

# Product Catalog



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*Superior Image Quality  
Scalability & Expandability  
Remote Accessibility  
Future-proof Integration  
PoE [Power over Ethernet]  
Plug & Play*



# IP Cameras

IP cameras provide superior image quality, remote accessibility, and distributed intelligent video capabilities. Easy installation and integration over standard CAT5 network cabling offers scalability, flexibility and cost-effectiveness.

## 2MP to 4MP C-Series IP Cameras

2MP-B-IR-560-  
MZ-CS

3MP-MVRD-28-CS

3MP-MB-IR-36-CS

3MP-MVRD-  
IR-28-CS

3MP-MVRD-PT-  
36-CS

3MP-B-IR-2812-  
MZ-CS

3MP-MVRD-IR-  
2812-MZ-CS

3MP-B-IR-2812-  
AVA-CS

3MP-VRD-IR-  
2812-AVA-CS

4MP-B-IR-2812-  
MZ-AVA-CS

4MP-VRD-IR-2812-  
MZ-AVA-CS

## 5MP J-Series IP Cameras

5MP-MB-IR-4-JS

5MP-MVRD-4-JS

5MP-EB-4-JS

5MP-B-IR-3310-  
MR-(MZ)-JS

5MP-B-IR-3310-  
LR-(MZ)-JS

5MP-B-IR-922-  
LR-(MZ)-JS

## 4K C-Series IP Cameras

4K-MB-IR-4-CS

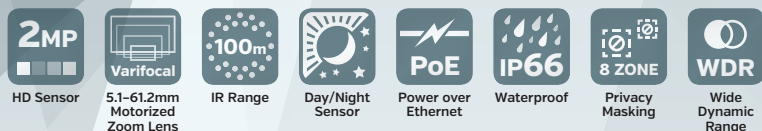
4K-MVRD-IR-4-CS

12MP-B-IR-416-  
MZ-AVA-CS

12MP-VRD-IR-  
416-MZ-AVA-CS

12MP-VRD-IR-  
360FE-AVA-CS

12MP-BX-CS

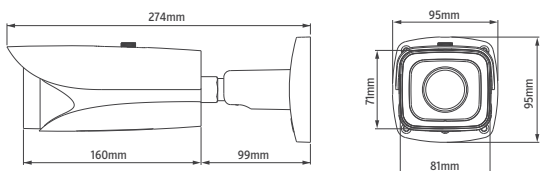


## 2MP IR Bullet IP Camera

### Features

- 1/2.8" 2 Megapixel Progressive Scan CMOS
- 5-60mm 12X Optical Zoom
- Supports H.264 & MJPEG Compression
- Max 30fps@1080p
- WDR, Day/Night (ICR), 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- 100m/300ft IR LED Distance
- 100/1000M Base-T Ethernet, PoE
- Edge Recording via SD Card
- Rugged IP66 Housing
- Integrated 3-Axis Mount

### Dimensions



Camera		
Image Sensor	1/2.8" 2 Megapixel Exmor CMOS	
Effective Pixels	1920 × 1080 [2,073,600 Pixels]	
Scanning System	Progressive	
Shutter Speed	Auto/Manual, 1/4-1/100000s	
Min. Illumination	0.05 Lux/f1.6 [Color], 0 Lux/f1.6 [IR on]	
S/N Ratio	> 50dB	
Video Output	1 port	
Camera Features		
Max IR Distance	100m / 300ft	
Day/Night	Auto [ICR] / Color / B&W	
Backlight Compensation	BLC / HLC / WDR	
White Balance	Auto/Manual	
Gain Control	Auto/Manual	
Noise Reduction	3D	
Privacy Masking	Up to 8 zones	
Lens		
Focal Length	5mm-60mm [12X Optical Zoom]	
Max Aperture	f1.6-f3.0	
Focus Control	Manual / Auto	
Angle of View	H: 51.3°-4.64°	
Lens Type	Motorized / Auto Iris	
Video		
Compression	H.264 / MJPEG	
Resolution	1080p [1920×1080] / 720p [1280×720] / D1 [704×576] / CIF [352×288]	
Frame Rate	Main Stream	1080p [1-25/30fps]
	Sub Stream	D1/CIF [1-25/30fps]
Bit Rate	H.264: 32Kbps ~ 8192Kbps	
Audio		
Compression	G.711a / G.711μ	
Interface	1/1 Channel In/Out	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V [AC24V optional], PoE [802.3af]	
Power Consumption	<15W	
Working Environment	-30°C ~ +60°C, < 95% RH	
Ingress Protection	IP66	
Dimensions	274mm × 95mm × 95mm	
Mount	Integrated 3-Axis Mount	
Weight	1.3kg	



