Introduction

Product manuals are intended to help customers understand the workings of the hardware devices. This product manual provides overview information of the streaming device and remote control and addresses specific functions of the devices. It is posted online at att.com/userguides for customer access.

For information on setting up and operating your equipment, the following URLs may be helpful:
att.com/atttvsetup
att.com/atttvremote
att.com/atttvreconnect
att.com/atttvquickstart
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<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHN</td>
<td>DIRECTV Home Network</td>
</tr>
<tr>
<td>High Value Content</td>
<td>e.g., in-theater PPV movies</td>
</tr>
<tr>
<td>OTT</td>
<td>Over-the-Top, the delivery of video via the Internet directly into user-connected devices, allowing access to services anywhere, anytime and on any device</td>
</tr>
<tr>
<td>PiP</td>
<td>Picture-in-Picture</td>
</tr>
<tr>
<td>RF4CE</td>
<td>Radio frequency for consumer electronics</td>
</tr>
<tr>
<td>RUI</td>
<td>Remote User Interface, the UI of which is accessed and manipulated directly through the client</td>
</tr>
<tr>
<td>STB</td>
<td>Set-top box or receiver</td>
</tr>
<tr>
<td>ODU</td>
<td>Outdoor dish unit</td>
</tr>
<tr>
<td>MDU</td>
<td>Multi-dwelling unit. Usually refers to a hotel, apartment complex or any structure that uses one or several ODUs and a head-end to service multiple customers within the dwelling</td>
</tr>
</tbody>
</table>
## I. OVERVIEW

The streaming device is a game-changing, proprietary "Over-the-Top" (OTT) streaming device that delivers video and integrated content to your TV over the internet. It enables you to watch DIRECTV NOW and online videos, listen to music, use thousands of third-party apps (such as Netflix® or Instagram®) and play games—all on your TV.

It comes preloaded with some Google apps, but thousands of others are available at the Google Play Store.

**The streaming device is used on its own as a standalone device so you don't need any other DIRECTV set-top boxes or servers. (It's not compatible with any DIRECTV set-top boxes or existing Genie® Servers.)**

It comes with a remote control offering many features, including the convenience of voice control.
II. HARDWARE INFORMATION

A. Specifications

### Streaming Device Specifications

**Size and Weight (not including feet)**
- Height: 19 mm
- Width: 158.6 mm
- Depth: 158.6 mm
- Feet: 1 mm
- Weight: 402 g

**Packaging**
- Carton
- Height: 228 mm
- Width: 505 mm
- Depth: 404 mm
- Weight: 28.8 lb

**Environmental Requirements**
- Operating temperature: 0° C to 122° F (0° to 50° C)
- Storage temperature (no damage): 0° C to 150° F (0° to 66° C)
- Relative humidity: 5-85% noncondensing

**Remote Control Support (Built-In Capability)**
- IR Remote Control Interface
- RF Remote Control Interface
- Dual Mode Bluetooth Interface (Bluetooth 4.1 Legacy & Bluetooth Low Energy)

**XMP2 Ports and Interfaces**
- OTT Mode - 802.11ac 204 GHz or 5 GHz Wi-Fi (Home Gateway)
- DC Power Input
- HDMI 2.0b / HDCP 2.2 and 1.4
- 1x USB 2.0 Port
- Optical S/PDIF Output Connector
- 10/100 Ethernet port

**Power**
- EPS10 External PSU
- AC External PSU -120v~60 HZ, 18W
- Input: 12V DC 1.5A
- Active Power Consumption below 15W

**Processor**
- BRCM7271

**Memory**
- 2GB DDR memory
- 64 bit DDR3/DDR4 interface
- 16GB eMMC

**Video and Audio Formats**
- MPEG2
- Dolby Audio
- MPEG-4 AVC single, dual or quad display up to 1080i60/1080p30 or UHD/4K
- HEVC / VP9 display
- HDR10 SMPTE ST 2084, ST 2086 “Blu-Ray” standard and HLG support

**TV Compatibility**
- Compatible with HD and 4K TVs with HDMI 2.0 & 1.4, HDCP 2.2, 60 Hz and capable of 4K, 1080p and 3D
B. Client Hardware

1. Front Panel
   • Blue Power Status Indicator LED
   • Green / Yellow / Red Network Status Indicator

2. Side Panel
   • Red Reset Button

3. Rear Panel
   • 10/100 Ethernet Connector with Indicator LED
   • S/PDIF Optical Audio Connector
   • HDMI Connector (Type A)
   • USB 2.0 Port (Type A Connector)
   • DC Power Inlet Connector (for EPS10 External Power Supply) with Power Indicator LED
C. Other Associated Hardware

1. Mounting Cables

The streaming device (C71KW) can be set on a tabletop or mounted to a wall by attaching a cable tie to the recess in the bottom cover.

2. Power Supply

The streaming device (C71KW) uses the DIRECTV® EPS10 power supply. See the DECA II Technical Communications document D-00026 for detailed information.

