

# 2018 PRODUCT CATALOG

# Northern



The Security Professional's Choice For Video Surveillance Products

## IP-POE



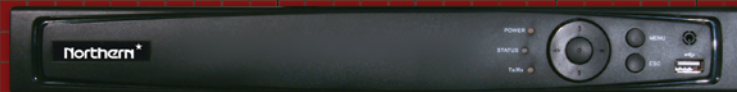
4



8



16



32



## 4-in-1 TVI/CVI/AHD/960H HD-Analog



4



8



16

## HD-TVI



Northern

3625 Cincinnati Avenue, Rocklin, CA 95765 ♦ 855-388-7422 ♦ [www.northernvideo.com](http://www.northernvideo.com)

# Northern<sup>★</sup> 2018 PRODUCT CATALOG

## IP-POE

### Northern<sup>★</sup> IP-POE Series.

4MP True WDR IP Cameras &  
Full HD 1080p Network Video  
Recorders.



#### NVRPOE Series



**Pages 4-9**

4, 8, 16 & 32 Channel  
1080p Real Time NVR's

#### IP4MVFD



**Page 13**

4MP 100' IR Dome with Motorized  
2.8~12mm Lens & True WDR

#### IP4MVFB



**Page 11**

4MP 100' IR Bullet with Motorized  
2.8~12mm Lens & True WDR

#### IP4D / IP4D4MM



**Page 12**

4MP 100' IR Mini Dome with  
2.8mm or 4mm Lens & True WDR

## HD-TVI / 960H

### Northern<sup>★</sup> HD-TVI Series.

1080p HD-TVI Digital Video  
Recorders & 1080p HD-TVI  
Cameras over Coax.

#### TVIDVR Series



**Pages 18-21**

4, 8 & 16 Channel  
1080p HD-TVI DVR's

#### TVIMDIR120



**Page 25**

1080p 120' IR Dome with Motorized  
2.8~12mm Lens & True WDR

Northern<sup>★</sup>

THE SECURITY PROFESSIONAL'S CHOICE

Northern<sup>★</sup>

**Northern<sup>★</sup>** is the security professional's choice for video surveillance products. Whether you require recording devices, cameras, monitors or the accessories to put a system together, **Northern<sup>★</sup>** can offer you state-of-the-art products with the latest technology.

Our team of dedicated experts is in tune with the latest advances in surveillance technology and is committed to providing cutting edge products to security dealers throughout North America. The **Northern<sup>★</sup>** line provides installing dealers with the products needed to do the job properly, efficiently and profitably while satisfying the needs of their customers.



# 2018 PRODUCT CATALOG Northern<sup>★</sup>



## TVTIR100



Page 24

1080p 100' IR Turret with 2.8mm Lens & True WDR

## TVIAFBIR300



Page 32

1080p 300' IR Bullet with Motorized Autofocus 5~50mm Lens & True WDR

## 4-in-1

### Our All-New Northern<sup>★</sup> 4-in-1 HD Analog Series.

4-in-1, HD Analog Cameras with Selectable TVI, CVI, AHD & 960H Formats.



## HDDWMVFIR



Page 39

1080p 90' IR Eyeball Cameras with 2.8~12mm Lens

## HDDWIDE



Page 40

1080p 60' IR Eyeball Camera with 2.5mm 150° Ultra-Wide FOV

## HDBIR60



Page 42

1080p 60' IR Bullet Camera with 3.6mm Lens

## HDBVFIR120



Page 43

1080p 120' IR Bullet Camera with 2.8~12mm Lens

Northern<sup>★</sup>

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# NVRPOE Series

## NVR4POE

4-Ch 1080p with 4Ch Built-in POE

## NVR8POE

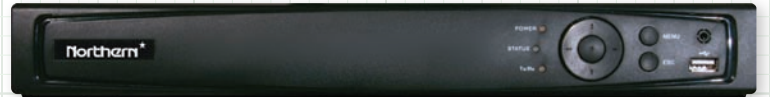
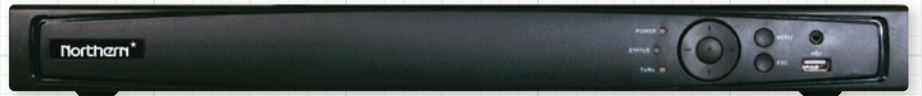
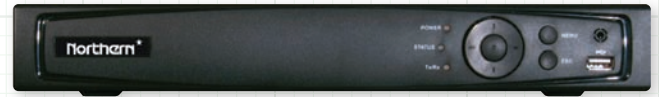
8-Ch 1080p with 8Ch Built-in POE

## NVR16POE

16-Ch 1080p with 16Ch Built-in POE

## NVR3216POE

32-Ch 1080p with 16Ch Built-in POE



### GUARDING VISION

Free Mobile App for iPhone,  
iPad, Android & Android Tablets

#### 4, 8 & 16 CHANNEL NVR FEATURES:

- ◆ Real-Time 30FPS/Ch Recording @ 1080p
- ◆ Up to 6MP Recording
- ◆ H.264 Recording Compression
- ◆ Full Mobile Apps for iPhone, iPad & Android
- ◆ Built-in Motion Detection/Privacy Mask
- ◆ Free CMS Software
- ◆ Free Streaming Server Software
- ◆ Supports P2P Operation
- ◆ Up to 12TB Storage Capacity
- ◆ Integrated 50W/120W/200W PoE Switch (4/8/16Ch)
- ◆ Included Mouse & IR Remote
- ◆ Dual USBs for Copying Video & Mouse Control
- ◆ Simultaneous HDMI & VGA Video Outputs
- ◆ Up to 16 Channel Synchronous Playback
- ◆ Accepts ONVIF/PSIA Protocols
- ◆ Rack Mount Hardware Included (8 & 16Ch)
- ◆ PAL/NTSC Selectable
- ◆ Built-in Audio & Alarm
- ◆ Supports 2-Way Audio

#### 32 CHANNEL NVR FEATURES:

- ◆ Real-Time 30FPS/Ch Recording @ 1080p
- ◆ Up to 12MP/4K Recording
- ◆ H.265 / H.264+ / H.264 Recording Compressions
- ◆ Full Mobile Apps for iPhone, iPad & Android
- ◆ Built-in Motion Detection / Privacy Mask
- ◆ Free CMS Software
- ◆ Free Streaming Server Software
- ◆ Supports P2P Operation
- ◆ Up to 24TB Storage Capacity
- ◆ Integrated 200W 16Ch PoE Switch
- ◆ Included Mouse & IR Remote
- ◆ 3X USB for Copying Video & Mouse Control
- ◆ Independent HDMI & VGA Video Outputs
- ◆ Up to 16 Channel Synchronous Playback
- ◆ Accepts ONVIF / PSIA Protocols
- ◆ Rack Mount Hardware Included
- ◆ PAL/NTSC Auto Detection
- ◆ Built-in Audio & Alarm
- ◆ Supports 2-Way Audio



## Learn More

### Mobile Apps for iPhone, iPad & Android

View & Playback Video from multiple mobile devices.

### Real Time 1080p Recording

All models record 30FPS per Channel @1080p resolution.

### Up to 24TB Storage Capacity

Large Hard Disk storage capacity allows for longer storage of recorded video. (32Ch/24TB Max, 8-16Ch/12TB Max, 4Ch/6TB Max)

### Built in POE Switch

POE Switch for connecting & powering cameras directly from the NVR using only a single CAT5 or CAT6 cable.

### Free CMS Software for PC & MAC

Connect to multiple NVRs or individual IP cameras from a single computer with the included CMS software.

### Free Streaming Server Software

Perfect for lowering the bandwidth load on the NVR in applications where multiple users need constant remote access.

### Mouse & IR Remote Control

Easily control the NVR from either the included Mouse or IR Remote Controller.

### HDMI & VGA Video Outputs

Simultaneously display video through both VGA & HDMI monitor outputs.

### Built in Motion Detection

Maximize your recording duration by only recording when Motion is detected.

### Supports DDNS

DDNS insures you will always stay connected to your NVR when using a Dynamic IP address.

### P2P Operation For Mobile App

Peer to Peer functionality makes set up easier by bypassing the need to configure port forwarding in most routers.

### Multiple USB Ports

NVR's include front and rear USB ports for making copies of video and mouse control of the DVR.

### Remote Accessibility

Remotely connect, monitor, playback, record and change NVR settings via IE and Safari Browsers.

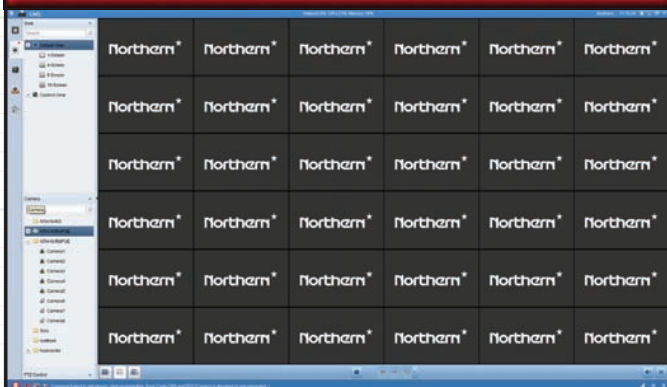
### Plug & Play

Effortless camera set up requires no configuration. Simply plug them in and generate video when used with Northern IP Cameras.

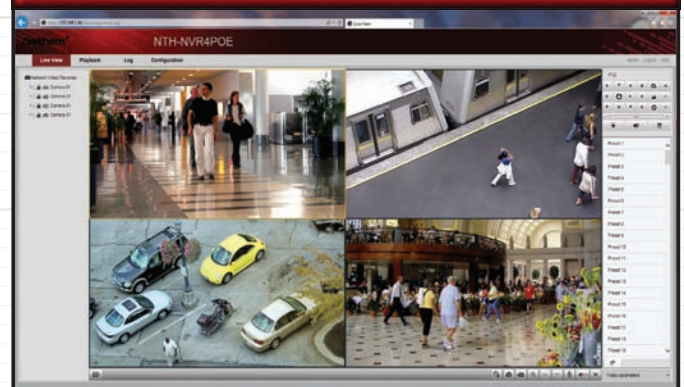
### 3rd Party Compatibility

Built in protocols for Onvif, Acti, Arecont, Axis, Bosch, Brickcom, Canon, Hikvision, Hunt, Panasonic, Samsung, Sony, Vivotek, Zavio...

## CMS Software For PC/Mac



## Browser Based Remote Software



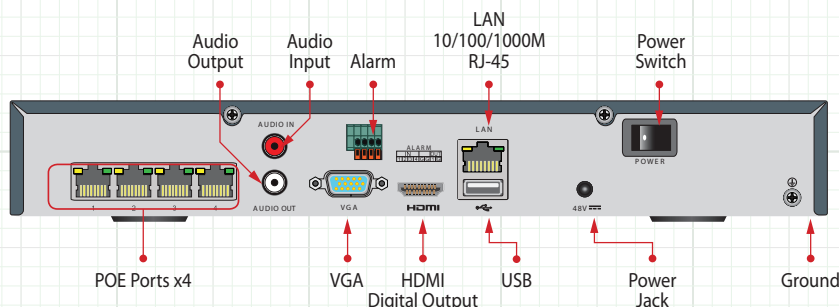
# NVRPOE Series 4-8-16 Ch.

## Hard Drive Configurations & Part Numbers

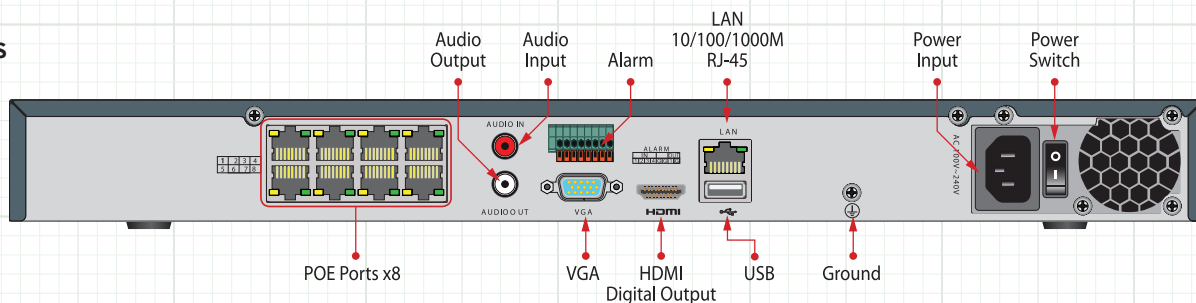
DRIVE SIZE	4 Channel	8 Channel	16 Channel
2TB	NVR4POE2T	NVR8POE2T	NVR16POE2T
4TB	NVR4POE4T	NVR8POE4T	NVR16POE4T
6TB	NVR4POE6T	NVR8POE6T	NVR16POE6T
8TB	N/A	NVR8POE8T	NVR16POE8T
12TB	N/A	NVR8POE12T	NVR16POE12T

## Rear Panel Connections

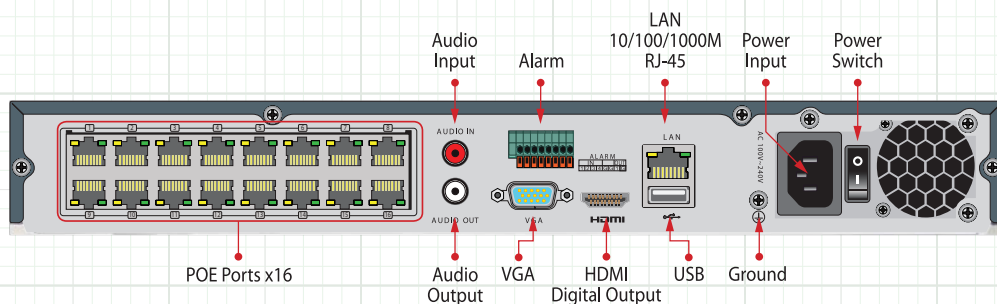
### 4 Ch. Models



### 8 Ch. Models

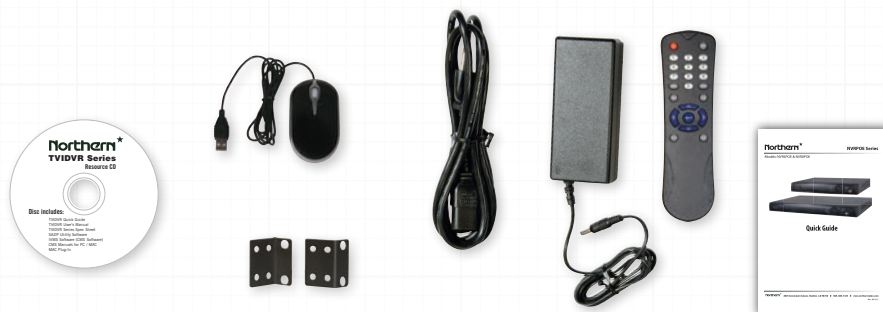


### 16 Ch. Models



## PACKAGE CONTENTS

1. Power Cord (8 & 16 Ch units)
1. Power Supply / Cord (4Ch)
1. IR Remote Control
1. Software CD
1. Quick Start Manual
2. Rack Mount Ears (8 & 16Ch)
1. Mouse



# NVRPOE Series 4-8-16 Ch. Specifications

	FEATURES	NVR4POE	NVR8POE	NVR16POE
Video/Audio Input	IP Video Input	4-Ch.	8-Ch.	16-Ch.
	Two-Way Audio Input	1-ch, RCA (2.0 Vp-p, 1kΩ)		
	NTSC / PAL	Auto Detection for NTSC/PAL Formats		
	Plug & Play Models	IP3D / IP3B / IP3W / IP3T / IP3VFB / IP3VFD / IP4D / IP4D4MM / IP4B / IP4W / IP4T / IP4MVFD / IP4MVFB / IPPTZ30XIR		
	Third Party Compatible Mfg.	ACTI, Arecont, AXIS, Bosch, Brickcom, Canon, Hikvision, PANASONIC, Pelco, SAMSUNG, SANYO, SONY, Vivitek, ZAVIO, ONVIF, PSIA		
Network	Incoming Bandwidth	40Mbps	80Mbps	160Mbps
	Outgoing Bandwidth	80Mbps		
	Remote Connections	32	128	
Video/Audio Output	Recording Resolution	6MP/5MP/3MP/1080P/UXGA/720P/VGA/4CIF/DCIF/2CIF/CIF/QCIF		
	Frame Rate	Main stream: 50 fps (P) / 60 fps (N)		
		Sub-stream: 50 fps (P) / 60 fps (N)		
	Simultaneous Outputs	Yes - VGA and HDMI Simultaneous Outputs		
	HDMI/VGA Output Resolution	1-ch: 1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 × 768 /60Hz		
Audio Output	1-ch, RCA (Linear, 1kΩ)			
De-coding	Live View / Playback Resolution	6MP / 5MP / 3MP / 1080P / UXGA / 720P / VGA / 4CIF / DCIF / 2CIF / CIF / QCIF		
	Playback Capability	4-Ch.@1080P	8-Ch.@720P, 6-Ch. @1080P	16-Ch.@4CIF, 12-Ch.@720p, 6-Ch.@1080p
Recording & Playback	Record Mode Types	Manual, Continuous, Alarm, Motion, Motion & Alarm		
	Record Time Periods	8 Recording Time Periods with Separate Record Types		
	Pre & Post Recording	Pre & Post Recording for Alarm & Motion Detection / Pre Recording for Schedule & Manual Recording		
	Redundant Recording	N/A	Yes - Available only in 2 HDD configurations	
	Recording Parameters	Independent for Each Channel (Resolution, Frame Rate, Bit Rate, Image Quality, etc.)		
	Zooming	Available in Live View & Playback		
	Synchronous Playback	4Ch, 720P / 2Ch, 1080P / 1Ch, 5MP	8Ch, 4CIF / 4Ch, 720P / 2Ch, 1080P / 1Ch, 5MP	16Ch,4CIF / 12Ch,720p / 6Ch,1080p / 1Ch,6MP
	Playback Controls	Pause, Reverse Play, Speed Up, Speed Down, Skip Forward, Skip Backward, Mouse Drag		
Searching	Search Recorded Files by Events (Alarm Input / Motion Detection)			
Hard Disk	SATA	1 SATA interface for 1 HDD	2 SATA interfaces for 2 HDDs	
	Capacity	Up to 6TB for each disk		
	Max Storage	6TB	12TB	
	HDD Detection	Built-in S.M.A.R.T and Bad Sector Detection		
External Interface	Network Interface	1 RJ-45 10 /100 /1000 Mbps self-adaptive Ethernet interface		
	USB Interface	1 × USB 2.0 (Front Panel) and 1 × USB 3.0 (Rear Panel)		
	Alarm In/Out	4-In / 1-Out		
IVMS Software	CMS Client - Included	Yes		
	Video Server - Included	Yes		
	Streaming Server - Included	Yes		
POE	Network Interface	4 Independent 100 Mbps POE	8 Independent 100 Mbps POE	16 Independent 100Mbps
	Max. Power	50W	120W	200W
	Supported Standard	AF and AT		
General	Power Supply	External / 48V DC Included	Internal / 110~220V AC	
	Consumption	≤ 10W (without hard disk and POE)		≤ 15W (without hard disk and POE)
	Operating Temperature	-10 °C ~ +55 °C (+14 °F~ + 131 °F)		
	Operating Humidity	10~90%		
	Chassis	1U chassis	19" rack-mount 1U chassis	15" rack-mount 1U chassis
	Dimensions (W × D × H)	315 × 230 × 45mm / (12.4"×9.1"×1.8")	445 × 290 × 45mm / (17.5" × 11.4" × 1.8")	380 × 290 × 48mm / (15" × 11.4" × 1.9")
	Weight	≤ 1 kg (2.2 lb.) (without hard disk)		

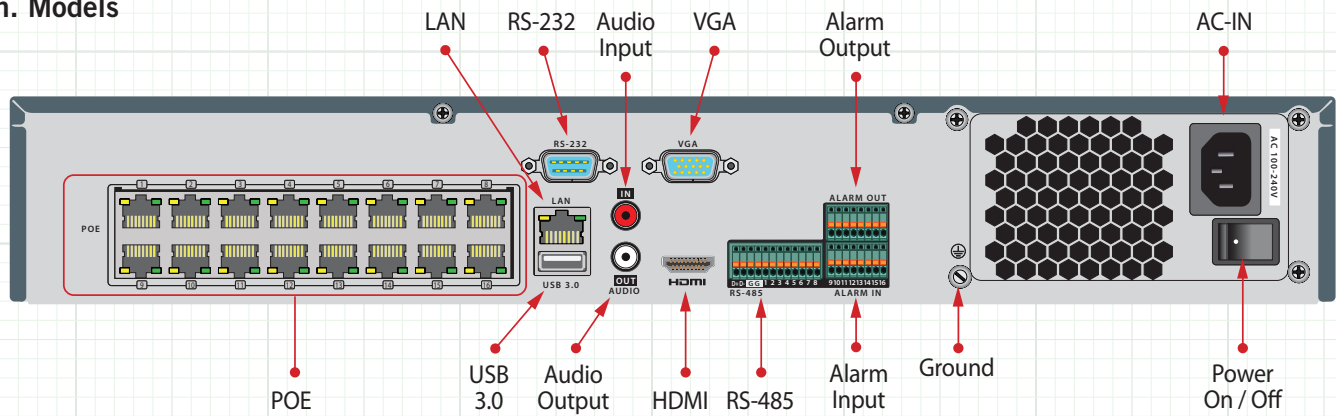
Note: Specification subject to change without notice



# NVRPOE Series 32 Ch.

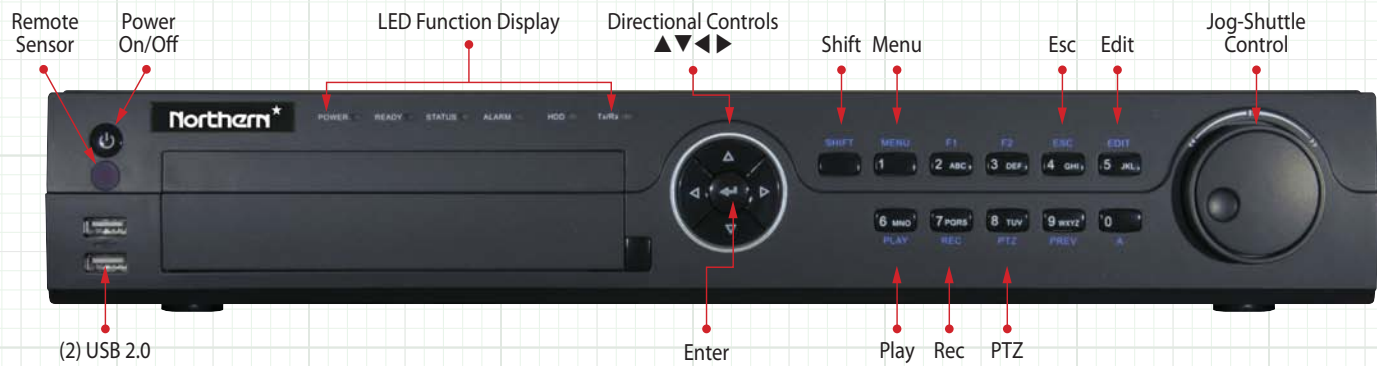
## Rear Panel Connections

### 32 Ch. Models



## Front Panel Controls & Connections

### 32 Ch. Models



## Hard Drive Configurations / Part Numbers / Package Contents

DRIVE SIZE	MODEL NUMBER
4TB	NVR3216POE4T
6TB	NVR3216POE6T
8TB	NVR3216POE8T
12TB	NVR3216POE12T
18TB	NVR3216POE18T
24TB	NVR3216POE24T

PACKAGE CONTENTS
1. Power Cord
1. IR Remote Control
1. Software CD
1. Quick Start Manual
2. Rack Mount Ears
1. Mouse

# NVRPOE Series 32 Ch. Specifications

	FEATURES	NVR3216POE
Video/Audio Channels	IP Video Input	32-Channels
	Two-Way Audio Input	1-ch, RCA (2.0 Vp-p, 1kΩ)
	NTSC / PAL	Auto Detection for NTSC/PAL Formats
	Plug & Play Models	IP3D / IP3B / IP3W / IP3T / IP3VFB / IP3VFD / IP4D / IP4D4MM / IP4B / IP4W / IP4T / IP4MVFD / IP4MVFB / IPPTZ30XIR
	Third Party Compatible Mfg.	ACTI, Arecont, AXIS, Bosch, Brickcom, Canon, HIKvision, PANASONIC, Pelco, SAMSUNG, SANYO, SONY, Vivotek, ZAVIO, ONVIF, PSIA
Network	Incoming Bandwidth	256 Mbps
	Outgoing Bandwidth	256 Mbps
	Remote Connection	128
Video/Audio Output	Recording Resolution	12MP/8MP/6MP/5MP/4MP/3MP/1080p/UXGA/720p/VGA/4CIF/DCIF/ 2CIF/CIF/QCIF
	Frame Rate	Main stream: 50 fps (P) / 60 fps (N) Sub-stream: 50 fps (P) / 60 fps (N)
	Simultaneous Outputs	Yes - VGA & HDMI / Independently Configurable for Call/Spot Monitoring
	HDMI Output Resolution	4K (3840 × 2160)/60Hz, 4K (3840 × 2160)/30Hz, 1920 × 1080p/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz
	VGA Output Resolution	1920 × 1080p/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz
	Audio Output	1-ch, RCA (Linear, 1 KΩ)
De-coding	Live View / Playback Resolution	12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/1080p/UXGA/720p/VGA/4CIF/DCIF/ 2CIF/CIF/QCIF
	Playback Capability	4-ch @ 4K, or 16-ch @ 1080p
	Decoding Format	H.265/H.264+/H.264/MPEG4
Recording & Playback	Record Mode Types	Manual, Continuous, Alarm, Motion, Motion & Alarm
	Record Time Periods	8 Recording Time Periods with Separate Record Types
	Pre & Post Recording	Pre & Post Recording for Alarm & Motion Detection / Pre Recording for Schedule & Manual Recording
	Redundant Recording	Yes - Available only in 2 HDD configurations
	Recording Parameters	Independent for Each Channel (Resolution, Frame Rate, Bit Rate, Image Quality, etc.)
	Zooming	Available in Live View & Playback
	Synchronous Playback	16 Channel
	Playback Controls	Jog Shuttle, Pause, Reverse Play, Speed Up, Speed Down, Skip Forward, Skip Backward, Mouse Drag
	Searching	Search Recorded Files by Events (Alarm Input / Motion Detection)
Hard Disk	SATA	4 SATA interfaces for 4HDDs
	Capacity	Up to 6TB capacity for each HDD
	Max Storage	24TB
	HDD Detection	Built-in S.M.A.R.T and Bad Sector Detection
External Interface	Network Interface	1 RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface
	USB Interface	Front panel: 2 × USB 2.0; Rear panel: 1 × USB 3.0
	Alarm In/Out	16-In/4-Out
IVMS Software	CMS Client - Included	Yes
	Video Server - Included	Yes
	Streaming Server - Included	Yes
PoE	Network Interface	16 RJ-45 10/100 Mbps self-adaptive Ethernet interfaces
	Max. Power	≤200W
	Supported Standard	IEEE 802.3 af/at
General	Power Supply	100 to 240 VAC
	Consumption	≤20 W (without enabling PoE)
	Operating Temperature	-10 to +55°C (14 to 131°F)
	Operating Humidity	10~90%
	Chassis	19-inch rack-mounted 1.5U chassis
	Dimensions (W × D × H)	445 × 390 × 70 mm ( 17.5" × 15.3" × 2.8")
	Weight	≤ 5 Kg (8.8 lb)

Note: Specification subject to change without notice

## 4.0 MP IP, Outdoor 100' IR Bullet Camera

True WDR, True D/N, POE, 4mm IR Lens

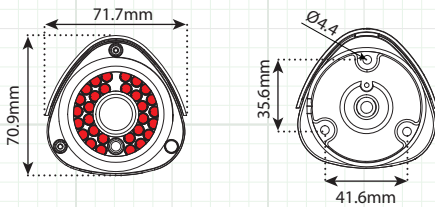
### FEATURES:

- ◆ Full HD 1080p Real Time Video
- ◆ True Wide Dynamic Range - 120dB
- ◆ Up to 2688 x 1520 Resolution (20FPS)
- ◆ 4mm IR Lens
- ◆ POE - Power over Ethernet
- ◆ Free CMS & IP Server Software
- ◆ 3D Digital Noise Reduction
- ◆ Mechanical IR Cut Filter
- ◆ 30 IR LED's - 100' IR Range
- ◆ ONVIF / PSIA / CGI Compliant
- ◆ IP66 Weatherproof - UL/CUL Certified
- ◆ 3rd Party VMS Integration (Arteco, Exacq, Milestone, OnSSI)

### INCLUDED ACCESSORIES:

Quick Guide, Software CD, Mounting Template & Hardware Packet.

