



**BirdDog** | CATALOGUE

PRODUCTION. SIMPLIFIED.

**NDI**<sup>®</sup>



WELCOME TO THE FUTURE.

**WELCOME TO THE WORLD OF NDI.  
WE'VE BEEN WAITING FOR YOU.**

Hi there,

Firstly thank you for your interest in BirdDog and BirdDog products. It's truly humbling.

BirdDog started in early 2016 when we first learned of the new and amazing NDI® platform.

NDI® is a fantastic distribution platform set to truly change the way we think about video workflows but our first question was "how do we get a live camera into the NDI® world?"

It was this simple question that gave us no choice but to go out and solve the problem. So we did.

To solve the problem of getting live cameras into the NDI® world,  
we went out and built a custom NDI® chip using an FPGA  
and we are extremely proud of being the first company in the world  
to achieve implementing NDI® into a dedicated silicon chip.

This chip is now used in all hardware products and you can rest assured we are just getting started.

We are extremely proud to announce eight new hardware products and two new software products in 2018.

Our products are all designed with the user in mind across our three categories

**ACQUIRE, CREATE, DELIVER.**

We pride ourselves on being approachable and easily contactable.

We'd love to hear from you.

**Dan Miall**

Co-Founder and CEO  
dan@bird-dog.tv



**Eamon Drew**

Co-Founder and CMO  
eamon@bird-dog.tv





## FULL NDI

NDI® comes in two flavors; NDI® and NDIHX, and it's important to understand the difference. Full NDI® is a true i-frame codec with an extremely high signal to noise ratio.

It was designed for broadcast use and scales to approximately 140Mbits at 1080p60. NDI®HX is a long-GOP codec and capped at 12Mbits. NDI®HX is awesome for certain applications, but BirdDog only focuses on full NDI®.

All the products in our catalogue are full NDI®.

## CUSTOM SILICON

BirdDog has developed from the ground up it's own custom silicon to encode and decode full NDI®. The nature of our implementation allows us to have full control over all aspects of development, which is the reason we were first to market with an NDI® Encoder, NDI® Decoder, and full NDI® cameras.

## WE GET YOU

BirdDog's founders Dan Miall and Eamon Drew are 20+ year broadcast industry veterans who met as teenagers working for a company selling the world's first capture cards for computers. It's their experience that allows for products to be designed from the ground up with your needs in mind.

## WORKFLOWS NOT PRODUCTS

Products plug holes; workflows create solutions. This is core to who we are at BirdDog and careful consideration about real world use is integral to all aspects of our design.

## BUILT FOR THE JOB

Our products are designed with longevity and ruggedness in mind. Our converter range is built from aircraft grade aluminum and our all weather cameras can withstand the harshest environments.

## SIZE DOES NOT MATTER

Whether you are an international broadcaster or a one-man live streaming ninja, we got your back. All our solutions are designed to scale to the biggest of the big but we also understand that a lot of the content created out there is by small teams. No matter who you are or what your production is, our mission is to design products that are easy to use and understand. Hardware should be plug and play and software should be intuitive.

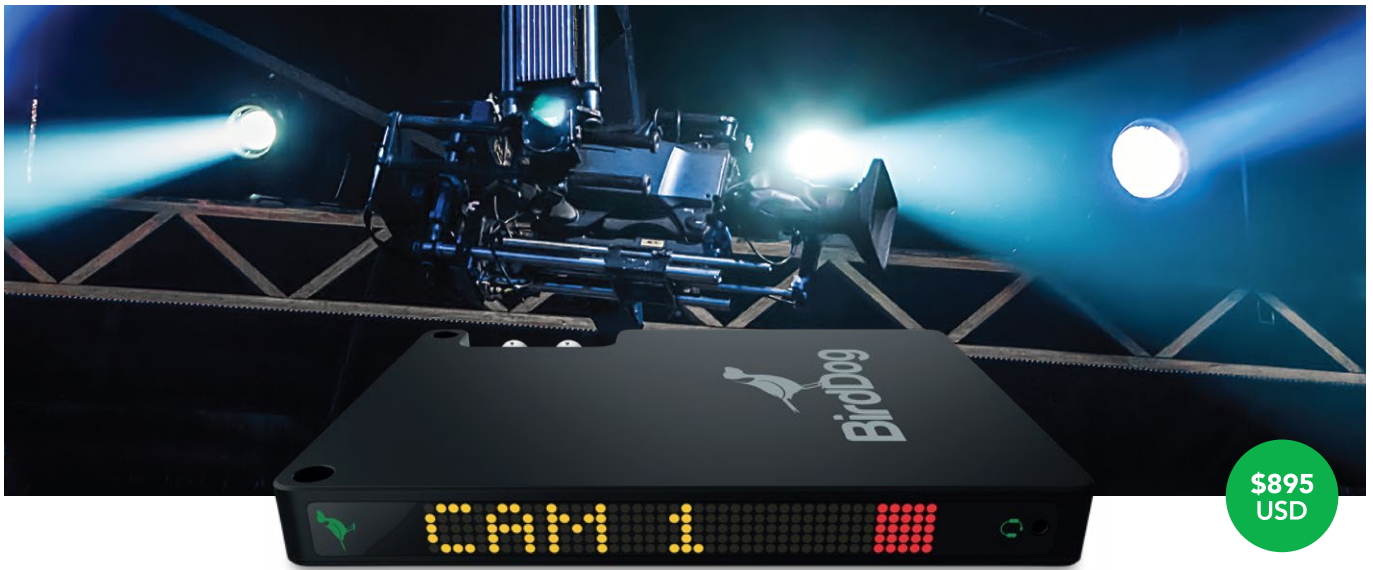
## PROUDLY AUSTRALIAN

BirdDog is based out of Melbourne, Australia where some of the biggest names in the broadcast industry hail from. There is truly something in the water down here. Whilst we are based out of Australia, we are on a global mission.

# BirdDog | STUDIO NDI

THE WORLD'S BEST NDI ENCODER AND DECODER.

International prices may vary



## THE WORLD'S MOST FEATURE RICH NDI ENCODER AND DECODER.

Designed from the ground up around BirdDog's customer NDI® silicon chip, Studio NDI is simply the world's best NDI® Encoder and Decoder.

Featuring SDI and HDMI inputs, customizable tally display, BirdDog Comms compatibility, Power over Ethernet (PoE), built in cross-converter, and the ability to both encode and decode NDI®, Studio NDI is without peer.

Due the super intelligent design of the BirdDog custom NDI® silicon chip the latency on Mini is insanely low. Just 16ms on encode and 16ms on decode.

Attach Studio NDI to any camera via an SDI or HDMI connection and you can introduce that camera source into your NDI® workflow. Studio NDI also features a complete Tally system to eliminate the need for multiple boxes on your camera.

Studio NDI can also be used as an NDI® Decoder making it perfect for Digital Signage and IMAG applications. Simply attach Mini to your HDMI television or HDMI monitor and send NDI® sources to the Mini to play out onto the screen.

### FULL NDI

NDI® is an IP codec that comes in multiple flavours. Studio NDI uses the full quality version. Full NDI® is an i-frame, variable bit rate codec with an extremely high signal to noise ratio and is designed to run over existing Gigabit networks.

### NDI HDMI

Studio NDI is the world's first NDI® hardware based encoder and decoder with both SDI and HDMI inputs and outputs. The ultimate way to get NDI® into your world and back out again.

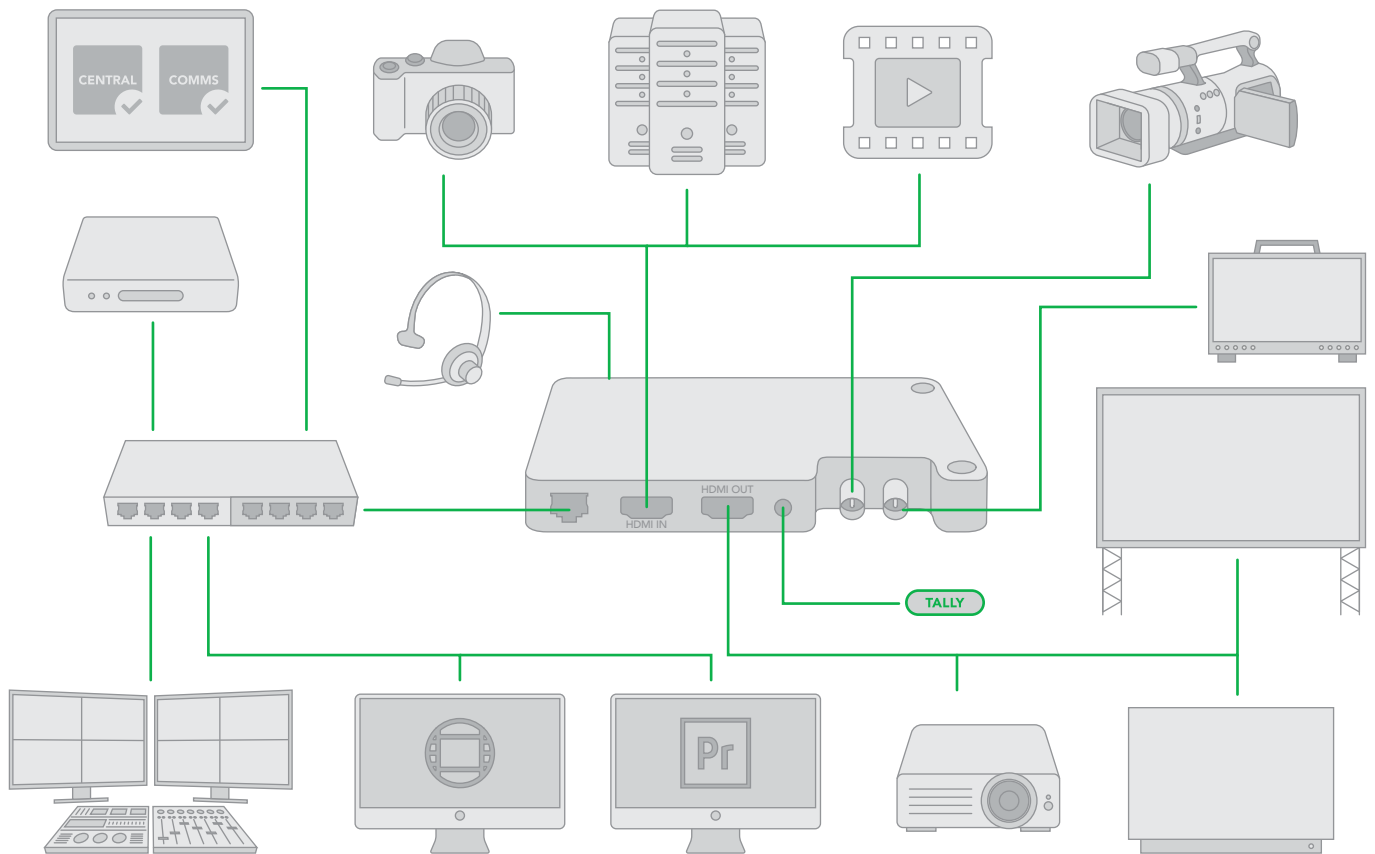
### COMMS

Studio NDI is compatible with BirdDog Comms. Comms is a complete Audio Intercom platform which can run on any Windows 10 compatible computer, laptop, or surface for a touch screen experience.

