VIP-CAM-100-USB3
PTZ USB3 Camera with DVI Output
USER MANUAL

PureLink™

TABLE OF CONTENTS

Package Contents

- (1) VIP-CAM-100-USB3 Full HD PTZ Camera
- (1) Remote control
- (1) 100-240VAC to 12V DC power adapter
- (1) RS232 cable – 9-pin D-Sub to 8-pin Mini Din

Optional Accessories

- VIP-CAM-100-USB3-WMNT
  - o Metal bracket mount for wall installation
- VIP-CAM-100-USB3-CMNT
  - o Metal bracket mount for inverted ceiling installation

Product Description

The VIP-CAM-100-USB3 provides up to Full HD 1080P60 resolution using high-quality optics with 12X optical and 12X digital zoom capability for a total of 144X zoom. The high-performance smooth PTZ (pan/tilt/zoom) functionality allows for various movement speed. The VIP-CAM-100-USB3 supports DVI 1080P60 output that can be adapted to and HDMI cable.

Specifications

- 1/2.8" CMOS sensor, 2.14 megapixel Full HD
- 12x optical zoom
- 12X digital zoom
- Focal length 3.9 – 46.8mm
- Iris F1.6 – F2.8
- Horizontal viewing angle 72.5° – 6.3°
- Minimum illumination .5 lux color, .1 lux BW
- Shutter speed 1/1 to 1/10,000
- White balance – Auto, indoor, outdoor, one push, manual, ATW
- DNR 2D and 3D
- S/N => 50dB
- Pan angle -170~+170°
- Tilt angle -30~+90°
- Pan speed variable from .1°/sec to 120°/sec
- Tilt speed variable from .1°/sec to 90°/sec
- DVI 1080P60 output
- Precision PTZ drive system
- VISCA, PELCO-D, PELCO-P control via RS-232/485, HTTP
- Infrared remote control
- Smart AE technology (Automatic Exposure)
- Desktop/ceiling/wall mount options
- Create/recall over 200 PTZ presets with remote control

DVI Video Output Formats

- 720P50
- 720P60
- 1080i50
- 1080i60
- 1080P25
- 1080P30
- 1080P50
- 1080P60

Front

1. 20x optics
2. IR receiver
3. Power LED indicator

Rear Panel
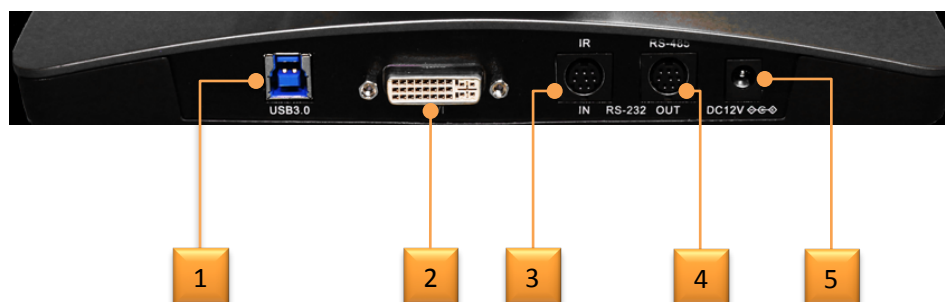
1. USB 3.0 video output
2. DVI video output
3. RS232/485 in
4. RS232/485 out
5. 12VDC power port

Bottom
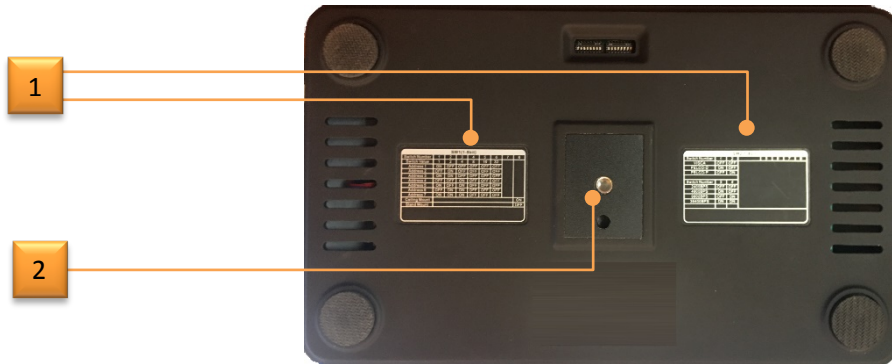
1. Setup switches
2. ¼" mounting thread