### CAMERA OVERVIEW:



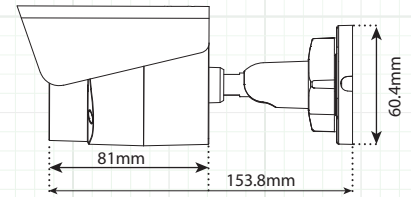
Front View & Mounting Configuration

### OPTIONAL MOUNTING ACCESSORIES:

**BBXS** - Back Box



**PMT** - Pole Mount  
(Requires BBXS)



Side View & Dimensions

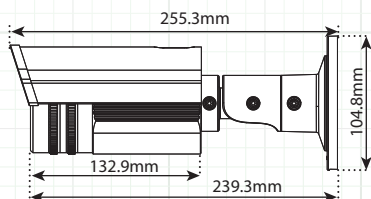


SPECIFICATION		IP4B
CAMERA	Image Sensor	1/3" Progressive Scan CMOS
	Minimum Illumination	0.028 lux@ F2.0, AGC on / 0 lux with IR
	IRLED Count / Range / Nanometer	30 IR LEDs / 100' Range / 850nm
	Shutter Time	1/3s ~ 1/10,000s
	Lens (IR Corrective)	4mm@F2.0, angle of view: 82°
	Lens Mount	M12
	Camera Bracket Adjustment	3-Axis Design
	Day & Night	Yes - IR Filter with Auto Switch
	DNR (Digital Noise Reduction)	3D DNR
	True Wide Dynamic Range	120dB WDR
IMAGE COMPRESSION	BLC (Backlight Compensation)	Yes, Zone Configurable
	Smart Analytic Features	Line crossing detection, intrusion detection
	Region of Interest	Yes
	Video Compression	H.264 / MJPEG / H.264+
	H.264 Codec Profile	Main Profile
	Bit Rate	32 Kbps ~ 16 Mbps
	Dual Streaming	Yes
	Maximum Image Resolution	2688 x 1520
	Frame Rate	20fps (2688 x 1520), 30fps (1920 x 1080, 1280 x 720)
	Image settings	Compression, Color, Saturation, Brightness, Contrast, Sharpness, Rotate Mode, Privacy Mask
NETWORK	Network Storage	NAS (supports NFS, SMB/CIFS), ANR
	Alarm Trigger	Motion Detection, Line Crossing Detection, Intrusion Detection, Tamper Alarm, Network Disconnect, IP Address Conflict, Storage Exception
	Protocols	TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, Bonjour
	3rd Party VMS Integration	Arteco, Exacq, Milestone, OnSSI
	System Compatibility	ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI
	Security Functions	Three level user authentication, password authorization, HTTPS and SSH certificate, IEEE802.1X, basic and digest authentication, watermark, IP address filtering, log-in lockout
	Communication Interface	1 RJ45 10M / 100M Ethernet port
	Operating Conditions	-30°C ~ 60°C (-22°F ~ 140°F) humidity 95% or less (non-condensing)
	Housing Color / Housing Material	White with Black Accents / Heavy Duty Aluminum
	Power Supply	12 VDC ± 10%, PoE (802.3af)
GENERAL	Power Consumption	Max. 5W
	Weatherproof Rating	IP66
	Dimensions	60.4 x 76.5 x 138.1mm
	Weight	500g (1.1 lbs)
Certifications		UL / CUL



## 4.0 MP IP, Outdoor 100' IR Bullet Camera

True WDR, True D/N, POE, Motorized 2.8~12mm IR Lens



Side View & Dimensions



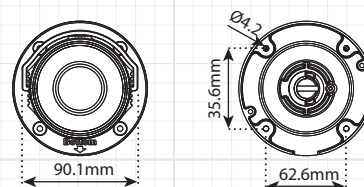
### FEATURES:

- ◆ Full HD 1080p Real Time Video
- ◆ True Wide Dynamic Range - 120dB
- ◆ Up to 2688 x 1520 Resolution (20FPS)
- ◆ Motorized 2.8~12mm Varifocal IR Lens
- ◆ POE - Power over Ethernet
- ◆ Free CMS & IP Server Software
- ◆ SD Card Slot ( Card Sold Separately)
- ◆ 3D Digital Noise Reduction
- ◆ Mechanical IR Cut Filter
- ◆ 42 IR LED's - 100' IR Range
- ◆ ONVIF / PSIA / CGI Compliant
- ◆ Audio Line In/Out & Alarm
- ◆ IP66 Weatherproof - UL/CUL Certified
- ◆ 3rd Party VMS Integration (Artec, Exacq, Milestone, OnSSI)

### INCLUDED ACCESSORIES:

Quick Guide, Software CD, Mounting Template & Hardware Packet, Junction Box, L-Style Wrench, Video Test Connector.

### CAMERA OVERVIEW:



Front View & Mounting Configuration

### OPTIONAL MOUNTING ACCESSORIES:

PMT - Pole Mount for IP4MVFB



SPECIFICATION		IP4MVFB
CAMERA	Image Sensor	1/3" Progressive Scan CMOS
	Minimum Illumination	0.014 lux@ F1.2, AGC on / 0 lux with IR
	IRLED Count / Range / Nanometer	42 IR LED's / 100' Range / 850nm
	Shutter Time	1/3 s to 1/10,000s
	Lens (IR Corrective)	Motorized 2.8~12mm @ F1.4, angle of view: 112° ~ 33.8°
	Lens Mount	Ø14
	Camera Bracket Adjustment	3-Axis Design
	Day & Night	Yes - IR Filter with Auto Switch
	DNR (Digital Noise Reduction)	3D DNR
	True Wide Dynamic Range	120dB WDR
COMPRESSION	BLC (Backlight Compensation)	Yes, Zone Configurable
	On-board storage	Built-in Micro SD/SDHC/SDXC card slot, up to 128GB
	Smart Analytic Features	Line crossing detection, intrusion detection
	Region of Interest	Yes
	Video Compression	H.264 / MJPEG / H.264+
	H.264 Codec Profile / Bit Rate	Main Profile / 32 Kbps ~ 16 Mbps
	Dual Streaming	Yes
	Audio Compression	G.711/G.722.1/G.726/MP2L2
	Audio Bit Rate	64 Kbps (G.711)/16 Kbps (G.722.1)/ 16 Kbps (G.726)/32 to 128 Kbps (MP2L2)
	Maximum Image Resolution	2688 x 1520
IMAGE	Frame Rate	20fps (2688 x 1520), 30fps (1920 x 1080, 1280 x 720)
	Image settings	Compression, Color, Saturation, Brightness, Contrast, Sharpness, Rotate Mode, Privacy Mask
	Network Storage	NAS (supports NFS, SMB/CIFS), ANR
	Alarm Trigger	Motion Detection, Line Crossing Detection, Intrusion Detection, Tamper Alarm, Network Disconnect, IP Address Conflict, Storage Exception
	Protocols	TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, Bonjour
	3rd Party VMS Integration	Artec, Exacq, Milestone, OnSSI
	System Compatibility	ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI
	Security Functions	Three level user authentication, password authorization, HTTPS and SSH certificate, IEEE802.1X, basic and digest authentication, watermark, IP address filtering, log-in lockout
	Communication Interface	1 RJ45 10M / 100M Ethernet port
	Alarm Interface	1x Alarm I/O - Bare Lead
INTERFACE	Audio Interface	1x Audio Line In/Out - Bare Lead
	Operating Conditions	-30°C ~ 60°C (-22°F ~ 140°F) humidity 95% or less (non-condensing)
	Housing Color / Housing Material	White / Heavy Duty Aluminum
	Power Supply	12 VDC ± 10%, PoE (802.3af)
	Power Consumption	Max. 7.5 W with IR on
	Weatherproof Rating	IP66
	Dimensions	95 mm x 105 mm x 258.6 mm (3.74" x 4.13" x 10.18")
	Weight	1200 g (2.65 lbs)
	Certifications	UL / CUL

## 4.0 MP IP, Outdoor 100' IR Mini Dome Cameras

True WDR, True D/N, POE, 2.8mm or 4mm IR Lens

### FEATURES:

- ◆ Full HD 1080p Real Time Video
- ◆ True Wide Dynamic Range - 120dB
- ◆ Up to 2688 x 1520 Resolution (20FPS)
- ◆ 2.8mm Wide Angle or 4mm IR Lens
- ◆ POE - Power over Ethernet
- ◆ Free CMS & IP Server Software
- ◆ SD Card Slot ( Card Sold Separately)
- ◆ 3D Digital Noise Reduction
- ◆ Mechanical IR Cut Filter
- ◆ 30 IR LED's - 100' IR Range
- ◆ Audio Line In/Out & Alarm
- ◆ ONVIF / PSIA / CGI Compliant
- ◆ IP66 Weatherproof - UL/CUL Certified
- ◆ 3rd Party VMS Integration (Arteco, Exacq, Milestone, OnSSI)

### INCLUDED ACCESSORIES:

Quick Guide, Software CD, Mounting Template & Hardware Packet, L-Style Wrench.

### OPTIONAL MOUNTING ACCESSORIES:

**BB110** - Back Box



**DPC110** - Pendent Cap



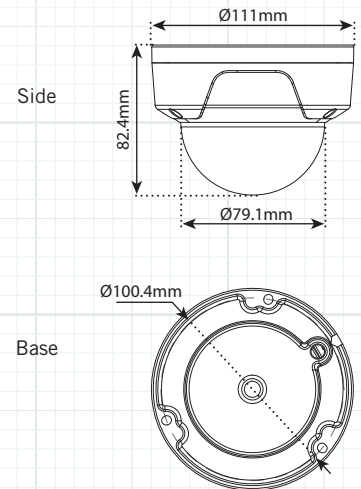
**WMTS** - Outdoor Wall Mount  
(Requires DPC110)



**WMT110** - Indoor Wall Mount



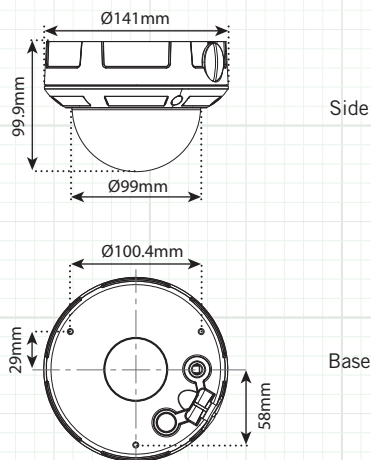
**PMT** - Pole Mount  
(Requires WMTS)



SPECIFICATION		IP4D / IP4D4MM
CAMERA	Image Sensor	1/3" Progressive Scan CMOS
	Minimum Illumination	0.028 lux@ F2.0, AGC on / 0 lux with IR
	IRLED Count / Range / Nanometer	30 IR LEDs / 100' Range / 850nm
	Shutter Time	1/3s ~ 1/10,000s
	Lens (IR Corrective)	2.8mm@F2.0, angle of view: 106°   4mm@F2.0, angle of view: 82°
	Lens Mount	M12
	Camera Bracket Adjustment	3-Axis Design
	Day & Night	Yes - IR Filter with Auto Switch
	DNR (Digital Noise Reduction)	3D DNR
	True Wide Dynamic Range	120dB WDR
COMPRESSION	BLC (Backlight Compensation)	Yes, Zone Configurable
	On-board storage	Built-in Micro SD/SDHC/SDXC card slot, up to 128GB
	Smart Analytic Features	Line crossing detection, intrusion detection
	Region of Interest	Yes
	Video Compression	H.264 / MJPEG / H.264+
IMAGE	H.264 Codec Profile / Bit Rate	Main Profile / 32 Kbps ~ 16 Mbps
	Audio Compression	G.711/G.722.1/G.726/MP2L2
	Audio Bit Rate	64 Kbps (G.711)/16 Kbps (G.722.1)/ 16 Kbps (G.726)/32 to 128 Kbps (MP2L2)
	Maximum Image Resolution	2688 x 1520
	Frame Rate	20fps (2688 x 1520), 30fps (1920 x 1080, 1280 x 720)
NETWORK	Image settings	Compression, Color, Saturation, Brightness, Contrast, Sharpness, Rotate Mode, Privacy Mask
	Network Storage	NAS (supports NFS, SMB/CIFS), ANR
	Alarm Trigger	Motion Detection, Line Crossing Detection, Intrusion Detection, Tamper Alarm, Network Disconnect, IP Address Conflict, Storage Exception
	Protocols	TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, Bonjour
	3rd Party VMS Integration	Arteco, Exacq, Milestone, OnSSI
INTERFACE	System Compatibility	ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI
	Security Functions	Three level user authentication, password authorization, HTTPS and SSH certificate, IEEE802.1X, basic and digest authentication, watermark, IP address filtering, log-in lockout
	Communication Interface	1 RJ45 10M / 100M Ethernet port
	Alarm Interface	1x Alarm I/O - Bare Lead
	Audio Interface	1x Audio Line In/Out - Bare Lead
GENERAL	Operating Conditions	-30°C ~ 60°C (-22°F ~ 140°F) humidity 95% or less (non-condensing)
	Housing Color / Housing Material	White / Heavy Duty Aluminum
	Power Supply	12 VDC ± 10%, PoE (802.3af)
	Power Consumption	Max. 5W
	Weatherproof Rating	IP66
	Dimensions	Ø111 mm x 82 mm (4.4" x 3.2")
	Impact Protection	IEC60068-275Eh, 20J; EN50102, up to IK10
	Weight	500g (1.1 lbs)
	Certifications	UL / CUL

# 4.0 MP IP, Outdoor 100' IR Dome Camera

True WDR, True D/N, POE, Motorized 2.8~12mm IR Lens



## FEATURES:

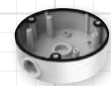
- ◆ Full HD 1080p Real Time Video
- ◆ True Wide Dynamic Range - 120dB
- ◆ Up to 2688 x 1520 Resolution (20FPS)
- ◆ Motorized 2.8~12mm Varifocal IR Lens
- ◆ POE - Power over Ethernet
- ◆ Free CMS & IP Server Software
- ◆ SD Card Slot ( Card Sold Separately)
- ◆ 3D Digital Noise Reduction
- ◆ Mechanical IR Cut Filter
- ◆ 24 IR LED's - 100' IR Range
- ◆ ONVIF / PSIA / CGI Compliant
- ◆ Audio Line In/Out & Alarm
- ◆ IP66 Weatherproof - UL/CUL Certified
- ◆ 3rd Party VMS Integration (Arteco, Exacq, Milestone, OnSSI)

## INCLUDED ACCESSORIES:

Quick Guide, Software CD, Mounting Template & Hardware Packet, Mounting Plate, L-Style Wrench, Video Test Connector.

## OPTIONAL MOUNTING ACCESSORIES:

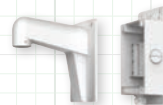
**BB135** - Back Box



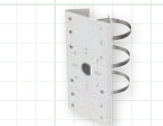
**DPC135** - Pendant Cap



**WMTS** - Outdoor Wall Mount (Requires DPC135)



**PMT** - Pole Mount (Requires WMTS)



**CMR1** - Recessed Ceiling Mount



SPECIFICATION		IP4MVFD
CAMERA	Image Sensor	1/3" Progressive Scan CMOS
	Minimum Illumination	0.014 lux@ F1.2, AGC on / 0 lux with IR
	IRLED Count / Range / Nanometer	24 IR LED's / 100' Range / 850nm
	Shutter Time	1/3 s to 1/10,000 s
	Lens (IR Corrective)	Motorized 2.8~12mm @ F1.4, angle of view: 112° ~ 33.8°
	Lens Mount	Ø14
	Camera Bracket Adjustment	3-Axis Design
	Day & Night	Yes - IR Filter with Auto Switch
	DNR (Digital Noise Reduction)	3D DNR
	True Wide Dynamic Range	120dB WDR
COMPRESSION	BLC (Backlight Compensation)	Yes, Zone Configurable
	On-board storage	Built-in Micro SD/SDHC/SDXC card slot, up to 128GB
	Smart Analytic Features	Line crossing detection, intrusion detection
	Region of Interest	Yes
	Video Compression	H.264 / MJPEG / H.264+
	H.264 Codec Profile / Bit Rate	Main Profile / 32 Kbps ~ 16 Mbps
	Dual Streaming	Yes
	Audio Compression	G.711/G.722.1/G.726/MP2L2
	Audio Bit Rate	64 Kbps (G.711)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 128 Kbps (MP2L2)
	Maximum Image Resolution	2688 x 1520
IMAGE	Frame Rate	20fps (2688 x 1520), 30fps (1920 x 1080, 1280 x 720)
	Image settings	Compression, Color, Saturation, Brightness, Contrast, Sharpness, Rotate Mode, Privacy Mask
	Network Storage	NAS (supports NFS, SMB/CIFS), ANR
	Alarm Trigger	Motion Detection, Line Crossing Detection, Intrusion Detection, Tamper Alarm, Network Disconnect, IP Address Conflict, Storage Exception
	Protocols	TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, Bonjour
	3rd Party VMS Integration	Arteco, Exacq, Milestone, OnSSI
	System Compatibility	ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI
	Security Functions	Three level user authentication, password authorization, HTTPS and SSH certificate, IEEE802.1X, basic and digest authentication, watermark, IP address filtering, log-in lockout
	Communication Interface	1 RJ45 10M / 100M Ethernet port
	Alarm Interface	1x Alarm I/O - Bare Lead
NETWORK	Audio Interface	1x Audio Line In/Out - Bare Lead
	Operating Conditions	-30°C ~ 60°C (-22°F ~ 140°F) humidity 95% or less (non-condensing)
	Housing Color / Housing Material	White / Heavy Duty Aluminum
	Power Supply	12 VDC ± 10%, PoE (802.3af)
	Power Consumption	Max. 5.5 W with IR on
	Weatherproof Rating	IP66
	Impact Protection	IEC60068-275Eh, 20J; EN50102, up to IK10
	Dimensions	Ø140 mm x 99.9 mm (Ø5.51" x 3.94")
	Weight	1000 g (2.20 lbs)
	Certifications	UL / CUL
GENERAL		



## 4.0 MP IP, Outdoor 100' IR Turret Camera

True WDR, True D/N, POE, 2.8mm IR Lens

## FEATURES:

- ◆ Full HD 1080p Real Time Video
- ◆ True Wide Dynamic Range - 120dB
- ◆ Up to 2688 x 1520 Resolution (20FPS)
- ◆ 2.8mm Wide Angle IR Lens
- ◆ POE - Power over Ethernet
- ◆ Free CMS & IP Server Software
- ◆ 3D Digital Noise Reduction
- ◆ Mechanical IR Cut Filter
- ◆ High Output LED - 100' IR Range
- ◆ ONVIF / PSIA / CGI Compliant
- ◆ IP66 Weatherproof - UL/CUL Certified
- ◆ 3rd Party VMS Integration (Arteco, Exacq, Milestone, OnSSI)

## INCLUDED ACCESSORIES:

Quick Guide, Software CD, Mounting Template & Hardware Packet.

## OPTIONAL MOUNTING ACCESSORIES:

BB130T - Back Box



DPC130T - Pendent Cap



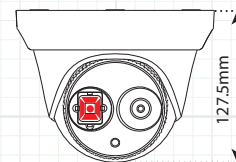
WMTS - Outdoor Wall Mount  
(Requires DPC130T)



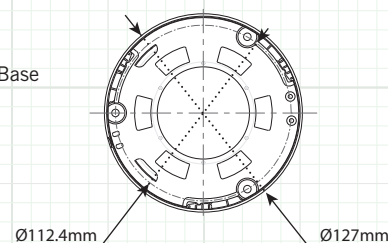
PMT - Pole Mount  
(Requires WMTS)



Side



Base



SPECIFICATION		IP4T
CAMERA	Image Sensor	1/3" Progressive Scan CMOS
	Minimum Illumination	0.028 lux@ F2.0, AGC on / 0 lux with IR
	IRLED Count / Range / Nanometer	Single High Power LED / 100' Range / 850nm
	Shutter Time	1/3s ~ 1/10,000s
	Lens (IR Corrective)	2.8mm@F2.0, angle of view: 106°
	Lens Mount	M12
	Camera Angle Adjustment	Pan: 0° ~ 360°, tilt: 0° ~ 75°, rotation: 0° ~ 360°
	Day & Night	Yes - IR Filter with Auto Switch
	DNR (Digital Noise Reduction)	3D DNR
	True Wide Dynamic Range	120dB WDR
IMAGE COMPRESSION	BLC (Backlight Compensation)	Yes, Zone Configurable
	Smart Analytic Features	Line crossing detection, intrusion detection
	Region of Interest	Yes
	Video Compression	H.264 / MJPEG / H.264+
	H.264 Codec Profile	Main Profile
	Bit Rate	32 Kbps ~ 16 Mbps
	Dual Streaming	Yes
	Maximum Image Resolution	2688 x 1520
	Frame Rate	20fps (2688 x 1520), 30fps (1920 x 1080, 1280 x 720)
	Image settings	Compression, Color, Saturation, Brightness, Contrast, Sharpness, Rotate Mode, Privacy Mask
NETWORK	Network Storage	NAS (supports NFS, SMB/CIFS), ANR
	Alarm Trigger	Motion Detection, Line Crossing Detection, Intrusion Detection, Tamper Alarm, Network Disconnect, IP Address Conflict, Storage Exception
	Protocols	TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, Bonjour
	3rd Party VMS Integration	Arteco, Exacq, Milestone, OnSSI
	System Compatibility	ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI
	Security Functions	Three level user authentication, password authorization, HTTPS and SSH certificate, IEEE802.1X, basic and digest authentication, watermark, IP address filtering, log-in lockout
	Communication Interface	1 RJ45 10M / 100M Ethernet port
	Operating Conditions	-30°C ~ 60°C (-22°F ~ 140°F) humidity 95% or less (non-condensing)
	Housing Color / Housing Material	White / Heavy Duty Aluminum with Plastic Ring Base Cover
	Power Supply	12 VDC ± 10%, PoE (802.3af)
GENERAL	Power Consumption	Max. 5.5W (7.5W with ICR on)
	Weatherproof Rating	IP66
	Dimensions	97.5 x Ø127mm
	Weight	670g (1.5 lbs)
Certifications		UL / CUL



## 4.0 MP IP, Outdoor 30' IR Wedge Camera

True WDR, True D/N, POE, 2.8mm IR Lens

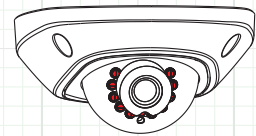
### FEATURES:

- ◆ Full HD 1080p Real Time Video
- ◆ True Wide Dynamic Range - 120dB
- ◆ Up to 2688 x 1520 Resolution (20FPS)
- ◆ 2.8mm Wide Angle IR Lens
- ◆ POE - Power over Ethernet
- ◆ Free CMS & IP Server Software
- ◆ SD Card Slot (Card Sold Separately)
- ◆ 3D Digital Noise Reduction
- ◆ Mechanical IR Cut Filter
- ◆ 10 IR LED's - 30' IR Range
- ◆ ONVIF / PSIA / CGI Compliant
- ◆ Built-In Mic & Alarm I/O
- ◆ IP66 Weatherproof - UL/CUL Certified
- ◆ 3rd Party VMS Integration (Arteco, Exacq, Milestone, OnSSI)

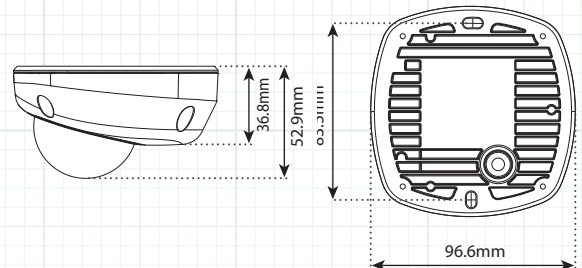
### INCLUDED ACCESSORIES:

Quick Guide, Software CD, Mounting Template & Hardware Packet, Mounting Plate, L-Style Wrench, Camera Positioning Tool.

### CAMERA OVERVIEW:



Front View



Side View & Mounting Configuration

SPECIFICATION		IP4W
CAMERA	Image Sensor	1/3" Progressive Scan CMOS
	Minimum Illumination	0.01 lux@ F1.2, AGC on / 0 lux with IR
	IRLED Count / Range / Nanometer	10 IR LED's / 30' Range / 850nm
	Shutter Time	1/3 s to 1/10,000 s
	Lens (IR Corrective)	2.8mm@F2.0, angle of view: 106°
	Lens Mount	M12
	Camera Angle Adjustment	Pan: ±30°, tilt: 0~75°, rotation: 0~360°
	Day & Night	Yes - IR Filter with Auto Switch
	DNR (Digital Noise Reduction)	3D DNR
	True Wide Dynamic Range	120dB WDR
COMPRESSION	BLC (Backlight Compensation)	Yes, Zone Configurable
	On-board storage	Built-in Micro SD/SDHC/SDXC card slot, up to 128GB
	Smart Analytic Features	Line crossing detection, intrusion detection
	Region of Interest	Yes
	Video Compression	H.264 / MJPEG / H.264+
	H.264 Codec Profile / Bit Rate	Main Profile / 32 Kbps ~ 16 Mbps
	Dual Streaming	Yes
	Audio Compression	G.711/G.722.1/G.726/MP2L2
	Audio Bit Rate	64 Kbps (G.711)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 128 Kbps (MP2L2)
	Maximum Image Resolution	2688 x 1520
IMAGE	Frame Rate	20fps (2688 x 1520), 30fps (1920 x 1080, 1280 x 720)
	Image settings	Compression, Color, Saturation, Brightness, Contrast, Sharpness, Rotate Mode, Privacy Mask
	Network Storage	NAS (supports NFS, SMB/CIFS), ANR
	Alarm Trigger	Motion Detection, Line Crossing Detection, Intrusion Detection, Tamper Alarm, Network Disconnect, IP Address Conflict, Storage Exception
	Protocols	TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, Bonjour
	3rd Party VMS Integration	Arteco, Exacq, Milestone, OnSSI
	System Compatibility	ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI
	Security Functions	Three level user authentication, password authorization, HTTPS and SSH certificate, IEEE802.1X, basic and digest authentication, watermark, IP address filtering, log-in lockout
	Communication Interface	1 RJ45 10M / 100M Ethernet port
	Alarm Interface	1x Alarm I/O - Bare Lead
NETWORK	Audio Interface	Built-In Mic / Audio Line Out for 2-Way Audio Only - Bare Lead
	Operating Conditions	-30°C ~ 60°C (-22°F ~ 140°F) humidity 95% or less (non-condensing)
	Housing Color / Housing Material	White / Heavy Duty Aluminum Body with Plastic Cover
	Power Supply	12 VDC ± 10%, PoE (802.3af)
	Power Consumption	Max. 5.W with IR on
	Weatherproof Rating	IP66
	Dimensions	99.9 x 97.5 x 56.5mm
	Weight	350g (0.78 lbs)
	Certifications	UL / CUL

# IPPTZ30XIR

## 2.0 MP IP, Outdoor 395' IR PTZ Camera DWDR, True D/N, POE, 30x Optical Zoom

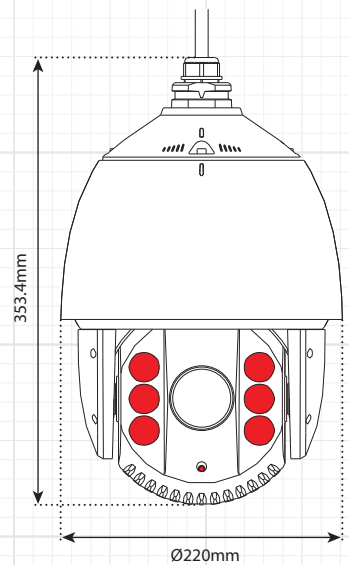
### FEATURES:

- ◆ Full HD 1080p Real Time Video
- ◆ 30X (4.3~129mm) Optical Zoom Level
- ◆ POE - Power over Ethernet & 24VAC
- ◆ Free CMS & IP Server Software
- ◆ True D/N Mechanical IR Cut Filter
- ◆ SD-Card Slot (card sold separately)
- ◆ Digital Wide Dynamic Range
- ◆ Included 24VAC Power Supply
- ◆ 360° Endless Panning
- ◆ 6 High Power IR LED's / 395' IR Range
- ◆ 2 Programmable Privacy Masks
- ◆ 300 Preset Positions
- ◆ 8 Patrols With up to 32 Presets Each
- ◆ ONVIF / PSIA / CGI Compliant
- ◆ IP66 Weatherproof
- ◆ Built in Heater & Fan
- ◆ -22°F Operating Temperature
- ◆ UL/CUL Certified



IPPTZ30XIR

Dimensions



### INCLUDED ACCESSORIES:

Quick Guide, Software CD, L-Style Wrench,  
1½" Pipe Thread Adapter (Male), 24 Volt AC  
Power Supply.

