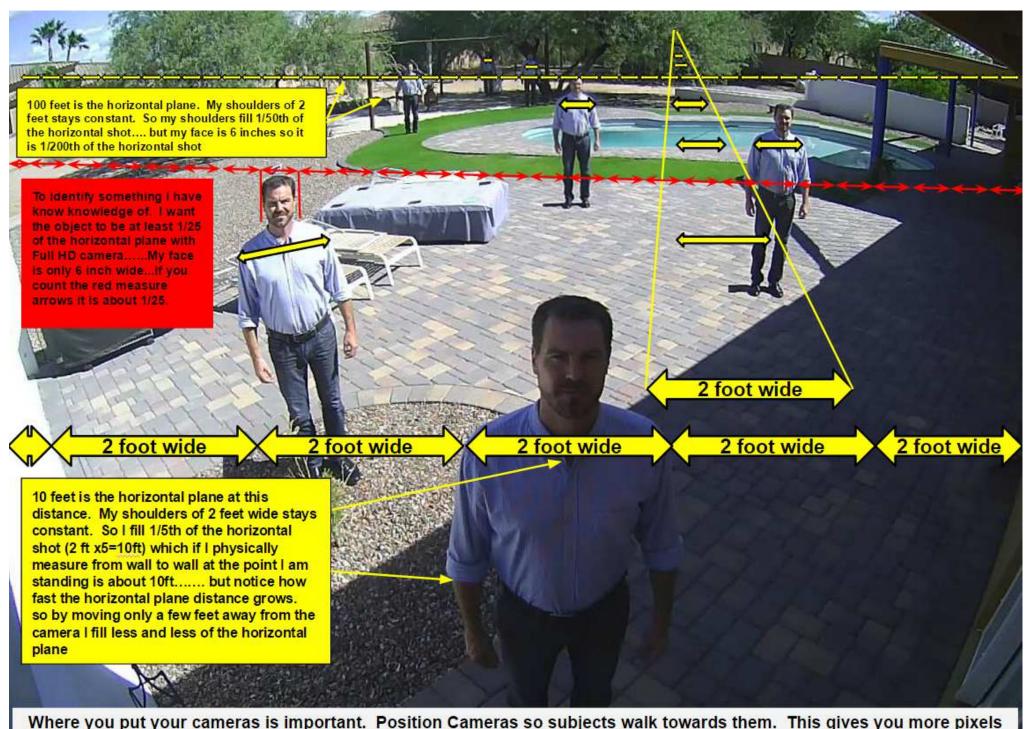
# Panasonic Cameras



Everything starts with the Camera.....but....it's only the start



Where you put your cameras is important. Position Cameras so subjects walk towards them. This gives you more pixels on target for identification and general surveillance in the background

Do you need low light camera...camera with IR or Black white camera with added NuOptic IR light





Daytime shoot

NO IR Light just True black white



IR Light of the camera on



NuOpitc IR light outside of camera

### Do you need Super Dynamic to fight High contrast lighting situations







No Super dynamic

Black Stretch



Super dynamic ON Super dynamic ON

### Do you need a Pan tilt zoom camera for distance...PTZ distance Panasonic SW598/SC588 (90 extra Optical)





WV-SC588 is -25 degrees





WV-Q122



approximately 465 ft



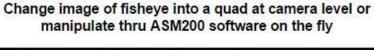
Google Map of shot



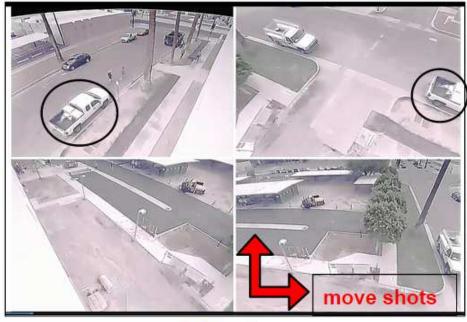
approximately 640 ft

### Panasonic 360 Fisheye and 180 imaging from same model camera

360 round shot

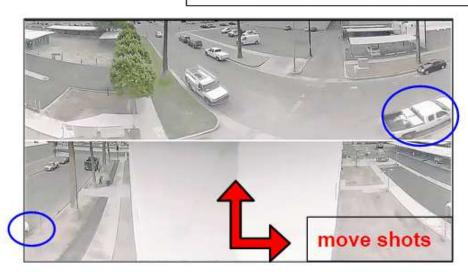






blue circle is around the same truck for reference





Double 180 shot







WV-Q7118

WV-SW458/WV-SF448 and WV-SF438



DTWWMTW



PWM484S/PPM484S PHM484S/PCM484S

## Panasonic 180 degree example shots

### Open Door Inc www.opendeye.com







WV-SW458/WV-SF448 and WV-SF438

WV-Q7118

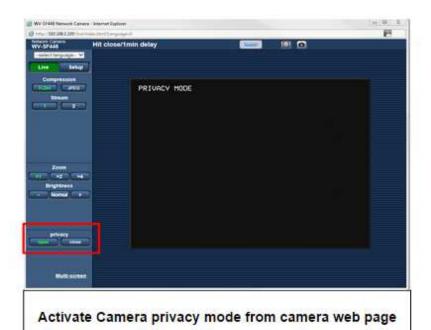








#### Panasonic WV-SF448 360/180 degree privacy mode camera



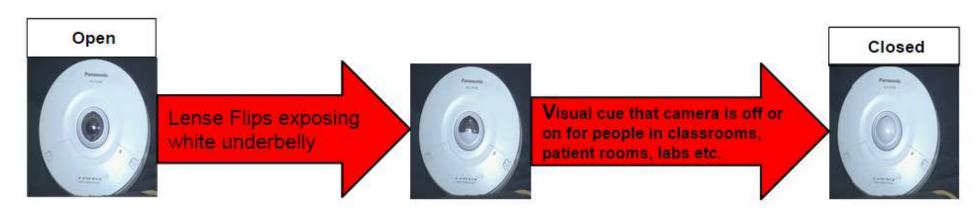
WV-5F448 Privacy Tue West Thu: Fit But Bun Activate Camera privacy mode on a date and timed schedule from the camera webpage

Hit close/1min delay

Activate Camera privacy mode On and Off with CGI commands http://ip address of camera/cgi-bin/privacy\_shutter?mode=on http://ip address of camera/cgi-bin/privacy\_shutter?mode=on



Activate Privacy mode from open/close contact into camera





### New 4 K WV-SFV481, WV-SFN480 image quality vs older WV-SW458, WV-SF438











### Should I buy 4K as a 360 camera for coverage or the fixed version and put more on the building?

One 360 WV-SFV481 camera records everything



Two SPV781L cameras cover everything but the tennis courts. You would need 3 SPV781L cameras to cover the same ground as one SFV481 Camera



Now we will show digital zooms into the picture. Red zooms are from the SFV481 360 4K and Blue are from the SPV-781L. Same shot distance and corner mount