### PoE

One cable to rule them all. Simply plug a single Gigabit Ethernet cable in from your Power over Ethernet (PoE) switch and you have one Video, Audio, Power, and Comms anywhere on your network.

## CONNECTION DIAGRAM



## PRODUCT SPECIFICATIONS

### Video Formats

(HD) 1080p 23.98, 25, 29.97, 50, 59.94

(HD) 1080i 25, 29.97

(HD) 720p 50, 59.94

(SD) 525i, 625i

### Video Input

1 x 3G-SDI, SMPTE-259/292/296/424 (Level A / Level B)

1 x HDMI Standard Type A connector

HDMI v1.4a, RGB or YCbCr

### Video Output

1 x 3G-SDI, SMPTE-259/292/296/424 (Level A)

1 x HDMI Standard Type A connector

HDMI v1.4a, RGB or YCbCr

### Audio Digital

2-Channel, 24-bit SDI embedded audio, 48 kHz sample rate, synchronous

2-Channel, 24-bit HDMI embedded audio, 48 kHz sample rate, synchronous

### Audio Analog

3.5mm Microphone headset input / output

### Video Codec Support

Realtime, ultra-low latency, full-bitrate NDI (i-frame)

### Display

Internal 35x5 bi-colour LED display for information and tally indication

### Network Interface

10/100/1000 Ethernet (RJ-45) with PoE (Power over Ethernet)

Embedded web configuration panel for control and firmware updates

### User Interface Controls

Network settings  
Video settings  
Tally settings  
Audio and Comms settings

### External Tally

3.5mm 2 position +5v tally connector

### Size (W x D x H)

150mm x 105mm x 21mm

### Weight

0.3kg

### Power

100-240V, 50/60 Hz

Universal Input, +5-18V DC

7W Max

Power over Ethernet (PoE)

802.3af/at

# BirdDog | MINI

THE WORLD'S SMALLEST NDI ENCODER AND DECODER.

International prices may vary



ONE BOX. ONE CABLE.  
UNBELIEVABLE FEATURES.

## THE WORLD'S SMALLEST NDI ENCODER AND DECODER.

Designed from the ground up around BirdDog's customer NDI® silicon chip, Mini is the ultimate NDI® Encoder and Decoder.

Attach Mini to any camera via a HDMI connection and you can introduce that camera source into your NDI® workflow. Mini also features a complete Tally system to eliminate the need for multiple boxes on your camera.

Mini can also be used as an NDI® Decoder making it perfect for Digital Signage and IMAG applications. Simply attach Mini to your HDMI television or HDMI monitor and send NDI® sources to the Mini to play out onto the screen.

Due the super intelligent design of the BirdDog custom NDI® silicon chip the latency on Mini is insanely low. Just 16ms on encode and 16ms on decode.

Mini is compatible with BirdDog Comms. Comms is a complete Audio Intercom solution which can run on any Windows 10 compatible computer, laptop, or surface for a touch screen experience.



NDI® is an IP codec that comes in multiple flavours. BirdDog Mini uses the full quality version. Full NDI® is an i-frame, variable bit rate codec with an extremely high signal to noise ratio and is designed to run over existing Gigabit networks.



Mini is the world's first NDI® hardware based encoder and decoder. NDI® Encoding is how you get any camera or live video source into NDI® and decoding is the perfect way to put that content on to any screen.



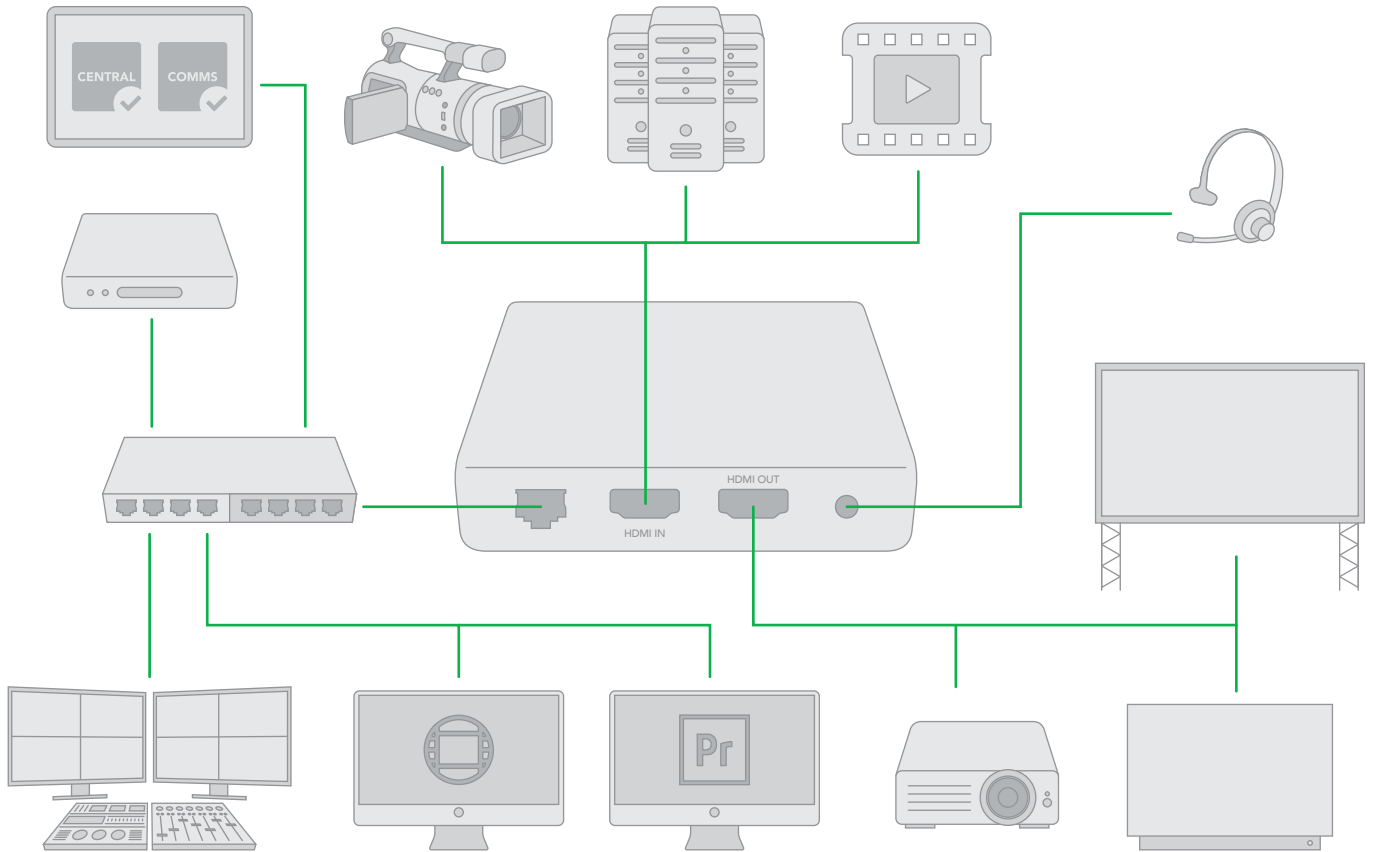
Mini is compatible with BirdDog Comms. Comms is a complete Audio Intercom platform which can run on any Windows 10 compatible computer, laptop, or surface for a touch screen experience.



One cable to rule them all. Simply plug a single Gigabit Ethernet cable in from your Power over Ethernet (PoE) switch and you have one Video, Audio, Power, and Comms anywhere on your network.



## CONNECTION DIAGRAM



## PRODUCT SPECIFICATIONS

### Video Formats

(HD) 1080p 23.98, 25, 29.97, 50, 59.94

(HD) 1080i 25, 29.97

(HD) 720p 50, 59.94

(SD) 525i, 625i

### Video Input

1 x HDMI Standard Type A connector HDMI v1.4a, RGB or YCbCr

### Video output

1 x HDMI Standard Type A connector  
HDMI v1.4a, RGB or YCbCr

### Audio digital

2-Channel, 24-bit HDMI embedded audio, 48 kHz sample rate, synchronous

### Audio analog

3.5mm Microphone headset input / output

### Video Codec support

Realtime, ultra-low latency, full-bitrate NDI (i-frame)

### Display

Bicolour Tally (Red/Green)

### Multicolour status information

Full status information on HDMI output (Selectable)

### Network Interface

10/100/1000 Ethernet (RJ-45) with PoE (Power over Ethernet)

Embedded web configuration panel for control and firmware updates

### User Interface Controls

Network settings

Video settings

Tally settings

Audio and Comms settings

### Size (WxDxH)

98x110x22mm

### Weight

200g

### Power

+5-18V DC7W Max

Power over Ethernet (PoE) 802.3af/at



AUDIO INTERCOM LIKE YOU'VE NEVER SEEN BEFORE.

