



Complete solutions  
for IPTV/OTT

tvip.tv

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## About us

Tvip company specializes in software development and manufacturing of equipment for IPTV/OTT service providers.

Our main products are:

- High performance IPTV/OTT Set-top boxes, based on both operating systems Linux/Android
- Transcoders/Encoders MPEG2/MPEG4/H.264
- Middleware and CAS/DRM for IPTV/OTT services

All our products are developed in St. Petersburg (Russia).

Our company has successfully completed many projects for IPTV/OTT service providers from Russia, CIS and EU countries. Our customers can use ready-made solutions from TVIP or order development of a unique customized solution.

We are open to conversation and willing to discuss proposals for cooperation.

### Key features of TVIP Set-top boxes:

- Linux or Android operating system
- High-performance software integrated with popular middleware software
- Fast and user friendly interface
- User interface customization
- Local timeshift and PVR
- Remote management and provision of set-top boxes in operator's network
- Same user interface for Linux and Android
- Wireless router mode

### The advantages of TVIP Set-top boxes with Android:

- High-performance shell optimized for IPTV/OTT services
- Operator managed application installation
- Support for DLNA, Samba, Miracast, Youtube, Kodi
- Possibility to control Set-top box with a smart phone or tablet

### Use cases of TVIP Set-top boxes:

- Under operation of TVIP Middleware, MEDIASTAGE, Stalker
- Using with custom middleware over Open API
- With no middleware using simple M3U-playlists
- Media player with USB/LAN media playback support
- Using custom Android APK



### Amlogic S905X quad core 2 GHz



	v.610	v.612	v.615		v.600	v.602	v.605
Chipset	Amlogic S905X quad core 2 GHz						
Video resolution	Up to 3840x2160 (HDR)						
3D Graphics	OpenGL ES 2.0 (Mali-450 penta core)						
Operating system	Linux or Android 6.0 (Marshmallow)						
Video codecs	H.265 (10 bit), VP9, H.264, MPEG4 ASP, Xvid, MPEG2, MJPEG up to 2160p 60fps						
Support HEVC	✓	✓	✓		✓	✓	✓
Support 4K	✓	✓	✓		✓	✓	✓
CAS/DRM TVIP	✓	✓	✓		✓	✓	✓
Verimatrix 3.x							
IPTVPORTAL	✓	✓	✓		✓	✓	✓
BISS	✓	✓	✓		✓	✓	✓
Widevine	○	○	○		○	○	○
TR-069	✓	✓	✓		✓	✓	✓
WiFi 802.11		2,4 GHz	2,4/5 GHz			2,4 GHz	2,4/5 GHz
HDMI	2.0	2.0	2.0		2.0	2.0	2.0
AV	✓	✓	✓		✓	✓	✓
Ethernet 100 Mbit	✓	✓	✓		✓	✓	✓
USB	1	1	1		2	2	2
MicroSD Card	✓	✓	✓		✓	✓	✓
ext.IR	✓	✓	✓		✓	✓	✓

○ - optional



### Amlogic S805 quad core 1,5 GHz



	v.410	v.412	v.415		v.500 lite	v.500	v.500 dual		v.422	v.425
Chipset	Amlogic S805 quad core 1,5 GHz									
Video resolution	Up to 1920x1080									
3D Graphics	OpenGL ES 2.0 (Mali-450 quad core)									
Operating system	Linux or Android 4.4 (KitKat)									
Video codecs	H.265, H.264, MPEG4 ASP, Xvid, MPEG2, MJPEG up to 1080p 60fps									
Support HEVC	✓	✓	✓		✓	✓	✓		✓	✓
Support 4K										
CAS/DRM TVIP	✓	✓	✓		✓	✓	✓		✓	✓
Verimatrix 3.x	✓	✓	✓		✓	✓	✓		○	○
IPTVPORTAL	✓	✓	✓		✓	✓	✓		✓	✓
BISS	✓	✓	✓		✓	✓	✓		✓	✓
Widevine	○	○	○		○	○	○		○	○
TR-069	✓	✓	✓		✓	✓	✓		✓	✓
WiFi 802.11		2,4 GHz	2,4/5 GHz			2,4 GHz	2,4/5 GHz		2,4 GHz	2,4/5 GHz
HDMI	1.4	1.4	1.4		1.4	1.4	1.4		1.4	1.4
AV	✓	✓	✓		✓	✓	✓		✓	✓
Ethernet 100 Mbit	✓	✓	✓		✓	✓	✓			
USB	1	1	1		2	2	2		1	1
MicroSD Card	✓	✓	✓		✓	✓	✓		✓	✓
ext.IR	✓	✓	✓		✓	✓	✓		✓	✓