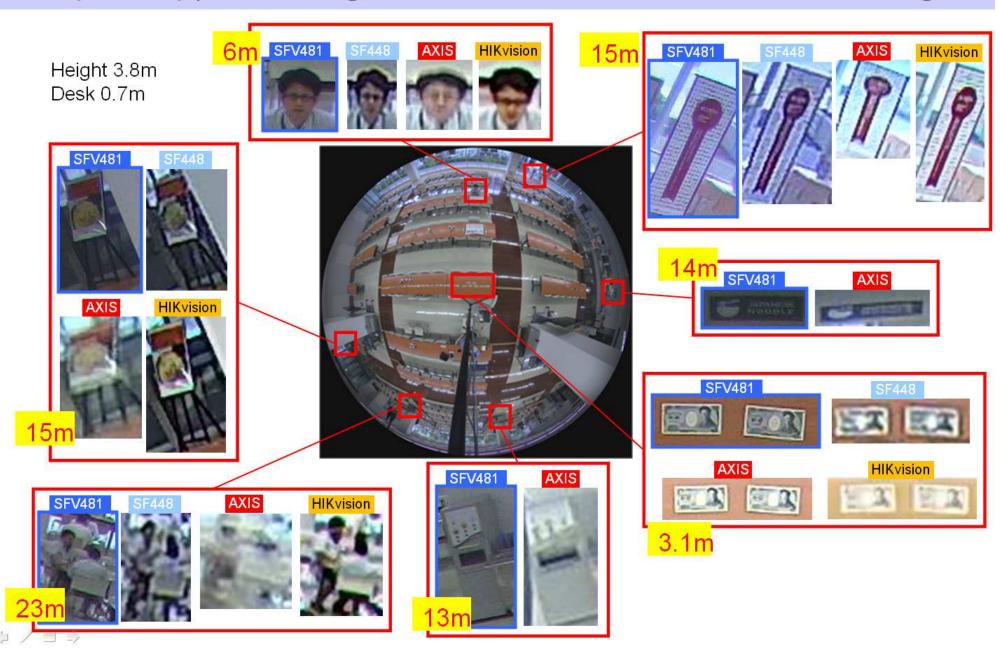






## **ULTRA High Resolution**

9M (3k x 3k) provides high resolution on the bottom and at the edges





## **ULTRA High Resolution**

## 9M (3k x 3k) provides high resolution on the bottom and at the edges

Dealer Price (TBD): \$950 / \$1,200

below

of number plate  $\rightarrow$ 

same size character

Directly below -

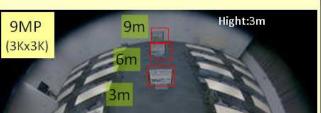
72:パナソニッ

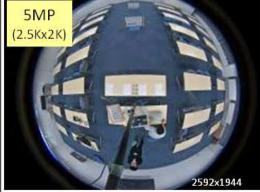
WV-SFV481/SFN481

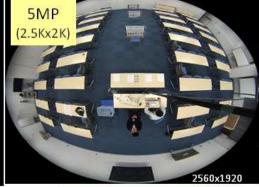
\$ 467 (indoor vandal) AXIS M3007-PV

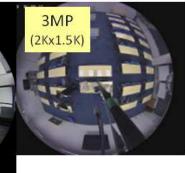
\$ 725 (outdoor) Sony SNC-HM662

\$ 750 (outdoor) WV-SW458























CMYK6GS4

CMYK6GS4 RGBHJ743Y2SUTF

72:バナソニッ











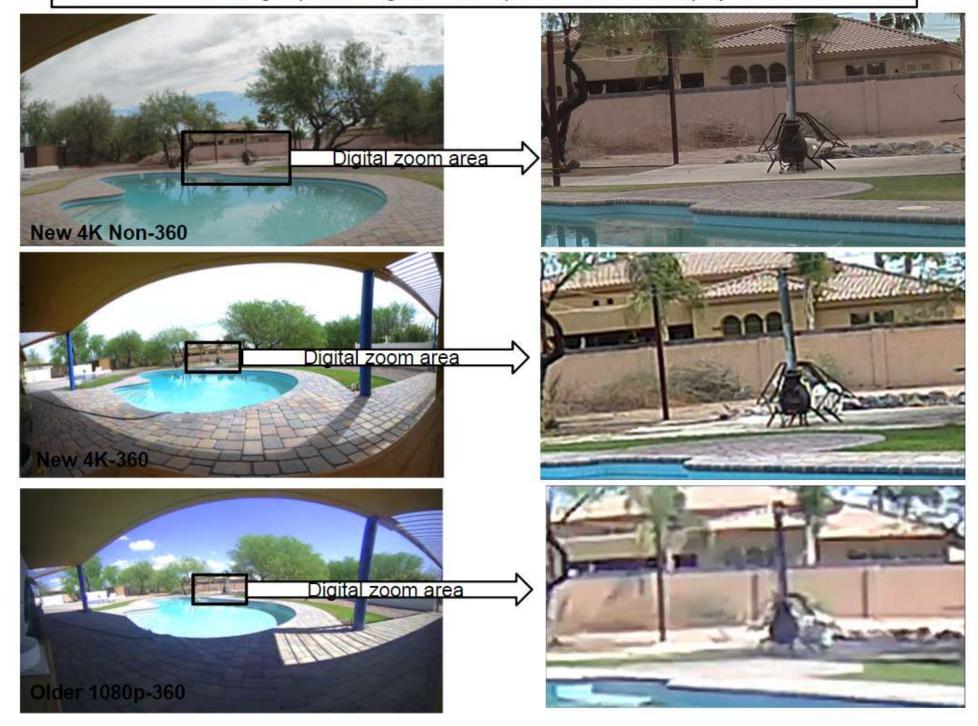


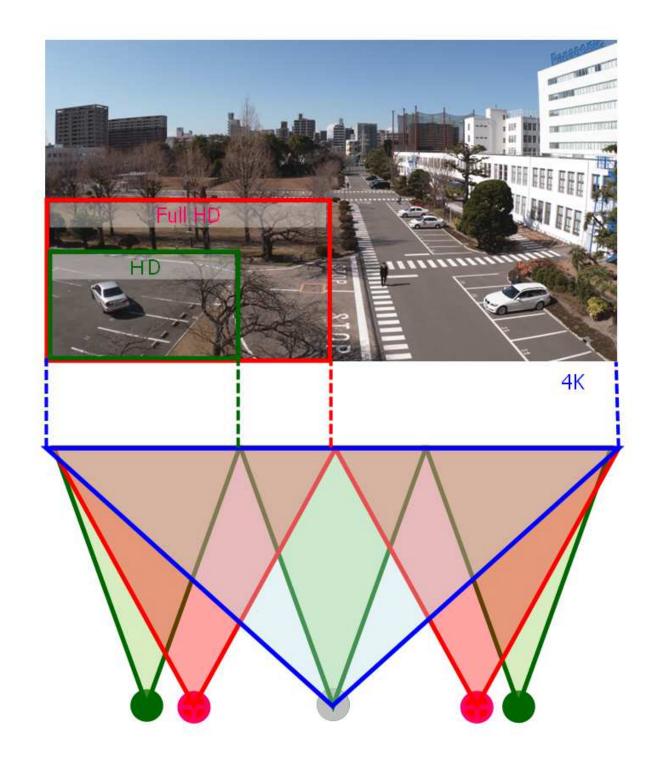






### 4K images provide digital zoom capabilities on live and playback





### 4K digital zoom distances from Open Door Inc example One



### 4K digital zoom distances from Open Door Inc example Two



### 4K digital zoom distances from Open Door Inc example Three



### Nothing controls picture quality and images per second MORE than the bandwidth from the camera....lower speed...lower image quality with images per second kept constant

#### WV-SPW781L Panasonic 4K camera

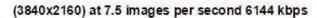




3840X2160



1280x1080



Full HD (1280x1080) at 7.5 images per second 1024 kbps

HD (1280x720) at 15 images per second 512 kbps

HVGAW (640x360) at 7.5 images per second 384 kbps

180P (320x180) at 7.5 images per second 256 kbps

160x90 (160x90) at 7.5 images per second 128 kbps



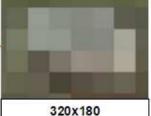
As you lower the speed of the camera your image deteriorates. Efficiency of the camera matters, speed matters. The imager size does not matter...example above is a 12 Meg camera that can produce 4K images. If you do not have the speed you do not get the picture



