# TERADEK Prism Flex 4K HEVC Encoder and Decoder User Guide



Contents

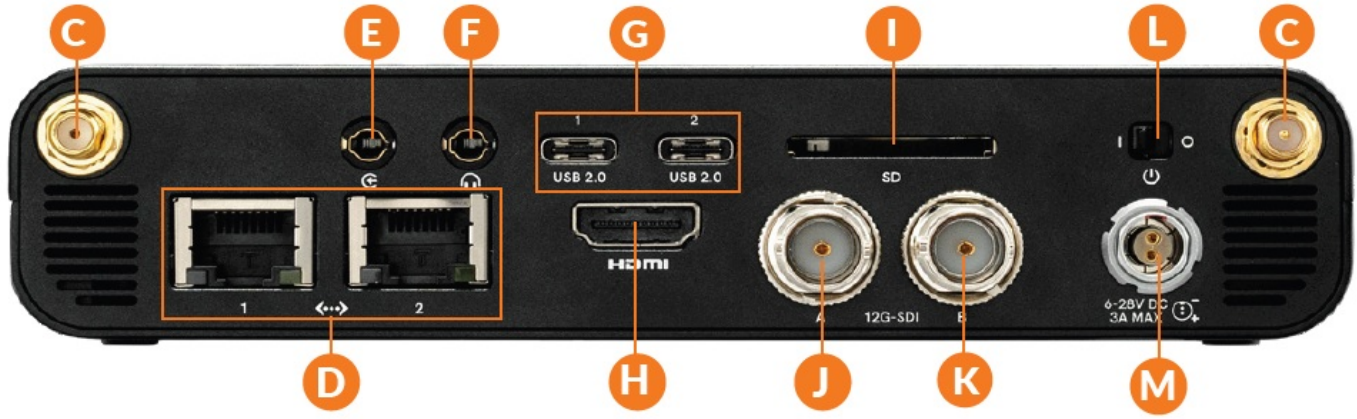


**TERADEK Prism Flex 4K HEVC Encoder and Decoder**


## PHYSICAL PROPERTIES

### FRONT


### REAR




- A: OLED display
- B: Menu button
- C: RP-SMA connectors
- D: Dual Ethernet ports
- E: Mic/Line stereo TRRS input

- F: Headphone TRRS output
- G: Dual USB-C ports
- H: HDMI input (output on the decoder)
- I: SD card slot (encoder only)
- J: SDI output
- K: SDI input (output on the decoder)
- L: On/Off switch
- M: Power input

## THE MULTI-TOOL FOR IP VIDEO

With flexible I/O and a compact, low-power design, Prism Flex easily fits into any workflow. Prism Flex is perfect for placement on a table top, camera-top, or wedged between your video switcher and audio mixer. Prism Flex can encode or decode up to 4Kp60 video with stunning 10-bit 4:2:2 image fidelity. The Prism platform supports many common streaming protocols such as MPEG-TS, RTSP/RTP, RTMPS, and SRT, and can be connected to Teradek's Core Cloud Platform for even more flexibility.

## WHAT'S INCLUDED

- 1x Prism Flex Encoder/Decoder
- 1x 12G-SDI BNC to BNC – 18in Cable
- 1x 2pin Connector to 30W AC Adapter (Int) – 6ft Cable
- 2x Antenna 2dBi WIFI 2.4/5.8GHz

## POWER AND CONNECT

1. **Encoder:** Turn your video source on, then connect the HDMI or SDI input (J) from your video source to Prism Flex's input connector.
   **Decoder:** Turn your monitor on, then connect the HDMI or SDI output (K) from your Prism Flex to the monitor's input connector.
2. Attach the two Wi-Fi antennas to the RP-SMA connectors (C).
3. Connect power to Prism Flex using the included A/C adapter.
4. Turn the Power switch on the back (L) to the ON position.

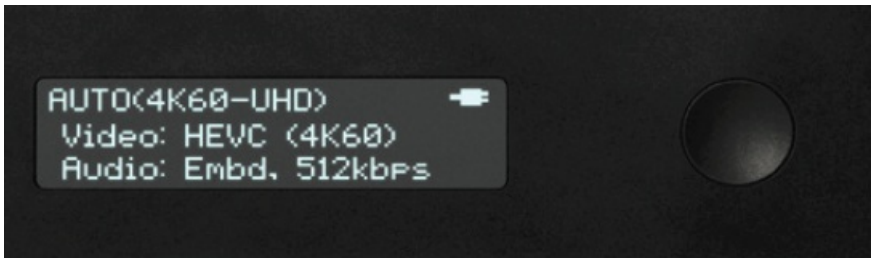
**MENU BUTTON OPERATION (B)**
Use Prism Flex's Menu button to navigate the status screens, go live, switch your configurable settings, and perform a factory reset.