DIP Switch settings (bottom of base)

- Switch 1 (SW1)
    - o Sets device address and mounting orientation
- Switch 2 (SW2)
    - o Sets protocol type, baud rate, video output format

See Appendix: DIP Switch Settings

Remote
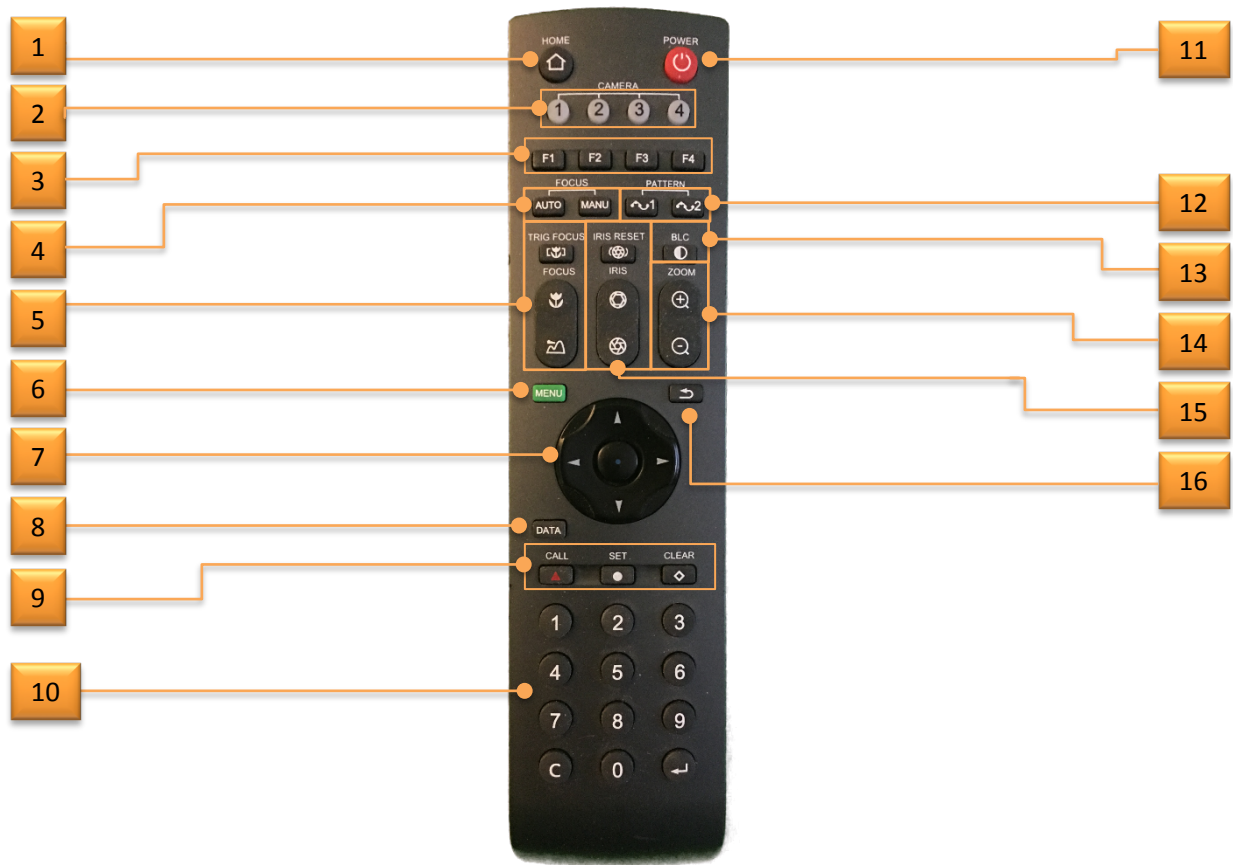
1. Home: Returns camera to default position
2. Camera Select: Sets remote for control of cameras addressed to 1, 2, 3, or 4.
3. Functions: Reserved for future
4. Auto/Manual Focus: Sets camera to auto or manual focus mode
5. Focus
   a. Trigger Focus: Performs autofocus when pressed.
   b. Focus Near/Far: Performs near focus or far focus
6. Menu: Enter/exit OSD settings menu
7. Directional Pad: Non-menu: controls pan and tilt. Menu: navigation
8. Data: Toggles PTZ data on screen