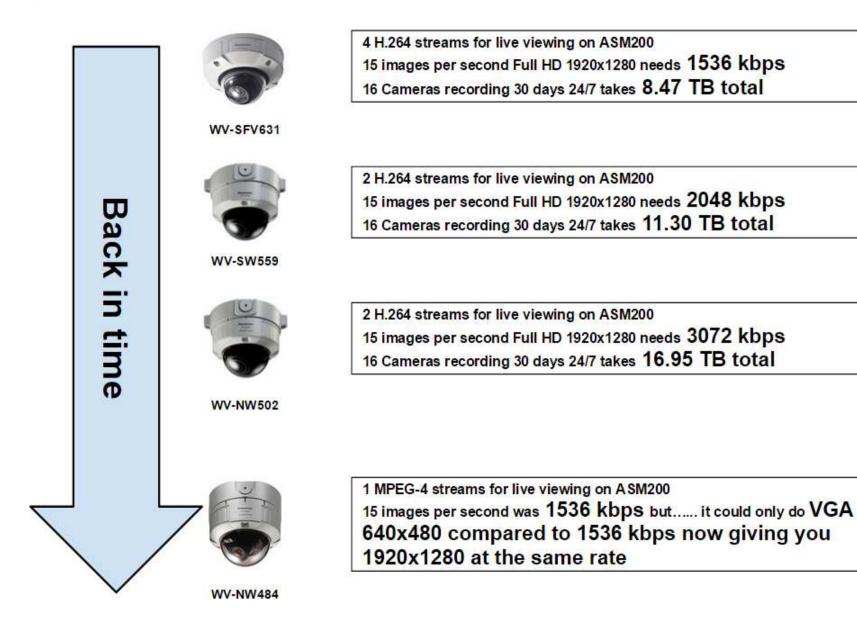
1280x720

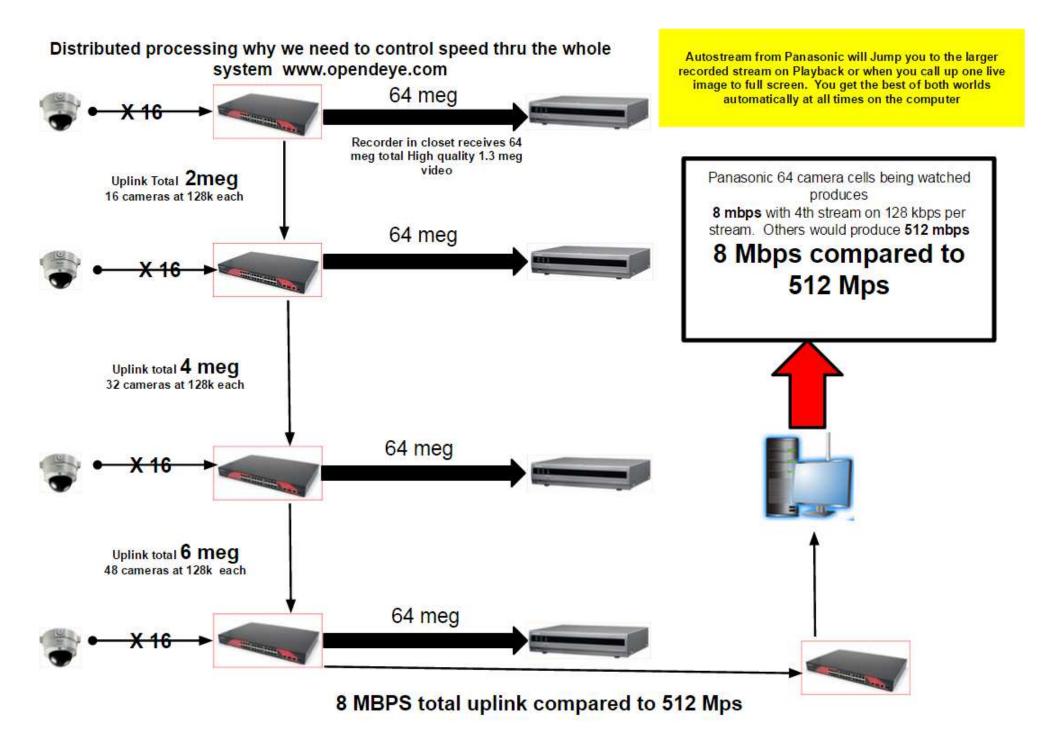


640x360



New Cameras are more than just features.....the chips get more efficient.....better performance across the network and less storage for the same image retention





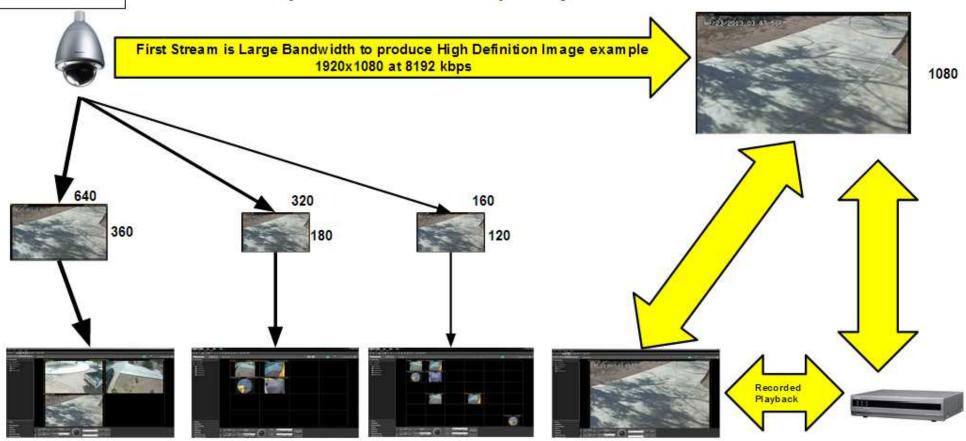
Auto Streaming prevents Network and PC overload for NO benefits to the systems usefulness

Panasonic Camera produces 4 streams at the same time

#### How Quad Streaming works with ASM 200 Video management system

Open Door Inc. www.opendeye.com

1920



ASM 200 request 2nd stream for live view from cameras when Quad is viewed. Picture too small on screen to use high def streams

512kps per stream

ASM 200 request 3rd stream for live view from cameras when 9, 16, 25 is viewed. Picture too small on screen to use high def streams or 2nd stream

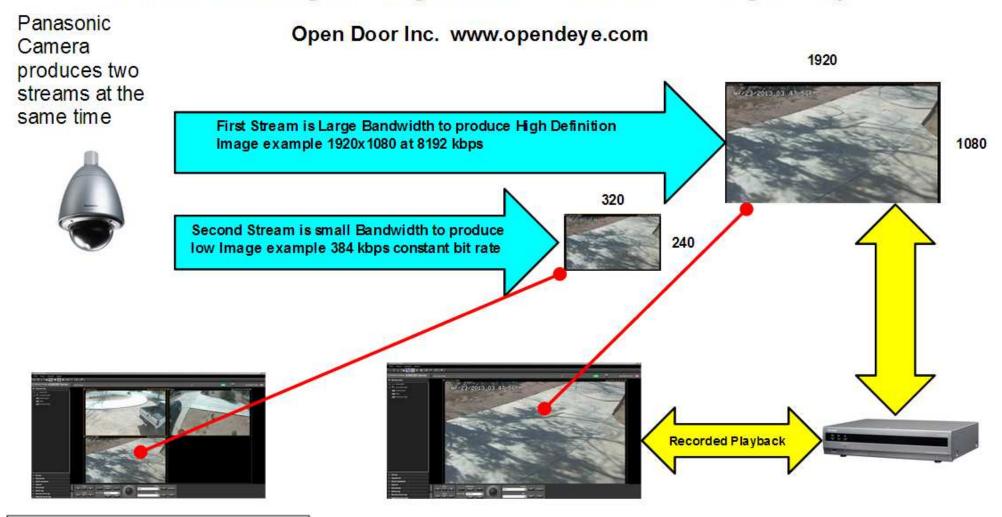
256Kps per stream

ASM 200 request 4th stream for live view from cameras when 36 or more is viewed. Picture too small on screen to use high def streams or 2nd or 3rd stream

128kps per stream

A SM200 request 1st stream for live view when one camera is being viewed. Picture is large enough to use high def streams Panasonic Recorder requests 1st high def stream for recording. A SM200 requests playback from the recorder which plays back all images high def.