High-Res Sensor



Power over Ethernet



Waterproof



Vandal Proof



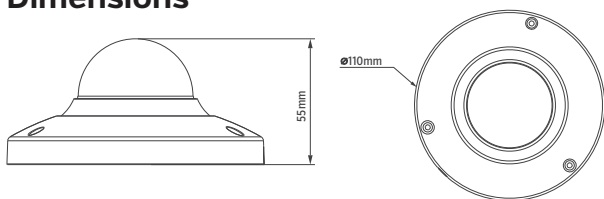
Privacy Masking

## 3 Megapixel Mini Vandal Resistant Dome IP Camera

### Features

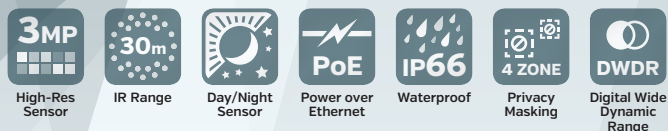
- 1/3" 3 Megapixel Progressive Scan CMOS
- H.264 & MJPEG Dual-Stream Compression
- Max 20fps@3M [2048x1536] & 25/30fps@1080p [1920x1080]
- Day/Night [Electronic], 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with iPhone, iPad or PC [Internet Browser, ARMS Pro/HD, X5 Synergy VMS]
- 2.8mm Fixed Lens offering a 90° Field of View
- Edge Recording via SD Card
- Rugged IK10 & IP66 Housing
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera	
<b>Image Sensor</b>	1/3" 3 Megapixel Progressive Scan CMOS
<b>Effective Pixels</b>	2048 × 1536 [3,145,728 Pixels]
<b>Scanning System</b>	Progressive
<b>Shutter Speed</b>	Auto/Manual, 1/3[4]-1/10000s
<b>Min. Illumination</b>	0.01 Lux/f1.8 [Color]
<b>S/N Ratio</b>	> 50dB
Camera Features	
<b>Day/Night</b>	Auto [Electronic] / Color / B&W
<b>Backlight Compensation</b>	BLC / HLC / DWDR
<b>White Balance</b>	Auto/Manual
<b>Gain Control</b>	Auto/Manual
<b>Noise Reduction</b>	3D
<b>Privacy Masking</b>	Up to 4 zones
Lens	
<b>Focal Length</b>	2.8mm
<b>Max Aperture</b>	f2.0
<b>Focus Control</b>	Manual
<b>Angle of View</b>	H: 90°
Video	
<b>Compression</b>	H.264 / MJPEG
<b>Resolution</b>	3M [2048x1536] / 1080p [1920x1080] / 720p [1280x720] / D1 [704x576] / CIF [352x288]
<b>Frame Rate</b>	<b>Main Stream</b> 3M [1-20fps] / 1080p/720p [1-25/30fps] <b>Sub Stream</b> D1/CIF [1-25/30fps]
<b>Bit Rate</b>	H.264: 32K ~ 8192Kbps
Network	
<b>Ethernet</b>	RJ-45
<b>Protocol</b>	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter
<b>Compatibility</b>	ONVIF, PSIA, CGI
<b>Remote Access</b>	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]
General	
<b>Power Supply</b>	DC12V, PoE [802.3af], < 3W Power Consumption
<b>Working Environment</b>	-30°C ~ +60°C, < 95% RH
<b>Ingress Protection</b>	IP66
<b>Vandal Resistance</b>	IK10
<b>Dimensions</b>	∅110mm × 55mm
<b>Weight</b>	0.25kg