9. Preset Functions: Call, set, or clear presets
10. Numeric: Numeric entry, C = clear, Return = Enter
11. Power: Off/On toggle. On performs PTZ calibration
12. Pattern Loop: Continuous Pan
13. Back Light: Open/close backlight compensation
14. Zoom: Performs zoom in   or zoom out
15. Iris:
    a. Reset iris to default
    b. Iris open   or close
16. Back: Go back to previous menu

Remote requires 2x AAA batteries.

Installation

The VIP-CAM-100-USB3 can be oriented in the following ways:

- Desktop
- Ceiling
- Wall
- Tripod/pendant

Connecting to a Computer via USB 3.0

The VIP-CAM-100-USB3 requires a USB 3.0 connection on your computer.

Connections

- Power
    - o Each VIP-CAM-100-USB3 can be powered from the included AC to 12VDC power adapter
- Video
    - o Video will output on the following connections:
        - USB 3.0:   up to 1080P60
        - DVI: up to 1080P60
- Infrared
    - o The VIP-CAM-100-USB3 can be controlled with the included infrared remote control
- RS-232
    - o The VIP-CAM-100-USB3 system provides VISCA or PELCO control through an RS-232 connection

RS-232

The VIP-CAM-100-USB3 uses an 8-pin Mini Din Female connector for incoming RS-232 control and loop out.

- Pin 3: TX   (To controller)
- Pin 4: GND
- Pin 5: RX   (From controller)
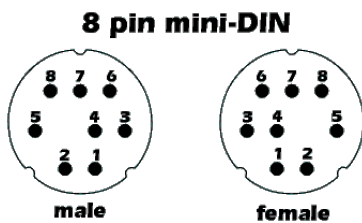
Information is provided below on using various cables with the camera. Please note when daisy-chaining cameras, you must use an 8-pin Mini Din Male to 8-pin Mini Din Male that is wired for crossover (pin 3 to 5, and pin 5 to 4).

8 ft. 8-pin Mini Din Male to DB9 Female RS-232 Cable *Supplied* with VIP-CAM-100-USB3
DB9-F to 8-pin Mini Din Male

White – DB9 pin 2 (RXD)   > Mini Din pin 3

Red – DB9 pin 3 (TXD)   > Mini Din pin 5

Black – DB9 pin 5 (GND)   > Mini Din pin 4

When using the PureLink VIP-CAM-CTRL1 controller with the VIP-CAM-100-USB3 cameras, the DB9 connector will need to be removed, as the controller uses a terminal block as shown below.

20-Meter 8-pin Mini Din Male to pigtail RS-232 Cable Wiring for VIP-CAM-100-USB3

Blue   (RXD)

Orange (TXD)

Black   (GND)

Wiring below is shown with the PureLink VIP-CAM-CTRL1 terminal block. Wiring on the bottom of the image is from the controller.
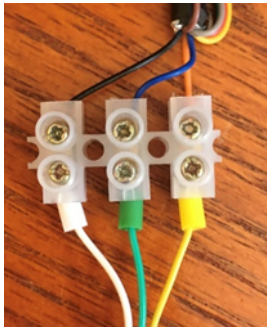
8-pin Mini Din control cable

1		YELLOW
2		GREEN
3		**ORANGE**
4	GND	**BLACK**
5		**BLUE**
6		RED
7		BROWN
8		VIOLET

VIP-CAM-CTRL1 RS-232 Connections

The VIP-CAM-CTRL1 provides a connector header for the RS-232 wiring.