### OPTIONAL MOUNTING ACCESSORIES:

**IPTVIWMT** - Wall Mount  
for IPPTZ30XIR



**IPTVIJB** - Junction Box  
for IPTVIWMT



	SPECIFICATION	IPPTZ30XIR
Camera	Image Sensor	1/2.8" Progressive Scan CMOS
	Image Resolution	2 Megapixel, 1920x1080 Max
	Min. Illumination	Color : 0.02 Lux B/W : 0.002 Lux / 0 Lux with IR On
	White Balance	Auto / Manual / ATW / Indoor / Outdoor / Daylight Lamp/Sodium Lamp
	AGC	Auto / Manual
	S/N Ratio	≥ 52dB
	3D DNR	ON/OFF, Level 0~100
	BLC	ON/OFF
	HLC	ON/OFF
	DWDR	ON/OFF, Level 0~100
	Defog	ON/OFF
	Shutter Speed	1-1/10,000s
	True Day & Night	IR Cut Filter
	Digital Zoom	16X
	Privacy Mask	2 Programmable Privacy Masks
	Focus Mode	Auto / Semi-Auto / Manual



# IPPTZ30XIR – Specifications

	FEATURES	IPPTZ30XIR
Lens	Focal Length	4.3-129mm, 30x / Aperture F1.6-F5.0
	Zoom Speed	Approx.3s (Optical Wide-Tele)
	Angle of View	65.1-2.34 degree (Wide-Tele)
	Min. Working Distance	10-1500mm (Wide-Tele)
Pan & Tilt	Pan Range	360° Endless
	Pan Speed	Pan Manual Speed: 0.1°-160°/s - Pan Preset Speed: 240°/s
	Tilt Range	-15°-90° (Auto Flip )
	Tilt Speed	Tilt Manual Speed: 0.1°-120°/s - Tilt Preset Speed: 200°/s
	Proportional Zoom	Rotation Speed Adjusted Automatically According to Zoom
	Number of Presets	300
	Park Action	Pattern / Pan & Tilt Scan / Frame Scan / Panorama Scan / Random Scan
	Patrol	8 Patrols, up to 32 Presets per Patrol
	Power-off Memory	Support
	Position Display	On / Off
	Preset Freezing	Support
	Scheduled Task	Auto Scan / Frame Scan / Random Scan / Patrol / Pattern / Preset / Panorama Scan / Tilt Scan / Dome Reboot / Dome Adjust / Aux Output
IR	IR Distance	395'
	IR Intensity	Automatically Adjusted, Depending on the Zoom Ratio
Input / Output	Alarm Input	2 (0-5v DC)
	Alarm Output	1 Relay Output, Alarm Response Actions Configurable
	Alarm Trigger	Intrusion Detection, Line Crossing Detection, Motion Detection, Audio Exception Detection, Dynamic Analysis, Tampering Alarm, Network disconnect, IP Address Conflict, Storage Exception
	Alarm Actions	Preset, Patrol, Pattern, Recording, Relay Output, Upload Center, Upload FTP, Email Linkage
	Audio Input	1 Audio Input (Mic/Line in), 2-2.4V[p-p]; Output Impedance: 1KΩ, ±10%
	Audio Output	1 Output, Line Level, Impedance: 600Ω
Network	Ethernet	10Base-T / 100Base-TX, RJ45 Connector
	Image Resolution	1920×1080 Max
	Frame Rate	50Hz: 25 fps (1920×1080), 25 fps (1280×960) , 25 fps (1280×720) 60Hz: 30 fps (1920×1080), 30 fps (1280×960) , 30 fps (1280×720)
	Compression	H.264/MJPEG
	ROI Encoding	Support 2 Areas with Adjustable Levels
	Audio Compression	G.711/G.722/G.726/MP2L2
	Protocols	IPv4/IPv6, HTTP, HTTPS, 802.1X, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE
	Simultaneous View	Up to 20 Live Views
	Dual Streams	Support
	SD Card	Micro SD Slot, up to 128GB, Edge Recording
	Users	Up to 32 users, 3 Levels: Administrator, Operator and User
	Security Measures	User auth. (ID and PW), Host auth. (MAC address), IP Address Filtering
System Integration	Application Programming Interface	Open-ended API, Support Onvif, PSIA and CGI
		Supports Cloud P2P
	Web Browser	IE 7+, Chrome 18 +, Firefox 5.0 +, Safari 5.02 +
	Power	Hi-POE & 24 VAC - Max. 40W(IR LED 12W, Heater 6W)
	Operating Temp.	-30°C-65°C(-22°F-149°F) - Humidity %90 or less
	Protection Level	IP66 - TVS 4,000V Lightning, Surge and Voltage Transient Protection
	Dimensions	Ø220×353.4mm (Ø8.66"×13.91")
	Certifications	UL / CUL
	Weight (approx.)	4.5kg(9.92lbs)

# TVIDVR Series – 1080p TVI DVR's



## TVIDVR4

4-Channel HD-TVI DVR

## TVIDVR8

8-Channel HD-TVI DVR

## TVIDVR16

16-Channel HD-TVI DVR

4  
8  
16



### FEATURES:

- ◆ 30FPS/Ch Real-Time Recording @ 720p
- ◆ 12FPS/Ch Recording @ 1080p
- ◆ Connects to Both TVI & 960H Analog Cameras
- ◆ 1 Channel IP Recording @ 2MP (TVIDVR4)
- ◆ 2 Channel IP Recording @ 2MP (TVIDVR8/TVIDVR16)
- ◆ Up to 12TB Storage Capacity (16Ch)
- ◆ Up to 6TB Storage Capacity (4-8Ch)
- ◆ H.264 Recording Compression
- ◆ Redundant Recording (16Ch w/2x HDD Only)
- ◆ Full Mobile Apps for iPhone, iPad & Android
- ◆ Compatible with IE & Safari Browsers
- ◆ Built-in Motion Detection & Privacy Mask
- ◆ Up to 16Ch Synchronous Playback
- ◆ Free CMS Software Included
- ◆ UTC Control (Camera Dependent)
- ◆ Supports P2P Operation
- ◆ Included Mouse & IR Remote
- ◆ Dual USBs for Copying Video & Mouse Control
- ◆ Simultaneous HDMI & VGA Video Outputs
- ◆ Rack Mount Hardware Included (TVIDVR16)
- ◆ Built-in Audio & Alarm
- ◆ Supports 2-Way Audio



### GUARDING VISION

Free Mobile App for iPhone,  
iPad, Android & Android Tablets

### Free CMS Software



HD-TVI Series CMS Software shown on Northern<sup>★</sup> LED21HDMI

# TVIDVR Series – 1080p TVI DVR's

## Learn More

### Mobile Apps for iPhone, iPad & Android

View & Playback Video from multiple mobile devices.

### Real Time 720p Recording

Record up to 30FPS per Channel @ 720p Resolution or up to 12FPS per Channel @ 1080p Resolution.

### Up to 12TB Storage Capacity

Large Hard Disk storage capacity allows for longer storage of recorded video. 12TB max storage on 16 Channel, 6TB max on 4 & 8 Channel models.

### Free CMS Software for PC & MAC

Connect to multiple DVRs from a single computer with the included CMS software is also compatible with all NVRPOE Series NVR's & IP4 Series cameras.

### Mouse & IR Remote Control

Easily control the DVR from the included Mouse or IR Remote Controller.

### HDMI & VGA Video Outputs

Simultaneously display video through both VGA & HDMI monitor outputs.

### Built in Motion Detection

Maximize your recording time by only recording when Motion is detected by the DVR.

### Supports DDNS

DDNS insures you will always stay connected to your NVR when using a Dynamic IP address.

### P2P Operation For Mobile App

Peer to Peer functionality makes set up easier by bypassing the need to configure port forwarding in most routers.

### Dual USB Ports

DVR's include front and rear USB ports for making copies of video and controlling the DVR with a mouse.

### Remote Accessibility

Remotely connect, monitor, playback, record and change DVR settings via IE and Safari Browsers

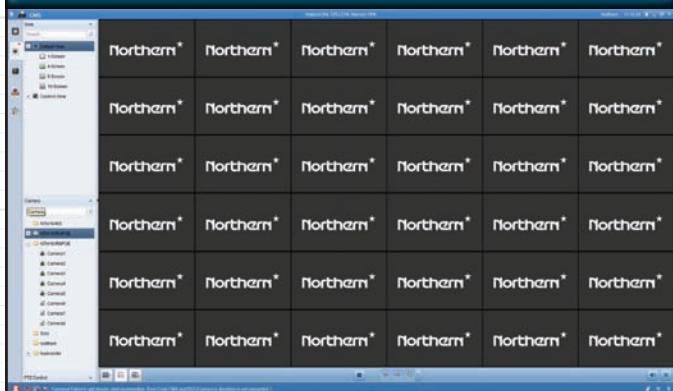
### 960H Compatibility

All DVR's are compatible with standard 960H analog cameras.

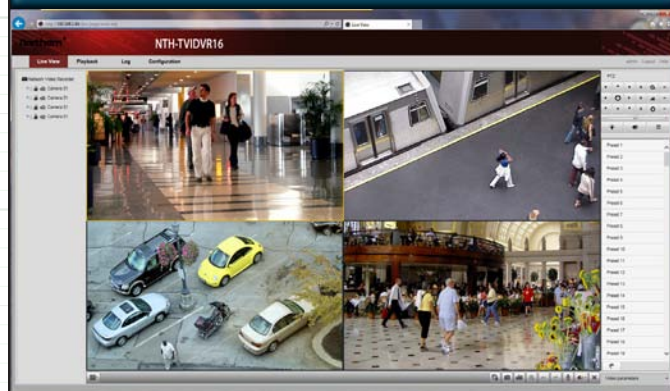
### IP Camera Recording

4 Channel models can also record one additional IP Camera @ 2MP. 8 & 16 Channel models can record two additional IP cameras @ 2MP.

## CMS Software For PC/Mac



## Browser Based Remote Software



# TVIDVR Series – 1080p TVI DVR's

## Hard Drive Configurations & Part Numbers / Package Contents

DRIVE SIZE	4 Channel	8 Channel	16 Channel
2TB	TVIDVR42T	TVIDVR82T	TVIDVR162T
4TB	TVIDVR44T	TVIDVR84T	TVIDVR164T
6TB	TVIDVR46T	TVIDVR86T	TVIDVR166T
8TB	N/A	N/A	TVIDVR168T
12TB	N/A	N/A	TVIDVR1612T

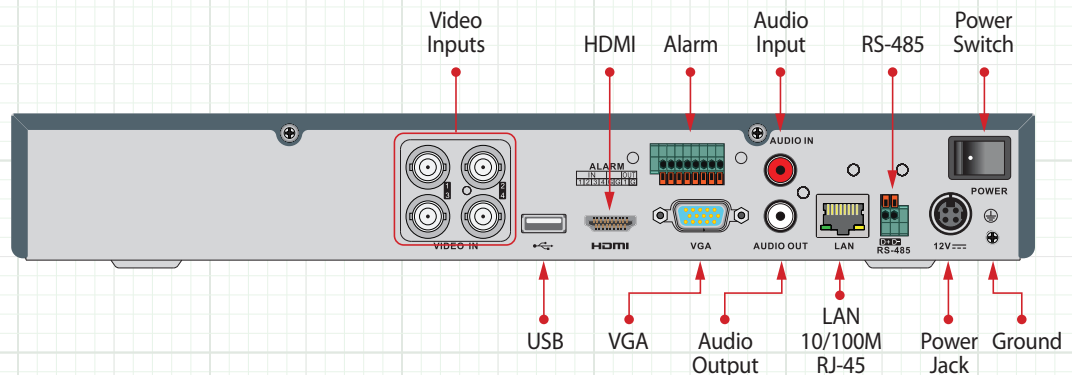
### PACKAGE CONTENTS

1. Power Supply / Cord
1. IR Remote Control
1. Software CD
1. Quick Start Manual
2. Rack Mount Ears (16Ch)
1. Mouse

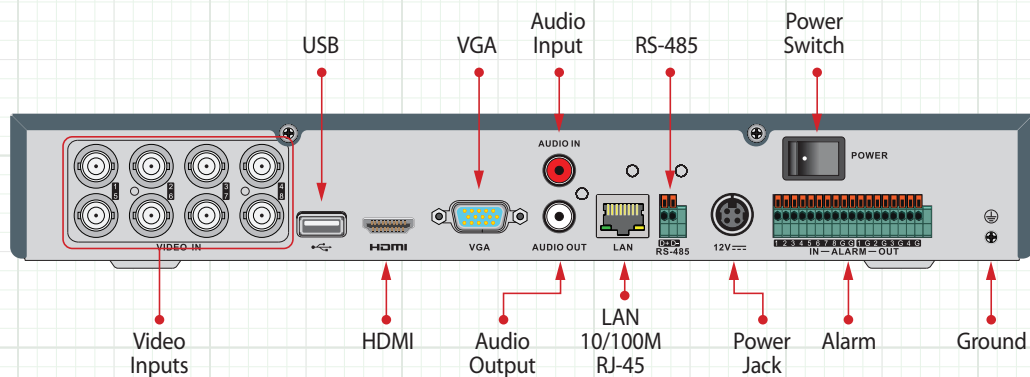


## Rear Panel Connections

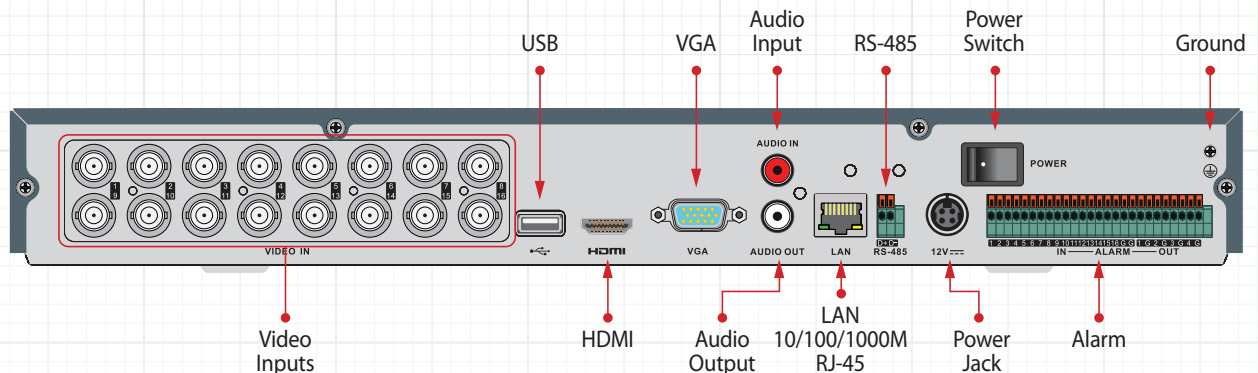
### 4 Ch. Models



### 8 Ch. Models



### 16 Ch. Models





# TVIDVR Series Specifications

	FEATURES	TVIDVR4	TVIDVR8	TVIDVR16
Video/Audio Input	Video compression	H.264		
	HD-TVI/960H Video Input	4-Channel	8-Channel	16-Channel
		BNC Interface (1.0Vp-p, 75 Ω)		
	Supported Camera types	TVI ONLY - (720P/25, 720P/30, 720P/50, 720P/60, 1080P/25, 1080P/30), CVBS, Standard/960 Analog		
	IP Video Input	1-Channel	2-Channel	
		Up to 2.0MP Resolution		
Video/Audio Output	Audio Compression	G.711u		
	Audio Input	1-Channel, RCA (2.0 Vp-p, 1 KΩ) - For both Audio/Two Way Audio		
	HDMI / VGA output	1920 × 1080/60 Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz, 1024 × 768/60 Hz		
	Encoding resolution	Main Stream: 1080P (15FPS) / 720P / VGA / WD1 / 4CIF / CIF		
		Sub-Stream: WD1(15FPS) / 4CIF(15FPS) / CIF / QCIF / QVGA		
	Frame Rate	Main stream: 1/16 fps ~ Real time frame rate		
		Sub-stream: 1/16 fps ~ Real time frame rate		
	Video Bitrate	32 Kbps-6 Mbps		
	Audio Output	1-Channel, RCA (Linear, 1KΩ)		
	Audio Bitrate	64 Kbps		
	Dual-Stream	Supports		
Recording & Playback	Stream Type	Video, Video & Audio		
	Playback Resolution	1080P / 720P / VGA / WD1 / 4CIF / CIF / QVGA / QCIF		
	Record Mode Types	Motion, Continuous, Alarm, Motion, Motion & Alarm		
	Record Time Periods	8 Recording Time Periods with Separate Record Types		
	Pre & Post Recording	Pre & Post Recording for Alarm & Motion Detection / Pre Recording for Schedule & Manual Recording		
	Recording Parameters	Independent for Each Channel (Resolution, Frame Rate, Bit Rate, Image Quality, etc.)		
	Redundant Recording	N/A		Yes - Only for 2 HDD configurations
	Zooming	Available in Live View & Playback		
	Synchronous Playback	4-Channel	8-Channel	16-Channel
Network Mgmt.	Playback Controls	Pause, Reverse Play, Speed Up, Speed Down, Skip Forward, Skip Backward, Mouse Drag		
	Searching	Search Recorded Files by Events (Alarm Input / Motion Detection)		
	Remote Connections	128		
Hard Disk	Network Protocols	TCP/IP, PPPOE, DHCP, EZVIZ Cloud P2P, DNS, DDNS, NTP, SADP, SMTP, SNMP, NFS, iSCSI, UPnP™, HTTPS		
	SATA	1 SATA Interface		2 SATA Interfaces
	Capacity	Up to 6TB Capacity For Each Disk		
External Interface	Max Storage	6TB		12TB
	Network Interface	1 x 10M / 100M Self-Adaptive Ethernet Interface		1 x 10M / 100M / 1000M Self-Adaptive Ethernet interface
	RS-485	1; Standard RS-485 Serial Interface, Half-Duplex		
General	USB Interface	2 × USB2.0		
	Alarm In/Out	4-In/1-Out	8-In/4-Out	16-In/4-Out
	Power Supply	12V DC		
	Consumption - (no HDD)	≤ 15W	≤ 20W	≤ 30W
	Operating Temperature	-10 °C ~ +55 °C (14 °F ~ 131 °F)		
	Operating Humidity	10% ~ 90%		
	Chassis	1U Chassis		380mm 1U Chassis
	Dimensions(W × D × H)	315 × 242 × 45mm (12.4 × 9.5 × 1.8 inch)		380 × 290 × 48mm (15.0 × 11.4 × 1.9 inch)
	Weight (w/o Drives)	≤ 1.5Kg (3.3lb)		≤ 2Kg (4.4lb)

# TVI 4 & 8 Channel Kits

**HD-TVI  
1080p**

## TVIKIT4

### 4 Camera TVI KIT



#### KIT INCLUDES:

4-Channel, 2TB, 1080p HD-TVI DVR  
Full HD 1080p 2.8mm Eyeball Cameras  
12 Volt DC Multi-Channel Power Supply

#### CAMERA FEATURES (TVIEIR60):

- ◆ Full HD 1080P Resolution
- ◆ 24 LED's / 60' IR Range
- ◆ Digital Wide Dynamic Range
- ◆ True Day/Night Mechanical IR Cut Filter
- ◆ 2.8mm Fixed Focal IR Lens
- ◆ UTC Controllable OSD
- ◆ Digital Noise Reduction
- ◆ 12 Volt DC Power
- ◆ 3-Axis Wall or Ceiling Mountable
- ◆ 2MP CMOS Sensor
- ◆ IP66 Weatherproof

*Full Specifications on Page 23*

## TVIKIT8

### 8 Camera TVI KIT



#### KIT INCLUDES:

8-Channel, 2TB, 1080p HD-TVI DVR  
Full HD 1080p 2.8mm Eyeball Cameras  
12 Volt DC Multi-Channel Power Supply



## GUARDING VISION

Free Mobile App for iPhone,  
iPad, Android & Android Tablets

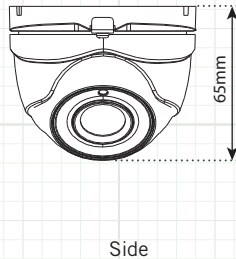
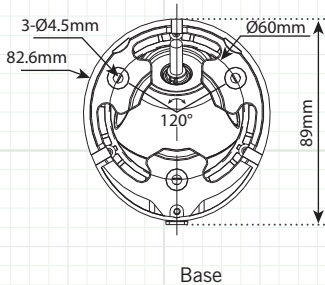
#### DVR FEATURES (TVIDVR4/TVIDVR8):

- ◆ 30FPS/Ch Real-Time Recording @ 720p
- ◆ 12FPS/Ch Recording @ 1080p
- ◆ 2TB Hard Drive Installed
- ◆ H.264 Recording Compression
- ◆ Full Mobile Apps for iPhone, iPad & Android
- ◆ Compatible with IE & Safari Browsers
- ◆ Built-in Motion Detection & Privacy Mask
- ◆ Free CMS Software Included
- ◆ UTC (Up the Coax) Control for Camera OSD
- ◆ Supports P2P Operation
- ◆ Included Mouse & IR Remote
- ◆ Dual USBs for Copying Video & Mouse Control
- ◆ Simultaneous HDMI & VGA Video Outputs
- ◆ Built-in Audio & Alarm – Supports 2-Way Audio

*Full Specifications on Pages 18-21*

# HD-TVI, 1080p Outdoor 60' IR Eyeball Camera

UTC, DWDR, True D/N, 2.8mm IR Lens



SPECIFICATION	TVIEIR60
Image Sensor	2MP CMOS Sensor
Active Pixels	1944(H)*1092(V)
Resolution	1920 x 1080 (1080p) / 1280 x 720 (720p)
OSD (On Screen Display)	UTC Controlled (coaxial control)
Digital WDR (Wide Dynamic Range)	Yes On/Off
Digital Noise Reduction	Yes (1 ~ 10 Adjustable)
Video Output	HD-TVI BNC Video Connector
Lens Type - True Day Night	IR Type, 2.8mm (105° FOV)
IR Cut Filter	Yes - Built in Mechanical
Minimum Illumination	0.01 Lux @ (F1.2, AGC ON), 0 Lux with IR
IR LED Count / Range	24 LED's / 60' IR Range / 850nm
S/N Ratio	>62dB
Automatic Gain Control	Off/Low/Middle/High
Sync System	Internal Synchronization
White Balance	ATW, MWB (RGAIN/BGAIN Adjustable)
Back Light Compensation	Yes (1 ~ 8 Adjustable)
Day/Night	Color, B/W, Smart (auto)
Mirror	Off/H/V/HV
Brightness	Yes (1 ~ 10) Adjustable
Power Input	12 VDC ± 15%
Power Requirement	Max 4W
Overall Camera Dimensions	89 x 65mm (3.5" x 2.56")
Weight	Approx 0.75lb / 340g
Operating Temperature	-30°C ~ 60°C (-22°F ~ 140°F)
Weatherproof Rating	IP 66
Certifications	UL / CUL Certified

## FEATURES:

- ◆ Full HD 1080P Resolution
- ◆ 24 LED's / 60' IR Range
- ◆ Digital Wide Dynamic Range
- ◆ True Day/Night Mechanical IR Cut Filter
- ◆ 2.8mm Fixed Focal IR Lens
- ◆ UTC Controllable OSD
- ◆ Digital Noise Reduction
- ◆ 12 Volt DC Power
- ◆ 3-Axis Wall or Ceiling Mountable
- ◆ 2MP CMOS Sensor
- ◆ IP66 Weatherproof

## INCLUDED ACCESSORIES:

User Manual, Mounting Template & Hardware Packet, L-Style Wrench.

## OPTIONAL MOUNTING ACCESSORIES:

BBXS - Back Box



## HD-TVI/960H, 1080p Outdoor 100' IR Turret Camera

True WDR, True D/N, 2.8mm IR Lens

### FEATURES:

- ◆ Full HD 1080P Resolution
- ◆ True 120dB Wide Dynamic Range
- ◆ True D/N Mechanical IR Cut Filter
- ◆ 2.8mm Fixed Focal IR Lens
- ◆ Sense-up / Slow Shutter Speed
- ◆ TVI & 960H Main Video Outputs
- ◆ UTC Controllable OSD
- ◆ 12 Volt DC Power
- ◆ 3D Digital Noise Reduction
- ◆ 1 Super LED / 100' IR Range
- ◆ 3-Axis Wall or Ceiling Mountable
- ◆ 1/3" 2MP CMOS Sensor
- ◆ IP66 Weatherproof
- ◆ UL/CUL Certified

### INCLUDED ACCESSORIES:

User Manual, Mounting Hardware Packet, Mounting Template.