### Accessories (optional)

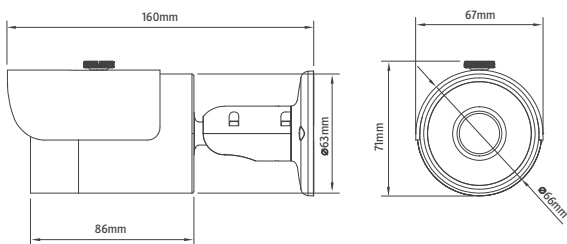


## 3 Megapixel IR Mini Bullet IP Camera

### Features

- 1/3" 3 Megapixel Progressive Scan CMOS
- H.264 & MJPEG Dual-Stream Compression
- Max 20fps@3M [2048x1536] & 25/30fps@1080p [1920x1080]
- DWDR, Day/Night (ICR), 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- 3.6mm Fixed Lens offering a 72.5° Field of View
- 30m/100ft IR LED Distance
- Rugged IP66 Housing
- Integrated 3-Axis Mount
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera	
Image Sensor	1/3" 3 Megapixel Progressive Scan CMOS
Effective Pixels	2048 × 1536 [3,145,728 Pixels]
Scanning System	Progressive
Shutter Speed	Auto/Manual, 1/3[4]-1/10000s
Min. Illumination	0.01 Lux/f1.6 [Color], 0.005 Lux/f1.6 [B&W], 0 Lux/f1.6 [IR on]
S/N Ratio	> 50dB
Camera Features	
Max IR Distance	30m / 100ft
Day/Night	Auto [ICR] / Color / B&W
Backlight Compensation	BLC / HLC / WDR
White Balance	Auto/Manual
Gain Control	Auto/Manual
Noise Reduction	3D
Privacy Masking	Up to 4 zones
Lens	
Focal Length	3.6mm
Max Aperture	f1.8
Focus Control	Manual
Angle of View	H: 72.5°
Video	
Compression	H.264 / MJPEG
Resolution	3M [2048x1536] / 1080p [1920x1080] / 720p [1280x720] / D1 [704x576] / CIF [352x288]
Frame Rate	<b>Main Stream</b> 3M [1-20fps] / 1080p/720p [1-25/30fps] <b>Sub Stream</b> D1/CIF [1-25/30fps]
Bit Rate	H.264: 32K ~ 8192Kbps
Network	
Ethernet	RJ-45
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter
Compatibility	ONVIF, PSIA, CGI
Remote Access	iPhone, iPad, Android, PC (ARMS Pro/HD, Internet Browser, X5 Synergy VMS)
General	
Power Supply	DC12V, PoE (802.3af), < 5.5W Power Consumption
Working Environment	-35°C ~ +60°C, < 95% RH
Ingress Protection	IP66
Dimensions	71mm × 67mm × 160mm
Mount	Integrated 3-Axis Mount
Weight	0.42kg

