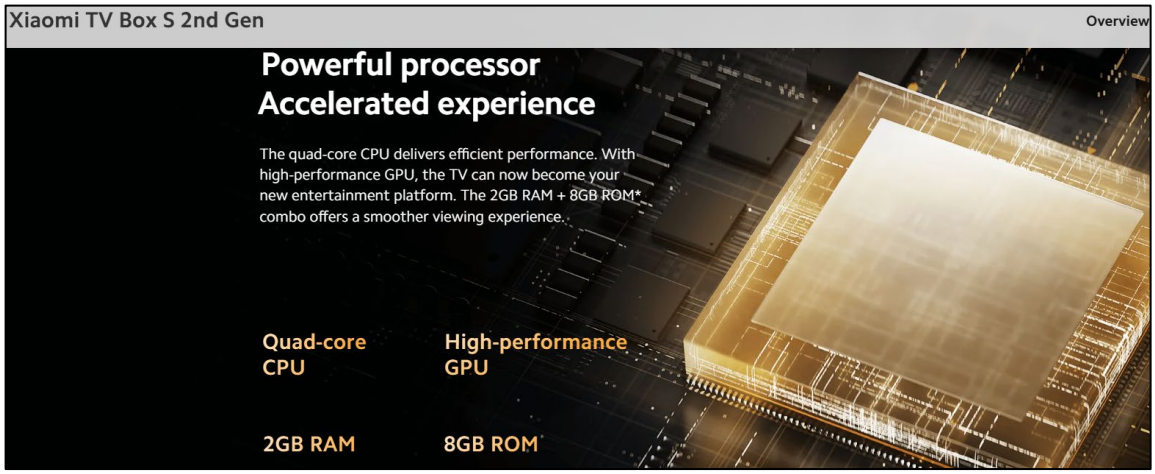
See https://www.youtube.com/watch?v=ht97YiL86o0.

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

87. On information and belief, one or more components of the Xiaomi Products and Services provides a mobile terminal comprising storing the compressed high definition digital multimedia signal in the buffer (*e.g.*, RAM). On information and belief and as shown below, Xiaomi TV Box offers 2GB RAM that is used as a buffer for smooth viewing experience. The compressed high-definition multimedia signal is stored in its buffer (*e.g.*, buffer health indicating the presence of buffer during real-world 4K HDR video streaming). Further, this indicates the buffer stores the compressed high-definition digital multimedia signal.

Specification	Output Resolution:	4K (3840 x 2160)
	CPU:	Quad-Core Cortex-A55
	GPU:	ARM Mali G31 MP2
	RAM:	2GB
	ROM:	8GB
	Operating system:	Google TV

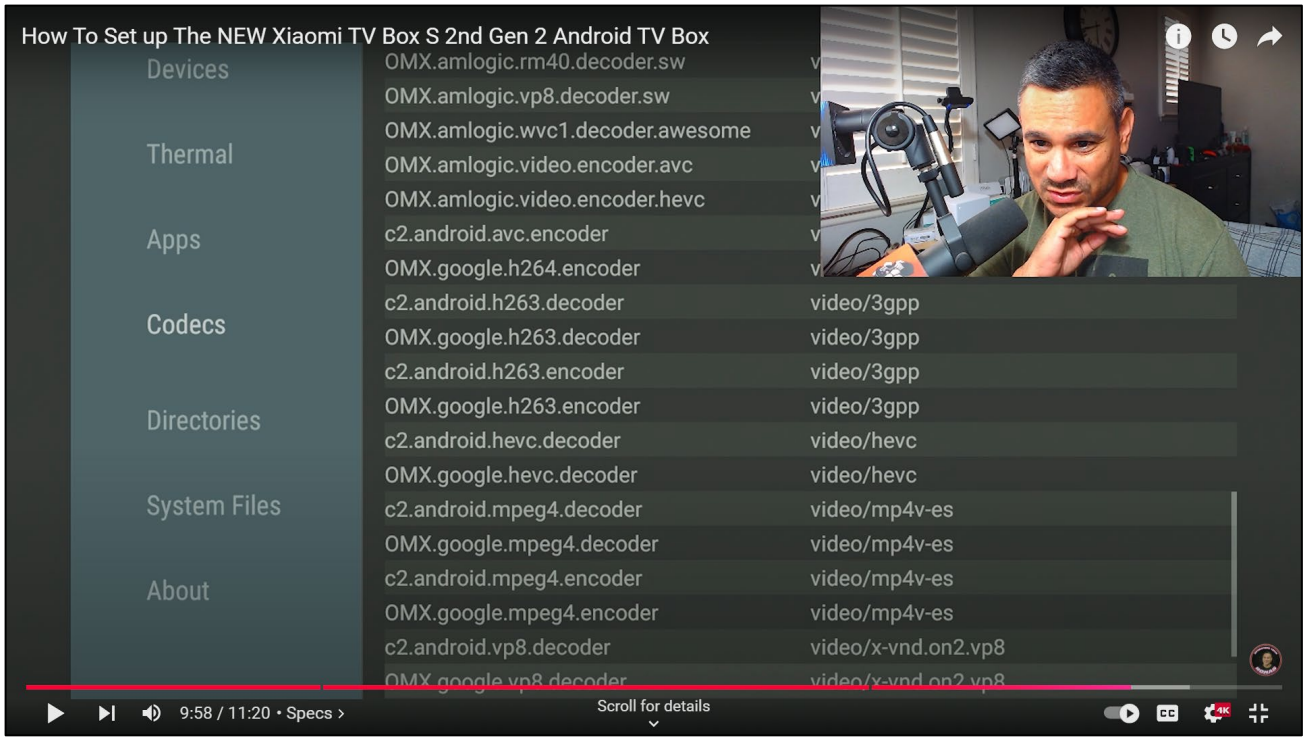
See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.



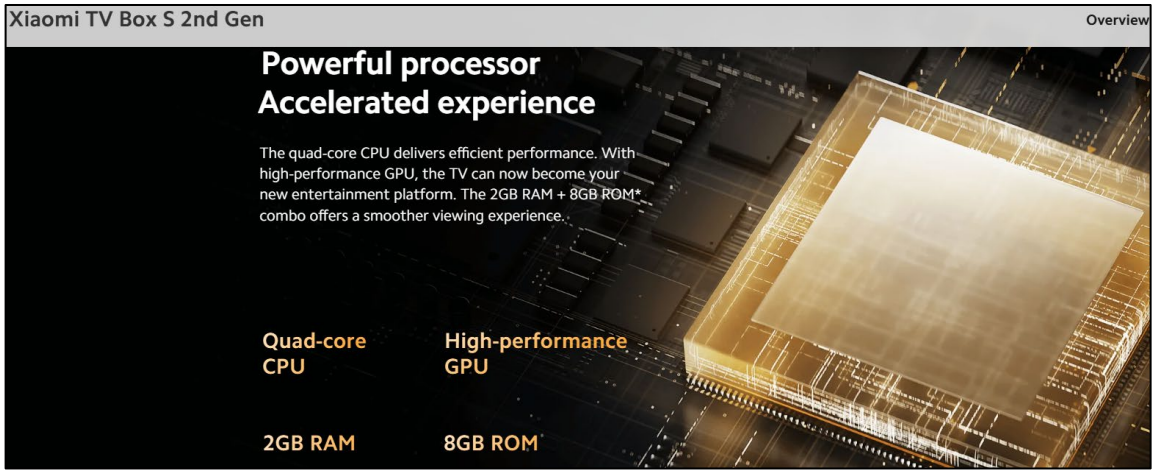
See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

See https://www.youtube.com/watch?v=ht97YiL86o0.

88. On information and belief, one or more components of the Xiaomi Products and Services provides a mobile terminal comprising wherein the high definition digital multimedia conversion circuit is further configured to decompress the compressed high definition digital multimedia signal (*e.g.*, HEVC, H.264, MPEG-4) retrieved from the buffer (*e.g.*, RAM or ROM) to generate a decompressed signal, the decompressed signal comprising a high definition digital video signal (*e.g.*, 4K ultra HD video content).



See https://www.youtube.com/watch?v=ul3XvLzMGww.



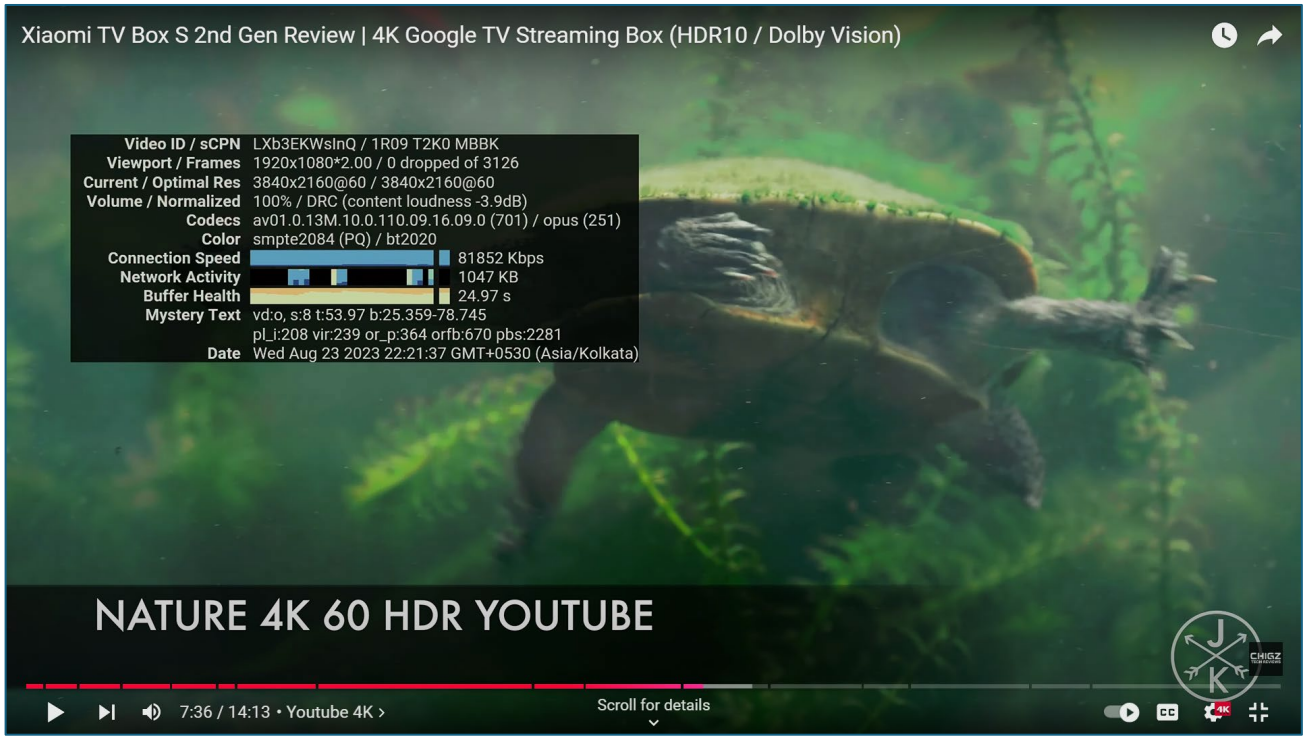
See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

Specification	Output Resolution:	4K (3840 x 2160)
	CPU:	Quad-Core Cortex-A55
	GPU:	ARM Mali G31 MP2
	RAM:	2GB
	ROM:	8GB
	Operating system:	Google TV

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

Decoder	Video decoder:	Up to 4K 60FPS
		Supports Dolby Audio® and DTS-HD
		Supports Dolby Vision®
		Supports HDR10+

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.



See https://www.youtube.com/watch?v=ht97YiL86o0.

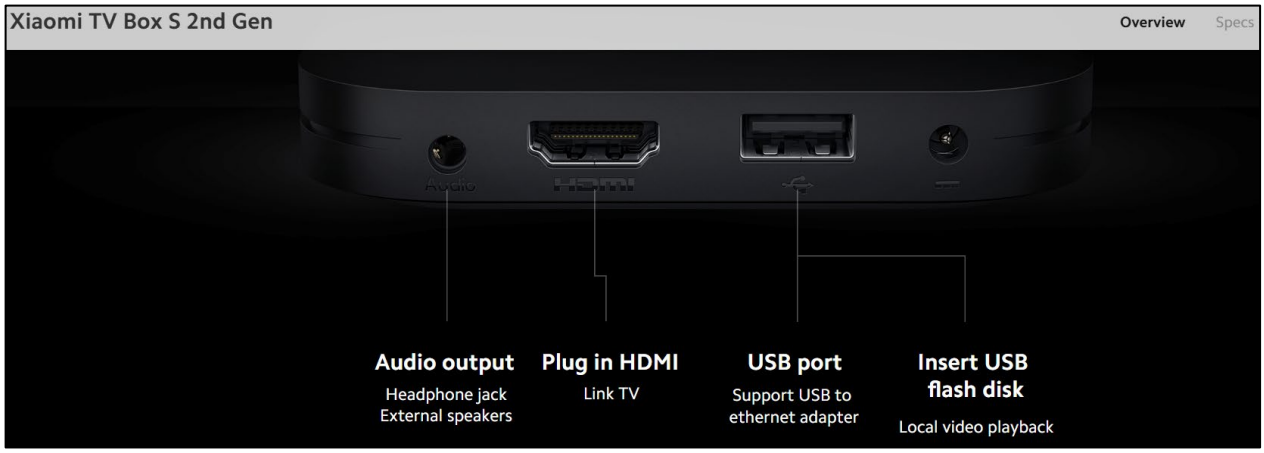
89. On information and belief, one or more components of the Xiaomi Products and Services provides a mobile terminal comprising wherein the high definition digital multimedia

conversion circuit is further configured to encode the decompressed high definition digital signal. On information and belief and as shown below, Xiaomi TV Box's high definition digital multimedia conversion circuit is further configured to encode the decompressed signal to generate an encoded decompressed high definition digital signal. Xiaomi TV Box is equipped with a high-definition digital interface (*e.g.,* HDMI 2.1 port). The HDMI 2.1 port forms the interface to connect the Xiaomi TV Box to an external display via an HDMI cable. When data is transferred through HDMI, the transmitted data is encoded using Transition-Minimized Differential Signaling (TMDS). HDMI 2.0 and 2.1 supports 8b/10b signal encoding. The compressed signal decompressed by the high definition digital multimedia conversion circuit would be encoded before being transmitted to an external display such as a TV. This indicates that Xiaomi TV Box's processors encodes the decompressed signal to generate an encoded decompressed high definition digital signal.

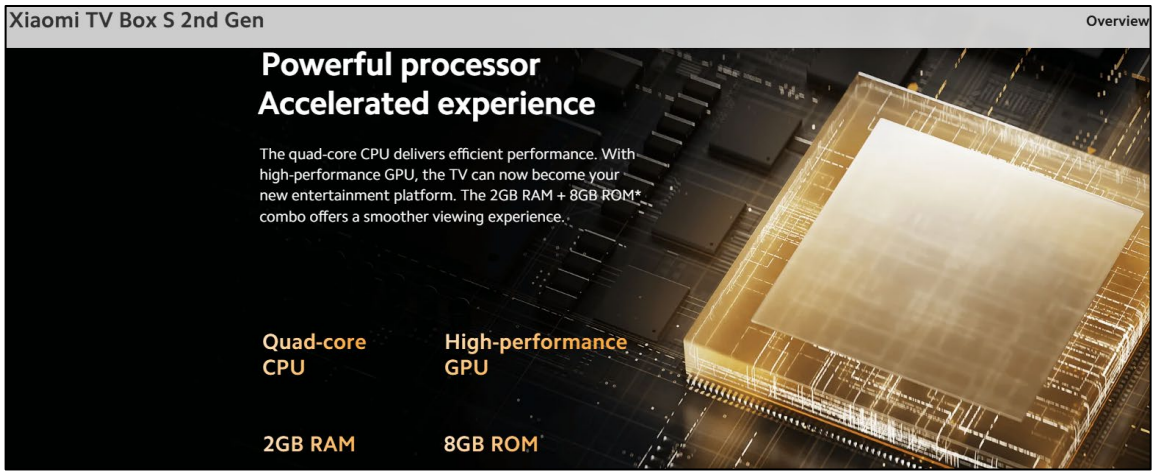
Socket	HDMI 2.1: 1
	USB 2.0: 1
	Power interface: 1
	Audio output: 1

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.

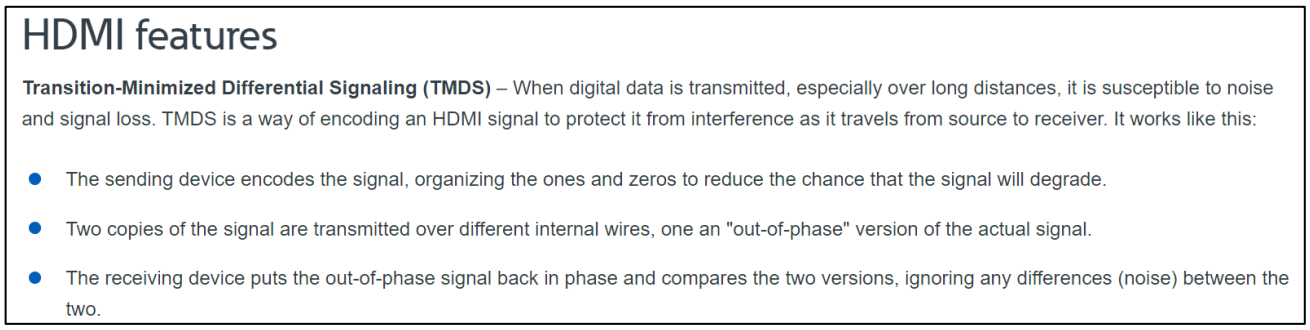
HDMI 2.0

- Increased bandwidth to 18 Gb/s
- 4K at 60 Hz
- 8b/10b signal encoding
- Support for 32 audio channels
- Support for ultra-wide 21:9 cinema aspect ratio

HDMI 2.1

- Increased bandwidth to 48 Gb/s
- Resolutions up to 10K at 120 frames per second
- Dynamic HDR
- Display Stream Compression (DSC) 1.2a
- Enhanced Audio Return Channel (eARC)

See https://www.eaton.com/us/en-us/products/backup-power-ups-surge-it-power-distribution/backup-power-ups-it-power-distribution-resources/cpdi-vertical-marketing/hdmi-explained.html#.



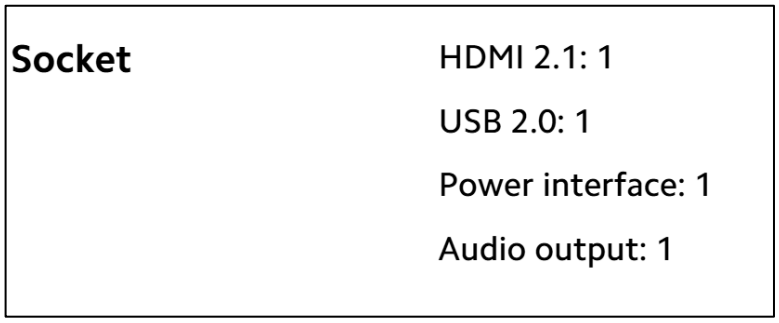
HDMI features

Transition-Minimized Differential Signaling (TMDS) – When digital data is transmitted, especially over long distances, it is susceptible to noise and signal loss. TMDS is a way of encoding an HDMI signal to protect it from interference as it travels from source to receiver. It works like this:

- The sending device encodes the signal, organizing the ones and zeros to reduce the chance that the signal will degrade.
- Two copies of the signal are transmitted over different internal wires, one an "out-of-phase" version of the actual signal.
- The receiving device puts the out-of-phase signal back in phase and compares the two versions, ignoring any differences (noise) between the two.

See https://www.eaton.com/us/en-us/products/backup-power-ups-surge-it-power-distribution/backup-power-ups-it-power-distribution-resources/cpdi-vertical-marketing/hdmi-explained.html#.

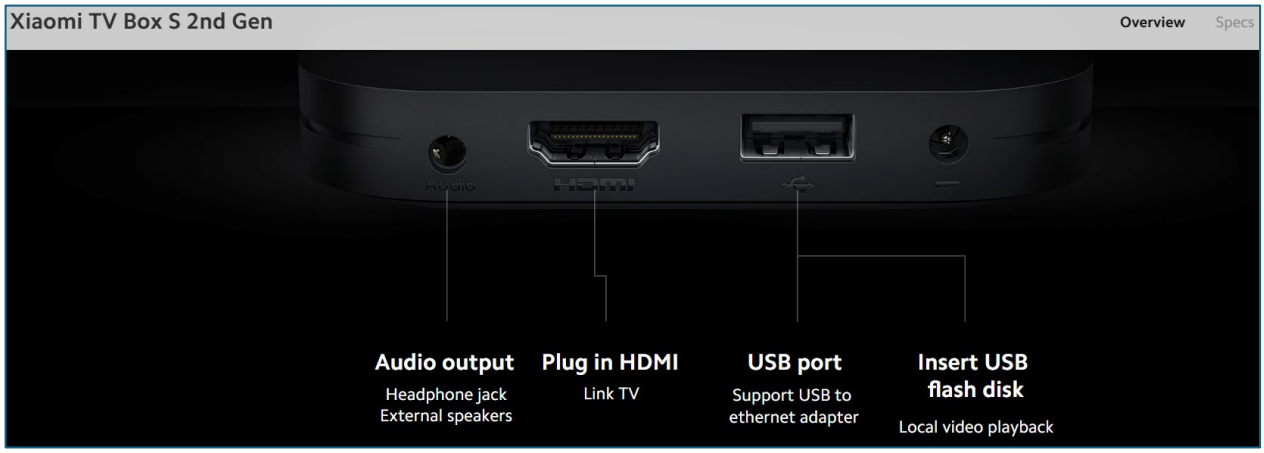
90. On information and belief, one or more components of the Xiaomi Products and Services provides a mobile terminal comprising wherein the high definition digital interface (*e.g.*, HDMI 2.1) is further configured to communicate the encoded decompressed high definition digital signal to accommodate production of the high definition digital multimedia content (*e.g.*, 4K Ultra HD or 1080p HD video content) on an external display (*e.g.*, TV).



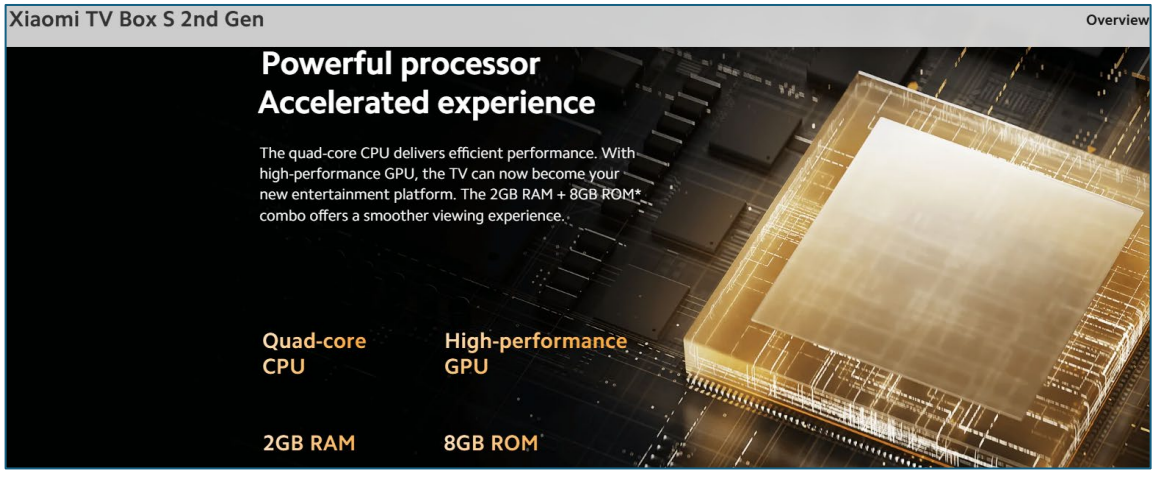
Socket	HDMI 2.1: 1
	USB 2.0: 1
	Power interface: 1
	Audio output: 1

See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

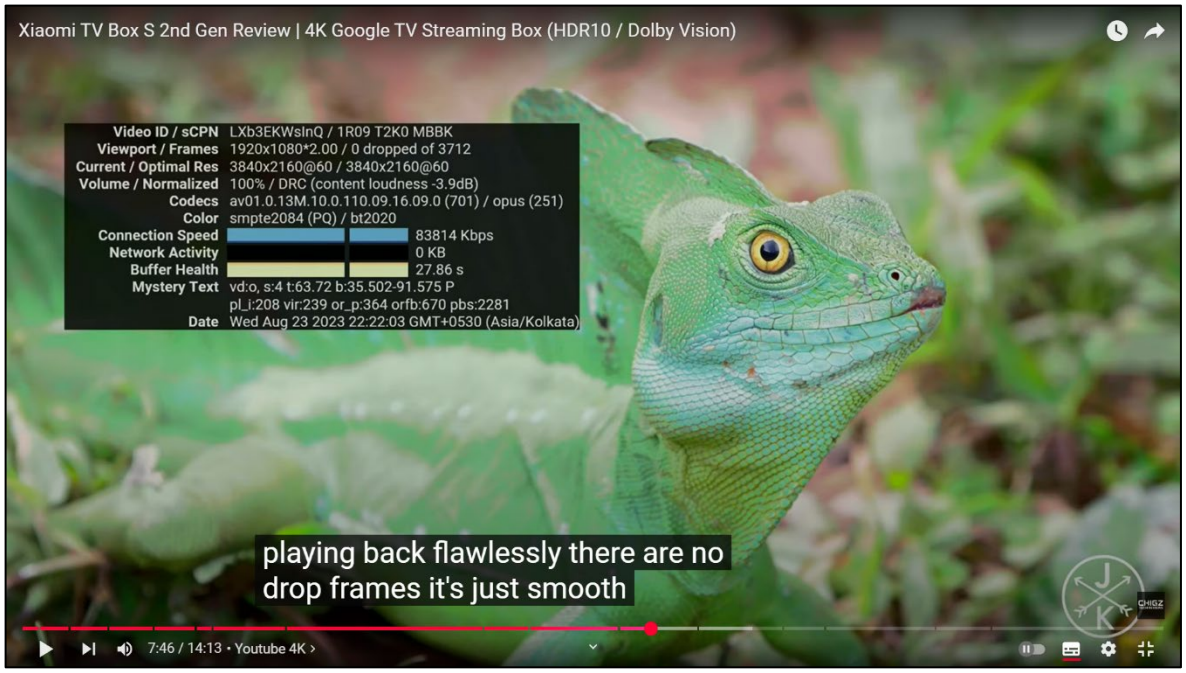
See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/.



See https://www.youtube.com/watch?v=ht97YiL86o0.

91. On information and belief, Xiaomi directly infringes at least claims 14 and 44 of the '425 patent in violation of 35 U.S.C. § 271(a) by making, using, selling, selling access to, importing, offering for sale, and/or offering to sell access to the Xiaomi Products and Services.

92. Innovation Sciences has been damaged by Defendants' infringement and has caused / continues to cause it to suffer irreparable harm and damages as a result of the infringement.

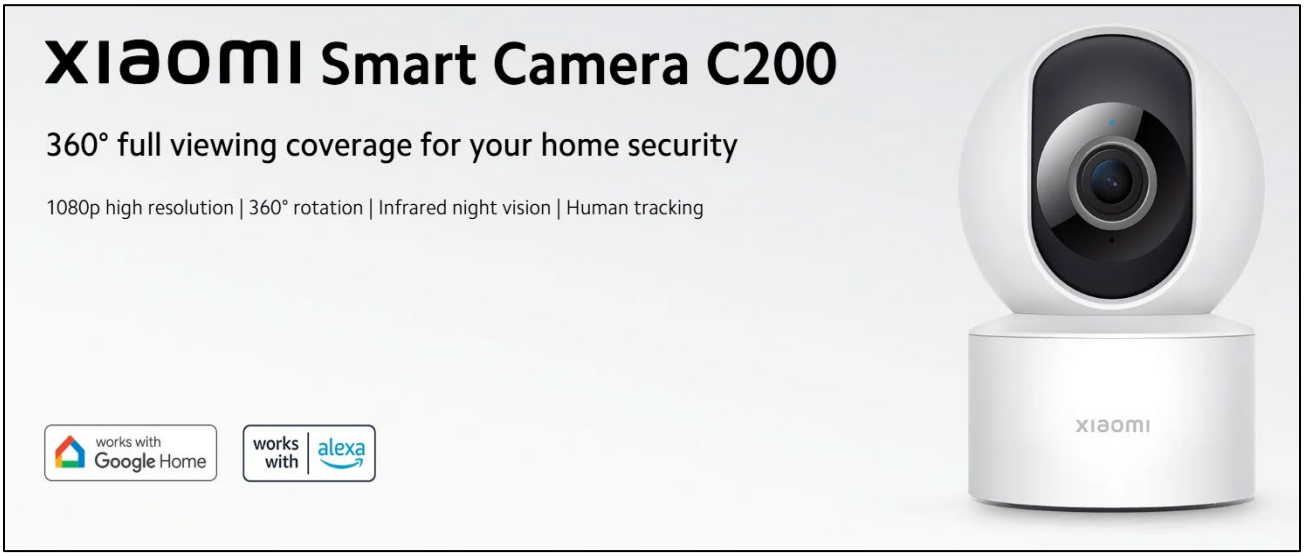
Count IV – Infringement of United States Patent No. 10,136,179

93. Innovation Sciences repeats, realleges, and incorporates by reference, as if fully set forth here, the allegations of the preceding paragraphs above.

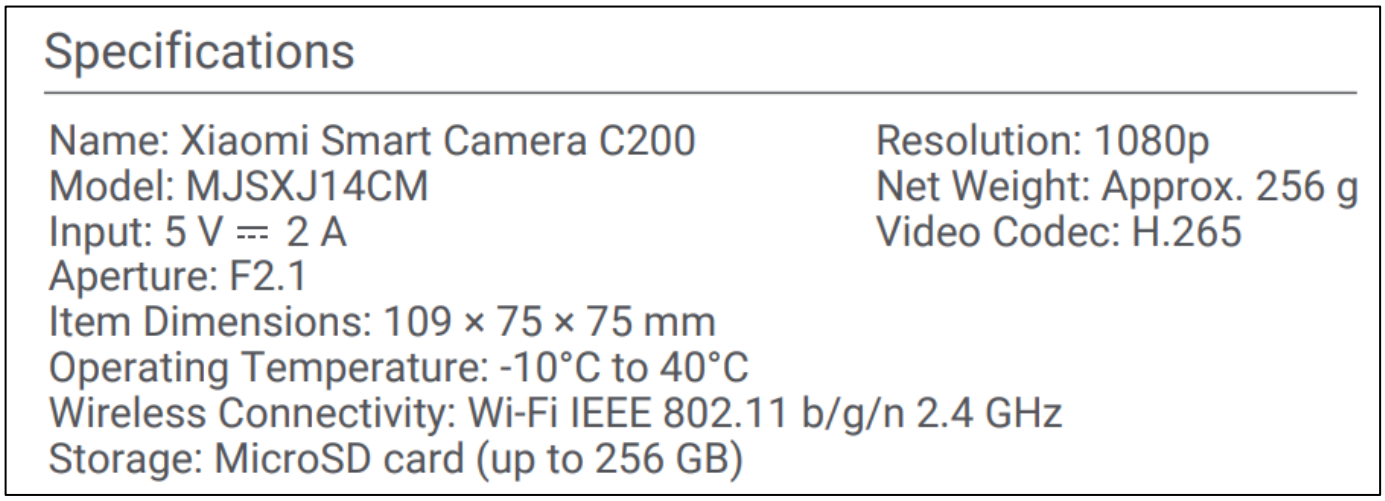
94. On information and belief, Xiaomi violated 35 U.S. C. § 271(a) with respect to one or more claims of the '179 patent.

95. On information and belief, Xiaomi (or those acting on its behalf) (i) makes, uses, sells, sells access to, imports, offers to sell and/or offers to sell access to the Xiaomi Products and Services in the United States that infringe (literally and/or under the doctrine of equivalents) at least claim 1 of '179 patent.

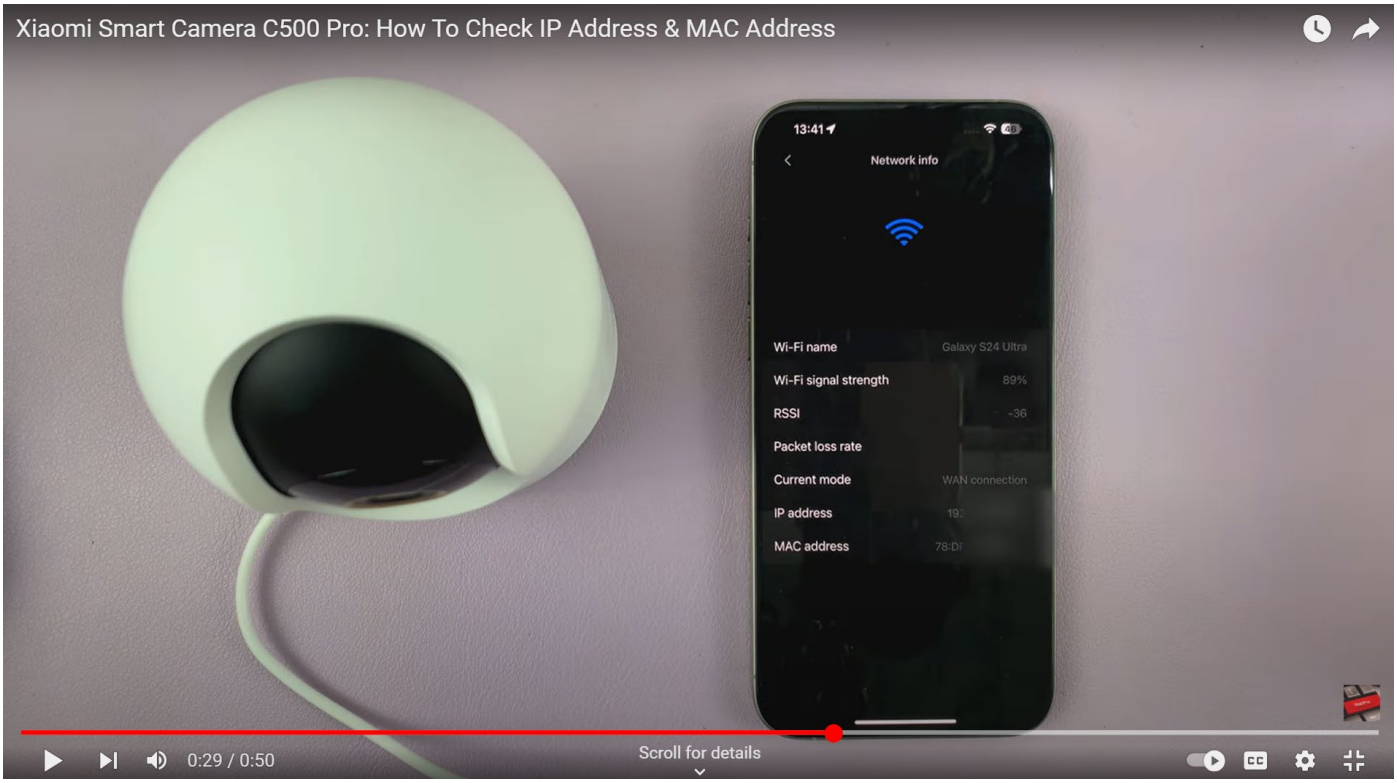
96. On information and belief, one or more components of the Xiaomi Products and Services provides a wireless device (*e.g.*, Xiaomi Smart Camera C200) associated with a unique identifier (*e.g.*, MAC address, serial number, etc.). On information and belief and as shown below, Xiaomi Products and Services such as the Xiaomi Smart Camera C200 provides a wireless device that uses Wi-Fi for wireless communication. Further, Xiaomi Smart Camera has a unique identifier (*e.g.*, MAC address, serial number), which is used for identification of the camera during communication.



See Xiaomi Smart Camera C200.



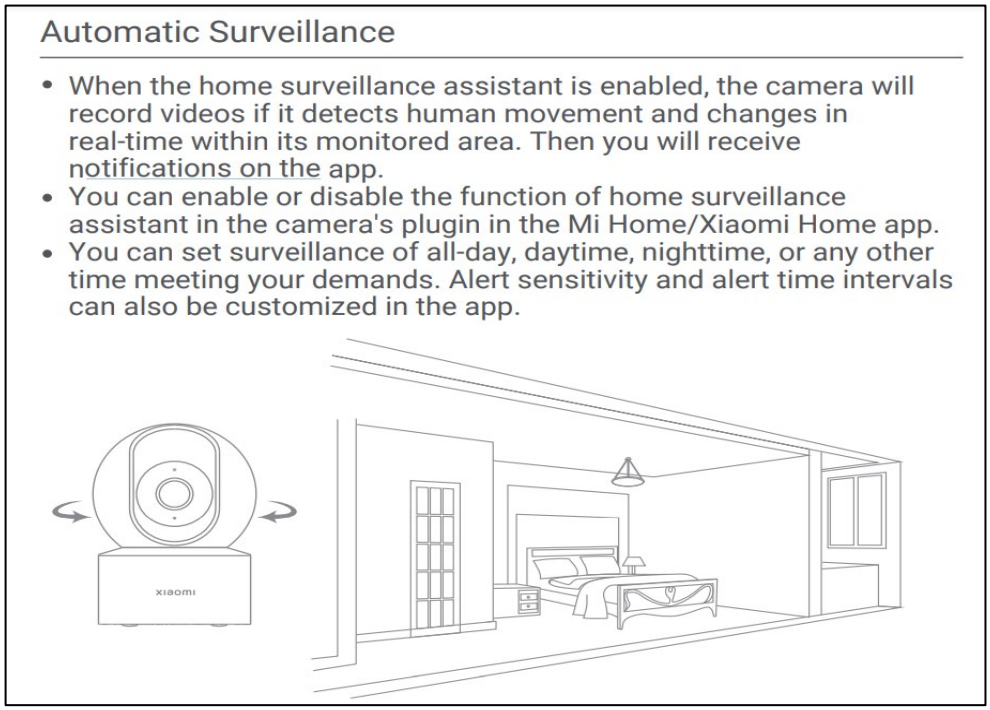
See Xiaomi Smart Camera C200 User Manual.



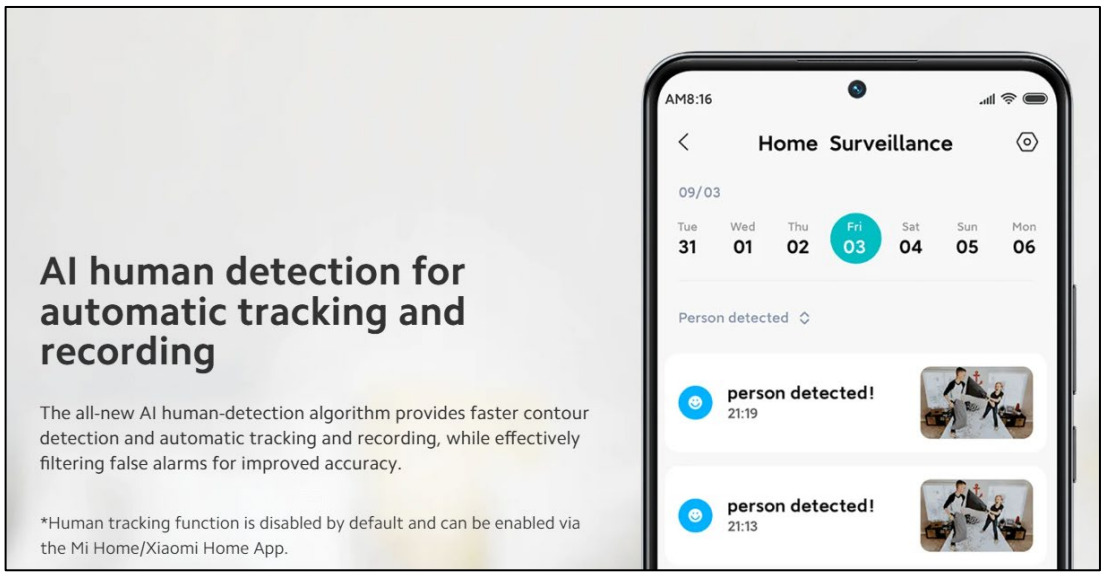
See Xiaomi Smart Camera C500 Pro: How To Check IP Address & MAC Address.

See First Setup & Connecting With App On XIAOMI Smart Camera C200 - YouTube.