### OPTIONAL MOUNTING ACCESSORIES:

**BB130T** - Back Box



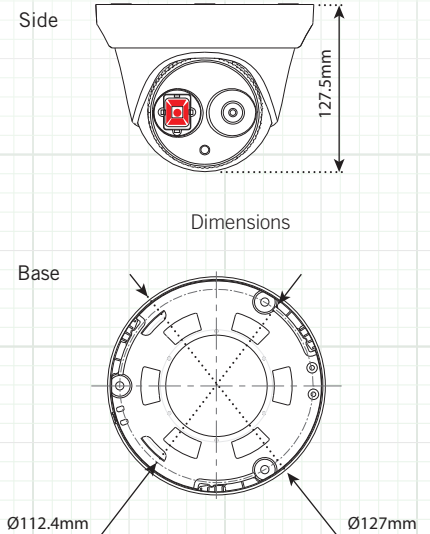
**DPC130T** - Pendant Cap



**WMTS** - Wall Mount  
(Requires DPC130T)



**PMT** - Pole Mount  
(Requires WMTS)

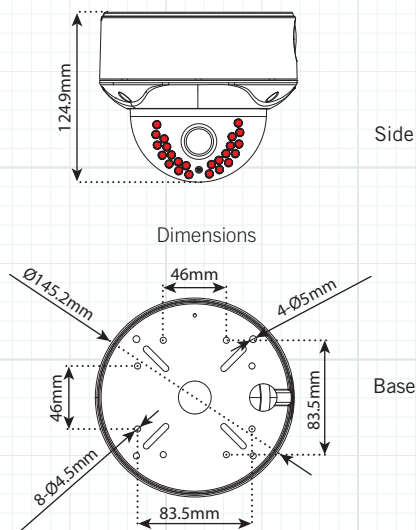


SPECIFICATION	TVITIR100
Image Sensor	2MP Progressive Scan CMOS
Active Pixels	1944(H)*1092(V)
Resolution	1920 x 1080 (1080p) / 1280 x 720 (720p)
Scanning System	Progressive Scan
OSD (On Screen Display)	UTC Controlled (coaxial control)
True WDR (Wide Dynamic Range)	120dB
3D Digital Noise Reduction	2DNR + 3DNR (Adjustable)
Video Output	HD-TVI & 960H BNC Video Connectors
Lens Type - True Day Night	IR Type, 2.8mm (103.5° FOV)
Sense-up	Auto (x2 ~ x32 Adjustable) / OFF
Shutter Speed	Auto / FLK / 1/30s ~ 1/50,000s
IR Cut Filter	Yes - Built in Mechanical
Minimum Illumination	0.01 Lux @(F1.2, AGC ON), 0 Lux with IR
IR LED Count / Range	1 High Output LED / 100' / 850nm
S/N Ratio	More than 62dB
Automatic Gain Control	(0~15) Adjustable
Sync System	Internal Synchronization
White Balance	ATW / AWC-SET / MANUAL
Back Light Compensation	BLC / HSBLC / OFF / WDR
HSBLC	4 Zone (Adjustable)
Day/Night	Color/BW/EXT
Mirror	Mirror / V-Flip / Rotate / Off
Digital Zoom	(x2 ~ x62) Adjustable
Languages	English/ Japanese/ CHN1/ CHN2/ Korean/ German/ French/ Italian/ Spanish/ Polish/ Russian/ Portuguese/ Dutch/ Turkish/ Hebrew/ Arabic
Brightness	(1~100) Adjustable
Motion Detection	On/Off, Maximum 4 zones
Privacy Mask	On/Off, Maximum 8 zones
Power Input	12 VDC±15%
Power Requirement	Max 5W
Overall Camera Dimensions	Ø 114.6 × 89.1mm(Ø 4.5" × 3.5")
Weight	Approx 0.94lb / 420g
Operating Temperature	-30°C ~ 60°C (-22°F ~ 140°F)
Weatherproof Rating	IP 66
Certifications	UL / CUL Certified



# HD-TVI/960H, 1080p Outdoor 100' IR Dome Camera

True WDR, True D/N, UTC, Motorized 2.8~12mm IR Lens



## FEATURES:

- ◆ Full HD 1080p Resolution
- ◆ 2.8~12mm Motorized IR Lens
- ◆ True 120dB Wide Dynamic Range
- ◆ True D/N Mechanical IR Cut Filter
- ◆ Joystick & UTC Controllable OSD
- ◆ TVI & 960H Main Video Outputs
- ◆ Video Test Output/Cable (960H)
- ◆ Sense-up / Slow Shutter Speed
- ◆ 12VDC/24VAC Dual Voltage Power
- ◆ 3D Digital Noise Reduction
- ◆ 24 IR LED's / 120' IR Range
- ◆ 3-Axis Wall or Ceiling Mountable
- ◆ Included Back Box with 3/4" Conduit
- ◆ Single/Double Gang Box Mountable
- ◆ 1/3" 2MP CMOS Sensor
- ◆ IP66 Weatherproof / UL/CUL Certified

## INCLUDED ACCESSORIES:

User Manual, Mounting Hardware Packet, Video Test Cable, L-Style Wrench, Mounting Template.

## OPTIONAL MOUNTING ACCESSORIES:

**DPC140** - Pendent Cap



**WMTS** - Wall Mount  
(Requires DPC140)



**PMT** - Pole Mount  
(Requires WMTS)



**CMR2** - Recessed  
Ceiling Mount



SPECIFICATION	TVIMDIR120
Image Sensor	2MP Progressive Scan CMOS
Active Pixels	1944(H)*1092(V)
Resolution	1920 x 1080 (1080p) / 1280 x 720 (720p)
Scanning System	Progressive Scan
OSD (On Screen Display)	UTC Controlled (coaxial control)
True WDR (Wide Dynamic Range)	120dB
3D Digital Noise Reduction	2DNR + 3DNR (Adjustable)
Video Output	HD-TVI & 960H BNC Video Connectors
Lens Type - Motorized	True Day Night, IR Type, 2.8~12mm @ F1.4 (103° - 32.1° FOV)
Sense-up	Auto (x2 ~ x32 Adjustable) / OFF
Shutter Speed	Auto / FLK / 1/30s ~ 1/50,000s
IR Cut Filter	Yes - Built in Mechanical
Minimum Illumination	0.014 Lux @ (F1.4, AGC ON), 0 Lux with IR
IR LED Count / Range	24 IR LED's / 120' / 850nm
S/N Ratio	More than 62dB
Automatic Gain Control	(0~15) Adjustable
Sync System	Internal Synchronization
White Balance	ATW / AWC-SET / MANUAL
Back Light Compensation	BLC / HSBLC / OFF / WDR
HSBLC	4 Zone (Adjustable)
Day/Night	Color/BW/EXT
Mirror	Mirror / V-Flip / Rotate / Off
Digital Zoom	(x2 ~ x62) Adjustable
Languages	English/ Japanese/ CHN1/ CHN2/ Korean/ German/ French/ Italian/ Spanish/ Polish/ Russian/ Portuguese/ Dutch/ Turkish/ Hebrew/ Arabic
Brightness	(1~100) Adjustable
Motion Detection	On/Off, Maximum 4 zones
Privacy Mask	On/Off, Maximum 8 zones
Power Input	12 VDC±15%, 24 VAC±15%
Power Requirement	Max 12W
Overall Camera Dimensions	Ø 145.3 x 124.2 mm (Ø 5.72" x 4.89")
Weight	Approx 1.95lb / 880g
Operating Temperature	-30°C ~ 60°C (-22°F ~ 140°F)
Weatherproof Rating	IP 66
Certifications	UL / CUL Certified

## HD-TVI/960H, 1080p Indoor Dome Camera

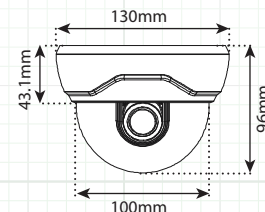
DWDR, True D/N, UTC, 2.8~12mm IR Lens

### FEATURES:

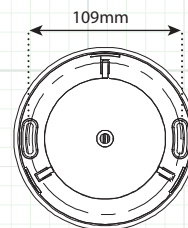
- ◆ Full HD 1080p Resolution
- ◆ HD-TVI & 960H Selectable Main Output
- ◆ 12VDC/24VAC Dual Voltage Power
- ◆ Sony Progressive Scan CMOS
- ◆ True Day/Night Mechanical IR Cut Filter
- ◆ Digital Wide Dynamic Range
- ◆ 3-Axis Wall or Ceiling Mountable
- ◆ White & Black Housing Covers Included
- ◆ Sense-up / Slow Shutter Speed
- ◆ UTC & Joystick Controllable OSD
- ◆ 3D Digital Noise Reduction
- ◆ 2.8 ~ 12mm Varifocal Auto Iris Lens
- ◆ Video Test Output & Cable (960H)
- ◆ Manual 360° Horizontal Rotation
- ◆ Lined Dome Cover
- ◆ Included Wall Mount

### INCLUDED ACCESSORIES:

User Manual, Mounting Hardware Packet, Video Test Cable, Wall Mount, White Housing Cover.



Dimensions



SPECIFICATION	TVID212
Image Sensor	1/2.9" Sony CMOS Sensor
Total Pixels	2010 (H) x 1108 (V)
Active Pixels	1944 (H) x 1092 (V)
Resolution	Digital: 1920 x 1080 (1080p), 1280 x 720 (720p) / Analog: 700TVL
Scanning System	Progressive Scan
OSD (Dual Access On Screen Display)	Internal Joystick Controlled / UTC (coaxial control)
Digital WDR (Wide Dynamic Range)	High / Middle / Low / OFF
3D DNR (Digital Noise Reduction)	High / Middle / Low / OFF
Video Output	HD-TVI & 960H Selectable Main Output, 960H Video Test Port
Lens Type - True Day Night	2.8 ~ 12mm Varifocal Auto Iris Lens
Sense-up	OFF / x2 - x8
Shutter Speed	Auto / Manual (1/30 ~ 1/60,000)
IR Cut Filter	Built-In Mechanical
Minimum Illumination	Color 0.002 Lux, B/W 0.001
S/N Ratio	More than 50dB (AGC OFF)
Automatic Gain Control	0 ~ 20 Steps
Sync System	Internal / External (L/L)
Gamma	$\gamma = 0.45$ typ.
White Balance	Auto / Autoext / Manual
Back Light Compensation	BLC (H/V Position & Size) / OFF
HLC (High Light Compensation)	ON / OFF
Day/Night	Auto_CDS / Color / B&W
Mirror	Rotate / V-Flip / H-Flip / Off
Digital Zoom	ON / OFF (x1 ~ x8)
Languages	English / French / Spanish / German / Italian
Brightness	Adjustable 0 ~ 20
Motion Detection	ON / OFF
Privacy Mask	ON / OFF (16 Zone Selectable)
Power Input	12VDC/24VAC Dual Voltage Power
Power Requirement	Max 300mA
Reverse Polarity Protection	Yes
Overall Camera Dimensions	5.2" (W) x 3.8" (H)
Weight	Approx. 1.1lb
Operating Temperature	14°F ~ 122°F
Weatherproof Rating	Indoor Only

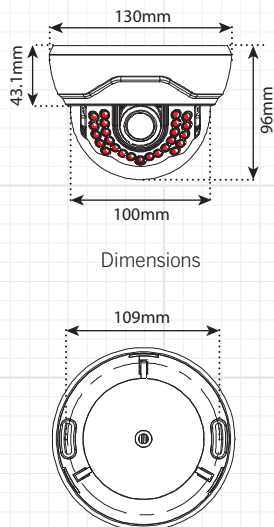


TVID212  
Shown with Wall Mount  
(included)



TVID212  
Shown with White Cover  
(included)

# **HD-TVI/960H, 1080p Indoor 82' IR Dome Camera** **DWDR, True D/N, UTC, 2.8~12mm IR Lens**



## **FEATURES:**

- ◆ Full HD 1080p Resolution
- ◆ HD-TVI & 960H Selectable Main Output
- ◆ 12VDC/24VAC Dual Voltage Power
- ◆ Sony Progressive Scan CMOS
- ◆ True Day/Night Mechanical IR Cut Filter
- ◆ Digital Wide Dynamic Range
- ◆ 3-Axis Wall or Ceiling Mountable
- ◆ White & Black Housing Covers Included
- ◆ Sense-up / Slow Shutter Speed
- ◆ UTC & Joystick Controllable OSD
- ◆ 3D Digital Noise Reduction
- ◆ 24 IR LED's / 82' IR Range
- ◆ 2.8 ~ 12mm Varifocal Auto Iris Lens
- ◆ Video Test Output & Cable (960H)
- ◆ Manual 360° Horizontal Rotation
- ◆ Lined Dome Cover
- ◆ Included Wall Mount

## **INCLUDED ACCESSORIES:**

User Manual, Mounting Hardware Packet, Video Test Cable, Wall Mount, White Housing Cover.



TVID212IR  
Shown with Wall Mount  
(included)



TVID212IR  
Shown with White Cover  
(included)

SPECIFICATION	TVID212IR
Image Sensor	1/2.9" Sony CMOS Sensor
Total Pixels	2010 (H) x 1108 (V)
Active Pixels	1944 (H) x 1092 (V)
Resolution	Digital: 1920 x 1080 (1080p), 1280 x 720 (720p) / Analog: 700TVL
Scanning System	Progressive Scan
OSD (Dual Access On Screen Display)	Internal Joystick Controlled / UTC (coaxial control)
Digital WDR (Wide Dynamic Range)	High / Middle / Low / OFF
3D DNR (Digital Noise Reduction)	High / Middle / Low / OFF
Video Output	HD-TVI & 960H Selectable Main Output, 960H Video Test Port
Lens Type - True Day Night	2.8 ~ 12mm Varifocal Auto Iris IR Lens
Sense-up	OFF / x2 - x8
Shutter Speed	Auto / Manual (1/30 ~ 1/60,000)
IR Cut Filter	Built-In Mechanical
Minimum Illumination	Color 0.002 Lux, B/W 0.001
IR LED Count / Range	24 IR LED's / 82' IR Range - 850nm
S/N Ratio	More than 50dB (AGC OFF)
Automatic Gain Control	0 ~ 20 Steps
Sync System	Internal / External (L/L)
Gamma	y = 0.45 typ.
White Balance	Auto / Autoext / Manual
Back Light Compensation	BLC (H/V Position & Size) / OFF
HLC (High Light Compensation)	ON / OFF
Day/Night	Auto_CDS / Color / B&W
Mirror	Rotate / V-Flip / H-Flip / Off
Digital Zoom	ON / OFF (x1 ~ x8)
Languages	English / French / Spanish / German / Italian
Brightness	Adjustable 0 ~ 20
Motion Detection	ON / OFF
Privacy Mask	ON / OFF (16 Zone Selectable)
Power Input	12VDC/24VAC Dual Voltage Power
Power Requirement	Max 600mA w/ IR LED
Reverse Polarity Protection	Yes
Overall Camera Dimensions	5.2" (W) x 3.8" (H)
Weight	Approx. 1.1lb
Operating Temperature	14°F ~ 122°F
Weatherproof Rating	Indoor Only

## HD-TVI/960H, 1080p Outdoor Dome Camera

DWDR, True D/N, UTC, 2.8~12mm IR Lens

### FEATURES:

- ◆ Full HD 1080p Resolution
- ◆ HD-TVI & 960H Selectable Main Output
- ◆ 12VDC/24VAC Dual Voltage Power
- ◆ Sony Progressive Scan CMOS
- ◆ True Day/Night Mechanical IR Cut Filter
- ◆ Digital Wide Dynamic Range
- ◆ Tamper Resistant / IP68 Weatherproof
- ◆ 3-Axis Wall or Ceiling Mountable
- ◆ White Paintable Snap-on Cover Included
- ◆ Sense-up / Slow Shutter Speed
- ◆ UTC & Joystick Controllable OSD
- ◆ 3D Digital Noise Reduction
- ◆ 2.8 ~ 12mm Varifocal Auto Iris Lens
- ◆ Video Test Output & Cable (960H)
- ◆ Manual 360° Horizontal Rotation

### INCLUDED ACCESSORIES:

User Manual, Mounting Hardware Packet, Video Test Cable, L-Style Wrench, White Paintable Snap-on Cover.

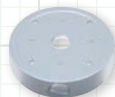
TVIDTW212  
Shown with White Paintable  
Snap-on Cover (included)



### OPTIONAL MOUNTING ACCESSORIES:

#### DTWBB

Silver Back Box



#### DTWBBW

White Back Box



#### DTWWMT

Silver Wall Mount

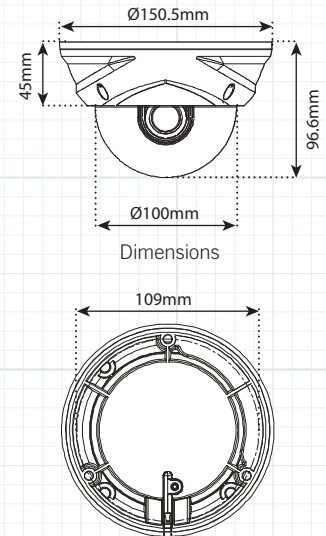


#### DTWWMTW

White Wall Mount



TVIDTW212

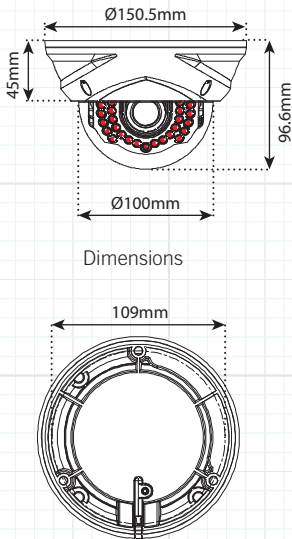


SPECIFICATION	TVIDTW212
Image Sensor	1/2.9" Sony CMOS Sensor
Total Pixels	2010 (H) x 1108 (V)
Active Pixels	1944 (H) x 1092 (V)
Resolution	Digital: 1920 x 1080 (1080p), 1280 x 720 (720p) / Analog: 700TVL
Scanning System	Progressive Scan
OSD (On Screen Display)	Dual OSD Access: Internal Joystick Controlled / UTC (coaxial control)
Digital WDR (Wide Dynamic Range)	High / Middle / Low / OFF
3D DNR (Digital Noise Reduction)	High / Middle / Low / OFF
Video Output	HD-TVI & 960H Selectable Main Output, 960H Video Test Port
Lens Type - True Day Night	2.8 ~ 12mm Varifocal Auto Iris IR Lens
Sense-up	OFF / x2 - x8
Shutter Speed	Auto / Manual (1/30 ~ 1/60,000)
IR Cut Filter	Built-In Mechanical
Minimum Illumination	Color 0.002 Lux, B/W 0.001
S/N Ratio	More than 50dB (AGC OFF)
Automatic Gain Control	0 ~ 20 Steps
Sync System	Internal / External (L/L)
Gamma	y = 0.45 typ.
White Balance	Auto / Autoext / Manual
Back Light Compensation	BLC (H/V Position & Size) / OFF
HLC (High Light Compensation)	ON / OFF
Day/Night	Auto_CDS / Color / B&W
Mirror	Rotate / V-Flip / H-Flip / Off
Digital Zoom	ON / OFF (x1 ~ x8)
Languages	English / French / Spanish / German / Italian
Brightness	Adjustable 0 ~ 20
Motion Detection	ON / OFF
Privacy Mask	ON / OFF (16 Zone Selectable)
Power Input	12VDC/24VAC Dual Voltage Power
Power Requirement	Max 300mA
Reverse Polarity Protection	Yes
Overall Camera Dimensions	5.9" (W) x 3.8" (H)
Weight	Approx. 2.0lb
Operating Temperature	-20°F ~ 122°F
Weatherproof Rating	IP 68



## HD-TVI/960H, 1080p Outdoor 82' IR Dome Camera

DWDR, True D/N, UTC, 2.8~12mm IR Lens



TVIDTW212IR

SPECIFICATION	TVIDTW212IR
Image Sensor	1/2.9" Sony CMOS Sensor
Total Pixels	2010 (H) x 1108 (V)
Active Pixels	1944 (H) x 1092 (V)
Resolution	Digital: 1920 x 1080 (1080p), 1280 x 720 (720p) / Analog: 700TVL
Scanning System	Progressive Scan
OSD (On Screen Display)	Dual OSD Access: Internal Joystick Controlled / UTC (coaxial control)
Digital WDR (Wide Dynamic Range)	High / Middle / Low / OFF
3D DNR (Digital Noise Reduction)	High / Middle / Low / OFF
Video Output	HD-TVI & 960H Selectable Main Output, 960H Video Test Port
Lens Type - True Day Night	2.8 ~ 12mm Varifocal Auto Iris IR Lens
Sense-up	OFF / x2 - x8
Shutter Speed	Auto / Manual (1/30 ~ 1/60,000)
IR Cut Filter	Built-In Mechanical
Minimum Illumination	Color 0.002 Lux, B/W 0.001
IR LED Count / Range	24 IR LED's / 82' IR Range - 850nm
S/N Ratio	More than 50dB (AGC OFF)
Automatic Gain Control	0 ~ 20 Steps
Sync System	Internal / External (L/L)
Gamma	$\gamma = 0.45$ typ.
White Balance	Auto / Autoext / Manual
Back Light Compensation	BLC (H/V Position & Size) / OFF
HLC (High Light Compensation)	ON / OFF
Day/Night	Auto_CDS / Color / B&W
Mirror	Rotate / V-Flip / H-Flip / Off
Digital Zoom	ON / OFF (x1 ~ x8)
Languages	English / French / Spanish / German / Italian
Brightness	Adjustable 0 ~ 20
Motion Detection	ON / OFF
Privacy Mask	ON / OFF (16 Zone Selectable)
Power Input	12VDC/24VAC Dual Voltage Power
Power Requirement	Max 600mA w/ IR LED
Reverse Polarity Protection	Yes
Overall Camera Dimensions	5.9" (W) x 3.8" (H)
Weight	Approx. 2.0lb
Operating Temperature	-20°F ~ 122°F
Weatherproof Rating	IP 68

### FEATURES:

- ◆ Full HD 1080p Resolution
- ◆ HD-TVI & 960H Selectable Main Output
- ◆ 12VDC/24VAC Dual Voltage Power
- ◆ Sony Progressive Scan CMOS
- ◆ True Day/Night Mechanical IR Cut Filter
- ◆ Digital Wide Dynamic Range
- ◆ Tamper Resistant / IP68 Weatherproof
- ◆ 3-Axis Wall or Ceiling Mountable
- ◆ White Paintable Snap-on Cover Included
- ◆ Sense-up / Slow Shutter Speed
- ◆ UTC & Joystick Controllable OSD
- ◆ 3D Digital Noise Reduction
- ◆ 24 IR LED's / 82' IR Range
- ◆ 2.8 ~ 12mm Varifocal Auto Iris Lens
- ◆ Video Test Output & Cable (960H)
- ◆ Manual 360° Horizontal Rotation

### INCLUDED ACCESSORIES:

User Manual, Mounting Hardware Packet, Video Test Cable, L-Style Wrench, White Paintable Snap-on Cover.

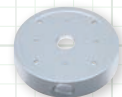
TVIDTW212  
Shown with White Paintable  
Snap-on Cover (included)



### OPTIONAL MOUNTING ACCESSORIES:

#### DTWBB

Silver Back Box



#### DTWBBW

White Back Box



#### DTWWMT

Silver Wall Mount



#### DTWWMTW

White Wall Mount



## HD-TVI/960H, 1080p Outdoor 65' IR Bullet Camera

True WDR, True D/N, UTC, 3.6mm IR Lens

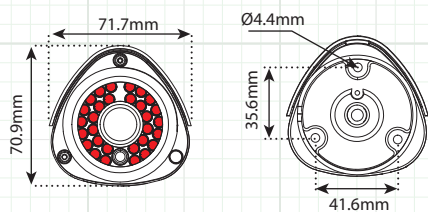
### FEATURES:

- ◆ Full HD 1080P Resolution
- ◆ True 120dB Wide Dynamic Range
- ◆ True Day/Night Mechanical IR Cut Filter
- ◆ 3.6mm Fixed Focal IR Lens
- ◆ Sense-up / Slow Shutter Speed
- ◆ TVI & 960H Main Video Outputs
- ◆ UTC Controllable OSD
- ◆ 12 Volt DC Power
- ◆ 3D Digital Noise Reduction
- ◆ 36 LED's / 65' IR Range
- ◆ Cable Management Mount
- ◆ 1/3" 2MP CMOS Sensor
- ◆ IP66 Weatherproof
- ◆ UL/CUL Certified

### INCLUDED ACCESSORIES:

User Manual, Mounting Hardware Packet, Mounting Template.

### CAMERA OVERVIEW:



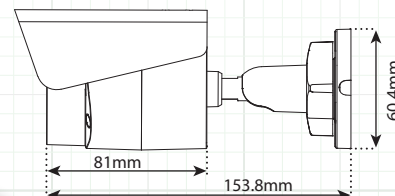
Front View & Mounting Configuration

### OPTIONAL MOUNTING ACCESSORIES:

**BBXS** - Back Box



**PMT** - Pole Mount  
(Requires BBXS)

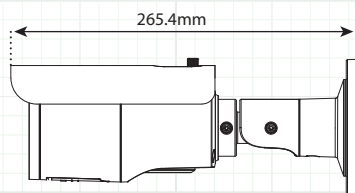


Side View & Dimensions

SPECIFICATION	TVIBIR65
Image Sensor	2MP Progressive Scan CMOS
Active Pixels	1944(H)*1092(V)
Resolution	1920 x 1080 (1080p) / 1280 x 720 (720p)
Scanning System	Progressive Scan
OSD (On Screen Display)	UTC Controlled (coaxial control)
True WDR (Wide Dynamic Range)	120dB
3D Digital Noise Reduction	2DNR + 3DNR (Adjustable)
Video Output	HD-TVI & 960H BNC Video Connectors
Lens Type - True Day Night	IR Type, 3.6mm (82.6° FOV)
Sense-up	Auto (x2 ~ x32 Adjustable) / OFF
Shutter Speed	Auto / FLK / 1/30s ~ 1/50,000s
IR Cut Filter	Yes - Built in Mechanical
Minimum Illumination	0.01 Lux @(F1.2,AGC ON), 0 Lux with IR
IR LED Count / Range	36 IR LED's / 65' / 850nm
S/N Ratio	More than 62dB
Automatic Gain Control	(0-15) Adjustable
Sync System	Internal Synchronization
White Balance	ATW / AWC-SET / MANUAL
Back Light Compensation	BLC / HSBLC / OFF / WDR
HSBLC	4 Zone (Adjustable)
Day/Night	Color/BW/EXT
Mirror	Mirror / V-Flip / Rotate / Off
Digital Zoom	(x2 ~ x62) Adjustable
Languages	English/ Japanese/ CHN1/ CHN2/ Korean/ German/ French/ Italian/ Spanish/ Polish/ Russian/ Portuguese/ Dutch/ Turkish/ Hebrew/ Arabic
Brightness	(1-100) Adjustable
Motion Detection	On/Off, Maximum 4 zones
Privacy Mask	On/Off, Maximum 8 zones
Power Input	12 VDC ±15%
Power Requirement	Max 4W
Overall Camera Dimensions	Ø70x149.5 mm (Ø2.76" x5.89")
Weight	Approx 0.79lb / 360g
Operating Temperature	-30°C ~ 60°C (-22°F ~ 140°F)
Weatherproof Rating	IP 66
Certifications	UL / CUL Certified

# HD-TVI/960H, 1080p Outdoor 100' IR Bullet Camera

## True WDR, True D/N, UTC, Motorized 2.8~12mm IR Lens



Side View &amp; Dimensions



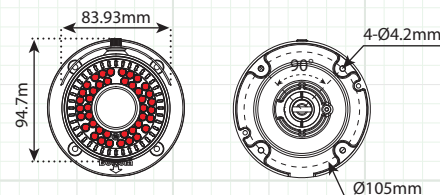
### FEATURES:

- ◆ Full HD 1080p Resolution
- ◆ 2.8~12mm Motorized IR Lens
- ◆ True 120dB Wide Dynamic Range
- ◆ True D/N Mechanical IR Cut Filter
- ◆ Joystick & UTC Controllable OSD
- ◆ Easy Access OSD Hatch
- ◆ TVI & 960H Main Video Outputs
- ◆ Video Test Output/Cable (960H)
- ◆ Sense-up / Slow Shutter Speed
- ◆ 12VDC/24VAC Dual Voltage Power
- ◆ 3D Digital Noise Reduction
- ◆ 42 IR LED's / 120' IR Range
- ◆ Built-in Heater / -40° Operating Temp.
- ◆ 3-Axis Cable Management Mount
- ◆ 1/3" 2MP CMOS Sensor
- ◆ IP66 Weatherproof
- ◆ UL/CUL Certified

### INCLUDED ACCESSORIES:

User Manual, Mounting Hardware Packet, Video Test Cable, L-Style Wrench, Mounting Template.