International prices may vary



\$495 USD

### COMMS LIKE YOU HAVE NEVER SEEN BEFORE

By harnessing the true power of NDI®, BirdDog Comms is the world's first audio intercom system integrating live camera feeds. Be in total control and see every angle of your live production with live video windows from every BirdDog Studio NDI or Mini enabled camera source.

Comms configuration and set up is so intuitive it's close to magic. Simply load the Comms application on your Windows 10 device, connect to the network and it just works. Comms runs on any Windows 10 device including touchscreen devices creating a truly tactile experience.

The large window preview can show any camera source or use it to monitor the program output from your NDI® enabled switcher.



In the fast paced world of live production, every second counts. By using a Windows enabled touchscreen tablet the show director has complete lines of communication to the camera operators at their finger tips.



BirdDog Comms fully supports Push To Talk (PTT) function. Simply push your call button on any BirdDog headset and talk to the group you have been set up in. It's really that easy.



Intuitive group management ensures everyone is on the right channel. BirdDog Comms makes it super easy to set up the call groups for clear lines of communication. Comms supports up to 8 party lines.

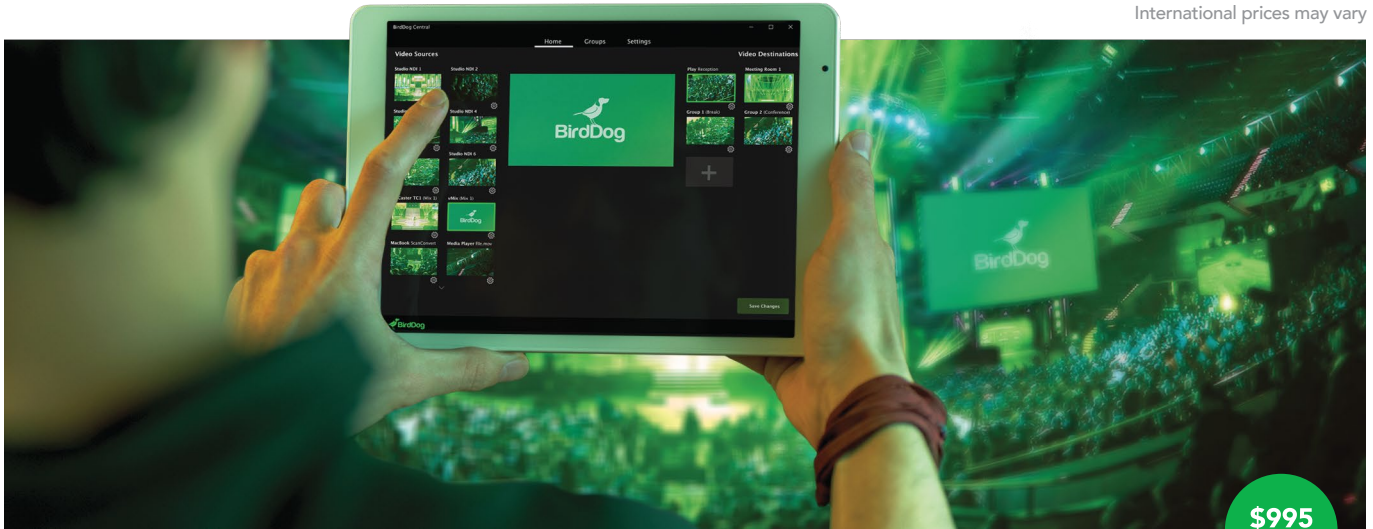


Comms is a Windows 10 application so can be used on any Windows 10 laptop, desktop or Surface for a touchscreen experience.

# BirdDog | CENTRAL

THE WORLD'S BEST NDI DELIVERY SYSTEM.

International prices may vary



**\$995  
USD**

## THE WORLD'S BEST NDI DELIVERY SYSTEM.

BirdDog Central is a software platform that is set to redefine the way we think about pushing content to TV screens. By teaming up Central with Mini or Studio NDI you can now drive your NDI® streams to any BirdDog hardware destination. Attach Mini to HDMI screens or Studio NDI to SDI screens and use as an NDI® decoder.

With just two button clicks you can deliver NDI® live feeds.

Playlist a media file on your Windows 10 device to any television screen, projector, or large screen anywhere on the network.

Central has been designed from the ground up to be easy to use and super fast. Whether you are a corporate who wants to update the screens around your building, a large sports stadium with hundreds of screens in corporate boxes, or a live event producer who needs to do IMAG, the intuitive app allows you to update any number of screens instantly.

Finding NDI® sources on your network happens almost like magic. Central is constantly scanning for NDI® streams and as soon as they appear they are loaded into the app as a source so you can then push them out to your BirdDog Decoders.



There is no faster and easier way to get NDI® content onto your screens. Two clicks of a button and you are pushing NDI® content to BirdDog decoders anywhere on your network.



Group BirdDog Mini or Studio NDI and you can push NDI® content to any number of screens: 10's, 100's, or more destinations, it's that easy.



Comms is a Windows 10 application so can be used on any Windows 10 laptop, desktop or Surface for a touchscreen experience.



Central will work with any full version NDI® source on your network, whether it is a feed from a live BirdDog PTZ Camera, the output from an NDI® compatible switcher.

# BirdDog | EYES P100

FULL NDI. NO COMPROMISES.

International prices may vary



\$1495  
USD

## YOUR ENTRY INTO THE WORLD OF NDI.

Built on BirdDog's custom NDI® silicon chip, the P100 PTZ camera is your entry into the world of full NDI®. Featuring frame rates up to 1080p60, 10x optical zoom, and dual SDI and NDI® outputs, P100 gives you professional level quality, performance, and total flexibility.

3.5mm audio connectors allow P100 to work with BirdDog Comms, the world's first NDI® audio intercom platform.

Comms is a Windows 10 application that can run on any Windows 10 compatible computer, laptop, or surface for a touch screen experience. Ultra compact and lightweight, P100 has been designed for even the smallest of spaces making it ideal for house of worship, classrooms, corporate training, and live streaming.

P100 can also be used as a traditional PTZ camera with RS422, RS485, and RS232 control allowing you to move into the world of NDI® when you are ready.

### FULL NDI

NDI® is an IP codec that comes in multiple flavours. BirdDog P100 uses the full quality version. Full NDI® is an i-frame, variable bit rate codec with an extremely high signal to noise ratio and is designed to run over existing Gigabit networks.



BirdDog's custom NDI® silicon chip is 16ms latency due to it's super intelligent design. This makes it perfect for any live production, digital signage, and IMAG application.

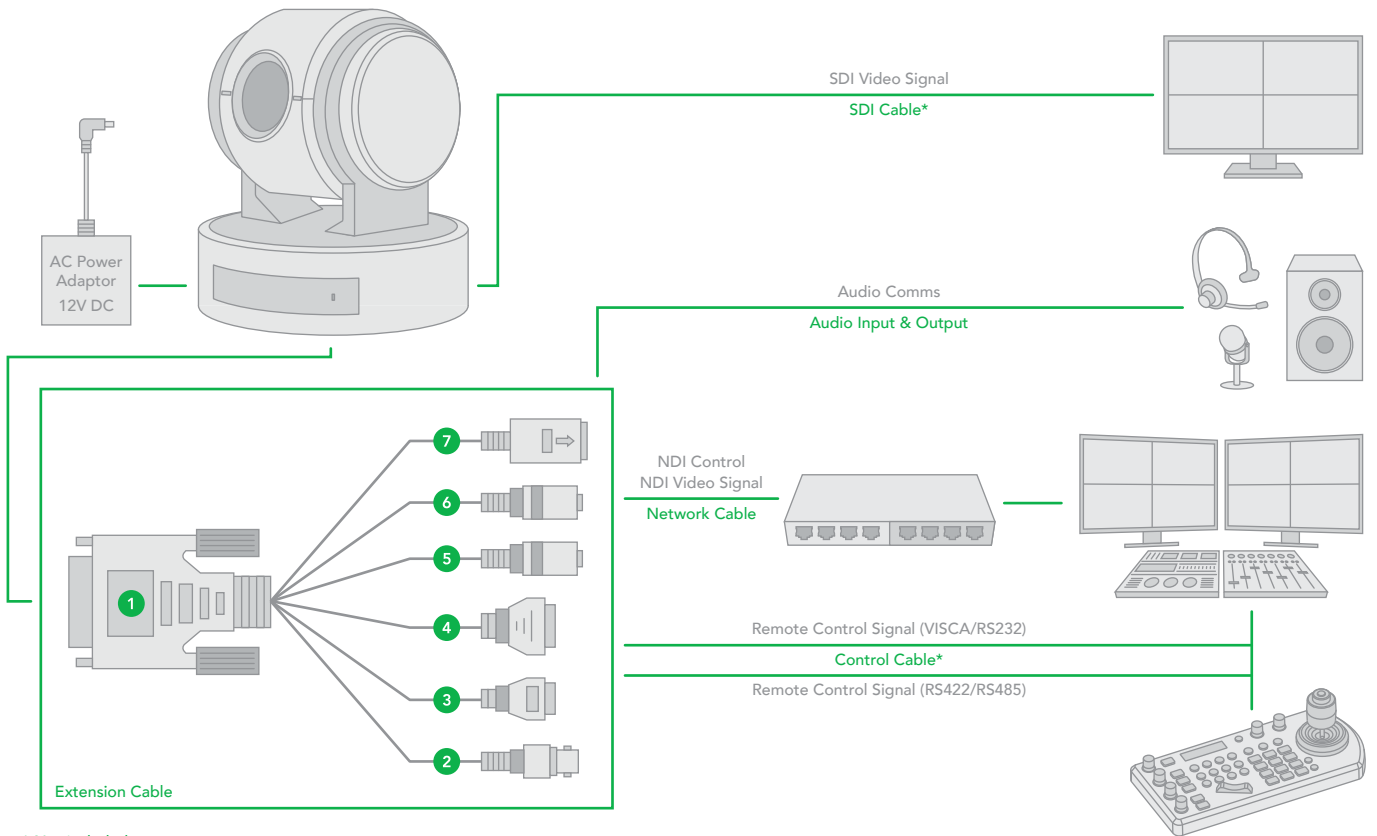
### COMMS

P100 is compatible with BirdDog Comms. Comms is a complete Audio Intercom platform which can run on any Windows 10 compatible computer, laptop, or surface for a touch screen experience.