97. On information and belief, one or more components of the Xiaomi Products and Services provides a wireless device associated with a unique identifier comprising a sensor configured (*e.g.*, enabling or disabling automatic surveillance, surveillance timings, alert sensitivity, alert time intervals) to detect a change of a condition (*e.g.*, movement/real-time change detected in the monitoring area).

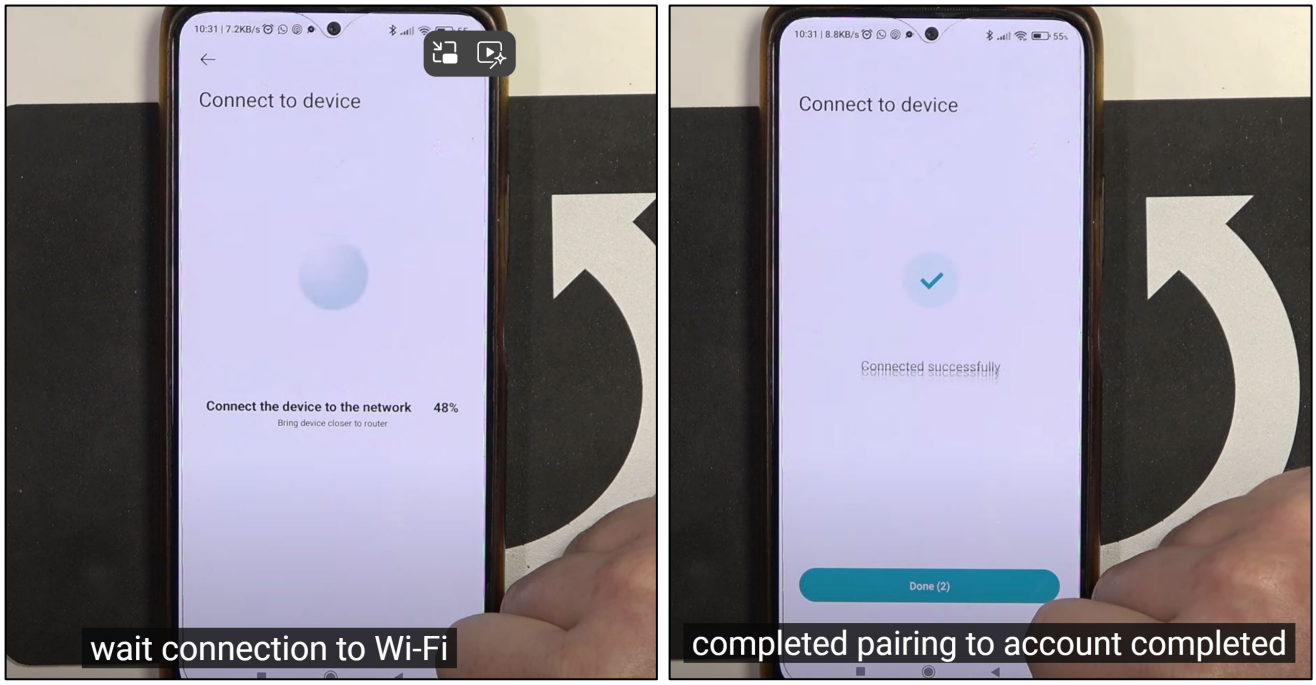


See Xiaomi Smart Camera C200 User Manual.

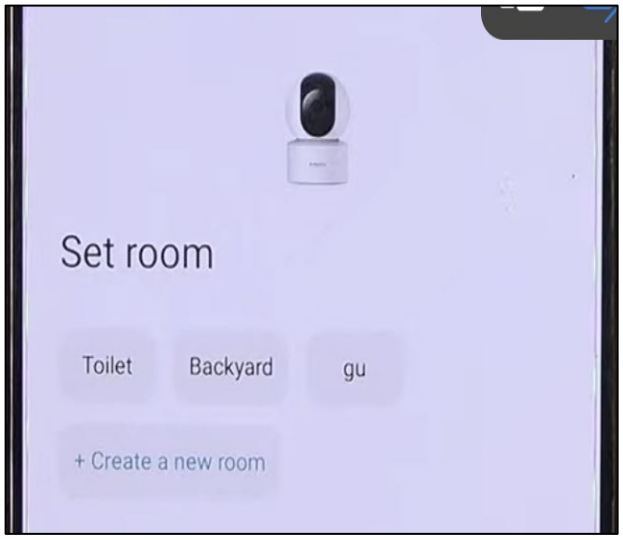


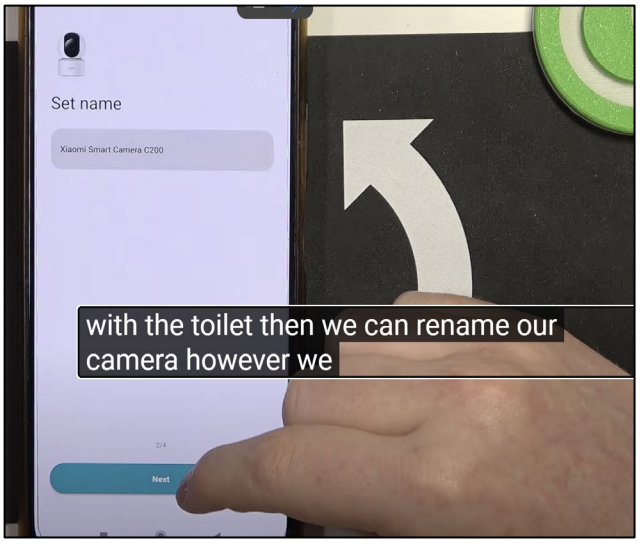
See Xiaomi Smart Camera C200.

98. On information and belief, one or more components of the Xiaomi Products and Services provides a wireless device associated with a unique identifier comprising a transmitter (*e.g.*, Wi-Fi transmitter) configured to send a wireless signal (*e.g.*, a push notification sent via Mi Home/Xiaomi Home application installed on the user device), via a WiFi network (*e.g.*, Internet access through Wi-Fi IEEE 802.11), in response to detection (*e.g.*, enabling or disabling automatic surveillance, surveillance timings, alert sensitivity, alert time intervals) of the change by the sensor (*e.g.*, movement/real-time change detected in the monitoring area), the wireless signal comprising information corresponding to the unique identifier (*e.g.*, MAC address, serial number, etc.) associated with the wireless device.

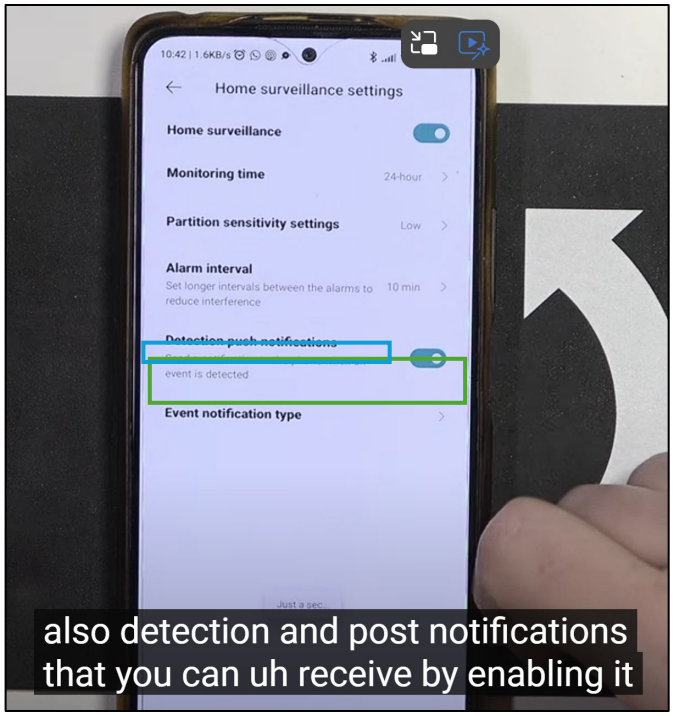


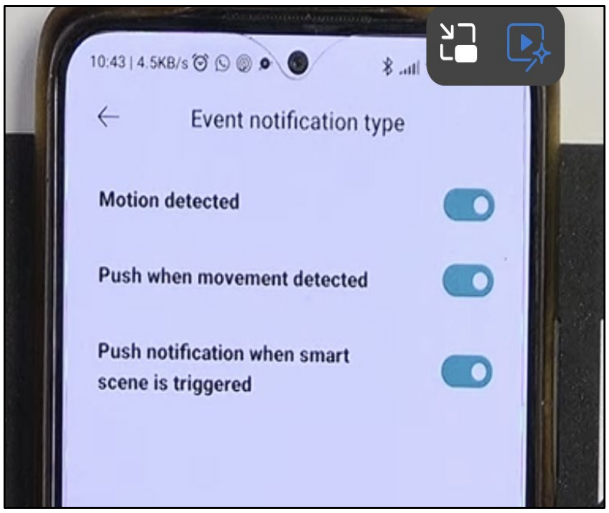
See First Setup & Connecting With App On XIAOMI Smart Camera C200.



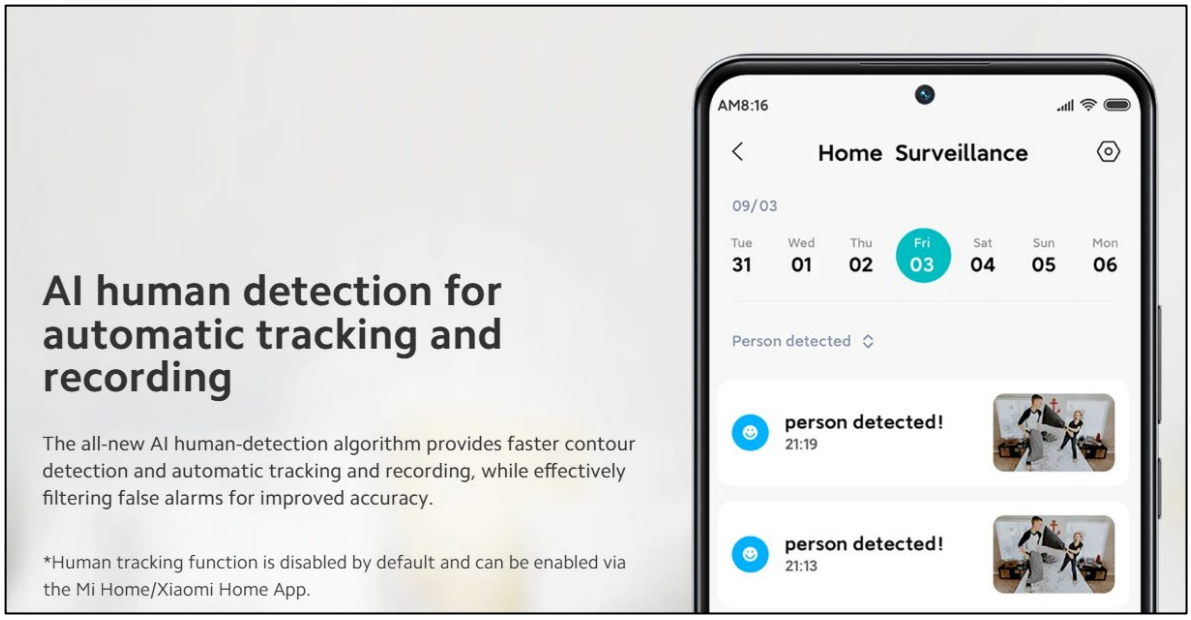


See First Setup & Connecting With App On XIAOMI Smart Camera C200.

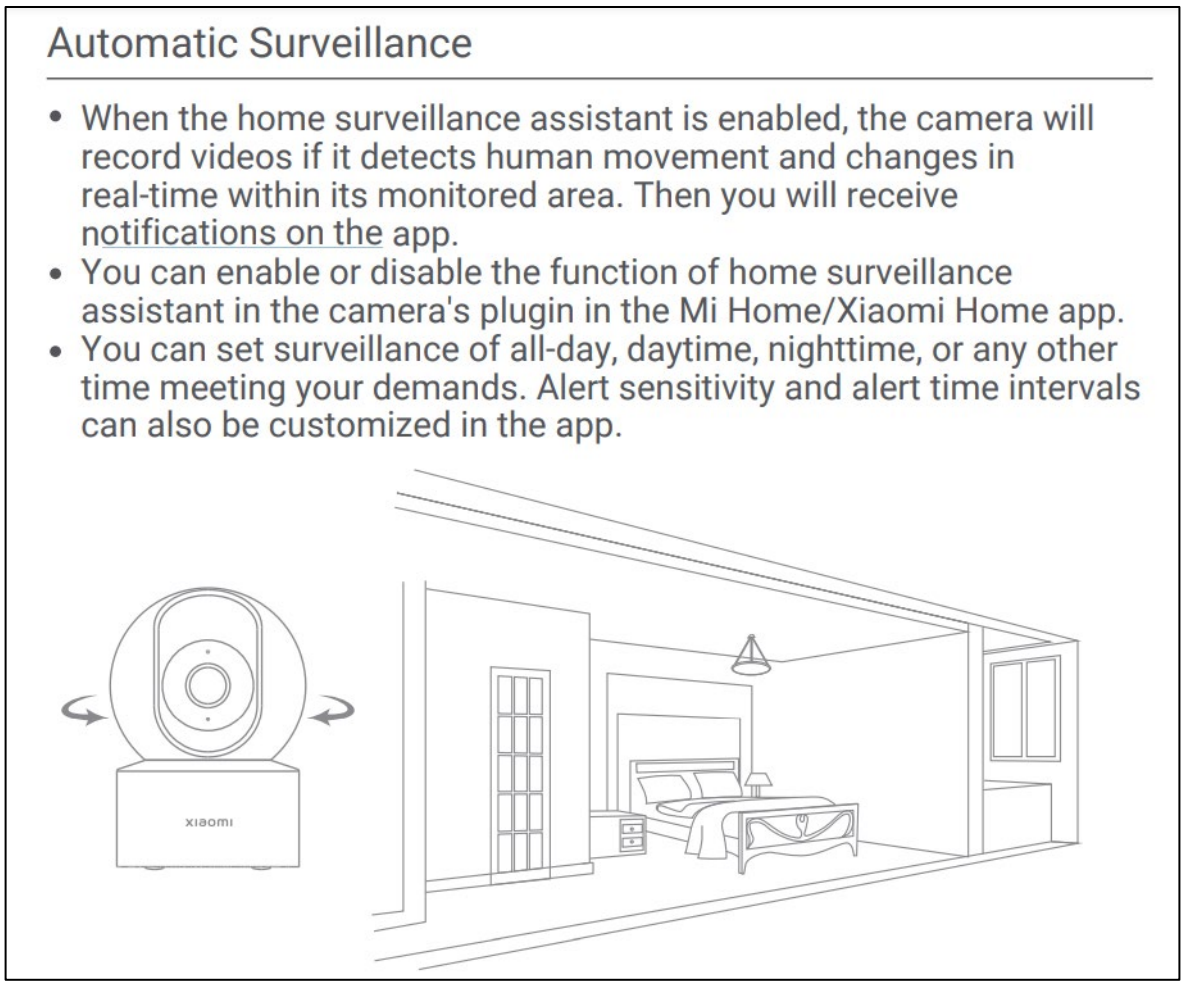




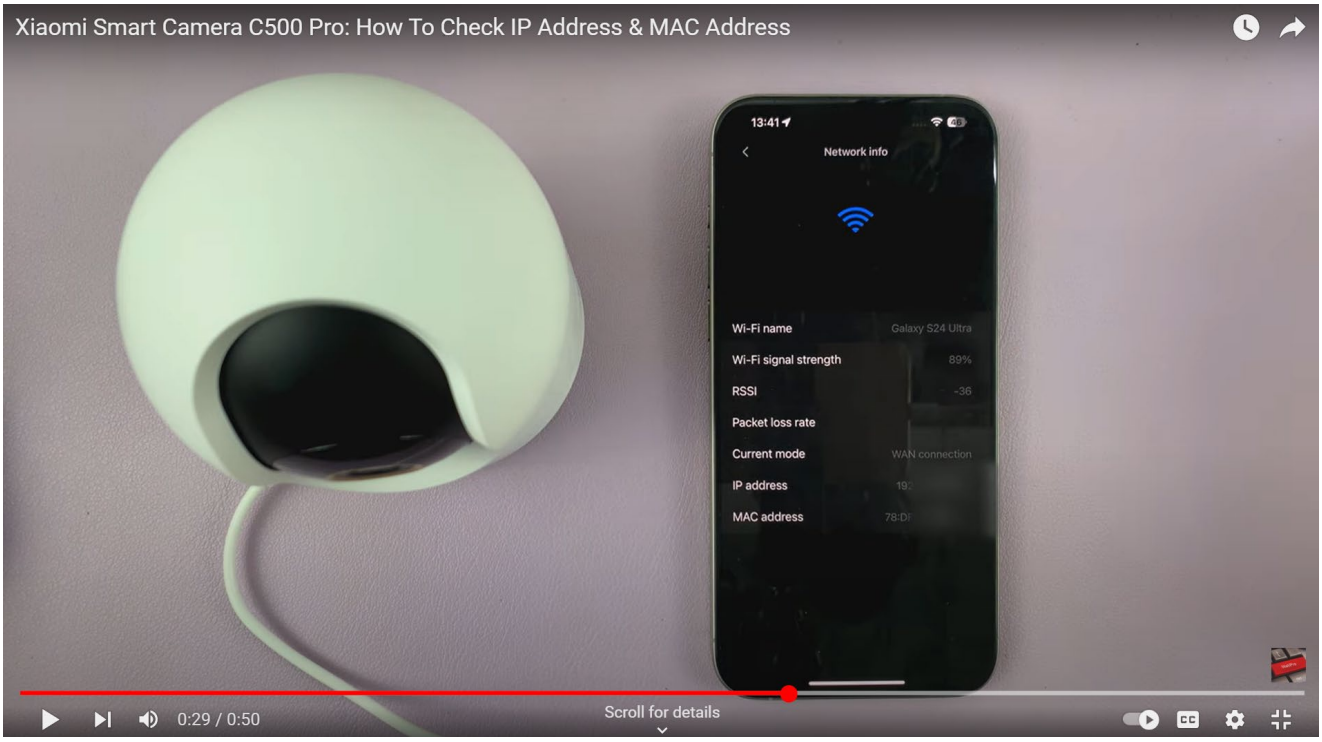
See How To Manage Home Survilance System On Xiaomi Smart Camera C200 - YouTube.



See Xiaomi Smart Camera C200.



See Xiaomi Smart Camera C200 User Manual.



See Xiaomi Smart Camera C500 Pro: How To Check IP Address & MAC Address.

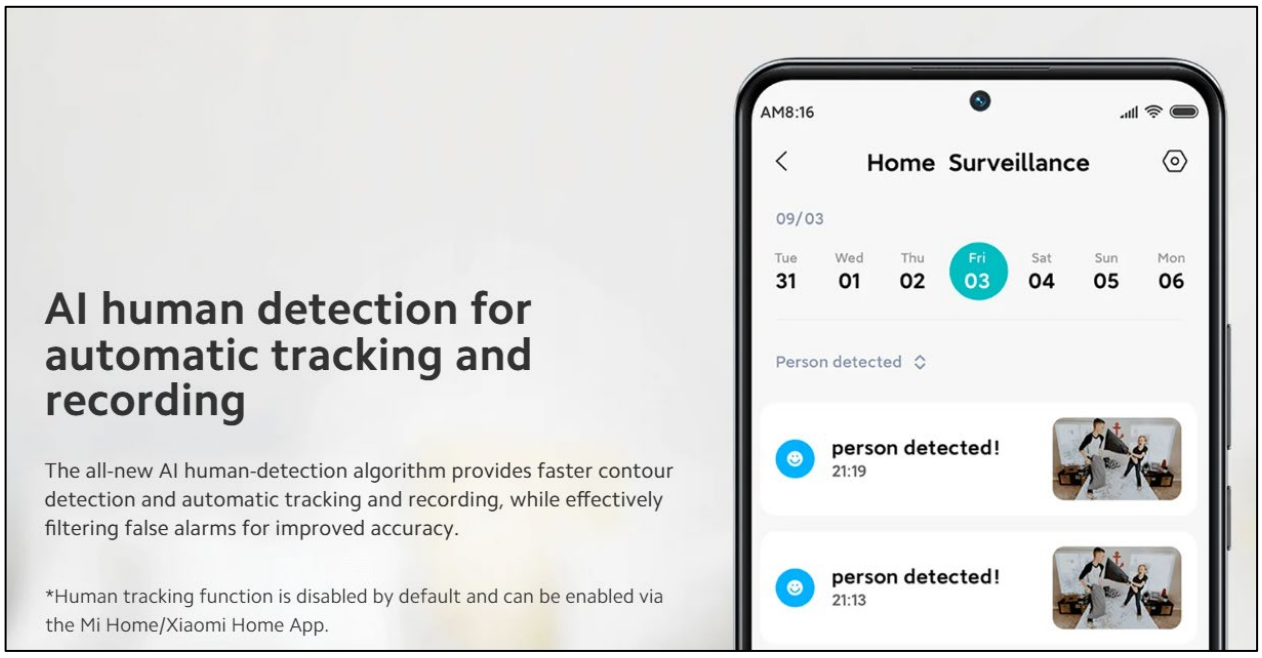
Specifications

Name: Xiaomi Smart Camera C200
Model: MJSXJ14CM
Input: 5 V ⎓ 2 A
Aperture: F2.1
Item Dimensions: 109 × 75 × 75 mm
Operating Temperature: -10°C to 40°C
Wireless Connectivity: Wi-Fi IEEE 802.11 b/g/n 2.4 GHz
Storage: MicroSD card (up to 256 GB)
Resolution: 1080p
Net Weight: Approx. 256 g
Video Codec: H.265

See Xiaomi Smart Camera C200 User Manual.

99. On information and belief, one or more components of the Xiaomi Products and Services provides a wireless device associated with a unique identifier comprising wherein the wireless device is configured to notify a user of a status update (*e.g.*, event detected) based on the detection of the change of the condition (*e.g.*, movement/real-time change detected in the monitoring area) according to a configuration setting (*e.g.*, enabling or disabling automatic surveillance, surveillance

timings, alert sensitivity, alert time intervals), the configuration setting comprising information regarding a setting for notifying the user of the status update.

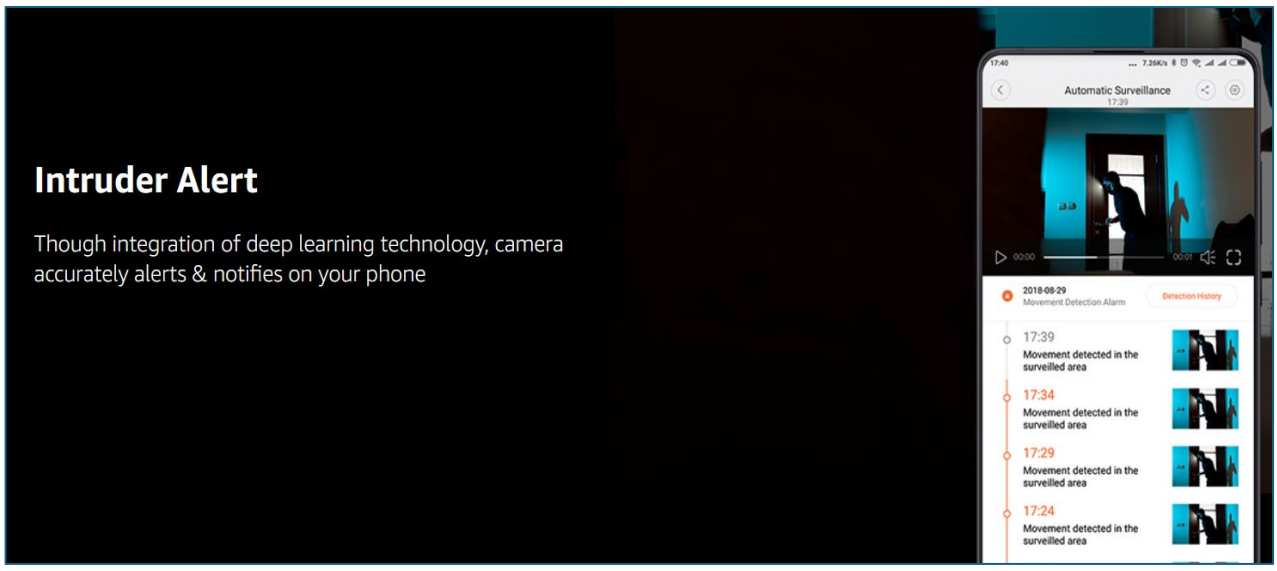


See Xiaomi Smart Camera C200.

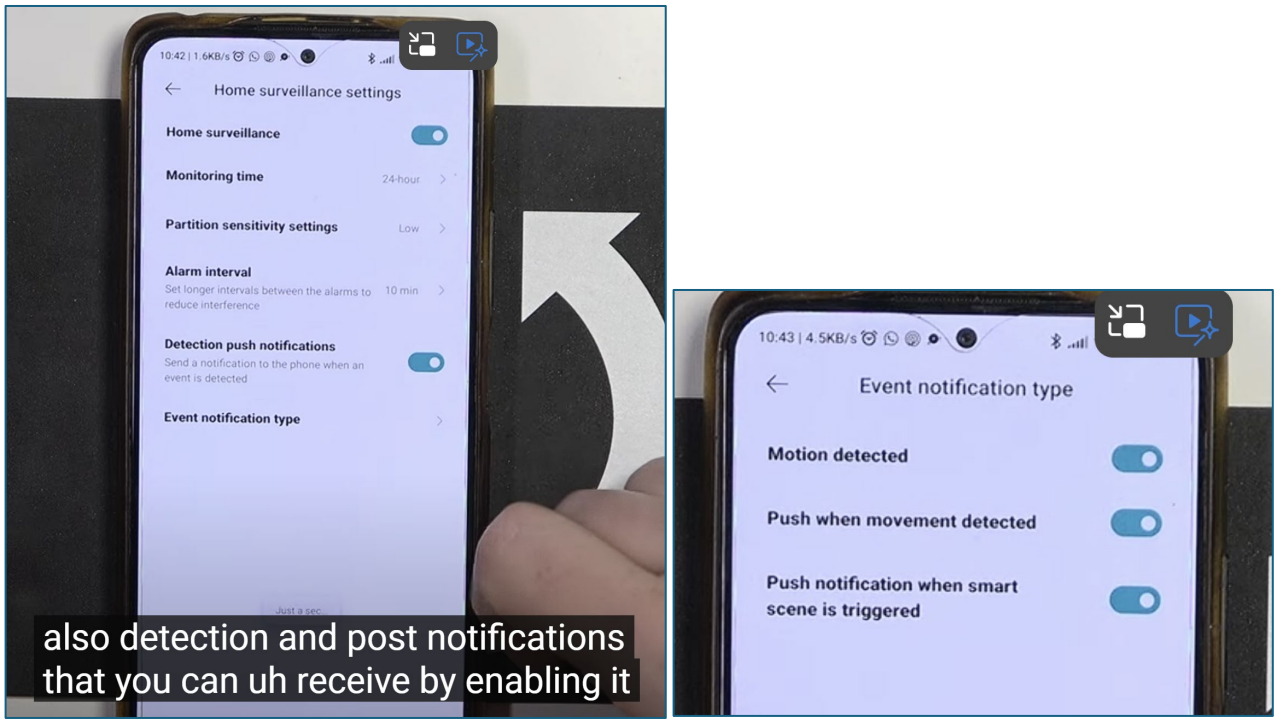
Automatic Surveillance

- When the home surveillance assistant is enabled, the camera will record videos if it detects human movement and changes in real-time within its monitored area. Then you will receive notifications on the app.
- You can enable or disable the function of home surveillance assistant in the camera's plugin in the Mi Home/Xiaomi Home app.
- You can set surveillance of all-day, daytime, nighttime, or any other time meeting your demands. Alert sensitivity and alert time intervals can also be customized in the app.

See Xiaomi Smart Camera C200 User Manual.

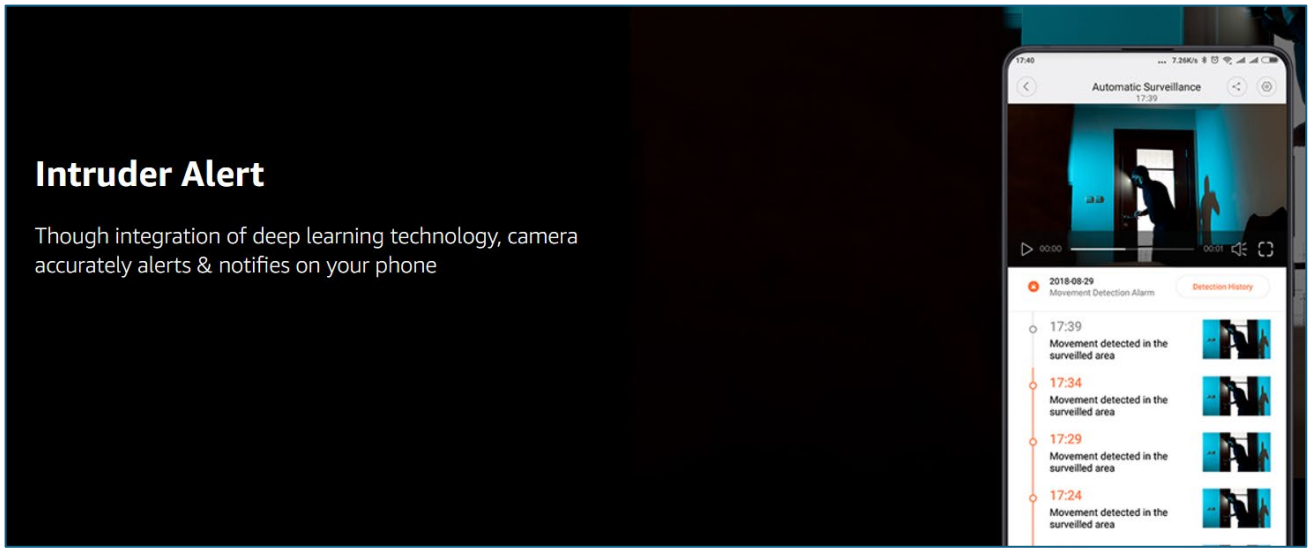


See Xiaomi Smart Camera C200, 360° Vision, AI Human Detection, Clear and Crisp Video, Enhanced Night Vision, Full Encryption for Privacy Protection, Smart Voice Control, Fast Forward Playback Speed, White.

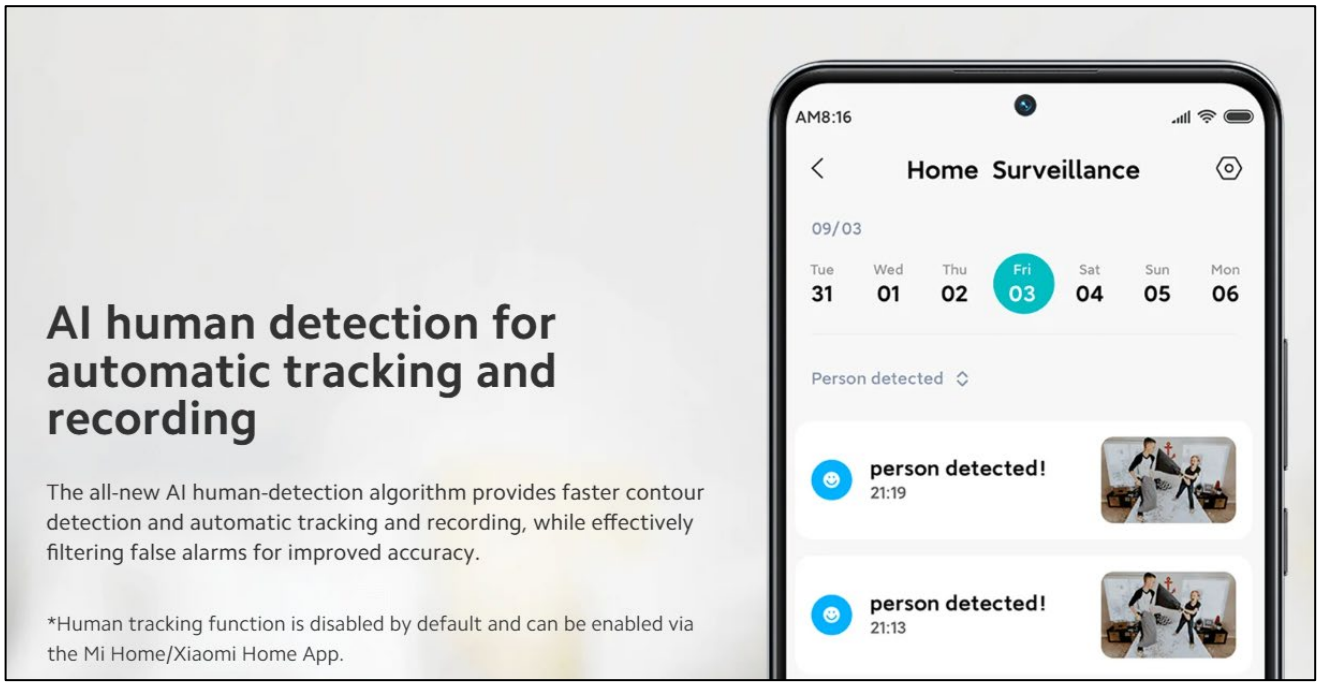


See How To Manage Home Surveillance System On Xiaomi Smart Camera C200 - YouTube.

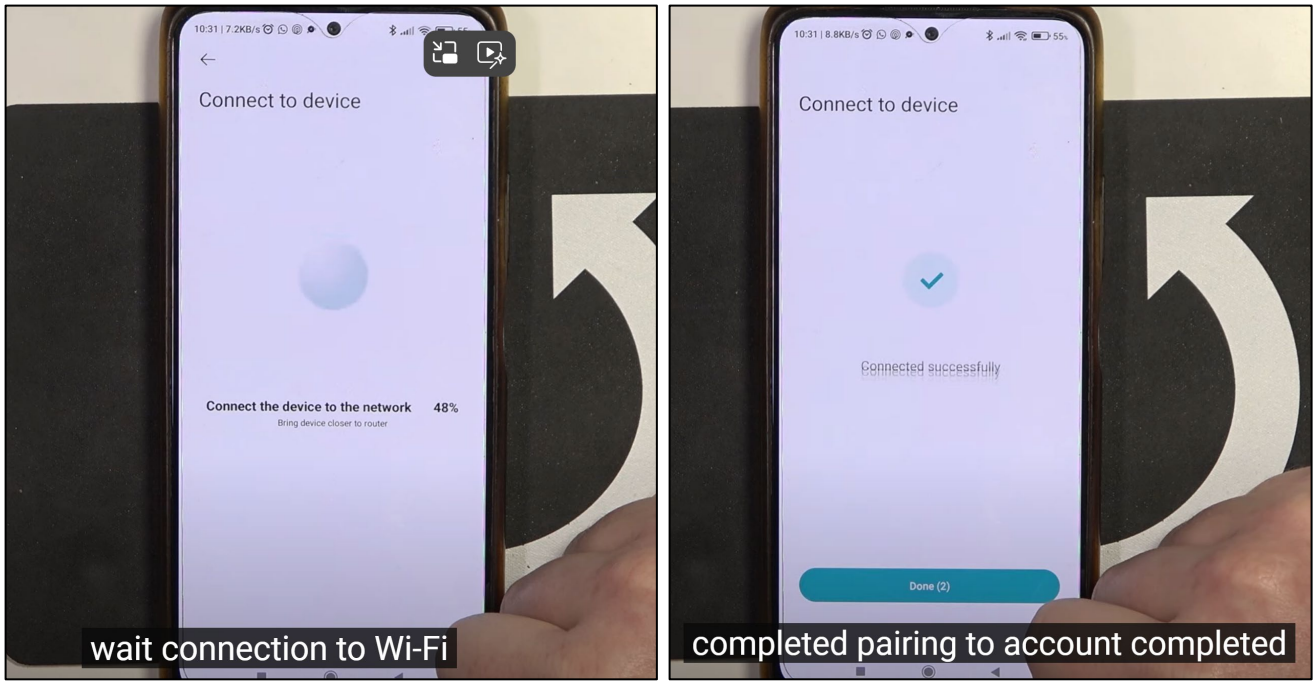
100. On information and belief, one or more components of the Xiaomi Products and Services provides a wireless device associated with a unique identifier comprising wherein information regarding the status update (*e.g.*, event detected) is communicated to a user's mobile phone (*e.g.*, via the Mi Home/Xiaomi Home application) through the WiFi network, the WiFi network connected to a cellular network.



See Xiaomi Smart Camera C200, 360° Vision, AI Human Detection, Clear and Crisp Video, Enhanced Night Vision, Full Encryption for Privacy Protection, Smart Voice Control, Fast Forward Playback Speed, White.

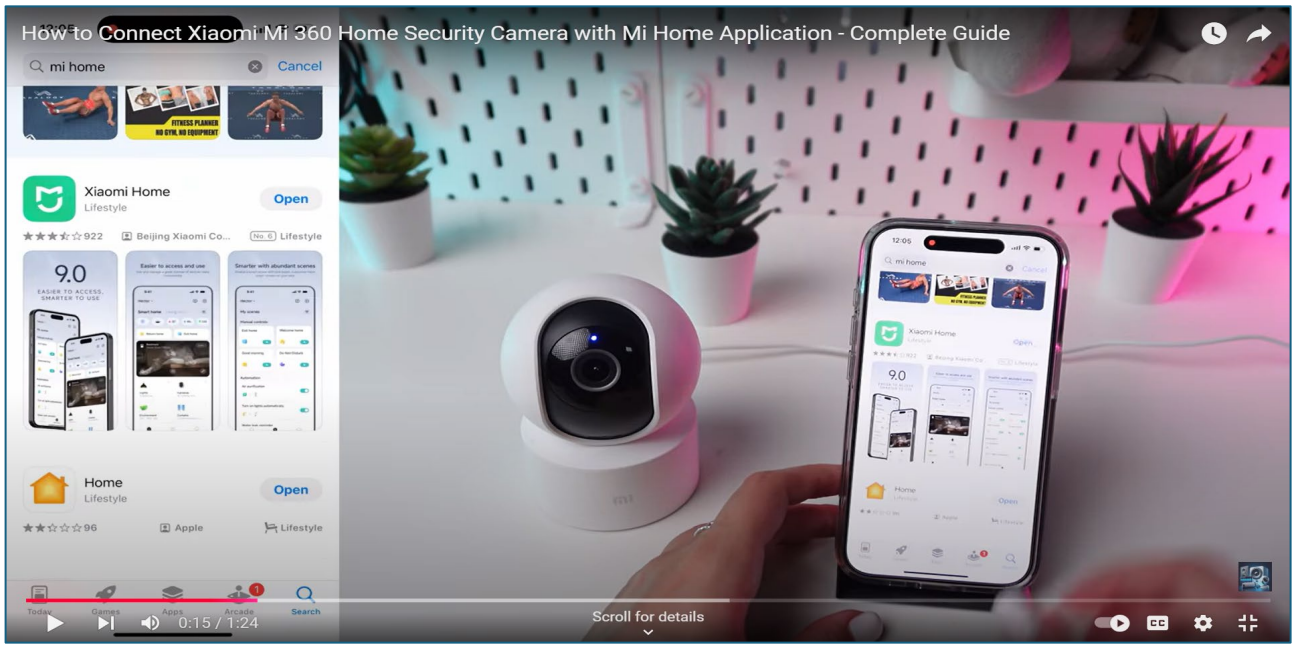


See Xiaomi Smart Camera C200.

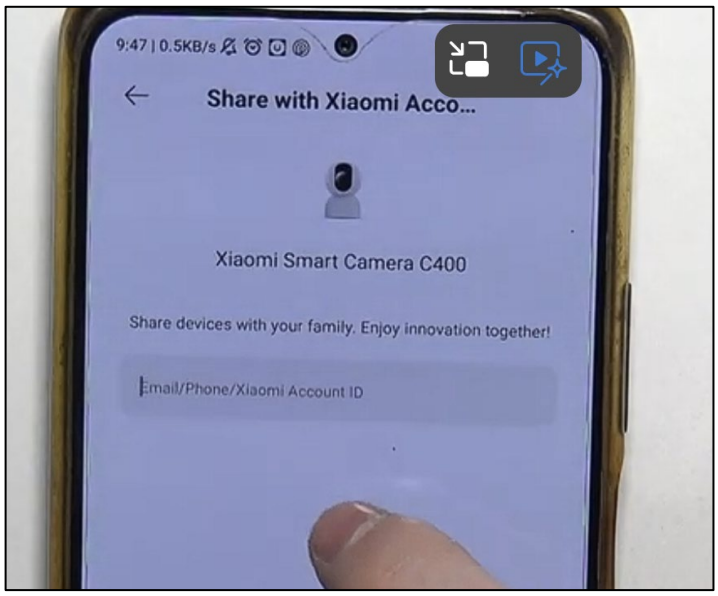


See First Setup & Connecting With App On XIAOMI Smart Camera C200.