### Accessories (optional)

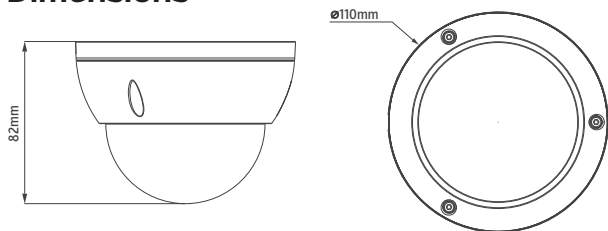


## 3 Megapixel IR Mini Vandal Resistant Dome IP Camera

### Features

- 1/3" 3 Megapixel Progressive Scan CMOS
- H.264 & MJPEG Dual-Stream Compression
- Max 20fps@3M [2048×1536] & 25/30fps@1080p [1920×1080]
- DWDR, Day/Night (ICR), 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- 2.8mm Fixed Lens offering a 81° Field of View
- 30m/100ft IR LED Distance
- Rugged IK10 & IP66 Housing
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera					
Image Sensor	1/3" 3 Megapixel Progressive Scan CMOS				
Effective Pixels	2048 × 1536 [3,145,728 Pixels]				
Scanning System	Progressive				
Shutter Speed	Auto/Manual, 1/3[4]-1/10000s				
Min. Illumination	0.01 Lux/f1.8 (Color), 0.01 Lux/f1.8 (B&W)				
S/N Ratio	> 50dB				
Camera Features					
Max IR Distance	30m / 100ft				
Day/Night	Auto (ICR) / Color / B&W				
Backlight Compensation	BLC / HLC / DWDR				
White Balance	Auto/Manual				
Gain Control	Auto/Manual				
Noise Reduction	3D				
Privacy Masking	Up to 4 zones				
Lens					
Focal Length	2.8mm				
Max Aperture	f2.0				
Focus Control	Manual				
Angle of View	H: 81.2°				
Video					
Compression	H.264 / MJPEG				
Resolution	3M [2048×1536] / 1080p [1920×1080] / 720p [1280×720] / D1 [704×576] / CIF [352×288]				
Frame Rate	<table border="1"> <tr> <th>Main Stream</th> <td>3M [1-20fps] / 1080p/720p [1-25/30fps]</td> </tr> <tr> <th>Sub Stream</th> <td>D1/CIF [1-25/30fps]</td> </tr> </table>	Main Stream	3M [1-20fps] / 1080p/720p [1-25/30fps]	Sub Stream	D1/CIF [1-25/30fps]
Main Stream	3M [1-20fps] / 1080p/720p [1-25/30fps]				
Sub Stream	D1/CIF [1-25/30fps]				
Bit Rate	H.264: 32K ~ 8192Kbps				
Network					
Ethernet	RJ-45				
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter				
Compatibility	ONVIF, PSIA, CGI				
Remote Access	iPhone, iPad, Android, PC (ARMS Pro/HD, Internet Browser, X5 Synergy VMS)				
General					
Power Supply	DC12V, PoE (802.3af), < 4W Power Consumption				
Working Environment	-35°C ~ +60°C, < 95% RH				
Ingress Protection	IP66				
Vandal Resistance	IK10				
Dimensions	∅110mm × 82mm				
Weight	0.39kg				

### Accessories (optional)

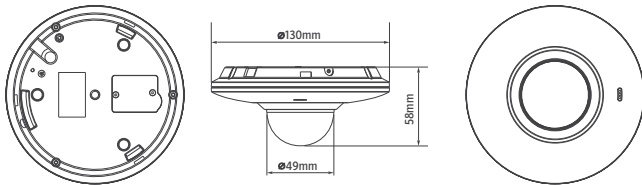


## 3 Megapixel Mini Vandal Resistant Pan/Tilt Dome IP Camera

### Features

- 1/3" 3 Megapixel Progressive Scan CMOS
- H.264 & MJPEG Dual-Stream Compression
- Max 20fps@3M [2048×1536] & 25/30fps@1080p [1920×1080]
- Day/Night [Electronic], 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with iPhone, iPad or PC [Internet Browser, ARMS Pro/HD, X5 Synergy VMS]
- Max 100°/s Preset Speed, ±180° Pan, 90° Tilt
- 3.6mm Fixed Lens offering a 72.5° Field of View
- Edge Recording via SD Card
- Rugged IK10 & IP66 Housing
- PoE: Power, Video & Control over a Single CAT5 Cable