Weighing in at under 1 kilogram and so small you can install it anywhere, this is the ultimate use anywhere NDI® camera. A great way to cost effectively extend your camera fleet.

## CONNECTION DIAGRAM



\* Not included

1. Extension Port DVI-I • 2. CVBS Video Output • 3. RS232 Control Port • 4. RS422/485 Control Port • 5. 3.5mm Audio Input • 6. 3.5mm Audio Output • 7. Ethernet Port

## PRODUCT SPECIFICATIONS

### CAMERA

**Image Sensor:** 1/2.86" CMOS 2.2MP  
**Lens:** 4.7 - 47mm  
**Optical Zoom:** 10x  
**Digital Zoom:** 2x  
**Horizontal Angle of View:** 60.9° (W) – 6.43° (T)  
**Aperture:** F1.6 (W) – F3.0 (T)  
**Min. Illumination:** 0.5 lux  
**Shutter Speed:** 1/1 – 1/30000s  
**Focus:** Auto, Push, Manual  
**White Balance:** Auto, Indoor, Outdoor, Manual, OPW, ATW  
**Exposure:** Auto, Manual, Shutter/Iris Priority  
**Backlight Compensation:** YES

### MECHANICAL

**Pan Movement:**  
 Horizontal: ±350° continuous pan  
 (Zoom Adaptive Speed Range: 0.05°~100°/S)  
**Tilt Movement:**  
 Vertical: +90° to -30° (Zoom Adaptive Speed Range: 0.05°~72°/S)  
**Preset Positions:** 128  
 (Speed adjustable: Up to 150°/s)  
**Preset Speed:** 0-5 Level adjustable  
**Environmental:** Indoor

### VIDEO INTERFACE

**Video Output:** NDI/SDI  
**Video Formats:**  
 1080P 60, 59.94, 50, 29.97, 25  
 1080i 60, 59.94, 50  
 720p 60, 59.94, 50, 29.97, 25  
**Audio I/O:** 3.5mm Audio In (Stereo)  
 3.5mm Audio Out (Stereo)

### CONTROL INTERFACE

**IP PTZ Control:** NDI Control (auto configuring)  
**Serial PTZ Control:** 2x RJ45: RS232/RS422/RS485  
**Serial Control Protocol:** VISCA / Pelco D

### POWER & DIMENSIONS

**Operating Temp.:** -10 – +50 (°C)  
**Operating Humidity:** ≤ 80%  
**Power Input:** 12v DC  
**Dimensions:** 145x145x154mm  
**Weight:** 1.0Kg

### NETWORK

**Video Compression:** Full NDI – i-frame high quality low latency NDI for production  
**Network Protocol:** NDI – Discovery, configuration and control  
**Web Control interface:** Full control via Web/Mobile UI inc. Scene presets



# BirdDog | EYES P200

FULL NDI. NO COMPROMISES.

International prices may vary



\$2495  
USD

## NDI HAS NEVER LOOKED SO GOOD.

P200 PTZ camera utilises BirdDog's custom NDI® silicon chip and leverages an impressive Sony CMOS backlit sensor and full Sony Image Module.

Designed for serious production the image quality of P200 is best in class. Built on a true Sony Image module with Sony CMOS backlit sensor, P200 has super fast focus hunting, incredibly sharp images, and amazingly fast zoom. P200 has frame rates up to 1080p60, 30x optical zoom, and outputs SDI, HDMI, and NDI® simultaneously. 3.5mm audio connectors allow P200 to work with BirdDog Comms, the world's first NDI® audio intercom platform. Comms is a Windows 10 application that can run on any Windows 10 compatible computer, laptop, or surface for a touch screen experience.

P200 has been designed for the most demanding on image quality. The superior optics make P200 perfect for Sports, Broadcast, Live Event Production, IMAG, Education, and any other application where quality matters. P200 can also be used as a traditional PTZ camera with RS422, RS485, and RS232 control allowing you to move into the world of NDI® when you are ready.

### FULL NDI

NDI® is an IP codec that comes in multiple flavours. BirdDog P200 uses the full quality version. Full NDI® is an i-frame, variable bit rate codec with an extremely high signal to noise ratio and is designed to run over existing Gigabit networks.

### Si

The best pictures come from the best silicon. Combining BirdDog's custom NDI® silicon chip and a Sony CMOS backlit sensor is a match made in silicon heaven. Your productions deserve the best.

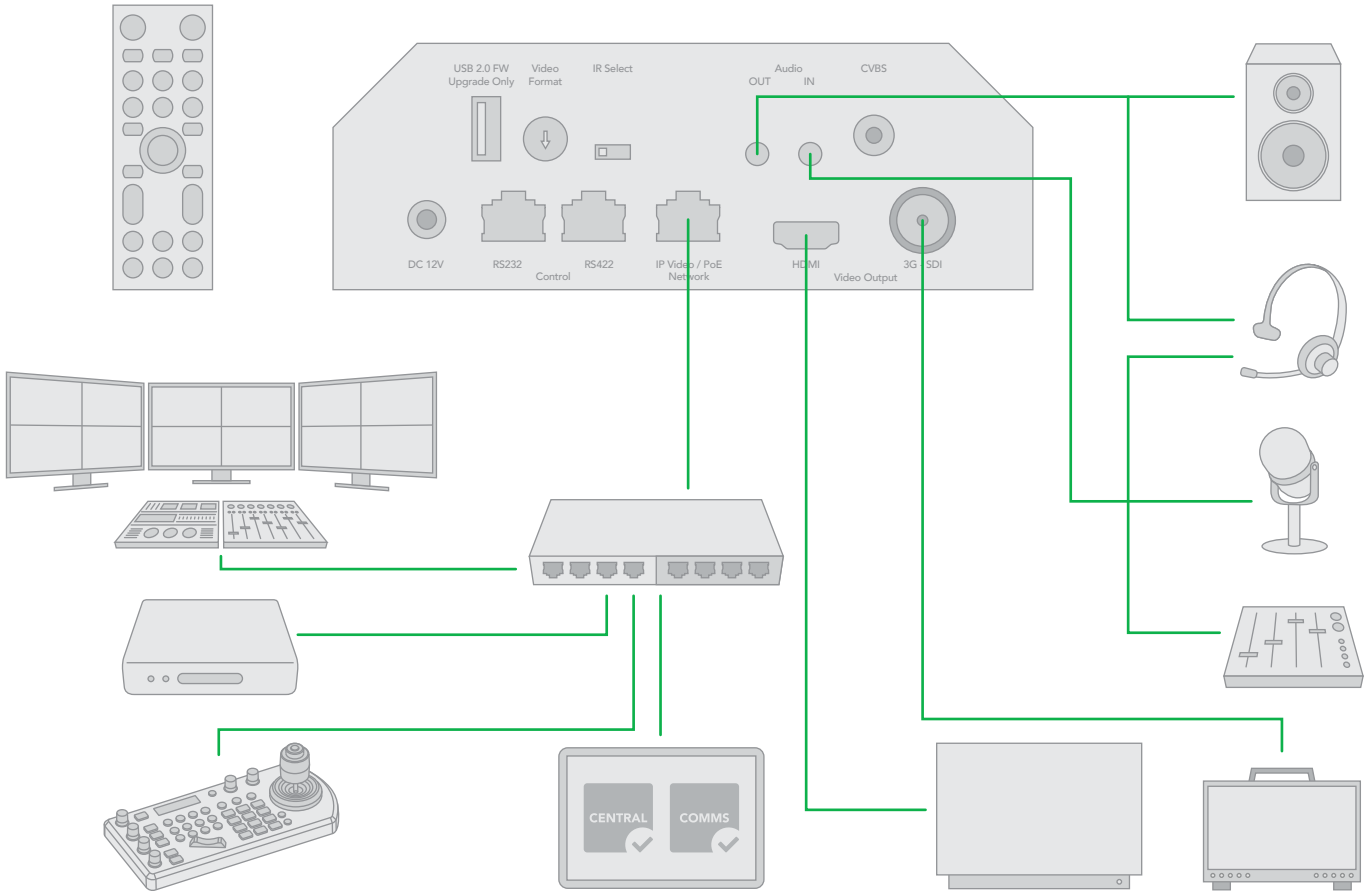
### COMMS

P200 is compatible with BirdDog Comms. Comms is a complete Audio Intercom platform which can run on any Windows 10 compatible computer, laptop, or surface for a touch screen experience.

### PoE

One cable to rule them all. Simply plug a single Gigabit Ethernet cable in from your Power over Ethernet (PoE) switch and you have one Video, Audio, Power, and Comms anywhere on your network.

## CONNECTION DIAGRAM



## PRODUCT SPECIFICATIONS

### CAMERA

**Image Sensor:** 1/2.8" CMOS 2.13MP  
**Lens:** 4.3-129mm  
**Optical Zoom:** 30x  
**Digital Zoom:** 12x  
**Horizontal Angle of View:** 63.7° (W) – 2.3° (T)  
**Aperture:** F1.6 (W) – F4.7 (T)  
**Min. Illumination:** Color: 0.01 lux (F1.6, AGC on, 1/30s, High sensitive mode), 0.1 lux (F1.6, AGC on, 1/30s, Normal sensitive mode)  
**Shutter Speed:** 1/1 – 1/10000s  
**Focus:** Auto, Push, Manual  
**White Balance:** Auto, Indoor, Outdoor, Manual, OPW, ATW  
**Exposure:** Auto, Manual, Shutter/Iris Priority  
**Backlight Compensation:** YES

### MECHANICAL

**Pan Movement:**  
 Horizontal: ±350° continuous pan (Zoom Adaptive Speed Range: 0.05° ~100°/S)  
**Tilt Movement:**  
 Vertical: +90° to -30° (Zoom Adaptive Speed Range: 0.05° ~50°/S)  
**Preset Positions:** 128 (Speed adjustable: Up to 150°/s)  
**Preset Speed:** 0-5 Level adjustable  
**Environmental:** Indoor

### VIDEO INTERFACE

**Video Output:** NDI/HDMI/SDI  
**Video Formats:**  
 1080P 60, 59.94, 50, 29.97, 25  
 1080i 60, 59.94, 50  
 720p 60, 59.94, 50, 29.97, 25  
**Audio I/O:** 3.5mm Audio In (Stereo)  
 3.5mm Audio Out (Stereo)

### CONTROL INTERFACE

**IP PTZ Control:** NDI Control (auto configuring)  
**Serial PTZ Control:** 2x RJ45: RS232/RS422/RS485  
**Serial Control Protocol:** VISCA / Pelco D

### POWER & DIMENSIONS

**Operating Temp.:** -10 – +50 (°C)  
**Operating Humidity:** ≤80%  
**Power Input:** 12v DC, PoE + (IEEE 802.3at)  
**Dimensions:** 160x178x220mm  
**Weight:** 2.0Kg

### NETWORK

**Video Compression:** Full NDI – i-frame high quality low latency NDI for production  
**Network Protocol:** NDI – Discovery, configuration and control  
**Web Control interface:** Full control via Web/Mobile UI inc. Scene presets



Also available in white.

