

## TURN KEY END TO END SERVICE DELIVERY PLATFORM



### ARANTIA CHRONOS SET-TOP-BOX (REF. 830102, 830104 & 830105)

CHRONOS STB IS A DIGITAL, ADVANCED, INTERACTIVE HIGH DEFINITION SET-TOP BOX DESIGNED TO RECEIVE IP SERVICES ALONG WITH THE ABILITY TO DEVELOP INTERACTIVE APPLICATIONS AND SERVICES ON ITS INTEGRATED BROWSER.

- MPEG2 and MPEG4 AVC / H264
- High definition device up to 1080p60
- Ecodesigned device with very low power consumption (~5W)
- Arantia Chronos PoE: Variant with Power-over-Ethernet support, 802.3af compliant
- Arantia Chronos WiFi: Wireless version with 802.11bg support



REMOTE  
MANAGEMENT



STANDARD  
H.264



HDMI



LOW POWER  
CONSUMPTION

## ARANTIA CHRONOS SET-TOP-BOX

### DESCRIPTION

The **ARANTIA CHRONOS STB** is an advanced, interactive, digital high definition set-top box that is designed to receive IP services along with the ability to develop interactive applications and services on its integrated browser.

Our new STB, The Chronos: Small form factor, powerful, robust, reliable,...

Turn Key End to End Service Delivery Platform.

Within ARANTIA Series end to end IPTV service delivery platform, from the digital head end to the STB, this IPTV MPEG 4 AVC STB ensures the deployment of Triple Play Services.



### MAIN FEATURES

- Advanced user interface navigation via embedded browser.
- HDMI interface with HDCP copy protection.
- Dual USB 2.0 high-speed communication port.
- TV Interactive interface (TVI) and IR extender.
- Remote configuration and management.
- Open-standards based software stack.
- Modular software architecture ready for features and services development.
- HTML5 web-browser with extended JavaScript API.

### HIGHLIGHTS

- **MPEG2 and MPEG4 AVC / H264**
- **High Definition device up to 1080p60**
- **Ecodesigned device** with very low power consumption (~5W)
- **Ariantia Cronos PoE:** Variant with Power-over-Ethernet support, 802.3af compliant
- **Ariantia Cronos WiFi:** Wireless version with 802.11bg support

REF.	DESCRIPTION	EAN 13
830102	Arantia Chronos Set-Top-Box, High Definition	8424450161838
830104	Arantia Chronos Set-Top-Box, High Definition with WiFi Module	8424450176207
830105	Arantia Chronos Set-Top-Box, PoE	8424450177150