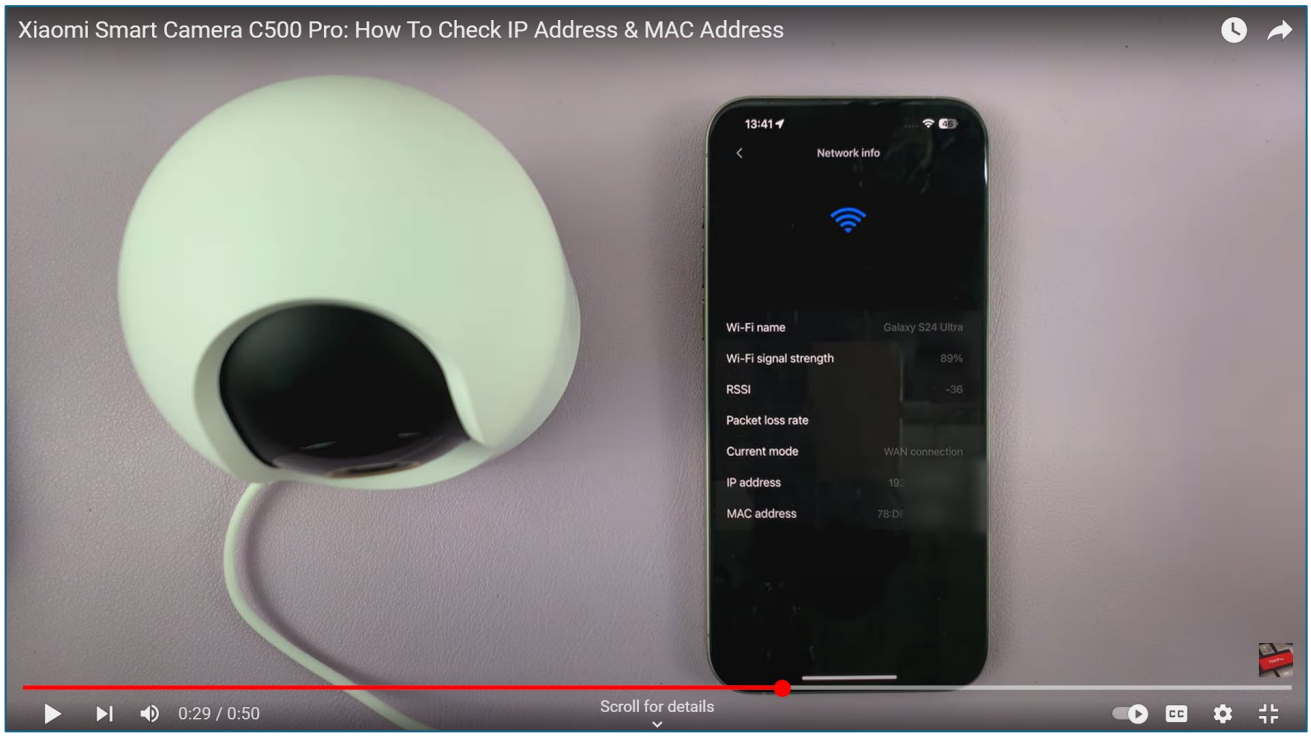
101. On information and belief, one or more components of the Xiaomi Products and Services provides a wireless device associated with a unique identifier comprising wherein a network address (*e.g.*, IP address) for the WiFi network is associated (*e.g.*, via the Mi Home/Xiaomi Home application) with the phone identifier of the user's mobile phone (*e.g.*, user's phone number).



See How to Connect Xiaomi Mi 360 Home Security Camera with Mi Home Application - Complete Guide.

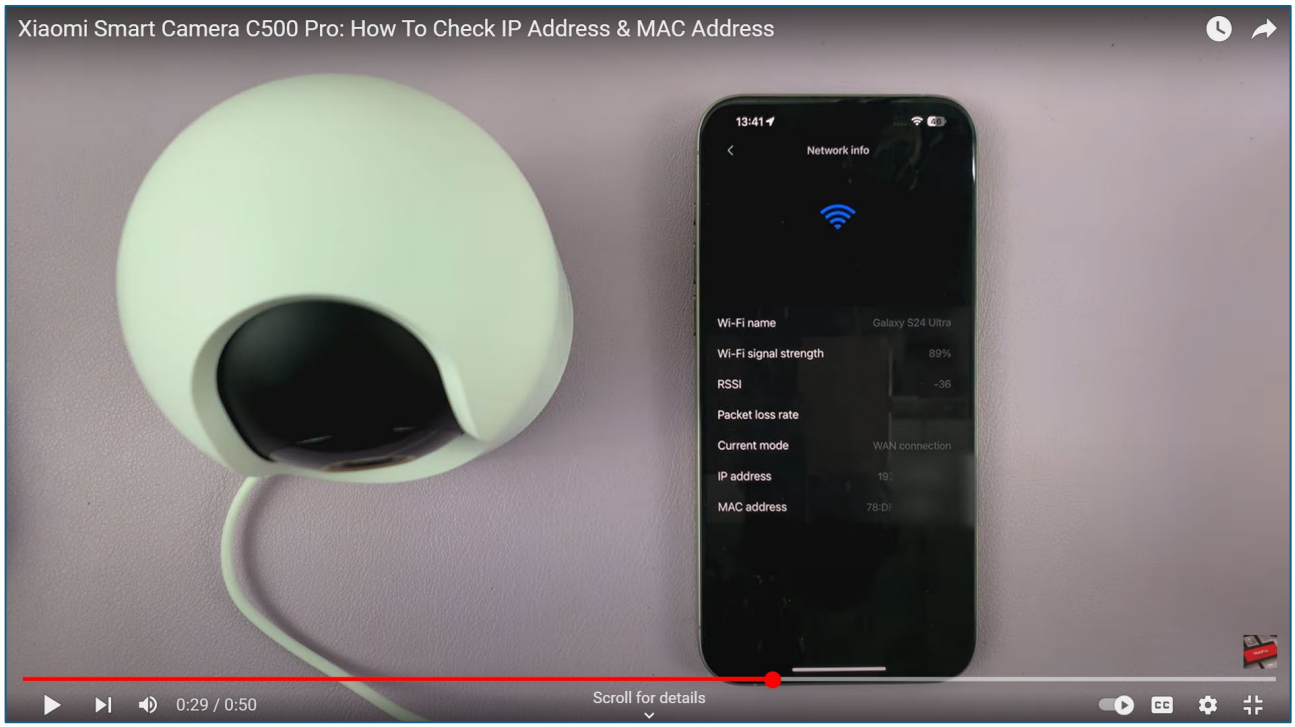


See How To Share Xiaomi C400 Access With Users & Family Members.



See Xiaomi Smart Camera C500 Pro: How To Check IP Address & MAC Address.

102. On information and belief, one or more components of the Xiaomi Products and Services provides a wireless device associated with a unique identifier comprising wherein the unique identifier (*e.g.*, MAC address, serial number) is associated (*e.g.*, via the Mi Home/Xiaomi Home application) with the phone identifier for the user's mobile phone (*e.g.*, user's phone number).



See Xiaomi Smart Camera C500 Pro: How To Check IP Address & MAC Address.

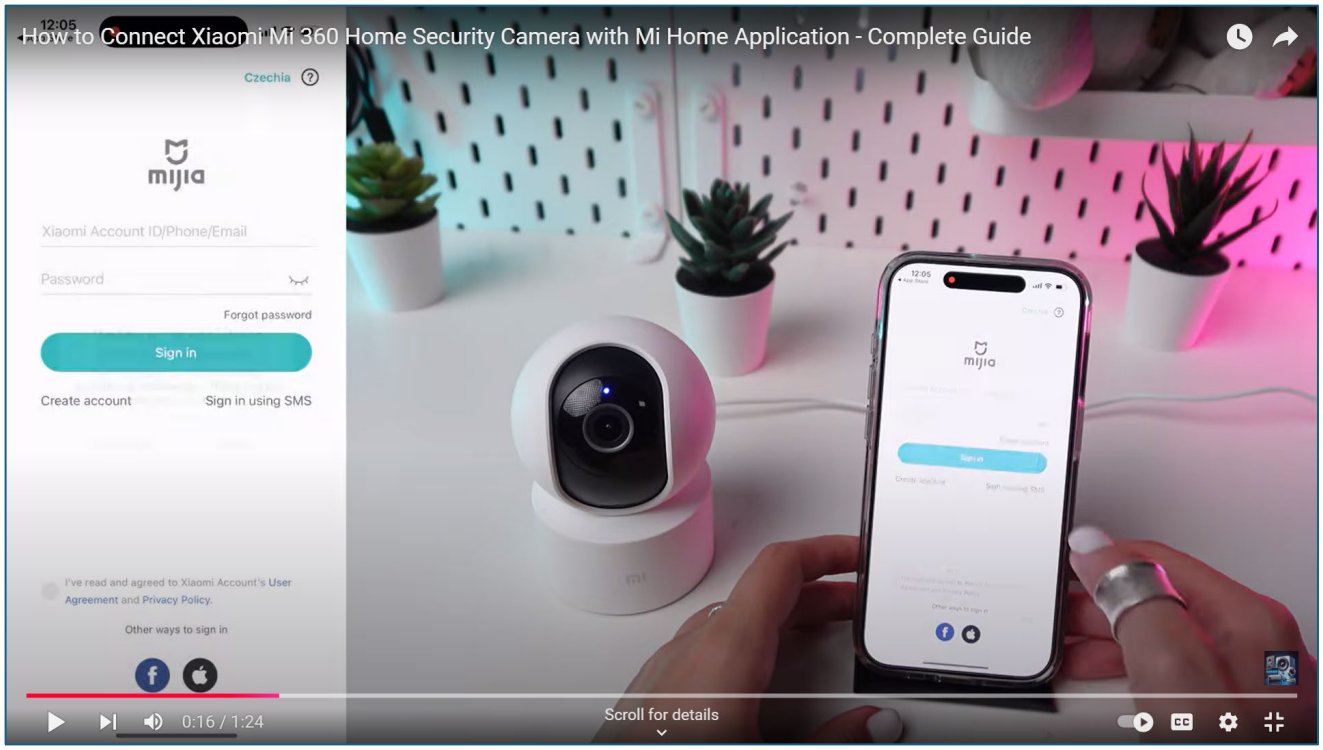
How To Check IP Address & MAC Address Of Xiaomi Smart Camera C500 Pro:
How To Check IP Address Of Xiaomi Smart Camera C500 Pro:
How To Check MAC Address Of Xiaomi Smart Camera C500 Pro:

Step 1: Launch the Mi Home App. Ensure that your Xiaomi Smart Camera C500 Pro is connected to the Mi Home app on your smartphone or tablet.

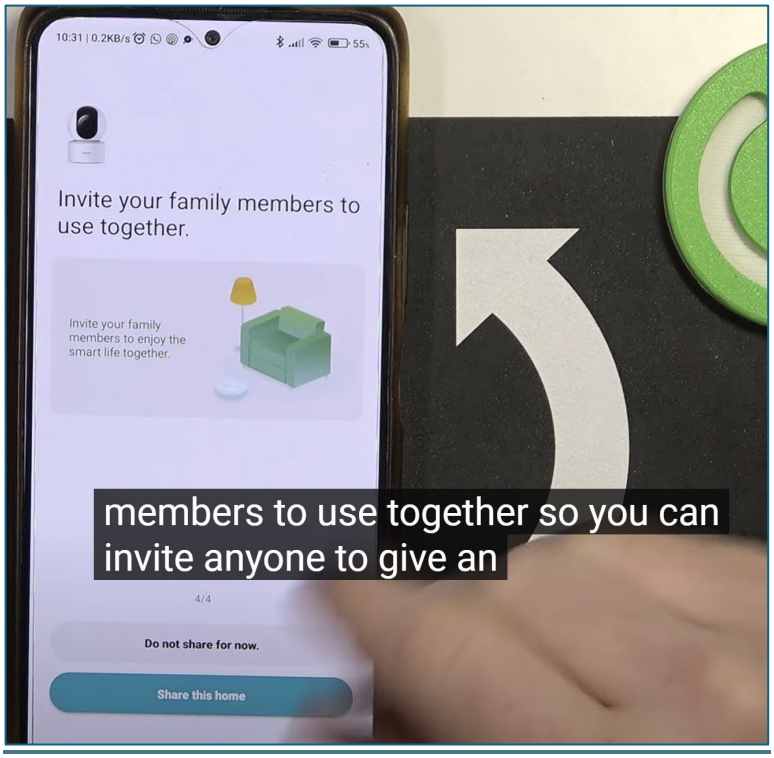
Step 2: Select the camera you want to check these details for. Tap on the three dots in the top-right corner and select the "Additional Settings" option.

Step 3: Within the additional settings menu, locate the "Network Info" option. This is where you'll find information related to the camera's network configuration. Here, you should see the camera's IP address and MAC address listed.

See Xiaomi Smart Camera C500 Pro: How To Check IP Address & MAC Address.



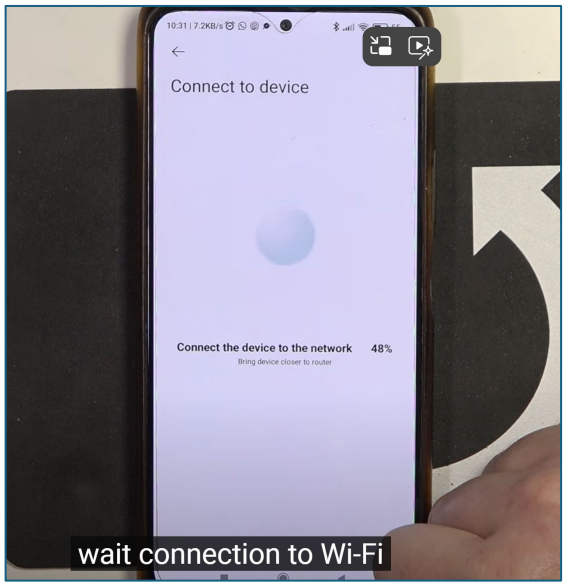
See How to Connect Xiaomi Mi 360 Home Security Camera with Mi Home Application - Complete Guide.



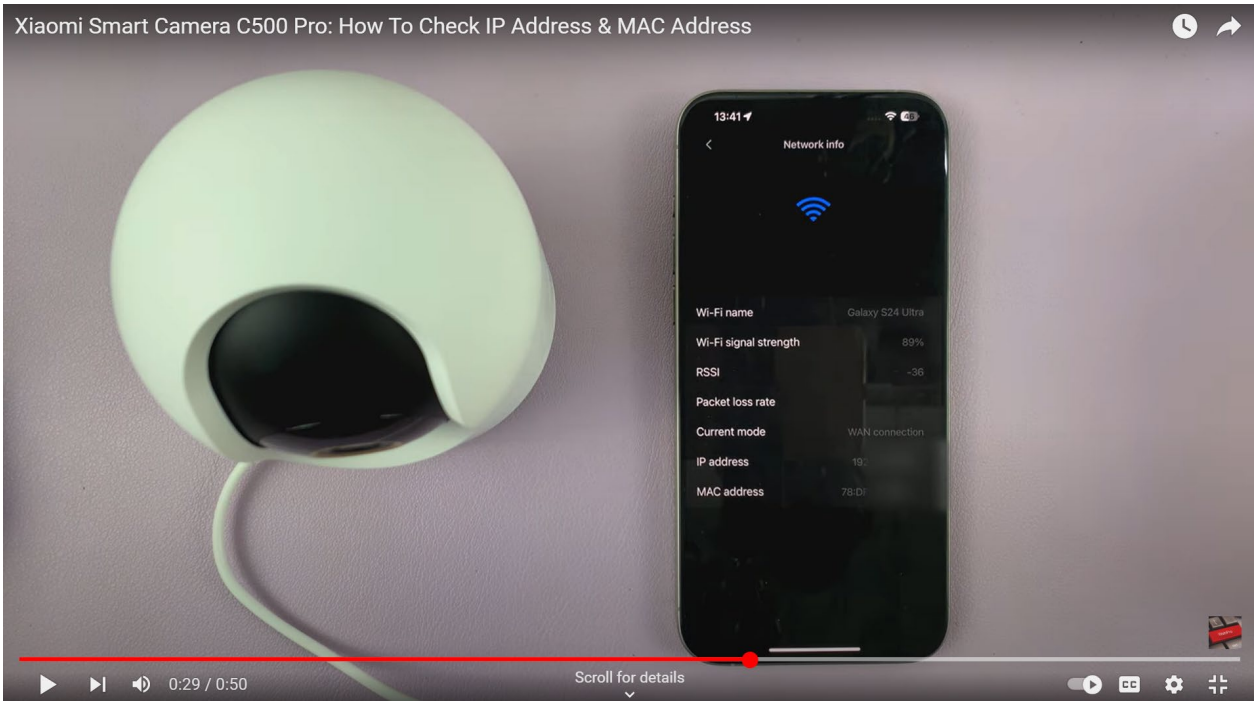
See First Setup & Connecting With App On XIAOMI Smart Camera C200.

103. On information and belief, one or more components of the Xiaomi Products and Services provides a wireless device associated with a unique identifier comprising wherein a configured data package comprises information for the network address for the WiFi network, the configured data package being from a cellular phone in initiating communications that are directed to the wireless device.

See Xiaomi Smart Camera C200 User Manual.



See First Setup & Connecting With App On XIAOMI Smart Camera C200.



See Xiaomi Smart Camera C500 Pro: How To Check IP Address & MAC Address.

104. On information and belief, Xiaomi directly infringes at least claim 1 of the '179 patent in violation of 35 U.S.C. § 271(a) by making, using, selling, selling access to, importing, offering for sale, and/or offering to sell access to the Xiaomi Products and Services.

105. Innovation Sciences has been damaged by Defendants' infringement and has caused / continues to cause it to suffer irreparable harm and damages as a result of the infringement.

Count V – Infringement of United States Patent No. 10,368,125

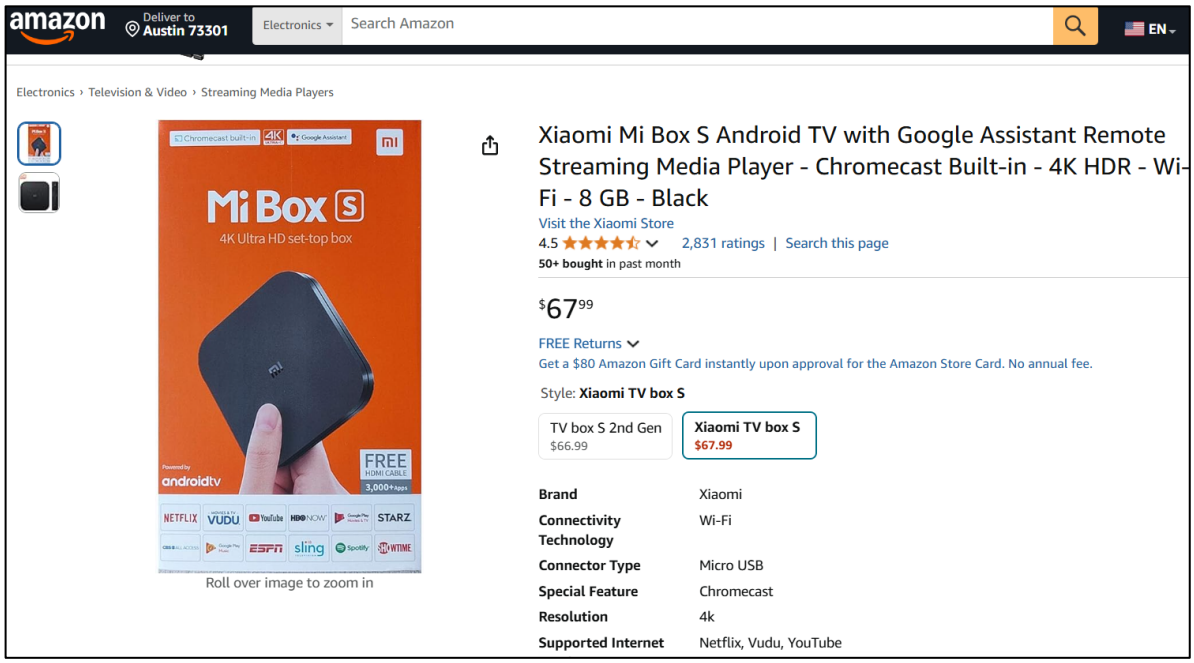
106. Innovation Sciences repeats, realleges, and incorporates by reference, as if fully set forth here, the allegations of the preceding paragraphs above.

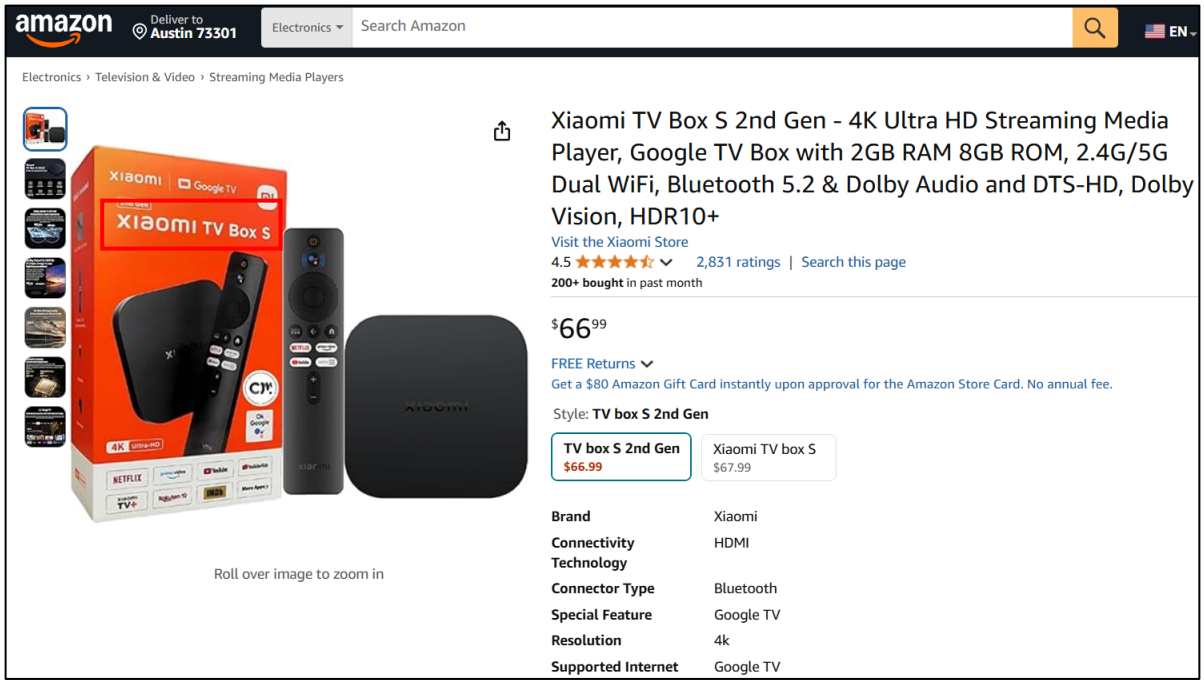
107. On information and belief, Xiaomi violated 35 U.S. C. § 271(a) with respect to one or more claims of the '125 patent.

108. On information and belief, Xiaomi (or those acting on its behalf) (i) makes, uses, sells, sells access to, imports, offers to sell and/or offers to sell access to the Xiaomi Products and Services in

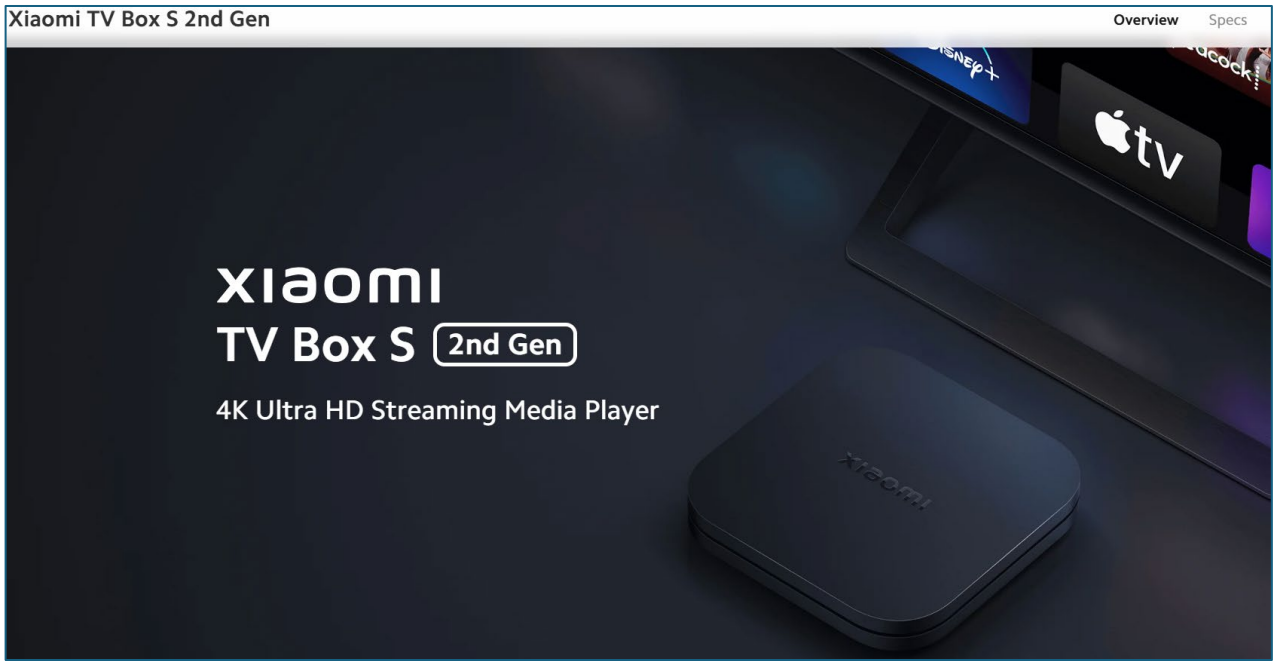
the United States that infringe (literally and/or under the doctrine of equivalents) at least claims 47 and 30 of '125 patent.

109. On information and belief, one or more components of the Xiaomi Products and Services (*e.g.*, Xiaomi TV Box) provides an intelligent wireless HUB system with a device identifier (*e.g.*, MAC address, Serial number, etc.) for communications of various information (*e.g.*, video, audio, text). On information and belief and as shown below, the Xiaomi TV Box comes with a MAC address and/or Serial number, which helps in the communication of various types of information (*e.g.*, video, audio, text, etc.).

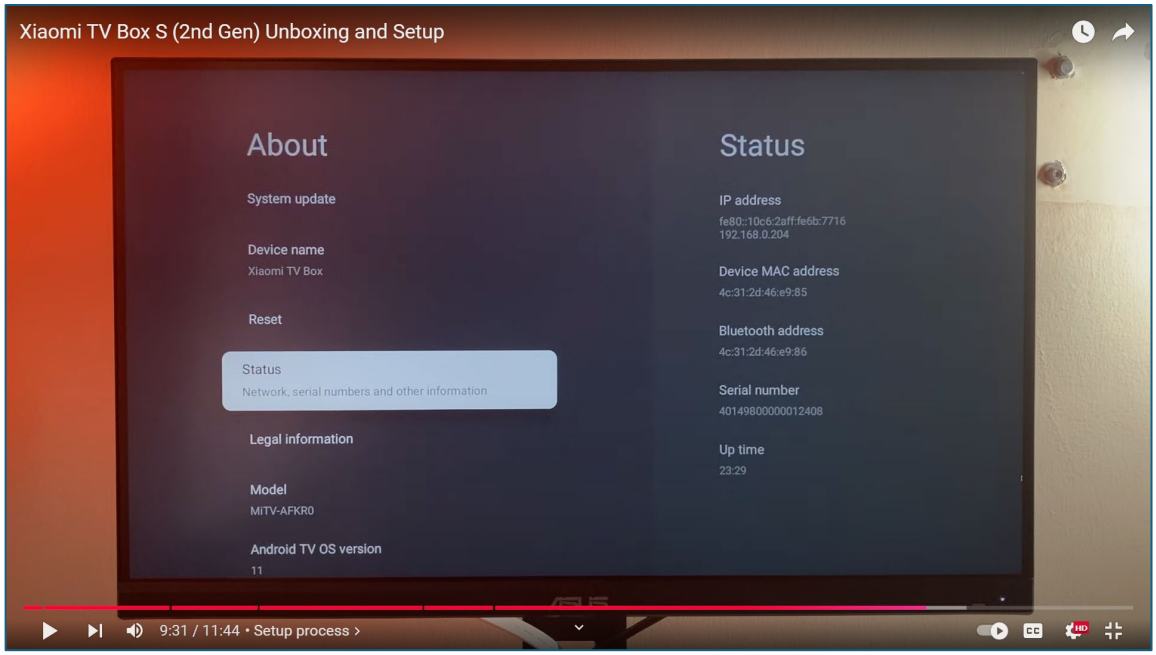




See https://www.amazon.com/Xiaomi-Android-Google-Assistant-Streaming/dp/B0CHWRX597?th=1.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.

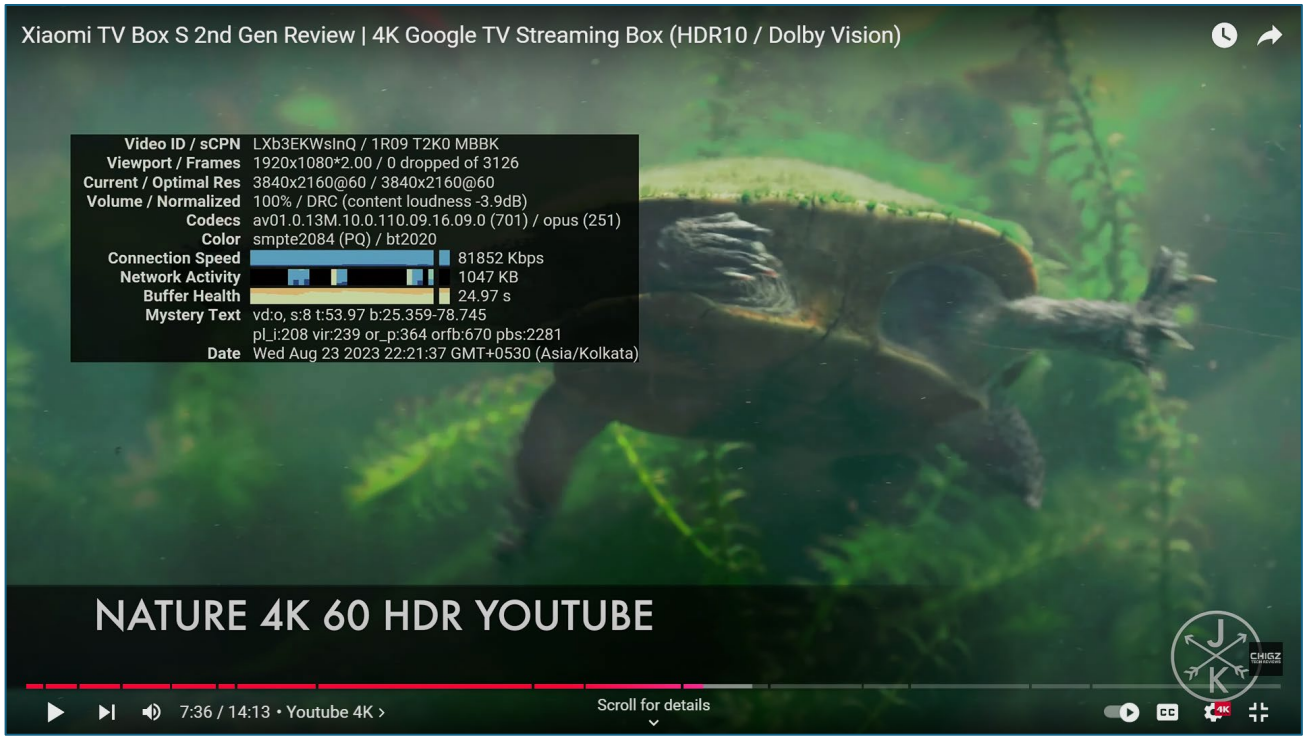


See https://www.youtube.com/watch?v=GfLB1-fwGro.

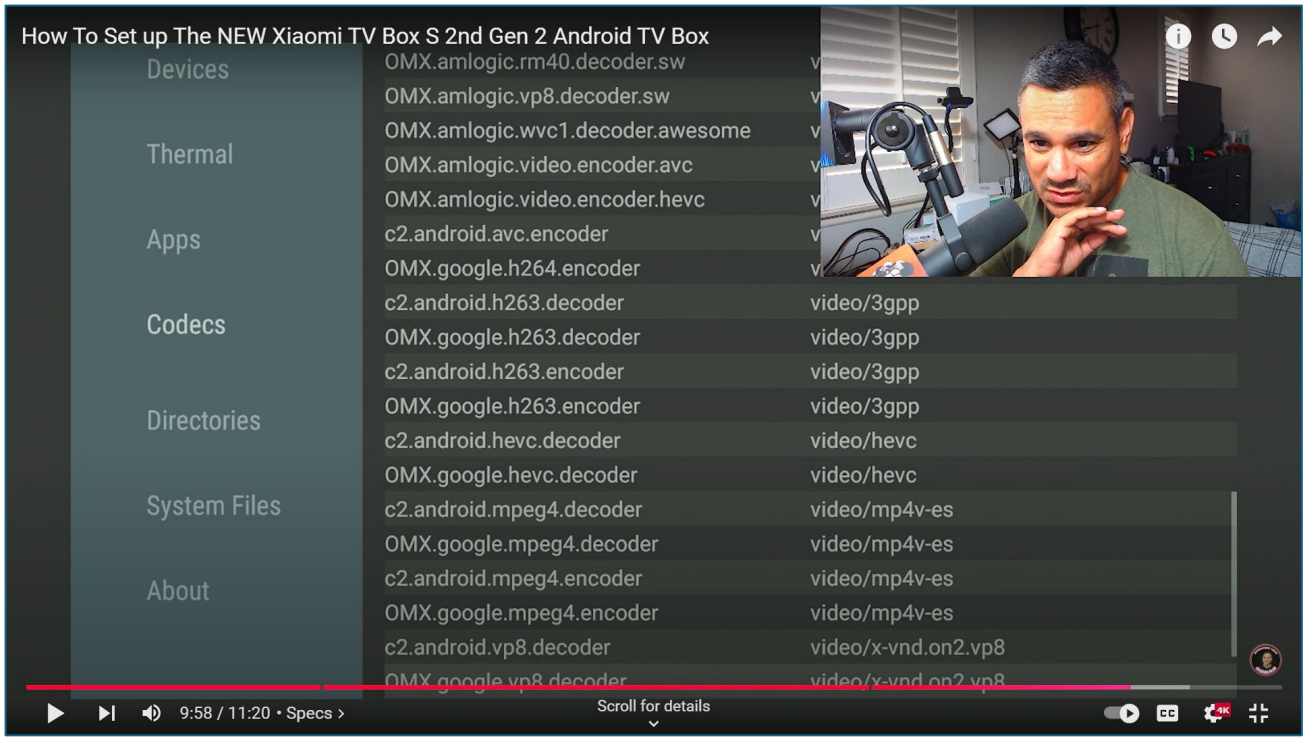
110. On information and belief, one or more components of the Xiaomi Products and Services provides an intelligent wireless HUB system with a device identifier for communications of various information comprising a wireless signal conversion unit (*e.g.*, codec) including a decoder (*e.g.*, OMX.google.hevc.decoder).

Xiaomi TV Box S 2nd Gen		
Wireless connectivity	Wi-Fi:	2.4GHz/ 5GHz
	Bluetooth:	5.2
Decoder	Video decoder:	Up to 4K 60FPS
		Supports Dolby Audio® and DTS-HD
		Supports Dolby Vision®
		Supports HDR10+
	Support language:	Global

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.

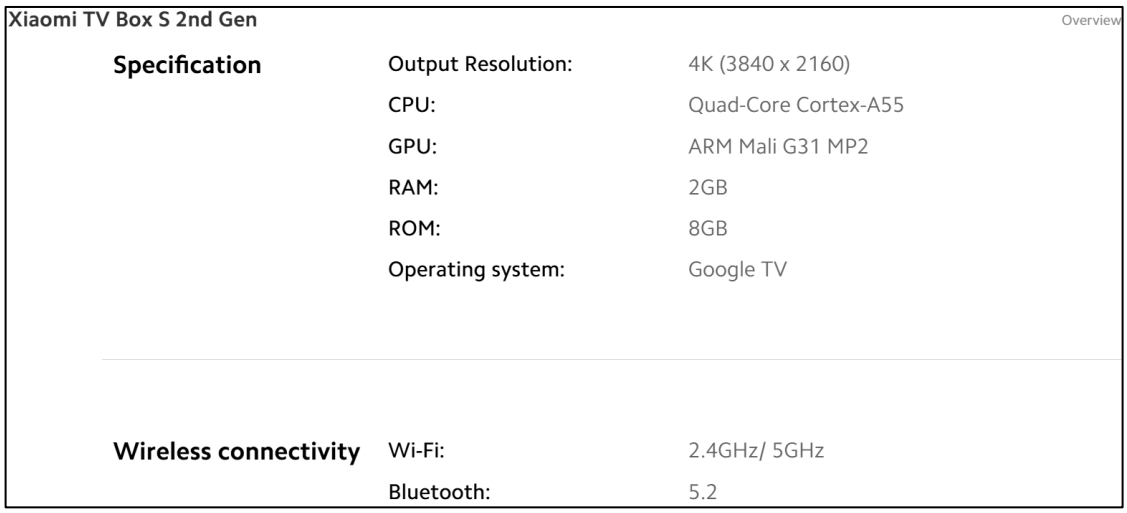


See https://www.youtube.com/watch?v=ht97YiL86o0.



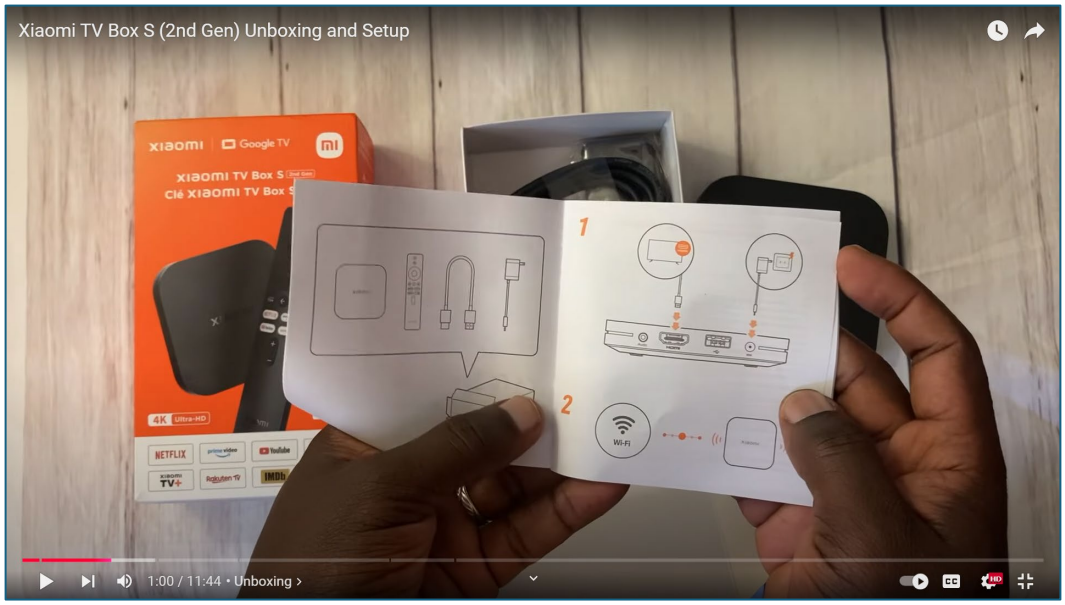
See https://www.youtube.com/watch?v=ul3XvLzMGww.