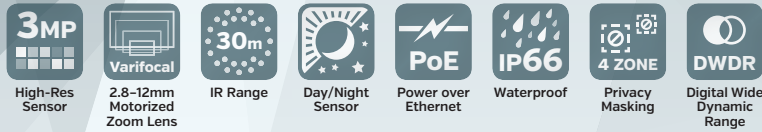
### Dimensions



Camera	
Image Sensor	1/3" 3 Megapixel Progressive Scan CMOS
Effective Pixels	2048 × 1536 [3,145,728 Pixels]
Scanning System	Progressive
Shutter Speed	Auto/Manual, 1/3[4]-1/10000s
Min. Illumination	0.01 Lux/f1.2 [Color]
S/N Ratio	> 50dB
Camera Features	
Day/Night	Auto [Electronic] / Color / B&W
Backlight Compensation	BLC / HLC / DWDR
White Balance	Auto/Manual
Gain Control	Auto/Manual
Noise Reduction	3D
Privacy Masking	Up to 4 zones
Digital Zoom	3X
Lens	
Focal Length	3.6mm
Max Aperture	f1.8
Focus Control	Manual
Angle of View	H: 72.5°
Pan/Tilt	
Pan/ Tilt Range	Pan: 0°~±180°; Tilt: 0°~90°
Preset Speed	100°/s
Presets	25
Video	
Compression	H.264 / MJPEG
Resolution	3M [2048×1536] / 1080p [1920×1080] / 720p [1280×720] / D1 [704×576] / CIF [352×288]
Frame Rate	<b>Main Stream</b> 3M [1-20fps] / 1080p/720p [1-25/30fps] <b>Sub Stream</b> D1/CIF [1-25/30fps]
Bit Rate	H.264: 32K ~ 8192Kbps
Audio	
Compression	G.711a / G.711µ / PCM
Interface	Built-in Mic
Network	
Ethernet	RJ-45
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter
Compatibility	ONVIF, PSIA, CGI
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]
General	
Power Supply	DC12V, PoE [802.3af], < 4.5W Power Consumption
Working Environment	-30° C ~ +60° C, < 95% RH
Ingress Protection	IP66
Vandal Resistance	IK10
Dimensions	ø130mm × 58mm
Weight	0.25kg

### Accessories (optional)



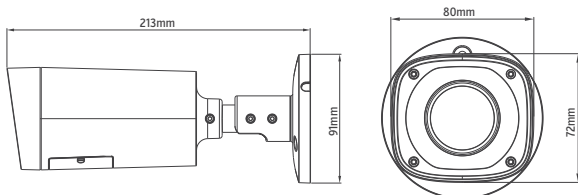


## 3 Megapixel Mini IR Bullet IP Camera w/Motorized Lens

### Features

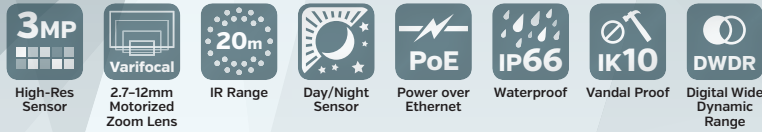
- 1/3" 3 Megapixel Progressive Scan CMOS
- H.264 & MJPEG Dual-Stream Compression
- Max 20fps@3M [2048x1536]
- DWDR, Day/Night (ICR), 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- 2.8-12mm Varifocal Motorized Lens offering a 92-28° Field of View
- 30m/100ft IR LED Distance
- Rugged IP66 Housing
- Integrated 3-Axis Mount
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Image Sensor	1/3" 3 Megapixel Progressive Scan CMOS	
Effective Pixels	2048 x 1536 [3,145,728 Pixels]	
Scanning System	Progressive	
Shutter Speed	Auto/Manual, 1/3[4]-1/10000s	
Min. Illumination	0.01 Lux/f1.4 [Color], 0Lux/f1.4 [IR on]	
S/N Ratio	> 50dB	
Camera Features		
Max IR Distance	30m / 100ft	
Day/Night	Auto (ICR) / Color / B&W	
Backlight Compensation	BLC / HLC / DWDR	
White Balance	Auto/Manual	
Gain Control	Auto/Manual	
Noise Reduction	3D	
Privacy Masking	Up to 4 zones	
Lens		
Focal Length	2.8mm-12mm Motorized Lens	
Max Aperture	f1.4	
Focus Control	Auto	
Angle of View	H: 92° - 28°	
Lens Type	Motorized, Fixed Iris	
Video		
Compression	H.264 / H.264H / MJPEG	
Resolution	3M [2048x1536] / 1080p [1920x1080] / 720p [1280x720] / D1 [704x576] / CIF [352x288]	
Frame Rate	Main Stream	3M [1-20fps] / 1080p [1-25/30fps]
	Sub Stream	D1/CIF [1-25/30fps]
Bit Rate	H.264H: 40K - 8192Kbps; MJPEG: 40 - 16384Kbps	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V, PoE [802.3af], < 8.5W Power Consumption	
Working Environment	-35°C ~ +60°C, < 95% RH	
Ingress Protection	IP66	
Dimensions	72mm x 80mm x 213mm	
Mount	Integrated 3-Axis Mount	
Weight	0.65kg	