○ - optional

Available Q4 2016

TVIP S-Box v.610

TVIP S-Box v.612

TVIP S-Box v.615

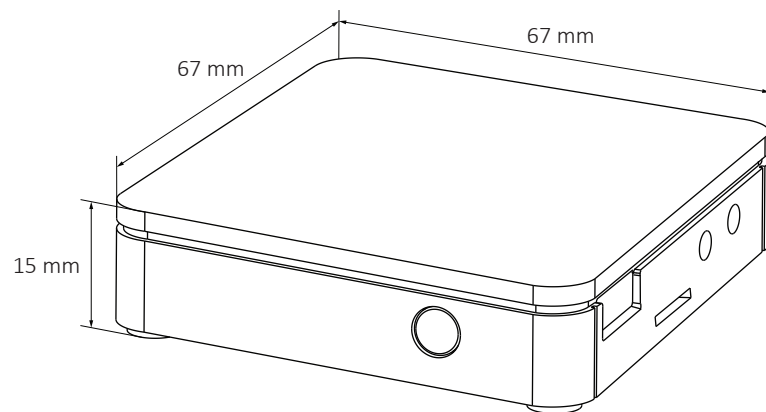


Amlogic S905X  
quad core 2 GHz

**4K**  
Ultra HD



HDMI, AV,  
Ethernet



## TVIP S-Box v.610, v.612 and v.615

Chipset	Amlogic S905X quad core 2 GHz
Video resolution	Up to 3840x2160 (HDR)
3D Graphics	OpenGL ES 2.0 (Mali-450 penta core)
Memory	RAM 1 Gb, Flash 8 Gb
Interfaces	HDMI, AV, Ethernet, USB, MicroSD Card, ext.IR
Operating system	Linux or Android 6.0 (Marshmallow)
Supported Middleware	TVIP, IPTVPORTAL, Stalker, HTML5/JS web portals
Remote provisioning	TR-069 or TVIP XML
Containers	MPEG-TS, MPEG-PS, MP4, MKV, AVI, MOV, FLV, OGG
Protocols	UDP, RTP, HTTP, HLS, RTSP, SMB, NFS
CAS/DRM	TVIP, IPTVPORTAL, BISS, optional: Widevine
Video codecs	H.265 (10 bit), VP9, H.264, MPEG4 ASP, Xvid, MPEG2, MJPEG up to 2160p 60fps
Audio codecs	MPEG/MP3/MPA, AAC, WMA, OGG, WAV, FLAC, APE
Subtitles	DVBSUB, VOBSUB, Teletext, SSA/ASS, SubRip
Images	JPEG, PNG