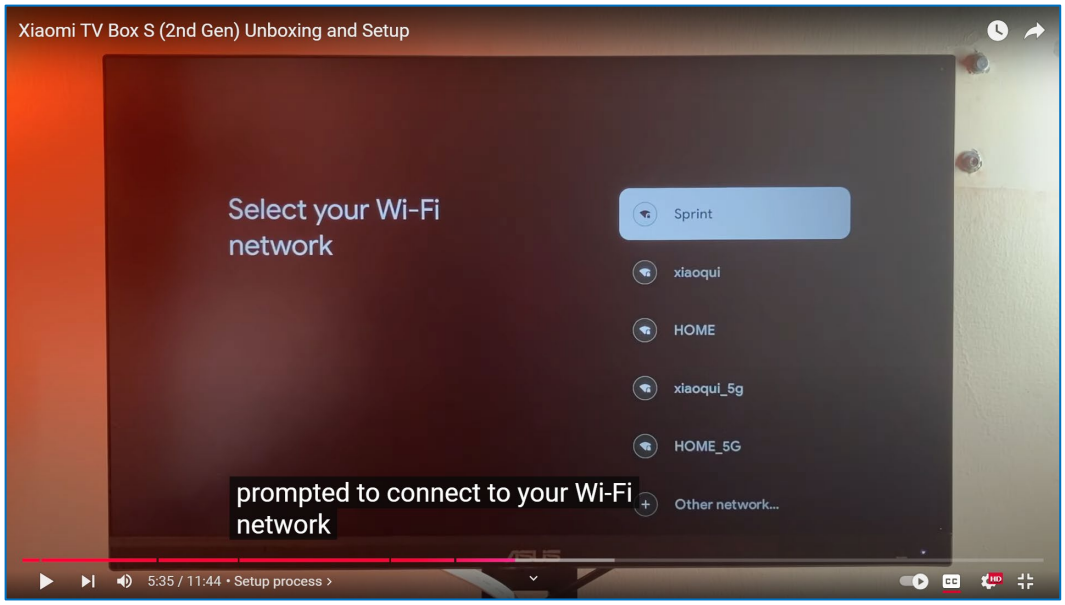
111. On information and belief, one or more components of the Xiaomi Products and Services provides an intelligent wireless HUB system with a device identifier for communications of various information comprising a network interface (*e.g.*, Wi-Fi interface) configured to provide a communication through a network communication channel (*e.g.*, the internet) of a wireless local area network (*e.g.*, Wi-Fi network).

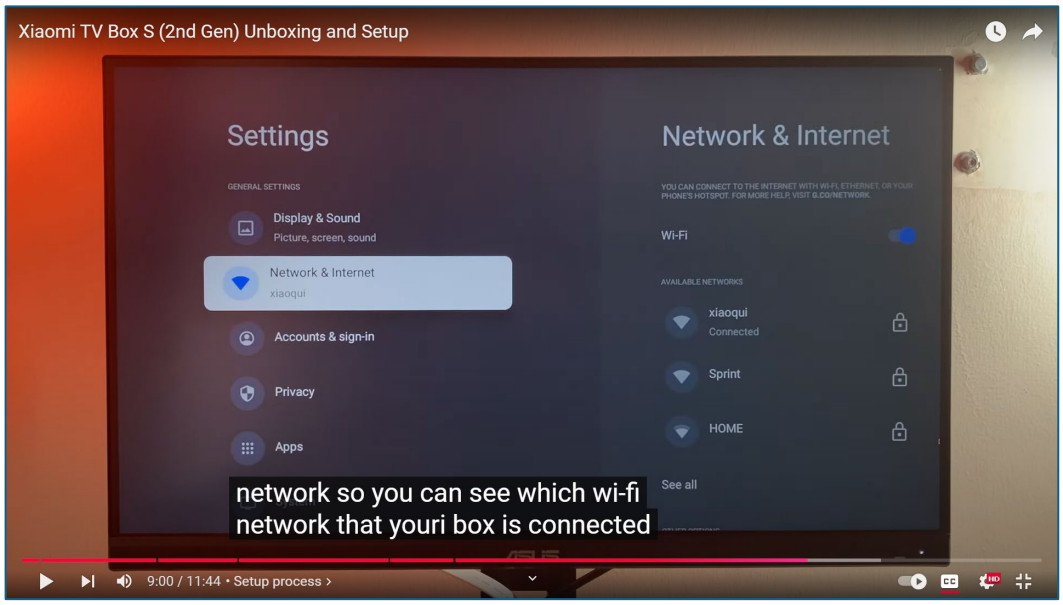


See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.



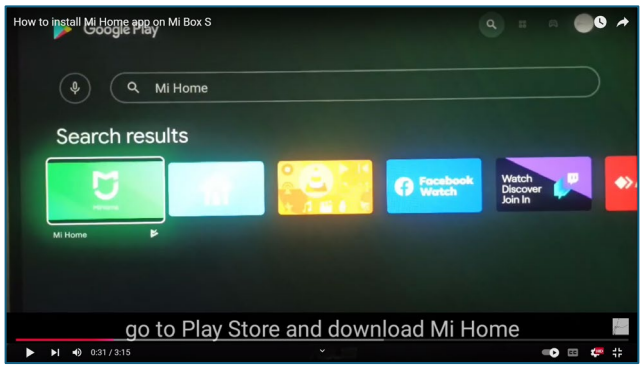


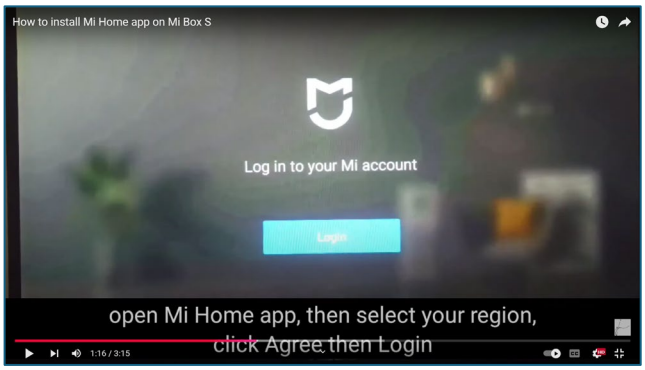


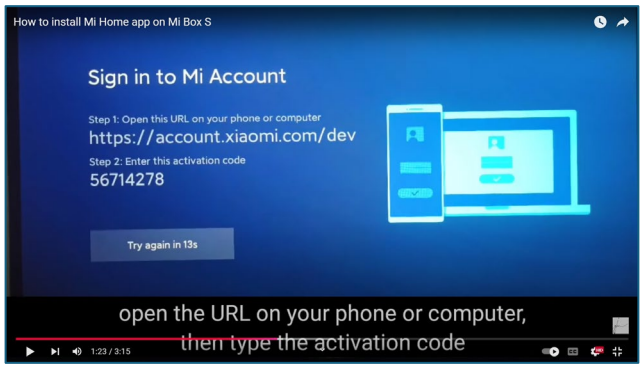
See https://www.youtube.com/watch?v=GfLB1-fwGro.

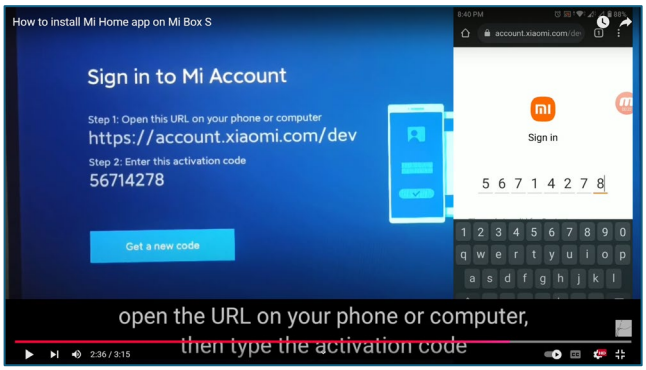
112. On information and belief, one or more components of the Xiaomi Products and Services provides an intelligent wireless HUB system with a device identifier for communications of various information comprising a configuration application (*e.g.*, Mi Home app) configured to provide configured data in initiating communications (*e.g.*, communication with Xiaomi/Mi server) that are directed to the intelligent wireless HUB system (*e.g.*, Xiaomi TV Box), the configured data comprising information corresponding to a network address (*e.g.*, Wi-Fi address) associated with the wireless local

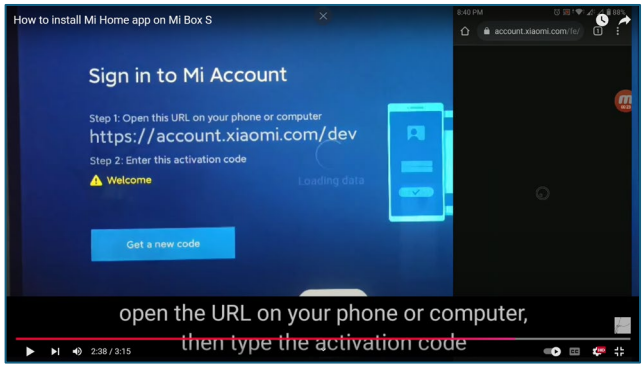
area and information corresponding to the device identifier (*e.g.*, Device ID of Xiaomi TV Box), the network address associated with the wireless local area network stored in association with the device identifier.

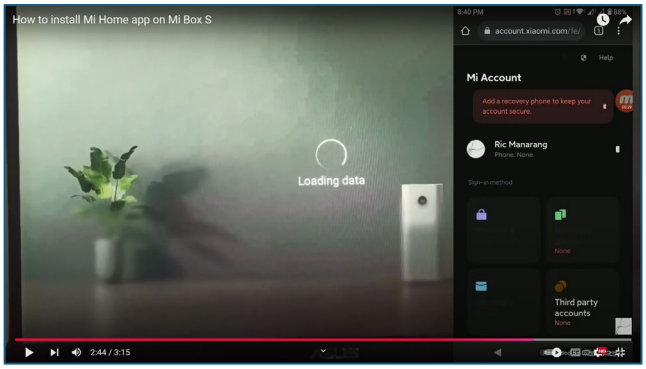






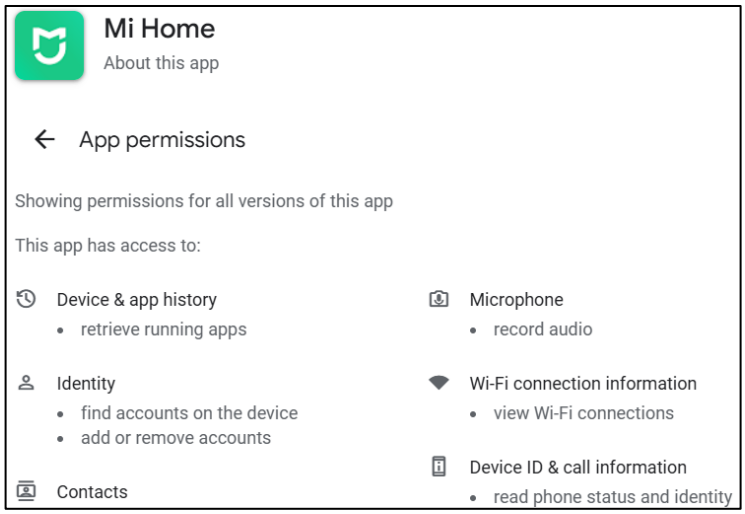






See https://www.youtube.com/watch?v=UPeJSixSS-Q.

See https://www.mi.com/global/support/article/KA-06321/.



See https://play.google.com/store/apps/details?id=com.xiaomi.smarthome.tv.global4.

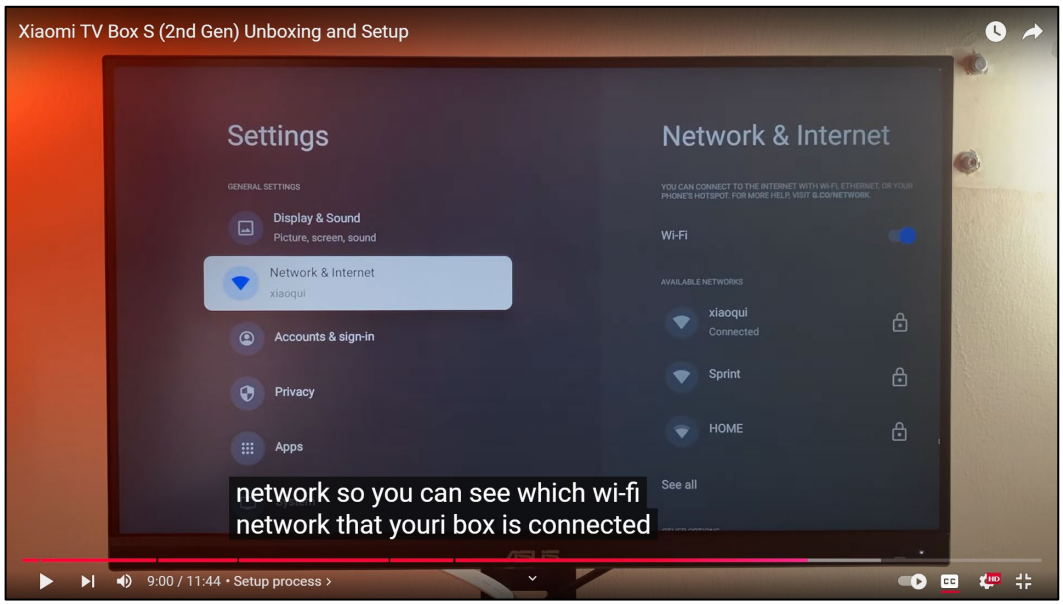
1) Smart Device Connections

In order to provide you with Xiaomi/Mi Home services and to enable you to securely connect to and manage your smart devices, we will collect your Wi-Fi information, location information, account login information, information related to your mobile phone and smart device, and information associated with your Mi Account and smart device.

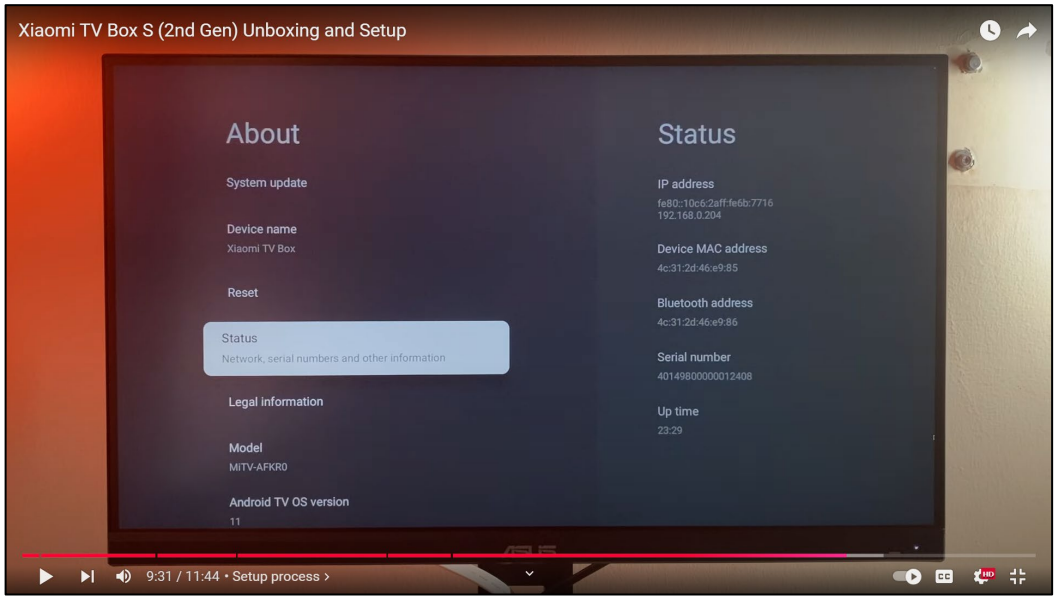
This information will be used to provide you with various functionalities, including pairing with and connecting to smart devices, discovering nearby devices, and device management. Specific examples involving the above information are set out below:

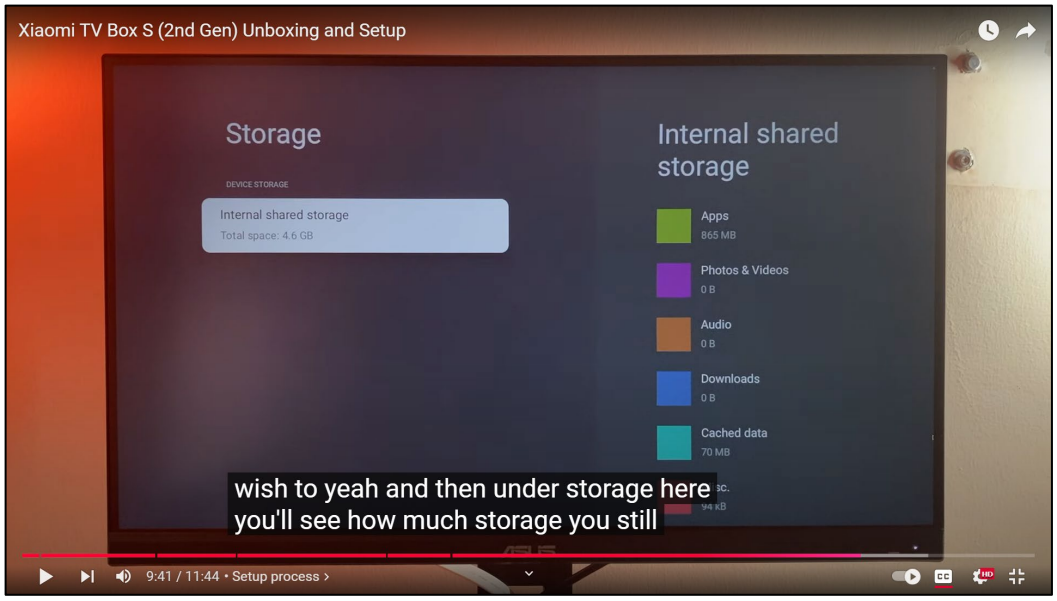
- Smart devices connected via Wi-Fi: Wi-Fi Information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and device ID.
- After establishing a local connection via Bluetooth, smart devices connected via Wi-Fi: Wi-Fi information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and MAC address of Bluetooth on the device.
- Smart devices connected via Bluetooth: MAC address of Bluetooth on the device, and device ID.
- Smart devices connected via Zigbee: MAC address of the device, and device ID.

See https://www.youtube.com/watch?v=GfLB1-fwGrohttps://trust.mi.com/docs/iot-privacy-white-paper-global/3/6.



See https://www.youtube.com/watch?v=GfLB1-fwGro.





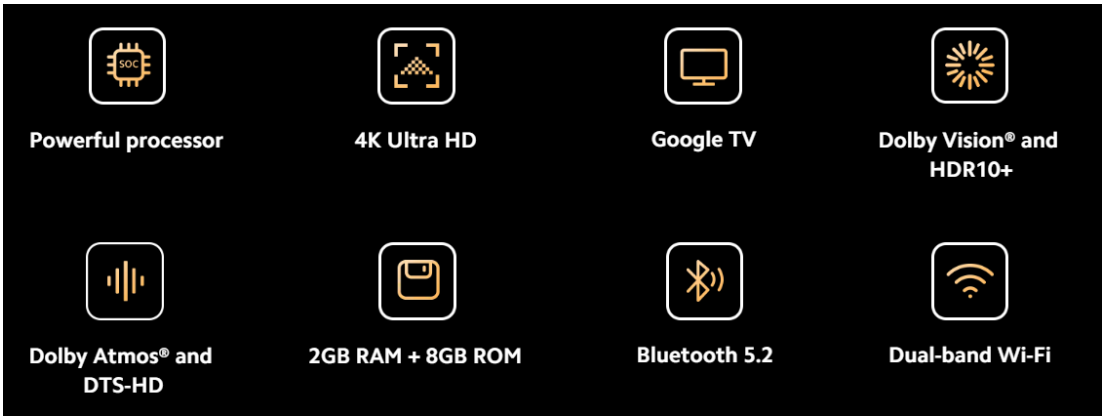
See https://www.youtube.com/watch?v=GfLB1-fwGro.

113. On information and belief, one or more components of the Xiaomi Products and Services provides an intelligent wireless HUB system with a device identifier for communications of various information comprising wherein the intelligent wireless HUB system (*e.g.*, Xiaomi TV Box) is configured to receive a wireless signal through the network communication channel (*e.g.*, Wi-Fi). On information and belief and as shown below, the Xiaomi TV Box includes a Dual Band Wi-Fi (2.4GHz/5GHz) used to stream video content on a television.

Xiaomi TV Box S 2nd Gen — Overview

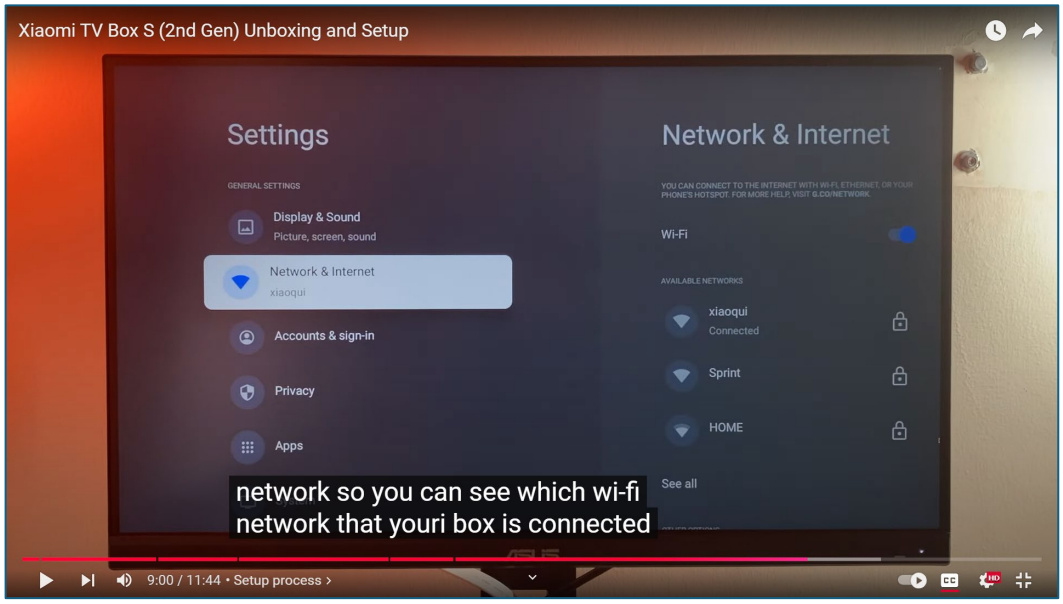
Specification	Output Resolution:	4K (3840 x 2160)
	CPU:	Quad-Core Cortex-A55
	GPU:	ARM Mali G31 MP2
	RAM:	2GB
	ROM:	8GB
	Operating system:	Google TV
Wireless connectivity	Wi-Fi:	2.4GHz/ 5GHz
	Bluetooth:	5.2

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.

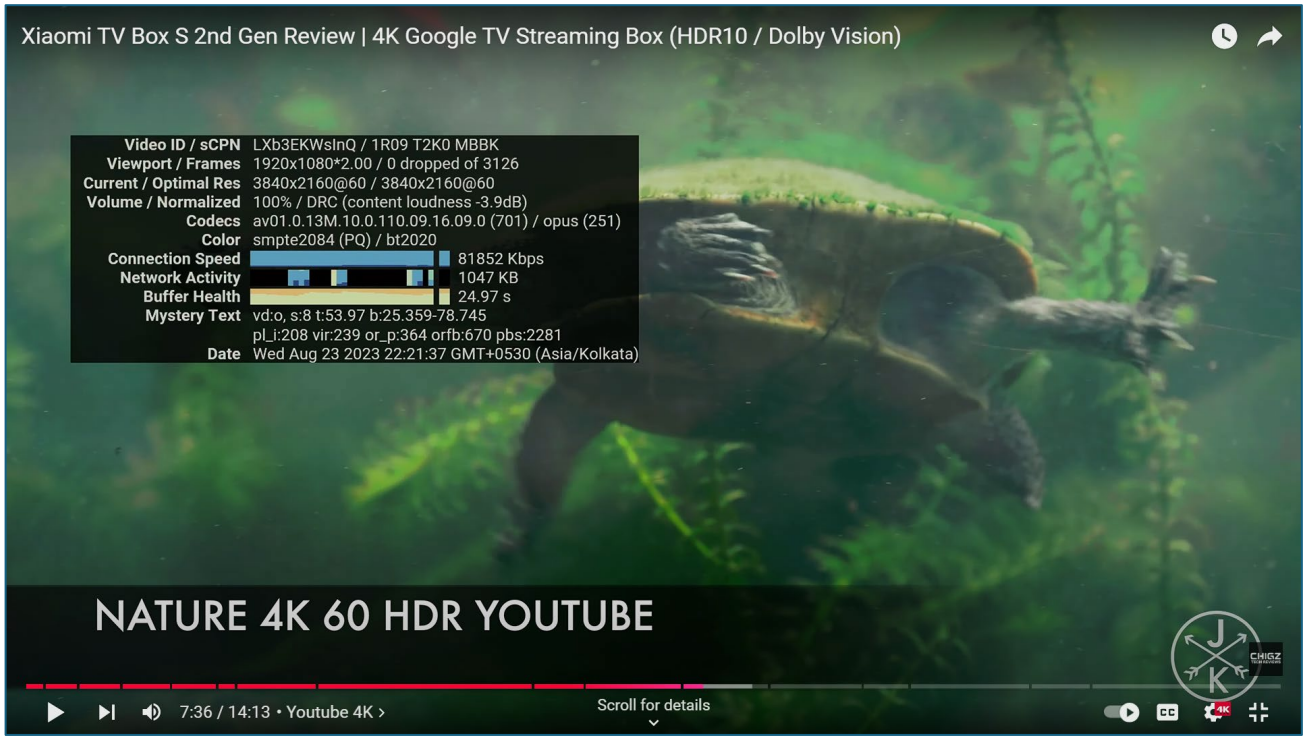


See https://www.mi.com/global/product/xiaomi-tv-box-s-2nd-gen/specs.

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.



See https://www.youtube.com/watch?v=GfLB1-fwGro.



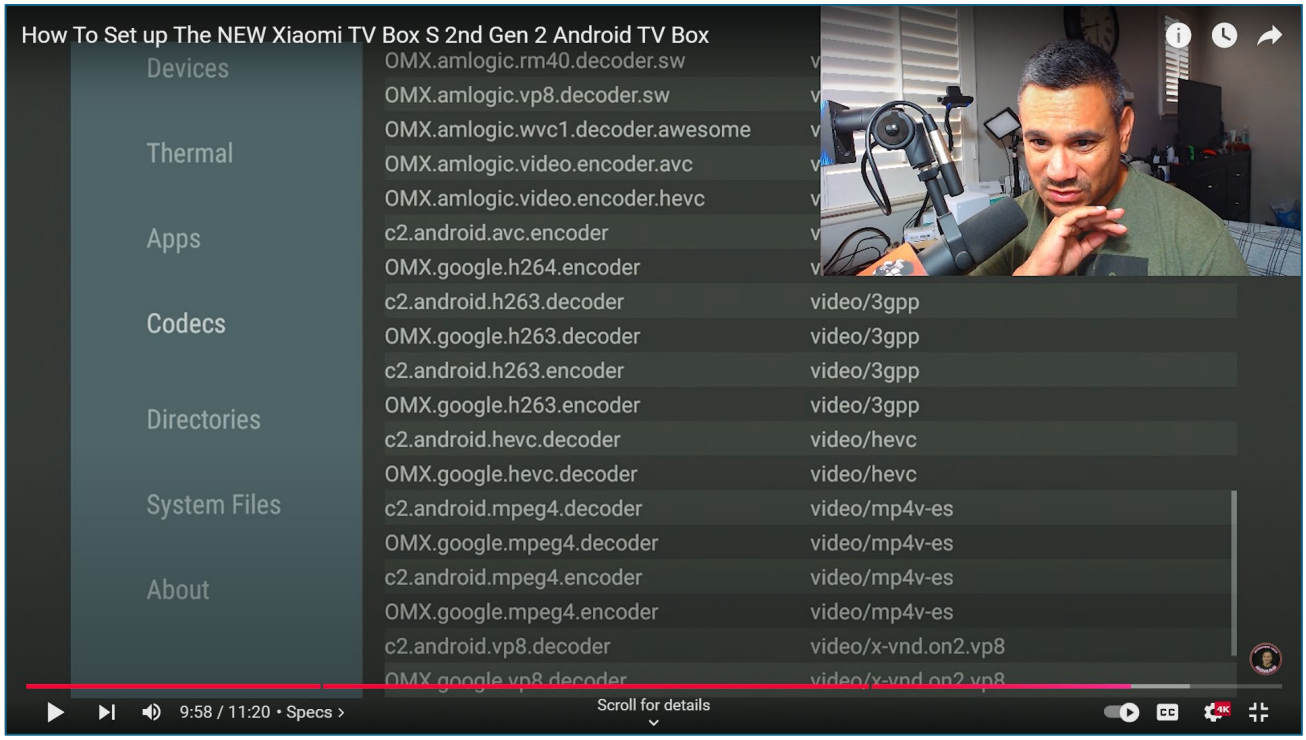
See https://www.youtube.com/watch?v=ht97YiL86o0.

114. On information and belief, one or more components of the Xiaomi Products and Services provides an intelligent wireless HUB system with a device identifier for communications of various information comprising wherein the wireless signal conversion unit (*e.g.*, codec) is configured to perform a conversion of the wireless signal to accommodate production of a corresponding information content (*e.g.*, the streamed video content), the wireless signal comprising a compressed signal (*e.g.*, HEVC, H.264, MPEG-4, etc.), the conversion comprising decompressing the compressed signal (*e.g.*, OMX.google.hevc.decoder).

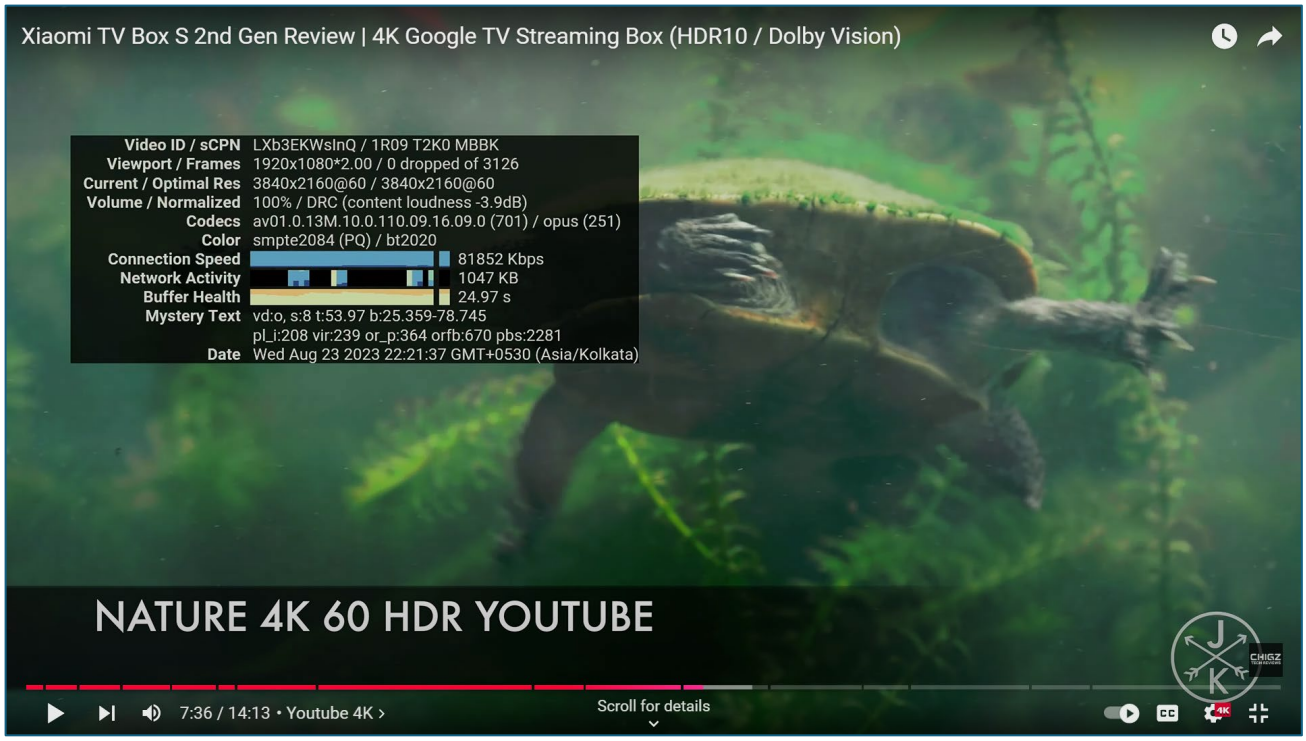
Xiaomi TV Box S 2nd Gen

Wireless connectivity	Wi-Fi:	2.4GHz/ 5GHz
	Bluetooth:	5.2
Decoder	Video decoder:	Up to 4K 60FPS
		Supports Dolby Audio® and DTS-HD
		Supports Dolby Vision®
		Supports HDR10+
	Support language:	Global

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.



See https://www.youtube.com/watch?v=ul3XvLzMGww.

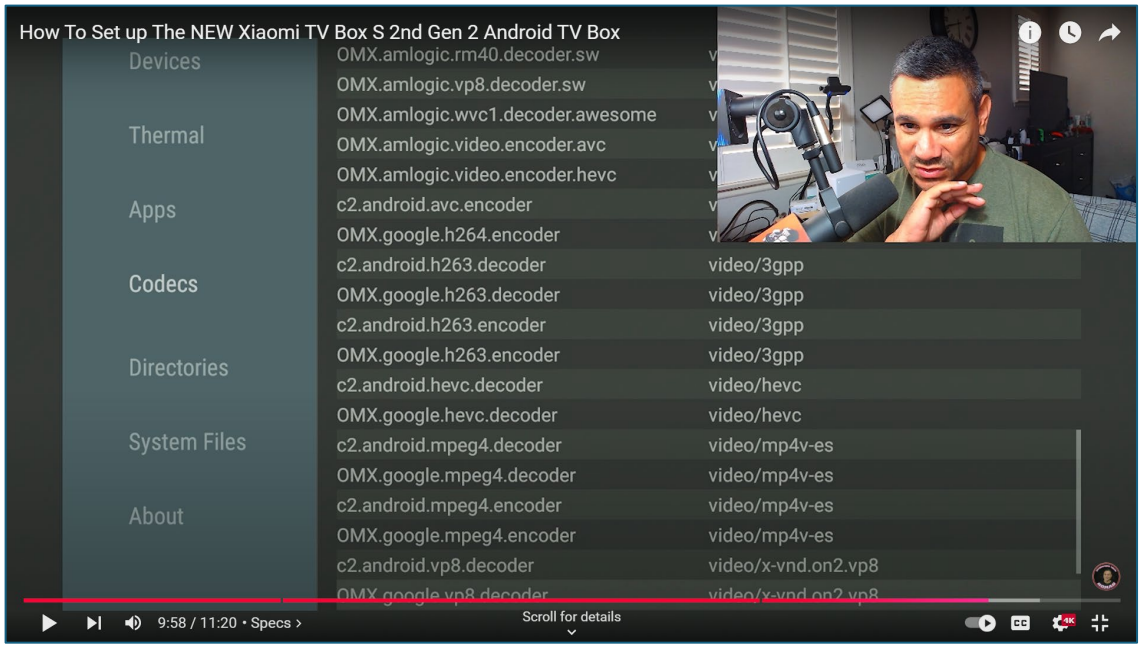


See https://www.youtube.com/watch?v=ht97YiL86o0.

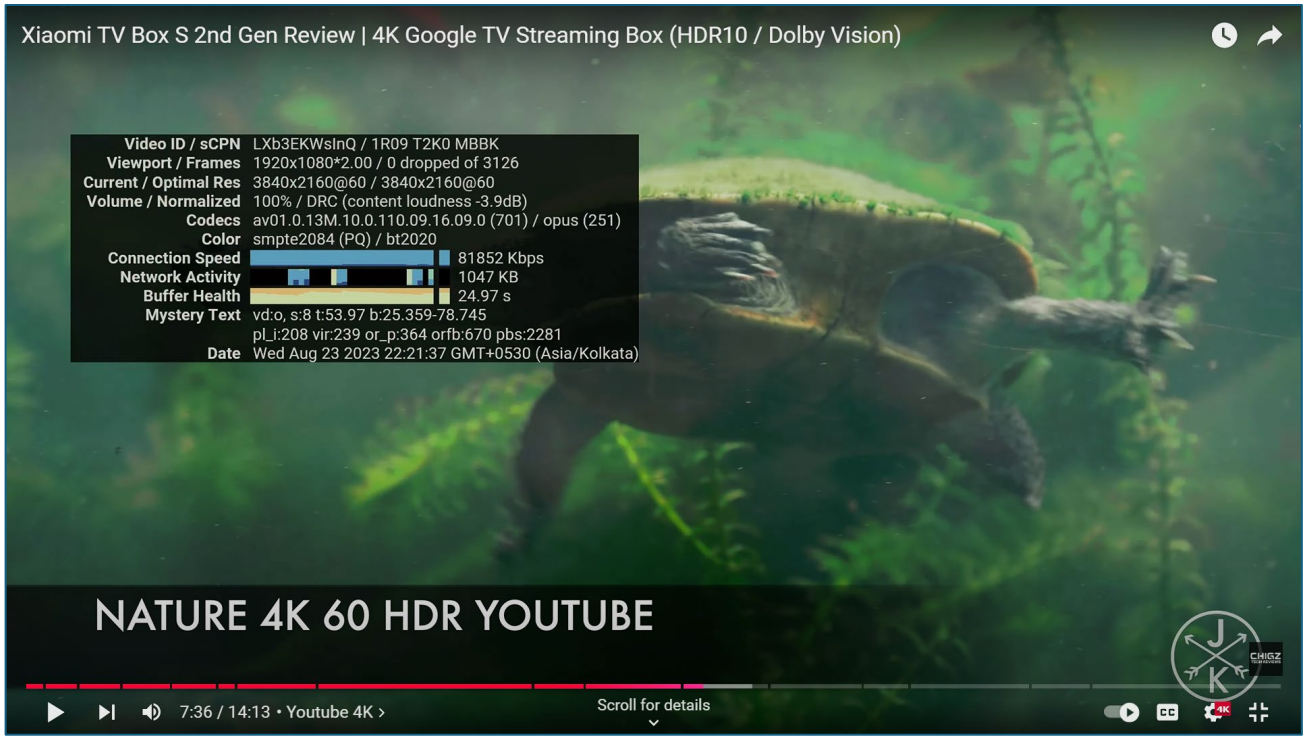
115. On information and belief, one or more components of the Xiaomi Products and Services provides an intelligent wireless HUB system with a device identifier for communications of various information comprising wherein the decoder is configured to decompress the compressed signal.

Decoder	Video decoder:	Up to 4K 60FPS Supports Dolby Audio® and DTS-HD Supports Dolby Vision® Supports HDR10+
	Support language:	Global

See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.



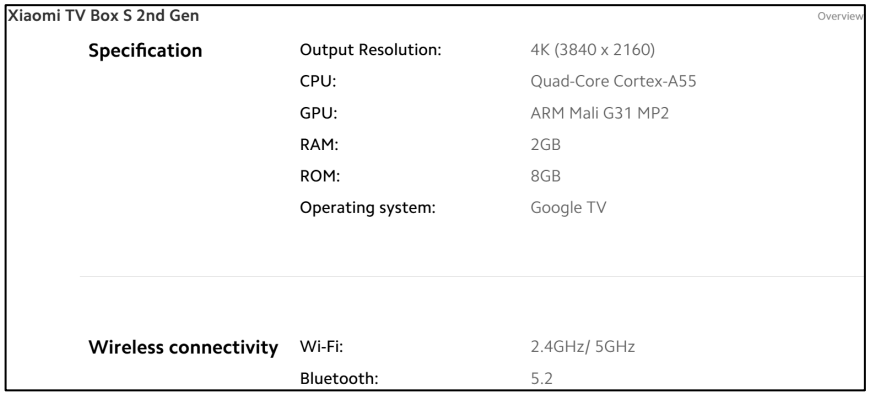
See https://www.youtube.com/watch?v=ul3XvLzMGww.



