



# TVU Transceiver

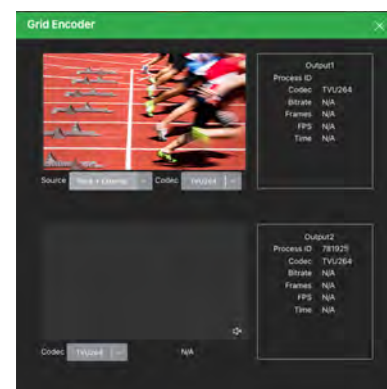
## Encode, Decode, Monitor, Control, Manage and Distribute All Your Video Content.

The TVU Transceiver is the backbone edge device within the TVU Ecosystem. The TVU Transceiver is designed to host multiple TVU applications that can accomplish multiple tasks simultaneously including SDI/IP encode and decode, graphics overlay, AI based metadata tagging and closed captioning, store and forward file transfers and more. The TVU Transceiver is also the gateway to TVU Grid® and the TVU Cloud EcoSystem, allowing IP content to easily be routed and distributed within your network or with partner networks as well as for live production and playout in the cloud.



## Advantages

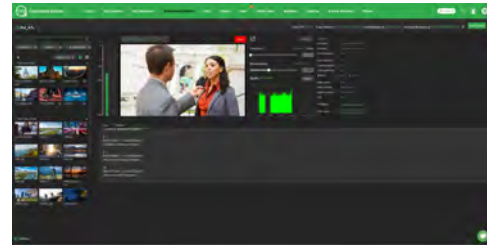
- △ Primary SD/HD/4K edge-device for TVU, IP and Cloud workflows
- △ Decode point for TVU live transmitters including TVU One, TVU MLink and TVU Anywhere, providing complete control and monitoring of live transmissions
- △ Powers TVU Grid® – TVU's award-winning IP-based video switching, routing and distribution solution. Capable of decoding multiple types of feed: TVU® IS™+, SDI, SMPTE 2110, NDI and multiple IP stream standards



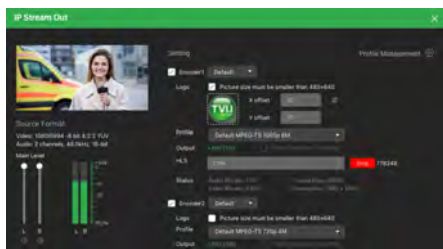
TVU Grid

## Advantages

- △ Delivers the best picture quality and lowest latency (as low as 0.3 seconds) using standard commodity internet connections using the IS+ protocol
- △ SDI, SMPTE 2110, NDI or IP input and outputs up to 1080p60 (optional 4K-60p output option available)
- △ Optionally supports up to 4 primary decode channels in a single 1RU chassis
- △ Optionally supports up to 6 independent IP output encodings including RTMP(S), HLS, UDP, SRT, RTSP, Zixi and more



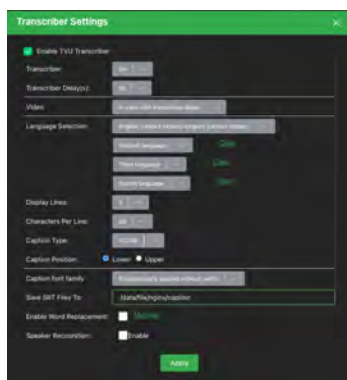
TVU Transceiver Output



IP Streaming Output

- △ Decode virtually any IP video format including RTMP(S), HLS, UDP, SRT, RTSP, Zixi, YouTube and more and optionally encode as a Grid source
- △ API compatibility with popular social media platforms including Facebook Live, YouTube Live, Twitch, Twitter and more for one-touch publishing of live sources
- △ Optionally supports AI based closed-caption encoding using TVU Transcriber
- △ Supports industry standard ancillary data pass-through including timecode, SCTE and closed captioning