- **PRESS BUTTON:** Cycle through the status screens

**LONG-PRESS BUTTON:**

- **Main screen** – Perform a factory reset
- **WiFi screen** – Switch from AP to Client mode
- **Ethernet screens** – Switch from DHCP to Static mode
- **Stream mode screen** – Go Live/Begin Streaming

- **Audio Input screen** – Switch from Embedded, Analog, or Mixed




## GET ONLINE

Use Prism Flex's web UI to connect Prism to a network and get online.

### CONNECT TO A WIFI NETWORK

Prism Flex supports two wireless (Wi-Fi) modes; Access Point (AP) Mode (for bonding multiple cellular devices for increased bandwidth) and Client Mode (for normal Wi-Fi operating and connecting to your local router). NOTE: You must connect to the web UI in order to switch to Client Mode or to a different network.

1. Connect your phone or laptop to Prism Flex's network, Prism-855-XXXXX (XXXXX represents the last five digits of Prism's serial number).
2. Enter the default IP address 172.16.1.1 in your web browser to access the web UI. 3 To switch to Client Mode: From the web UI, navigate to the Network Settings and
   select WiFi.
3. Select Client as the WiFi Mode
4. Click the WiFi scan tab, select an available network, then enter the password. Once connected, the display will list the network Prism Flex is connected to.

### CONNECT VIA ETHERNET

1. Connect one or both of Prism Flex's Ethernet ports to an Ethernet switch or router.
2. Press the menu button to navigate to the Ethernet 1 or 2 screen and obtain the IP address.
3. Enter the IP address in your web browser's navigation bar to access the web UI.

### CONNECT VIA USB MODEM

1. Attach a USB modem to one or both to Prism's USB-C ports using a 4-pin to USB-C connector cable, and/or a USB to USB-C adapter. The front panel will indicate that the modem has been detected and connected to the carrier.
2. If the modem is not detected, connect your computer to Prism Flex's AP network (see page 4), then enter the default IP address 172.16.1.1 in the navigation bar to access the web UI and configure the modem from the Network menu.

## ENCODER/DECODER CONFIGURATION

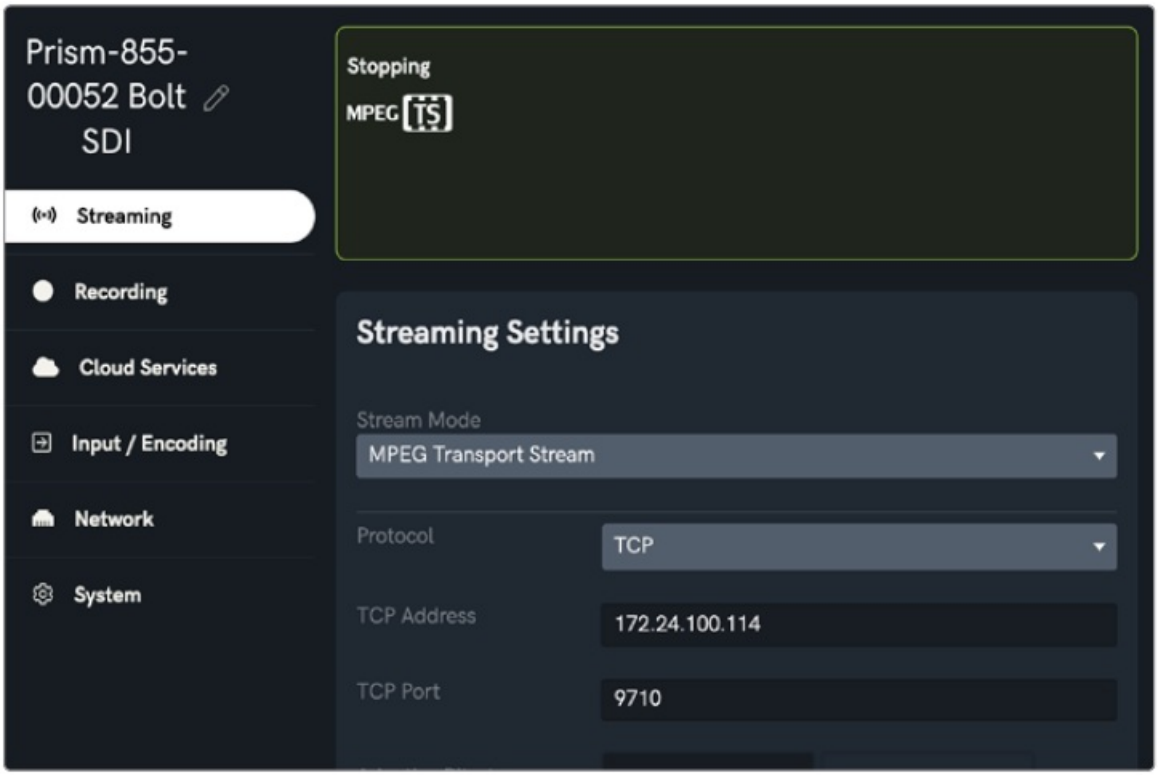
Configure your Prism Flex decoder to receive streams from a Prism Flex encoder.