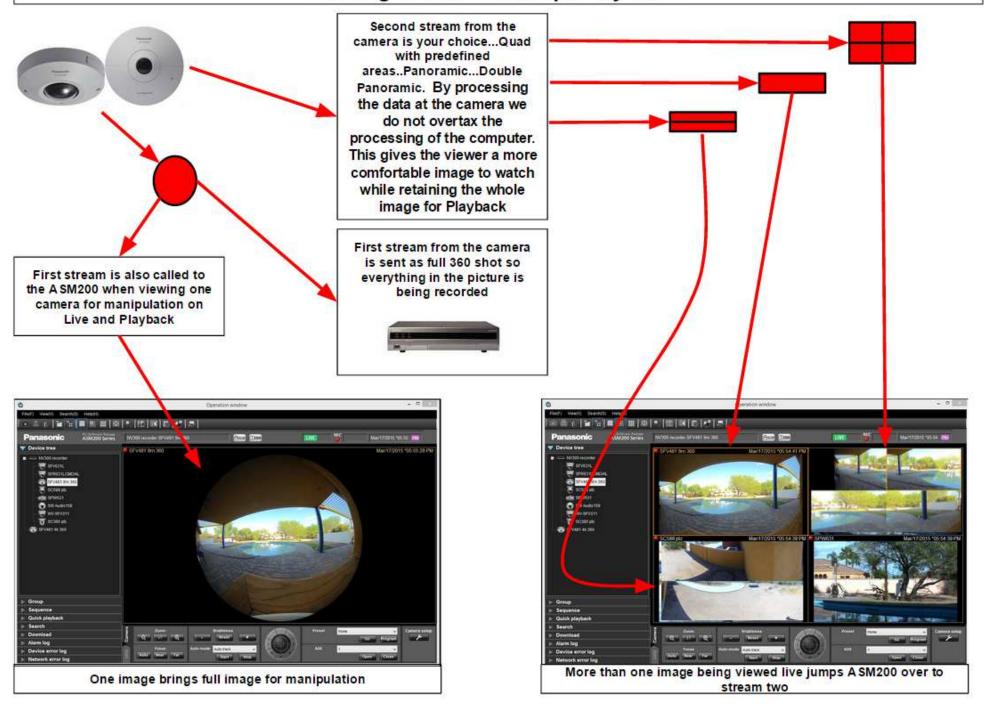
### How Dual Streaming Streaming works with ASM200 Video management system



ASM200 request 2nd stream for live view from cameras when more than one camera is being viewed. Picture too small on screen to use high def streams

ASM200 request 1st stream for live view when one camera is being viewed. Picture is large enough to use high def streams Panasonic Recorder requests 1st high def stream for recording. ASM200 requests playback from the recorder which plays back all images high def.

## 360/180 Cameras from Panasonic have dual streams to control processing power on ASM200 Viewing station....www.opendeye.com



### Panasonic Distributed Processing lets you GROW your system with Processing and storage

500 WJ-NV200 recorders: 32,000 Mbps processing, 4,000 Tera storage, 8,000 Cameras 500 WJ-NV300 recorders: 64,000 Mbs processing, 76,000 Tera storage, 16,000 Cameras 500 WJ-ND400 recorders: 64,000 Mbps processing, 108,000 Tera Storage, 32,000 Cameras



ASM200 supports 16 camera views at a time on one monitor



ASM200 with ASE202 supports 64 camera views at a time on one monitor

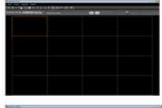








ASM200 with ASE201....Supports 20 camera views at a time on up to 2 monitors. the third monitor is for maps and you can add WV-CU950 joystick















ASM200 with ASE201 and ASE202....Supports 68 camera views at a time on up to 5 monitors, the sixth monitor is for maps and you can add WV-CU950 joystick

Open Door Inc www.opendeye.com

WV-ASE203 lets you talk to 500 Recorders
WV-ASE204 Lets you talk to 10 Decoders
Panasonic ASM200 how it works with monitors from the PC.
DON'T FORGET your PC will need monitor outs for each monitor
out you want to run. You also need a PC that can handle the
amount of video data you decide to run through it

## Panasonic 4 stream distribution throughput to monitors examples Open Door Inc www.opendeye.com



16 Camera views producing 4 meg total Traffic



64 Camera views producing 8 meg total Traffic





















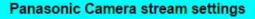
Quad screen producing 2 meg total traffic, 16 camera view producing 4 meg total

Quad screen producing 2 meg total traffic, 16 camera view producing 4 meg total traffic, 16 camera view producing 4 meg total traffic..........Total Traffic for all monitors 10 meg









traffic......Total Traffic for all monitors 10 meg

Stream 1 max bit rate 6 meg Stream 2 constant bit rate 512k Stream 3 constant bitrate 256k Stream 4 constant bit rate 128k



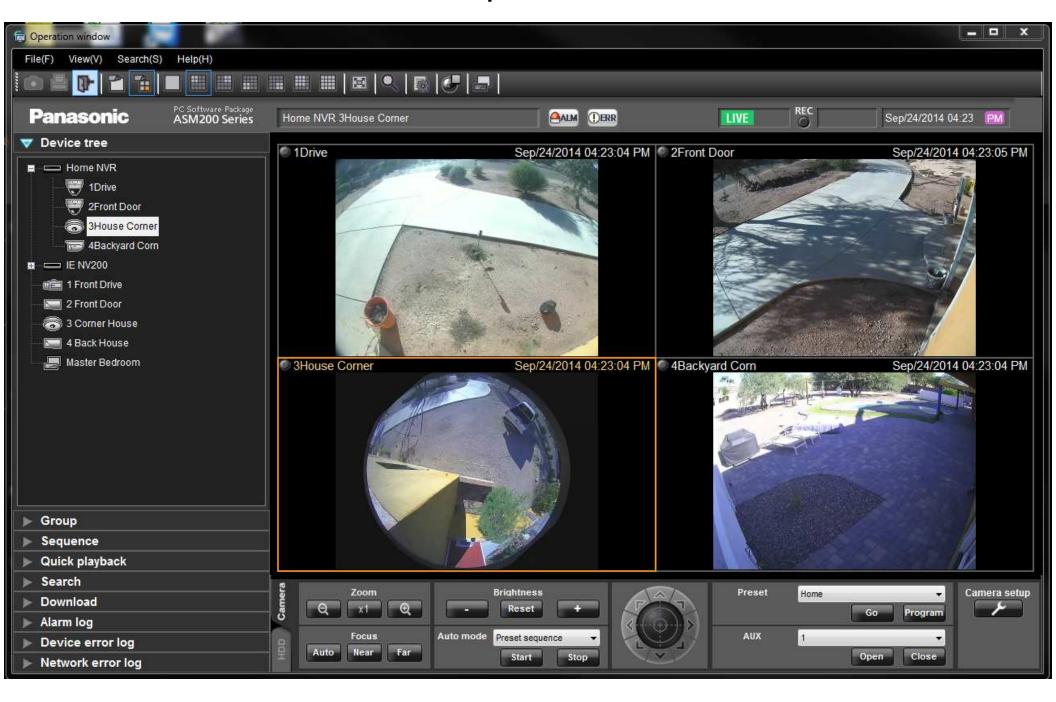




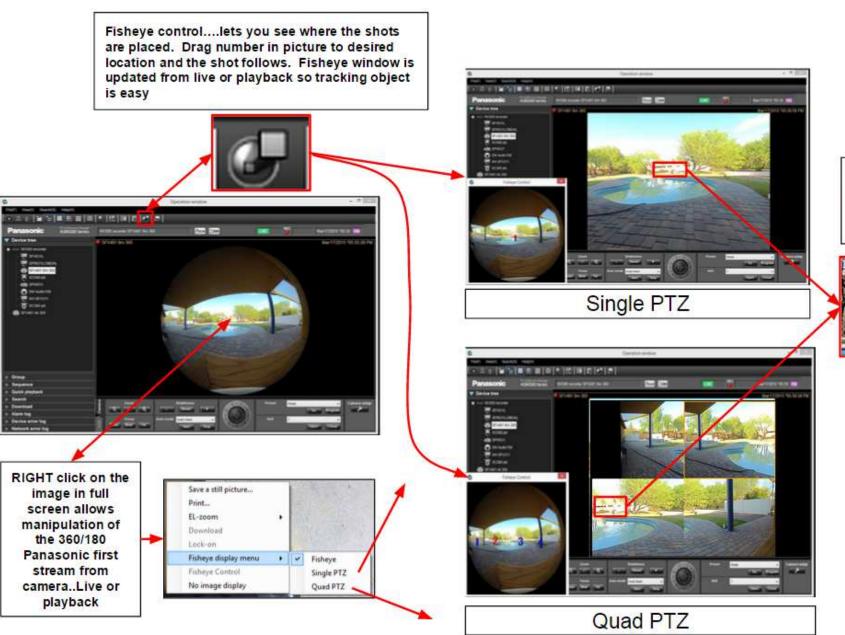




### What the ASM200 Operation software looks like



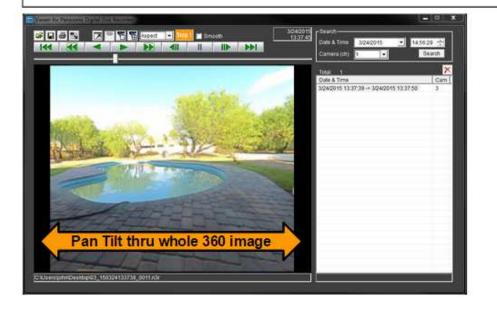
### ASM200 Control of 360/180 cameras on first stream.....www.opendeye.com