- GND   WHITE
- TX   YELLOW   (sent to camera)
- RX   GREEN   (received from camera)

On-Screen Display (OSD)

Top Level Menu

<MENU>

       VIDEO
       EXPOSURE
       WHITE BALANCE
       PAN TILT ZOOM
       SYSTEM
       STATUS
       RESTORE DEFAULT

VIDEO Menu

SHARPNESS	—	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
CONTRAST	—	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
SATURATION	—	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
HUE	—	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
2DNR LEVEL	—	ON, OFF
3DNR LEVEL	—	AUTO , 1 , 2 , 3 , 4 , OFF
WIDE DYNAMIC	—	ON, OFF

EXPOSURE Menu

```
─── MODE ────────── FULL AUTO
│               ├──── MANUAL ──── GAIN ──────── -0, +2, +4, +6, +8, +10,
│               │                                +12, +14, +16, +18, +20,
│               │                                +22, +24, +26, +28, +30
│               │
│               │                ─ SPEED──────── 1/1, 1/2, 1/3, 1/6, 1/12,
│               │                                1/25, 1/50, 1/75, 1/100,
│               │                                1/120, 1/150, 1/215, 1/300,
│               │                                1/425, 1/600, 1/1000,
│               │                                1/1250, 1/1750, 1/2500,
│               │                                1/3500, 1/6000, 1/10000
│               │
│               │                ─ IRIS ──────── F14, F11, F9.6, F8, F6.8,
│               │                                F5.6, F4.8, F4, F3.4, F2.8,
│               │                                F2.4, F2, F1.6, CLOSE
│               │
│               ├── SHUTTER ──── SPEED ──────── 1/1, 1/2, 1/3, 1/6, 1/12,
│               │   PRI                          1/25, 1/50, 1/75, 1/100,
│               │                                1/120, 1/150, 1/215, 1/300,
│               │                                1/425, 1/600, 1/1000,
│               │                                1/1250, 1/1750, 1/2500,
│               │                                1/3500, 1/6000, 1/10000
│               │
│               ├── IRIS PRI ──── IRIS ──────── F14, F11, F9.6, F8, F6.8,
│               │                                F5.6, F4.8, F4, F3.4, F2.8,
│               │                                F2.4, F2, F1.6, CLOSE
│               │
│               ├── BRIGHT PRI─── BRIGHT ────── 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10,
│               │                                11, 12, 13, 14, 15, 16, 17,
│               │                                18, 19, 20, 21, 22, 23, 24,
│               │                                25, 26, 27
│               │
│               └── SMART──────── AREA1──────── PRESET 001~ 255
│                               ├─ AREA2─────── PRESET 001~ 255
│                               ├─ AREA3─────── PRESET 001~ 255
│                               └─ AREA4 ────── PRESET 001~ 255
│
├── EXP-COMP──── ON ──────────── LEVEL ──────── -7, -6, -5, -4, -3, -2, -1, 0,
│             │                                  +1, +2, +3, +4, +5, +6, +7
│             │
│             └─ OFF
│
├── BLC ─────────── ON, OFF
│
└── ANTI –FLICKER── OFF,50HZ,60HZ
```
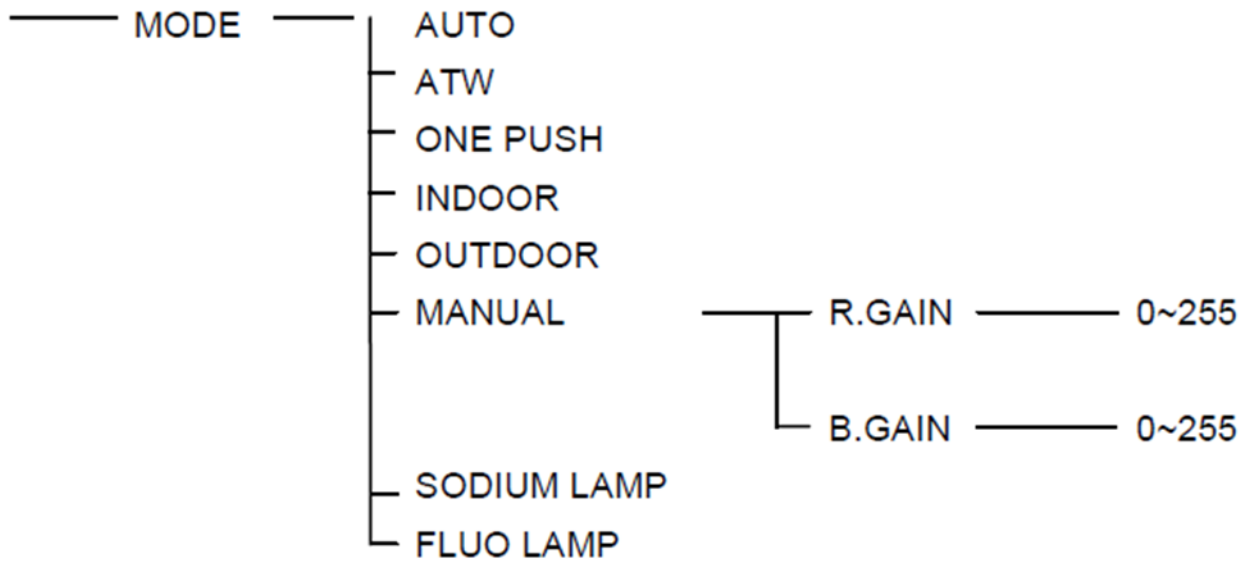
WHITE BALANCE Menu

```
——— MODE ———— AUTO
              ⊢ ATW
              ⊢ ONE PUSH
              ⊢ INDOOR
              ⊢ OUTDOOR
              ⊢ MANUAL ————⊢ R.GAIN ——————— 0~255
              |                |
              |                └ B.GAIN ——————— 0~255
              |
              ⊢ SODIUM LAMP
              └ FLUO LAMP
```