**NOTE:**

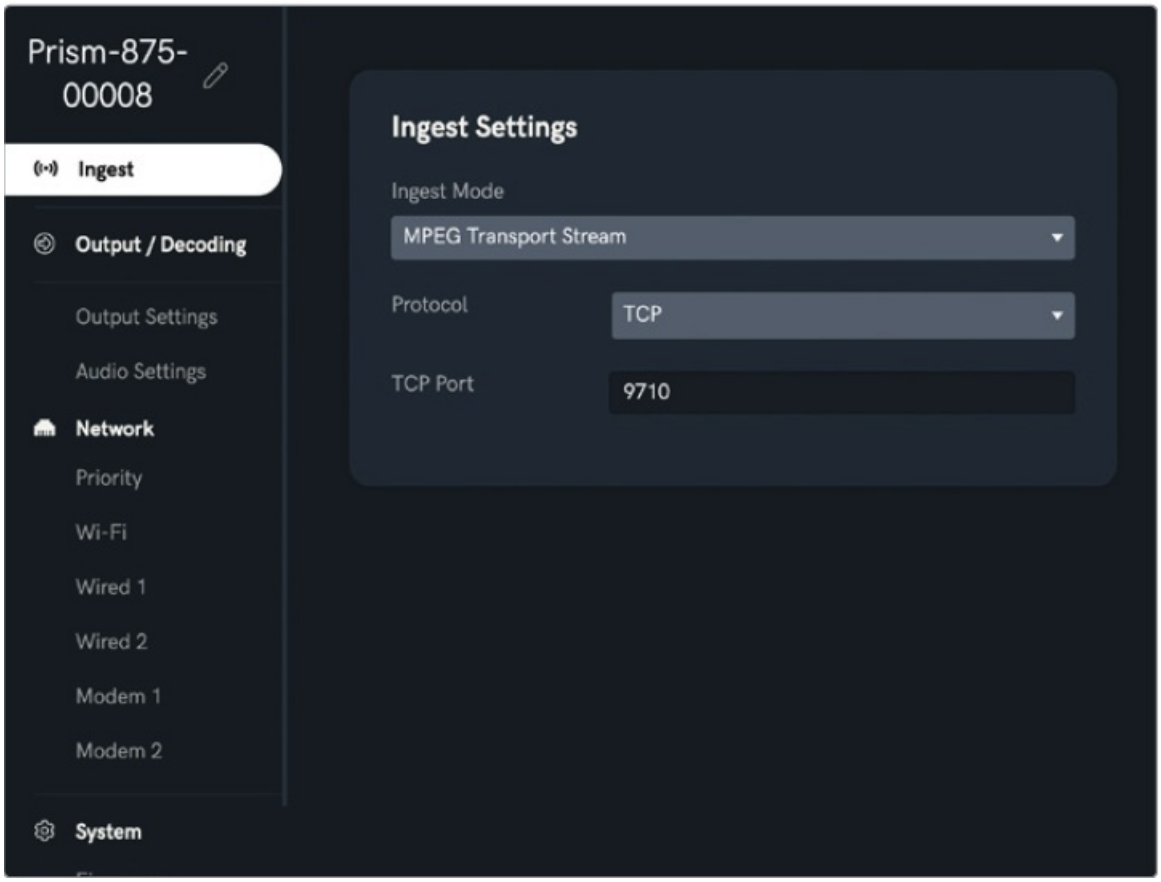
Prism Flex has several streaming modes available such as SRT, RTMP, YouTube, and Facebook Live. The following instructions describe how to configure your decoder/encoder using MPEG-TS mode as an example.