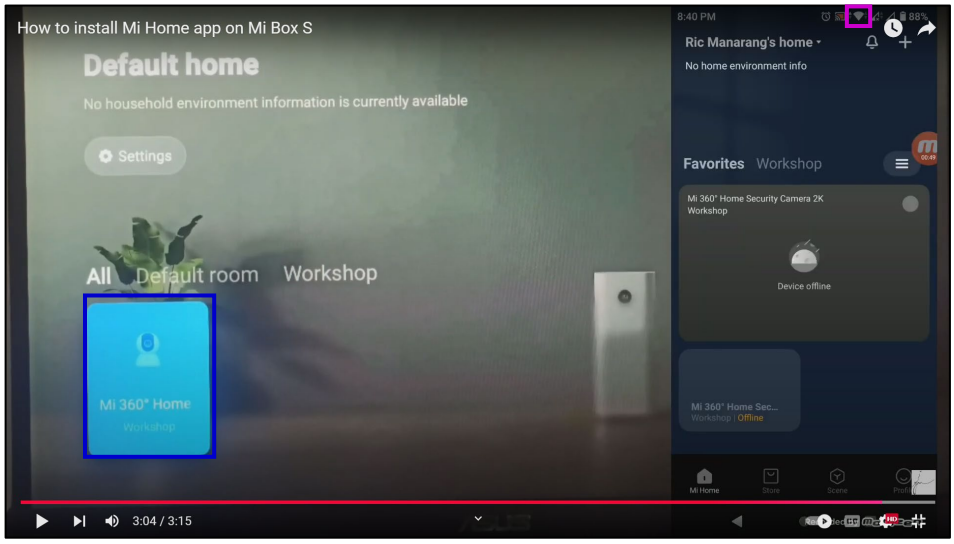
See https://www.youtube.com/watch?v=ht97YiL86o0.

116. On information and belief, one or more components of the Xiaomi Products and Services provides an intelligent wireless HUB system with a device identifier for communications of various information comprising wherein the intelligent wireless HUB system (*e.g.*, Xiaomi TV Box) is

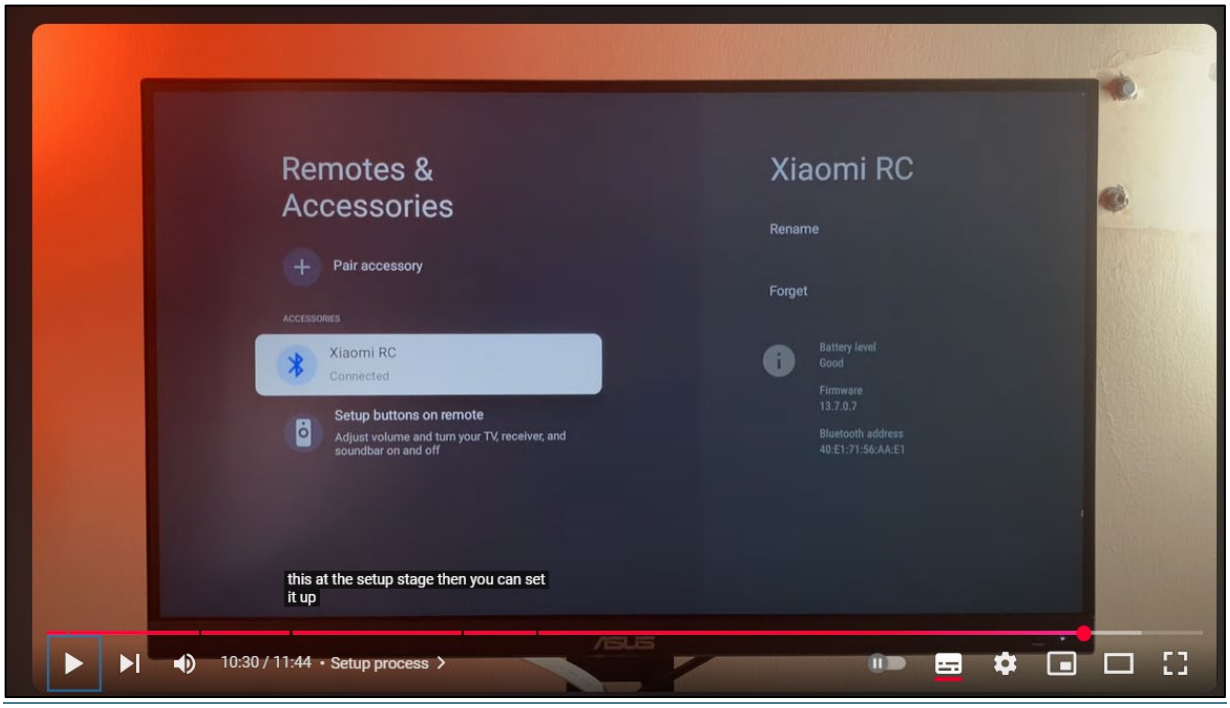
further configured to communicate, through the network communication channel (*e.g.*, Wi-Fi), information regarding an updated status (*e.g.*, online/offline status of the device, battery level, etc.) about a home device or an office device (*e.g.*, Mi RC, Mi camera) in connection with a short range wireless communication (*e.g.*, Bluetooth) from a sensing device (*e.g.*, sensing component that senses battery status or online/offline status for transmission), the sensing device being associated with the home device or the other device.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.



See https://www.youtube.com/watch?v=UPeJSixSS-Q.



See https://www.youtube.com/watch?v=GfLB1-fwGro.

1) Smart Device Connections

In order to provide you with Xiaomi/Mi Home services and to enable you to securely connect to and manage your smart devices, we will collect your Wi-Fi information, location information, account login information, information related to your mobile phone and smart device, and information associated with your Mi Account and smart device.

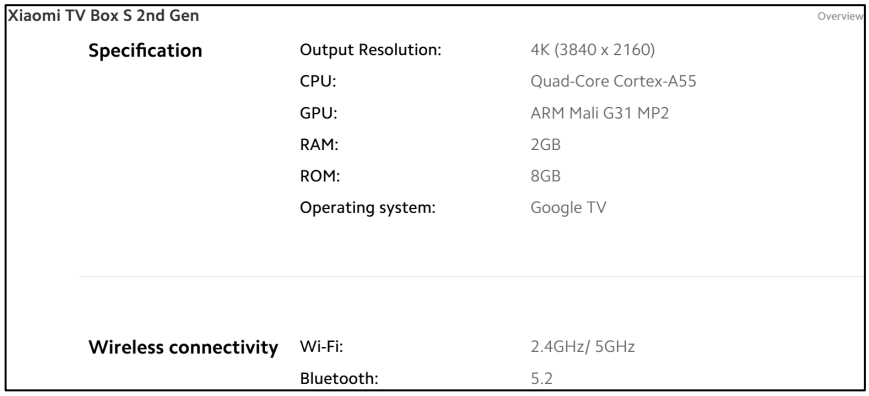
This information will be used to provide you with various functionalities, including pairing with and connecting to smart devices, discovering nearby devices, and device management. Specific examples involving the above information are set out below:

- Account Login Information: Mi Account (the account ID may be the Xiaomi ID, phone number or email address), nickname, and profile picture information, as well as cookies (including Mi Account, serviceToken, country code, app store channel, and time zone) to log in to your account.
- Mobile Phone related Information: Hardware-based identifiers (MAC address, Android ID), phone model, OS version, OS language, country or region, app store version, screen size and resolution, CPU, and display device related information. Based on the type of smart device you wish to connect to, we will collect the following information:
    - Smart devices connected via Wi-Fi: Wi-Fi Information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and device ID.
    - After establishing a local connection via Bluetooth, smart devices connected via Wi-Fi: Wi-Fi information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and MAC address of Bluetooth on the device.
    - Smart devices connected via Bluetooth: MAC address of Bluetooth on the device, and device ID.
    - Smart devices connected via Zigbee: MAC address of the device, and device ID.

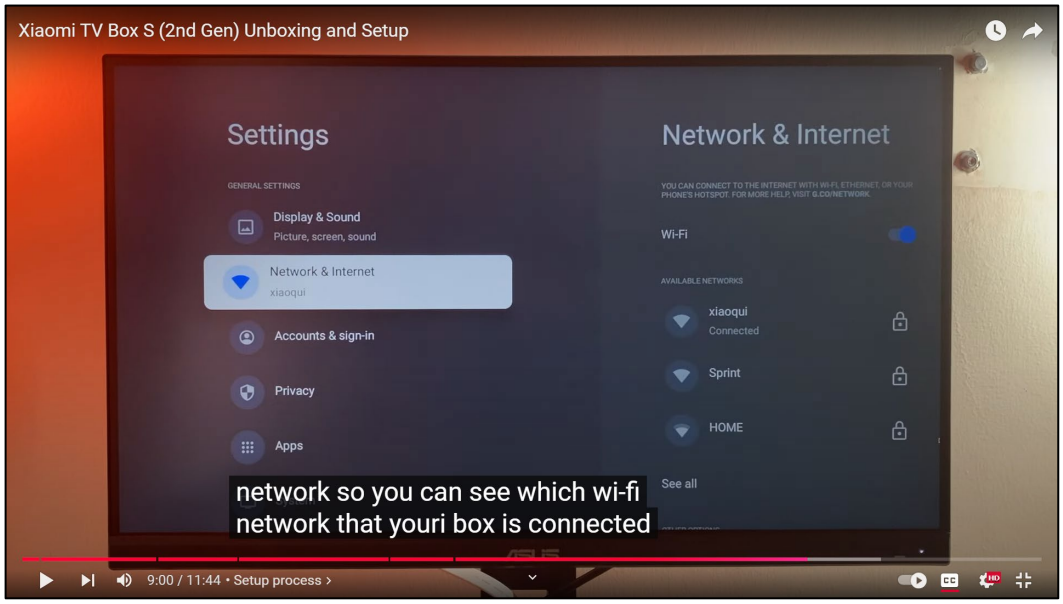
See https://trust.mi.com/docs/iot-privacy-white-paper-global/3/6.

117. On information and belief, one or more components of the Xiaomi Products and Services provides an intelligent wireless HUB system with a device identifier for communications of various information comprising wherein the network communication channel (*e.g.*, Wi-Fi) is separate from short range wireless channel for the short range wireless communication (*e.g.*, Bluetooth).

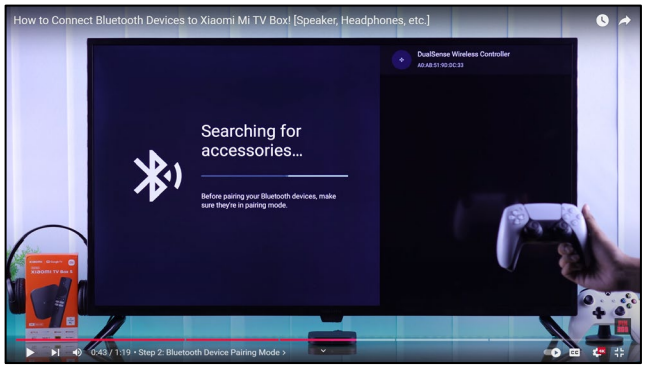
wireless channel for the short range wireless communication (*e.g.,* Bluetooth).

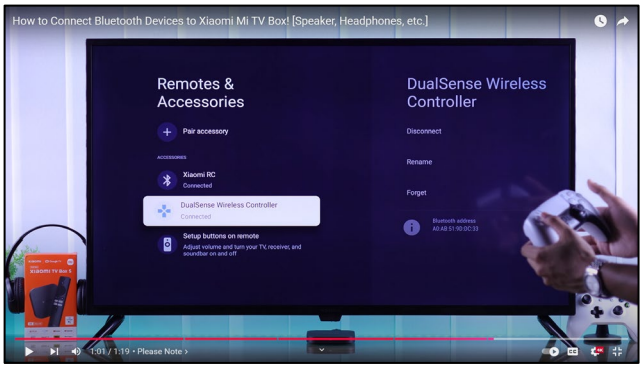


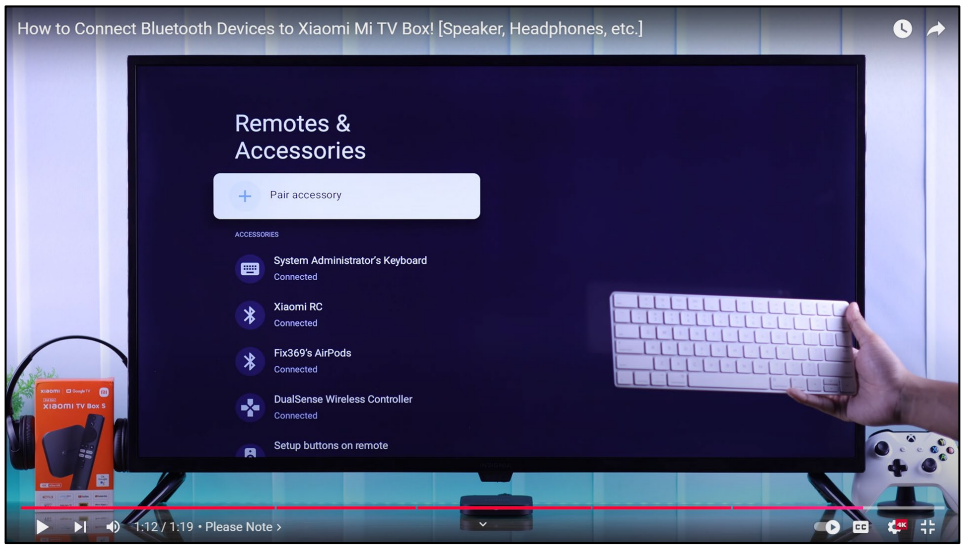
See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.



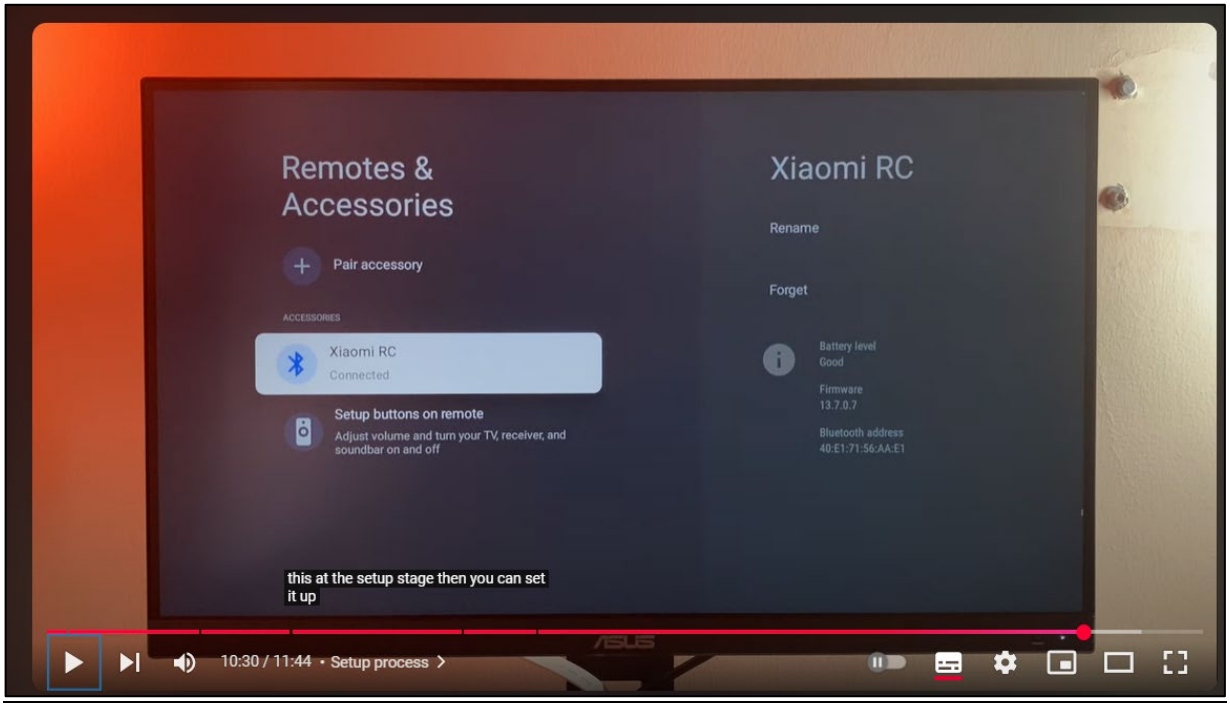
See https://www.youtube.com/watch?v=GfLB1-fwGro.





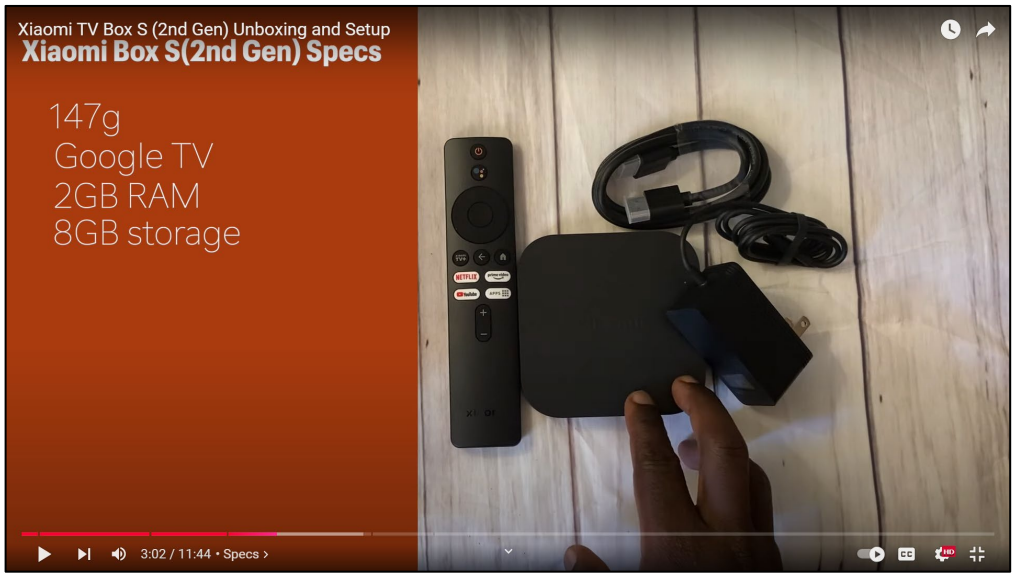


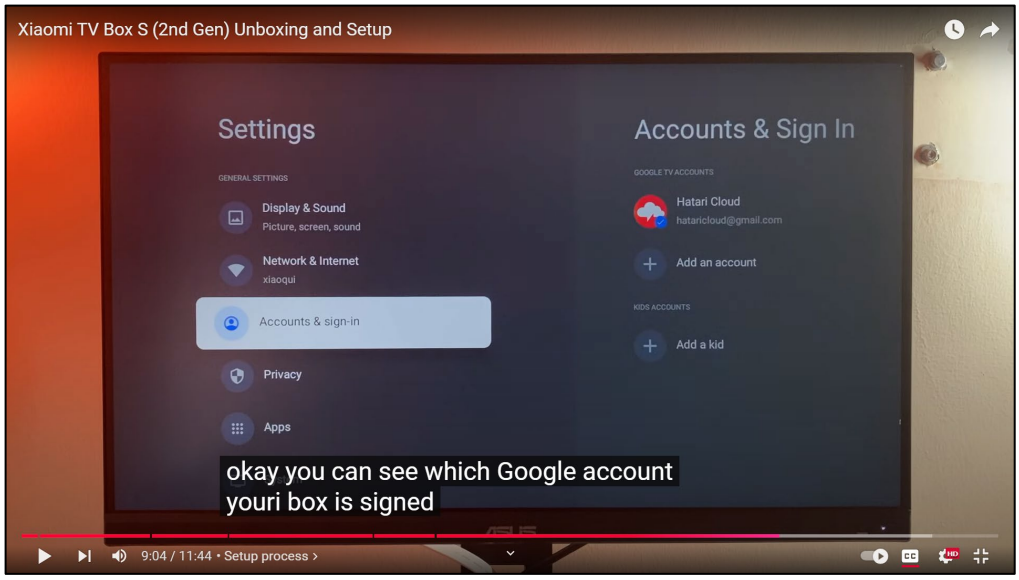
See https://www.youtube.com/watch?v=4ZEDTfqUTTQ.

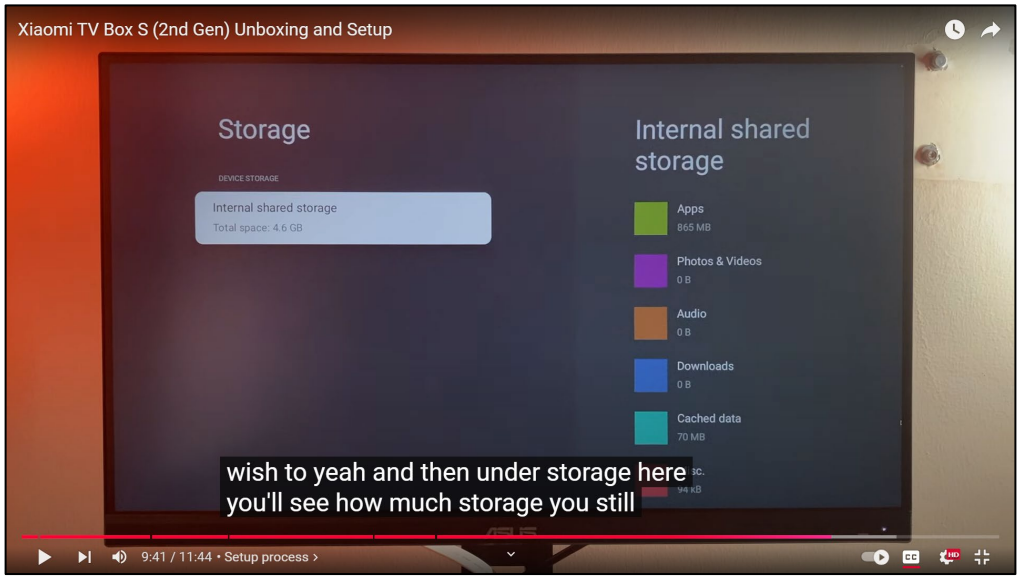


See https://www.youtube.com/watch?v=GfLB1-fwGro.

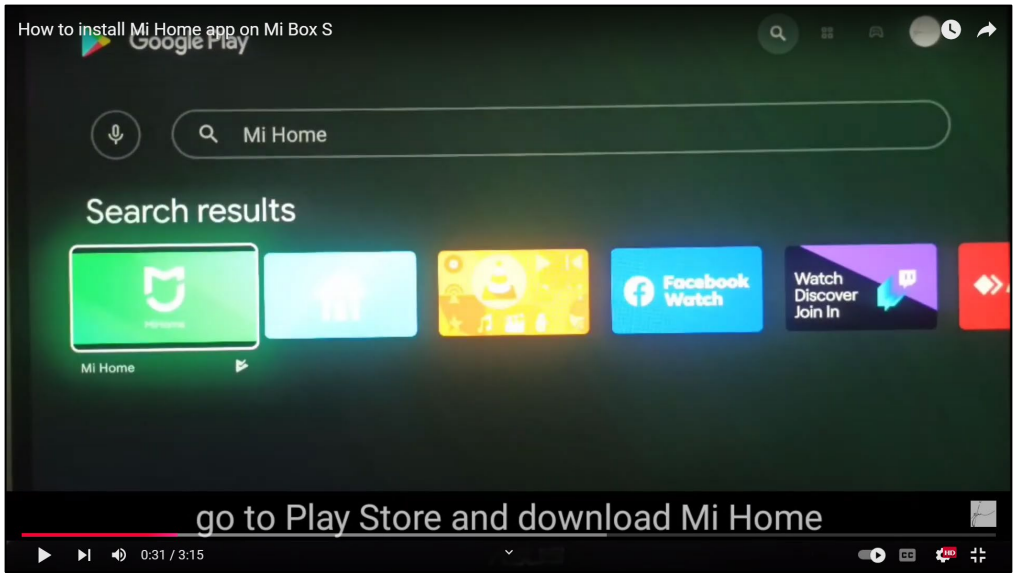
118. On information and belief, one or more components of the Xiaomi Products and Services provides an intelligent wireless HUB system with a device identifier for communications of various information comprising wherein the device identifier corresponding to the intelligent wireless HUB system is stored in association with a user account (*e.g.*, email/Mi account), identification information associated with the sensing device stored (*e.g.*, a status sensing device associated with a home or work device like a game controller, speakers, camera, etc.) in association with a unique phone identifier (*e.g.*, phone number, phone model, MAC address, serial number, name given by user, etc.) of a cellular phone in the user account.

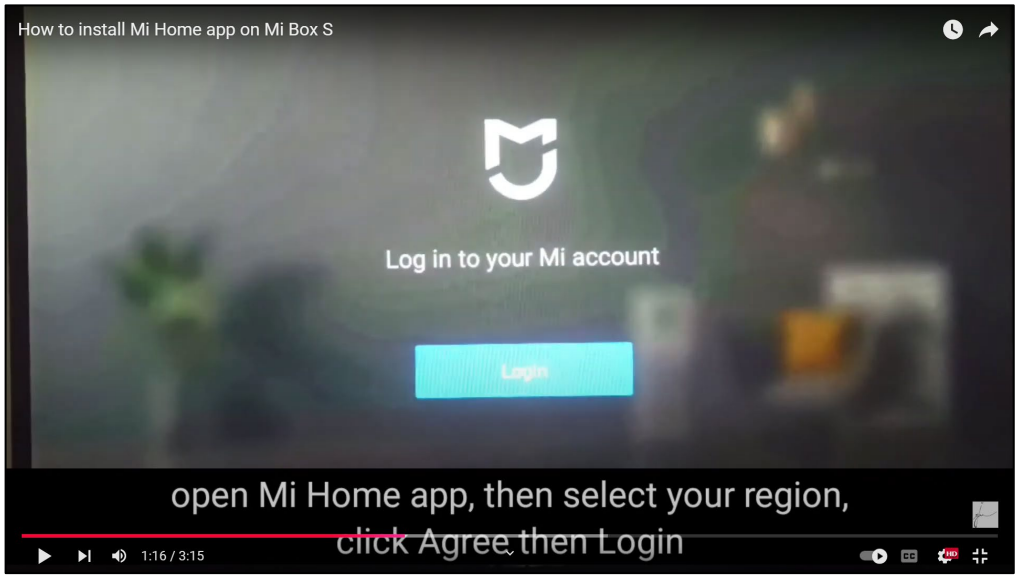






See https://www.youtube.com/watch?v=GfLB1-fwGro.





See https://www.youtube.com/watch?v=UPeJSixSS-Q.

Appendix 6: Data Inventory for Xiaomi/Mi Home

Type	Type of Data	Identification Qualifier	Purpose	Data Transmission Encryption Measures	Data Storage Encryption Measures

Identifiers	Mi Account ID	Identified	App Functionality Device Functionality	**App ⇌ Cloud** HTTPS	**App & Cloud** No Encryption
	MAC	Identified	App Functionality Device Functionality	**Device ⇌ Cloud** HTTPS **App ⇌ Cloud** HTTPS	**App & Cloud** No Encryption
	Android ID	Identified	App Functionality Device Functionality	**App ⇌ Cloud** HTTPS	**Cloud** AES-128
	Facebook ID	Identified	App Functionality Device Functionality	**App ⇌ Cloud** HTTPS	**Cloud** AES-128
	Device ID	Identified	App Functionality Device Functionality	**Device ⇌ Cloud** HTTPS **App ⇌ Cloud** HTTPS	**Device** No Encryption **Cloud** AES-128

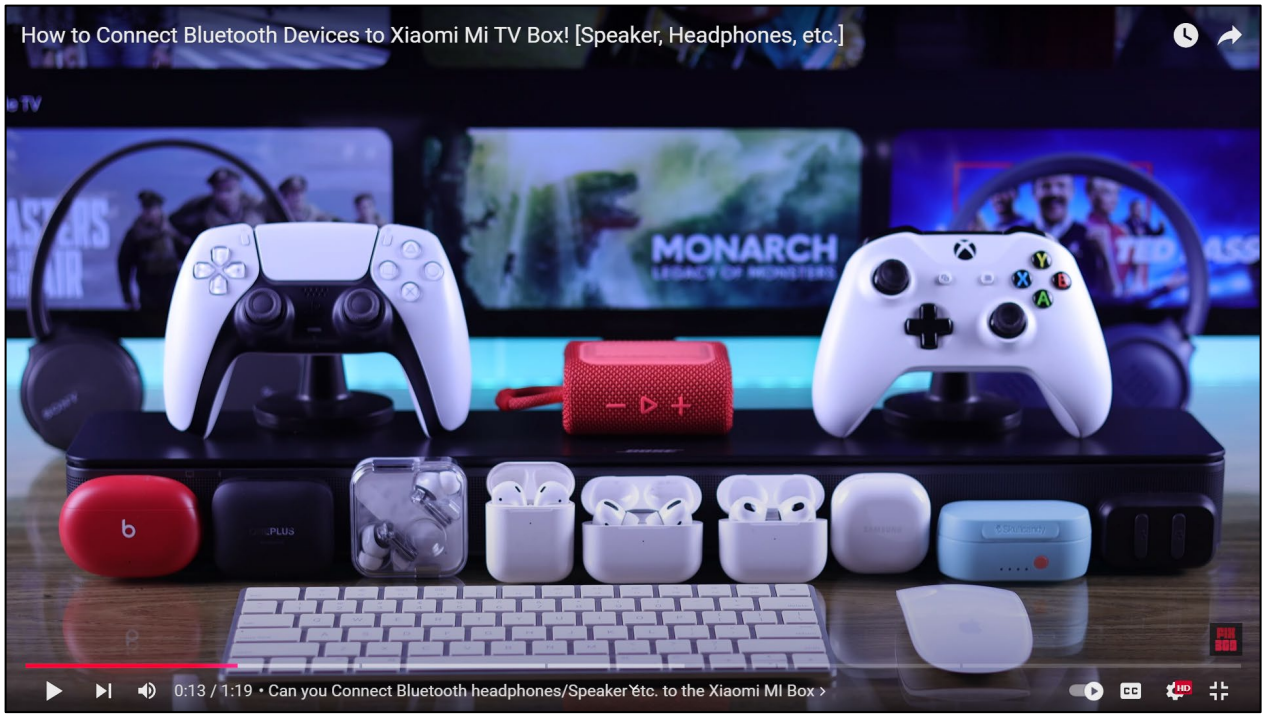
1) Smart Device Connections

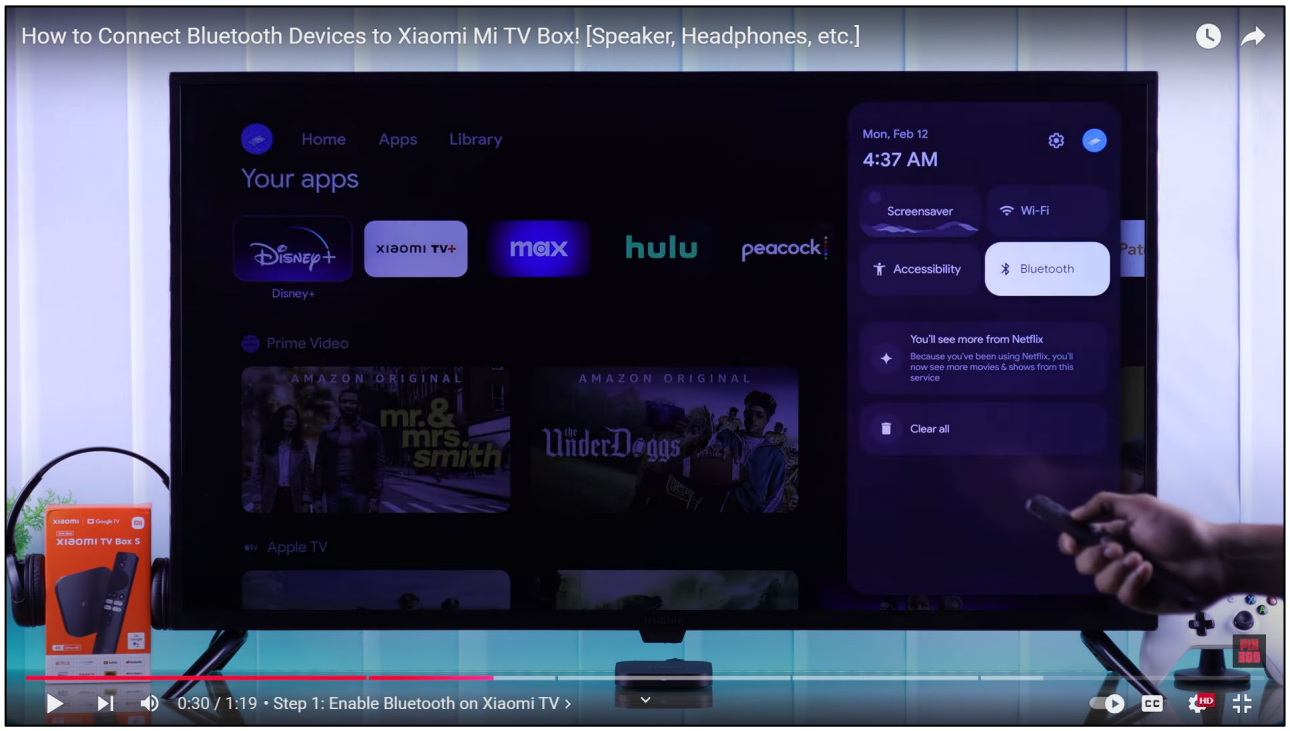
In order to provide you with Xiaomi/Mi Home services and to enable you to securely connect to and manage your smart devices, we will collect your Wi-Fi information, location information, account login information, information related to your mobile phone and smart device, and information associated with your Mi Account and smart device.

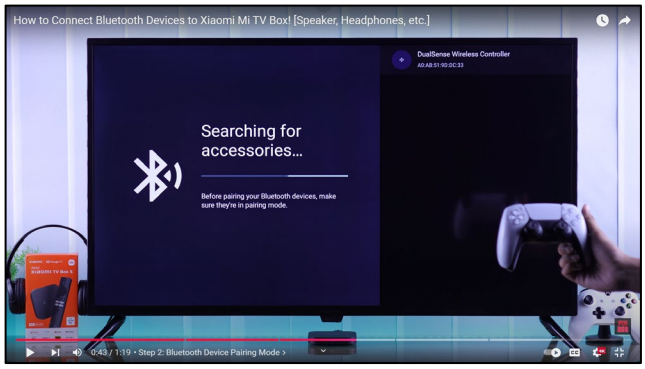
This information will be used to provide you with various functionalities, including pairing with and connecting to smart devices, discovering nearby devices, and device management. Specific examples involving the above information are set out below:

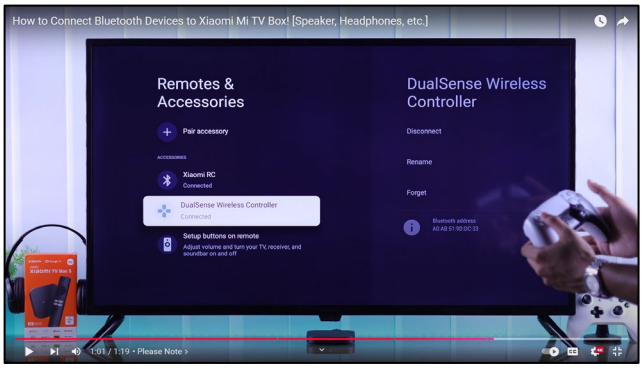
- Account Login Information: Mi Account (the account ID may be the Xiaomi ID, phone number or email address), nickname, and profile picture information, as well as cookies (including Mi Account, serviceToken, country code, app store channel, and time zone) to log in to your account.
- Mobile Phone related Information: Hardware-based identifiers (MAC address, Android ID), phone model, OS version, OS language, country or region, app store version, screen size and resolution, CPU, and display device related information. Based on the type of smart device you wish to connect to, we will collect the following information:
    - Smart devices connected via Wi-Fi: Wi-Fi Information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and device ID.
    - After establishing a local connection via Bluetooth, smart devices connected via Wi-Fi: Wi-Fi information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and MAC address of Bluetooth on the device.
    - Smart devices connected via Bluetooth: MAC address of Bluetooth on the device, and device ID.
    - Smart devices connected via Zigbee: MAC address of the device, and device ID.

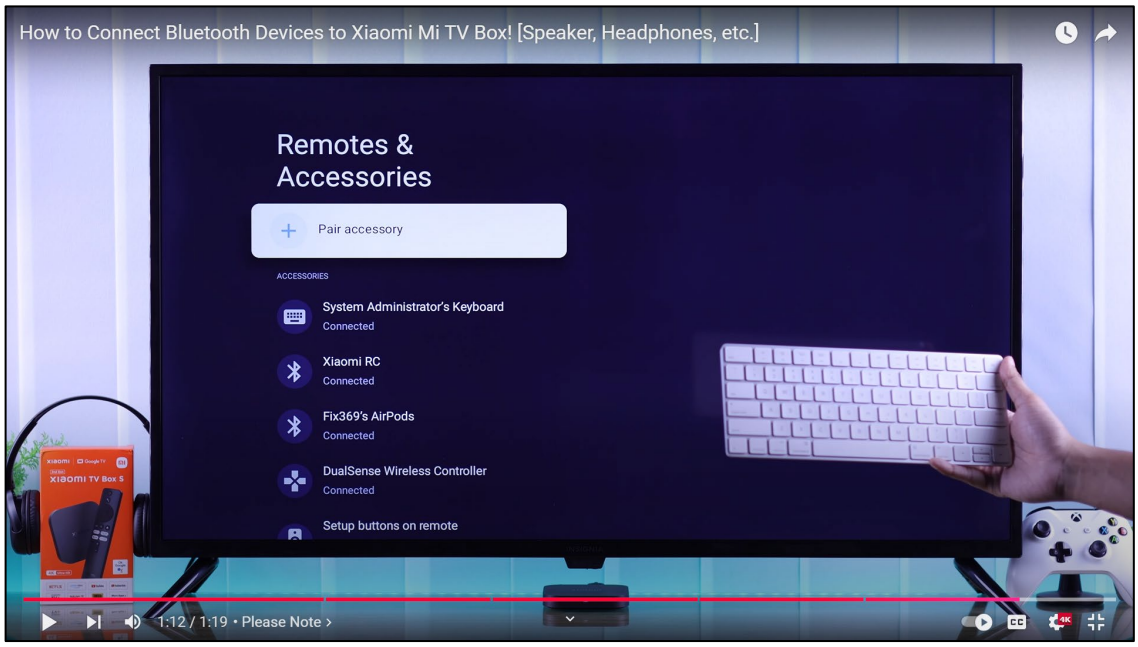
See https://trust.mi.com/docs/iot-privacy-white-paper-global/3/6.


How to Connect Bluetooth Devices to Xiaomi Mi TV Box! [Speaker, Headphones, etc.]
MONARCH
0:13 / 1:19 • Can you Connect Bluetooth headphones/Speaker etc. to the Xiaomi MI Box ›

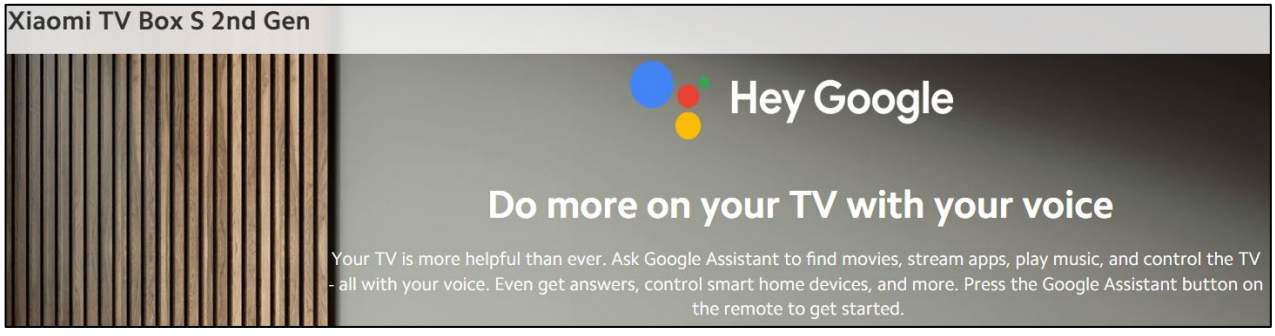

How to Connect Bluetooth Devices to Xiaomi Mi TV Box! [Speaker, Headphones, etc.]
Home
Apps
Library
Your apps
Disney+
xiaomi TV+
max
hulu
peacock
Prime Video
AMAZON ORIGINAL
mr. & mrs. smith
AMAZON ORIGINAL
the UnderDoggs
Apple TV
Mon, Feb 12
4:37 AM
Screensaver
Wi-Fi
Accessibility
Bluetooth
You'll see more from Netflix
Because you've been using Netflix, you'll now see more movies & shows from this service
Clear all
xiaomi TV Box S
0:30 / 1:19 • Step 1: Enable Bluetooth on Xiaomi TV ›







See https://www.youtube.com/watch?v=4ZEDTfqUTTQ.



See https://www.mi.com/us/product/xiaomi-tv-box-s-2nd-gen/specs.