### CAMERA OVERVIEW:



### OPTIONAL MOUNTING ACCESSORIES:

**BB130** - Back Box



**PMT** - Pole Mount  
(Requires BB130)



SPECIFICATION	TVIMBIR120
Image Sensor	2MP Progressive Scan CMOS
Active Pixels	1944(H)*1092(V)
Resolution	1920 x 1080 (1080p) / 1280 x 720 (720p)
Scanning System	Progressive Scan
OSD (On Screen Display)	UTC Controlled (coaxial control)
True WDR (Wide Dynamic Range)	120dB
3D Digital Noise Reduction	2DNR + 3DNR (Adjustable)
Video Output	HD-TVI & 960H BNC Video Connectors
Lens Type - Motorized	True Day Night, IR Type, 2.8~12mm @ F1.4 (103° - 32.1° FOV)
Sense-up	Auto (x2 ~ x32 Adjustable) / OFF
Shutter Speed	Auto / FLK / 1/30s ~ 1/50,000s
IR Cut Filter	Yes - Built in Mechanical
Minimum Illumination	0.014 Lux @ (F1.4, AGC ON), 0 Lux with IR
IR LED Count / Range	42IR LED's / 100' / 850nm
S/N Ratio	More than 62dB
Automatic Gain Control	(0~15) Adjustable
Sync System	Internal Synchronization
White Balance	ATW / AWC-SET / MANUAL
Back Light Compensation	BLC / HSBLC / OFF / WDR
HSBLC	4 Zone (Adjustable)
Day/Night	Color/BW/EXT
Mirror	Mirror / V-Flip / Rotate / Off
Digital Zoom	(x2 ~ x62) Adjustable
Languages	English/ Japanese/ CHN1/ CHN2/ Korean/ German/ French/ Italian/ Spanish/ Polish/ Russian/ Portuguese/ Dutch/ Turkish/ Hebrew/ Arabic
Brightness	(1~100) Adjustable
Motion Detection	On/Off, Maximum 4 zones
Privacy Mask	On/Off, Maximum 8 zones
Power Input	12 VDC±15%, 24 VAC±15%
Power Requirement	Max 12W
Overall Camera Dimensions	Ø70x149.5 mm (Ø2.76" x5.89")
Weight	Approx 0.79lb / 360g
Operating Temperature	-40 °C ~ 60 °C (-40 °F ~ 140 °F)
Heater	Built-in
Weatherproof Rating	IP 66
Certifications	UL / CUL Certified

## HD-TVI/960H, 1080p Outdoor 300' IR Bullet Camera

True WDR, True D/N, UTC, Motorized-Autofocus 5~50mm IR Lens

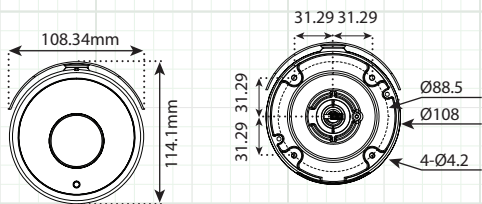
### FEATURES:

- ◆ True 120dB Wide Dynamic Range
- ◆ 5~50mm Motorized Autofocus IR Lens
- ◆ True D/N Mechanical IR Cut Filter
- ◆ Joystick & UTC Controllable OSD
- ◆ Easy Access OSD Hatch
- ◆ TVI & 960H Main Video Outputs
- ◆ Video Test Output/Cable (960H)
- ◆ 12VDC/24VAC Dual Voltage Power
- ◆ 300' IR Range / 4 High Power LED's
- ◆ Sense-up / Slow Shutter Speed
- ◆ 3D Digital Noise Reduction
- ◆ Built-in Heater/-40° Operating Temperature
- ◆ 3-Axis Cable Management Mount
- ◆ 1/3" 2MP CMOS Sensor
- ◆ IP66 Weatherproof
- ◆ UL/CUL Certified

### INCLUDED ACCESSORIES:

User Manual, Mounting Hardware Packet, Video Test Cable, L-Style Wrench, Mounting Template.

### CAMERA OVERVIEW:



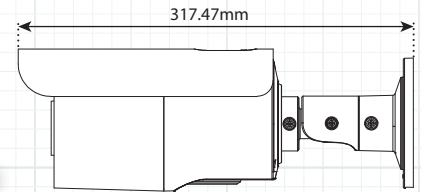
Front View & Mounting Configuration

### OPTIONAL MOUNTING ACCESSORIES:

**BB130** - Back Box



**PMT** - Pole Mount  
(Requires BB130)



Side View & Dimensions



SPECIFICATION	TVIAFBIR300
Image Sensor	2MP Progressive Scan CMOS
Active Pixels	1944(H)*1092(V)
Resolution	1920 x 1080 (1080p)
Scanning System	Progressive Scan
OSD (On Screen Display)	UTC (Coaxial Control) / Joystick (Access Door on Camera)
True WDR (Wide Dynamic Range)	120dB
3D Digital Noise Reduction	2DNR + 3DNR (Adjustable)
Video Output	HD-TVI & 960H BNC Video Connectors
Lens Type - Auto Focus Motorized	True Day Night, IR Type, 5~50mm (50.9° ~ 6.2° FOV)
Sense-up	Auto (x2 ~ x13 Adjustable) / OFF
Shutter Speed	Iris / Manual (1/30s ~ 1/30,000s)
IR Cut Filter	Yes - Built in Mechanical
Minimum Illumination	0.01Lux @ (F1.2, AGC ON), 0 Lux with IR
IR LED Count / Range	4 EXIR LED / 300' / 850nm
S/N Ratio	62dB
Automatic Gain Control	(0~15) Adjustable
Sync System	Internal Synchronization
White Balance	ATW / AWC-SET / MANUAL
Back Light Compensation	BLC / HSBLC / OFF / WDR
HSBLC	4 Zone (Adjustable)
Day/Night	Trigger / Auto / Color /
Mirror	Mirror / V-Flip / Rotate / Off
Digital Zoom	(x2 ~ x62) Adjustable
Languages	English, French
Brightness	(1~14) Adjustable
Motion Detection	On/Off, Maximum 4 zones
Privacy Mask	On/Off, Maximum 8 zones
Power Input	12 VDC ±10%, 24 VAC±15%
Power Requirement	Max 20W
Overall Camera Dimensions	318x109x114mm (12.5" x 4.25" x 4.5")
Weight	3.09 Lb.
Operating Temperature	-40°C ~ 60°C (-40°F ~ 140°F)
Heater	Built-in
Weatherproof Rating	IP 66
Certifications	UL / CUL Certified



# HD-TVI/960H, 1080p Outdoor 50' IR License Plate Capture Camera

DWDR, True D/N, UTC, 9-22mm IR Lens



In-Line  
Cable Mounted  
OSD Control



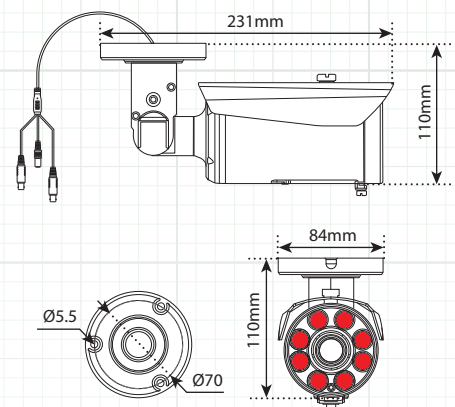
## FEATURES:

- ◆ Full HD 1080p Resolution
- ◆ 9-22mm Auto Iris IR Lens
- ◆ Digital Wide Dynamic Range
- ◆ True Day/Night Mechanical IR Cut Filter
- ◆ 8 High Power LED's
- ◆ 50' Plate Capture Range
- ◆ 44 MPH Plate Capture Speed
- ◆ Easy Access Hatch for Lens Adjustments
- ◆ UTC Controllable OSD
- ◆ TVI & 960 Video Outputs
- ◆ Sense-up / Slow Shutter Speed
- ◆ 12VDC/24VAC Dual Voltage Power
- ◆ 3D Digital Noise Reduction
- ◆ 3-Axis Cable Management Mount
- ◆ 1/2.9" Sony CMOS Sensor
- ◆ IP66 Weatherproof
- ◆ 14°~32° V / 8°~35° H Viewing Angle

## INCLUDED ACCESSORIES:

User Manual, Mounting Hardware Packet, L-Style Wrench, Mounting Template.

## CAMERA OVERVIEW:



Front View & Mounting Configuration

SPECIFICATION	TVILPCAM
Image Sensor	1/2.9" Sony CMOS Sensor
Total Pixels	1984 x 1225
Active Pixels	1920 x 1080
Resolution	1920 x 1080 (1080p)
Scanning System	Progressive Scan
OSD (On Screen Display)	UTC Controlled (coaxial control – TVI only)
Digital WDR (Wide Dynamic Range)	Auto / Off / On (0 ~ 8 Adjustable)
DNR (Digital Noise Reduction)	2D & 3D (Off / Low / Middle / High)
Video Output	Dual Pigtail HD-TVI Main Output (Black) / 960H Main Output (Yellow)
Lens Type - True Day Night	9 ~ 22mm Varifocal Auto Iris IR Lens
Sense-up	Off / x2 ~ x30
Shutter Speed	Auto, FLK, 1/30 ~ 1/50,000, x2 ~ x30
IR Cut Filter	Built in Mechanical
Minimum Illumination	0.0 Lux IR LED On
IR LED Count / Range	8 Super IR LED's / 50' Range / 850nm
Plate Capture Viewing Angle	14° ~ 32° Vertical / 8° ~ 35° Horizontal
Plate Capture Speed	44 MPH
Plate Capture Range	Up to 50'
S/N Ratio	More than 52dB
Automatic Gain Control	0 ~ 15 Adjustable
Sync System	Internal
Gamma Characteristics	$\gamma = 0.45$ typ.
White Balance	ATW / AWC->Set / Indoor / Outdoor / Manual
Back Light Compensation	Off / BLC / HSBLC
HBLC (High Back Light Compensation)	On / Off 4-Zone, Level & Mode Adjustable
Day/Night	EXT / Auto / Color / B/W
Mirror	Mirror / V-Flip / Rotate / Off
Languages	English, French, Spanish, German, Italian (see OSD Menu for more)
Brightness	0 ~ 100 Adjustable
Motion Detection	On/Off (4 Zone Selectable)
Privacy Mask	On/Off (4 Zone Selectable)
Power Input	12VDC/24VAC +/- 10% Dual Voltage Power
Power Requirement	400mA / 900mA IR LED ON
Overall Camera Dimensions	9.1" x 3.3" x 4.3" (231mm x 84mm x 110mm)
Housing / Color	Aluminum - White
Weight	1.6 Lb.
Operating Temperature	-22°F ~ 122°F
Weatherproof Rating	IP66

## HD-TVI/960H, 1080p Outdoor 395' IR PTZ Camera

DWDR, True D/N, UTC, 30X Optical Zoom

### FEATURES:

- ◆ Full HD 1080P Resolution
- ◆ TVI & 960H Main Video Outputs
- ◆ 30X (4~120mm) Optical Zoom Level
- ◆ Digital Wide Dynamic Range
- ◆ UTC & RS485 Controllable
- ◆ Included 24VAC Power Supply
- ◆ 360° Endless Panning
- ◆ True D/N Mechanical IR Cut Filter
- ◆ 6 High Power IR LED's / 395' IR Range
- ◆ 8 Programmable Privacy Masks
- ◆ 256 Preset Positions
- ◆ 8 Patrols With up to 32 Presets Each
- ◆ Pelco P & D Protocols
- ◆ IP66 Weatherproof
- ◆ Built in Heater & Fan
- ◆ -22°F Operating Temperature
- ◆ 1/3" 2MP CMOS Sensor
- ◆ UL/CUL Certified



TVIPTZ30XIR

### INCLUDED ACCESSORIES:

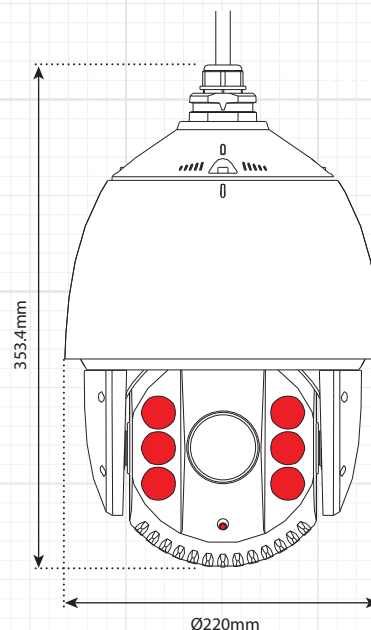
Quick Guide, L-Style Wrench, 1½" Pipe Thread Adapter (Male), 24 Volt AC Power Supply.

### OPTIONAL MOUNTING ACCESSORIES:

**IPTVIWMT** - Wall Mount  
for TVIPTZ30XIR



**IPTVIJB** - Junction Box  
for IPTVIWMT



Dimensions

# TVIPTZ30XIR Specifications

	SPECIFICATION	TVIPTZ30XIR
Camera	Image Sensor	1/3" CMOS
	Image Resolution	2 Megapixel, 1920×1080 Max
	Frame Rate	50Hz:25fps(1920×1080) / 60Hz:30fps(1920×1080)
	Min. Illumination	Color: 0.02 Lux@(F1.6,AGC ON) B/W: 0.002 Lux@(F1.6,AGC ON) / 0 Lux with IR
	White Balance	Auto / Manual / ATW / Indoor / Outdoor
	AGC	Auto / Manual
	S/N Ratio	≥ 50dB
	3D DNR	Support
	Backlight Compensation	Support
	WDR	Digital WDR
	Shutter Time	PAL: 1-1/10,000s / NTSC: 1-1/10,000s
	True Day & Night	IR Cut Filter
	Digital Zoom	16x
	Privacy Mask	8 Programmable Privacy Masks
	Focus Mode	Auto / Semiautomatic / Manual
	Focus Mode	Auto / Semiautomatic / Manual
Lens	Focal Length	4-120mm, 30X
	Zoom Speed	Approx.3.0s(Optical Wide-Tele)
	Angle of View	58-1.7 degree(Wide-Tele)
	Min. Working Distance	10-1500mm (Wide-Tele)
	Aperture	F1.6~F4.4
Pan & Tilt	Pan Range	360° endless
	Pan Speed	Pan Manual Speed: 0.1°-160°/s, Pan Preset Speed: 240°/s
	Tilt Range	-15°-90° (Auto Flip )
	Tilt Speed	Tilt Manual Speed: 0.1°-120°/s, Tilt Preset Speed: 200°/s
	Proportional Zoom	Rotation Speed Adjusted Automatically According to Zoom
	Number of Preset	256
	Patrol	8 Patrols, up to 32 Presets per Patrol
	Pattern	4 Patterns, with the Total Recording Time not Less than 10 minutes
	Power-off Memory	Support
	Park Action	Preset / Patrol / Pattern / Pan Scan / Tilt Scan / Frame Scan / Random Scan / Panorama Scan
	Scheduled Task	Preset / Patrol / Pattern / Pan Scan / Tilt Scan / Frame Scan / Random Scan / Panorama Scan
	PTZ Position Display	On / Off
	Preset Freezing	Support
	RS-485 comm.Diagnosis	Support
IR	IR Distance	395'
	IR Intensity	Automatically Adjusted, Depending on the Zoom Ratio
Input / Output	Video Output	1 BNC HD-TVI 1080p Output
	RS-485 Interface	Half-Duplex, Self-adaptive HIKVISION, Pelco-P, Pelco-D Protocol
	UTC Function	HIKVISION_C (*Need UTC Controller if DVR Does not Support UTC Function)
General	Menu Language	English, Chinese
	Power	24VAC Max. 30W(IR: 9W, Heater: 6W)
	OperatingTemperature	-30°C ~ 65°C(-22°F ~ 149°F) - Humidity '90% or less
	Protection Level	IP66 - TVS 4,000V Lightning, Surge and Voltage Transient Protection
	Dimensions	Ø220×353.4mm (Ø8.66"×13.91")
	Certifications	UL / CUL
	Weight (approx.)	4.5kg(9.92 lbs)

## HD-TVI/960H, 1080p Indoor Box Camera

True WDR, True D/N, UTC

### FEATURES:

- ◆ Full HD 1080p Resolution
- ◆ TVI & 960H Video Outputs
- ◆ Accepts C/CS Lenses (Lens sold Separately)
- ◆ True Wide Dynamic Range
- ◆ True D/N Mechanical IR Cut Filter
- ◆ Joystick & UTC Controllable OSD
- ◆ Sense-up / Slow Shutter Speed
- ◆ 12VDC/24VAC Dual Voltage Power
- ◆ 3D Digital Noise Reduction
- ◆ Alarm In-Out / RS-485
- ◆ Top & Bottom Mounting Holes
- ◆ 1/3" - 2MP CMOS Sensor
- ◆ Indoor Only
- ◆ UL/CUL Certified

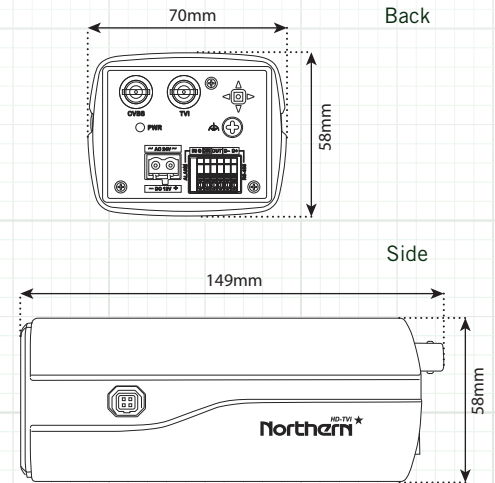
### INCLUDED ACCESSORIES:

User Manual, C-CS Mounting Adapter, Power Connector.

### OPTIONAL MOUNTING ACCESSORIES:

Metal Dual Option Camera Mounts

**MCM6W** - White Camera Mount with Wall/Ceiling & T-Bar Mount



SPECIFICATION	TVIBXWDR
Image Sensor	2MP 1/3" Progressive Scan CMOS
Active Pixels	1920(H)*1080(V)
Resolution	1920 x 1080 (1080p) / 1280 x 720 (720p)
Scanning System	Progressive Scan
OSD (On Screen Display)	Back Panel Joystick / UTC Controlled (coaxial control)
True WDR (Wide Dynamic Range)	120dB
3D Digital Noise Reduction	2DNR + 3DNR (Adjustable)
Video Output	HD-TVI & 960H BNC Video Connections
Lens Type	Accepts C/CS Mount (CS Adapter Included)
Sense-up	Auto (x2 ~ x32 Adjustable) / OFF
Shutter Speed	Auto / FLK / 1/30s ~ 1/50,000s
IR Cut Filter	Yes - Built in Mechanical
Minimum Illumination	Color: 0.01 Lux @ (F1.2, AGC ON) / B&W: 0.001 Lux @ (F1.2, AGC ON)
S/N Ratio	More than 52dB
Automatic Gain Control	(0~15) Adjustable
Sync System	Internal Synchronization
White Balance	ATW / AWC-SET / MANUAL
Back Light Compensation	BLC / HSBLC / OFF / WDR
HSBLC	4 Zone (Adjustable)
Day/Night	Color / BW / EXT
Mirror	Mirror / V-Flip / Rotate / Of
Digital Zoom	(x2 ~ x62) Adjustable
Languages	English/ Japanese/ CHN1/ CHN2/ Korean/ German/ French/ Italian Spanish/ Polish/ Russian/ Portuguese/ Dutch/ Turkish/ Hebrew/ Arabic
Brightness	(1~100) Adjustable
Motion Detection	On/Off, Maximum 4 Zones
Privacy Mask	On/Off, Maximum 8 Zones
Alarm	1-In / 1-Out
RS-485	Yes
Power Input	12 VDC±15%, 24 VAC±15%
Power Requirement	Max. 4.5W
Overall Camera Dimensions	70 x 58 x 149 mm (2.7" x 2.3" x 5.85")
Weight	Approx 0.9lb / 400g
Operating Temperature	-10°C ~ 60°C (-14°F ~ 140°F)
Weatherproof Rating	Indoor Only
Certifications	UL / CUL Certified
SPECIFICATION	MCM6W
Max Load	10 lbs
Construction	METAL
Height	6"
Base Size	.5" x Ø1.5"
Weight	.8 LBS
Swivel Angle	360°
Tilt Angle	210°

Note: Specification subject to change without notice



## High Quality Varifocal Auto-Iris Megapixel **IR** Lenses

### VF2812IRMP3 – 1/2.7" - 3 Megapixel 2.8~12mm Varifocal IR Lens

#### FEATURES:

- ◆ 3MP Resolution
- ◆ 2.8 ~ 12mm Varifocal
- ◆ IR Corrective
- ◆ CS Mounting
- ◆ DC Driven Auto Iris
- ◆ Composite Body
- ◆ Full Glass Elements



SPECIFICATION	VF2812IRMP3		
Megapixel Resolution	3MP		
Focal Length	2.8 ~ 12mm		
Aperture	F1.4		
Auto Iris	Yes - DC Driven		
IR Corrective	Yes		
Mounting	CS		
Format	1/2.7"		
Lens Body	Composite		
Lense Structure	8 Groups / 8 Elements		
Field of View	Diagonal	Horizontal	Vertical
	127° ~ 40°	112° ~ 35°	59° ~ 19°
Dimensions (w/Auto Iris)	43mm (H) x 40mm (W)		
Barrel Diameter	28mm		
Weight	0.1lb		

Note: Specification subject to change without notice

### VF550IRMP2 – 1/3" - 2 Megapixel 5~50mm Varifocal IR Lens

#### FEATURES:

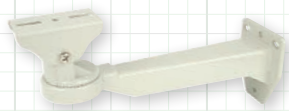
- ◆ 2MP Resolution
- ◆ 5 ~ 50mm Varifocal
- ◆ IR Corrective
- ◆ CS Mounting
- ◆ DC Driven Auto Iris
- ◆ All Metal Body
- ◆ Full Glass Elements



SPECIFICATION	VF550IRMP2		
Megapixel Resolution	2MP		
Focal Length	5 ~ 50mm		
Aperture	F1.6		
Auto Iris	Yes - DC Driven		
IR Corrective	Yes		
Mounting	CS		
Format	1/3"		
Lens Body	Metal		
Lense Structure	8 Groups/12 Elements		
Field of View	Diagonal	Horizontal	Vertical
	63° ~ 6°	55° ~ 5°	31° ~ 3°
Dimensions (w/Auto Iris)	70mm (H) x 50mm (W)		
Barrel Diameter	39mm		
Weight	0.25lb		

## Outdoor Wall Mount & Housing With Heater Blower

### OCHWMT Wall Mount for OCH Camera Housing



#### FEATURES:

- ◆ Heavy Duty Aluminum Construction
- ◆ For Use With OCH2 Outdoor Housing

SPECIFICATION	OCHWMT
Construction	Heavy Duty Aluminum
Max Load	12 LBS
Finish	Beige
Dimension – Length	11.2"
Dimension – Base	3.8" x 3.3"
Weight	1.8 LBS
Swivel Angle	Pan 360° / 7.5° Increments
Tilt Angle	Tilt 90° / 6° Increments

### OCH2 Camera Housing with Heater/Blower



#### FEATURES:

- ◆ 24VAC Heater/ Blower
- ◆ Lockable Clasp ◆ Weatherproof IP65

SPECIFICATION	OCH2
Construction	Heavy-Duty Aluminum
Finish	Beige
Dimension [l x w x h]	15.25" x 5.6" x 4.2"
Max Camera Size [l x w x h]	11.81" x 3.93" x 3.14"
Weight	3.5 LBS
Heater Control	59° on / 77° off
Blower Control	104° on / 77° off
Current Draw	Heater & Blower ~ 450ma

## 4-in-1, 1080p Outdoor 60' IR Eyeball Cameras

### DWDR, True D/N, UTC, 3.6mm IR Lens

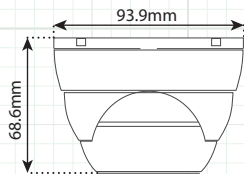
#### FEATURES:

- ◆ Multi Format (TVI, CVI, AHD, 960H)
- ◆ Full HD 1080p Resolution
- ◆ True Day/Night Mechanical IR Cut Filter
- ◆ Digital Wide Dynamic Range
- ◆ 3-Axis Wall or Ceiling Mountable
- ◆ Sense-up / Slow Shutter Speed
- ◆ UTC & Joystick Controllable OSD
- ◆ 12 Volt DC Power
- ◆ 3D Digital Noise Reduction
- ◆ 12 IR LED's / 60' IR Range
- ◆ 3.6mm Fixed Focal Lens
- ◆ 1/3" Sony CMOS Sensor
- ◆ IP66 Weatherproof

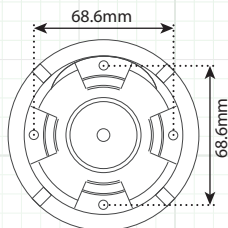
#### INCLUDED ACCESSORIES:

User Manual, Mounting Screws.

#### CAMERA OVERVIEW:



Camera Dimensions



Side View / Bottom View  
& Mounting Configuration



In-Line  
Cable Mounted  
OSD Control

SPECIFICATION	HDDWMIR	HDDWMIRW
Image Sensor	1/3" Sony CMOS Sensor	
Total Pixels	1984 x 1225	
Active Pixels	1920 x 1080	
Resolution	1920 x 1080 (1080p)	
Scanning System	Progressive Scan	
OSD (On Screen Display)	Dual OSD Access: Cable Mounted Joystick Controlled / UTC Controlled (coaxial control)	
Digital WDR (Wide Dynamic Range)	Auto / Off / On - 0 ~ 8 Adjustable	
DNR (Digital Noise Reduction)	2D & 3D, Low, Middle, High, Off	
Video Output	Dual Pigtail HD-TVI Main Output (yellow) / 960H Secondary Output (black)	
Lens Type - True Day Night	3.6mm Fixed Focal Lens	
Sense-up	Off / x2 ~ x30	
Shutter Speed	Auto, FLK, 1/30 ~ 1/50,000, x2 ~ x30	
IR Cut Filter	Built in Mechanical	
Minimum Illumination	0.0 Lux IR LED On	
IR LED Count / Range	12 IR LED's / 60' Range / 850nm	
S/N Ratio	More than 50dB	
Automatic Gain Control	0 ~100 Adjustable	
Sync System	Internal	
Gamma Characteristics	γ = 0.45 typ.	
White Balance	ATW / AWC->Set / Indoor / Outdoor / Manual	
Back Light Compensation	Off / BLC / HSBLC	
HBLC (High Back Light Compensation)	On / Off	
Day/Night	EXT / Auto / Color / B/W	
Mirror	Mirror / V-Flip / Rotate / Off	
Languages	English, French, Spanish, German, Italian (see OSD Menu for more)	
Brightness	0 ~100 Adjustable	
Motion Detection	On/Off (4 Zone Selectable)	
Privacy Mask	On/Off (4 Zone Selectable)	
Power Input	12VDC Only	
Power Requirement	120mA / 450mA IR LED ON	
Overall Camera Dimensions	3.7" x 2.6" (95mm x 65mm)	
Housing / Color	Aluminum - Gray	Aluminum - White
Weight	.75 Lb.	
Operating Temperature	-14°F ~ 122°F	
Weatherproof Rating	IP66	

## 4-in-1, 1080p Outdoor 90' IR Eyeball Cameras

DWDR, True D/N, UTC, 2.8~12mm IR Lens



In-Line  
Cable Mounted  
OSD Control



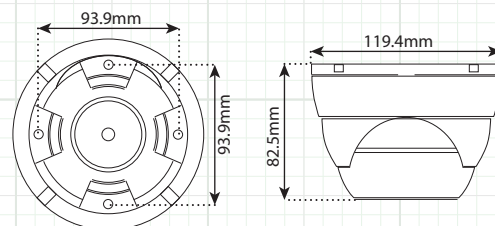
### FEATURES:

- ◆ Multi Format (TVI, CVI, AHD, 960H)
- ◆ Full HD 1080p Resolution
- ◆ True Day/Night Mechanical IR Cut Filter
- ◆ Digital Wide Dynamic Range
- ◆ 3-Axis Wall or Ceiling Mountable
- ◆ Sense-up / Slow Shutter Speed
- ◆ UTC & Joystick Controllable OSD
- ◆ 12 Volt DC Power
- ◆ 3D Digital Noise Reduction
- ◆ 18 IR LED's / 90' IR Range
- ◆ 2.8 ~ 12mm Varifocal Lens
- ◆ 1/3" Sony CMOS Sensor
- ◆ IP66 Weatherproof

### INCLUDED ACCESSORIES:

User Manual, Mounting Screws.