**To configure:**

1. Connect to the Prism Flex encoder (see the previous section) and open the encoder's web UI.
2. Open the Streaming menu, then select MPEG-TS as the streaming mode.
3. Select a protocol, then ensure the Prism decoder is configured to receive the stream using the correct protocol:
    - TCP → TCP
    - TCP Server → TCP Pull
    - UDP → UDP
    - Multicast → Multicast




4. Enter the destination IP address, then confirm the port is set as the default 9710.
5. Connect to the Prism decoder (see the previous section) and open the decoder's web UI.
6. Open the Ingest menu, then select MPEG-TS as the ingest mode.
7. Enter the protocol, ensuring the selected protocol matches the Encoder's protocol configuration (see step 3). Confirm the port is set as the default 9710.




## PRISM APP

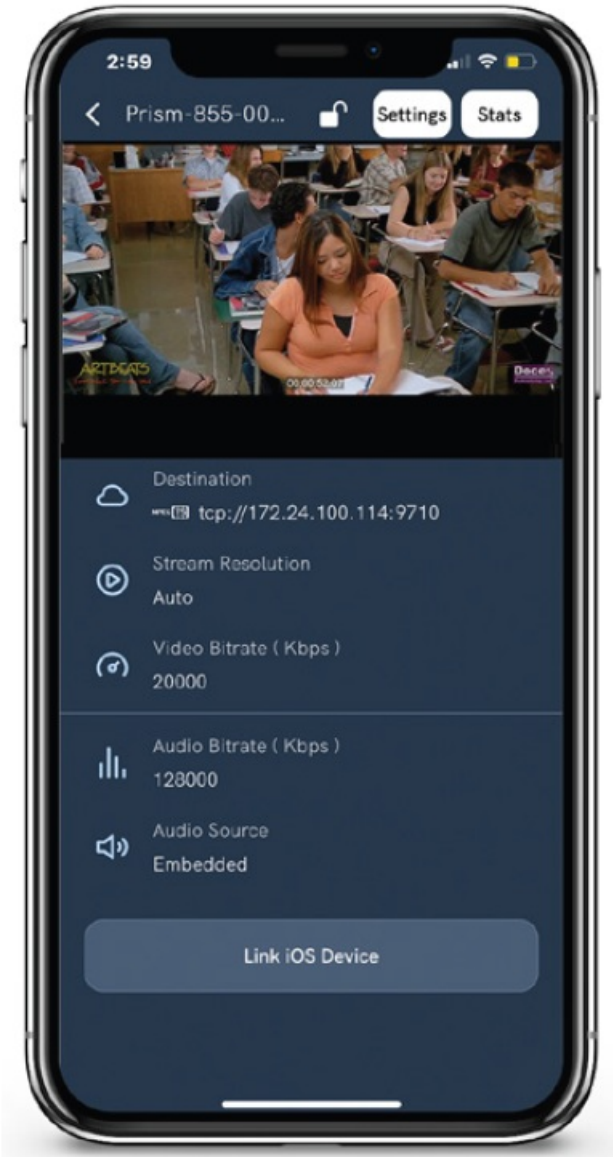
The Prism App allows you to remotely configure all of Prism Flex's settings while monitoring your stream's destination, bitrate, bonding status, and resolution to ensure you maintain a stable stream. The Prism App is available for iOS devices.

### MAIN DISPLAY

- **Main Screen** – Displays the preview, streaming destination, audio and video bitrates, and resolution of your Livestream.
- **Link/Unlink iOS Device** – Tap the Link/Unlink iOS tab to enable/disable the use of your cellular phone's data as an Internet connection.