119. On information and belief, Xiaomi directly infringes at least claims 47 and 30 of the '125 patent in violation of 35 U.S.C. § 271(a) by making, using, selling, selling access to, importing, offering for sale, and/or offering to sell access to the Xiaomi Products and Services.

120. Innovation Sciences has been damaged by Defendants' infringement and has caused / continues to cause it to suffer irreparable harm and damages as a result of the infringement.

121. Innovation Sciences repeats, realleges, and incorporates by reference, as if fully set forth here, the allegations of the preceding paragraphs above.

Count VI – Infringement of United States Patent No. 10,469,898

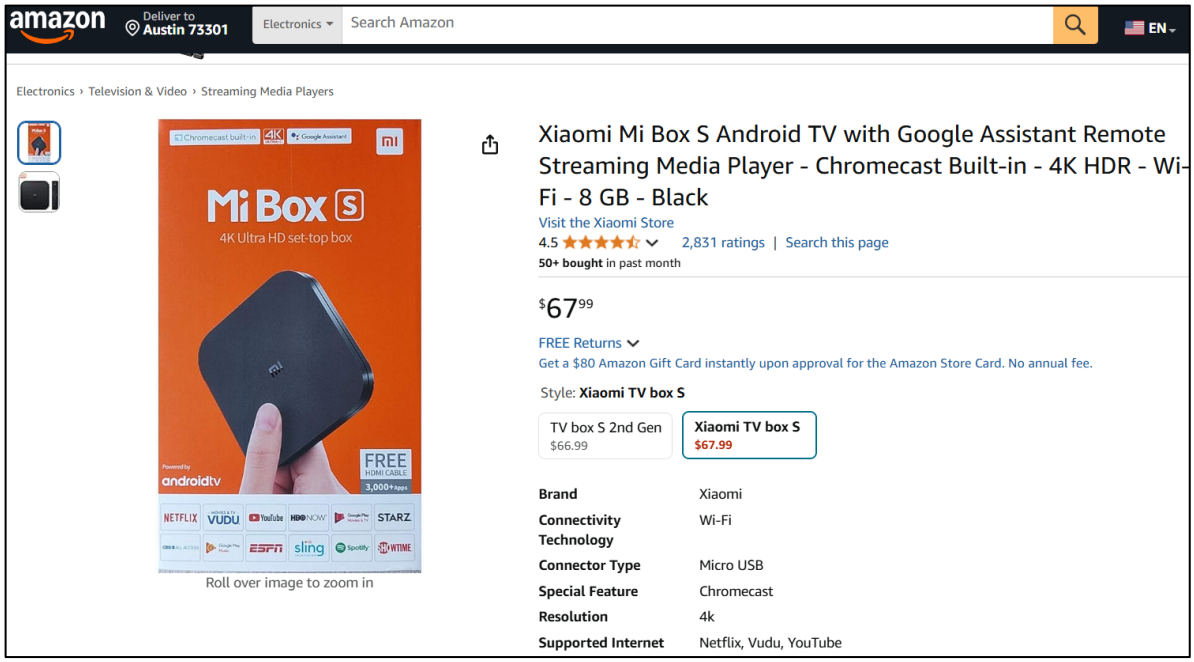
122. Innovation Sciences repeats, realleges, and incorporates by reference, as if fully set forth here, the allegations of the preceding paragraphs above

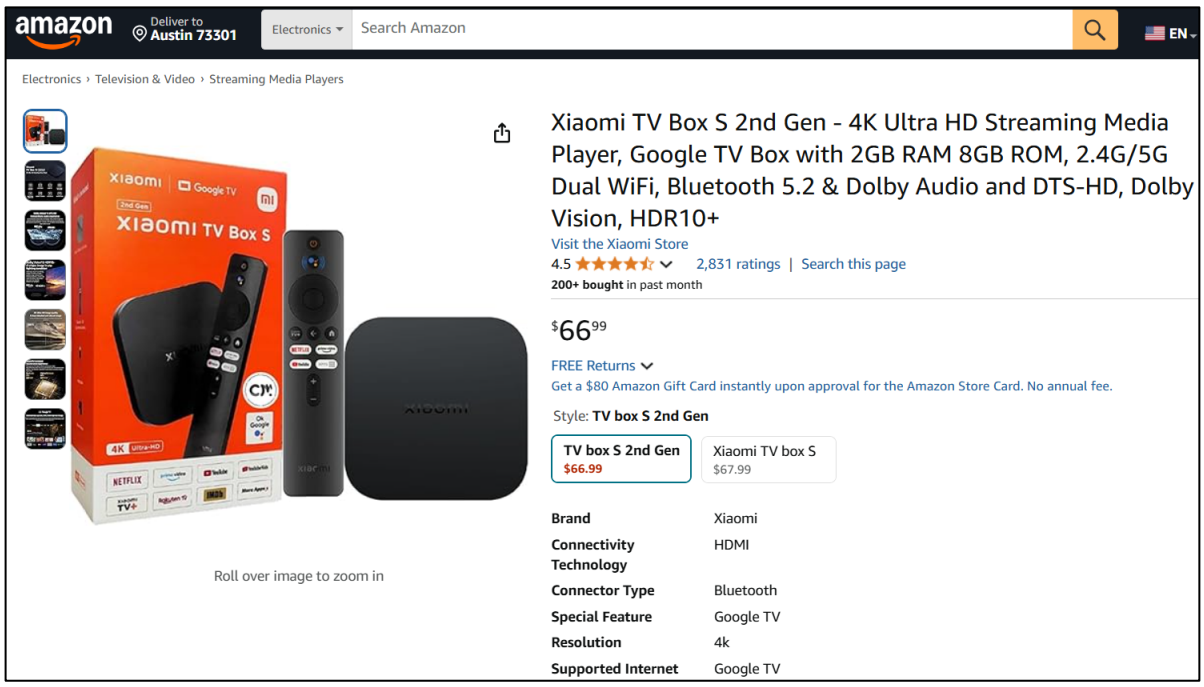
123. Innovation Sciences repeats, realleges, and incorporates by reference, as if fully set forth here, the allegations of the preceding paragraphs above.

124. On information and belief, Xiaomi violated 35 U.S. C. § 271(a) with respect to one or more claims of the '898 patent.

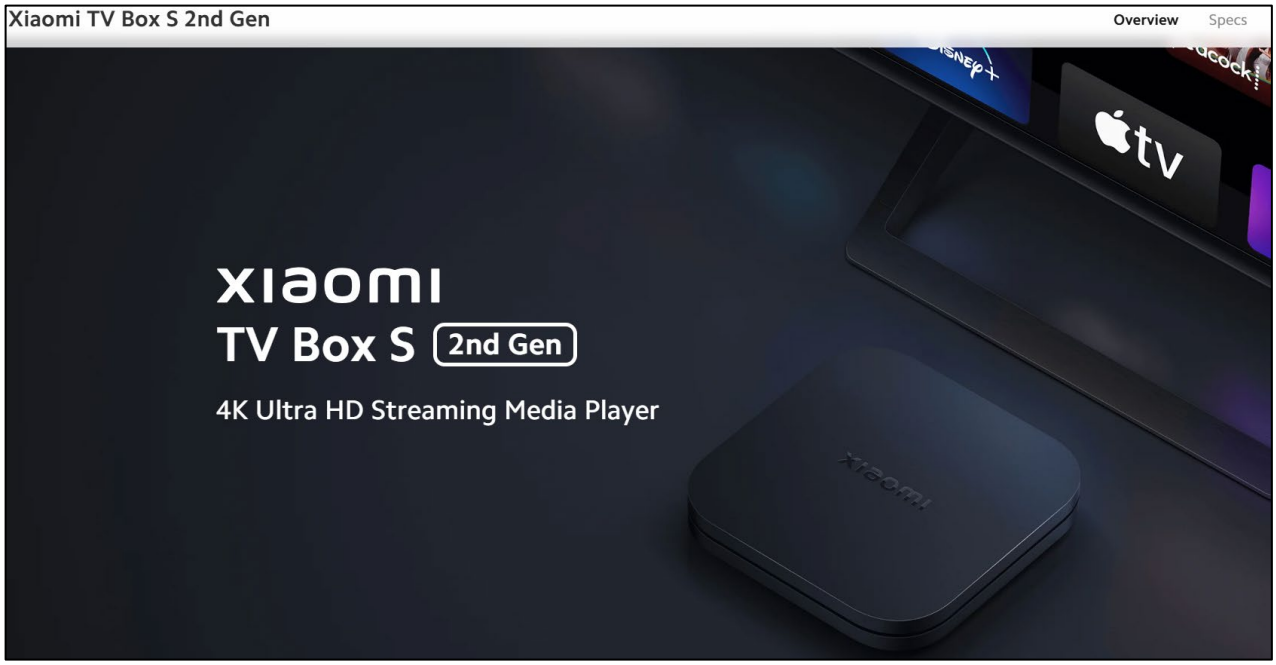
125. On information and belief, Xiaomi (or those acting on its behalf) (i) make, use, sell, sell access to, import, offer to sell and/or offer to sell access to the Xiaomi Products and Services in the United States that infringe (literally and/or under the doctrine of equivalents) at least claims 50 and 44 of '898 patent.

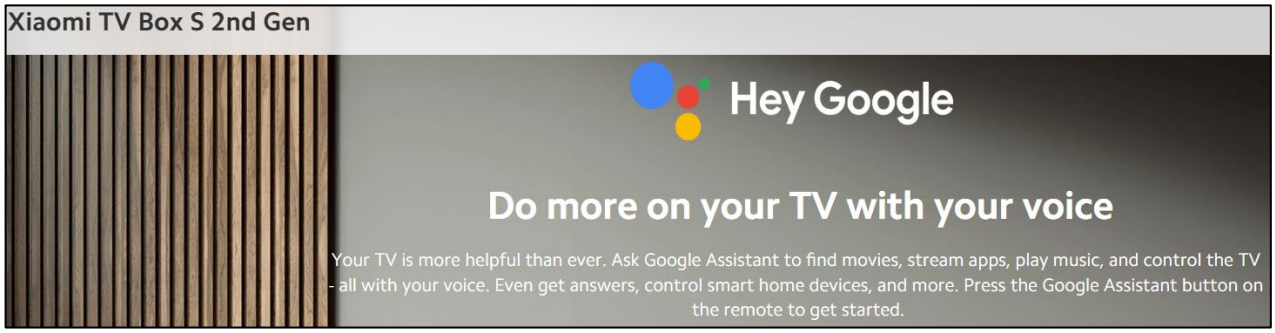
126. On information and belief, one or more components of the Xiaomi Products and Services provides a centralized HUB system (*e.g.*, a Xiaomi TV Box) with a device identifier (*e.g.*, MAC address or serial number of the Xiaomi TV Box) for communication of information (*e.g.*, video, audio, text, etc.). On information and belief and as shown below, Xiaomi TV Box comes with MAC address or serial number that helps in the communication of various types of information.

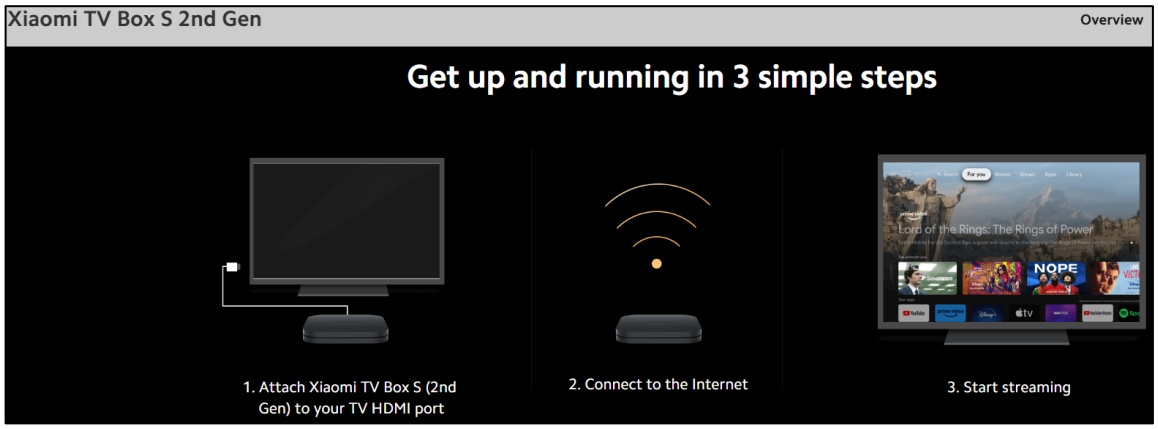




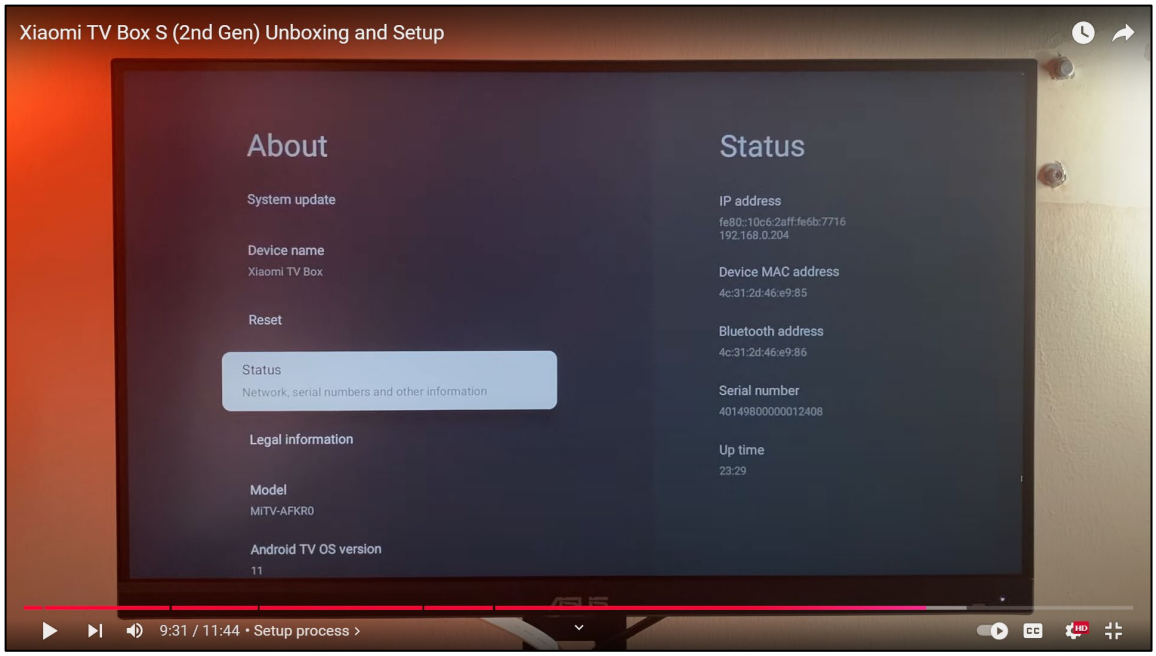
See Amazon.com: Xiaomi Mi Box S Android TV with Google Assistant Remote Streaming Media Player - Chromecast Built-in - 4K HDR - Wi-Fi - 8 GB - Black : Electronics.





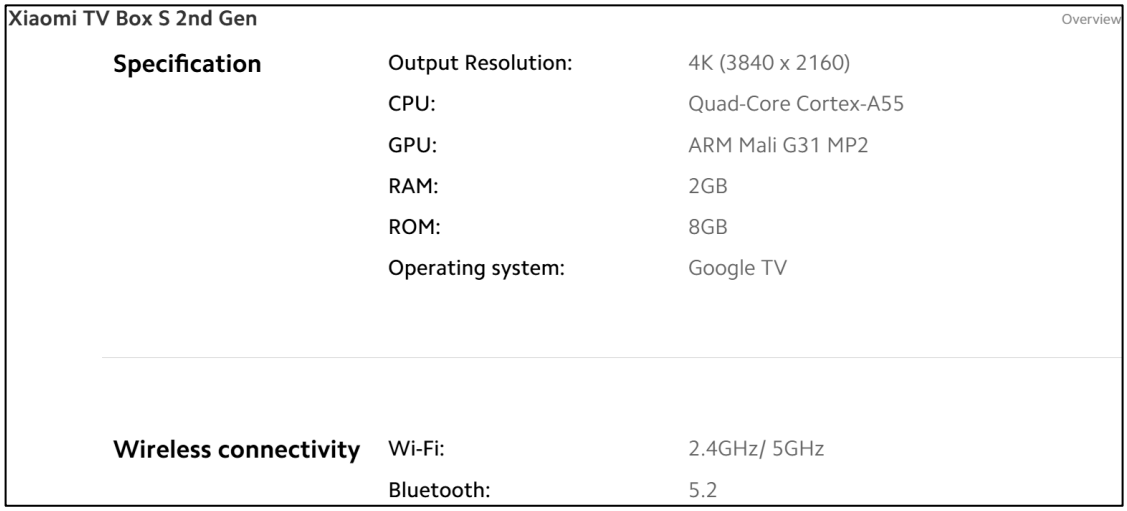


See Xiaomi TV Box S 2nd Gen - Xiaomi United States.



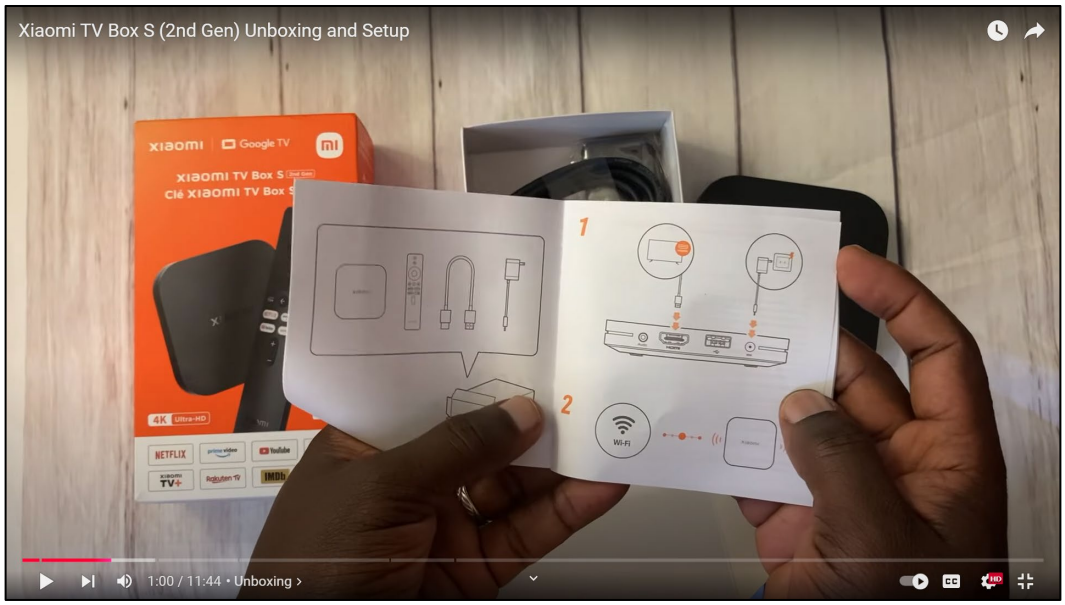
See https://www.youtube.com/watch?v=GfLB1-fwGro.

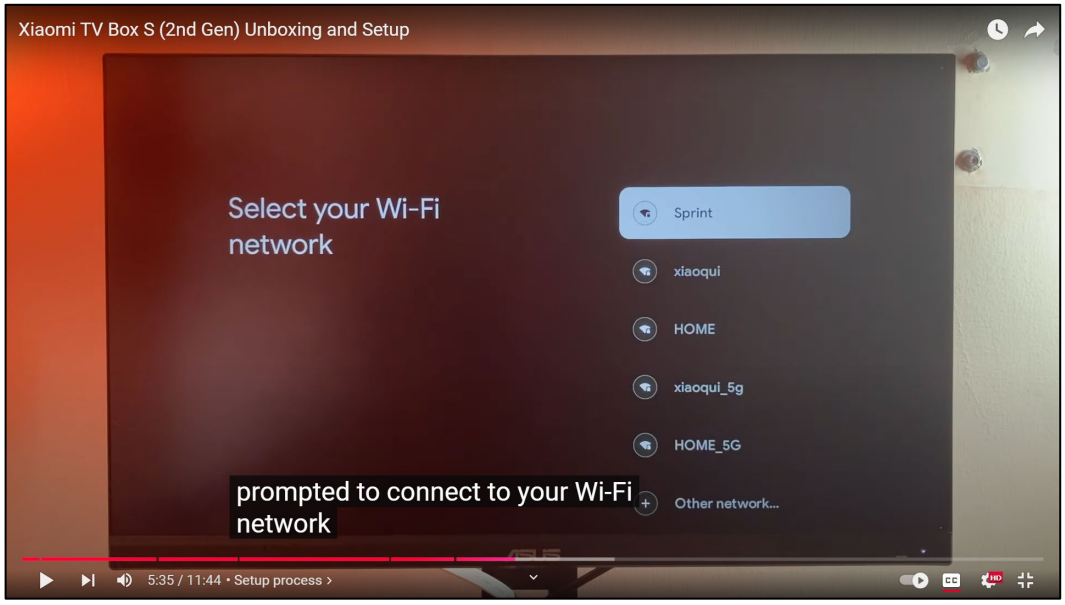
127. On information and belief, one or more components of the Xiaomi Products and Services provides a centralized HUB system for communication of information comprising a network interface (*e.g.*, wireless connectivity interface) configured to provide a communication through a network communication channel (*e.g.*, Wi-Fi) of a wireless local area network (*e.g.*, a Wi-Fi network).

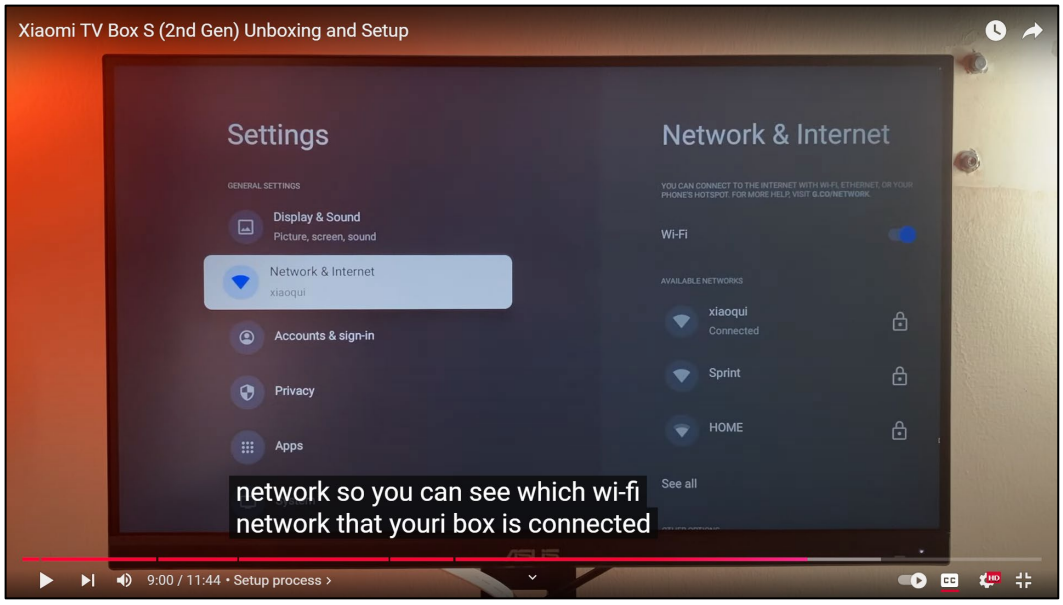


See Xiaomi TV Box S 2nd Gen - Xiaomi United States.

See Xiaomi TV Box S 2nd Gen - Xiaomi United States.

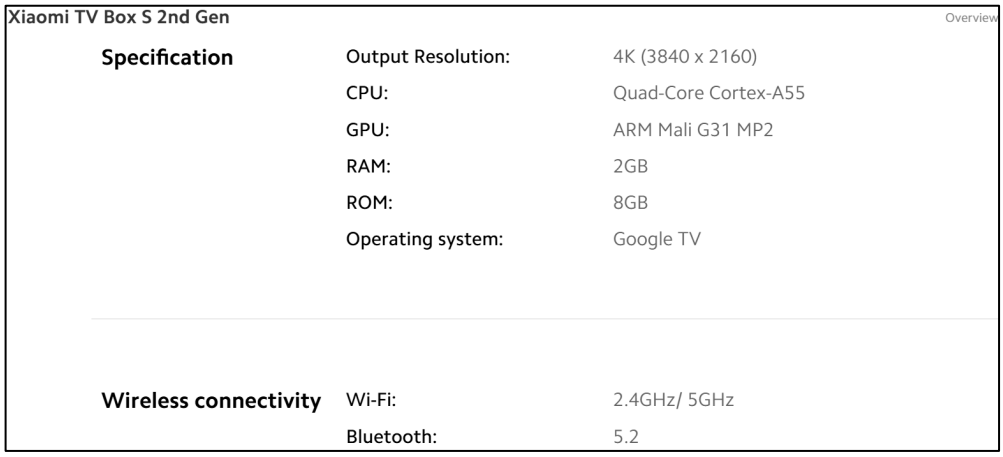




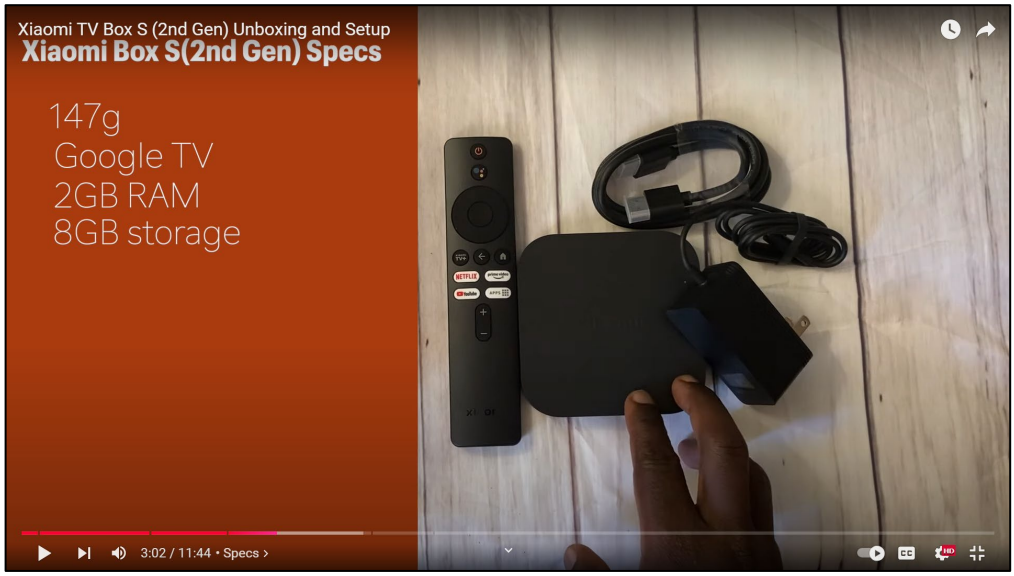


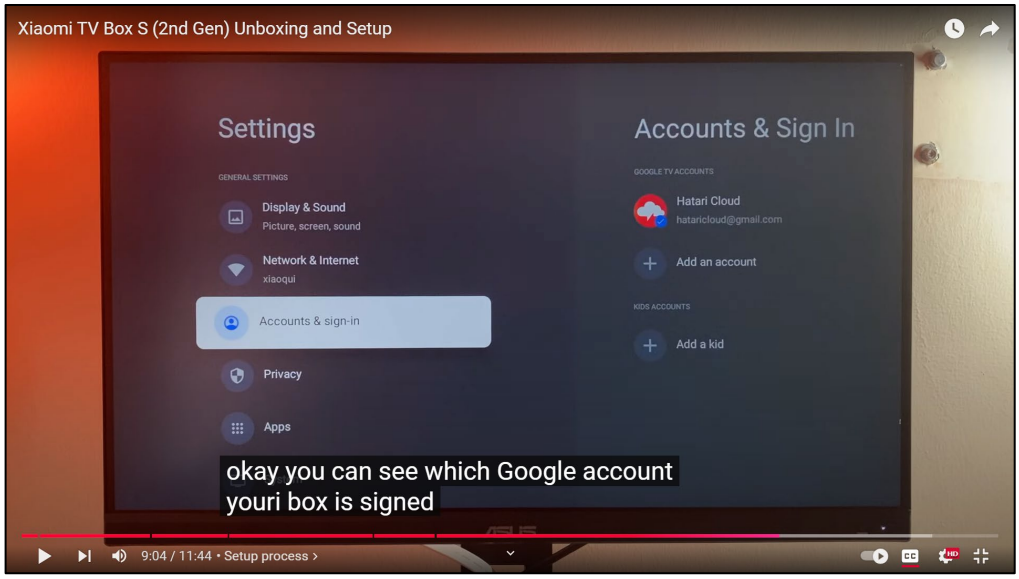
See Xiaomi TV Box Unboxing and Setup.

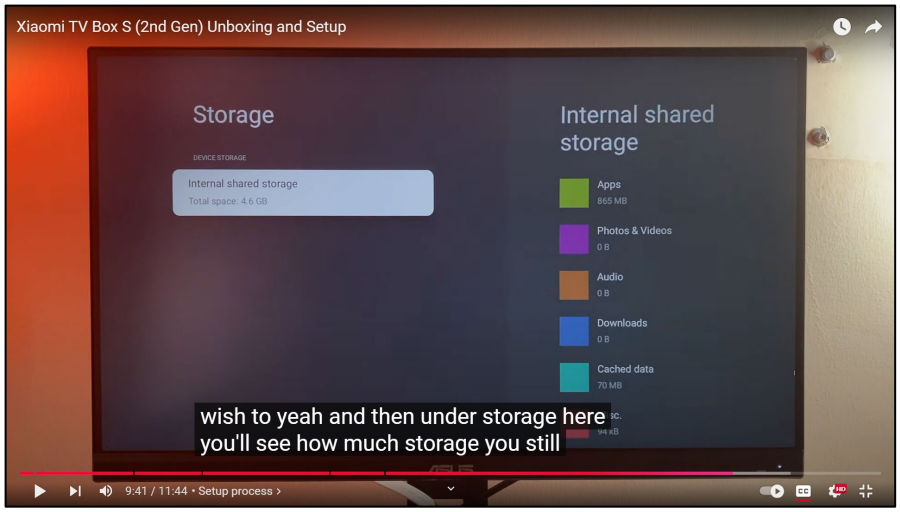
128. On information and belief, one or more components of the Xiaomi Products and Services provides a centralized HUB system for communication of information comprising at least one memory (*e.g.*, RAM/ROM) configured to store a user account (*e.g.*, email/Mi account), the user account including a unique identifier (*e.g.*, MAC address, serial number, or name given by the user) associated with a home device or an office device (*e.g.*, game controller, speakers, camera, etc.), the user account further including a unique phone identifier of a cellular phone (*e.g.*, phone number, phone model, MAC address, serial number, name given by the user); wherein the unique identifier is stored in association with the unique phone identifier.



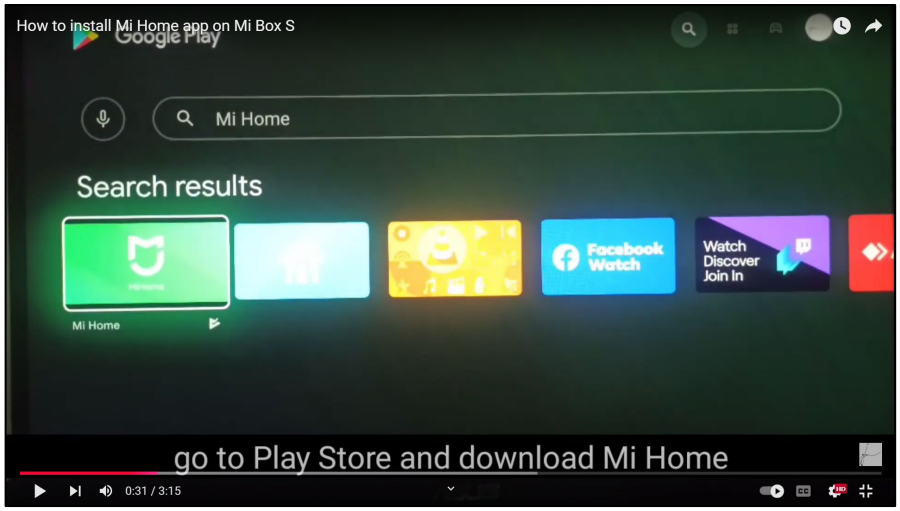
See Xiaomi TV Box S 2nd Gen - Xiaomi United States.

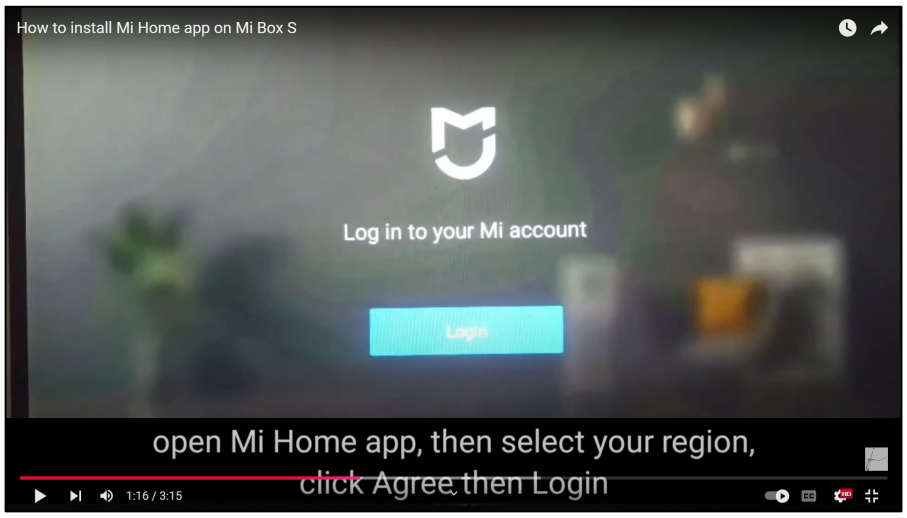






See Xiaomi TV Box Unboxing and Setup.





See How to install Mi Home app on Mi Box S.

See Xiaomi Global Home.

Appendix 6: Data Inventory for Xiaomi/Mi Home

Type	Type of Data	Identification Qualifier	Purpose	Data Transmission Encryption Measures	Data Storage Encryption Measures
Identifiers	Mi Account ID	Identified	App Functionality Device Functionality	**App ⇌ Cloud** HTTPS	**App & Cloud** No Encryption
	MAC	Identified	App Functionality Device Functionality	**Device ⇌ Cloud** HTTPS **App ⇌ Cloud** HTTPS	**App & Cloud** No Encryption
	Android ID	Identified	App Functionality Device Functionality	**App ⇌ Cloud** HTTPS	**Cloud** AES-128
	Facebook ID	Identified	App Functionality Device Functionality	**App ⇌ Cloud** HTTPS	**Cloud** AES-128
	Device ID	Identified	App Functionality Device Functionality	**Device ⇌ Cloud** HTTPS **App ⇌ Cloud** HTTPS	**Device** No Encryption **Cloud** AES-128

1) Smart Device Connections

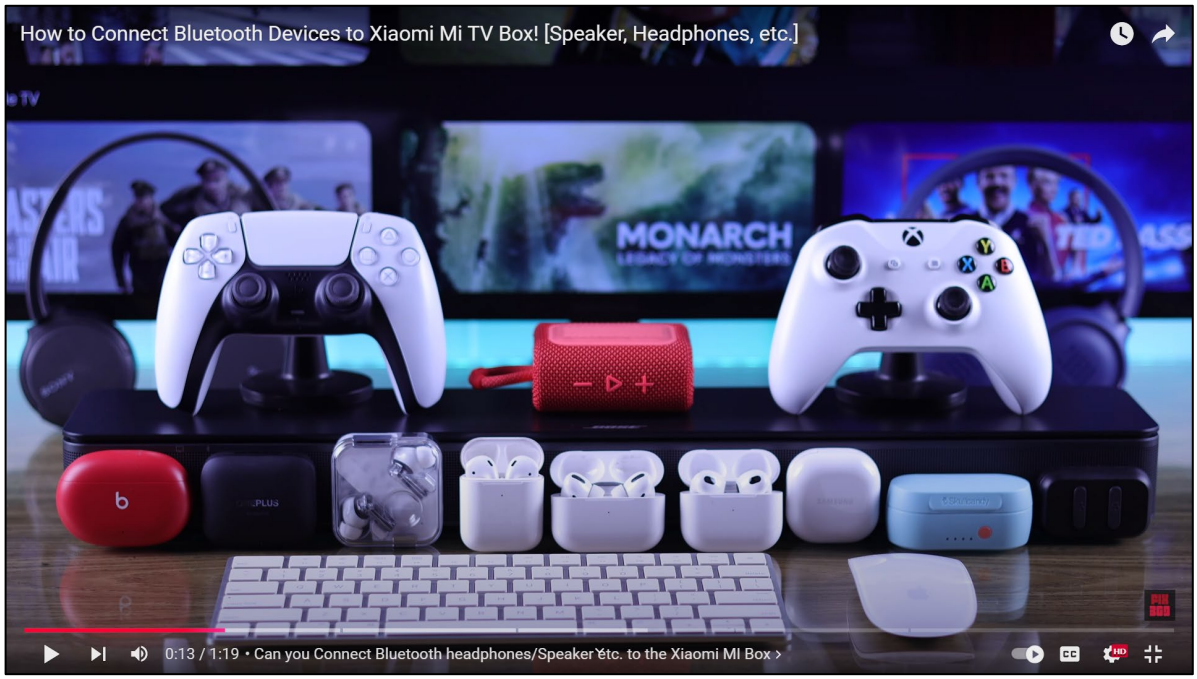
In order to provide you with Xiaomi/Mi Home services and to enable you to securely connect to and manage your smart devices, we will collect your Wi-Fi information, location information, account login information, information related to your mobile phone and smart device, and information associated with your Mi Account and smart device.