### Accessories (optional)

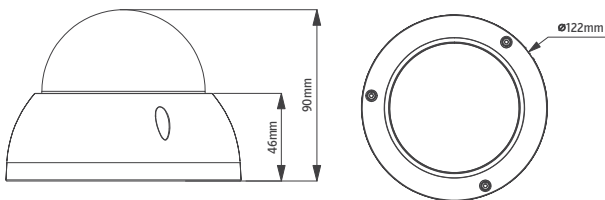


## 3 Megapixel Mini Vandal Resistant IR Dome IP Camera w/Motorized Lens

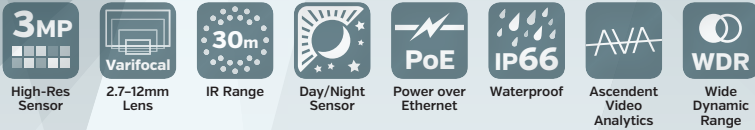
### Features

- 1/3" 3 Megapixel Progressive Scan CMOS
- H.264 & MJPEG Dual-Stream Compression
- Max 20fps@3M [2048×1536] & 25/30fps@1080p [1920×1080]
- DWDR, Day/Night (ICR), 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- 2.8–12mm Varifocal Lens offering a 92–28° Field of View
- 20m/65ft IR LED Distance
- Rugged IK10 & IP66 Housing
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Image Sensor	1/3" 3 Megapixel Progressive Scan CMOS	
Effective Pixels	2048 × 1536 [3,145,728 Pixels]	
Scanning System	Progressive	
Shutter Speed	Auto/Manual, 1/3[4]-1/10000s	
Min. Illumination	0.01 Lux/f1.4 [Color], 0.01 Lux/f1.4 [B&W], 0Lux/f1.4 [IR on]	
S/N Ratio	> 50dB	
Camera Features		
Max IR Distance	20m / 65ft	
Day/Night	Auto [ICR] / Color / B&W	
Backlight Compensation	BLC / HLC / DWDR	
White Balance	Auto/Manual	
Gain Control	Auto/Manual	
Noise Reduction	3D	
Privacy Masking	Up to 4 zones	
Lens		
Focal Length	2.8mm-12mm	
Max Aperture	f1.4	
Focus Control	Auto	
Angle of View	H: 92° ~ 28°	
Lens Type	Motorized, Fixed Iris	
Video		
Compression	H.264 / H.264H / H.264B / MJPEG	
Resolution	3M [2048×1536] / 1080p [1920×1080] / 1.3M [1280×960] / 720p [1280×720] / D1 [704×576] / CIF [352×288]	
Frame Rate	Main Stream	3M (1-20fps) / 1080p (1 ~ 25/30fps)
	Sub Stream	D1/CIF (1-25/30fps)
Bit Rate	H.264: 56K ~ 6144Kbps	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V, PoE [802.3af], < 7.5W Power Consumption	
Working Environment	-35°C ~ +60°C, < 95% RH	
Ingress Protection	IP66	
Vandal Resistance	IK10	
Dimensions	∅122mm × 90mm	
Weight	0.5kg	