Drag and Zoom anywhere in the image for an area of interest and image follows



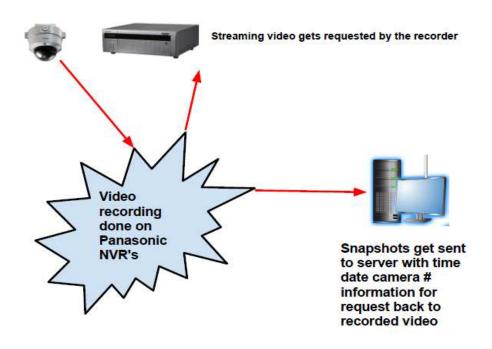
### Panasonic Viewer player for playback manipulation of 360/180 Panasonic cameras







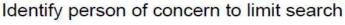
### **Panasonic** face detection inteligent search





Search all faces from camera and time





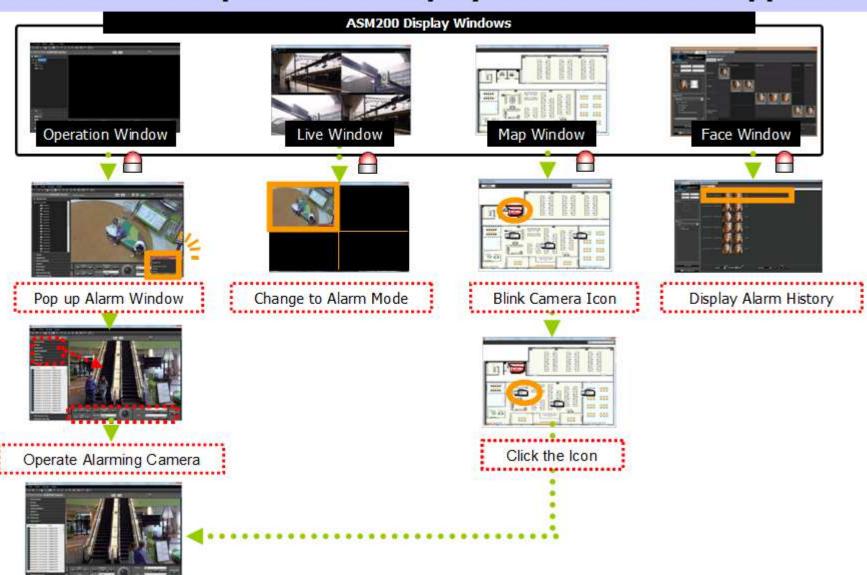


Pick cameras and times and now you know what video to play

## 2.2 Face matching in real-time (2)



## There are some patterns of display when an alarm happens



## 2.3 Face search



### Face Images in Face Matching Server data base can be re-searched anytime

- There are 2 modes of result display: (1) sorted by camera (2) sorted by similarity
- Can narrow the search result with cameras, a face image or day/time information

#### Screen image

The search result is displayed by camera in horizontal lines, and the list of a camera is displayed in chronological order The search result is displayed in the order of similarity, which means the most likely face images are listed as top priorities

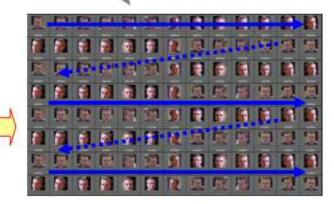
Narrow your search with day/time information

Narrow your search with a face image

Narrow your search with cameras



(Display sorted by camera)



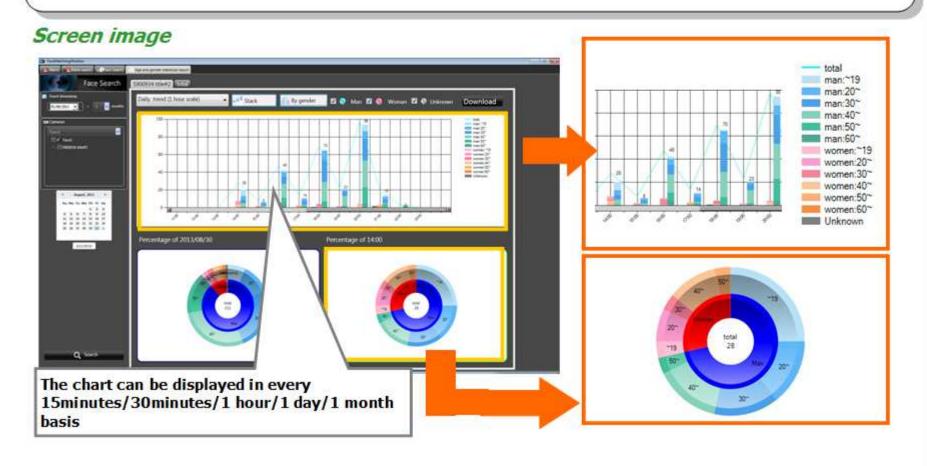
(Display sorted by similarity)

## 2.4 People counting / Age and gender



### Statistical chart of age / gender judgment and people counting is displayed

- The detected face images are evaluated for age / gender judgment and counted
- The results are displayed on screen as statistical chart
- The statistical chart can be saved in CSV format



[Face matching in real-time]

	ASF900	NV200/NVF20
The number of face detection camera which can be connected	10 cameras is suitable, Up to 20 cameras per 1 server *Deploying plural face servers in a system is acceptable.	1 camera per 1 recorder
The number of registered face images	1000 faces	64 faces (In case NVF20 does not have the extended license:16 faces)
File extension of registered face images for import	BMP, JPG, PNG	None
Face collation speed	Within 1 second per 120 faces (i.e. multiplication of 20 people by 6 faces)	1 second per 2 faces (NV200) 1 second per 4 faces (NVF20)
Collation sensitivity	Can be set every face individually (*This function is supported by the special application in the Ver.2.0)	Can be set in a batch

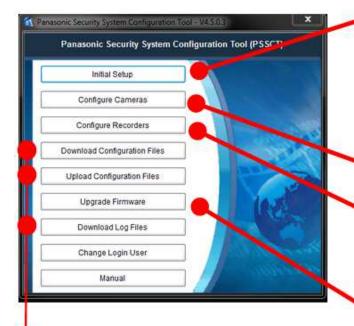
### [Face search]

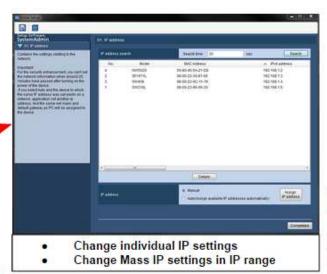
	ASF900	NV200/NVF20
Maximum number of registered face images	Maximum 10 million faces *ASF900 ver1.xx supports only maximum 5 million faces	None
Face search speed	3 seconds per 5 million faces (*It varies depending on the number of the search results)	None

[People counting/Age and gender judgment]

	ASF900	NV200/NVF20
Calculation and display		Can be done by using another application software

### Panasonic Security System Configuration Tool....Control of the complete system



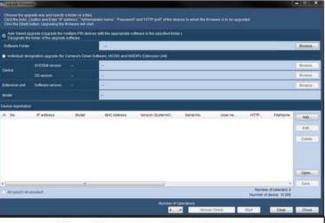


Open door Link (All Tools and Complete Firmware Update file)

http://www.opendeye.com/index.php?optio n=com\_content&view=category&id=98&Ite mid=155



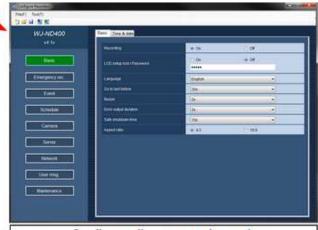
- · Configure all settings of IP cameras
- Backup all changes for future



