

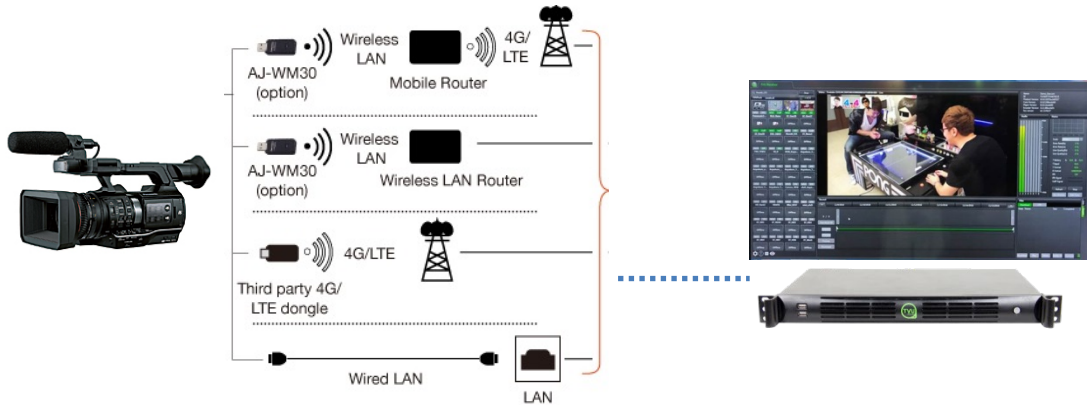
**P2 Camera - TVU networks  
Direct connection live streaming  
Setting Guide**

Panasonic Corporation  
Media & Entertainment Business Division

Jan.22, 2019

# P2 Camera - TVU networks direct connection live streaming Setting Guide

As of Dec.25, 2018



## 1. Confirm product and version to support integration

Panasonic P2 camera/recorder product number	Version
AJ-PX270	36.72-00-0.00
AJ-PX5100	25.22-00-0.00
AJ-PX5000	40.73-00-0.00
AJ-PX800	37.50-00-0.00
AJ-PX380	39.96-00-0.00
AJ-PG50	33.89-00-0.00

Please refer to Panasonic web site regarding P2 products version and upgrade.  
<https://www.pass.panasonic.co.jp/p2ui/guest/TopLogin.do?lang=en&category=pav>

TVU networks receiver product number	Version
VS3500	6.5
TX3200	6.5

Please consult TVU networks about receiver product version and the details of network settings such as TCP, UDP port.  
<http://www.tvunetworks.com/>

## 2. Configure P2 device

### Prepare SD card for P2 – TVU communication

2-1. Format a SD card by P2 product such as PX270 camera.

[MENU]-[CLIP]-[FORMAT]-[SD CARD]

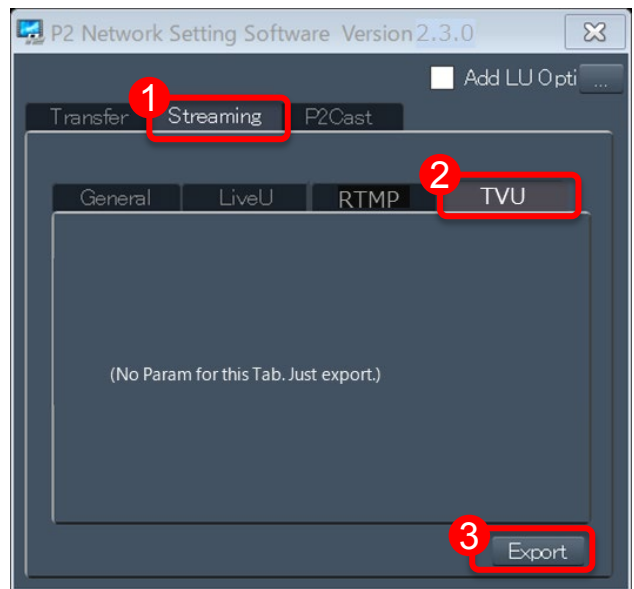
2-2. Create a configuration file for TVU in the SD card by using application software named P2netGen.exe uploaded on the following URL.

[https://eww.pass.panasonic.co.jp/pro-av/support/content/download/EN/ep2main/nw\\_setting\\_e.htm](https://eww.pass.panasonic.co.jp/pro-av/support/content/download/EN/ep2main/nw_setting_e.htm)

(1) Select “Streaming”.

(2) Select “TVU”.

(3) Copy file to SD card by clicking  
“Export” button.



## 3. Connect wired LAN or Wi-Fi/4G/LTE device to camera.

Note:

Please refer to the following Panasonic web site about confirmed 4G/LTE USB modems and Wi-Fi wireless modules for P2 products.

<https://pro-av.panasonic.net/en/p2hd.html>

## 4. Menu settings

### 4-1. Network settings

Select network from the menu according to the actual connection.

[MENU]-[NETWORK SETUP]-[NETWORK SEL]="WLAN" , "4GLTE" or "LAN"

Note:

- P2 camera might restart when changing menu depending on the setting.
- You can confirm the network connection status on the menu:

[MENU]-[NETWORK SETUP]-[NETWORK TOOLS]-[STATUS DISPLAY]

### 4-2. Codec settings

[MENU]-[SYSTEM MODE]-[LINE&FREQ]

[MENU]-[SYSTEM MODE]-[REC FORMAT]

[MENU]-[RECORDING SETUP]-[DUAL CODEC SETTINGS]-[STREAMING MODE]

Note:

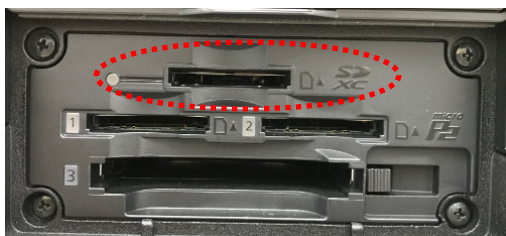
- Select either "1080-59.94i", "1080-50i", "720-59.94P" or "720-50P" for LINE&FREQ
- When changing LINE&FREQ setting, P2 camera restarts.
- "LOW", "AVC-G6" or "AVC-G(QoS)" of STREAMING MODE might not be selected depending on the combination of LINE&FREQ and REC FORMAT.