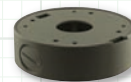
### CAMERA OVERVIEW:



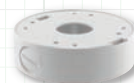
Side View / Bottom View  
& Mounting Configuration

### OPTIONAL MOUNTING ACCESSORIES:

DWMVFBB - Gray Back Box



DWMVFBBW - White Back Box



SPECIFICATION	HDDWMVFIR	HDDWMVFIRW
Image Sensor	1/3" Sony CMOS Sensor	
Total Pixels	1984 x 1225	
Active Pixels	1920 x 1080	
Resolution	1920 x 1080 (1080p)	
Scanning System	Progressive Scan	
OSD (On Screen Display)	Dual OSD Access: Cable Mounted Joystick Controlled / UTC Controlled (coaxial control)	
Digital WDR (Wide Dynamic Range)	Auto / Off / On - 0 ~ 8 Adjustable	
DNR (Digital Noise Reduction)	2D & 3D, Low, Middle, High, Off	
Video Output	Dual Pigtail HD-TVI Main Output (yellow) / 960H Secondary Output (black)	
Lens Type - True Day Night	2.8 12mm Varifocal Lens	
Sense-up	Off / x2 ~ x30	
Shutter Speed	Auto, FLK, 1/30 ~ 1/50,000, x2 ~ x30	
IR Cut Filter	Built in Mechanical	
Minimum Illumination	0.0 Lux IR LED On	
IR LED Count / Range	18 IR LED's / 90' Range / 850nm	
S/N Ratio	More than 50dB	
Automatic Gain Control	0 ~100 Adjustable	
Sync System	Internal	
Gamma Characteristics	$\gamma = 0.45$ typ.	
White Balance	ATW / AWC->Set / Indoor / Outdoor / Manual	
Back Light Compensation	Off / BLC / HSBLC	
HBLC (High Back Light Compensation)	On / Off	
Day/Night	EXT / Auto / Color / B/W	
Mirror	Mirror / V-Flip / Rotate / Off	
Languages	English, French, Spanish, German, Italian (see OSD Menu for more)	
Brightness	0 ~100 Adjustable	
Motion Detection	On/Off (4 Zone Selectable)	
Privacy Mask	On/Off (4 Zone Selectable)	
Power Input	12VDC Only	
Power Requirement	180mA / 550mA IR LED ON	
Overall Camera Dimensions	4.7" x 3.4" (120mm x 88mm)	
Housing / Color	Aluminum - Gray	Aluminum - White
Weight	1.6 Lb.	
Operating Temperature	-14°F ~ 122°F	
Weatherproof Rating	IP66	

## 4-in-1, 1080p Outdoor 60' IR Eyeball Camera

DWDR, True D/N, UTC, 2.5mm IR Lens w/ 150° FOV

### FEATURES:

- ◆ 1/2.9" Sony CMOS Sensor
- ◆ Multi Format (TVI, CVI, AHD, 960H)
- ◆ Full HD 1080p Resolution
- ◆ 2.5mm/150° FOV Ultra Wide Angle Lens
- ◆ 24 IR LED's / 60' IR Range
- ◆ True Day/Night Mechanical IR Cut Filter
- ◆ Digital Wide Dynamic Range
- ◆ Cable & UTC OSD Control
- ◆ 3-Axis Wall or Ceiling Mountable
- ◆ Sense-up / Slow Shutter Speed
- ◆ 3D Digital Noise Reduction
- ◆ 12 Volt DC power / IP66 Weatherproof

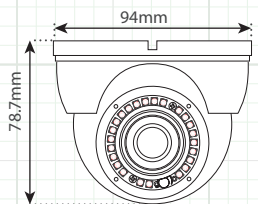


In-Line  
Cable Mounted  
OSD Control

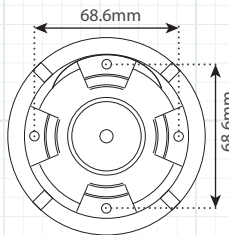
### INCLUDED ACCESSORIES:

User Manual, Mounting Screws

### CAMERA OVERVIEW:



Side View / Front View  
& Mounting Configuration



SPECIFICATION	HDDWIDE
Image Sensor	1/2.9" Sony CMOS Sensor
Total Pixels	1984 x 1225
Active Pixels	1920 x 1080
Resolution	1920 x 1080 (1080p)
Scanning System	Progressive Scan
Dual OSD Control Access (On Screen Display)	Cable Mounted Joystick Controlled / UTC (coaxial) Controlled
Digital WDR (Wide Dynamic Range)	Auto / Off / On - 0 ~ 8 Adjustable
DNR (Digital Noise Reduction)	2D & 3D, Low, Middle, High, Of
Video Output	TVI, CVI, AHD & 960H Selectable via OSD Joystick
Lens Type - True Day Night	2.5mm Ultra-Wide Angle Fixed Lens (150° FOV)
Sense-up	Off / Auto (x2 ~ x30 Selectable)
Shutter Speed	Auto, FLK, 1/30 ~ 1/50,000, x2 ~ x30
IR Cut Filter	Built in Mechanical
Minimum Illumination	Color 1.0 Lux, B/W 0.5 Lux, IR LED ON 0.0 Lux
IR LED Count / Range	24 IR LED's / 60' Range / 850nm
S/N Ratio	More than 50dB
Automatic Gain Control	0 ~15 Adjustable
Sync System	Internal
Gamma Characteristics	$\gamma = 0.45$ typ
White Balance	AWB / ATW / AWC->Set / Indoor / Outdoor / Manual
Back Light Compensation	Off / BLC / HSBLC
HBLC (High Back Light Compensation)	On / Of
Day/Night	EXT / Auto / Color / B/W
Mirror	Mirror / V-Flip / Rotate / Of
Languages	English, French, Spanish, German, Italian (see OSD Menu for more)
Brightness	0 ~100 Adjustable
Motion Detection	On/Off (4 Zone Selectable)
Privacy Mask	On/Off (4 Zone Selectable)
Power Input	12VDC Only
Power Requirement	130mA / 350mA IR LED ON
Overall Camera Dimensions	3.76"(W) x 3.15"(H) (70mm x 80mm)
Housing / Color	Aluminum / White
Weight	.89 Lb.
Operating Temperature	-14°F ~ 122°F
Weatherproof Rating	IP66





# HDBWIDE

## 4-in-1, 1080p Outdoor Bullet Camera DWDR, True D/N, UTC, 2.5mm IR Lens w/ 150° FOV



In-Line  
Cable Mounted  
OSD Control



### FEATURES:

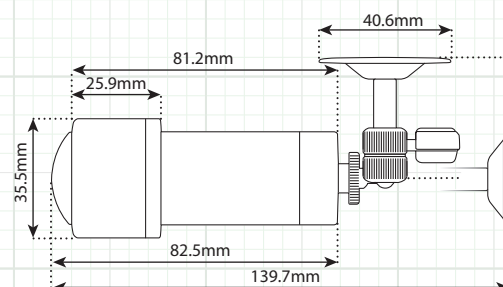
- ◆ 1/2.9" Sony CMOS Sensor
- ◆ Multi Format (TVI, CVI, AHD, 960H)
- ◆ Full HD 1080p Resolution
- ◆ 2.5mm/150° FOV Ultra Wide Angle Lens
- ◆ Digital Wide Dynamic Range
- ◆ Cable & UTC OSD Control
- ◆ Sense-up / Slow Shutter Speed
- ◆ 3D Digital Noise Reduction
- ◆ 12 Volt DC power / IP66 Weatherproof

SPECIFICATION	HDBWIDE
Image Sensor	1/2.9" Sony CMOS Sensor
Total Pixels	1984 x 1225
Active Pixels	1920 x 1080
Resolution	1920 x 1080 (1080p)
Scanning System	Progressive Scan
Dual OSD Control Access (On Screen Display)	Cable Mounted Joystick Controlled / UTC (coaxial) Controlled
Digital WDR (Wide Dynamic Range)	Auto / Off / On - 0 ~ 8 Adjustable
DNR (Digital Noise Reduction)	2D & 3D, Low, Middle, High, Of
Video Output	TVI, CVI, AHD & 960H Selectable via OSD Joystick
Lens Type - True Day Night	2.5mm Ultra-Wide Angle Fixed Lens (150° FOV)
Sense-up	Off / Auto (x2 ~ x30 Selectable)
Shutter Speed	Auto, FLK, 1/30 ~ 1/50,000, x2 ~ x30
Minimum Illumination	Color 1.0 Lux, B/W 0.5 Lux
S/N Ratio	More than 50dB
Automatic Gain Control	0 ~15 Adjustable
Sync System	Internal
Gamma Characteristics	$\gamma = 0.45$ typ
White Balance	AWB / ATW / AWC->Set / Indoor / Outdoor / Manual
Back Light Compensation	Off / BLC / HSBLC
HBLC (High Back Light Compensation)	On / Of
Day/Night	EXT / Auto / Color / B/W
Mirror	Mirror / V-Flip / Rotate / Of
Languages	English, French, Spanish, German, Italian (see OSD Menu for more)
Brightness	0 ~100 Adjustable
Motion Detection	On/Off (4 Zone Selectable)
Privacy Mask	On/Off (4 Zone Selectable)
Power Input	12VDC Only
Power Requirement	130mA
Overall Camera Dimensions	3.2"(W) x 1.4"(H) (80mm x 37mm)
Housing / Color	Aluminum / Black
Weight	.35 Lb.
Operating Temperature	-14°F ~ 122°F
Weatherproof Rating	IP66

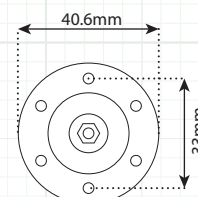
### INCLUDED ACCESSORIES:

User Manual, Mounting Screws, Camera Bracket

### CAMERA OVERVIEW:



Side View / Bottom View  
& Mounting Configuration



## 4-in-1, 1080p Outdoor 60' IR Bullet Camera

DWDR, True D/N, UTC, 3.6mm IR Lens

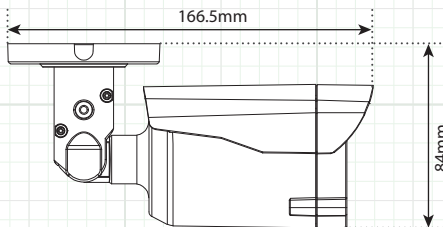
### FEATURES:

- ◆ Multi Format (TVI, CVI, AHD, 960H)
- ◆ Full HD 1080p Resolution
- ◆ 18 IR LED's / 60' IR Range
- ◆ True Day/Night Mechanical IR Cut Filter
- ◆ Digital Wide Dynamic Range
- ◆ Cable Management Mount
- ◆ Sense-up / Slow Shutter Speed
- ◆ UTC & Joystick Controllable OSD
- ◆ 12 Volt DC Power
- ◆ 3D Digital Noise Reduction
- ◆ 1/2.9" Sony CMOS Sensor
- ◆ 3.6mm Fixed Focal Lens
- ◆ IP66 Weatherproof

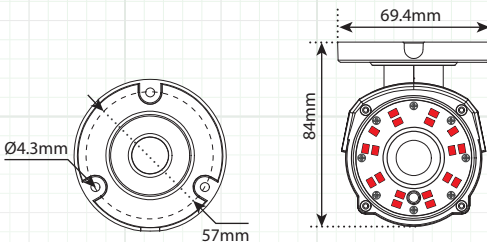
### INCLUDED ACCESSORIES:

User Manual, Mounting Screws, Camera Bracket

### CAMERA OVERVIEW:



Side View / Front View  
& Mounting Configuration



In-Line  
Cable Mounted  
OSD Control

SPECIFICATION	HDBIR60
Image Sensor	1/2.9" CMOS Sensor
Total Pixels	1984 x 1225
Active Pixels	1920 x 1080
Resolution	1920 x 1080 (1080p)
Scanning System	Progressive Scan
OSD (On Screen Display)	Dual OSD Access: Cable Mounted Joystick Controlled / UTC Controlled (coaxial control)
Digital WDR (Wide Dynamic Range)	Auto / Off / On - 0 ~ 8 Adjustable
DNR (Digital Noise Reduction)	2D & 3D, Low, Middle, High, Off
Video Output	TVI, CVI, AHD & 960H (Selectable via OSD Joystick)
Lens Type - True Day Night	3.6mm Fixed Lens
Sense-up	Off / Auto (x2 ~ x30 Selectable)
Shutter Speed	Auto, FLK, 1/30 ~ 1/50,000, x2 ~ x30
IR Cut Filter	Built in Mechanical
Minimum Illumination	Color 0.1 Lux, B/W 0.05 Lux, IR LED ON 0.0 Lux
IR LED Count / Range	18 IR LED's / 60' Range / 850nm
S/N Ratio	More than 52dB
Automatic Gain Control	0 ~15 Adjustable
Sync System	Internal
Gamma Characteristics	$\gamma = 0.45$ typ
White Balance	AWB / ATW / AWC->Set / Indoor / Outdoor / Manual
Back Light Compensation	Off / BLC / HSBLC
HBLC (High Back Light Compensation)	On / Off
Day/Night	EXT / Auto / Color / B/W
Mirror	Mirror / V-Flip / Rotate / Of
Languages	English, French, Spanish, German, Italian (see OSD Menu for more)
Brightness	0 ~100 Adjustable
Motion Detection	On/Off (4 Zone Selectable)
Privacy Mask	On/Off (4 Zone Selectable)
Power Input	12VDC Only
Power Requirement	150mA /550mA IR LED ON
Overall Camera Dimensions	6.6" x 2.7" x 3.3" (167mm x 70mm x 84mm)
Housing / Color	Aluminum - White
Weight	1.1lb
Operating Temperature	-14°F ~ 122°F
Weatherproof Rating	IP66

## 4-in-1, 1080p Outdoor 120' IR Bullet Camera

DWDR, True D/N, UTC, 2.8~12mm IR Lens



In-Line  
Cable Mounted  
OSD Control



SPECIFICATION	HDBVFIR120
Image Sensor	1/2.9" CMOS Sensor
Total Pixels	1984 x 1225
Active Pixels	1920 x 1080
Resolution	1920 x 1080 (1080p)
Scanning System	Progressive Scan
OSD (On Screen Display)	Dual OSD Access: Cable Mounted Joystick Controlled / UTC Controlled (coaxial control)
Digital WDR (Wide Dynamic Range)	Auto / Off / On - 0 ~ 8 Adjustable
DNR (Digital Noise Reduction)	2D & 3D, Low, Middle, High, Off
Video Output	TVI, CVI, AHD & 960H (Selectable via OSD Joystick)
Lens Type - True Day Night	2.8 ~ 12mm Varifocal Lens
Sense-up	Off / Auto (x2 ~ x30 Selectable)
Shutter Speed	Auto, FLK, 1/30 ~ 1/50,000, x2 ~ x30
IR Cut Filter	Built in Mechanical
Minimum Illumination	Color 0.1 Lux, B/W 0.05 Lux, IR LED ON 0.0 Lux
IR LED Count / Range	30 IR LED's / 120' Range / 850nm
S/N Ratio	More than 52dB
Automatic Gain Control	0 ~15 Adjustable
Sync System	Internal
Gamma Characteristics	$\gamma = 0.45$ typ
White Balance	AWB / ATW / AWC->Set / Indoor / Outdoor / Manual
Back Light Compensation	Off / BLC / HSBLC
HBLC (High Back Light Compensation)	On / Off
Day/Night	EXT / Auto / Color / B/W
Mirror	Mirror / V-Flip / Rotate / Of
Languages	English, French, Spanish, German, Italian (see OSD Menu for more)
Brightness	0 ~100 Adjustable
Motion Detection	On/Off (4 Zone Selectable)
Privacy Mask	On/Off (4 Zone Selectable)
Power Input	12VDC Only
Power Requirement	150mA /550mA IR LED ON
Overall Camera Dimensions	9.1" x 3.3" x 4.3" (231mm x 84mm x 110mm)
Housing / Color	Aluminum - White
Weight	1.6lb
Operating Temperature	-14°F ~ 122°F
Weatherproof Rating	IP66

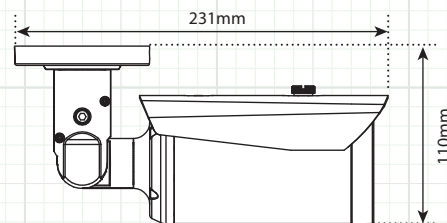
### FEATURES:

- ◆ Multi Format (TVI, CVI, AHD, 960H)
- ◆ Full HD 1080p Resolution
- ◆ 30 IR LED's / 120' IR Range
- ◆ True Day/Night Mechanical IR Cut Filter
- ◆ Digital Wide Dynamic Range
- ◆ Cable Management Mount
- ◆ Sense-up / Slow Shutter Speed
- ◆ UTC & Joystick Controllable OSD
- ◆ 12 Volt DC Power
- ◆ 3D Digital Noise Reduction
- ◆ 1/2.9" Sony CMOS Sensor
- ◆ 2.8 ~ 12mm Varifocal Lens
- ◆ IP66 Weatherproof

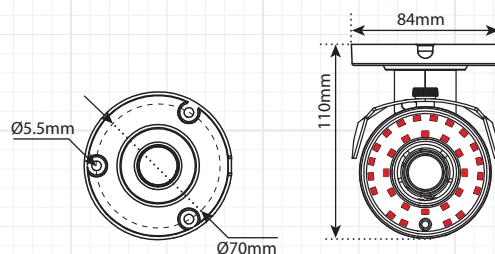
### INCLUDED ACCESSORIES:

User Manual, Mounting Screws, Camera Bracket

### CAMERA OVERVIEW:



Side View / Front View  
& Mounting Configuration



## 4-in-1, 1080p Indoor Mini-Cased Cameras

DWDR, UTC, 3.6mm or 3.7mm Cone Pinhole Lens

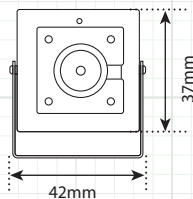
### FEATURES:

- ◆ Multi Format (TVI, CVI, AHD, 960H)
- ◆ Full HD 1080p Resolution
- ◆ 3.6mm Standard Lens (HDMC)
- ◆ 3.7mm Cone Pinhole Lens (HDMCCP)
- ◆ Sense-up / Slow Shutter Speed
- ◆ UTC & Joystick Controllable OSD
- ◆ 12 Volt DC Power
- ◆ 3D Digital Noise Reduction
- ◆ 1/2.9" Sony CMOS Sensor
- ◆ Indoor Only

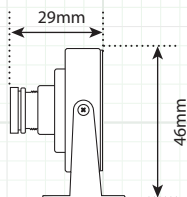
### INCLUDED ACCESSORIES:

User Manual, Mounting Screws, Camera Bracket

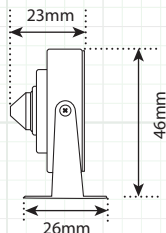
### CAMERA OVERVIEW:



Side View / Front View  
& Mounting Configuration



HDMC



HDMCCP



In-Line  
Cable Mounted  
OSD Control



HDMC



HDMCCP

SPECIFICATION	HDMC	HDMCCP
Image Sensor	1/2.9" CMOS Sensor	
Total Pixels	1984 x 1225	
Active Pixels	1920 x 1080	
Resolution	1920 x 1080 (1080p)	
Scanning System	Progressive Scan	
OSD (On Screen Display)	Dual OSD Access: Cable Mounted Joystick Controlled UTC Controlled (coaxial control)	
Digital WDR (Wide Dynamic Range)	Auto / Off / On - 0 ~ 8 Adjustable	
DNR (Digital Noise Reduction)	2D & 3D, Low, Middle, High, Off	
Video Output	TVI, CVI, AHD & 960H Selectable via Cable OSD Joystick	
Lens - IR Type	3.6mm Standard Lens	3.7mm Cone Pinhole Lens
Sense-up	Off / Auto (x2 ~ x30 Selectable)	
Shutter Speed	Auto, FLK, 1/30 ~ 1/50,000, x2 ~ x30	
Minimum Illumination	Color 1.0 Lux, B/W 0.5 Lux	
S/N Ratio	More than 52dB	
Automatic Gain Control	0 ~15 Adjustable	
Sync System	Internal	
Gamma Characteristics	$\gamma = 0.45$ typ	
White Balance	AWB / ATW / AWC->Set / Indoor / Outdoor / Manual	
Back Light Compensation	Off / BLC / HSBLC	
HBLC (High Back Light Compensation)	On / Off	
Day/Night	EXT / Auto / Color / B/W	
Mirror	Mirror / V-Flip / Rotate / Off	
Languages	English, French, Spanish, German, Italian (see OSD Menu for more)	
Brightness	0 ~100 Adjustable	
Motion Detection	On/Off (4 Zone Selectable)	
Privacy Mask	On/Off (4 Zone Selectable)	
Power Input	12VDC Only	
Power Requirement	100mA	
Overall Camera Dimensions	37 x 37 x 30mm 1.5" x 1.5" x 1.2"	37 x 37 x 23mm 1.5" x 1.5" x 0.9"
Housing / Color	Aluminum / Black	
Weight	0.2lb	
Operating Temperature	14°F ~ 122°F	
Weatherproof Rating	Indoor Only	



## 4-in-1, 1080p Indoor PIR Camera DWDR, UTC, 3.7mm Cone Pinhole Lens



In-Line  
Cable Mounted  
OSD Control



Non-functioning PIR Detector

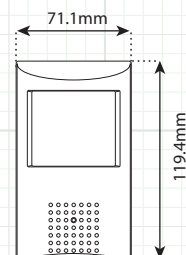
### FEATURES:

- ◆ Multi Format (TVI, CVI, AHD, 960H)
- ◆ Full HD 1080p Resolution
- ◆ 3.7mm Cone Pinhole Lens
- ◆ Sense-up / Slow Shutter Speed
- ◆ UTC & Joystick Controllable OSD
- ◆ 12 Volt DC Power
- ◆ 3D Digital Noise Reduction
- ◆ 1/2.9" Sony CMOS Sensor
- ◆ Indoor Only

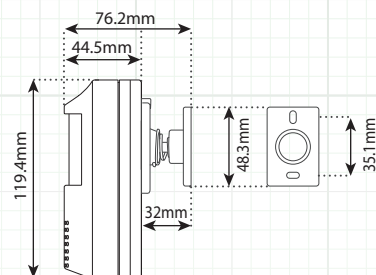
### INCLUDED ACCESSORIES:

User Manual, Mounting Screws, Camera Bracket.

### CAMERA OVERVIEW:



Side View / Front View  
& Mounting Configuration



SPECIFICATION	HDPIR
Image Sensor	1/2.9" CMOS Sensor
Total Pixels	1984 x 1225
Active Pixels	1920 x 1080
Resolution	1920 x 1080 (1080p)
Scanning System	Progressive Scan
OSD (On Screen Display)	Dual OSD Access: Cable Mounted Joystick Controlled UTC Controlled (coaxial control)
Digital WDR (Wide Dynamic Range)	Auto / Off / On - 0 ~ 8 Adjustable
DNR (Digital Noise Reduction)	2D & 3D, Low, Middle, High, Off
Video Output	TVI, CVI, AHD & 960H Selectable via Cable OSD Joystick
Lens - IR Type	3.7mm Cone Pinhole Lens
Sense-up	Off / Auto (x2 ~ x30 Selectable)
Shutter Speed	Auto, FLK, 1/30 ~ 1/50,000, x2 ~ x30
Minimum Illumination	Color 1.0 Lux, B/W 0.5 Lux
S/N Ratio	More than 52dB
Automatic Gain Control	0 ~15 Adjustable
Sync System	Internal
Gamma Characteristics	$\gamma = 0.45$ typ
White Balance	AWB / ATW / AWC->Set / Indoor / Outdoor / Manual
Back Light Compensation	Off / BLC / HSBLC
HBLC (High Back Light Compensation)	On / Off
Day/Night	EXT / Auto / Color / B/W
Mirror	Mirror / V-Flip / Rotate / Off
Languages	English, French, Spanish, German, Italian (see OSD Menu for more)
Brightness	0 ~100 Adjustable
Motion Detection	On/Off (4 Zone Selectable)
Privacy Mask	On/Off (4 Zone Selectable)
Power Input	12VDC Only
Power Requirement	100mA
Overall Camera Dimensions	120 x 71x 76mm / 4.7" x 2.8" x 3"
Housing / Color	Aluminum / Black
Weight	0.3lb
Operating Temperature	14°F ~ 122°F
Weatherproof Rating	Indoor Only

# LED10 / LED18 / LED22

## Security Rated Widescreen LED Monitors

### FEATURES:

- ◆ 10" to 32" Diagonal Screen Sizes
- ◆ Widescreen Format
- ◆ Up to 1080p Resolution
- ◆ Super Fast Response Times
- ◆ High Contrast Ratios
- ◆ NTSC/PAL Auto Sensing
- ◆ HDMI & VGA Inputs
- ◆ Looping BNC Inputs
- ◆ PC Audio Inputs
- ◆ LED Backlight
- ◆ 3D Comb Filters
- ◆ 3D De-Interlace
- ◆ Low Power Consumption
- ◆ Full OSD Control of All Monitor Functions
- ◆ Vesa Mounting

### INCLUDED ACCESSORIES:

Remote Control (LED32 & "R" Models)  
HDMI & VGA Cables  
User Manual  
Power Supply (10", 18" & "R" Models)  
Power Cord



LED10



LED18



LED22

SPECIFICATION	LED10	LED18	LED22 / LED22R
Video System	NTSC/PAL (Auto Sensing)	NTSC/PAL (Auto Sensing)	NTSC/PAL (Auto Sensing)
Max Resolution	1280 x 800	1360 x 768	1920 x 1080
Supported Resolutions	720x400; 640x480; 800x600; 1024x768; 1280x800; 1920x1080	720x400; 640x480; 800x600; 1024x768; 1280x1024; 1360x768; 1920x1080	720x400; 640x480; 800x600; 1024x768; 1280x1024; 1360x768; 1440x900; 1600x900; 1680x1050; 1920x1080
3D Comb Filter	Yes	Yes	Yes
3D De-Interlace	Yes	Yes	Yes
OSD (On Screen Display)	Yes	Yes	Yes
Auto Adjustment	Yes	Yes	Yes
Backlight	LED (RGB)	LED (RGB)	LED (RGB)
Active Display Area	10.1" Diagonal	18.5" Diagonal	21.5" Diagonal
Impedence	75 OHM Self Terminating	75 OHM Self Terminating	75 OHM Self Terminating
Video Input Signals	HDMI, VGA, Composite BNC	HDMI, VGA, Composite BNC	HDMI, VGA, Composite BNC
Aspect Ratio	16:10	16:9	16:9
Pixel Pitch	0.17 (H) X 0.17 (V)	0.28 (H) X 0.28 (V)	0.25 (H) X 0.25 (V)
Color Depth	Over 16 Million Colors	Over 16 Million Colors	Over 16 Million Colors
Brightness	300 cd/m2	250 cd/m2	250 cd/m2
Contrast Ratio	800:1	2000:1	2000:1
Viewing Angle (H/V)	160°/160°	170°/160°	170°/160°
Response Time	5ms	5ms	5ms
Certificates	CE, FCC, (UL-Power Supply)	CE, FCC, (UL-Power Supply)	UL/CUL, CE, FCC
Languages	English, Spanish, German, Chinese, French, Italian	English, Spanish, German, Chinese, French, Italian	English, Spanish, German, Chinese, French, Italian
Input Voltage	12 Volt DC External P/S	12 Volt DC External P/S	100 ~ 240VAC Internal P/S
Power Supply	External	External	Internal / External
Power Consumption	< 15W	< 20W	<30W
Video Connections "R" Model Video Connections	HDMI, VGA, BNC In/Out	2x HDMI, VGA, BNC In/Out	HDMI, VGA, BNC 1 In, BNC 2 In/Out "R" Model: 2x HDMI, VGA, BNC, IN/OUT
Audio Connections	PC Audio (3.5mm)	PC Audio(3.5mm), Stereo RCA	PC Audio (3.5mm) / PC & Stereo RCA
Dimensions w/stand (H x W x D)	8.35" x 9.7" x 3.6"	13.42" x 17.8" x 7.3"	14.81" x 20.34" x 7.3"
Weight	3lb	5.51lb	8.75lb
Remote Control	N/A	N/A	N/A / Yes
Vesa Mounting	Vesa 75 x 75 & 1/4"-20	Vesa 100 x 100	Vesa 100 x 100
Operating Temperature	32° ~ 104°F	32° ~ 104°F	32° ~ 104°F

## Security Rated Widescreen LED Monitors

**OPTIONAL MOUNTING ACCESSORIES:** - See Page 49

- ◆ **LED10RACK2** – 19" Rack Mount For (2) LED10 Monitors
- ◆ **MONWM2** – Fully Adjustable Wall Mount
- ◆ **MONWM3** – Dual Arm Fully Adjustable Wall Mount