- Complete backup of the whole system in one shot
- Upload system backup to a device level or in mass
- Download log files for Panasonic assistance

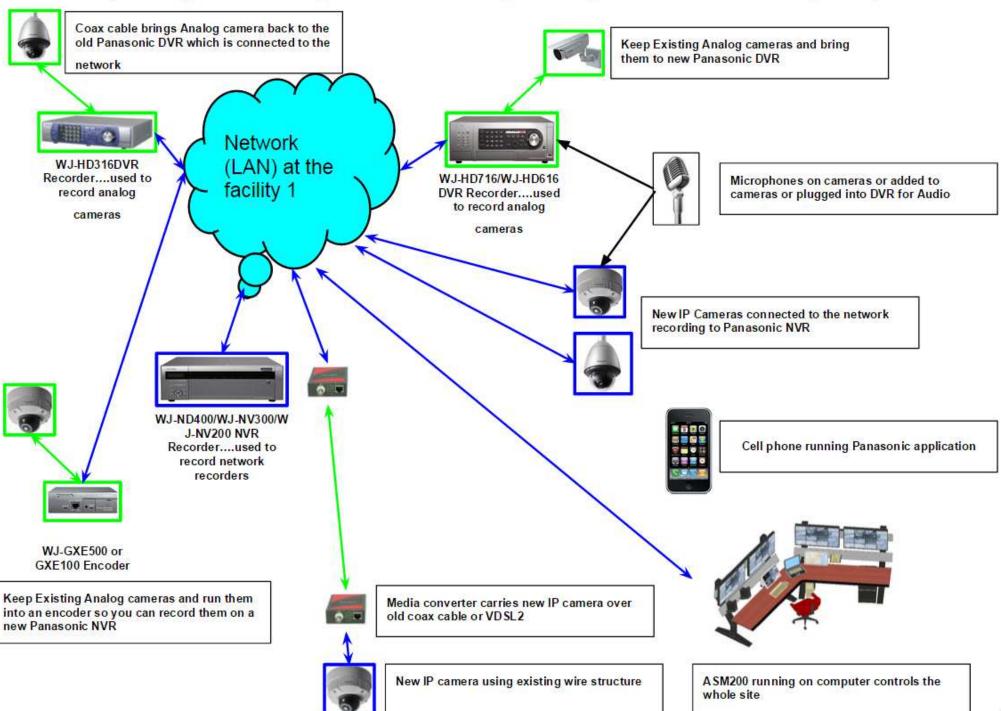


- Do firmware updates to all IP devices or the system
- One firmware file Update all devices
- Downloadable file with all firmwares...point to the file and everything is updated correctly



- Configure all your recorder settings
- Backup Recorder settings

### All component parts come together in an IP design......Open Door inc.....www.opendeye.com



Sightline E-Soc





Slatewall















# **The Product Family**





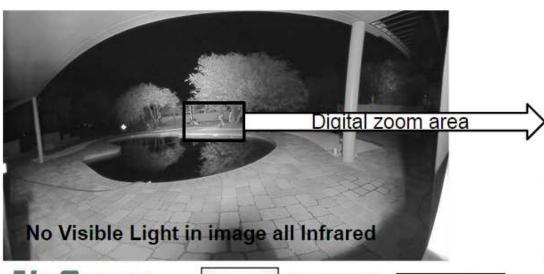


## New 4 K WV-SFV481, WV-SFN480 with single NuOptic Infrared light for night shots www.opendeye.com









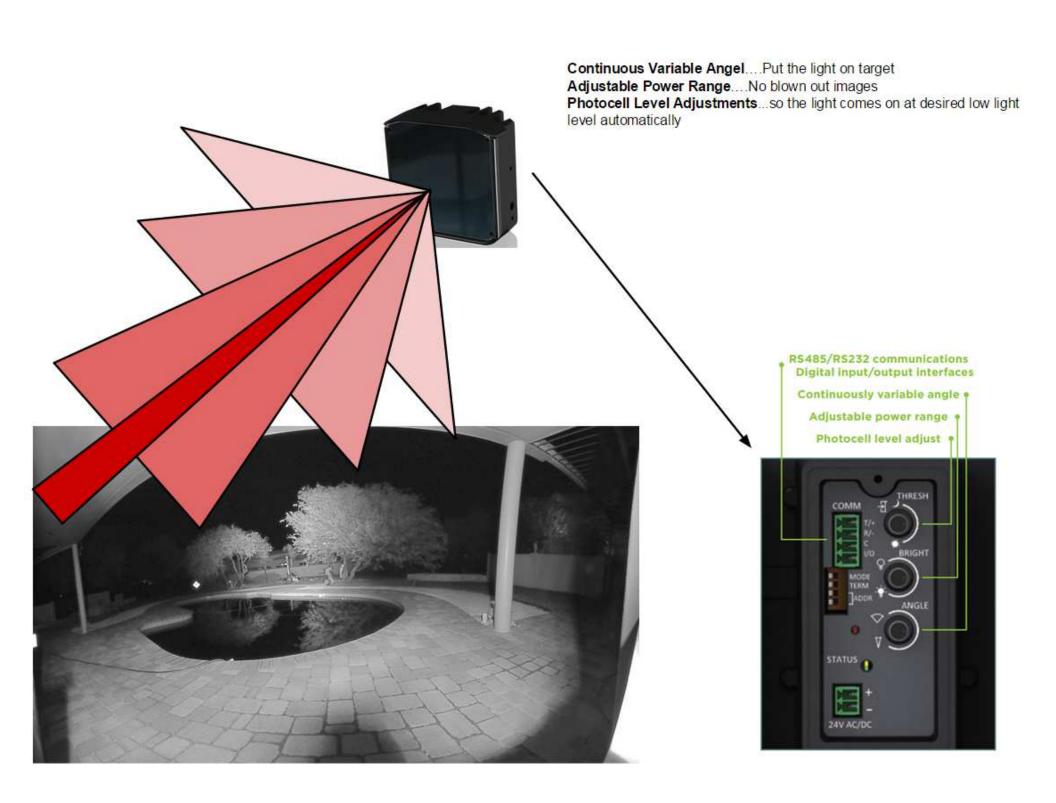












# Inventory

- Varifocal illumination means every beam angle in one unit
- True Hybrid means infrared and white light in one unit
- One 80W VIS illuminator is capable of demonstrating the performance of the entire NuOptic product line (and replacing racks full of competitive products)

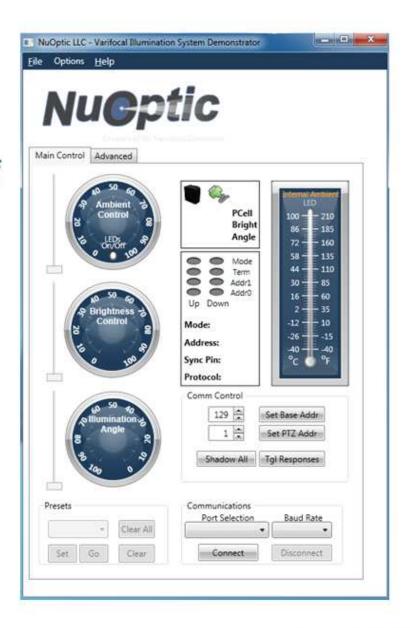




# Control

- Manual control knobs on the back of each unit
- Remote monitoring and control using Pelco-D protocol via RS485/RS232
- 64 presets for integration with PTZ cameras