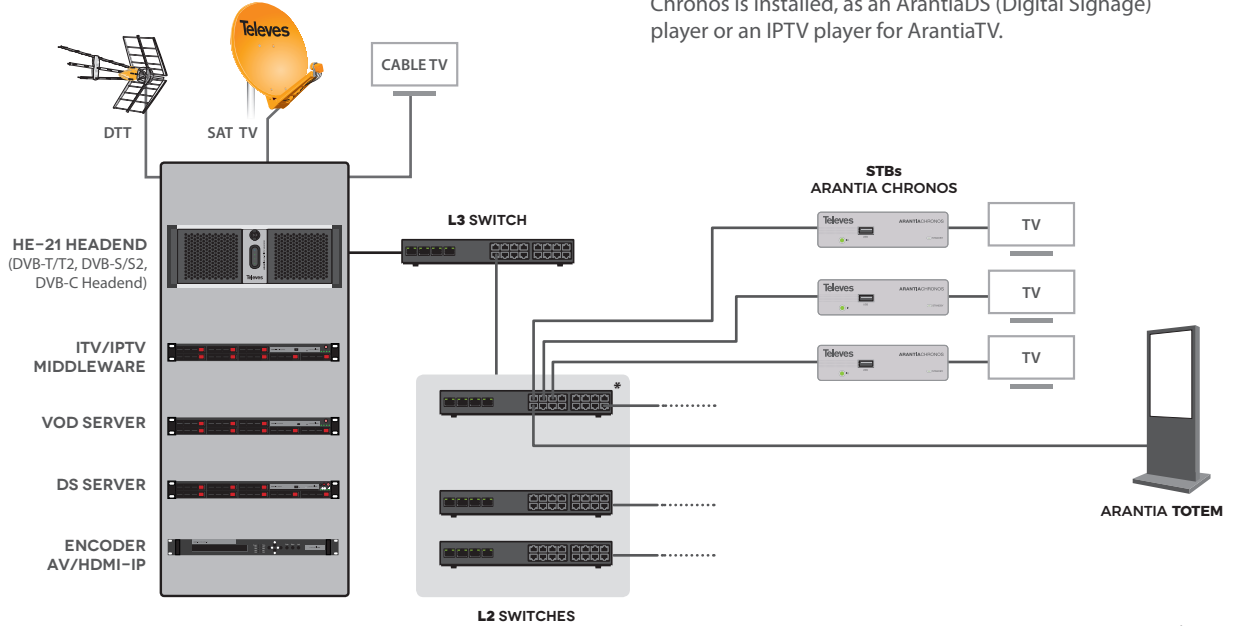
# TURN KEY END TO END SERVICE DELIVERY PLATFORM

APPLICATION EXAMPLE

## TYPICAL HOTEL ARCHITECTURE

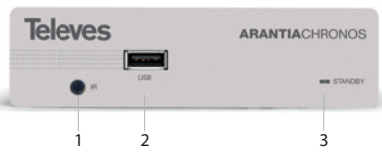
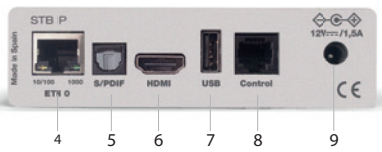
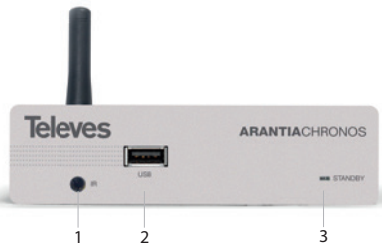
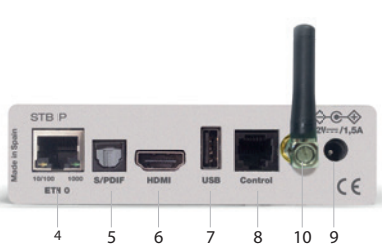


The following schema depicts a typical hospitality deployment using Chronos as end-user device.

Different parts of the architecture show the input systems (IPTV Heandend, MW servers, VoD servers,...) the distribution network and the final user points where Chronos is installed, as an ArantiaDS (Digital Signage) player or an IPTV player for ArantiaTV.



\* You can connect as many Arantia Chronos as outputs the L2 Switch have.

DESCRIPTION VIEWS

<p><b>CHRONOS</b> (Ref. 830102)</p>	<p>FRONT</p> 	<p>REAR</p> 	
<p><b>CHRONOS WIFI</b> (Ref. 830104)</p>			
<p><b>CHRONOS PoE</b> (Ref. 830105)</p>			

- 1 IR receiver.
- 2 USB 2.0 Host connector.
- 3 Standby LED.
- 4 RJ45 10/100/1000 Ethernet with activity&link LEDs.
- 5 S/PDIF audio output.
- 6 Integrated HDMI v1.3a with CEC, 12-bit deep color, xvYCC and HDCP 1.3 content protection.
- 7 USB connector.
- 8 Control port (TVI & IR extender)
- 9 1xDC Power Jack (12V/1,5A)
- 10 SMA female connector + SMA male antenna (optional)

# ARANTIA CHRONOS SET-TOP-BOX

TECHNICAL SPECIFICATIONS

## SYSTEM

Multicore Processor  
Host CPU MIPS@700MHz  
Secure CPU MIPS@350MHz  
512Mb DDR2 memory  
512 Mb Nand flash memory  
Dual HD video decoder  
JPEG hardware acceleration  
2D graphics acceleration  
32-bits OSD

## DATA PROTOCOLS

HTTP 1.1  
HTTPS  
HTML5.0 (372/555 points in html5test)  
XHTML 1.1  
Dynamic HTML  
CSS3, CSS2  
DOM 1.0 & 2.0  
XML 1.1  
JavaScript & AJAX  
JSON  
XMLHttpRequest

## A/V PROTOCOLS

IPTV Multicast (IGMP v2/v3)  
Video over UDP, RTP and HTTP  
HTML5 audio and video tags  
Frames & i-Frames support