# BirdDog | EYES A200

FULL NDI. NO COMPROMISES.

International prices may vary



## KEEP YOUR NDI DRY.

A200 PTZ camera utilises BirdDog's custom NDI® silicon chip and leverages an impressive Sony CMOS backlit sensor and full Sony Image Module.

Designed for serious production the image quality of A200 is best in class. Built on a true Sony Image module with Sony CMOS backlit sensor, A200 has super fast focus, incredibly sharp images, and amazingly fast zoom. A200 has frame rates up to 1080p60, 30x optical zoom, and outputs SDI and NDI® simultaneously.

A200 is IP67 rating for outdoor and indoor use. Corrosion Resistant treated housing for salt spray environment. -40°C to +60°C operating temperature. It even has a rain wiper to keep water off the lens. 3.5mm audio connectors allow A200 to work with BirdDog Comms, the world's first NDI® audio intercom platform. Comms is a Windows 10 application that can run on any Windows 10 compatible computer, laptop, or surface for a touch screen experience.

A200 has been designed for the most demanding on image quality. The superior optics make A200 perfect for Sports, Broadcast, Live Event Production, IMAG, Education, and any other application where quality matters. A200 can also be used as a traditional PTZ camera with RS422, RS485, and RS232 control allowing you to move into the world of NDI® when you are ready.



NDI® is an IP codec that comes in multiple flavours. BirdDog A200 uses the full quality version. Full NDI® is an i-frame, variable bit rate codec with an extremely high signal to noise ratio and is designed to run over existing Gigabit networks.



The best pictures come from the best silicon. Combining BirdDog's custom NDI® silicon chip and a Sony CMOS backlit sensor is a match made in silicon heaven. Your productions deserve the best.



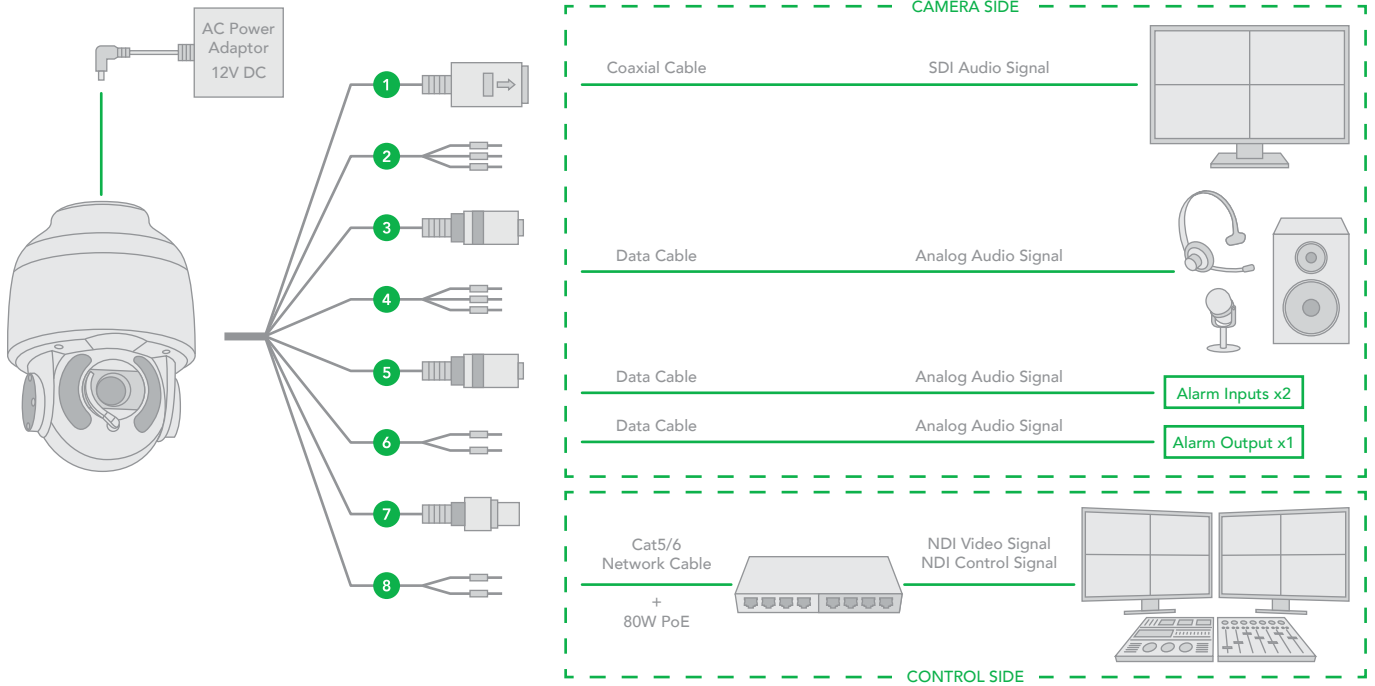
A200 is compatible with BirdDog Comms. Comms is a complete Audio Intercom platform which can run on any Windows 10 compatible computer, laptop, or surface for a touch screen experience.



One cable to rule them all. Simply plug a single Gigabit Ethernet cable in from your Power over Ethernet (PoE) switch and you have one Video, Audio, Power, and Comms anywhere on your network.



## CONNECTION DIAGRAM



1. RJ45 Connector: Network access device connected. • 2. Alarm Output • 3. 3.5mm Audio Input • 4. Alarm Input • 5. 3.5mm Audio Output • 6. AC Power Supply 24V AC  
7. BNC Connector: Analog Video Output • 8. RS485 Connector: NOT ACTIVATED, not useable

## PRODUCT SPECIFICATIONS

### CAMERA

**Image Sensor:** 1/2.8" CMOS 2.13MP  
**Lens:** 4.3-129mm  
**Optical Zoom:** 30x  
**Digital Zoom:** 12x  
**Horizontal Angle of View:** 63.7° (W) – 2.3° (T)  
**Aperture:** F1.6 (W) – F4.7 (T)  
**Min. Illumination:** Color: 0.01 lux (F1.6, AGC on, 1/30s, High sensitive mode), 0.1 lux (F1.6, AGC on, 1/30s, Normal sensitive mode)  
**Shutter Speed:** 1/1 – 1/10000s  
**Focus:** Auto, Push, Manual  
**White Balance:** Auto, Indoor, Outdoor, Manual, OPW, ATW  
**Exposure:** Auto, Manual, Shutter/Iris Priority  
**Backlight Compensation:** YES

### MECHANICAL

**Pan Movement:**  
 Horizontal: ±360° continuous pan (Zoom Adaptive Speed Range: 0.01°~150°/S)  
**Tilt Movement:** Vertical: +90° to -15° (Zoom Adaptive Speed Range: 0.05°~90°/S)  
**Preset Positions:** 255 (Speed adjustable: Up to 150°/s)  
**Environmental:** Outdoor/Indoor, IP67, corrosion resistant treated housing  
**Infrared:** Adaptive infrared, illumination up to 100m

### VIDEO INTERFACE

**Video Output:** NDI/SDI  
**Video Formats:**  
 1080P 60, 59.94, 50, 29.97, 25  
 1080i 60, 59.94, 50  
 720p 60, 59.94, 50, 29.97, 25  
**Audio I/O:** 3.5mm Audio In (Stereo)  
 3.5mm Audio Out (Stereo)

### CONTROL INTERFACE

**IP PTZ Control:** NDI Control (auto configuring)  
**Serial PTZ Control:** 2x RJ45: RS232/RS422/RS485  
**Serial Control Protocol:** VISCA / Pelco D

### POWER & DIMENSIONS

**Operating Temp.:** -40 – +60 (°C)  
**Operating Humidity:** ≤80%  
**Power Input:** AC 24v, PoE 80W Ready (BirdDog PoE 80W Injector needed, optional)  
**Power Consumption:** Min. 15W, Max. 60W (-40°C)  
**Dimensions:** 210x210x333mm  
**Weight:** 5.5Kg

### NETWORK

**Video Compression:** Full NDI – i-frame high quality low latency NDI for production  
**Network Protocol:** NDI – Discovery, configuration and control  
**Web Control interface:** Full control via Web/Mobile UI inc. Scene presets



# BirdDog | EYES A300

FULL NDI. NO COMPROMISES.

International prices may vary



## NDI FOR ALL CONDITIONS.

A300 PTZ camera utilises BirdDog's custom NDI® silicon chip and leverages an impressive Sony CMOS backlit sensor and full Sony Image Module.

Designed for serious production the image quality of A300 is best in class. Built on a true Sony Image module with Sony CMOS backlit sensor, A300 has super fast focus, incredibly sharp images, and amazingly fast zoom. A300 has frame rates up to 1080p60, 30x optical zoom, and outputs SDI and NDI® simultaneously.

A300 is IP67 rating for outdoor and indoor use. Corrosion Resistant treated housing for salt spray environment.