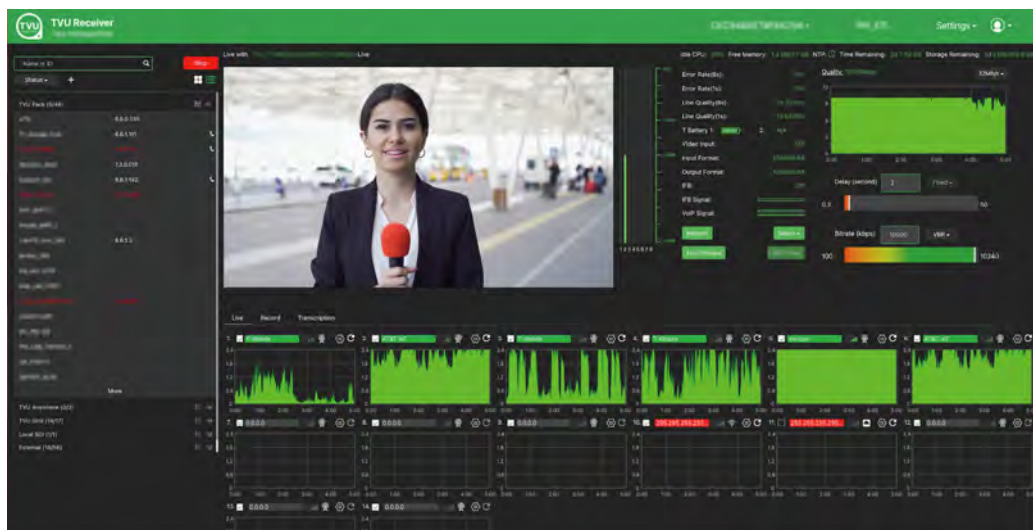
- △ Multiple monitor and control options including local web UI, HDMI monitor output, cloud UI (Command Center) or smartphone
- △ Full edge-device compatibility (input, output and control) with TVU Cloud applications
- △ Built-in Return Video Encoder for TVU transmitter devices
- △ Decode streams from Panasonic P2 Streaming and JVC Connected Cams directly. Panasonic cameras support TPC connectivity
- △ Receive and decode RTMP IP streams directly without having to use a media server. Allows any device that supports RTMP to stream directly to the TVU Transceiver
- △ Built-in VLAN Tunnel allows the creation of a virtual network between a Transceiver and a field device or another Transceiver for support of IP peripherals including tally, remote camera control, talkback systems and more
- △ Transceiver side Link-aggregation for TVU Grid and TVU transmitter transmissions allows the utilization of multiple internet connections for redundancy purposes
- △ Support for Amazon S3 remote file storage as well as FTP



TVU Transcriber Setting

## Features

- △ User friendly interface provides easy source selection, high-quality full-frame rate transmission monitoring, live transmission performance monitoring and control, store-and-forward file management and control/monitoring of optional modules
- △ Take sources live with the click of a button
- △ Adjust bit-rate on the fly without having to stop a transmission
- △ Set TVU transmitter latency that will never drift, no matter the network conditions
- △ Control and monitor IFB or TVU Voice talkback between Transceiver and TVU Transmitters. Communicate with multiple devices simultaneously
- △ View thumbnail sources of online TVU transmitter devices
- △ View GPS location of TVU transmitter devices on a map overlay
- △ Monitor battery status of TVU transmission devices
- △ Synchronize multiple TVU transmissions using TVU TimeLock function
- △ Monitor individual IP link performance including a histogram of the last 5 minutes, the quality of the link, carrier name and connection type
- △ Built-in Return Video encoder for TVU Transmitters (SDI or IP input). No need for a separate transceiver
- △ Easy to use network management and configuration tools including port test function
- △ Gateway for porting IP-based peripheral devices from the studio to the field (TVU transmitters) via the VLAN tunnel. Compatible with many IP peripherals including tally light, remote camera control, intercom, CCU and more
- △ Store-and-forward file management for downloading content from TVU transmission devices (including clip edit and download). Save content in QuickTime, MP4 or TS format
- △ Upload and playout external content via FTP



TVU Transceiver

## TVU Transceiver Technical Specifications\*

## Model

VS3500 / VS3550



## Form Factor

1RU Rack Mount Chassis

## Software

TVU 7

## Platform

Linux

## Transceiver Configurations (Optional configurations)

Up to Four TVU Receive Channels (up to 1080p)\*  
 Two TVU Receive Channels and two TVU Grid/RVF  
 Encode Channels\*  
 One TVU Receive Channel and one TVU Grid/RVF  
 Encode Channel\*  
 One TVU Receive Channel and one RVF Encode

## Video I/O

3G-SDI BNC x 4  
 Optional SMPTE 2110 with NMOS\* - (Up to One  
 TVU Receive Channel and one TVU Grid/RVF  
 Encode Channel only, up to 1080p only )