## A/V CAPABILITIES

### VIDEO DECODING:

MPEG2 MP@HL  
MPEG-4.2 ASP@L5 (up to HD resolution, 1-point GMC)  
MPEG-4.10 (H.264) MP@L4.0 and HP@L4.0  
H.261  
AVS  
In-loop de-blocking filter for MPEG-4.10 (H.264)  
Error concealment for MPEG-2 and MPEG-4.2  
Elementary video stream bit rate  
MPEG-4.2 SDTV (HDTV): 20 (40) Mbps maximum  
MPEG-4.10 (H.264) SDTV (HDTV): 20 (40) Mbps maximum  
MPEG-2 SDTV (HDTV): 20 (40) Mbps maximum

## PROCESSING

Brightness, color and contrast controls for each output port  
Hardware cursor (4096 pixels, 4-bpp, up to 255 pixels horizontally and vertically)  
2D graphics accelerator (up to 175M pixels per second operation for most operations)

Line, Rectangle, Ellipse and Circle: generate a single-color line, rectangle, ellipse or circle with optional gradient fill

Blend: alpha blend one rectangular region onto another

Move: move a rectangular region to another location

Replace: modified version of Move

Raster Operations: standard 256 Boolean operations

## AUDIO DECODING:

Dolby Digital 5.1, Dolby Digital Plus 5.1  
MPEG-1 Layers I, II and III (MP3) 2.0  
MPEG-4 AAC-LC 5.1  
MPEG-4 HE-AAC 5.1  
FLAC  
OGG vorbis  
ADPCM DVI  
G.711 (A-law and  $\mu$ -law)

## PICTURE CAPABILITIES

### DECODING:

JPEG (SW decoded or HW accelerated decoding)  
1x1 to 2048x2048 resolution  
YCbCr and RGB (4:4:4 only)  
4:4:4, 4:2:2 and 4:2:0  
Baseline and progressive  
PNG/MNG (SW decoded)  
GIF (SW decoded)  
BMP (SW decoded)

## FONT/CLOSED CAPTIONS

TrueType (TTF)  
PostScript Type1 (PFA/PFB)  
Bitmap Distribution Format (BDF)  
CID-keyed Type1  
Compact Font Format (CFF)  
OpenType fonts  
SFNT-based bitmap fonts  
Portable Compiled Format (PCF)

Microsoft Windows Font File Format (Windows FNT)  
Portable Font Resource (PFR)  
Type 42 (limited support)

## SUPPORTED FORMATS

### AUDIO

MPEG-1 Audio Layer 3 (MP3)  
MPEG-1 Audio Layer 2 (MP2)  
AAC, HE-AAC, ATRAC3, FLAC, OGG Vorbis & AC3

### VIDEO

MPEG-1 System  
MPEG2 Program (M2P), MPEG-2 Transport (M2T) (188- and 192-bit packets)  
MPEG-4.14 (MP4)  
Matroska Multimedia Format (MKV)  
Audio Video Interface (AVI)  
Flash Video (FLV)  
Resource Interchange File Format (RIFF)

### IMAGE

JPEG, SVG, BMP, GIF, TIFF & PNG

## SOFTWARE STACK

Linux kernel 2.6.29  
Qt Libraries 4.8.7  
DirectFB accelerated display driver  
ArantiaBrowser (QtWebkit based)

## GENERAL DATA

### CERTIFICATIONS:

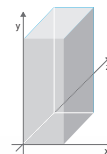
Low Voltage Directive 2006 / 95 / EC  
EMC Directive 2004 / 108 / EC

### POWER CONSUMPTION:

Standby : < 1W  
Operating (HD decoding) : ~5W

### DIMENSIONS:

Casing size (xyz) 115,4 x 33 x 86,6 mm



PRODUCTS THAT YOU NEED

When you buy an Arantia Chronos STB you need the following products:

- Universal remote control:
  - Ref. 830207 (Basic)
  - Ref. 830210 (Premium)
- PSU 18W (12V / 1,5 A):
  - Ref. 830209 (EU)
  - Ref. 830208 (UK)
- HDMI Cable

SOMETHING MORE

Some optional products:

- Keyboard (Ref. 830202)
- IR Extender (Ref. 830203)
- Wall mount support (Ref. 830212)

Televés expresses that this document is just for information purposes and does not accept any responsibility that could be originated from possible errors or omissions regarding its content.

The product pictures included are not contractual and Televés could supply products as shown or these could suffer variations, modifications and/or alterations at any time and without notice.