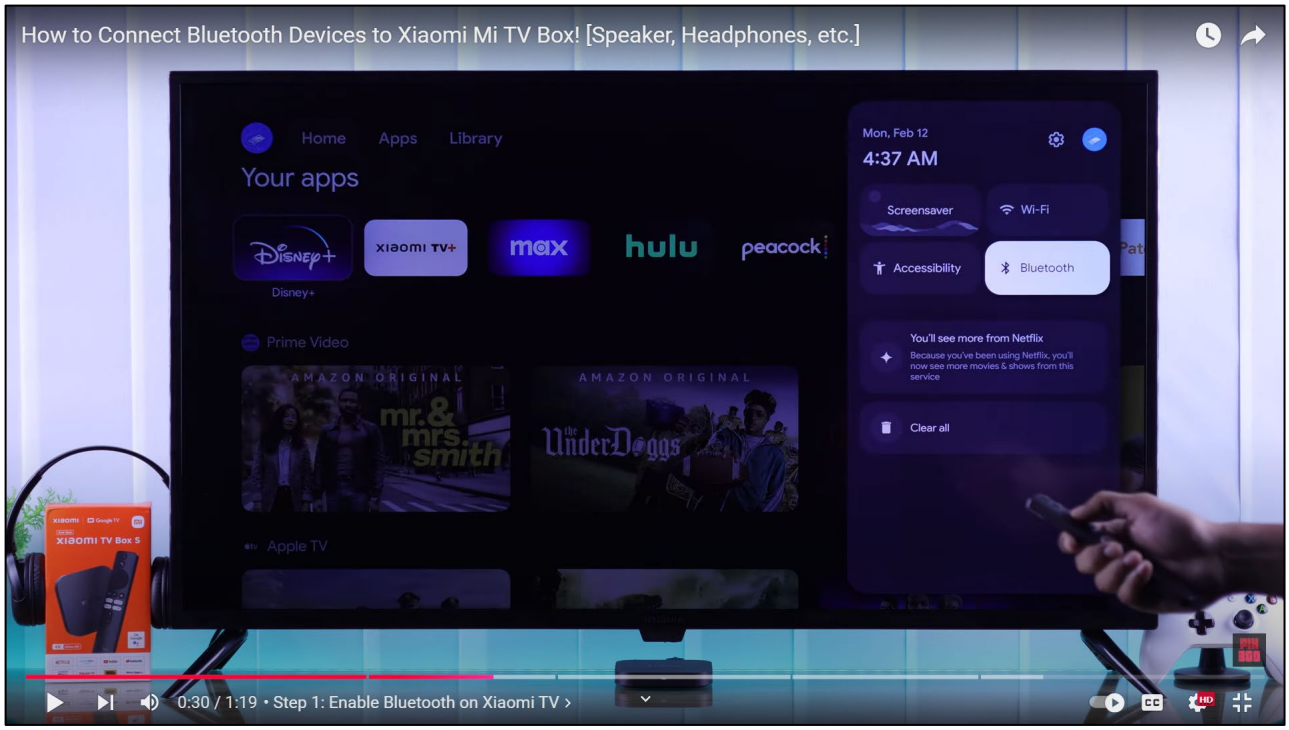
This information will be used to provide you with various functionalities, including pairing with and connecting to smart devices, discovering nearby devices, and device management. Specific examples involving the above information are set out below:

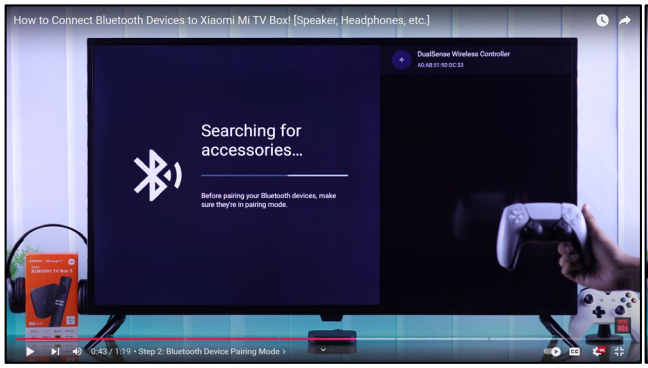
- Account Login Information: Mi Account (the account ID may be the Xiaomi ID, phone number or email address), nickname, and profile picture information, as well as cookies (including Mi Account, serviceToken, country code, app store channel, and time zone) to log in to your account.
- Mobile Phone related Information: Hardware-based identifiers (MAC address, Android ID), phone model, OS version, OS language, country or region, app store version, screen size and resolution, CPU, and display device related information. Based on the type of smart device you wish to connect to, we will collect the following information:

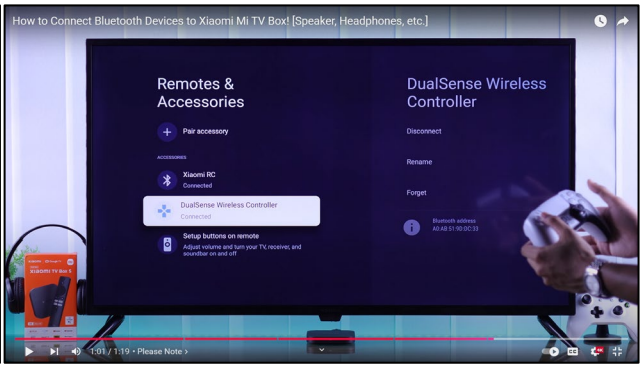
  - Smart devices connected via Wi-Fi: Wi-Fi Information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and device ID.
  - After establishing a local connection via Bluetooth, smart devices connected via Wi-Fi: Wi-Fi information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and MAC address of Bluetooth on the device.
  - Smart devices connected via Bluetooth: MAC address of Bluetooth on the device, and device ID.
  - Smart devices connected via Zigbee: MAC address of the device, and device ID.

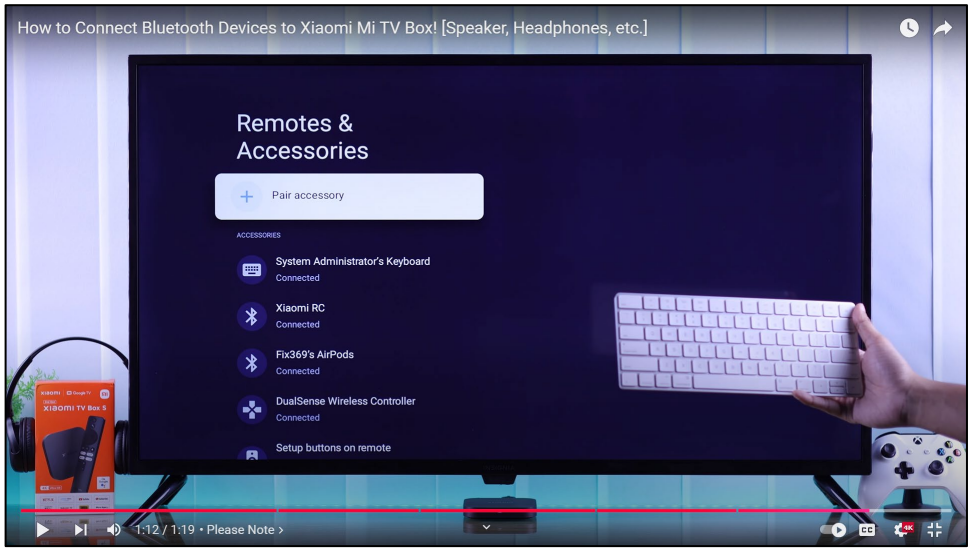
See 3.6 Xiaomi/Mi Home And Privacy.



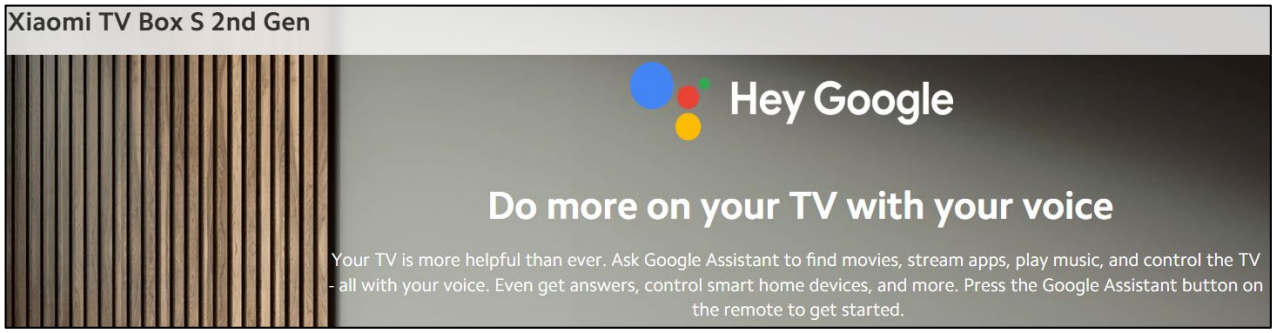




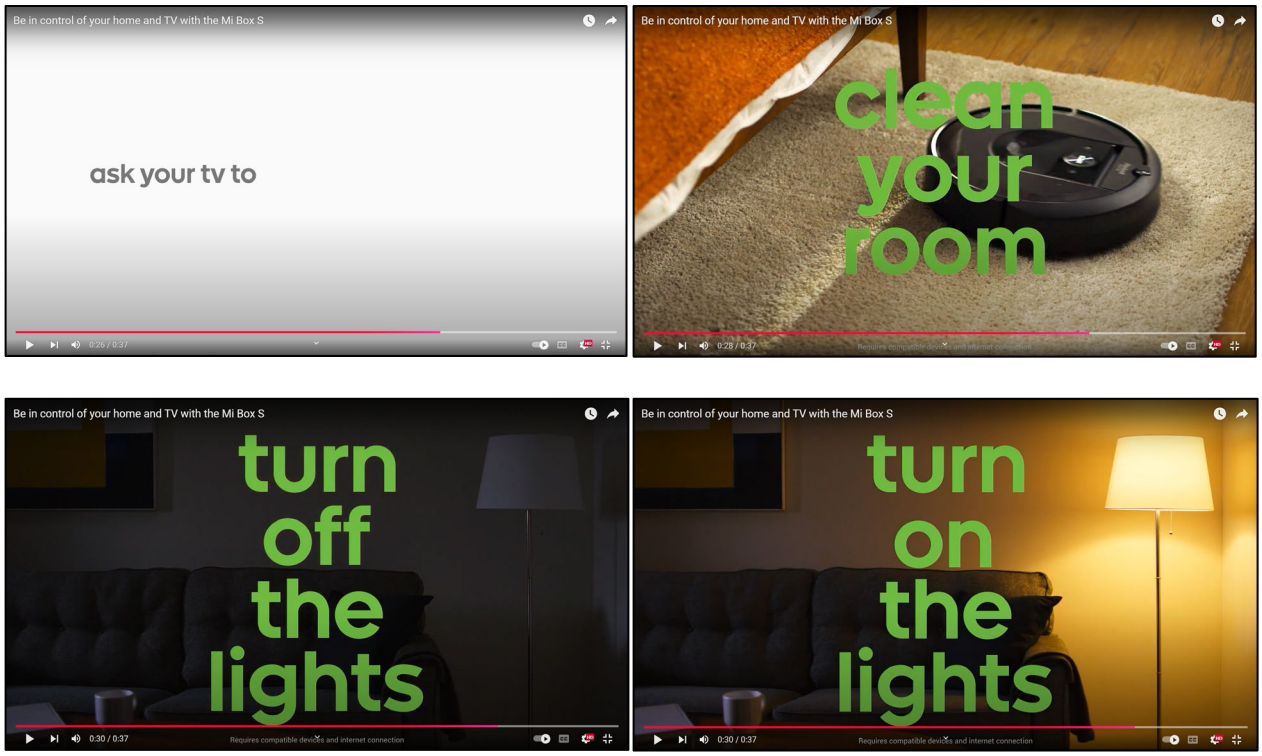




See How to Connect Bluetooth Devices to Xiaomi Mi TV Box! [Speaker, Headphones, etc.].



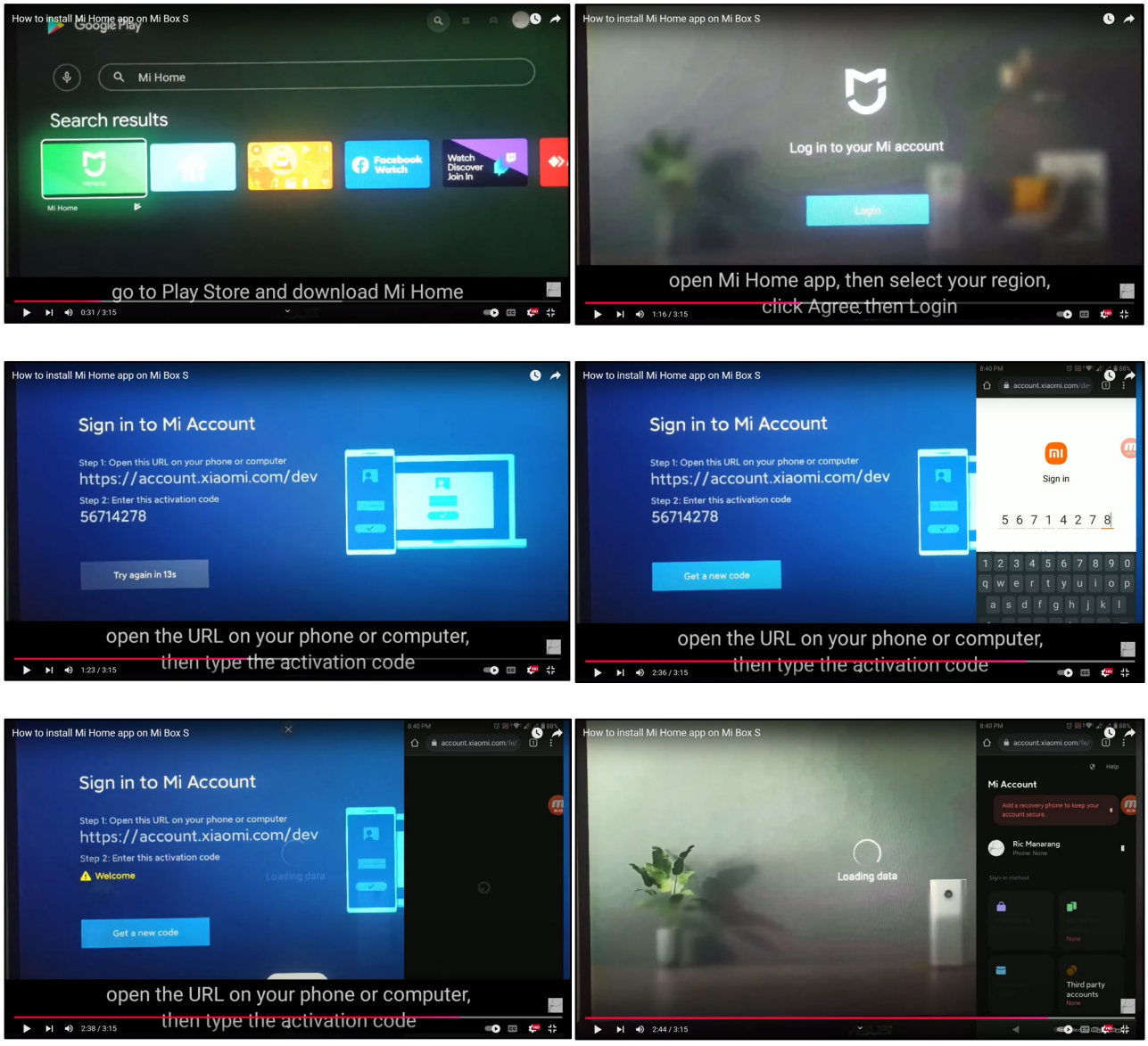
See Xiaomi TV Box S 2nd Gen - Xiaomi United States



See Be in control of your home and TV with the Mi Box S - YouTube.

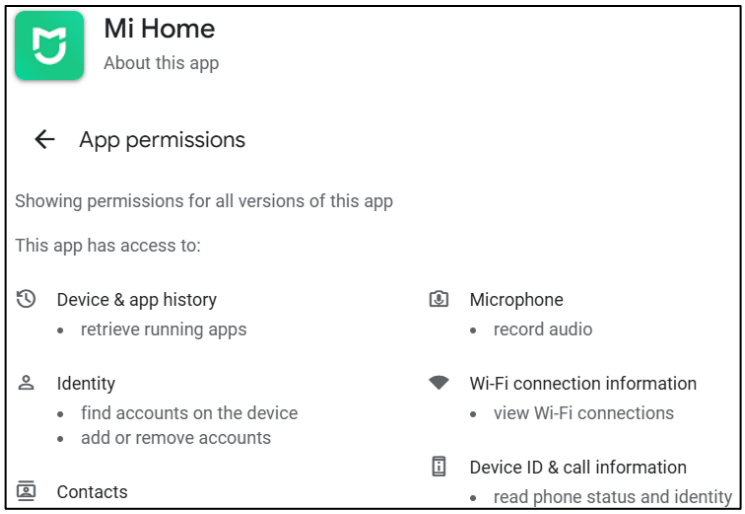
129. On information and belief, one or more components of the Xiaomi Products and Services provides a centralized HUB system for communication of information comprising a configuration application (*e.g.*, Mi Home app) configured to provide configured data in initiating communications (*e.g.*, communication with Xiaomi/Mi server) that are directed to the centralized HUB system (*e.g.*, Xiaomi TV Box), the configured data comprising information corresponding to a network address (*e.g.*, Wi-Fi address) associated with the wireless local area network and information corresponding to the device identifier (*e.g.*, Device ID of Xiaomi TV Box), the network address

associated with the wireless local area network stored in association with the device identifier. On information and belief and as shown below, the configuration application ensures the Xiaomi TV Box is registered on the local network via its identifier (*e.g.*, Device ID) and the network address, enabling the Xiaomi TV Box to act as the hub for communication and control in a smart home ecosystem. Further, the configured data is used by the Mi home application installed on a smartphone for initiating communication directed to the centralized HUB system.



See How to install Mi Home app on Mi Box S.

See Xiaomi Global Home.



See Mi Home - Apps on Google Play.

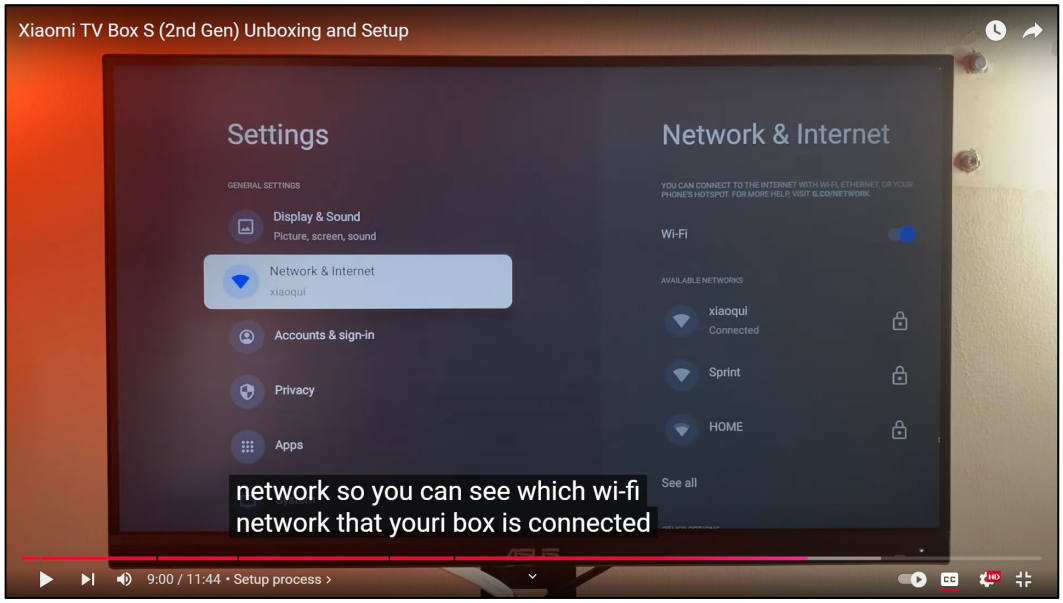
1) Smart Device Connections

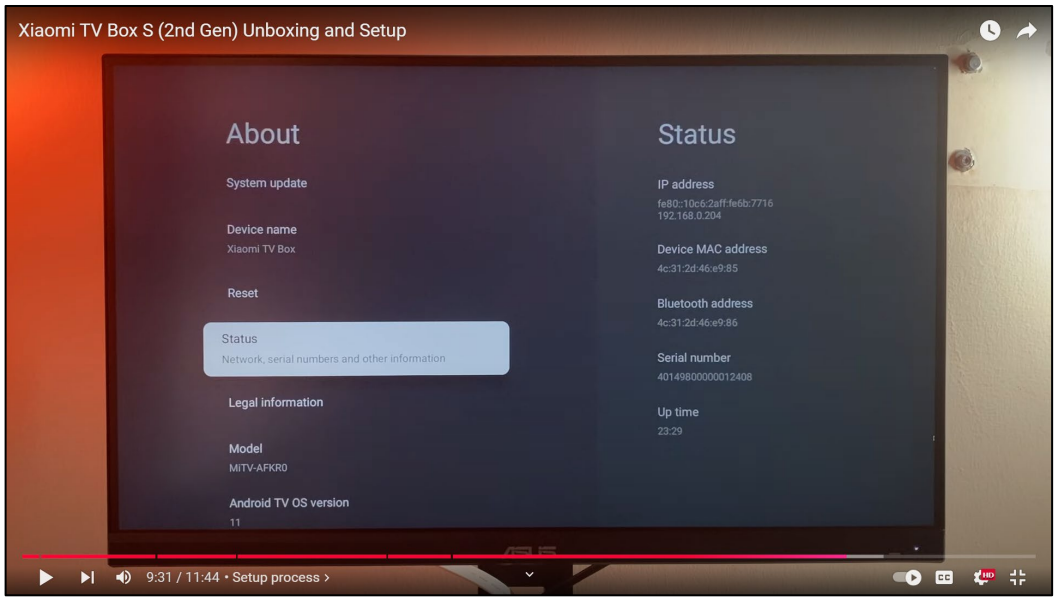
In order to provide you with Xiaomi/Mi Home services and to enable you to securely connect to and manage your smart devices, we will collect your Wi-Fi information, location information, account login information, information related to your mobile phone and smart device, and information associated with your Mi Account and smart device.

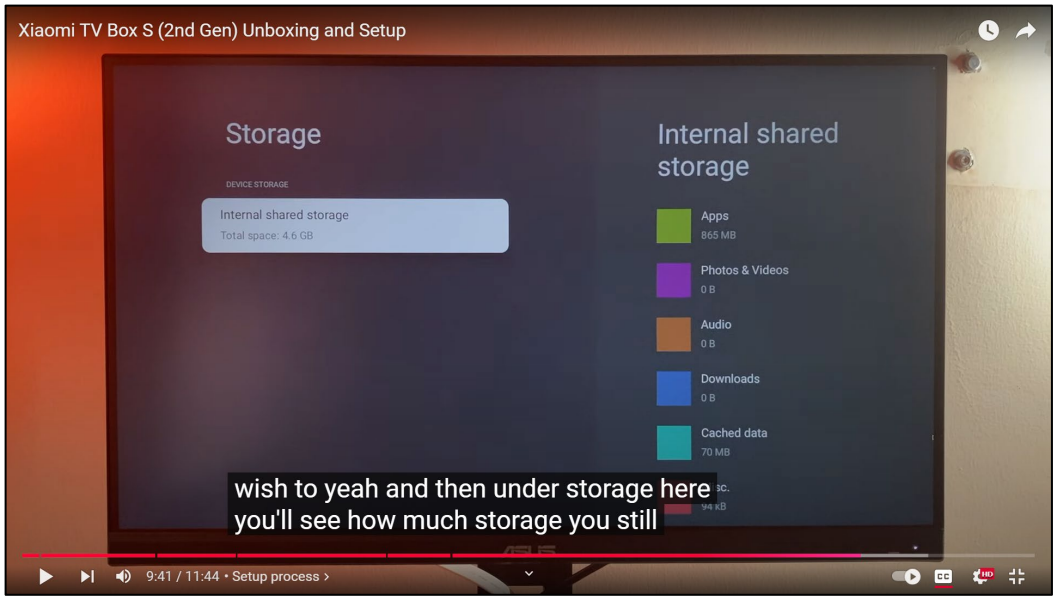
This information will be used to provide you with various functionalities, including pairing with and connecting to smart devices, discovering nearby devices, and device management. Specific examples involving the above information are set out below:

- Smart devices connected via Wi-Fi: Wi-Fi Information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and device ID.
- After establishing a local connection via Bluetooth, smart devices connected via Wi-Fi: Wi-Fi information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and MAC address of Bluetooth on the device.
- Smart devices connected via Bluetooth: MAC address of Bluetooth on the device, and device ID.
- Smart devices connected via Zigbee: MAC address of the device, and device ID.

See 3.6 Xiaomi/Mi Home And Privacy.

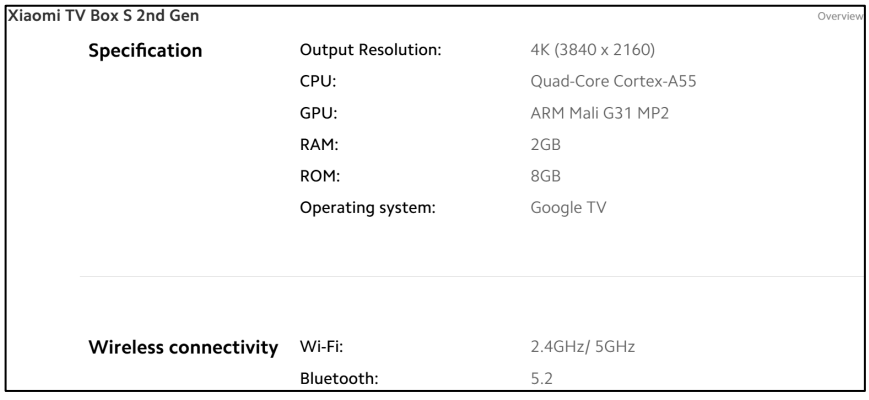




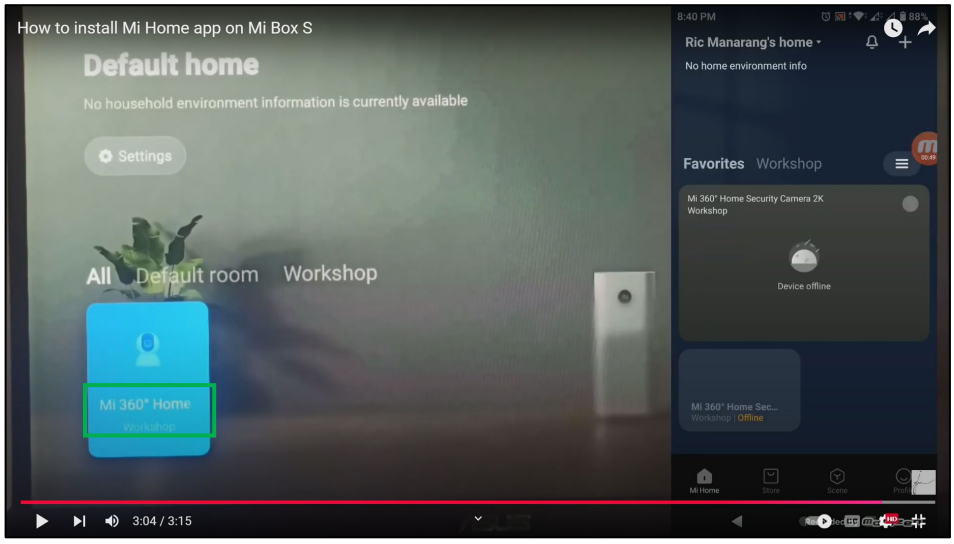


See Xiaomi TV Box Unboxing and Setup.

130. On information and belief, one or more components of the Xiaomi Products and Services provides a centralized HUB system for communication of information comprising a central controller (*e.g.*, a CPU/GPU) configured to communicate, through the network communication channel (*e.g.*, Wi-Fi), information about an updated status (*e.g.*, offline/online) of the home device or the office device in connection with a wireless signal transmitted through a wireless channel (*e.g.*, Bluetooth) regarding the updated status, the wireless signal comprising information corresponding to the unique identifier (*e.g.*, MAC address, serial number, name given by the user) associated with the home device or the office device.



See Xiaomi TV Box S 2nd Gen - Xiaomi United States.



See How to install Mi Home app on Mi Box S.

1) Smart Device Connections

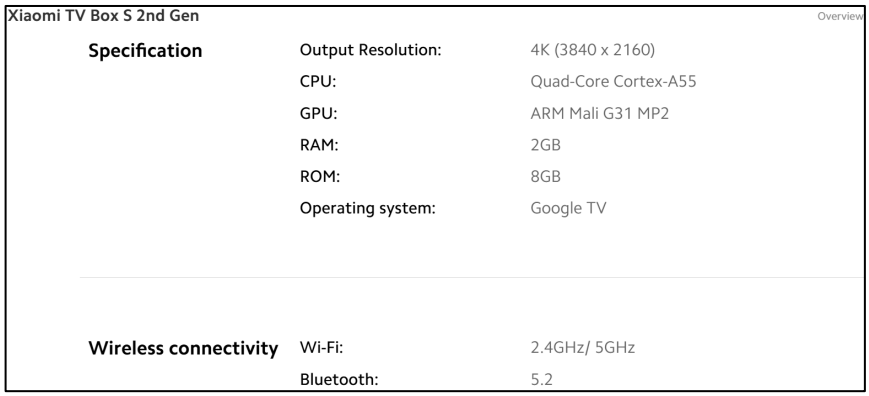
In order to provide you with Xiaomi/Mi Home services and to enable you to securely connect to and manage your smart devices, we will collect your Wi-Fi information, location information, account login information, information related to your mobile phone and smart device, and information associated with your Mi Account and smart device.

This information will be used to provide you with various functionalities, including pairing with and connecting to smart devices, discovering nearby devices, and device management. Specific examples involving the above information are set out below:

- Account Login Information: Mi Account (the account ID may be the Xiaomi ID, phone number or email address), nickname, and profile picture information, as well as cookies (including Mi Account, serviceToken, country code, app store channel, and time zone) to log in to your account.
- Mobile Phone related Information: Hardware-based identifiers (MAC address, Android ID), phone model, OS version, OS language, country or region, app store version, screen size and resolution, CPU, and display device related information. Based on the type of smart device you wish to connect to, we will collect the following information:
    - Smart devices connected via Wi-Fi: Wi-Fi Information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and device ID.
    - After establishing a local connection via Bluetooth, smart devices connected via Wi-Fi: Wi-Fi information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and MAC address of Bluetooth on the device.
    - Smart devices connected via Bluetooth: MAC address of Bluetooth on the device, and device ID.
    - Smart devices connected via Zigbee: MAC address of the device, and device ID.

See 3.6 Xiaomi/Mi Home And Privacy.

131. On information and belief, one or more components of the Xiaomi Products and Services provides a centralized HUB system for communication of information comprising wherein the network communication channel (*e.g.*, Wi-Fi) is separate from the wireless channel (*e.g.*, Bluetooth).

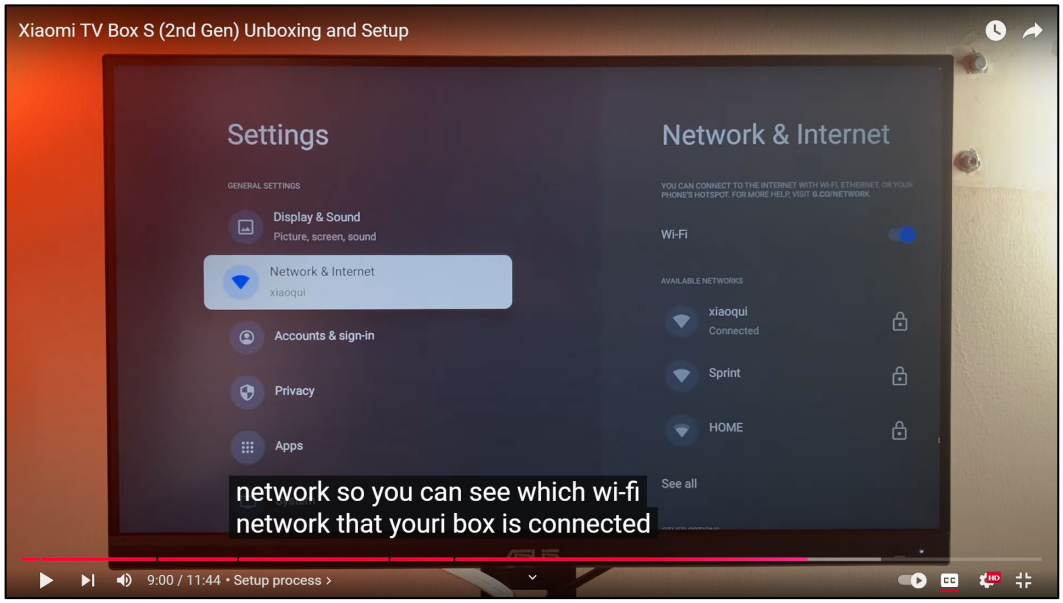


Xiaomi TV Box S 2nd Gen

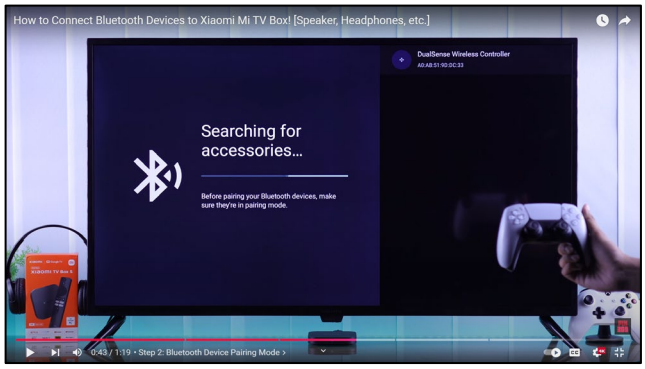
Overview

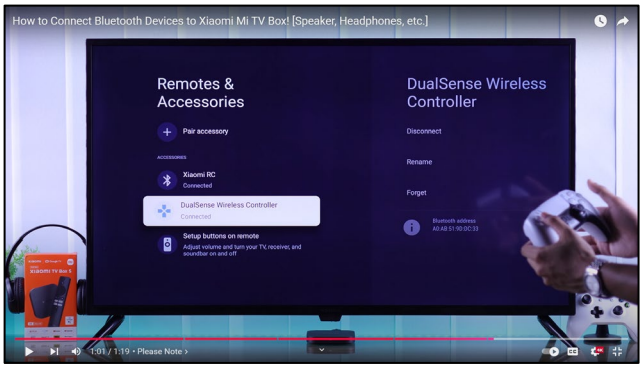
Specification	Output Resolution:	4K (3840 x 2160)
	CPU:	Quad-Core Cortex-A55
	GPU:	ARM Mali G31 MP2
	RAM:	2GB
	ROM:	8GB
	Operating system:	Google TV
Wireless connectivity	Wi-Fi:	2.4GHz/ 5GHz
	Bluetooth:	5.2

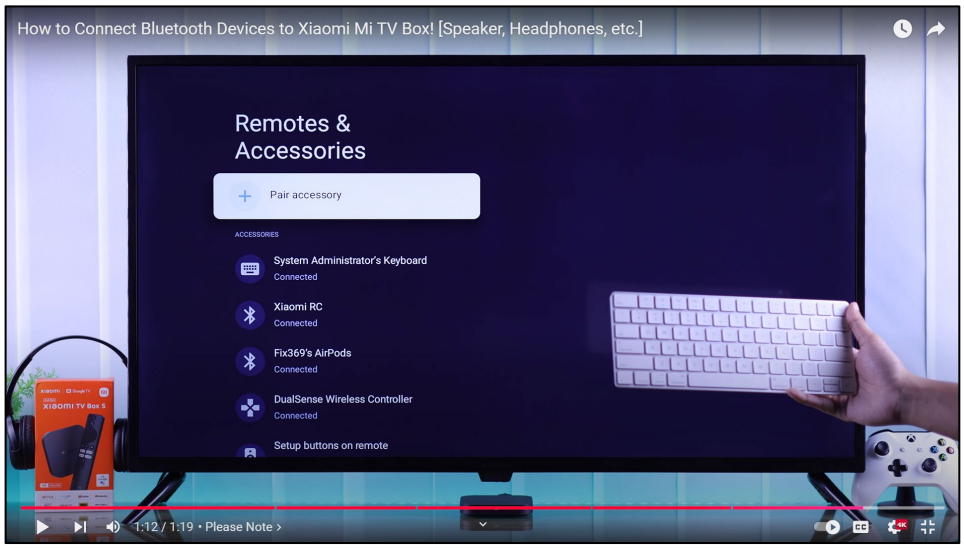
See Xiaomi TV Box S 2nd Gen - Xiaomi United States.



See Xiaomi TV Box Unboxing and Setup.

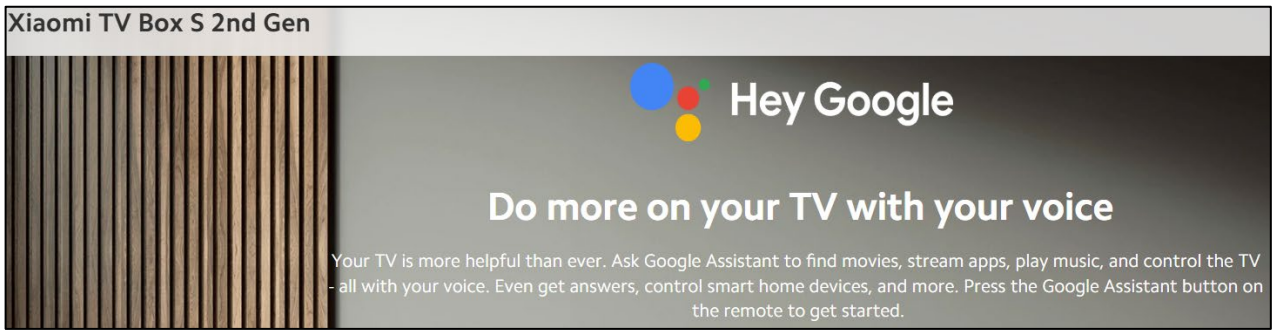






See How to Connect Bluetooth Devices to Xiaomi Mi TV Box! [Speaker, Headphones, etc.].

132. On information and belief, one or more components of the Xiaomi Products and Services provides a centralized HUB system for communication of information comprising wherein the centralized HUB system (*e.g.*, Xiaomi TV Box) is configured to identify the home device or the office device (*e.g.*, game controller, speakers, vacuum cleaner, camera) based on recognition of the unique identifier (*e.g.*, MAC address, serial number, name given by the user).



See Xiaomi TV Box S 2nd Gen - Xiaomi United States.

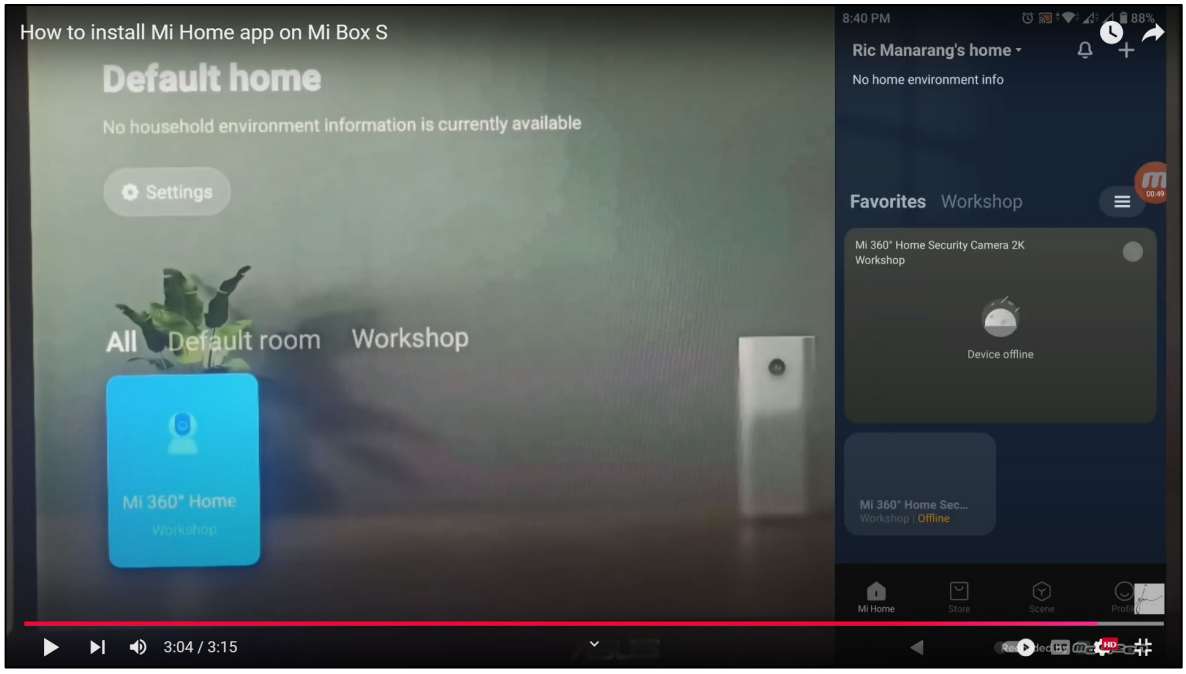
1) Smart Device Connections

In order to provide you with Xiaomi/Mi Home services and to enable you to securely connect to and manage your smart devices, we will collect your Wi-Fi information, location information, account login information, information related to your mobile phone and smart device, and information associated with your Mi Account and smart device.

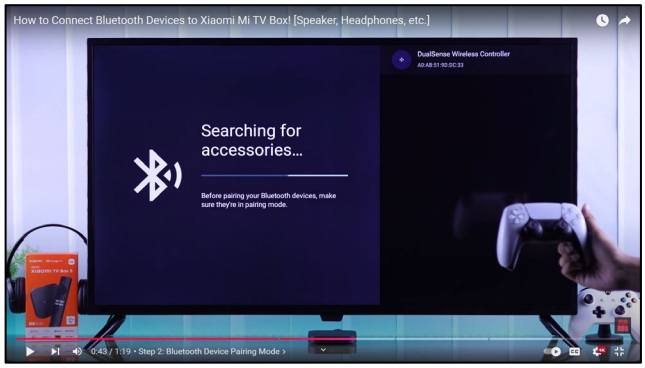
This information will be used to provide you with various functionalities, including pairing with and connecting to smart devices, discovering nearby devices, and device management. Specific examples involving the above information are set out below:

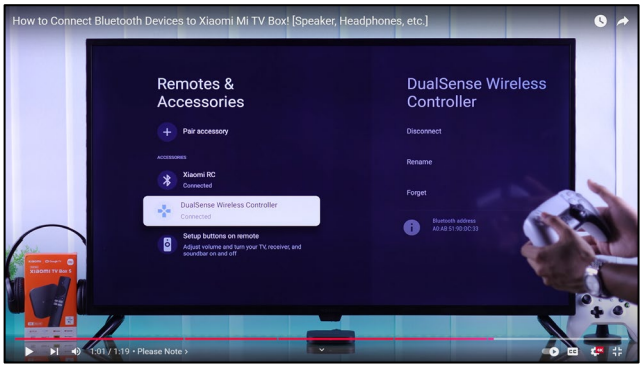
- Account Login Information: Mi Account (the account ID may be the Xiaomi ID, phone number or email address), nickname, and profile picture information, as well as cookies (including Mi Account, serviceToken, country code, app store channel, and time zone) to log in to your account.
- Mobile Phone related Information: Hardware-based identifiers (MAC address, Android ID), phone model, OS version, OS language, country or region, app store version, screen size and resolution, CPU, and display device related information. Based on the type of smart device you wish to connect to, we will collect the following information:
    - Smart devices connected via Wi-Fi: Wi-Fi Information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and device ID.
    - After establishing a local connection via Bluetooth, smart devices connected via Wi-Fi: Wi-Fi information (SSID, BSSID, MAC address of Wi-Fi, Wi-Fi password), MAC address of the device, and MAC address of Bluetooth on the device.
    - Smart devices connected via Bluetooth: MAC address of Bluetooth on the device, and device ID.
    - Smart devices connected via Zigbee: MAC address of the device, and device ID.