Wind Load Durability: 60m/s, Nitrogen Filled Housing, -40°C to +60°C operating temperature. 3.5mm audio connectors allow A300 to work with BirdDog Comms, the world's first NDI® audio intercom platform. Comms is a Windows 10 application that can run on any Windows 10 compatible computer, laptop, or surface for a touch screen experience.

A300 has been designed for the most demanding on image quality. The superior optics make A300 perfect for Sports, Broadcast, Live Event Production, IMAG, Education, and any other application where quality matters. A300 can also be used as a traditional PTZ camera with SDI, RS422, RS485, and RS232 control allowing you to move into the world of NDI® when you are ready.



NDI® is an IP codec that comes in multiple flavours. BirdDog A300 uses the full quality version. Full NDI® is an i-frame, variable bit rate codec with an extremely high signal to noise ratio and is designed to run over existing Gigabit networks.



The best pictures come from the best silicon. Combining BirdDog's custom NDI® silicon chip and a Sony CMOS backlit sensor is a match made in silicon heaven. Your productions deserve the best.

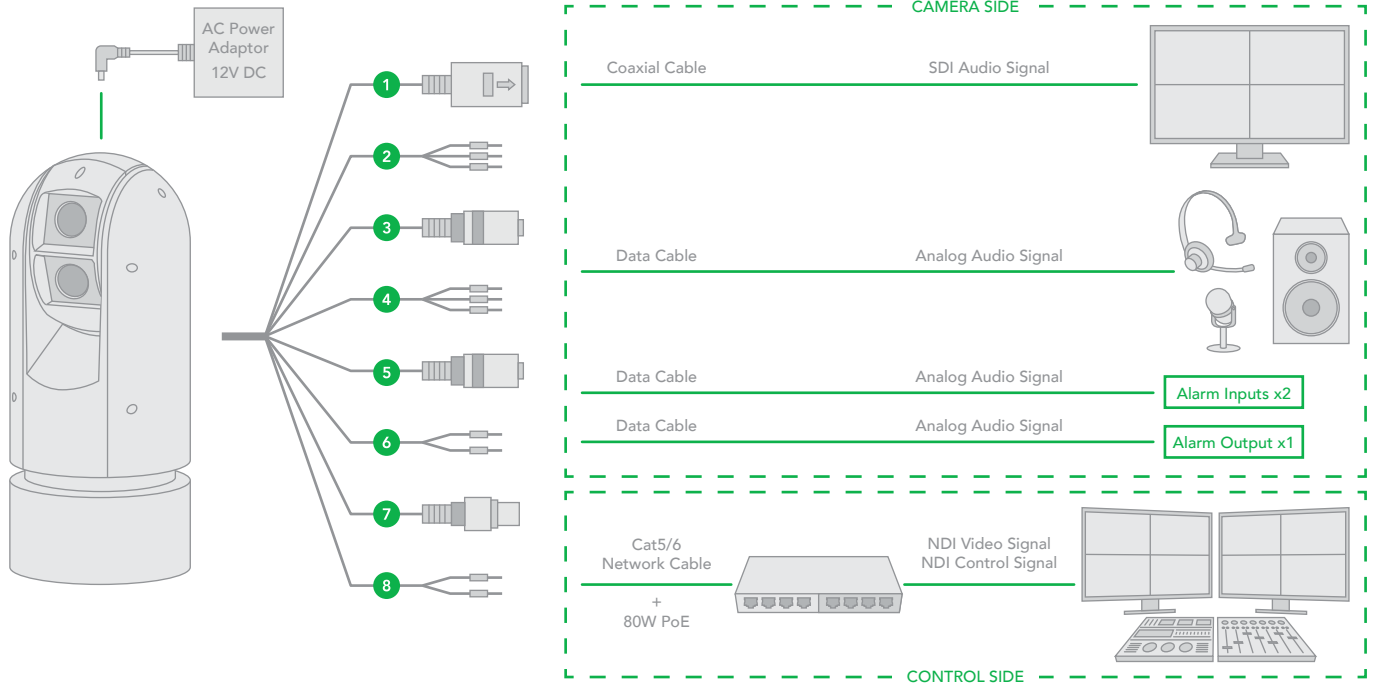


A300 is compatible with BirdDog Comms. Comms is a complete Audio Intercom platform which can run on any Windows 10 compatible computer, laptop, or surface for a touch screen experience.



One cable to rule them all. Simply plug a single Gigabit Ethernet cable in from your Power over Ethernet (PoE) switch and you have one Video, Audio, Power, and Comms anywhere on your network.

## CONNECTION DIAGRAM



1. RJ45 Connector: Network access device connected. • 2. Alarm Output • 3. 3.5mm Audio Input • 4. Alarm Input • 5. 3.5mm Audio Output • 6. AC Power Supply 24V AC  
7. BNC Connector: Analog Video Output • 8. RS485 Connector: NOT ACTIVATED, not useable

## PRODUCT SPECIFICATIONS

### CAMERA

**Image Sensor:** 1/2.8" CMOS 2.13MP  
**Lens:** 4.3-129mm  
**Optical Zoom:** 30x  
**Digital Zoom:** 12x  
**Horizontal Angle of View:** 63.7° (W) – 2.3° (T)  
**Aperture:** F1.6 (W) – F4.7 (T)  
**Min. Illumination:** Color: 0.01 lux (F1.6, AGC on, 1/30s, High sensitive mode), 0.1 lux (F1.6, AGC on, 1/30s, Normal sensitive mode)  
**Shutter Speed:** 1/1 – 1/10000s  
**Focus:** Auto, Push, Manual  
**White Balance:** Auto, Indoor, Outdoor, Manual, OPW, ATW  
**Exposure:** Auto, Manual, Shutter/Iris Priority  
**Backlight Compensation:** YES

### MECHANICAL

**Pan Movement:**  
 Horizontal: ±360° continuous pan (Zoom Adaptive Speed Range: 0.01°~150°/S)  
**Tilt Movement:** Vertical: +90° to -15° (Zoom Adaptive Speed Range: 0.05°~90°/S)  
**Preset Positions:** 255 (Speed adjustable: Up to 150°/s)  
**Environmental:** Outdoor/Indoor, IP67, corrosion resistant treated housing  
**Infrared:** Adaptive infrared, illumination up to 100m

### VIDEO INTERFACE

**Video Output:** NDI/SDI  
**Video Formats:**  
 1080P 60, 59.94, 50, 29.97, 25  
 1080i 60, 59.94, 50  
 720p 60, 59.94, 50, 29.97, 25  
**Audio I/O:** 3.5mm Audio In (Stereo)  
 3.5mm Audio Out (Stereo)

### CONTROL INTERFACE

**IP PTZ Control:** NDI Control (auto configuring)  
**Serial PTZ Control:** 2x RJ45: RS232/RS422/RS485  
**Serial Control Protocol:** VISCA / Pelco D

### POWER & DIMENSIONS

**Operating Temp.:** -40 – +60 (°C)  
**Operating Humidity:** ≤80%  
**Power Input:** AC 24v, PoE 80W Ready (BirdDog PoE 80W Injector needed, optional)  
**Power Consumption:** Min. 15W, Max. 60W (-40°C)  
**Dimensions:** 210x210x333mm  
**Weight:** 5.5Kg

### NETWORK

**Video Compression:** Full NDI – i-frame high quality low latency NDI for production  
**Network Protocol:** NDI – Discovery, configuration and control  
**Web Control interface:** Full control via Web/Mobile UI inc. Scene presets



# BirdDog | PTZ KEYBOARD

THE WORLD'S FIRST NDI PTZ KEYBOARD.

International prices may vary



## THE WORLD'S FIRST NDI PTZ KEYBOARD.

BirdDog PTZ Keyboard is a full featured PTZ Keyboard that supports NDI®, Visca over IP, RS422, and RS232.

By harnessing BirdDog's next generation NDI® and IP technology, it's never been easier to discover, connect, and control your PTZ cameras. Featuring superior ergonomics, premium buttons and joystick, all in a beautiful form factor this is the PTZ controller you have been waiting for.

Designed to control up to 255 PTZ cameras on a single network, PTZ Keyboard can scale to even the most complex installations.

Set up your quick access buttons to access Exposure, Focus, PT Speed, Zoom, Shutter Speed, Iris, White Balance, and Compensation.

The beautiful multi-coloured buttons and keys gives easy visual cues and makes using the PTZ Keyboard a breeze. Set up to 256 presets with memory of image parameters including camera moves (requires camera support).



Never before has a PTZ controller been so flexible. PTZ Keyboard is the world's first PTZ controller with NDI® and NDIIHX support. Along with NDI® there is support for Visca over IP, RS422, and RS232.



Super flexible powering options allow you to power the PTZ Keyboard from Power over Ethernet (PoE), DC in, or even over the serial port. Never get stuck in a situation where you can't power up.