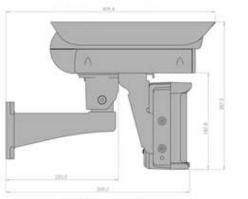


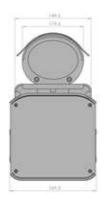


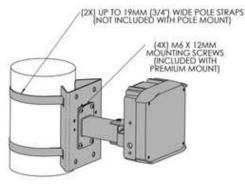
# Accessories

Every mount for any configuration

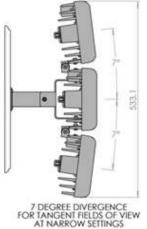
required

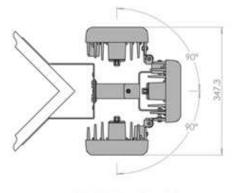




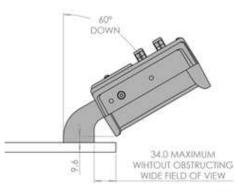


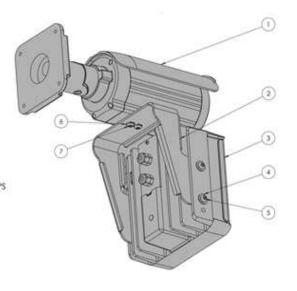
POLE MOUNT WITH PREMIUM PAT/TILT MOUNT

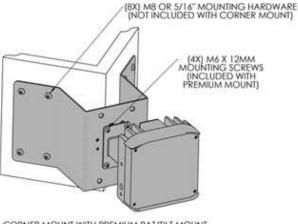










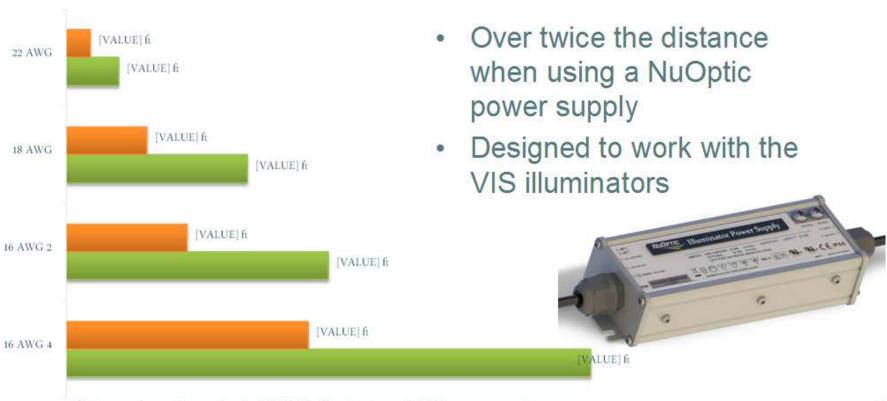






# **Power Supply**

## Standard 24V AC vs NuOptic 36V DC



Distances based on a single 40W VIS illuminator and 60W power supply



# **Industrial Managed Switches Consideration**

- RJ-45 port supports Auto MDI/MDI-X
- Supports STP/RSTP/MSTP
- Redundancy Ring < 20ms over 250units</li>
- 802.1Q Tag VLAN for flexible network planning
- Port Mirror for traffic monitoring & diagnosis
- Security: 802.1X/RADIUS support
- IGMP Snooping for multicast service
- 802.1p CoS (QoS) increase determinism
- Support 100Fx Multi/Single mode SC/ST
- Support 1000Tx, Gigabit Fiber SFP/XFP
- Support 802.3af or 802.3at
- Dual DC Inputs, 12~48VDC







## Industrial Ethernet Switches

## LMP-0600 Series

- Industrial Managed PoE+ Ethernet Switch
- ► Network Broadcast Storm Protection
- ▶ 4-Ports IEEE 802.3at Compliant
- ► Network Redundancy: RSTP and G.8032 ERPS
- ► PoE Ping Alarm Function



### LNP-0500 & 0600 Series

## Industrial Unmanaged PoE+ Ethernet Switch

- Network Broadcast Storm Protection
- ▶ 4-Ports IEEE 802.3at Compliant
- ► Surge and ESD Protection
- Extended Operating Temperature



## LNP-0500-24 & 800-24 Series



- Industrial Unmanaged PoE+ Ethernet Switch w/ Low Input Voltage Requirements
- Low Voltage Input of 24VDC
- ► Network Broadcast Storm Protection
- ▶ 4-Ports IEEE 802.3at Compliant
- ► Surge and ESD Protection



## LNX-0501/0602



- Industrial Unmanaged Ethernet Switch w/ **Fiber Connectivity**
- ► Network Broadcast Storm Protection
- ► Surge and ESD Protection
- ► Supports Auto MDI/MDI-X Function
- ▶ Integrated Fiber Port

## Industrial Serial Connectivity



## STW-611/612C



- Industrial IEEE 802.11b/g/n Wireless Serial Device Server w/ Bridging Capabilities
- ▶ 3-Way Communication w/ any Serial or Ethernet Device to Wireless Network
- Wi-Fi Direct Technology
- (Point-to-Point easy setup)
- RS232/422/485 Software Selectable Ports
- ►IEEE 802.11b/g/n



### STF-401C



- Industrial Serial RS-232/422/485 To Fiber Converter
- Serial (RS232/422/485) to Fiber (SC/ST; Single-mode/ Multi-mode) Converter
- ► Wide DC Voltage Input Range
- Fan-less and Din-Rail Design for Harsh Industrial Environment
- Reverse Polarity Protection

## STF-500 Series

## Industrial Serial RS-232/422/485 To Fiber Converter w/ Surge and Isolation Protection



- Daisy Chain Network Applications
- Serial (RS232/422/485) to Fiber (SC/ST; Single mode/ Multi-mode) Converter
- Wide DC Voltage Input Range
- Fan-less and Din-Rail Design for Harsh Industrial Environment

### STE-700 Series

## Industrial Rack-Mount Serial Server w/ Dual LAN Redundancy

- ▶ 1U 19" Rack-Mount Metal Housing Design
- ▶ 8 or 16 Ports of RS-232 or RS-422/485
- High EMC Protection, 2.5KV Isolation Protection for RS-422/485
- Daisy Chain Ethernet, Network Redundancy, Data Redundancy Network

## Industrial Wireless



## APX-110N5 / 120N5



- Outdoor IP67 IEEE 802.11a/n Wireless Bridge Preconfigured Plug-and-Play Wireless Bridge
- (optional)
- ▶ IP67 Outdoor Waterproof Housing Design
- ► AP/Client/Bridge IEEE 802.11a/n

Single Unit Design Featuring Dual

Industrial MIMO Wireless Solution

► IEEE 802.11i & 802.1x Security

**APN-320N** 

Independent Radios

APX-3200

Internal Antenna Signal Strength Indication Through Web Console



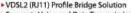
## EVC-3001

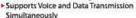
## **VDSL2** to Ethernet Extender

Ethernet

Extender

Media





All-in-One Design, Master / Slave Selectable via DIP Switch

► DMT (discrete Multi-Tone) Line Coding



### EVC-3010

### Coaxial to Ethernet Extender



► 17a CO /CPE (BNC Coaxial) Bridge Solution

► Standalone Transceiver for Simple Bridge Modem Application

All-in-One Design, Master / Slave Selectable via DIP Switch

DMT (discrete Multi-Tone) Line Coding

## **Outdoor IP67 Industrial HighPower Wireless**

## 802.11b/g/n Access Point/Client/Bridge

Industrial Wireless IEEE 802.11a/b/g/n Dual

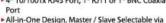
Radio Access Point/Client/Bridge/Repeater

AP/Client/Bridge/Repeater IEEE 802.11a/b/g/n

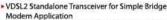
- ► IP67 Outdoor Waterproof Housing Design AP/Client/Bridge/Repeater IEEE 802.11b/g/n
- ▶ Industrial MIMO Wireless Solution ▶ IEEE 802.11i & 802.1x Security

### IVC-4011-T (8)-

### Industrial VDSL2 or Coaxial to Multi-Port **Ethernet Extender** 4\* 10/100Tx RJ45 Port, 1\* RJ11 or 1\* BNC Coaxial







 Asymmetric (Band Plan 998) and Symmetric (Band Plan 997) for Transmission of Upstream and **Downstream Signals** 