**v.610**

Without WiFi

**v.612**

WiFi 802.11 (b/g/n)  
2,4 GHz

**v.615**

WiFi 802.11 (a/b/g/n)  
2,4/5 GHz

Available Q4 2016

TVIP S-Box v.600

TVIP S-Box v.602

TVIP S-Box v.605

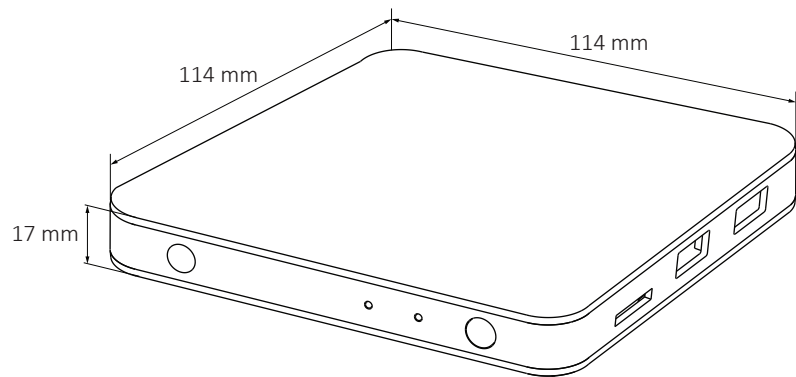


Amlogic S905X  
quad core 2 GHz

4K  
Ultra HD



HDMI, AV,  
Ethernet



## TVIP S-Box v.600, v.602 and v.605

Chipset	Amlogic S905X quad core 2 GHz
Video resolution	Up to 3840x2160 (HDR)
3D Graphics	OpenGL ES 2.0 (Mali-450 penta core)
Memory	RAM 1 Gb, Flash 8 Gb
Interfaces	HDMI, AV, Ethernet, 2xUSB, MicroSD Card, ext.IR
Operating system	Linux or Android 6.0 (Marshmallow)
Supported Middleware	TVIP, IPTVPORTAL, Stalker, HTML5/JS web portals
Remote provisioning	TR-069 or TVIP XML
Containers	MPEG-TS, MPEG-PS, MP4, MKV, AVI, MOV, FLV, OGG
Protocols	UDP, RTP, HTTP, HLS, RTSP, SMB, NFS
CAS/DRM	TVIP, IPTVPORTAL, BISS, optional: Widevine
Video codecs	H.265 (10 bit), VP9, H.264, MPEG4 ASP, Xvid, MPEG2, MJPEG up to 2160p 60fps
Audio codecs	MPEG/MP3/MPA, AAC, WMA, OGG, WAV, FLAC, APE
Subtitles	DVBSUB, VOBSUB, Teletext, SSA/ASS, SubRip
Images	JPEG, PNG

v.600

Without WiFi

v.602

WiFi 802.11 (b/g/n)  
2,4 GHz

v.605

WiFi 802.11 (a/b/g/n)  
2,4/5 GHz

TVIP S-Box v.410

TVIP S-Box v.412

TVIP S-Box v.415

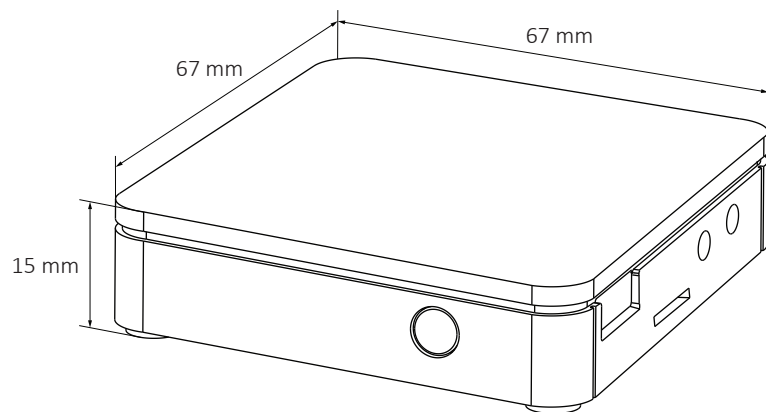


Amlogic S805  
quad core 1,5 GHz

HEVC



HDMI, AV,  
Ethernet



## TVIP S-Box v.410, v.412 and v.415

Chipset	Amlogic S805 quad core 1,5 GHz
Video resolution	Up to 1920x1080
3D Graphics	OpenGL ES 2.0 (Mali-450 quad core)
Memory	RAM 512 Mb, Flash 4 Gb
Interfaces	HDMI, AV, Ethernet, USB, MicroSD Card, ext.IR
Operating system	Linux or Android 4.4 (KitKat)
Supported Middleware	TVIP, IPTVPORTAL, Stalker, HTML5/JS web portals
Remote provisioning	TR-069 or TVIP XML
Containers	MPEG-TS, MPEG-PS, MP4, MKV, AVI, MOV, FLV, OGG
Protocols	UDP, RTP, HTTP, HLS, RTSP, SMB, NFS
CAS/DRM	TVIP, Verimatrix 3.x, IPTVPORTAL, BISS, optional: Widevine
Video codecs	H.265, H.264, MPEG4 ASP, Xvid, MPEG2, MJPEG up to 1080p 60fps
Audio codecs	MPEG/MP3/MPA, AAC, WMA, OGG, WAV, FLAC, APE
Subtitles	DVBSUB, VOBSUB, Teletext, SSA/ASS, SubRip
Images	JPEG, PNG