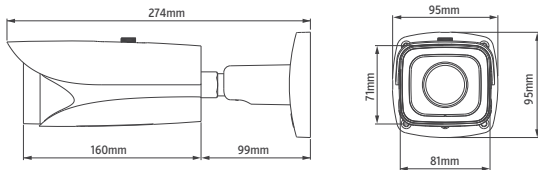


## 3MP IR Bullet IP Camera w/AVA Analytics

### Features

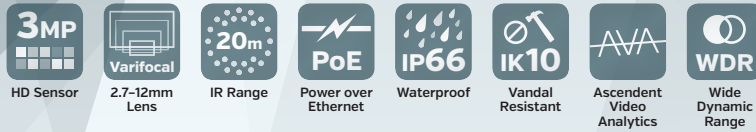
- 1/3" 3 Megapixel Progressive Scan CMOS
- Supports H.264 & MJPEG Compression
- Triple Video Stream Encoding
- Max 25/30fps@3MP [2048x1536]
- WDR, Day/Night (ICR), 3D-DNR, Auto Iris, AWB, AGC, BLC
- Defog, ROI, EIS, Intelligent Adaptive IR
- AVA Analytics: Face Detection, Bi-Directional Tripwire, Perimeter Intrusion Detection
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- 30m/100ft IR LED Distance
- 100/1000M Base-T Ethernet, PoE
- Edge Recording via SD Card
- Rugged IP66 Housing
- Integrated 3-Axis Mount

### Dimensions



Camera		
Image Sensor	1/3" 3 Megapixel Progressive Scan CMOS	
Effective Pixels	2048 × 1536 [3,145,728 Pixels]	
Scanning System	Progressive	
Shutter Speed	Auto/Manual, 1/4-1/10000s	
Min. Illumination	0.1 Lux/f1.2 [Color], 0.01 Lux/f1.2 [B&W]	
S/N Ratio	> 50dB	
Video Output	1 port	
Camera Features		
Max IR Distance	30m / 100ft, Intelligent Adaptive IR	
Day/Night	Auto [ICR] / Color / B&W	
Backlight Compensation	BLC / HLC / WDR	
White Balance	Auto/Manual	
Gain Control	Auto/Manual	
Noise Reduction	3D	
Privacy Masking	Up to 4 zones	
EIS	On/Off	
Dehaze/Defog	On/Off	
Lens		
Focal Length	2.8mm-12mm	
Max Aperture	f1.2	
Focus Control	Manual	
Angle of View	H: 91.2°-31.1°	
Video		
Compression	H.264 / MJPEG	
Resolution	3M [2048×1536] / 1080p [1920×1080] / 720p [1280×720] / D1 [704×576] / CIF [352×288]	
Frame Rate	Main Stream	3M/1080p [1-25/30fps]
	Sub Stream	D1/CIF [1-25/30fps]
	Third Stream	1080p/720p/D1 [1-25/30fps]
Bit Rate	H.264: 48K ~ 8192Kbps	
ROI	Up to 4 zones	
Audio		
Compression	G.711a / G.711μ	
Interface	1/1 Channel In/Out	
AVA Analytics		
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Scene Change, Camera Tampering, Audio Detection, Face Detection	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V, PoE [802.3af], < 12W Power Consumption	
Working Environment	-35°C ~ +60°C, < 90% RH	
Ingress Protection	IP66	
Dimensions	274mm × 95mm × 95mm	
Mount	Integrated 3-Axis Mount	
Weight	1.25kg	

### Accessories (optional)

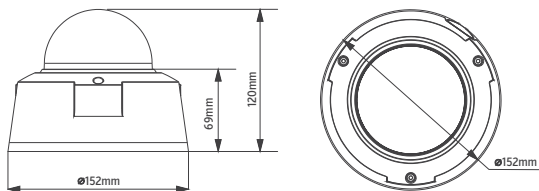


## 3MP IR Dome IP Camera w/AVA Analytics

### Features

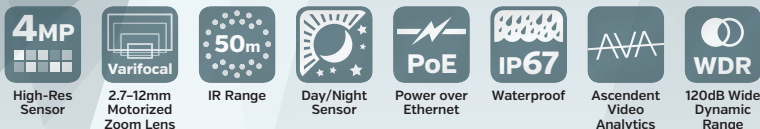
- 1/3" 3 Megapixel Progressive Scan CMOS
- Supports H.264 & MJPEG Compression
- Triple Video Stream Encoding
- Max 25/30fps@3MP [2048x1536]
- WDR, 3D-DNR, Defog, ROI, EIS, Intelligent Adaptive IR
- Day/Night Sensor
- AVA Analytics: Face Detection, Bi-Directional Tripwire, Perimeter Intrusion Detection
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- 100/1000M Base-T Ethernet, PoE
- 20m/65ft IR LED Distance
- Edge Recording via SD Card
- Rugged IK10 & IP66 Housing