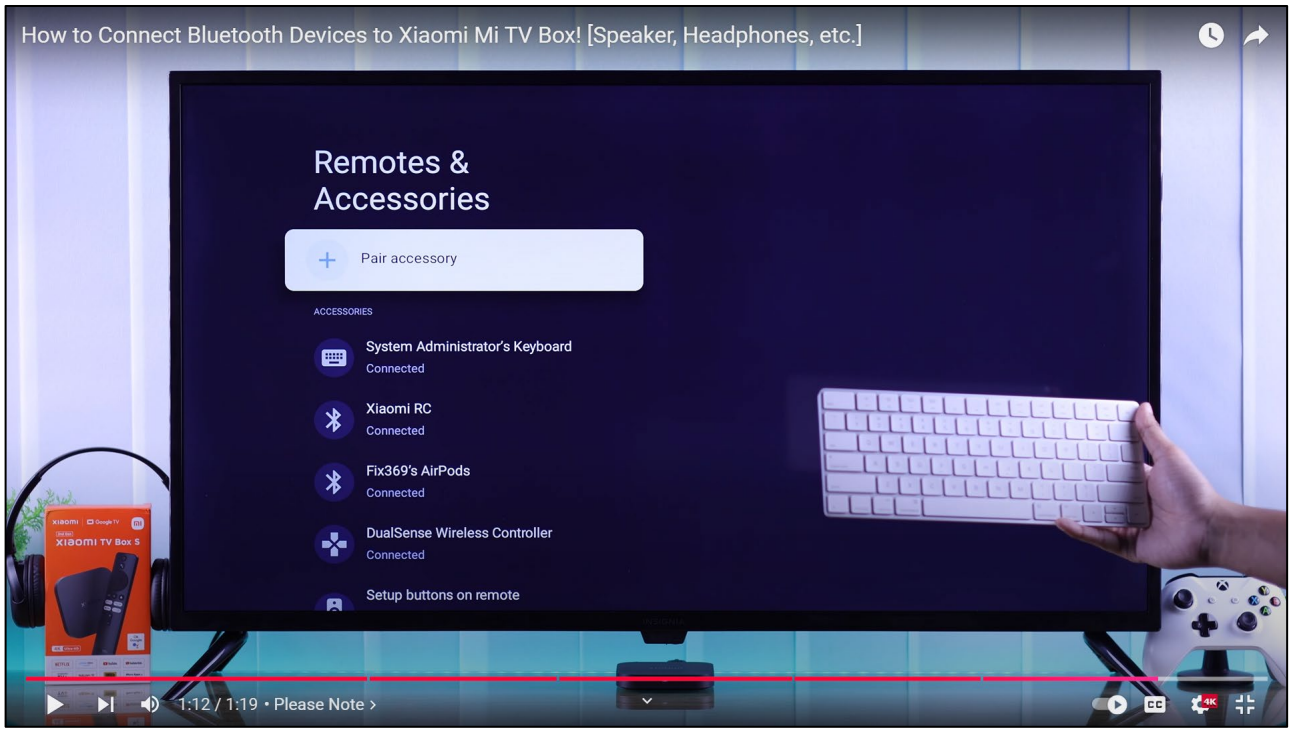
See 3.6 Xiaomi/Mi Home And Privacy.



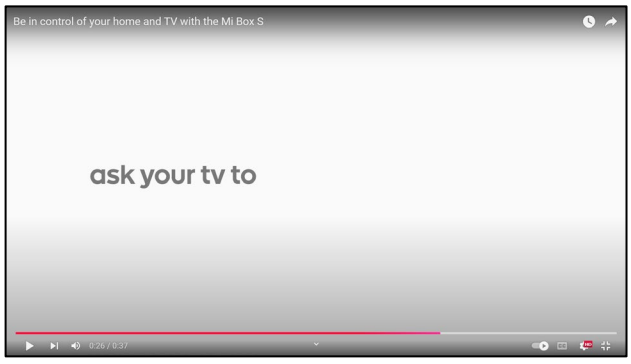
See How to install Mi Home app on Mi Box S.

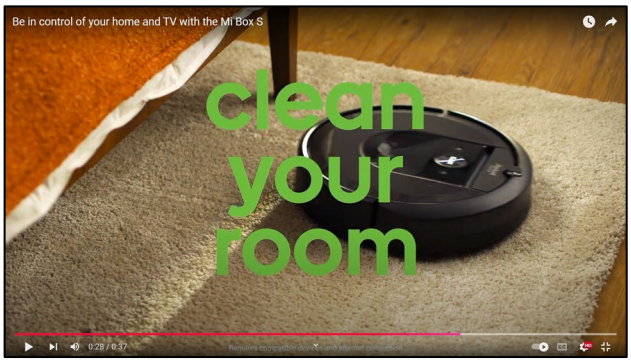


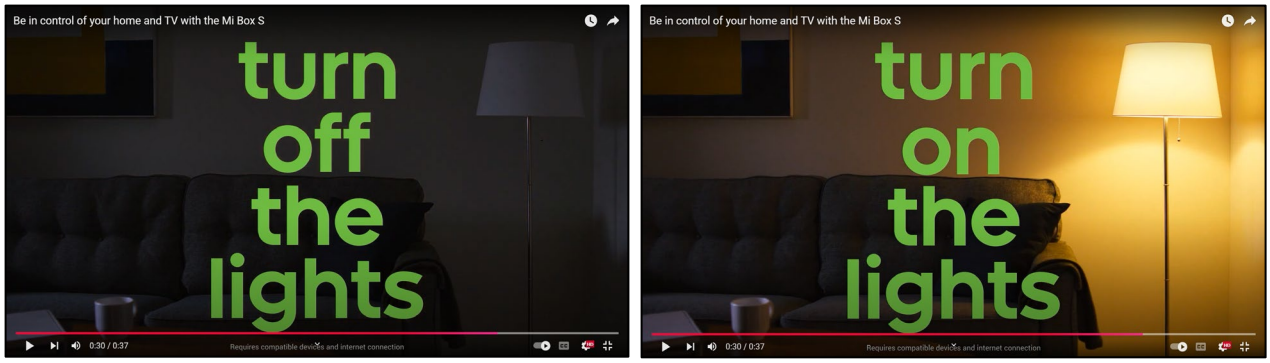




See How to Connect Bluetooth Devices to Xiaomi Mi TV Box! [Speaker, Headphones, etc.].

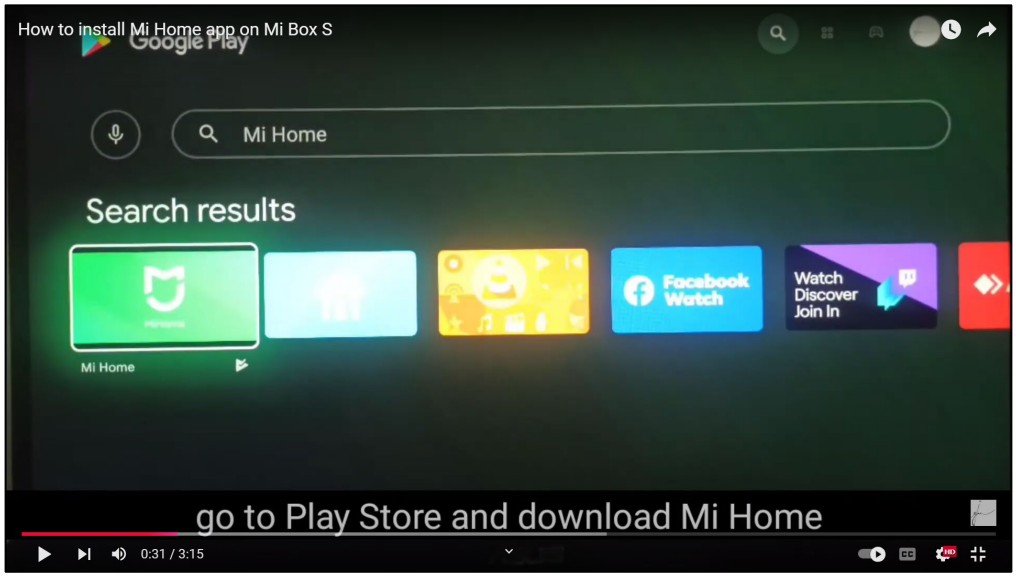


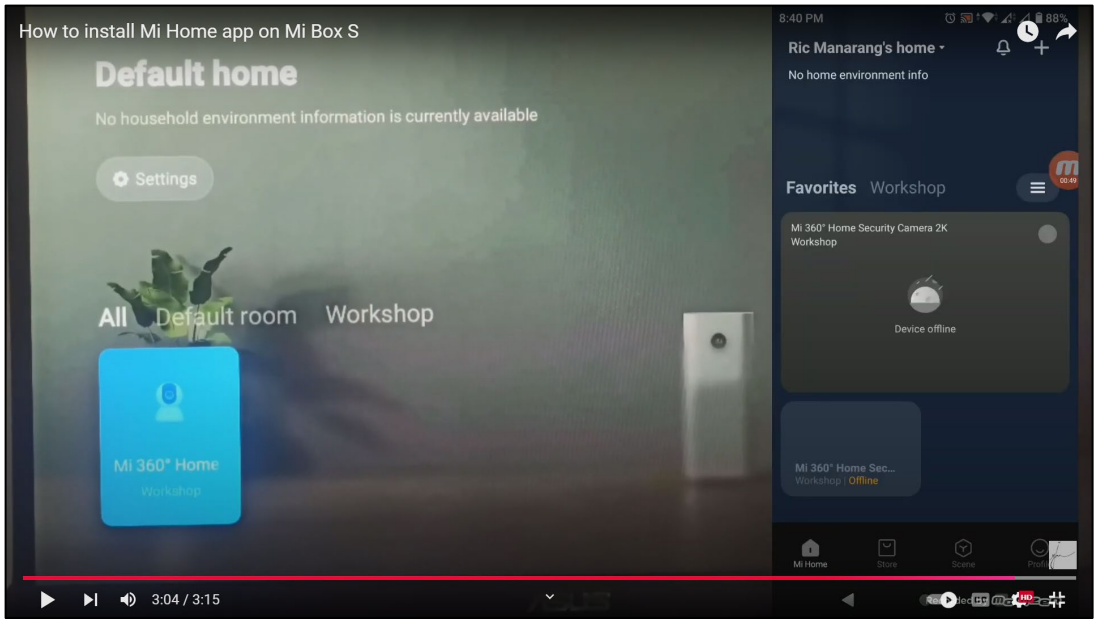




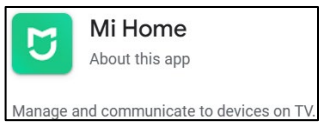
See Be in control of your home and TV with the Mi Box S - YouTube.

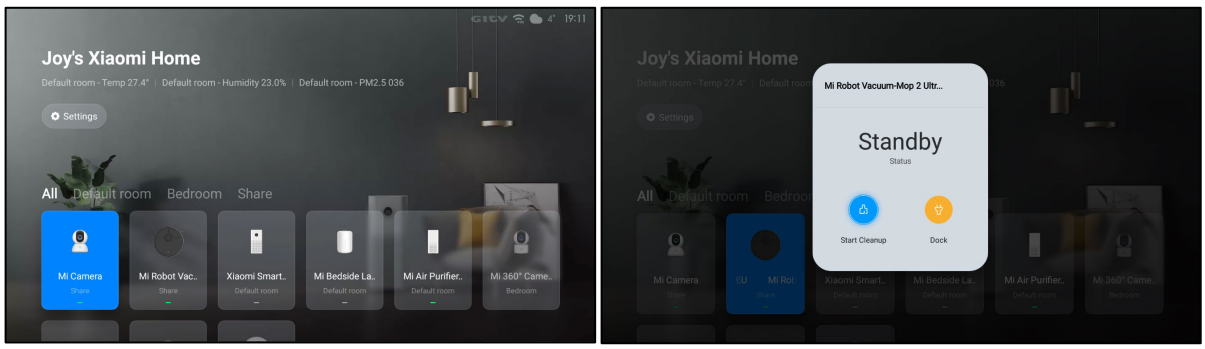
133. On information and belief, one or more components of the Xiaomi Products and Services provides a centralized HUB system for communication of information comprising wherein centralized HUB system (*e.g.*, Xiaomi TV Box) is further configured to communicate the information regarding the updated status (*e.g.*, online/offline) to a user according to a configuration setting.



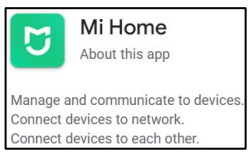


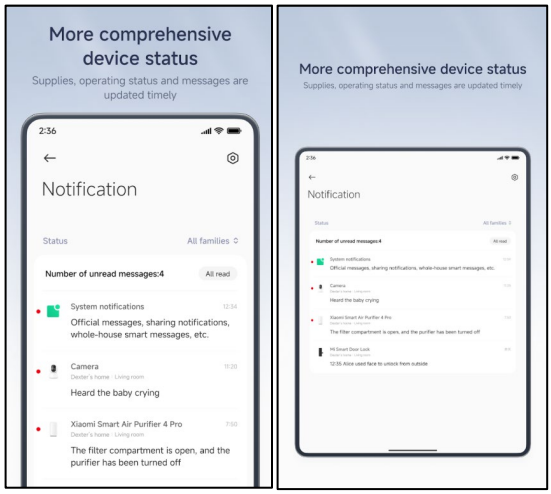
See How to install Mi Home app on Mi Box S.





See Mi Home - Apps on Google Play.





See Mi Home - Apps on Google Play.

See Xiaomi Global Home.

1) Smart Device Connections

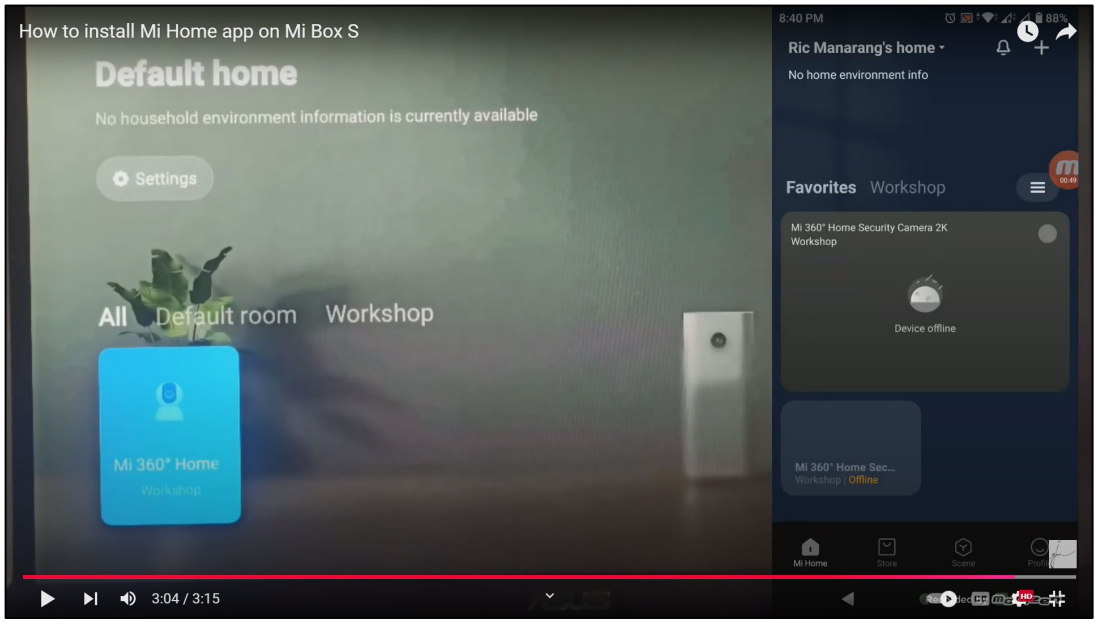
In order to provide you with Xiaomi/Mi Home services and to enable you to securely connect to and manage your smart devices, we will collect your Wi-Fi information, location information, account login information, information related to your mobile phone and smart device, and information associated with your Mi Account and smart device.

5) Smart Linkage Scenes

We provide support for you to configure certain rules to establish smart connections between devices under specific conditions. In order to enjoy this feature, we may collect your location information, smart scene rule settings, and designated device status so as to enable specific device functions to be executed according to the commands you give. For example, enabling a light to turn on whenever a sensor detects someone passing by. This functionality cannot be enabled without your explicit consent and configured rules.

See 3.6 Xiaomi/Mi Home And Privacy.

134. On information and belief, one or more components of the Xiaomi Products and Services provides a centralized HUB system for communication of information comprising wherein the configuration setting specifies when and how to notify the user about the updated status (*e.g.*, online/offline). On information and belief and as shown below, Xiaomi TV Box considers the configuration setting that specifies when and how to notify the user about the updated status.

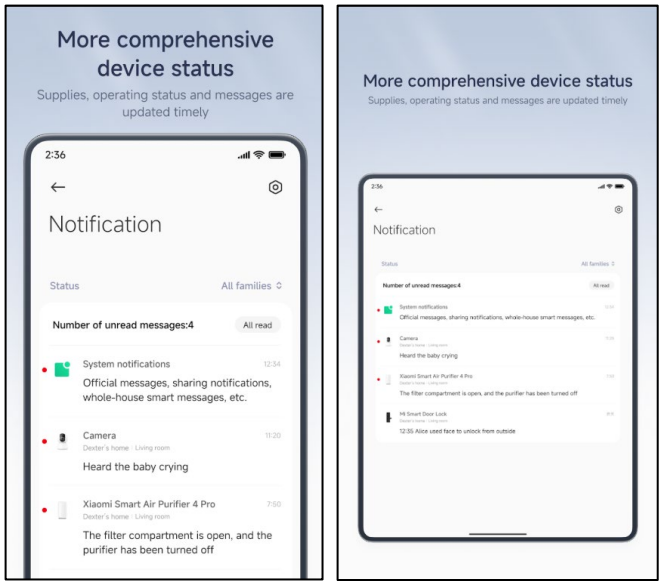


See How to install Mi Home app on Mi Box S.

5) Smart Linkage Scenes

We provide support for you to configure certain rules to establish smart connections between devices under specific conditions. In order to enjoy this feature, we may collect your location information, smart scene rule settings, and designated device status so as to enable specific device functions to be executed according to the commands you give. For example, enabling a light to turn on whenever a sensor detects someone passing by. This functionality cannot be enabled without your explicit consent and configured rules.

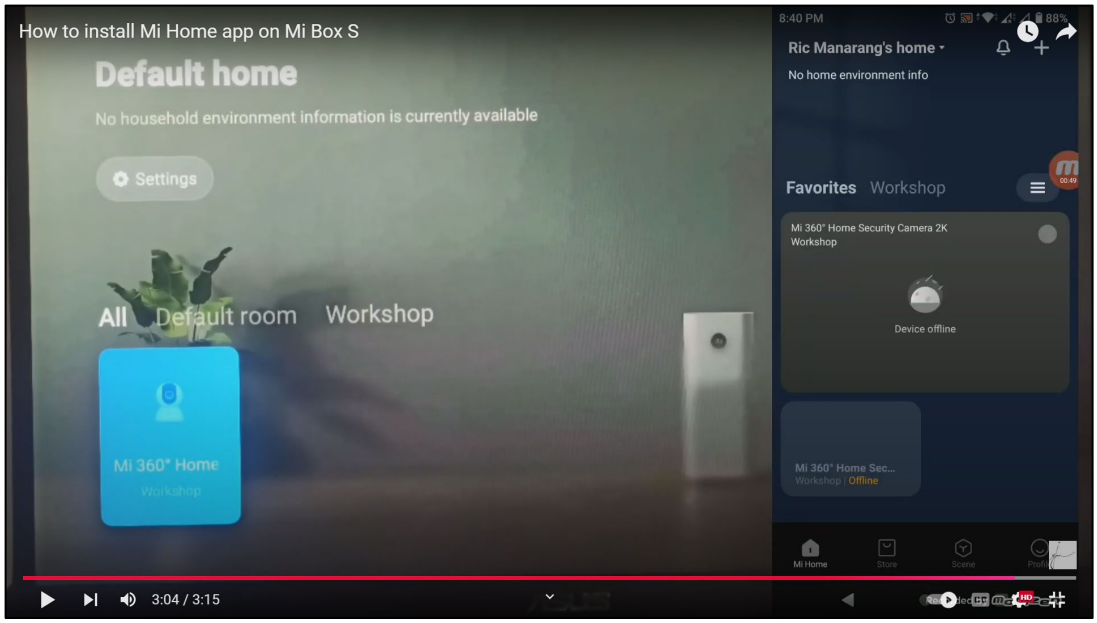
See 3.6 Xiaomi/Mi Home And Privacy.



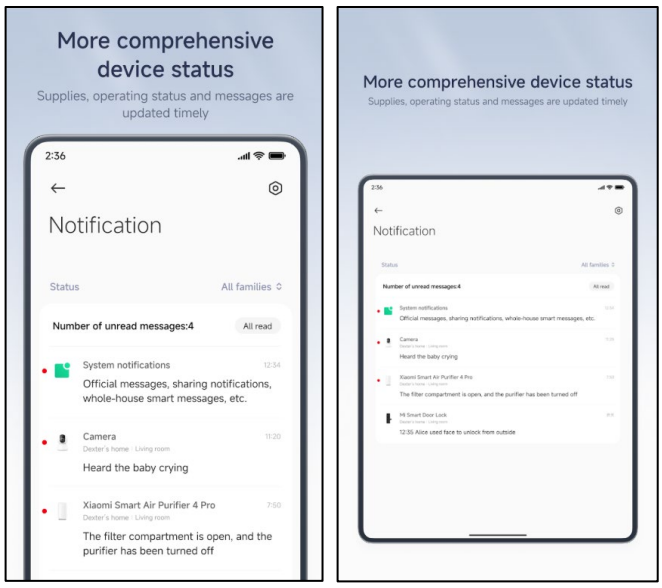
See Mi Home - Apps on Google Play.

135. On information and belief, one or more components of the Xiaomi Products and Services provides a centralized HUB system for communication of information comprising wherein a message about the updated status is communicated to the cellular phone (*e.g.*, smartphone/mobile phone).

See Xiaomi Global Home.

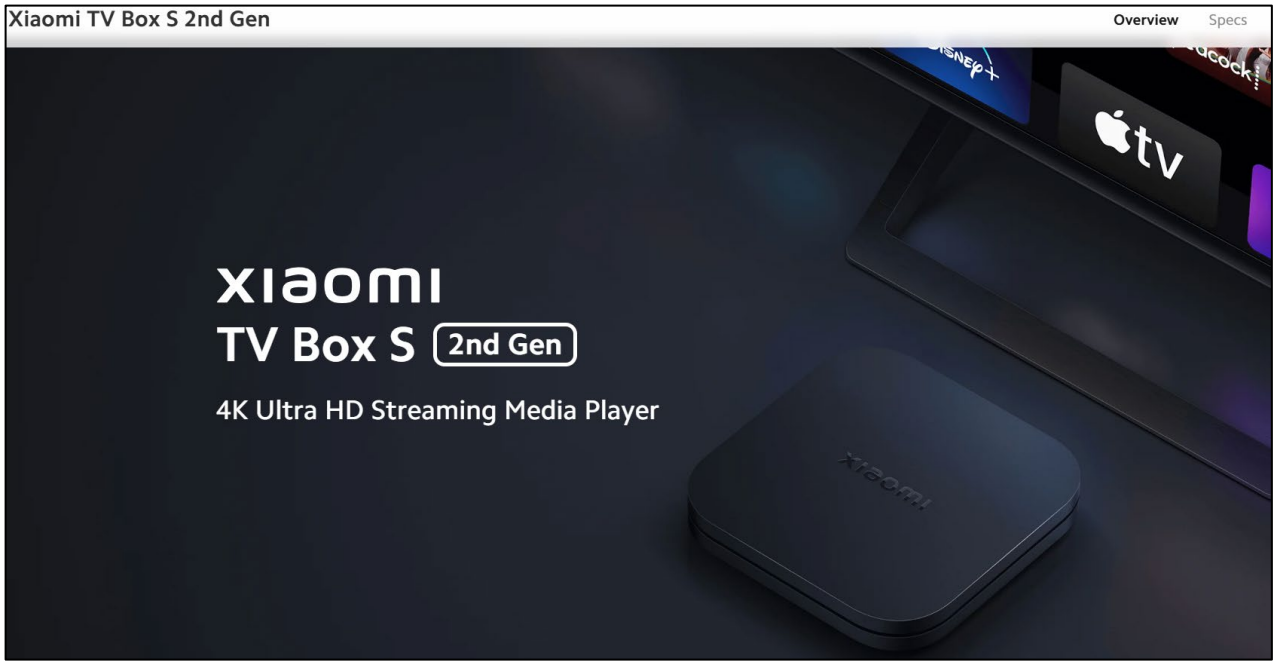


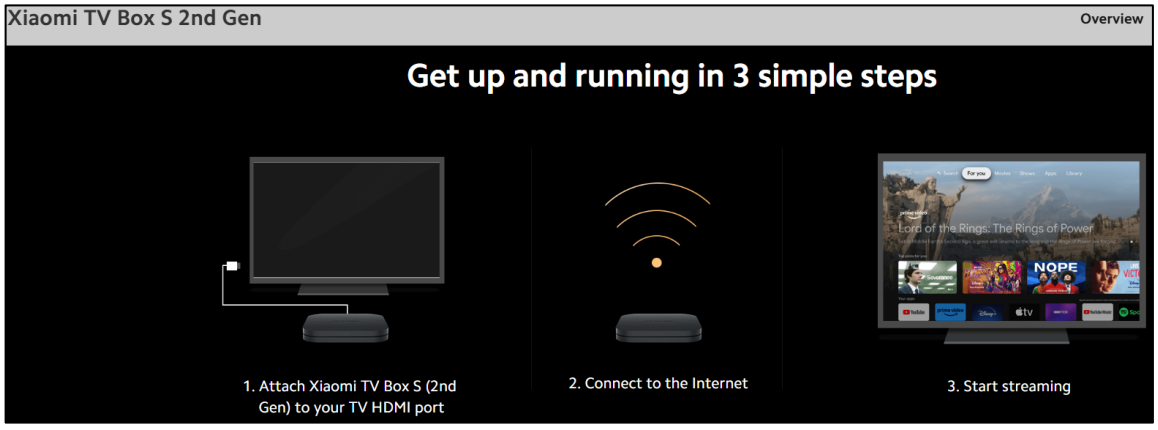
See How to install Mi Home app on Mi Box S.



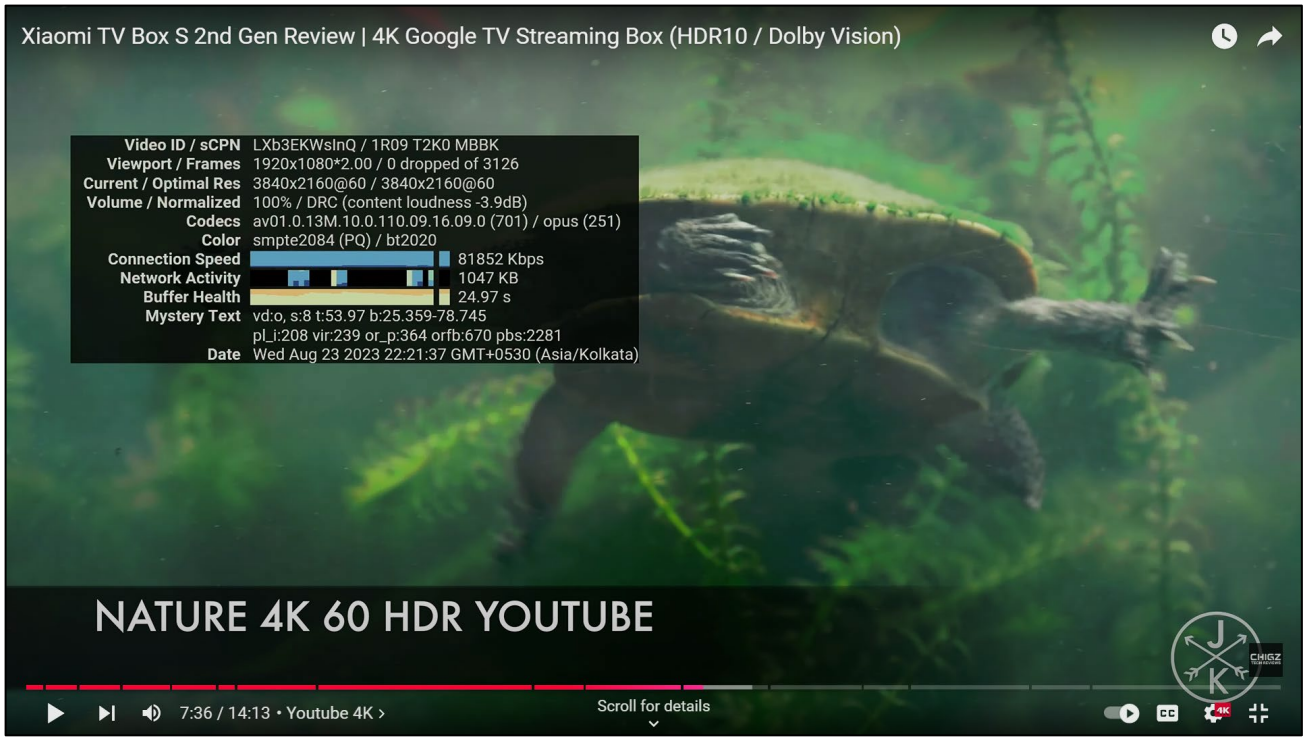
See Mi Home - Apps on Google Play.

136. On information and belief, one or more components of the Xiaomi Products and Services provides a centralized HUB system for communication of information comprising wherein the centralized HUB system (*e.g.*, Xiaomi TV Box) is configured to receive a signal (*e.g.*, video, audio, etc. for streaming).





See Xiaomi TV Box S 2nd Gen - Xiaomi United States.



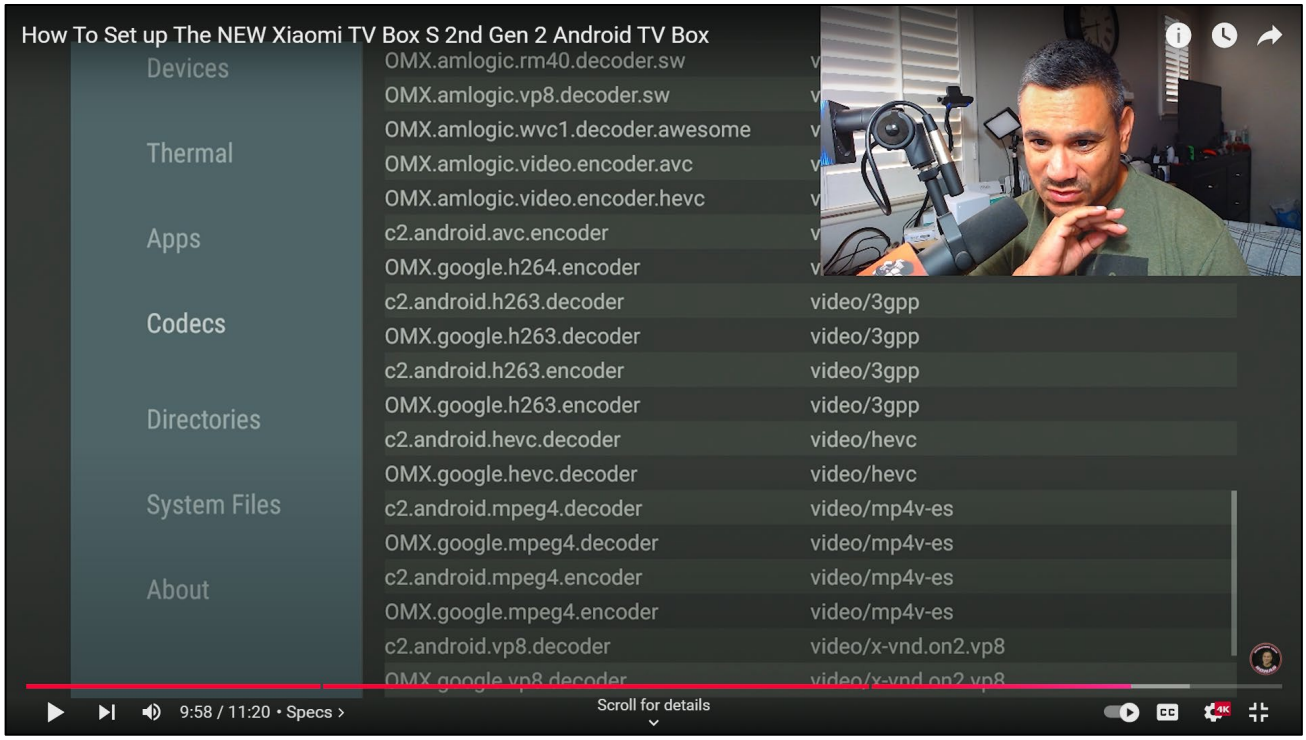
See https://www.youtube.com/watch?v=ht97YiL86o0.

137. On information and belief, one or more components of the Xiaomi Products and Services provides a centralized HUB system for communication of information comprising wherein the centralized HUB system (*e.g.*, Xiaomi TV Box) further comprising a converter (*e.g.*, Codec) configured to perform a conversion of the signal to accommodate production of a corresponding information content, the signal comprising a compressed signal, the converter comprising a decoder configured to decompress the compressed signal, the conversion comprising decompressing the compressed signal by the decoder.

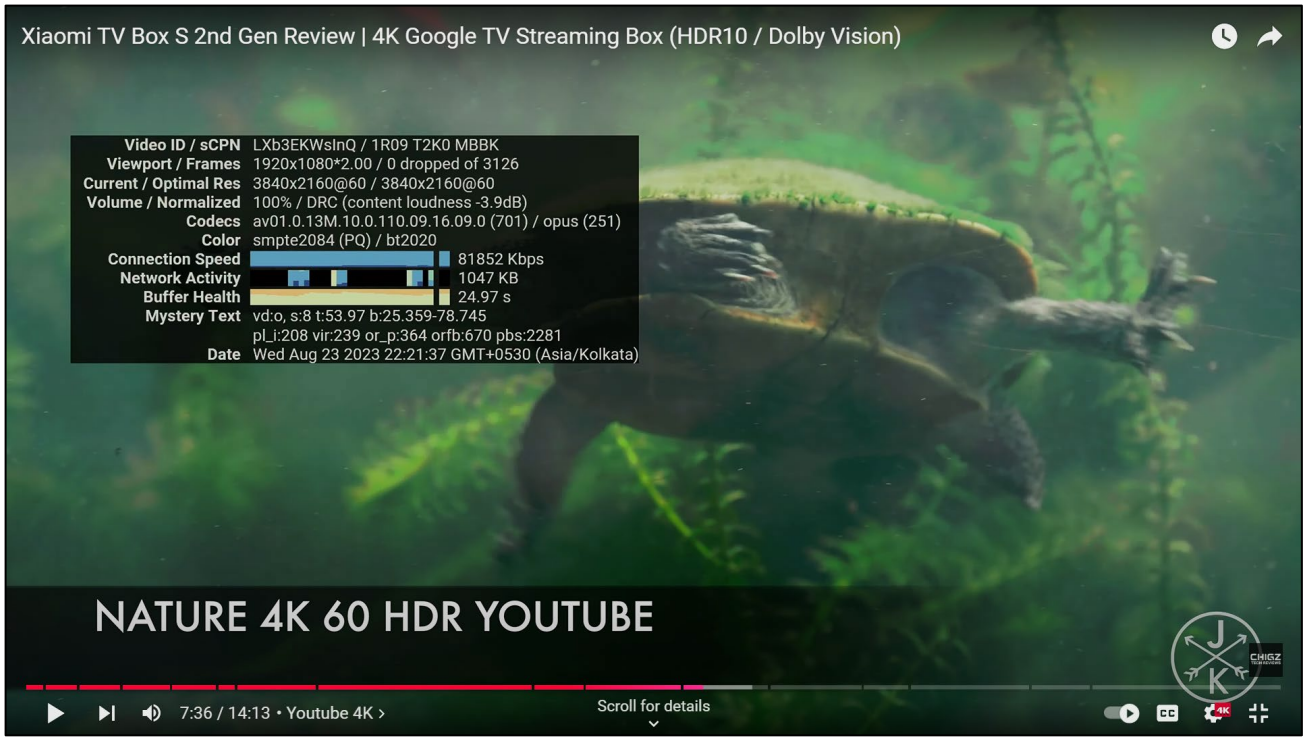
Xiaomi TV Box S 2nd Gen

Wireless connectivity	Wi-Fi:	2.4GHz/ 5GHz
	Bluetooth:	5.2
Decoder	Video decoder:	Up to 4K 60FPS
		Supports Dolby Audio® and DTS-HD
		Supports Dolby Vision®
		Supports HDR10+
	Support language:	Global

See Xiaomi TV Box S 2nd Gen - Xiaomi United States.



See https://www.youtube.com/watch?v=ul3XvLzMGww.



See https://www.youtube.com/watch?v=ht97YiL86o0.

138. On information and belief, Xiaomi directly infringes at least claims 50 and 44 of the '898 patent in violation of 35 U.S.C. § 271(a) by making, using, selling, selling access to, importing, offering for sale, and/or offering to sell access to the Xiaomi Products and Services.

139. Innovation Sciences has been damaged by Defendants' infringement and has caused / continues to cause it to suffer irreparable harm and damages as a result of the infringement.

JURY DEMANDED

62. Pursuant to Federal Rule of Civil Procedure 38(b), Innovation Sciences, LLC hereby requests a trial by jury on all issues so triable.

PRAYER FOR RELIEF

Innovation Sciences, LLC respectfully requests this Court to enter judgment in its favor and against Defendants as follows:

a. finding that Xiaomi has infringed one or more claims of the '798 patent under 35 U.S.C. §§ 271(a);

b. finding that Xiaomi has infringed one or more claims of the ’983 patent under 35 U.S.C. §§ 271(a);

c. finding that Xiaomi has infringed one or more claims of the ’425 patent under 35 U.S.C. §§ 271(a);

d. finding that Xiaomi has infringed one or more claims of the ’179 patent under 35 U.S.C. §§ 271(a);

e. finding that Xiaomi has infringed one or more claims of the ’125 patent under 35 U.S.C. §§ 271(a);

f. finding that Xiaomi has infringed one or more claims of the ’898 patent under 35 U.S.C. §§ 271(a);

g. awarding Innovation Sciences damages under 35 U.S.C. § 284, or otherwise permitted by law, including supplemental damages for any continued post-verdict infringement;

h. awarding Innovation Sciences pre-judgment and post-judgment interest on the damages award and costs;

i. declaring that Xiaomi has willfully infringed one or more claims of the Patents-in-Suit;

j. awarding cost of this action (including all disbursements) and attorney fees pursuant to 35 U.S.C. § 285, or as otherwise permitted by the law; and,

k. awarding such other costs and further relief that the Court determines to be just and equitable.

Dated: January 10, 2025

Respectfully submitted,

By: */s/ Oded Burger*

Oded Burger*
NYS Bar No. 4910808
oburger@daignaultiyer.com
Tel. 917-698-2508

Ronald M. Daignault (*pro hac vice* to be filed)*
DAIGNAULT IYER LLP
8229 Boone Boulevard – Suite 450
Vienna, VA 22182
**Not admitted to practice in Virginia*

Attorneys for Plaintiff Innovation Sciences, LLC