v.410

Without WiFi

v.412

WiFi 802.11 (b/g/n)  
2,4 GHz

v.415

WiFi 802.11 (a/b/g/n)  
2,4/5 GHz

TVIP S-Box v.500 lite

TVIP S-Box v.500

TVIP S-Box v.500 dual

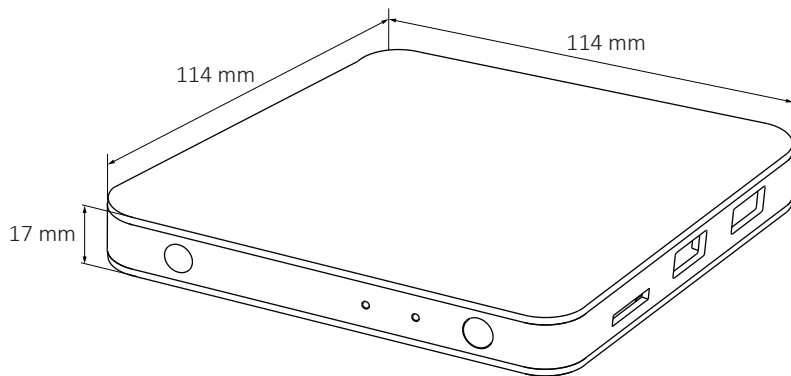


Amlogic S805  
quad core 1,5 GHz

HEVC



HDMI, AV,  
Ethernet



## TVIP S-Box v.500 lite, v.500 and v.500 dual

Chipset	Amlogic S805 quad core 1,5 GHz
Video resolution	Up to 1920x1080
3D Graphics	OpenGL ES 2.0 (Mali-450 quad core)
Memory	RAM 512 Mb, Flash 4 Gb
Interfaces	HDMI, AV, Ethernet, 2xUSB, MicroSD Card, ext.IR
Operating system	Linux or Android 4.4 (KitKat)
Supported Middleware	TVIP, Media Stage, IPTVPORTAL, Stalker, HTML5/JS web portals
Remote provisioning	TR-069 or TVIP XML
Containers	MPEG-TS, MPEG-PS, MP4, MKV, AVI, MOV, FLV, OGG
Protocols	UDP, RTP, HTTP, HLS, RTSP, SMB, NFS
CAS/DRM	TVIP, Verimatrix 3.x, IPTVPORTAL, BISS, optional: Widevine
Video codecs	H.265, H.264, MPEG4 ASP, Xvid, MPEG2, MJPEG up to 1080p 60fps
Audio codecs	MPEG/MP3/MPA, AAC, WMA, OGG, WAV, FLAC, APE
Subtitles	DVBSUB, VOBSUB, Teletext, SSA/ASS, SubRip
Images	JPEG, PNG

**v.500 lite**

Without WiFi

**v.500**

WiFi 802.11 (b/g/n)  
2,4 GHz

**v.500 dual**

WiFi 802.11 (a/b/g/n)  
2,4/5 GHz

## TVIP S-Box v.422

## TVIP S-Box v.425



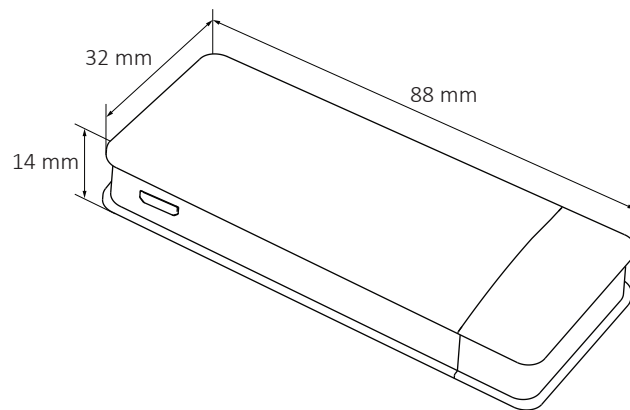
Amlogic S805  
quad core 1,5 GHz



WiFi 802.11 (b/g/n)