Two LED10 Monitors shown  
Mounted on LED10RACK2



LED24



LED27



LED32

SPECIFICATION	LED24 / LED24R	LED27 / LED27R	LED32 / LED32R
Video System	NTSC/PAL (Auto Sensing)	NTSC/PAL (Auto Sensing)	NTSC/PAL (Auto Sensing)
Max Resolution	1920 x 1080	1920 x 1080	1920 x 1080
Supported Resolutions	720x400; 640x480; 800x600; 1024x768; 1280x1024; 1360x768; 1440x900; 1600x900; 1680x1050; 1920x1080	720x400; 640x480; 800x600; 1024x768; 1280x1024; 1360x768; 1440x900; 1600x900; 1680x1050; 1920x1080	720x400; 640x480; 800x600; 1024x768; 1280x1024; 1360x768; 1440x900; 1600x900; 1680x1050; 1920x1080
3D Comb Filter	Yes	Yes	Yes
3D De-Interlace	Yes	Yes	Yes
OSD (On Screen Display)	Yes	Yes	Yes
Auto Adjustment	Yes	Yes	Yes
Backlight	LED (RGB)	LED (RGB)	LED (RGB)
Active Display Area	23.8" Diagonal	27" Diagonal	32" Diagonal
Impedence	75 OHM Self Terminating	75 OHM Self Terminating	75 OHM Self Terminating
Video Input Signals	HDMI, VGA, Composite BNC	HDMI, VGA, Composite BNC	HDMI, VGA, Composite BNC
Aspect Ratio	16:9	16:9	16:9
Pixel Pitch	0.275 (H) X 0.275 (V)	0.3 (H) X 0.3 (V)	0.364 (H) X 0.364 (v)
Color Depth	Over 16 Million Colors	Over 16 Million Colors	Over 16 Million Colors
Brightness	250 cd/m2	300 cd/m2	300 cd/m2
Contrast Ratio	1000:1	3000:1	3000:1
Viewing Angle (H/V)	178°/178°	170°/160°	178°/178°
Response Time	5ms	5ms	6.5ms
Certificates	UL/CUL, CE, FCC	CE, FCC, (UL-Power Supply)	UL/CUL, CE, FCC
Languages	English, Spanish, German, Chinese, French, Italian	English, Spanish, German, Chinese, French, Italian	English, Spanish, German, Chinese, French, Italian
Input Voltage	100 ~ 240VAC Internal P/S	12 Volt DC External P/S	100 ~ 240V AC Internal P/S
Power Supply	Internal / External	External	Internal / External
Power Consumption	<30W	<30W	<55W
Video Connections	HDMI, VGA, BNC 1 In, BNC 2 In/Out "R" Model: 2x HDMI, VGA, BNC, IN/OUT	HDMI, VGA, BNC 1 In, BNC 2 In/Out "R" Model: 2x HDMI, VGA, BNC, IN/OUT	HDMI, VGA, BNC 1 In, BNC 2 In/Out "R" Model: 2x HDMI, VGA, BNC, IN/OUT
Audio Connections	PC Audio (3.5mm) / PC & Stereo RCA	PC Audio (3.5mm) / PC & Stereo RCA	PC Audio (3.5mm) / PC & Stereo RCA
Dimensions w/stand (H x W x D)	16.02" x 22.7" x 7.3"	17.7" x 25.6" x 8.3"	20.63" x 29.13" x 7.75"
Weight	9.39lb	11.59lb	17.6 lb
Remote Control	N/A / Yes	N/A / Yes	Yes
Vesa Mounting	Vesa 100 x 100	Vesa 100 x 100	Vesa 200 x 100
Operating Temperature	32° ~ 104°F	32° ~ 104°F	32° ~ 104°F

# LED17ST / LED19ST

## Security Rated 5:4 Aspect LED Monitors

### FEATURES:

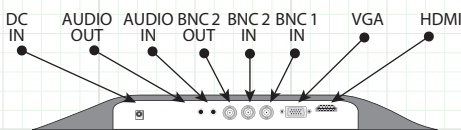
- ◆ 3D Comb Filter & 3D De-Interlace
- ◆ NTSC / PAL Auto Sensing
- ◆ Includes 6' HDMI & VGA Cables
- ◆ Up to 1280 x 1024 Resolution
- ◆ 3DNR (Digital Noise Reduction)
- ◆ HDMI & VGA Video Inputs
- ◆ Looping BNC Input
- ◆ Audio Inputs
- ◆ Super-Fast 5ms Response Time
- ◆ Full OSD Control of All Monitor Functions
- ◆ 5:4 Aspect Ratio
- ◆ Vesa Mounting



### INCLUDED ACCESSORIES:

User Manual, 6' HDMI Cable, 6' VGA Cable,  
12 Volt DC Power Supply / Power Cord

### REAR PANEL CONNECTIONS:



LED17ST / LED19ST

SPECIFICATION	LED17ST	LED19ST
Video System	NTSC/PAL (Auto Sensing)	
Max Resolution	1280 x 1024 (Native)	
Supported Resolutions	720x400; 640x480; 800x600; 1024x768; 1280x1024; 1920x1080 (Upscaled)	
Video Connections	HDMI, VGA, BNC 1 Input, BNC 2 Input/Output	
3D Comb Filter	Yes	
3D De-Interlace	Yes	
OSD (On Screen Display)	Yes	
Backlight	LED	
Active Display Area	< 20W	<30W
Impedance	HDMI, VGA, BNC In/Out	
Video Input Signals	PC Audio (3.5mm)	
Aspect Ratio	5:4	
Pixel Pitch	0.264 x 0.264 (mm)	
Color Depth	16.7 Million colors	
Brightness	220 cd/m2	250 cd/m2
Contrast Ratio	1000:1	
Viewing Angle (H/V)	170°/160°	178°/178°
Response Time	5ms	
Auto Adjustment	Yes	
Certificates	UL/CUL (Power Supply) CE, FCC	
Languages	English, Chinese, German, French, Spanish, Italian	
Input Voltage	12VDC UL/CUL External Power Supply Included	
Power Consumption	<25W	
Audio Connections	PC Audio	14.81" x 20.34" x 7.3"
Dimensions w/stand (HxWxD)	14.6" x 15.2" x 7.2"	16.2" x 16.5" x 7.2"
Weight	9.8lb	10.5lb
Vesa Mounting	100 x 100	
Operating temperature	32° ~ 104°F	



# MONWM2 / MONWM3 / LED10RACK2 / HD3TM

## LED10RACK2 / MONWM2 / MONWM3

### Wall Mounts For Flat Panel Monitors and Televisions

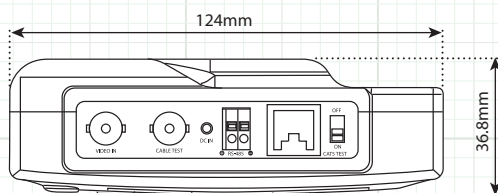


MONWM2

MONWM3



LED10RACK2



#### FEATURES (MON2/3):

- ◆ VESA 75 x 75mm & 100 x 100mm
- ◆ Extends From 2.5" ~ 13" (MONWM3)
- ◆ 180° Rotation, 40° Tilt, 20° Pivot
- ◆ Fits Most 10" ~ 24" Monitors
- ◆ 33 Pound Maximum Load Capacity

#### FEATURES (LED10RACK2):

- ◆ VESA 100 x 100mm for 17-19" Monitors
- ◆ 2X Vesa 75 x 75mm for Dual-Mounting LED10 Monitors

## HD3TM

### HD Analog 3.5" Service Monitor w/ PTZ Control & Cable Tester



HD3TM  
Shown With  
Included  
Protective Case

#### FEATURES:

- ◆ Multi Format (TVI, CVI, AHD, 960H)
- ◆ 480 x 235 Resolution
- ◆ BNC Video & CAT5 Cable Tester
- ◆ PTZ Control & Setup
- ◆ 6-Hour 2200mA Rechargeable Battery
- ◆ Includes Battery Charger & Case

#### INCLUDED ACCESSORIES:

Monitor, Power Adaptor, Cable Tester, BNC Converter, DC Plug to DC Plug Cable, AV Cable, User's Manual, Protective Carrying Case

SPECIFICATION	HD3TM
Panel Size	3.5 Inch Diagonal
Resolution	480(H)x235(H) Dot
Active Area	72.00(W)x50.544(H)mm
Dot Pitch	0.150(H)x0.216(V)mm
Video Formats	TVI 3.0, CVI, AHD 2.0 & 960H Compatible
View Angle	Top=10deg., Bottom=30deg., Left=40deg., Right=40.,
Panel Dimension	83(W) x 60.5(H) x 3.2(D)mm
Back Light	LED Type
Video Type	1.0Vp-p / 75Ω
Video System	NTSC / PAL Auto Switch
UTC Control (Up the COAX)	(Camera Dependent) For OSD Access of HD Analog Cameras
Input source	Built-in 1 BNC Connector/ RS485
Input Voltage	Built-in Battery or 12VDC Regulated Power Supply
Power Consumption	Normal : 12VDC, 170mA (2W) Charge : 12VDC, 1A (12W)
Working / Charge Time	6hr / 5hr
Low Voltage Triggering	10.7 V
System Cut off Voltage	9.3 V
Keypad Control	6 KEY ( MODE / UP / DOWN / LEFT / RIGHT / ENTER KEY )
Operating Temperature	32°F ~ 122°F
Weight	11 Oz

## 3.5" IP, TVI & 960H Service Monitor w/ ONVIF, PTZ Control & Cable Tester

### FEATURES:

- ◆ 3.5" Capacitive Touch Screen Display (480x320 Res.)
- ◆ Compatible with IP, HD-TVI & 960H Analog Cameras
- ◆ Touch Screen OSD & Key Controllable
- ◆ Supports ONVIF IP Camera Testing
- ◆ Pass-Through POE for Powering IP Cameras
- ◆ Built-in Wi-Fi for IP Camera Testing / Browser
- ◆ POE Voltage Measurement & Cable Status
- ◆ Supports 1080p HD Video & MKV Media Files
- ◆ More than 70 Customized IP Camera Protocols
- ◆ PING Test, IP Address Scan & Port Finder
- ◆ BNC Input for HD-TVI Camera Testing
- ◆ UTC Compatible with HD-TVI Cameras
- ◆ BNC In/Output for Standard Analog/PTZ Testing
- ◆ Analog Color Bar Generator for Image Testing
- ◆ Supports RS485 for PTZ Control
- ◆ Video Recording & Snapshot to SD Card
- ◆ Included 4GB Micro-SD, Supports up to 32GB
- ◆ Built-in 3.5mm Audio Input Jack
- ◆ 8-Hour Lithium Ion Polymer Battery
- ◆ 12 Volt DC, 1-Amp Output for Powering Cameras
- ◆ LED Lamp, Calculator, Notepad & Other App Tools

### INCLUDED ACCESSORIES:

Deluxe Carry Case w/ Lanyard  
Safety Lanyard for Tester  
5VDC Wall Charger  
USB to Micro USB Charger Cable  
BNC Patch Cable  
12VDC Cable for Camera Power  
RS485 Cable w/ Alligator Clip  
PC Audio Cable w/ Alligator Clip  
CAT5/6 Cable Termination Block  
User Manual



SPECIFICATION	IP35TM
Signal System	NTSC / PAL Auto Sensing
Display / Resolution	3.5" Capacitive Touch Screen / 480 x 320
Camera Capability	IP, HD-TVI & 960H Analog
Battery / Run Time	Internal Lithium Ion Polymer Battery / 8 Hour Continuous
Battery Charge Time	3-4 Hours for Full Charge
Charger Type	5VDC Wall Plug or USB to Mini USB Cable (included)
Supported IP Camera	Over 70 supported ONVIF, ACTI, Dahua, HIKVISION, Samsung, Honeywell, etc. (see manual for full list)
Supported IP Camera Format	H.264 / MPEG-4 / M-JPEG
Network Test	IP Address Scan, Link Test, Ping Test, Port Finder
LCD Adjustment	Brightness, Contrast, Saturation, Gray Scale
IPC Viewer	iVMS-4500, Easy Mobile, MEye, etc.
Network Port	10/100M Lan Port - Auto Adapt, RJ45
Port Flashing	Yes
Browser	History, Bookmarks, Saved pages
Wi-Fi	Speed 150M, for Wireless Camera Image / Browser
POE Power Output	Pass through POE Power Only - Using PSE-In Port
Auxiliary Power Output	12VDC - 1Amp for Camera Power
Video Input / Video Output	1Ch BNC In/Out (standard analog), 1ch TVI In (TVI Only) / 1.0 Vp-p
Audio Input/output	1 x 3.5mm Stereo Jack/ No-Audio Output - Speaker only
Communication	RS485 for PTZ Control
Baud Rate	600, 1200, 2400, 4800, 9600, 19200, 115200bps
Protocols	Pelco P & D, Samsung, Panasonic, Fastrax, SONY-EVI, LG-MULTIX, BOSCH OSRD, Hikvision, Kalatel, AD 168(M-B), etc.
UTC Control	Yes
UTP Cable Tester	Displays Connection Status, Cable Type & Wire Sequence
SD Card	4G Micro SD Card Included, Support up to 32GB Max
Recording	Supports Snapshot (JPG) & Record Video to SD Card
Media Player	Supports 1080p Video & MKV Media Files
Sleep Mode	Yes - Quick Press Power Button to Sleep/Wake
Calculator	Built-in Calculator
LED Lamp	Built-in White Light LED
Dimensions / Weight	194 x 112 x 48mm (HxWxD) / 540g (Tester Only)



Top & Bottom Connections



IP7TM with Safety Strap and Included Protective Case



IP7TM With Built-in Stand

## 7" IP, TVI, CVI, AHD & 960H Service Monitor w/ ONVIF, PTZ Control & Cable Tester

### FEATURES:

- ◆ 7" Capacitive Touch Screen Display (1280x800 Res.)
- ◆ Compatible with IP, TVI, CVI, AHD & 960H Formats
- ◆ Touch Screen OSD & Key Controllable
- ◆ Supports ONVIF IP Camera Testing
- ◆ Built-in POE for Powering IP Cameras
- ◆ 12 Volt DC, 2-Amp Output for Powering Analog Cameras
- ◆ Built-in Wi-Fi for IP Camera Testing / Browser
- ◆ NTSC / PAL Auto Sensing
- ◆ POE Voltage Measurement & Cable Status
- ◆ Supports 1080p HD Video & MKV Media Files
- ◆ More than 30 Customized IP Camera Protocols
- ◆ PING Test, IP Address Scan & Port Finder
- ◆ UTC Compatible with HD-Analog Cameras
- ◆ BNC Input for TVI, CVI & AHD Camera Testing
- ◆ BNC In/Output for Standard Analog & PTZ Testing
- ◆ Analog Color Bar Generator for Image Testing
- ◆ Supports RS485 for PTZ Control
- ◆ Video Recording & Snapshot to SD Card
- ◆ Included 8GB Micro-SD, Supports up to 32GB
- ◆ Built-in 3.5mm Audio Input Jack
- ◆ 10-Hour Lithium Ion Polymer Battery
- ◆ LED Lamp, Calculator, Notepad & Other App Tools

SPECIFICATION	IP7TM
Signal System	NTSC / PAL Auto Sensing
Display	7" Capacitive Touch Screen
Resolution	1280 x 800
Camera Capability	IP, HD-Analog (TVI, CVI, AHD), & 960H Analog
Battery Run Time	Internal Lithium Ion Polymer Battery / 10 Hour Continuous
Battery Charge Time	6-7 Hours for Full Charge
Charger Type	12 Volt DC / 2 Amp (included)
Supported IP Camera	Over 70 supported ONVIF, ACTI, Dahua, HIKVISION, Samsung, Honeywell, etc. (see manual for full list)
Supported IP Camera Format	H.264 / MPEG-4 / M-JPEG
Network Test	IP Address Scan, Link Test, Ping Test, Port Finder
LCD Adjustment	Brightness, Contrast, Saturation, Gray Scale
IPC Viewer	iVMS-4500, Easy Mobile, MEye, etc.
Network Port	10/100M Lan Port - Auto Adapt, RJ45
Port Flashing	Yes
Browser	History, Bookmarks, Saved pages
Wi-Fi	Speed 150M, for Wireless Camera Image / Browser
POE Power Output	Built in POE Power & Pass-through POE Power
USB Power Output	USB 5V, 2A Power Output Only - No Data
Auxiliary Power Output	12VDC - 2Amp for Camera Power
Video Input	1Ch BNC In/Out (standard analog), 1Ch HD-Analog In (TVI/CVI/AHD Only)
BNC Video Output	1.0 Vp-p
HDMI Video Output	Yes - supports up to 1080p
Audio Input/Output	1 x 3.5mm Stereo Jack/ No-Audio Output - Speaker only
Communication	RS485 for PTZ Control
Baud Rate	600, 1200, 2400, 4800, 9600, 19200, 115200bps
Protocols	Pelco P & D, Samsung, Panasonic, Fastrax, SONY-EVI, LG-MULTIX, BOSCH OSD, Hikvision, Kalatel, AD 168(M-B), etc.
UTC Control	Yes
UTP Cable Tester	Displays Connection Status, Cable Type & Wire Sequence
SD Card	8G Micro SD Card Included, Support up to 32GB Max
Recording	Supports Snapshot (JPG) & Record Video to SD Card
Media Player	Supports 1080p Video & MKV Media Files
Sleep Mode	Yes - Quick Press Power Button to Sleep/Wake
Calculator	Built-in Calculator
LED Lamp	Built-in White Light LED
Dimensions (HxWxD)	154mm x 240mm x 46mm
Weight	620g (Tester Only)

### INCLUDED ACCESSORIES:

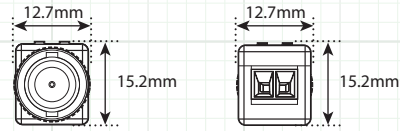
Charger - 12 Volt DC / 2A  
 Network Cable Tester  
 Lithium Ion Polymer Battery  
 BNC to BNC Cable  
 RS-485 Cable with Alligator Clip  
 Audio Cable - 3.5mm to Alligator Clip  
 Safety Lanyard  
 Protective Case  
 User Manual  
 8GB Micro-SD Card

## HD Baluns for TVI, CVI, AHD & 960H Cameras

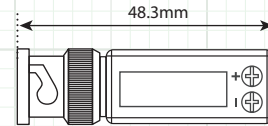
BNC Male to Screw Terminal or BNC Male with 4" Mini Coax to Screw Terminal



VC3PAIRHD



Dimensions



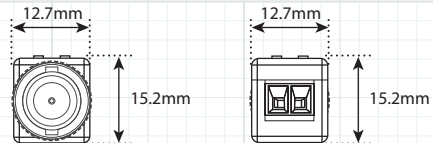
### FEATURES:

- ◆ Transmission: 300M (720P & 960H), 250M (1080P)
- ◆ Compatible with TVI, CVI, AHD & 960H Formats
- ◆ BNC Male to Screw Terminal for Easy Connection
- ◆ Compact & Mini Size, Eliminates the Need for Bulky Coaxial Cable
- ◆ Passive, No Power Required
- ◆ Built-in ESD, EFT & Transient Protection

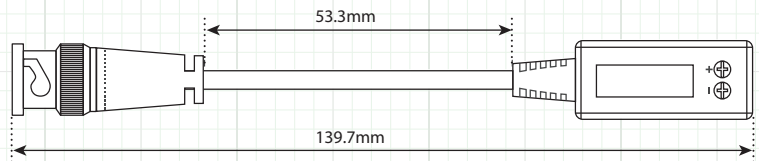
SPECIFICATION	VC3PAIRHD
Connections	Screw Terminal to BNC Male
Video Signal	1Vp-p, 75 Ohms
Bandwidth	50Hz ~ 60MHz (-3dB)
Transmission Distance	300M (720P & 960H), 250M (1080P)
ESD Protection	30KV (Air), 15KV (Contact); IEC 61000-4-2 Compliant
Cable Type	For Use with CAT5e/CAT6 UTP (Unshielded Twisted Pair)
EFT Protection	40A (5/50ns); IEC 61000-4-4 Compliant
Lightning Protection	2A (8/20μs); IEC 61000-4-5 Compliant
Surge Protection Attack Time	< 1nS
Dimensions	1.7" x 0.6" x 0.5" / 43mm x 16mm x 13mm
Weight	8 Oz



VC4PAIRHD



Dimensions



### FEATURES:

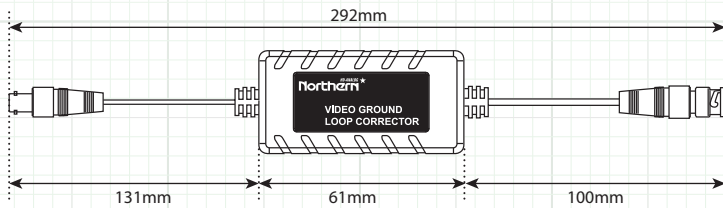
- ◆ Transmission: 300M (720P & 960H), 250M (1080P)
- ◆ Compatible with TVI, CVI, AHD & 960H Formats
- ◆ 4" BNC Male Mini COAX to Screw Terminal for Easy Connection
- ◆ Compact & Mini Size, Eliminates the Need for Bulky Coaxial Cable
- ◆ Passive, No Power Required
- ◆ Built-in ESD, EFT & Transient Protection

SPECIFICATION	VC4PAIRHD
Connections	Screw Terminal to BNC Male w/4" Mini Coax
Video Signal	1Vp-p, 75 Ohms
Bandwidth	50Hz ~ 60MHz (-3dB)
Transmission Distance	300M (720P & 960H), 250M (1080P)
ESD Protection	30KV (Air), 15KV (Contact); IEC 61000-4-2 Compliant
Cable Type	For Use with CAT5e/CAT6 UTP (Unshielded Twisted Pair)
EFT Protection	40A (5/50ns); IEC 61000-4-4 Compliant
Lightning Protection	2A (8/20μs); IEC 61000-4-5 Compliant
Surge Protection Attack Time	< 1nS
Dimensions	7.2" x 0.6" x 0.5" / 113mm x 16mm x 13mm
Weight	8 Oz



## HDGLC

### Video Ground Loop Corrector



HDGLC

SPECIFICATION	HDGLC
Compatible Formats	TVI, CVI, AHD, 960H
Insertion Loss	0.5dB
Frequency Response	0-3dB at 10Mhz
Connections	BNC male to BNC Female
Isolation Voltage	600VDC (Min.)
Insulation resistance	100M ohm
Transient Voltage Suppressors	12V rms
Dimensions (W/H/D)	2.4" x 1.2" x 0.9"
Weight	1.7 oz.

#### FEATURES:

- ◆ BNC Male to BNC Female Connections
- ◆ 12V rms Transient Voltage Suppressor
- ◆ 600VDC Isolation Voltage

## HDDA14

### 1 In to 4 Out

### Video Distribution Amplifier for TVI, CVI, AHD & 960H Formats

HDDA14 - Input



HDDA14 - Outputs



SPECIFICATION	HDDA14
Video Format	Compatible with TVI, CVI, AHD & 960H Formats
Video Input	1x Composite BNC
Video Output	4x Composite BNC
Video Input / Output Signal	1vP-P 75 Ohms
Power Requirement	12 Volt DC
Power Supply	Included 12 Volt DC, 500mA
Power Consumption	DC12V / 100mA Max
LED Indicator	Yes - (For Power)
Surge Protector	Yes - Built in 2KV Surge Protector for Power/Video
Dimensions (Including Inputs)	4.7" (W) X 3.7" (H) x 1.2" (D)
Mounting Footprint	4.7" (W) x 2.6" (H)
Operation	Indoor Only
Weight	0.4 lb

#### FEATURES:

- ◆ Compatible with TVI, CVI, AHD & 960H Formats
- ◆ 1 BNC Input
- ◆ 4 BNC Outputs
- ◆ Included 12 Volt DC Power Supply
- ◆ Built in Surge Protector

#### INCLUDED ACCESSORIES:

12 Volt DC Power Supply, User Manual

## Real Time Quad / Switcher with Looping BNC



QS4L Front Panel / Controls

### FEATURES:

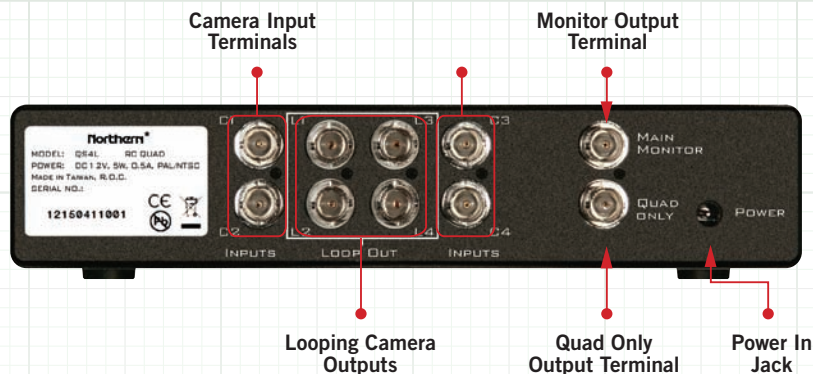
- ◆ 30 Frames Per Second Real Time Viewing
- ◆ OSD Control of All Major Functions
- ◆ Looping Video Inputs
- ◆ Time & Date Generator
- ◆ 8 Character Camera Title
- ◆ Adjustable Dwell Time
- ◆ Individual Camera Picture Adjustment
- ◆ No-Jitter Switching Mode Circuitry
- ◆ NTSC / PAL Switchable
- ◆ LED Power Indicator
- ◆ Included 12 Volt DC Power Supply

### INCLUDED ACCESSORIES:

User Manual, 12 Volt DC 500mA Power Supply

SPECIFICATION	QS4L
Video Standard	NTSC / PAL - Menu Selectable
Camera Inputs / Looping Outputs	BNC x 4 Composite Video 1.0 V p-p 75 ohms BNC x 4 Composite Video 1.0 V p-p 75 ohms
Main Monitor Output	BNC x 1 Composite Video 1.0 V p-p 75 ohms
Quad Output	BNC x 1 Composite Video 1.0 V p-p 75 ohms
Resolution	720 x 480 Pixels (NTSC) / 720 x 576 (PAL)
Refresh Rate	60 Frames Per Second (NTSC) / 50 Frames Per Second (PAL)
On Screen Display	Yes
Camera Title:	On / Off - Up to 8 Characters
Time / Date:	Yes
Picture Adjust:	Contrast , Brightness, Chroma, Tint (Individual Per Camera)
Display Mode:	Date / Time (On / OFF), Channel Name ( On / Off), Boundary, Input System
Power Requirement	12 Volt DC (Included)
Power Consumption	420mA , 5 Watts
Weight	1lb 9oz
Dimensions	8.6 " x 5.5" x 2" (W x D x H)

## Rear Panel Connections



# Pre-Made Cables and Connectors

## BNC, HDMI & Video/Power Cables



Model	CBL3BNC	CBL6BNC	HDMI3	HDMI6	HDMI15	CBL25PV	CBL50PV
Info	BNC Male to BNC Male Connectors		Video & Audio w/Gold Connectors			BNC Male to BNC Male Video / Male to Female DC Connectors	
Length	3'	6'	3'	6'	15'	25'	50'

## Precision Engineered BNC Connectors & Cables



Model	BNCCRIMP10PK	BNCTWIST10PK	BNCSPICE5PK	BNCFTORCAM	BNCMTORCAF	BNCT
Info	2-Piece BNC Connector	Twist-On BNC Connector	Female to Female	BNC Female to RCA Male	BNC Male to RCA Female	BNC Male to 2x BNC Female
Cable Type	RG59U	RG59U	Any	Any	Any	Any
Packaging	10 Pack	10 Pack	5 Pack	Single	Single	Single

## 12 Volt DC Connectors

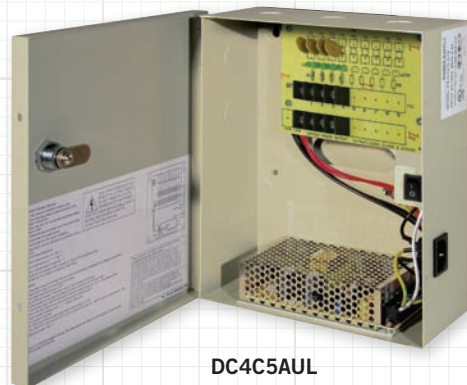


Model	12VDCCORD10PK	12VDCCON10PKF	12VDCCON10PKM
Info	DC Male with 18 Gauge 12" Bare Lead Connection	DC Female with Screw Terminal Connection	DC Male with Screw Terminal Connection
Packaging	Center Pin Positive	Center Pin Positive	Center Pin Positive
Polarity	10 Pack	10 Pack	10 Pack

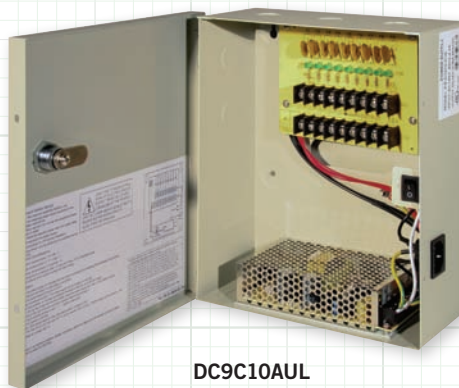
# DC4C5AUL / DC9C10AUL / DC18C10AUL

## 12VDC PTC Fused Multi-Channel Power Supplies

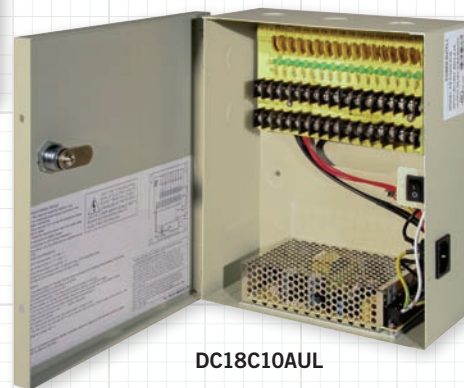
UL Listed, 4-9-18 Channel with PTC Fuse



DC4C5AUL

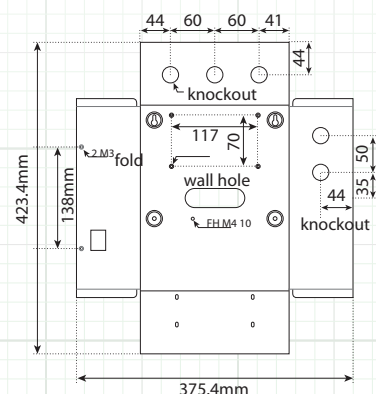


DC9C10AUL



DC18C10AUL

### Dimensions



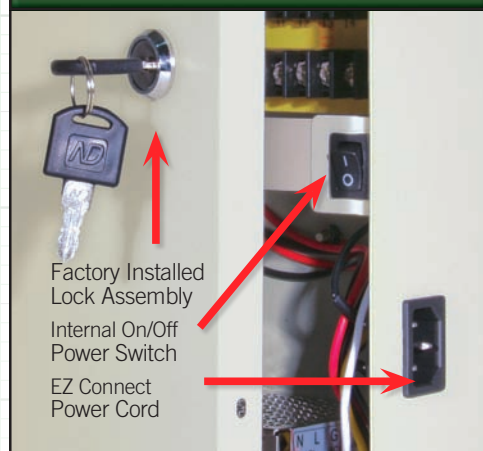
### FEATURES:

- ◆ 5 Amp Total Output (4 Ch)
- ◆ 10 Amp Total Output (9/18 Ch)
- ◆ 1.25 Amp / Channel (4 Ch)
- ◆ 1.1 Amp / Channel (9 Ch)
- ◆ 560mA / Channel (18 Ch)
- ◆ PTC Resettable Fuse Protection
- ◆ LED Channel Indicator
- ◆ Key & Lock Assembly Included
- ◆ Easy Connect 3-Prong Power Cord
- ◆ UL/CUL Certifications

### INCLUDED ACCESSORIES:

3-Prong Power Cord, 2. Keys, Mounting Template, Mounting Hardware, Knockout Grommets, Door Screws.