**Insert the SD card with configuration file into a SD card slot.**

Note:

Please do not confuse SD card slot with microP2 card slot.

PX380



PX270



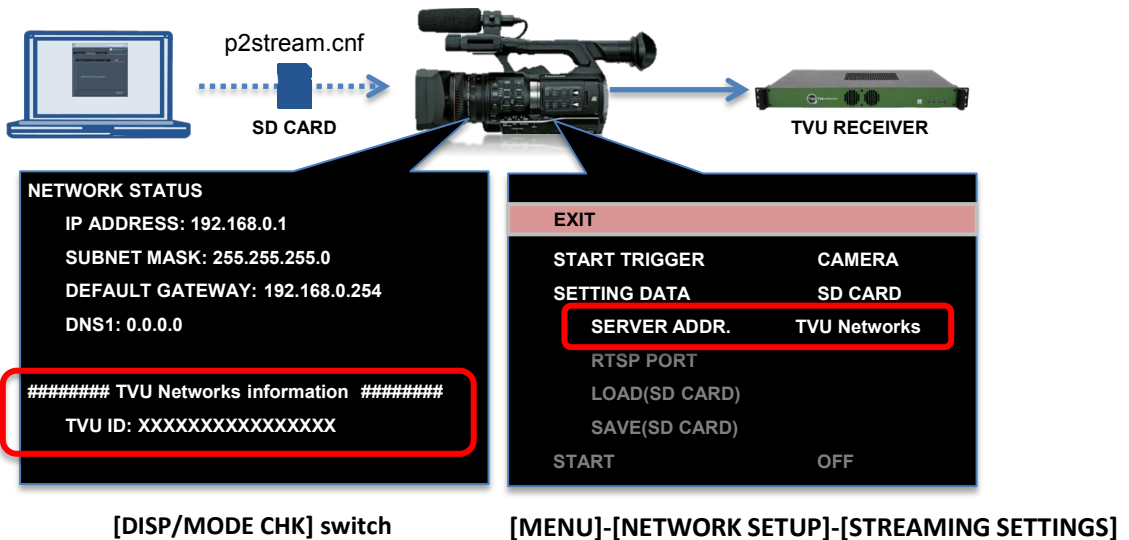
### 4-3. Streaming settings

[MENU]-[RECORDING SETUP]-[DUAL CODEC SETTINGS]-[CODEC USAGE]="STREAMING"  
[MENU]-[NETWORK SETUP]-[STREAMING SETTINGS]-[START TRIGGER]="CAMERA"  
[MENU]-[NETWORK SETUP]-[STREAMING SETTINGS]-[SETTING DATA]="SD CARD"  
[MENU]-[RECORDING SETUP]-[DUAL CODEC SETTINGS]-[QoS MAX RATE]  
[MENU]-[RECORDING SETUP]-[DUAL CODEC SETTINGS]-[QoS MIN RATE]

Note:

The setting from TVU receiver is prioritized for QoS MAX RATE.  
You cannot set QoS MAX RATE lower than QoS MIN RATE.  
Please leave the default QoS MAX RATE setting for normal use.  
Please set minimum value for QoS MIN RATE for normal use.

### 5. Confirmation of the settings



## 6. Configure TVU Receiver

Please consult TVU networks support about TVU Receiver configuration for pairing between Panasonic camera/recorder and TVU Receiver.

<http://www.tvunetworks.com/support/>

TVU Support can also create a custom nickname for the camera

A P2 icon will appear on the TVU Receiver GUI once pairing is complete.

NOTE: P2 devices do not provide an index picture to the TVU GUI.



TVU Receiver configuration should be modified to receive Panasonic streaming. This should be remotely done by TVU Support.

To start a live transmission, simply select the P2 device in the source list and press the LIVE button. The stream will begin within a few seconds.

To stop a live transmission, press the STOP button

Please note, the TVU bitrate, latency (delay) and VBR/CBR functions do not affect P2 transmission.

Note:

TVU Receiver is able to set maximum bit rate for AVCG (QoS) and SHQ (QoS) mode of STREAMING MODE on P2 camera/recorder.

- Available maximum bit rate to be set is on QoS MAX RATE menu list.
- If TVU Receiver setting bit rate is different from the list above, the bit rate is cut down to the nearest setting value of the list.
- If TVU Receiver setting bit rate is smaller than QoS MIN RATE setting value, codec bit rate is fixed as TVU Receiver setting.
- When TVU Receiver does not set maximum bit rate, the codec bit rate is set as QoS MAX RATE setting value of camera menu.
- In the case of fixed bit rate settings like AVC-G6, HQ and LOW of STREAMING MODE, Receiver's bit rate setting is ignored and codec bit rate is fixed depending on the video resolution.

When the latency is less than 1000msec, live streaming might be unstable regardless network latency.

The latency is fixed after starting streaming. Please stop streaming if you would like to change the latency setting.

Some of the functions are not available.

(e.g. IFB, Message, File Download, GPS, Camcorder control).