### STATS

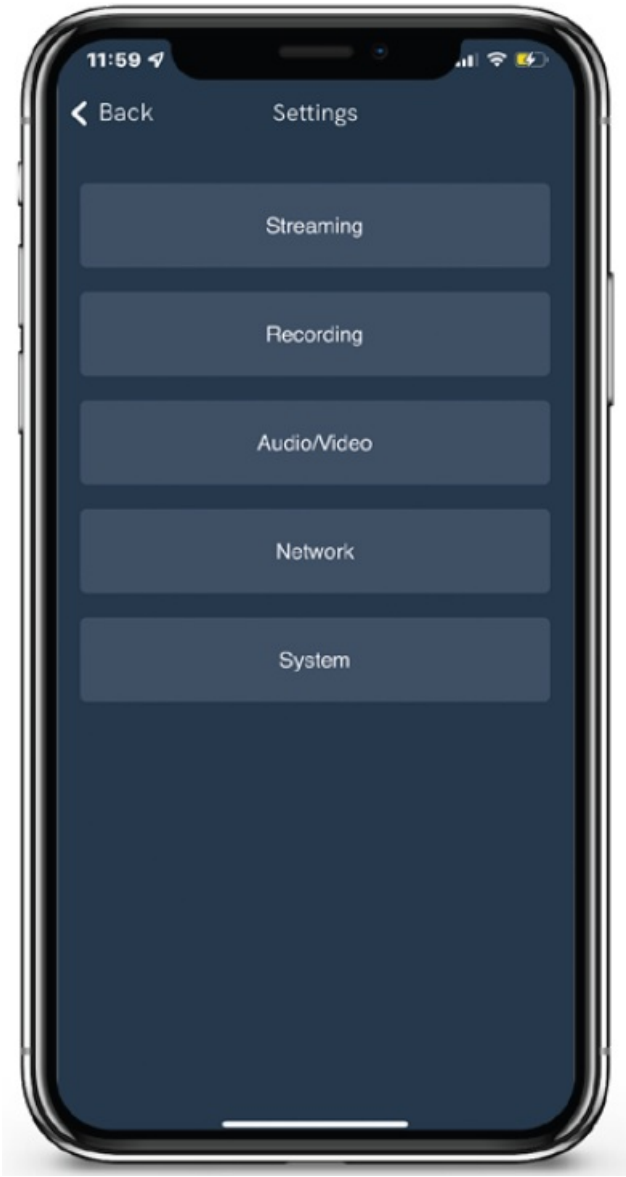
Tap the Stats button at the top of the screen to display Prism's serial number, current audio and video bitrates, runtime, recording status, IP address, and network.




**SETTINGS**

Tap the Settings button to configure the following options:

- **Streaming** – Configure your streaming method and destination
- **Recording** – Enable recording and select a media storage option
- **Audio/Video** – Adjust the Video and Audio input settings
- **Network** – Choose a method of connecting to the Internet
- **System** – View the model and a serial number of your device, or rename your Prism.




## RECORDING

Prism Flex encoders support recording to an SD card. Each recording is saved with the same resolution and bitrate set in Prism Flex.

1. Insert a compatible SD card into the corresponding slot.
2. Enter the Recording menu, and select Enabled.
3. Create a name for the recording, select a format, then enable Auto-Record (optional).

