VC-TR41_TR41N LED Adaptive Mode calibration Instructions

1 LED Adaptive Mode Instructions

1.1 Function

In the past, customers have frequently reported that when various PTZ cameras shoot LED screens, issues such as moiré, flicker, underexposed subjects caused by brightness differences between the foreground and background, and color casts in certain scenes often occur.

The purpose of the LED Adaptive Mode is to resolve these related issues through a calibration process.

1.2 Limitations

The LED Adaptive Mode is primarily used to reduce the moiré and flicker phenomena caused by LED screens. The actual effectiveness may vary depending on the specifications, brightness, or installation environment conditions of the LED screen being used. This function cannot guarantee the complete elimination of moiré in all environments.

2 Required Equipment

2.1 PC Software: Packet Sender

2.1.1 Packet Sender Setting Example

Protocol : UDP

Port : 52381

Data Type: HEX

Address: Camera IP

2.2 Firmware:

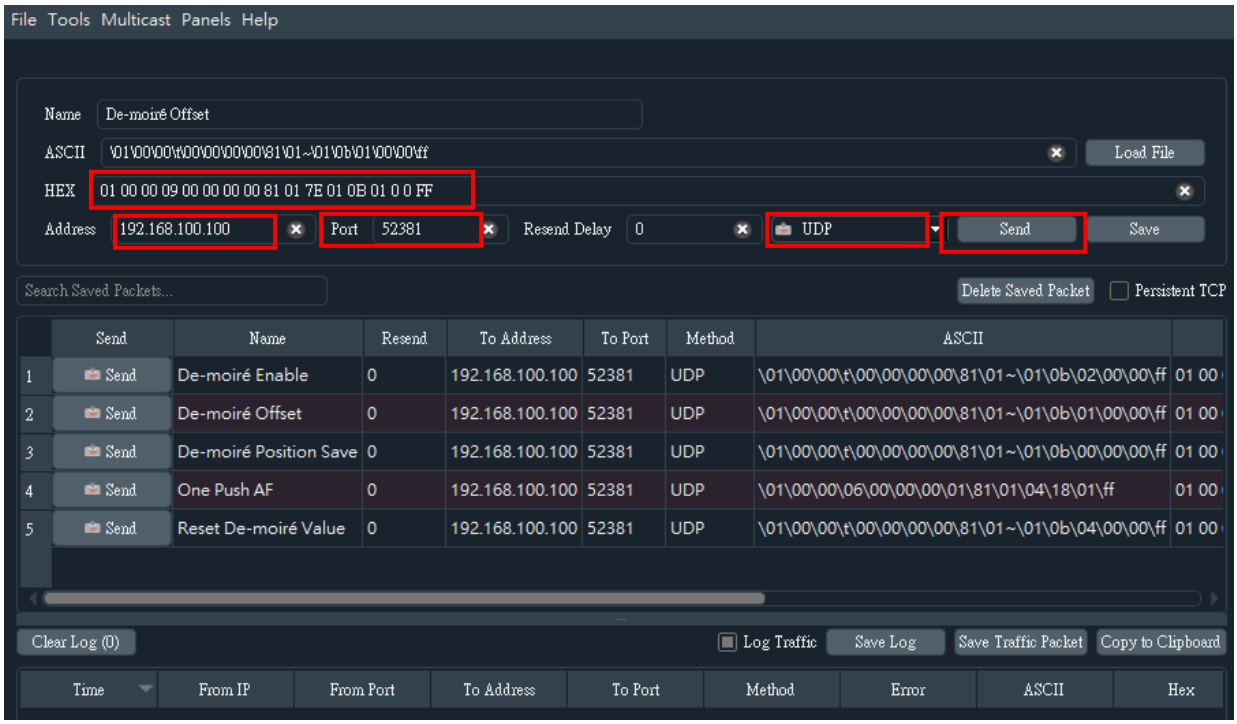
2.2.1 VC-TR41: VUF119 or above version.

2.2.2 VC-TR41N: VVN110 or above version.

3 LED Adaptive Calibration Steps (It will takes approximately 5–8 minutes.)

Step 1: Environment and Camera Preparation

1. Install the camera in a fixed position.
2. Enable LED Adaptive Mode [Picture]=>[Image Mode]=>[LED Adaptive Mode]
3. Let camera face to LED screen, and ZOOM into Tele end.
4. Switch the focus mode to MF (Manual Focus).
5. Prepare a computer connected to the local network to execute VISCA over IP commands. Please refer to the figure below to send the commands.



Step 2: Execute De-moiré Reset and One Push AF

1. Send the Reset De-moiré calibration command via Packet Sender to clear previously saved data.

   1.1 Reset De-moiré Value：

   01 00 00 09 00 00 00 00 81 01 7E 01 0B 04 00 00 FF

2. Send the One Push AF command

   1.2 One Push AF：

   01 00 00 06 00 00 00 01 81 01 04 18 01 FF

Step 3: Execute De-moiré Calibration

1. Confirm that the image is in focus (moiré will be highly noticeable when in focus).
2. Enter and execute the following two commands.
   2.1 De-moiré Position Save：
   01 00 00 09 00 00 00 00 81 01 7E 01 0B 00 00 00 FF
   2.2 De-moiré Enable：
   01 00 00 09 00 00 00 00 81 01 7E 01 0B 02 00 00 FF

Step 4: Confirm Effectiveness and Fine-Tuning

1. Switch the focus mode to AF (Auto Focus).
2. Adjust the camera zoom ratio to match the actual application scenario, and confirm whether the clarity of the subjects and the De-moiré effect in the frame are acceptable.
   For example: If this scenario utilizes around 2X to 4X zoom, zoom in to 2X-4X to check the sharpness of the subjects and the De-moiré effect on the LED screen. If needed, follow the steps below to fine-tune the effect.
3. The stronger the De-moiré effect, the blurrier the LED screen and the subjects in the frame will generally become. A balance must be struck. If further adjustments are required, fine-tuning can be done using the following command:
   3.1 De-moiré Offset:
   01 00 00 09 00 00 00 00 81 01 7E 01 0B 01 0p 0q FF
   pq: 00 Default
   pq: 01 ~ FF
   The value close to 01: The sharper the image, but the actual Moiré will be more noticeable.
   The value close to FF: The blurrier the image, but the actual moiré will be milder.

***Note: If the position of the camera or the LED screen changes, the above De-moiré calibration process must be executed again.**