3. Remote Control

The streaming device (C71KW) works with the RC81V Remote Control. (The box and remote control are not compatible with any older DIRECTV or AT&T U-verse® equipment.) Like other DIRECTV remote controls, the RC81V can be programmed to operate some features on TVs or audio/video equipment. The key features of the RC81V Remote Control are:

- The RC81V Remote Control works in IR, RF and BLE (Bluetooth Low Energy Mode).
  - Basic remote operations can be performed in the IR mode.
  - The remote uses Bluetooth for two-way communication to the streaming device.
  - Like RF mode, Bluetooth eliminates the need for the remote and the paired devices to be in line of sight to each other.
- The RC81V Remote Control has a touchpad. Basic operations and functions can be made by sliding and pressing the touchpad.
  - If the remote is not paired to a streaming device, the touchpad can be used for functions like Up, Down, Left, Right and Select.
  - Once the remote is paired to a streaming device, the touchpad will function as a track pad so you can navigate horizontally (left to right) and vertically (up and down) in the screens. You can perform both Slow Swipe (precise movement) and Fast Swipe (quick scan across multiple pages).
  - Once paired, Voice recognition is also available with the RC81V Remote Control so you can use voice search.
Turns both streaming device and TV ON at the same time
Cycle through and select the equipment connected to your TV
MUTE the sound
Press to go BACK within menus
Press to move up, down, left or right within a menu
To access the mini-guide when watching content, press up or down buttons
Display the HOME screen
To access the mini-guide when watching content, press up or down buttons
Press once while program is playing to PAUSE
Press up to four times
Play current content
FAST-FORWARD at increasing speeds—press up to four times
Push and hold to talk. Discover content by channel, program or key words
Turns both streaming device and TV OFF at the same time
Increase or decrease the volume level
EXIT the menu and return to previous channel viewed
Stop playback while viewing on-demand or recorded content
Display the HOME screen
SELECT item highlighted on screen
RECORD content now playing or highlighted in the on-screen guide
FIGURE 5: RC81V — REMOTE
## III. FEATURES

### A. Audio & Video

**Hardware Features**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Streaming Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWiM/Multi-Switch capable</td>
<td></td>
</tr>
<tr>
<td>Ethernet</td>
<td>✓</td>
</tr>
<tr>
<td>MoCA</td>
<td></td>
</tr>
<tr>
<td>Wireless</td>
<td>✓ (802.11ac)</td>
</tr>
<tr>
<td>Digital Audio Output</td>
<td>✓</td>
</tr>
<tr>
<td>HEVC</td>
<td>✓</td>
</tr>
<tr>
<td>DIRECTV WPS Button</td>
<td></td>
</tr>
<tr>
<td>RC7x RF remote</td>
<td></td>
</tr>
<tr>
<td>BLE Remote</td>
<td>✓</td>
</tr>
<tr>
<td>Front Touch Panel / Resolution LED</td>
<td></td>
</tr>
<tr>
<td>Power Button</td>
<td></td>
</tr>
<tr>
<td>Menu/Guide/Arrows/Select/Res buttons</td>
<td></td>
</tr>
<tr>
<td>Recording LED</td>
<td></td>
</tr>
<tr>
<td>Reset Button</td>
<td>✓</td>
</tr>
<tr>
<td>Smart Card</td>
<td></td>
</tr>
<tr>
<td>USB 2.0</td>
<td>✓</td>
</tr>
<tr>
<td>eSATA</td>
<td></td>
</tr>
<tr>
<td>External Power Supply</td>
<td>✓ (EPS10)</td>
</tr>
<tr>
<td>HDD Size</td>
<td></td>
</tr>
</tbody>
</table>

Manufactured under license from Dolby Laboratories. Dolby, Dolby Audio, and the double-D symbol are trademarks of Dolby Laboratories.
## Software Features