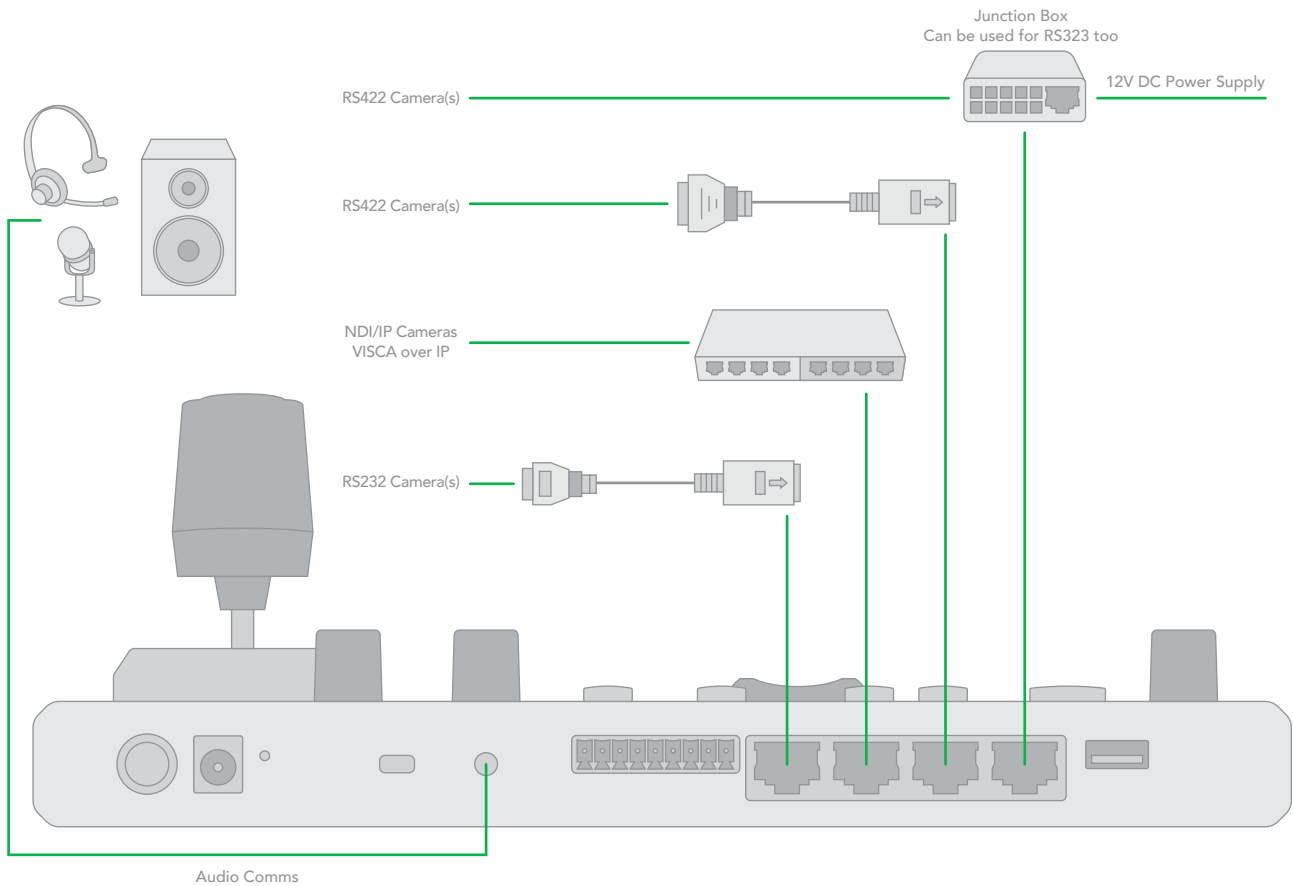


PTZ Keyboard is the world's first PTZ controller with Audio Intercom support over NDI®. PTZ Keyboard is compatible with BirdDog Comms. Comms is a complete Audio Intercom solution for any Windows 10 compatible computer, laptop, or surface for a touch screen experience.



Using the PTZ Keyboard is a breeze with well thought out button layout. Quickly access all the cameras on the network, and set up quick access buttons for all your favourite settings such as Exposure, Focus, Zoom, and movement speeds.

## CONNECTION DIAGRAM



## PRODUCT SPECIFICATIONS

### INPUT/OUTPUT CONNECTORS

**Control Input/Output**  
**LAN:** RJ45 x1 (With PoE) 100 BASE-TX  
**RS232:** RJ45 x1  
**RS422:** RJ45 x2

### CONTROL SIGNAL FORMAT

**NDI® Control**  
**VISCA over IP**  
**RS 232/RS422:** Baud Rate  
 2400/4800/9600/19200/38400

### USER INTERFACE

**Display:** LED  
**Speed control:** Yes, 2 knobs (pan/tilt, zoom)  
**Zoom rocker:** Yes  
**Zoom ring ibn joystick:** Yes  
**Programmable function buttons:** 6

### CAMERA CONTROL

**Maximum camera control:** Max. 255 with multiple protocols including NDI/IP  
**Maximum serial connections**  
**RS232:** 7  
**RS422:** 7  
**Key/Button illumination:**  
 Multi-colour LED

### BUTTONS

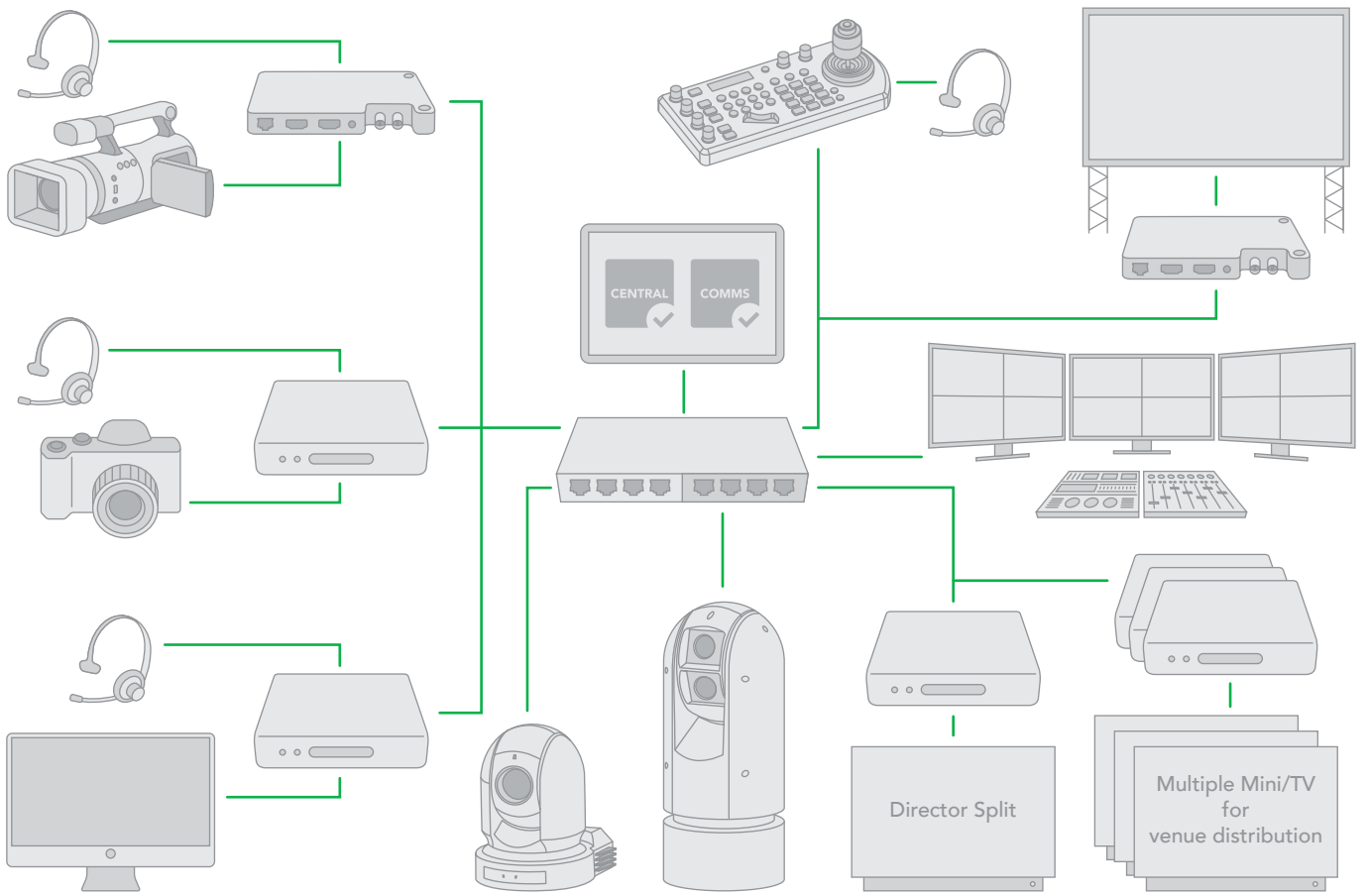
**Exposure Selection:** Yes, Button  
**One push White balance:** Yes, Button  
**Backlight control:** Yes, Button  
**Display status of WB, Iris, Gain, Shutter, Focus:** Yes  
**White balance model selection:** Yes, Button  
**R, B, Gain:** Yes, Knob  
**Iris Adjustment:** Yes, Knob  
**Shutter Speed:** Yes, Knob  
**Focus model selection:** Yes, Button  
**One push auto focus:** Yes, Button  
**Manual focus:** Yes, Knob