PAN TILT ZOOM Menu

```
┌── PAN/TILT SPEED          ──        1, 2, 3, 4, 5, 6, 7, 8
├─ PAN/TILT LIMIT           ──        ON, OFF
│        ┌── UP        ───────────    -30°~+90°
│        ├── DOWN      ───────        -30°~+90°
│        ├── LEFT      ───────────    -170°~+170°
│        └── RIGHT     ───────────    -170°~+170°
├─ D-ZOOM LIMIT             ──        X1, X2, X3, X4, X5, X6, X7,
│                                     X8, X9, X10, X11, X12
├─ PTZ TRIG AF ──────────────        ON, OFF
│
├─ RATIO SPEED              ───       ON , OFF
├─ PRESET FREEZE            ──        ON , OFF
└─ POWER UP ACTION ──────────         PRESET 1, PRESET 2,
                                      PRESET 3, PRESET 4,
                                      PRESET 5, PRESET 6,
                                      PRESET 7, PRESET 8,
                                      PRESET 9, HOME
```

SYSTEM Menu

```
            ┌── ADDRESS              1, 2, 3, 4, 5, 6, 7
            ├── PROTOCOL             VISCA, PELCO-P, PELCO-D
            ├── BAUDRATE             2400, 4800, 9600, 38400
            ├── VIDEO FORMAT         1080P60, 1080P50, 1080I60,
            │                        1080I50, 1080P30, 1080P25,
            │                        720P60, 720P50
            ├── MOUNT MODE           STAND , CEILING
            ├── RS485 PORT           HALF-DUPLEX-1 , HALF-DUPLEX-2
            ├── DISPLAY INFO         ON , OFF
            └── LANGUAGE             ENGLISH, CHINESE
```

STATUS Menu

```
            ┌── ADDRESS              1
            ├── PROTOCOL             VISCA
            ├── BAUDRATE             9600
            ├── VIDEO FORMAT         1080P25
            ├── MOUNT MODE           STAND
            ├── IMAGE VER            V6629
            └── FIRMWARE VER         V1.0.0
```

RESTORE DEFAULTS Menu

Resetting to Factory Default

Factory default changes the following parameters:

- VISCA, ID 1
- Remote control ID, 1
- Exposure – Auto
- White balance – Auto

Troubleshooting

No Image

- Check power adapter is connected and is outputting 12VDC
- Check output video cables
- Check output resolution is set to an accepted resolution of the display
- Check exposure level

Warranty & Customer Service

PureLink™ Three (3) Year Limited Warranty
For PureStream™ Branded Products Only

Dtrovision, LLC. (hereinafter "PureLink") warrants its PureStream™ branded products (hereinafter "Product") purchased directly from PureLink or Dealer shall be free from defects in workmanship and materials, under normal use and service, for a period of three (3) years on parts and three (3) years on labor. Any repaired or replaced equipment related to Product shall be covered only under the remaining portion of the warranty. This warranty has no relationship to and exists independently of any warranty offered by Dealer. This warranty is a limited warranty and gives you specific legal rights. You may also have other rights which vary from state to state.