### PRODUCT DETAIL

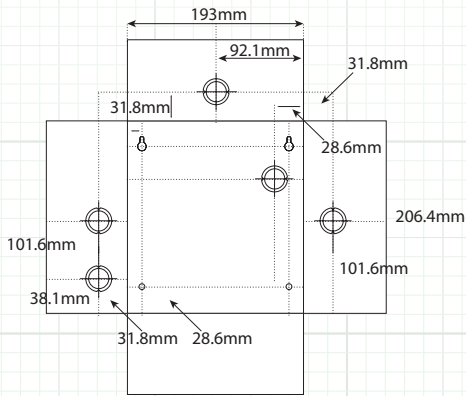


SPECIFICATION	DC4C5AUL	DC9C10AUL	DC18C10AUL
Input Voltage	4	9	18
Output Voltage	AC 120V. 60Hz, 2.5Amp		
Potentiometer	Yes - (Range of 10VDC ~ 14VDC)		
Total Output Current	5 Amp	10 Amp	16.2" x 16.5" x 7.2"
Output Current Per Channel	1.25 Amp	1.1 Amp	560mA
Output Fuse Protection	PTC Resettable Fuses		
Maximum Fuse Rating	1.6 Amp		1.1 Amp
Channel LED Indicator	Yes		
Protections	Over Power, Over Current, Over Voltage, Short Circuit		
Internal On/Off Switch	Yes		
Power Cord	Easy Connect / 3-Prong		
Key / Lock Assembly	Included		
Housing Dimensions	10.1" x 8.3" x 3.6"		
Housing Material / Color	Steel / Beige		
Housing Knockouts - 1/2"	3 Top / 2 Left Side		
Certification	UL/CUL, FCC, CE, ROHS		
Operating Temp	14° ~ 104°F		
Weatherproof Rating	Indoor Only		

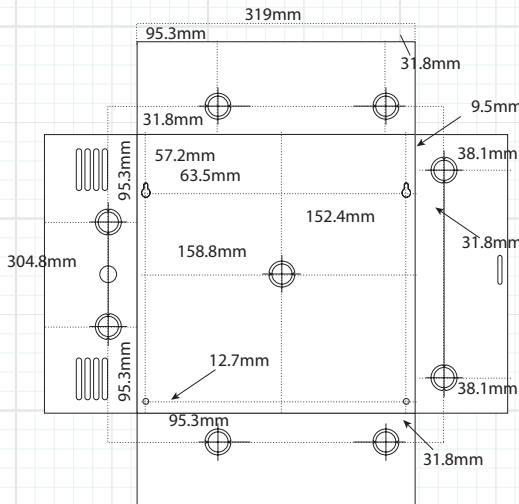


# 12 Volt DC Multi-Channel Power Supplies

## 4 & 16 Channel, 12 Volt DC Power Supplies w/ Glass Fuse, UL Listed



Dimensions

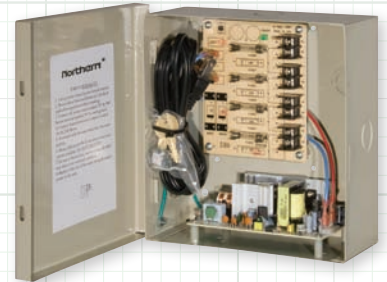


### FEATURES:

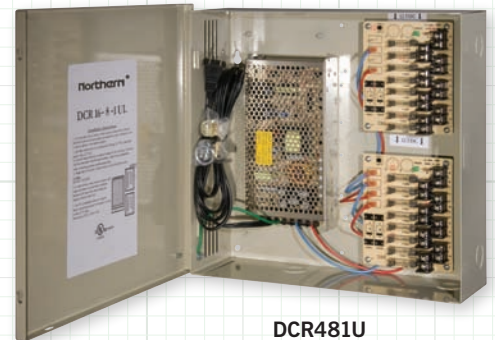
- ◆ Up to 2 Amp per Channel Output
- ◆ Replaceable Glass Fuses
- ◆ Heavy Duty Metal Cabinet
- ◆ Removable Front Door for Easy Access
- ◆ LED Indicator
- ◆ Key Lock Assembly Included
- ◆ Class II / UL Listed
- ◆ 1/2" - 3/4" Combo Knockouts

### INCLUDED ACCESSORIES:

1. Power Cord
1. Key Lock Assembly
2. Keys



DCR441UL



DCR481U  
DCR1612UL

SPECIFICATION	DCR441UL	DCR481UL	DCR1612UL
Input Current	115 VAC 50/60Hz		
Output Voltage	12 VDC		
Total Output Current	4 Amp	8 Amp	12 Amp
Output Current per Channel	1 Amp	2 Amp	750mA
Number of Outputs	4	4	16
Output Protection	Fused		
Output Fuse Rating	3.5 Amp Per Channel		
AC/DC LED Power Indicator	Yes		
UL Listing	Yes		
1/2" - 3/4" Combo Knockouts	Yes		
Key Lock (Included)	Yes with 2 Keys		
Cabinet Material / Color	Metal / Beige		
Cabinet Dimensions	7.6" x 8.3" x 3.5"	12.4" x 12.25" x 4.1"	12.4" x 12.25" x 4.1"

# 12 Volt DC Power Supplies

## 12VDC1AMP

1 Amp 12 Volt DC Power Supply

### FEATURES:

- ◆ 1 Amp Output
- ◆ Class II Transformer
- ◆ UL/CUL Listed
- ◆ Level VI Efficiency



12VDC1AMP

## 12VDC2AMP

2 Amp 12 Volt DC Power Supply

### FEATURES:

- ◆ 2 Amp Output
- ◆ Class 2 Transformer
- ◆ UL/CUL Listed
- ◆ Level VI Efficiency



12VDC2AMP

SPECIFICATION	12VDC1AMP	12VDC2AMP
Type	Class II, UL/CUL Listed	Class II, UL/CUL Listed
Input	AC 100-240V 50/60HZ 0.35A MAX	AC 100-240V 50/60HZ 0.35A MAX
Output	12 Volt DC 1 Amp (Regulated)	12 Volt DC 2 Amp (Regulated)
Misc.	2.1 x 5.5mm / Center Pin Positive	2.1 x 5.5mm / Center Pin Positive

## PSMINI4C5AUL

4 Channel, 5 Amp 12 Volt DC Power Supply



PSMINI4C5AUL

Power Output



Power Input



### FEATURES:

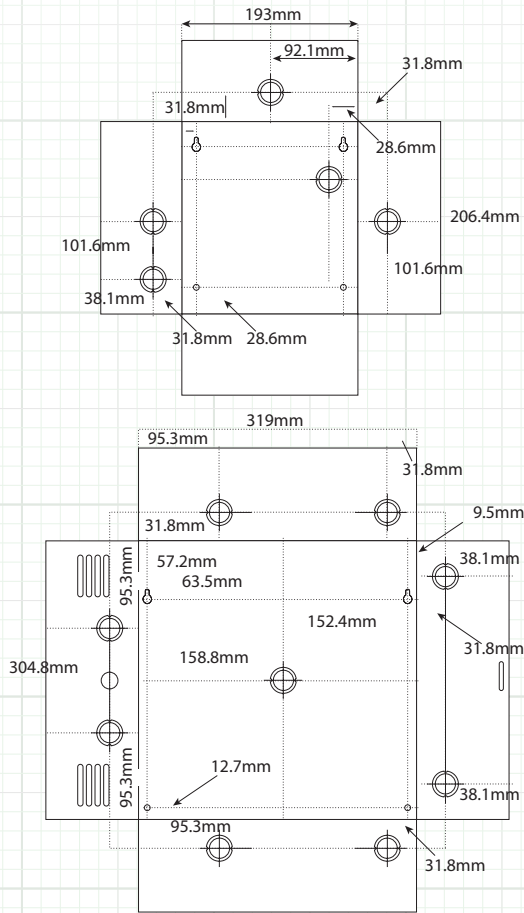
- ◆ UL / CUL Listed
- ◆ Built in PTC Fuse for Protection
- ◆ Adjustable Output Voltage up to 13.8V
- ◆ 100V-240V Wide Range Input Voltage
- ◆ LED Indicator Light
- ◆ Sliding Terminal Strip Cover
- ◆ Power Cord Included

SPECIFICATION	PSMINI4C5AUL
Number of Outputs	4
Input Voltage	AC 100V-240V
Adjustable Output Voltage	12 ~ 13.8 Volt DC
Output Current	5 Amp
Fuse Type	PTC 6 Amp
LED Indicator	Yes
Certificates	UL / CUL
Operating Temperature	-22°F ~ 113°F
Weatherproof Rating	Indoor Only
Dimensions (H x W x D)	6.5" x 2.12" x 1.37"

# 24 Volt AC Multi-Channel Power Supplies

## 4, 8 & 16 Channel, 24 Volt AC Power Supplies w/ Glass Fuse, UL Listed

### Dimensions



### FEATURES:

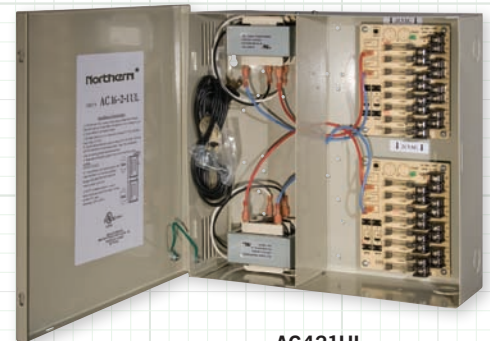
- ◆ Up to 2 Amp per Channel Output
- ◆ Replaceable Glass Fuses
- ◆ Heavy Duty Metal Cabinet
- ◆ Removable Front Door for Easy Access
- ◆ LED Indicator
- ◆ Key Lock Assembly Included
- ◆ Class II / UL Listed
- ◆ 1/2" - 3/4" Combo Knockouts

### INCLUDED ACCESSORIES:

1. Power Cord
1. Key Lock Assembly
2. Keys



AC411UL  
AC811UL



AC421UL  
AC821UL  
AC1621UL  
AC1641UL

SPECIFICATION	AC411UL	AC421UL	AC811UL	AC821UL	AC1621UL	AC1641UL
Input Current	115 VAC 50/60Hz					
Output Voltage	24 VAC					
Total Output Current	4 Amp	8 Amp	4 Amp	8 Amp	8 Amp	16 Amp
Output Current per Channel	1 Amp	2 Amp	500mA	1 Amp	500mA	1 Amp
Number of Outputs	4	4	8	8	16	16
Output Protection	Fused					
Output Fuse Rating	3.5 Amp Per Channel					
AC/DC LED Power Indicator	Yes					
UL Listing	Yes					
1/2" - 3/4" Combo Knockouts	Yes					
Key Lock (Included)	Yes with 2 Keys					
Cabinet Material / Color	Metal / Beige					
Cabinet Dimensions	7.6" x 8.3" x 3.5"	12.4" x 12.25" x 4.1"	7.6" x 8.3" x 3.5"	12.4" x 12.25" x 4.1"	12.4" x 12.25" x 4.1"	12.4" x 12.25" x 4.1"

# 24VAC Power Supplies & Accessories

## AC2450VA

24 Volt AC 50VA  
Plug-in Transformer

### FEATURES:

- ◆ Class II, UL Listed
- ◆ 120 Volt AC Input
- ◆ Screw Terminal Connection
- ◆ 50VA (2 Amp) Output
- ◆ Wall Outlet Safety Screw



AC2450VA

SPECIFICATION	AC2450VA
Type	Class II UL Listed
Input	AC 120V
Output	24 Volt AC 2 Amp
Connection	Screw Terminal



## WX10024UL

Outdoor Rated  
24 Volt AC, 100VA  
Power Supply

WX10024UL

SPECIFICATION	WX10024UL
Input Voltage	120V AC
Output Voltage	24VAC (100VA/4 Amp)
Certifications	Class II, UL Listed
Outdoor Rating	NEMA 3 Enclosure
Housing	Metal (Black)
Input / Output Connections	Bare Lead

## 24VACT012VDC8

24 Volt AC to 12 Volt DC (800mA) Converter

### FEATURES:

- ◆ 24 VAC Input Power
- ◆ Regulated 12 Volt DC Output (800mA)
- ◆ Dimensions 2.4" x 1.9" x 1.0"  
(w/o cable & connection)

24VACT012VDC8



SPECIFICATION	24VACT012VDC8
Application	Power Converter
Input	24 VAC
Output	12 Volt DC (Regulated)
Dimensions W x H x D	2.4" x 1.9" x 1.0" (with 18" Lead-in / 18" Lead-out)

## WARRANTY & EXCHANGE TERMS

### ALL PRODUCTS ISO 9001 CERTIFIED



#### VIDEO CAMERA PRODUCTS:

#### WARRANTY TERM

All Stationary 4-in-1 Analog Cameras ..... (3) Years  
All Stationary IP Cameras..... (3) Years  
All Stationary HD-TVI Cameras..... (3) Years  
All PTZ Cameras (IP, HD-TVI) ..... (1) Year

#### MONITOR/DISPLAY PRODUCTS:

Flat Panel & Service Monitors ..... (2) Years

#### OTHER DEVICES:

Peripherals And Accessories..... (3) Years

#### VIDEO RECORDERS:..... WARRANTY TERM

"NVRPOE" Series Network Video Recorders ..... (3) Years  
"TVIDVR" Series HD Digital Video Recorders ..... (3) Years

#### OVER THE COUNTER (OTC) EXCHANGE POLICY:

Non-PTZ Cameras, IP Cameras ..... 90 Days Exchange  
TVI Cameras, Monitors & Accessories..... For New Equipment  
All Digital Video Recorders ..... 30 Days Exchange  
Network Video Recorders & PTZ Cameras ..... For New Equipment





IP, TVI & 4-in-1 CAMERA MODELS	BB110	BB135	BB130	BB130T	BBXS	DTWBB DTWBBW	DWMVFBB DWMVFBBW	DPC110	DPC130T	DPC135	DPC140	DTWWMT DTWWMTW	WMTS	WMT110	PMT	IPTVIWMT	IPTVIJB	CMR1	CMR2
	Junction Boxes							Pendant Caps				Wall / Pole Mounts				PTZ Mounts		Recessed Mounts	
IP4B					◆										◆				
IP4D**	◆							◆					◆	◆	◆				
IP4D4MM**	◆							◆					◆	◆	◆				
IP4T**				◆					◆				◆		◆				
IP4W																			
IP4MVFB*			◆												◆				
IP4MVFD**		◆								◆			◆		◆				◆
IPPTZ30XIR***															◆	◆	◆		
TVIBIR65					◆										◆				
TVITIR100**				◆					◆				◆		◆				
TVIMDIR120**											◆		◆		◆				◆
TVIMBIR120			◆												◆				
TVIAFBIR300			◆												◆				
TVIEIR60					◆														
TVIDTW212						◆						◆							
TVIDTW212IR						◆						◆							
HDDWMVFIR							◆												
HDDWMVFIRW							◆												
TVIPTZ30XIR***																◆	◆		
*Includes BB130      ** WMTS requires appropriate pendent cap / PMT requires appropriate Back Box (bullet) or appropriate Pendent Cap & WMTS (dome)      *** IPTVIJB requires IPTVIWMT																			

\*Includes BB130

\*\* WMTS requires appropriate pendant cap / PMT requires appropriate Back Box (bullet) or appropriate Pendant Cap & WMTS (dome)

\*\*\* IPTVIJB requires IPTVIWMT



4-in-1 SERIES CAMERA MODELS	HDDWMIR HDDWMIRW	HDDWMVFIR HDDWMVFIRW	HDBIR60	HDBVFIR120	HDBWIDE	HDDWIDE	HDMC	HDMCCP	HDMIPIR
Image Sensor	2 Megapixel CMOS Image Sensor								
Max Resolution	1920 x 1080								
Multiple Formats	TVI - CVI - AHD - 960H Selectable via OSD Joystick								
Lens Size	3.6mm	2.8 ~ 12mm	3.6mm	2.8 ~ 12mm	2.5mm - 150° FOV	2.5mm - 150° FOV	3.6mm Standard	3.7mm Pinhole	3.7mm Pinhole
True D/N & IR Corrective	Yes	Yes	Yes	Yes	Yes	Yes	IR Corrective Only	IR Corrective Only	IR Corrective Only
Focal Type	Fixed	Varifocal	Fixed	Varifocal	Fixed	Fixed	Fixed	Fixed	Fixed
IR LED Count / Range	12 IR LED's - 60'	18 IR LED's - 90'	18 IR LED's - 60'	30 IR LED's - 120'	NA	24 IR LED's - 60'	NA	NA	NA
Wide Dynamic Range	Digital WDR	Digital WDR	Digital WDR	Digital WDR	Digital WDR	Digital WDR	Digital WDR	Digital WDR	Digital WDR
Main Video Outputs	Single Main Output - Multiple Format Selectable via OSD Joystick								
UTC Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OSD Joystick	Cable Mounted	Cable Mounted	Cable Mounted	Cable Mounted	Cable Mounted	Cable Mounted	Cable Mounted	Cable Mounted	Cable Mounted
Power Requirement	12VDC	12VDC	12VDC	12VDC	12VDC	12VDC	12VDC	12VDC	12VDC
Housing Color	Gray / White	Gray / White	White	White	Black	White	Black	Black	White
Temp / Weather Rating	-14°F ~ 122°F / IP66	-14°F ~ 122°F / IP66	-14°F ~ 122°F / IP66	-14°F ~ 122°F / IP66	-14°F ~ 122°F / IP66	-14°F ~ 122°F / IP66	14°F ~ 122°F / Indoor Only	14°F ~ 122°F / Indoor Only	14°F ~ 122°F / Indoor Only



TVIDVR SERIES MODELS	TVIDVR4	TVIDVR8	TVIDVR16	TVI SERIES CAMERA MODELS	TVID212 TVID212IR	TVIDTW212 TVIDTW212IR	TVIBIR65	TVITIR100	TVIMBIR120	TVIAFBIR300	TVIMDIR120	TVIBXWDR	TVILPCAM	TVIPTZ30XIR
Camera Inputs	4	8	16	Image Sensor	2 Megapixel CMOS Image Sensor									
Record Resolution	Up to 30FPS Recording @ 720p Up to 12FPS Recording @ 1080p			Max Resolution	1920 x 1080									
Supported Cameras	TVI - 720p, 1080p / CVBS - 960H Standard Analog			Lens Size	2.8 ~ 12mm	2.8 ~ 12mm	3.6mm	2.8mm	Motorized 2.8 ~ 12mm	Motorized Autofo- cus 5 ~ 50mm	Motorized 2.8 ~ 12mm	C/CS Mounting	9 ~ 22mm	30X Zoom
IP Camera Channel	Supports 1Ch IP	Supports 2Ch IP		True D/N IR Corrective	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IP Rec. Resolution	2 Megapixel			Focal Type	Varifocal	Varifocal	Fixed	Fixed	Varifocal	Varifocal	Varifocal	NA	Varifocal	Motorized Varifocal
Record Modes	Motion, Continuous, Alarm, Motion & Alarm			IR LED Count / Range	NA / 24 IR LED's - 82'	NA / 24 IR LED's - 82'	36 IR LED's - 65'	1 Super LED's - 100'	42 IR LED's - 120'	4 Super IR LED's - 300'	24 IR LED's - 120'	NA	8 Super LED's - 50'	6 Super LED's 395'
Redundant Recording	N/A	N/A	Yes - For models with 2x HDD	Wide Dynamic Range	Digital WDR	Digital WDR	True 120dB	True 120dB	True 120dB	True 120dB	True 120dB	True 120dB	Digital WDR	Digital WDR
Alarm	4-In / 1-Out	8-In / 4-Out	16-In / 4-Out	Main Video Outputs	TVI & 960 Selectable	TVI & 960 Selectable	TVI & 960	TVI & 960	TVI & 960	TVI & 960	TVI & 960	TVI & 960	TVI & 960	TVI & 960
Audio	1Ch RCA In/Out - Supports Two-Way Audio			960H Test Output	Yes	Yes	Main Only	Main Only	Yes	Yes	Yes	Yes	Main Only	N/A
Video Output	Simultaneous VGA & HMDI Main Monitor Outputs			UTC Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes & RS485
Max Drive Storage	6TB		12TB	OSD Joystick	Yes / Internal	Yes / Internal	OSD via UTC Only	OSD via UTC Only	Yes	Yes	Yes	Yes	Cable Mounted	N/A
Zooming	Available in Live View & Playback			Power Requirement	12VDC & 24VAC	12VDC & 24VAC	12VDC	12VDC	12VDC & 24VAC	12VDC & 24VAC	12VDC & 24VAC	12VDC & 24VAC	12VDC & 24VAC	24VAC
Rack Mounting	N/A		Yes Hardware Included	Housing Color	Black	Silver	White	White	White	White	White	White	White	White
Free Mobile App	Free "Guarding Vision" App for iPhone, iPad, Android & Android Tablets			Operating Temp / Weatherproof	14°F ~ 122°F / Indoor Only	-20°F ~ 122°F / IP68	-22°F ~ 122°F / IP66	-22°F ~ 122°F / IP66	-40°F ~ 122°F / IP66	-40°F ~ 122°F / IP66	-22°F ~ 122°F / IP66	14°F ~ 122°F / Indoor Only	-22°F ~ 122°F / IP66	-22°F ~ 149°F / IP66
Software Included	IVMS: CMS Software (compatible with NVRPOE Series)			UL/CUL Certified	NA	NA	Yes	Yes	Yes	Yes	Yes	Yes	NA	Yes



# NVRPOE & IP Camera Series Quick-Guide



NVRPOE SERIES MODELS	NVR4POE	NVR8POE	NVR16POE	NVR3216POE	IP4 SERIES CAMERA MODELS	IP4B	IP4D / IP4D4MM	IP4T	IP4W	IP4MVFB	IP4MVFD	IPPTZ30XIR
IP Video Inputs	4-Channel	8-Channel	16-Channel	32-Channel	Max Resolution	4.0 MP						2.0 MP
Built in POE Channels	4	8	16	16	POE	POE (802.3af) & 12 Volt DC						Hi-POE & 24VAC
Record Resolution	Up to 6MP			Up to 12MP/4K	Wide Dynamic Range	True 120dB Wide Dynamic Range						D-WDR
Playback	4Ch @ 1080p	8Ch @ 1080p 6Ch @ 1080p	16Ch @ 4CIF 12Ch @ 720p 6Ch @ 1080p	4Ch @ 4K 16Ch @ 1080p	Lens Size	4mm	2.8mm/ 4mm	4mm	2.8mm	Motorized 2.8~12mm	Motorized 2.8~12mm	30x Optical Zoom 4.3~128mm
Plug & Play Models	IP3B / IP3D / IP3T / IP4W / IP3VFB / IP3VFD / IP4B / IP4D / IP4D4MM / IP4T / IP4W / IP4MVFB / IP4MVFD				Frame Rate	20FPS (2688x1520), 30FPS (1920x1080, 1280x720)						30FPS (1920x1080, 1280x720)
Incoming Bandwidth	40Mbps	80Mbps	160Mbps	256Mbps	Smart Analytics	Line Crossing & Intrusion Detection						
Drive Bays	1	2	2	4	IR Distance	100'	100'	100'	30'	100'	100'	395'
Max Storage	6TB	12TB	12TB	24TB	SD Card Slot (128G Max)	N/A	Yes	N/A	Yes	Yes	Yes	Yes
POE Power	50W	120W	200W	200W	True D/N - IR Lens	Yes						
Record Modes	Manual, Continuous, Alarm, Motion, Motion & Alarm				3D-DNR	Yes						
Power Supply	External 48V DC	Internal 120-240V Volt AC			Dual Stream	Yes						
Simultaneous Outputs	HDMI & VGA Mirrored	HDMI & VGA Mirrored	HDMI & VGA Mirrored	HDMI & VGA Independent	Power Consumption	Max. 5W	Max. 5W	Max. 7.5W	Max. 5W	Max. 7.5W	Max. 5.5W	Max. 40W
Audio	1Ch RCA Input/Output - Supports 2-Way Audio				Compatibility	ONVIF / PSIA / CGI						
Free Mobile App	Free "Guarding Vision" App for iPhone, iPad, Android & Android Tablets				Free Mobile App	Free "Guarding Vision" App for iPhone, iPad, Android & Android Tablets						
Software Included	IVMS: (CMS / Streaming Server / SADP Utility Software)				Weatherproof Rating	IP66						
Third Party Compatible	ONVIF, Acti, Arecont, Axis, Bosch, Brickcom, Canon, Hikvision, Hunt, Panasonic, Samsung, Sony, Vivotek, Zavio...				Software Included	IVMS: (CMS / Streaming Server / SADP Utility Software)						