### GENERAL

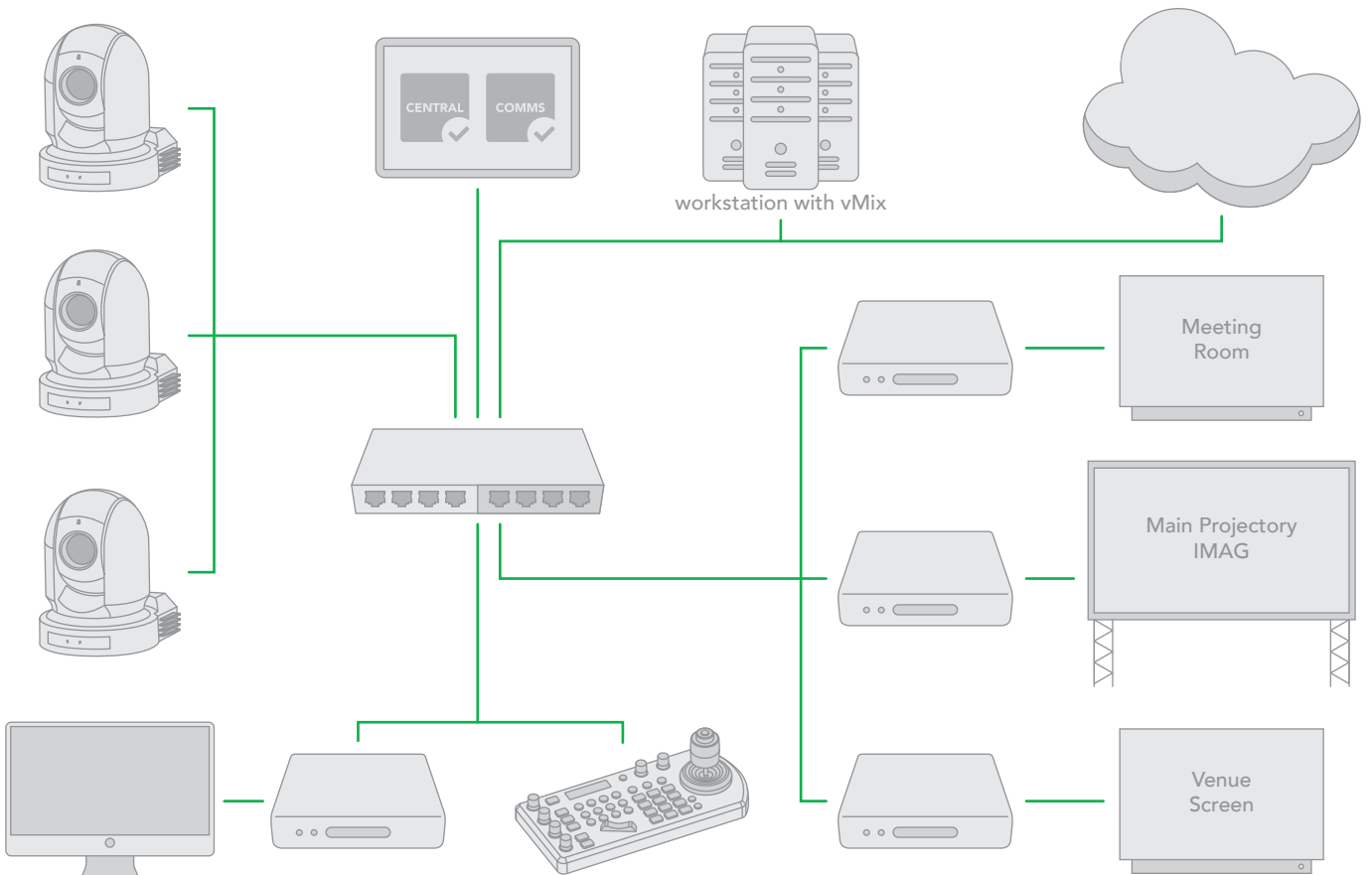
**Power input:** DC 12V, PoE (Power over Ethernet), Power via RS232/RS422 port  
**Current:** 3W  
**Operating Temp:** 0-40oC  
**Dimensions:** 278x132x99.5

*Notes: Not all features are available on all control protocols.*

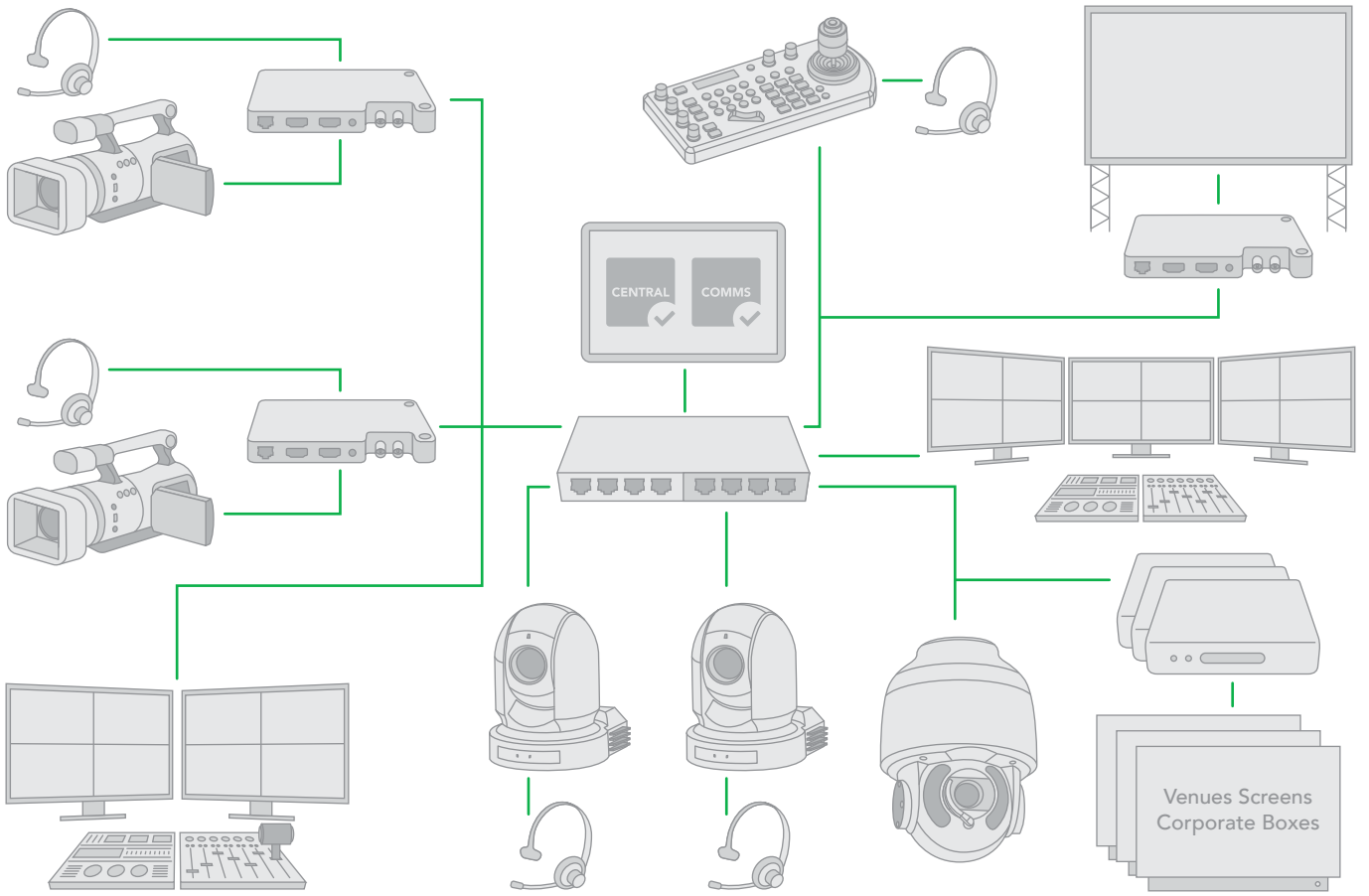
## NDI PRODUCTION



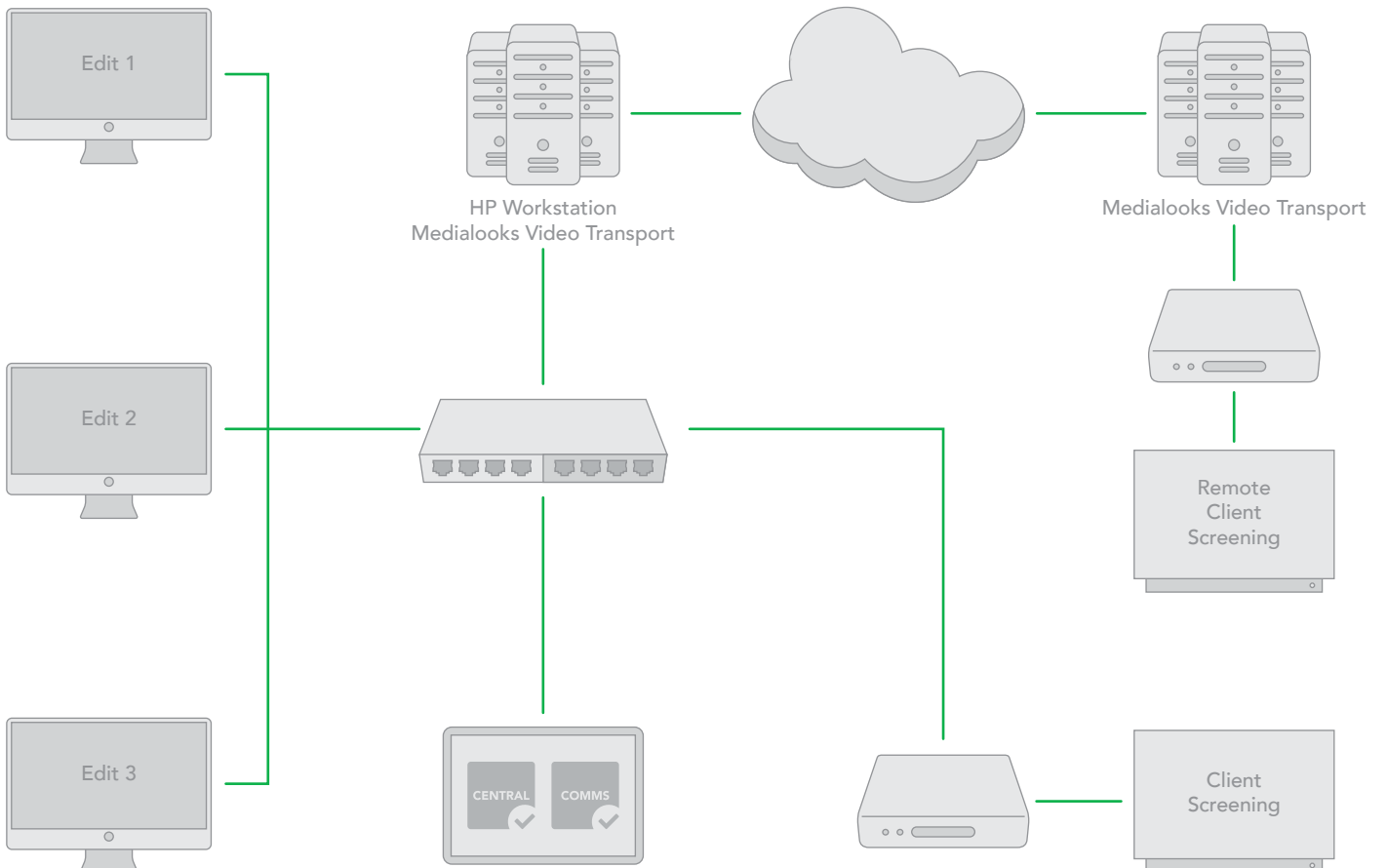
## CORPORATE PRODUCTION



## SPORTS PRODUCTION



## POST PRODUCTION



[bird-dog.tv](http://bird-dog.tv)

[hello@bird-dog.tv](mailto:hello@bird-dog.tv)