## Video Output Formats

525i59.94 NTSC, 625i50 PAL, 720p50,  
 720p59.94, 1080i50, 1080i60, 1080i59.94,  
 1080p23.98, 1080p24, 1080p25,  
 1080p29.97, 1080p30, 1080p50,  
 1080p59.94, 1080p60

## Video Input Formats (Grid and RVF Encoder)

720p50, 720p59.94, 1080i50, 1080i60, 1080i59.94

## Optional IP Output Formats\*

SMPTE 2110/2022, NDI, SRT, RTMP, RTMPS, UDP,  
 HLS, RTSP, Zixi

## Optional IP Input Formats\*

SMPTE 2110/2022, NDI, SRT, RTMP, RTMPS,  
 UDP, HLS, RTSP, YouTube VOD, Panasonic P2  
 Camcorders, JVC Connected Cam

## Optional Social Media API Support\* \*\*

Facebook Live, YouTube Live, Twitter, Twitch, Yi  
 Live, KuaiShou

## Audio Output

Embedded SDI - up to 16-ch.

## Genlock

1 x BNC, Tri-Sync or Black Burst

## Closed Captioning Pass-Thru

Yes

## Optional Closed Captioning Encode\*

Yes, TVU Transcriber, CC708 &amp; OP47

## SCTE Pass-Thru

Yes

## Network Interface

2 Ethernet Ports (1xGigE and 1x2.5GigE) - RJ45

## Display Output

1 x HDMI

## Local Control and Monitoring

Yes, local web interface or HDMI output

## Cloud Control and Monitoring\*

Yes, TVU Command Center

## Compatible TVU Cloud Solutions\*

TVU Command Center, Grid, Producer, Partyline,  
 Remote Commentator, Search, MediaMind,  
 Channel

## IFB / TVU Voice

External USB audio I/O with level control  
 (mic/line), 1/4" & XLR

## USB

8 x USB 3.2 Gen2 (7xUSB Type A, 1x USB-C)

## Power Configuration

VS3500: Single Power Supply,  
 VS3550: Dual Power Supply

## Power Source

100-240V AC, 3.5A, 47-63Hz

## Dimensions

(VS3500) 11in (395mm)L x 16.92in (280mm)W x  
 1.75in (44.5mm)H

(VS3550) 15.5in (395mm)L x 16.92in (430mm)W x  
 1.75in (44.5mm)H

## Weight

(VS3500) 14.5lbs (6.35kg)

(VS3550) 14.7lbs (6.7kg)

## Operating Temp

32–89.6 °F, 0–32 °C

**Model**

VS3600 / VS3650

**Form Factor**

1RU Rack Mount Chassis

**Software**

TVU 7

**Platform**

Linux

**Transceiver Configurations (Optional configurations)**

One TVU Receive Channel (up to 4k 60P)

**Video I/O**

12G-SDI BNC x 4

**Video Output Formats**

525i59.94 NTSC, 625i50 PAL, 720p50,  
720p59.94, 1080i50, 1080i60, 1080i59.94,  
1080p23.98, 1080p24, 1080p25,  
1080p29.97, 1080p30, 1080p50,  
1080p59.94, 1080p60, 2160p23.98,  
2160p24, 2160p25, 2160p29.97, 2160p30,  
2160p50, 2160p59.94, 2160p60

**Video Input Formats (Grid and RVF Encoder)**

(RVF only) 720p50, 720p59.94, 1080i50, 1080i60,  
1080i59.94

**Optional IP Output Formats\***

(Up to 1080p only) NDI, SRT, RTMP, RTMPS, UDP,  
HLS, RTSP, Zixi

**Optional IP Input Formats\***

(Up to 1080p only) NDI, SRT, RTMP, RTMPS,  
UDP, HLS, RTSP, YouTube VOD, Panasonic P2  
Camcorders, JVC Connected Cam

**Optional Social Media API Support\* \*\***

(Up to 1080p only) Facebook Live, YouTube Live,  
Twitter, Twitch, Yi Live, KuaiShou

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Yes, TVU Command Center

**Compatible TVU Cloud Solutions\***

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**Weight**

(VS3500) 15.5lbs (6.35kg)

(VS3550) 14.7lbs (6.7kg)

**Operating Temp**

32–89.6 °F, 0–32 °C



www.tvunetworks.com

20370 Town Center Lane, Suite 100, Cupertino, CA 95014

+ 1.650.969.6732

\* Optional configuration: Additional fees may apply

\*\* Requires active Command Center account

\* Specifications are subject to change

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