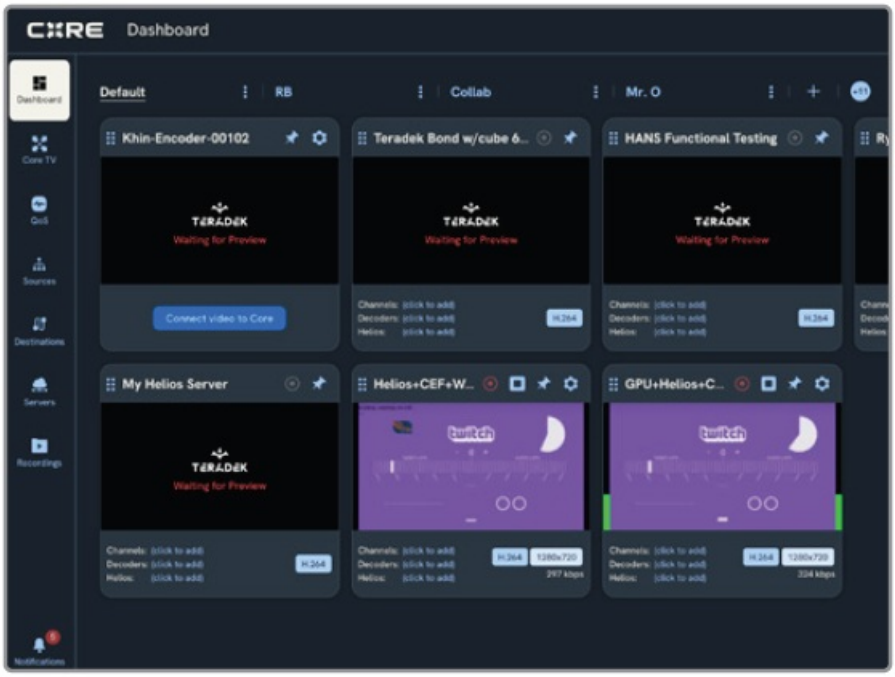
#### RECORDING CONSIDERATIONS

- Recordings are triggered manually or automatically. If Auto-Record is enabled in the Recording Settings, a new recording is automatically created when a broadcast starts.
- For best results, use Class 6 or higher SD cards.
- Media should be formatted using FAT32 or exFAT.
- If a broadcast is interrupted for connectivity reasons, the recording will continue.
- New recordings are automatically started after the file size limit is reached.

## CORE

Prism Flex can be remotely accessed, configured, and controlled using Teradek's Core Cloud management and routing service. With Core, you can:

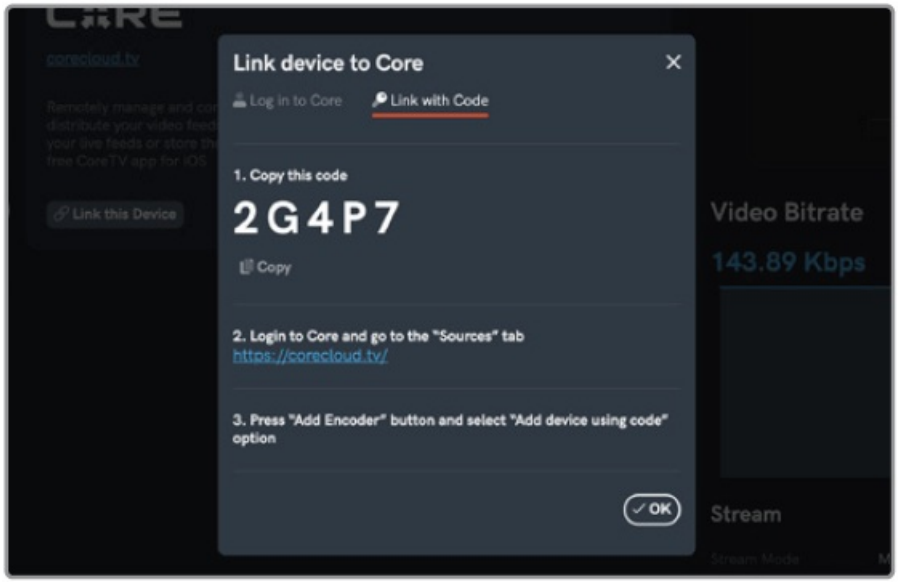
- Bond multiple Internet connections, increasing your broadcast's bandwidth and reliability.
- Remotely control Teradek encoders, decoders, and bonded systems from anywhere in the world.
- Stream to multiple destinations.




Visit [https://corecloud.tv](https://corecloud.tv) to learn more.

#### Connect Prism Flex to Core

1. From the web UI, select Cloud Services then click the Link this Device tab.
2. **Log in to Core:** Enter your credentials to link Prism Flex to your Core account, then click Next.
3. **Link with Code:** Copy the authorization code generated for your Prism Flex, then follow the instructions.
4. Once a connection is established, you can configure Prism from either the Prism UI or the Core dashboard.




Teradek regularly releases new firmware versions to improve performance, add features, or fix vulnerabilities. [teradek.com/pages/downloads](teradek.com/pages/downloads) contains all the latest firmware and software updates.

Visit teradek.com/contact for tips, and information, and to submit help requests to Teradek's support team.



## Documents / Resources

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|---|---|
|   | **TERADEK Prism Flex 4K HEVC Encoder and Decoder** [pdf] User Guide<br>Prism Flex, 4K HEVC Encoder and Decoder, Prism Flex 4K HEVC Encoder and Decoder, HEV C Encoder and Decoder, Encoder and Decoder, Encoder, Decoder |

## References

- **Contact Us – Teradek**
- **Downloads – Teradek**
- **Core Cloud by Teradek: RTMP multistreaming & remote device management**