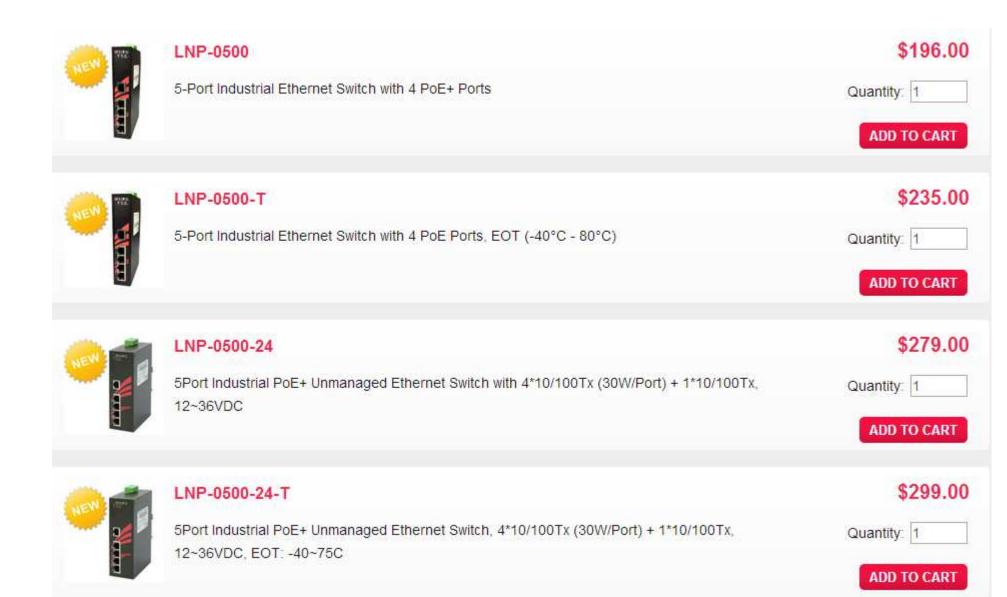
## APX-5000 Series

## Gigabit Outdoor IP67 Industrial High-Power Wireless 802.11a/b/g/n Access Point/Client/ Bridge

- IP67 Outdoor Waterproof Housing Design
- ► Dual Independent Radio Model Available
- AP/Client/Bridge/Repeater IEEE 802.11a/b/g/n
- ► IEEE 802.11i & 802.1x Security









## LNP-0501-M-T

5-Port Industrial PoE+ Unmanaged Ethernet Switch with 4x10/100TX (30W/Port) and 1x100FX, MM 2KM, EOT (-40°C - 80°C)

\$295.00

Quantity: 1



## LNP-0501-M-24

SC, 12VDC-36VDC

5Port Industrial PoE+ Unmanaged Ethernet Switch, 4\*10/100Tx (30W/Port) + 1\*100Fx MM (2KM)

Quantity: 1

**ADD TO CART** 

\$379.00

\$379.00





LNP-0501-M-24

5Port Industrial PoE+ Unmanaged Ethernet Switch, 4\*10/100Tx (30W/Port) + 1\*100Fx MM (2KM) SC, 12VDC-36VDC

Quantity: 1

ADD TO CART



LNP-0501-M-24-T

5Port Industrial PoE+ Unmanaged Ethernet Switch, 4\*10/100Tx (30W/Port) + 1\*100Fx MM (2KM) SC, 12VDC-36VDC, EOT: -40~75C

\$415.00

Quantity: 1

ADD TO CART



LNP-0501-S3

5-Port Industrial PoE+ Unmanaged Ethernet Switch with 4x10/100TX (30W/Port) and 1x100FX, SM 30KM

\$299.00

\$339.00

Quantity: 1

ADD TO CART



LNP-0501-S3-T

5-Port Industrial PoE+ Unmanaged Ethernet Switch with 4x 10/100TX (30W/Port). and 1x 100FX, SM 30KM, EOT (-40°C - 80°C)

Quantity: 1



## LNP-0501-S3-24

5Port Industrial PoE+ Unmanaged Ethernet Switch, 4\*10/100Tx (30W/Port) + 1\*100Fx SS (30KM) SC, 12VDC-36VDC

Quantity: 1

ADD TO CART



## LNP-0501-S3-24-T

5Port Industrial PoE+ Unmanaged Ethernet Switch, 4\*10/100Tx (30W/Port) + 1\*100Fx SS (30KM) SC, 12VDC-36VDC, EOT: -40~75C

\$419.00

\$385.00

ADD TO CART

Quantity: 1



## LNP-0501-ST-M

5-port Industrial PoE+ Unmanaged Ethernet Switch with 4x10/100TX (30W/Port) and 1x 100FX, MM 2KM , ST Connectors

\$259.00

Quantity: 1

ADD TO CART



## LNP-0602-M

6Port Industrial PoE+ Unmanaged Ethernet Switch, 4\*10/100Tx (30W/Port), 2\*100Fx MM (2KM) SC

\$319.00

Quantity: 1

ADD TO CART



## LNP-0602-M-T

6Port Industrial PoE+ Unmanaged Ethernet Switch, 4\*10/100Tx (30W/Port), 2\*100Fx MM (2KM) SC, EOT: -40~75C

Quantity: 1

NAME OF THE OWNER OF THE OWNER.

\$355.00



## LNP-0602-S3

6Port Industrial PoE+ Unmanaged Ethernet Switch, 4\*10/100Tx (30W/Port), 2\*100Fx SS (30KM) SC

\$329.00

Quantity: 1

ADD TO CART



## LNP-0602-S3-T

6Port Industrial PoE+ Unmanaged Ethernet Switch, 4\*10/100Tx (30W/Port), 2\*100Fx SS (30KM) SC, EOT: -40~75C

\$369.00

Quantity: 1

ADD TO CART



## LNP-0602-ST-M

6Port Industrial PoE+ Unmanaged Ethernet Switch, 4\*10/100Tx (30W/Port), 2\*100Fx MM (2KM) ST

\$319.00

Quantity: 1

ADD TO CART



## LNP-0602-ST-M-T

6Port Industrial PoE+ Unmanaged Ethernet Switch, 4\*10/100Tx (30W/Port), 2\*100Fx MM (2KM) ST,

EOT: -40~75C

\$355.00

Quantity: 1

ADD TO CART

\$329.00



## LNP-0602-ST-S3

6Port Industrial PoE+ Unmanaged Ethernet Switch, 4\*10/100Tx (30W/Port), 2\*100Fx SS (30KM) ST

Quantity: 1



## LNP-0602-ST-S3-T

6Port Industrial PoE+ Unmanaged Ethernet Switch, 4\*10/100Tx (30W/Port), 2\*100Fx SS (30KM) ST, EOT: -40~75C

Quantity:	1

ADD TO CART



## LNP-0800

8Port Industrial PoE+ Unmanaged Ethernet Switch with 8\*10/100Tx (30W/Port)

\$319.00

\$369.00

1

Quantity: 1

ADD TO CART



## LNP-0800-T

8Port Industrial PoE+ Unmanaged Ethernet Switch, 8\*10/100Tx (30W/Port), EOT: -40~75C

\$349.00

Quantity: 1

ADD TO CART



## LNP-0800-24

8Port Industrial PoE+ Unmanaged Ethernet Switch, 8\*10/100Tx (30W/Port), 12VDC-36VDC

\$435.00

\$465.00

Quantity: 1

ADD TO CART



## LNP-0800-24-T

8Port Industrial PoE+ Unmanaged Ethernet Switch, 8\*10/100Tx (30W/Port), 12VDC-36VDC, EOT: -40~75C

Quantity: 1

LNP-0802-M-24	\$525.00
8Port Industrial PoE+ Unmanaged Ethernet Switch, 6*10/100Tx (30W/Port) + 2*100Fx MM (2KM) SC, 12VDC-36VDC	Quantity: 1  ADD TO CART
LNP-0802-M-24-T	\$559.00
8Port Industrial PoE+ Unmanaged Ethernet Switch, 6*10/100Tx (30W/Port) + 2*100Fx MM (2KM) SC, 12VDC-36VDC, EOT: -40~75C	Quantity: 1  ADD TO CART
LNP-2602GN	\$1,799.00
Industrial Managed Ethernet Switch with 24 10/100TX PoE. and 2 10/100/1000T or 1000T SFP Combo Ports, -10°C ~ 60°C	Quantity: 1  ADD TO CART
LNP-2602GN-T	\$1,989.00
Industrial Managed Ethernet Switch with 24 10/100TX PoE. and 2 10/100/1000T or 1000T SFP Combo Ports, EOT (-35°C ~ 70°C)	Quantity: 1

Thank you
Open Door Inc
www.opendeye.com