TERMS & CONDITIONS

PureLink shall repair or replace the Product if it develops a material fault during the period of warranty, on condition that i) the Product has only been subject to normal use in a domestic or commercial environment in a manner consistent with its specification and functionality, ii) the Product has been cared for reasonably and only subjected to reasonable wear and tear, iii) the defect has not been caused by willful or negligent abuse or neglect, or any accident or improper installation procedure, iv) the serial number of the Product has not been altered or removed.

This warranty only applies to the original purchaser, and shall be the exclusive remedy to the original purchaser. PureLink shall not be liable for any damages whatsoever caused by Product or the failure of Product to perform, including incidental or consequential damages. PureLink shall not be liable for any claim made by a third party or made by the purchaser for a third party.

Except as expressly set forth in this warranty, PureLink makes no other warranties, expressed or implied, including any implied warranties of merchantability and fitness for a particular purpose. PureLink expressly disclaims all warranties not satisfied in this limited warranty. Any implied warranties that may be imposed by law are limited to the terms of this limited warranty. This warranty statement supersedes all previous warranties.

WARRANTY RETURNS/REPAIRS/EXCHANGES

No merchandise may be returned without prior authorization from PureLink, and a Return Materials Authorization (RMA) number. Failure to comply with these conditions will result in rejection of the returned merchandise.

Any warranty service on Products must be arranged through Dealer. Authorized returns must be shipped freight prepaid and fully insured to PureLink, Ramsey, NJ USA, with the RMA number clearly marked on the outside of all shipping boxes and containers. PureLink reserves the right at its sole discretion to refuse any shipments arriving freight collect or without an RMA number. Any authorized returned merchandise must be accompanied by a note describing the reason for return, along with contact information including name, phone number, return mailing and shipping addresses, e-mail address, and RMA number.

On any products returned and accepted with an RMA number, return freight charges following repair of items under warranty shall be paid by PureLink, shipping by the standard ground carrier of its choice.

ADVANCE WARRANTY REPLACEMENTS

PureLink's advance replacement service offers a Replacement Unit upon request - free of charge for eligible products purchased less than one (1) year of the warranty claim. Products purchased more than one (1) year prior to the warranty claim do not qualify for advance replacement services.

Advance replacement requests must be validated by a member of PureLink's Technical Support Team. Replacement units may be new or refurbished and is subject to availability. PureLink is responsible for shipping the Replacement Unit to your designated location by standard ground service. All other shipping methods will be responsibility of the Dealer.

Original Unit Return – the Original Unit must be returned within thirty (30) calendar days of the return authorization date. Failure to return the Original Unit within this period will be subject to a minimum 15% re-stocking fee. Dealer is solely responsible for the shipping of the Original Unit to PureLink.

TO MAKE A WARRANTY CLAIM

To make a warranty claim, promptly notify PureLink within the warranty periods described above by calling PureLink's Technical Support Department at 1-201-488-3232. PureLink, in its sole discretion, will determine what action, if any, is required under this warranty.

Most problems can be corrected over the phone through close cooperation between Customer and a PureLink technician. To better enable PureLink to address a warranty claim, please have the Product's serial and model numbers. If PureLink, in its sole discretion, determines that an on-site visit or other remedial action is necessary, PureLink may send a representative to Customer's site.

CUSTOMER SERVICE

Technical support inquiries can be submitted electronically through the PureLink website at purelinkav.com/tickets. For immediate assistance please contact PureLink's Customer Care Team (M-F, 9:00 AM – 5:00 PM EST) at +1 (201) 488-3232.