<table>
<thead>
<tr>
<th>Category</th>
<th>Feature</th>
<th>Streaming Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>3D TV</td>
<td>3D Video Playback</td>
<td></td>
</tr>
<tr>
<td>Ultra HD (4K)</td>
<td>4K Video Playback</td>
<td>✓</td>
</tr>
<tr>
<td>Audio</td>
<td>Digital Audio</td>
<td>✓</td>
</tr>
<tr>
<td>Audio</td>
<td>Dolby Digital</td>
<td>✓</td>
</tr>
<tr>
<td>Audio</td>
<td>Secondary/Alternate Audio</td>
<td>✓</td>
</tr>
<tr>
<td>Cloud DVR</td>
<td>Accessing cloud content</td>
<td>✓</td>
</tr>
<tr>
<td>Captioning</td>
<td>DIRECTV Subtitles</td>
<td>✓</td>
</tr>
<tr>
<td>Captioning</td>
<td>Closed Captioning</td>
<td>✓</td>
</tr>
<tr>
<td>Energy Star</td>
<td>Power Saving Standby</td>
<td>✓</td>
</tr>
<tr>
<td>Guide</td>
<td>One-touch Recording</td>
<td>✓</td>
</tr>
<tr>
<td>Live TV</td>
<td>Trick-play</td>
<td></td>
</tr>
<tr>
<td>Networking</td>
<td>RJ45 Ethernet Connection</td>
<td>✓</td>
</tr>
<tr>
<td>Parental Controls</td>
<td>Settings Saved &amp; Recalled</td>
<td>✓</td>
</tr>
<tr>
<td>Picture In Picture</td>
<td>PIP Support</td>
<td>✓</td>
</tr>
<tr>
<td>PPV</td>
<td>Linear</td>
<td></td>
</tr>
<tr>
<td>PPV</td>
<td>VOD</td>
<td></td>
</tr>
<tr>
<td>Recommendations</td>
<td>What’s On Now</td>
<td>✓</td>
</tr>
<tr>
<td>Recommendations</td>
<td>You Might Like</td>
<td>✓</td>
</tr>
<tr>
<td>Recommendations</td>
<td>Movies</td>
<td></td>
</tr>
<tr>
<td>Search</td>
<td>Smart Search</td>
<td>✓</td>
</tr>
<tr>
<td>Search</td>
<td>Recent Searches</td>
<td></td>
</tr>
<tr>
<td>Search</td>
<td>Top Matches</td>
<td></td>
</tr>
<tr>
<td>Voice Search</td>
<td>Support for Voice Search</td>
<td>✓</td>
</tr>
<tr>
<td>YouTube</td>
<td>YouTube Support</td>
<td>✓</td>
</tr>
</tbody>
</table>
### IV. APPENDIX

#### A. LED STATES

**Front Panel “Network” LED**

<table>
<thead>
<tr>
<th>Color</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Booting / Standby</td>
</tr>
<tr>
<td>Green</td>
<td>RSSI is &gt; -75 dBm. Excellent signal strength</td>
</tr>
<tr>
<td>Yellow</td>
<td>RSSI is between -75 and -82 dBm. Borderline signal strength</td>
</tr>
<tr>
<td>Red</td>
<td>RSSI is &lt; -82 dBm. Poor signal strength</td>
</tr>
<tr>
<td>Flashing Red</td>
<td>No network connectivity</td>
</tr>
</tbody>
</table>

**Front Panel “Power” LED**

<table>
<thead>
<tr>
<th>Color</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bright Blue</td>
<td>On</td>
</tr>
<tr>
<td>Dim Blue</td>
<td>Off / Standby</td>
</tr>
<tr>
<td>Flashing Blue</td>
<td>SWDL / Recovery</td>
</tr>
<tr>
<td>Flashing Blue &amp; Red</td>
<td>HW Error</td>
</tr>
</tbody>
</table>
B. Federal Communications Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party:

AT&T/DIRECTV
2230 E. Imperial Hwy
El Segundo, CA 90245
1-800-DIRECTV

- Trade Name: AT&T/DIRECTV
- Model Number: C71KW and RC81V

Federal Communications Commission (FCC): This equipment complies with both Part 15 and Part 68 of the FCC Rules.
This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by removing and applying power to the equipment, the user is encouraged to try to correct the interference by one or more of the following measures:

- Connect the equipment into an outlet on a circuit different from that to which the streaming device is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user’s authority to operate the equipment.

The user may find the following booklet, prepared by the Federal Communications Commission, helpful: “How to Identify and Resolve Radio and TV Interference Problems.” This booklet is available from the U.S. Government Printing Office, Washington, DC. To meet FCC requirements, only peripherals (computer input/output devices, terminals, printers, etc.) certified to comply with Class B limits may be attached to this device. Operation with noncertified peripherals is likely to result in interference to radio and TV reception. To meet FCC requirements, shielded cables are required to connect the device to a personal computer, peripheral, or other Class B-certified device.
If this streaming device causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn’t practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary. The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance in order for you to make necessary modifications to maintain uninterrupted service. Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information. If trouble is experienced with this unit, for repair or warranty information, please contact DIRECTV Customer Care at the address and phone number listed below. If the equipment is causing harm to the network, the telephone company may request that you disconnect the equipment until the problem is resolved.

AT&T/DIRECTV
2230 E. Imperial Hwy
El Segundo, CA 90245
1-800-DIRECTV

If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this streaming device does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your alarm company, telephone company or a qualified installer.

DO NOT DISASSEMBLE THIS EQUIPMENT. It does not contain any user-serviceable components. We recommend the installation of an AC surge arrester in the AC outlet to which this equipment is connected. Telephone companies report that electrical surges, typically lightning transients, are very destructive to customer terminal equipment connected to AC power sources.

FCC RF Radiation Exposure Statement
MPE/SAR/RF Exposure Information. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment was verified for RF exposure and found to comply with Council Recommendation 1999/519/EC and FCC OET-65 RF exposure requirements.

WARNING: While this equipment is in operation, a separation distance of at least 20 centimeters (equal to 8 inches) must be maintained between the antenna inside the equipment and the bodies of all persons exposed to the antenna in order to meet the FCC RF exposure guidelines. Making changes to the antenna or the equipment is not permitted. Doing so may result in the equipment exceeding the FCC RF exposure guidelines. This equipment must not be co-located or operated in conjunction with any other antenna or radio transmitter.