HDMI



## TVIP S-Box v.422 and v.425

Chipset	Amlogic S805 quad core 1,5 GHz
Video resolution	Up to 1920x1080
3D Graphics	OpenGL ES 2.0 (Mali-450 quad core)
Memory	RAM 512 Mb, Flash 4 Gb
Interfaces	HDMI, USB, MicroSD Card, ext.IR
Operating system	Linux or Android 4.4 (KitKat)
Supported Middleware	TVIP, IPTVPORTAL, Stalker, HTML5/JS web portals
Remote provisioning	TR-069 or TVIP XML
Containers	MPEG-TS, MPEG-PS, MP4, MKV, AVI, MOV, FLV, OGG
Protocols	UDP, RTP, HTTP, HLS, RTSP, SMB, NFS
CAS/DRM	TVIP, IPTVPORTAL, BISS, Verimatrix 3.x and Widevine - optional
Video codecs	H.265, H.264, MPEG4 ASP, Xvid, MPEG2, MJPEG up to 1080p 60fps
Audio codecs	MPEG/MP3/MPA, AAC, WMA, OGG, WAV, FLAC, APE
Subtitles	DVBSUB, VOBSUB, Teletext, SSA/ASS, SubRip
Images	JPEG, PNG

### v.422

WiFi 802.11 (b/g/n) 2,4 GHz

### v.425

WiFi 802.11 (a/b/g/n) 2,4/5 GHz



## Transcoder TVIP Mira - 101



### Interface

Ethernet  
10/100/1000

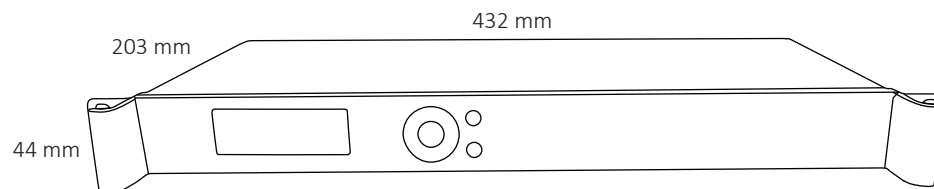


### Input/Output

MPEG-TS  
over IP (RTP and UDP),  
Multicast

Built-in HLS streamer  
(optional)

SNMP Monitoring



Transcoding video into multiple resolutions and bitrates.  
Audio transcoding.  
Processing up to 20 streams at once.

	Video	Audio
Decoders	H.264, MPEG-2	MP2, MP3, AAC Optional: AC3
Encoders	H.264 (lvl. 4.2@HP with B-frames) Optional: MPEG-2 and MJPEG	AAC Optional: MP2, MP3 and AC3
Video resolution and frequency	Up to 1920×1080i@60fps Up to 1920×1080p@60fps	Multichannel audio
Deinterlace	Up to 1080p@60fps	

### Table of approximated performance

Input	Output	Number of channels
MPEG2, 720×576i@25fps, ~4Mbit/s MPEG 2 Audio	H264 High Profile, 720×576p@25fps, 2Mbit/s AAC Audio	18-20
MPEG2, 720×576i@25fps, ~4Mbit/s MPEG 2 Audio	H264 High Profile, 720×576p@25fps, 2Mbit/s H264 High Profile, 720×576p@25fps, 1Mbit/s AAC Audio	12-14
MPEG2, 720×576i@25fps, ~4Mbit/s MPEG 2 Audio	H264 High Profile, 720×576p@25fps, 2Mbit/s H264 High Profile, 720×576p@25fps, 1Mbit/s H264 High Profile, 360×288p@25fps, 750Kbit/s H264 High Profile, 360×288p@25fps, 350Kbit/s AAC Audio	8-10
H264, 1920×1080i@25fps, ~15Mbit/s MPEG 2 Audio	H264 High Profile, 1920×1080p@25fps, 4Mbit/s AAC Audio	3
H264, 1920×1080i@25fps, ~15Mbit/s MPEG 2 Audio	H264 High Profile, 1920×1080p@25fps, 4Mbit/s H264 High Profile, 1280×720p@25fps, 2Mbit/s H264 High Profile, 640×360p@25fps, 1Mbit/s AAC Audio	2-3

Parameters in this table are approximated values and real parameters may vary depending on characteristics of input streams and setup of encoding.

## Middleware TVIP

EPG

VOD



Time Shifted TV



TV archive

## Advantages of TVIP Middleware:

- Same user interface for Set-top boxes and Smart TV
- Supported devices:  
Tvip, Dune, Mag, Eltex, Android TV, Samsung Smart TV, LG Smart TV
- Fast animated user interface for TVIP Set-top boxes (native application)
- Possibility to organize multiple groups of service providers with a single Middleware instance (server)

## Key features of TVIP Middleware:

- Both IPTV and OTT services
- Client device management
- Multiscreen
- Time Shifted TV
- TV archive, Catch Up TV
- VOD





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