### Dimensions



Camera		
Image Sensor	1/3" 3 Megapixel Progressive Scan CMOS	
Effective Pixels	2048 × 1536 [3,145,728 Pixels]	
Shutter Speed	Auto/Manual, 1/3-1/10000	
Min. Illumination	0.1 Lux/f1.4 [Color], 0.01 Lux/f1.4 [B&W]	
S/N Ratio	> 50dB	
Video Output	1 port	
Camera Features		
Max IR Distance	20m / 65ft, Intelligent Adaptive IR	
Day/Night	Auto [ICR] / Color / B&W	
Backlight Compensation	BLC / HLC / WDR [120dB]	
White Balance	Auto	
Gain Control	Auto/Manual	
Noise Reduction	3D	
Privacy Masking	Up to 4 zones	
EIS	On/Off	
Defog	On/Off	
Lens		
Focal Length	2.8mm-12mm	
Max Aperture	f1.4	
Focus Control	Manual	
Angle of View	H: 82°-25°	
Video		
Compression	H.264 / MJPEG	
Resolution	3M [2048×1536] / 1080p [1920×1080] / 720p [1280×720] / D1 [704×576] / CIF [352×288]	
Frame Rate	Main Stream	3M/1080p/720p [1-25/30fps]
	Sub Stream	D1/CIF [1-25/30fps]
	Third Stream	1080p/720p/D1 [1-25/30fps]
Bit Rate	H.264: 32K - 8192Kbps	
ROI	Up to 4 zones	
Audio		
Compression	G.711a / G.711μ	
Interface	1/1 Channel In/Out	
AVA Analytics		
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Scene Change, Camera Tampering, Audio Detection, Face Detection	
Network		
Ethernet	RJ-45 [100/1000Base-T]	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V/AC24V, PoE [802.3af]	
Power Consumption	Max 8W [IR ON:+2W]	
Working Environment	-30°C ~ +60°C, < 90% RH	
Ingress Protection	IP66	
Vandal Resistance	IK10	
Weight	1.25kg	

### Accessories (optional)

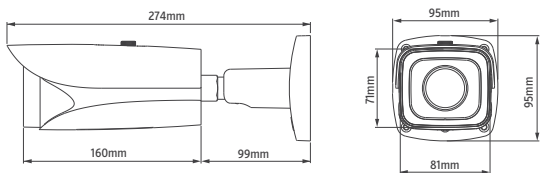


## 4MP IR Bullet IP Camera w/AVA Analytics

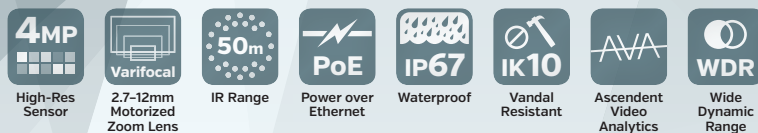
### Features

- 1/3" 4 Megapixel Progressive Scan CMOS
- Supports H.264 & MJPEG Compression
- Max 20fps@4MP or 25/30fps@3MP
- WDR [120dB], Day/Night [ICR], 3D-DNR, Auto Iris, AWB, AGC, BLC
- AVA Analytics: Face Detection, Bi-Directional Tripwire, Perimeter Intrusion Detection
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- 50m/160ft IR LED Distance
- 100/1000M Base-T Ethernet, PoE
- Edge Recording via SD Card
- Extra-Rugged IP67 Housing
- Integrated 3-Axis Mount

### Dimensions



Camera		
Image Sensor	1/3" 4 Megapixel Progressive Scan CMOS	
Effective Pixels	2688 × 1520 (4,085,760 Pixels)	
Shutter Speed	Auto/Manual, 1/3-1/100000s	
Min. Illumination	0.01 Lux/f1.4 [Color], 0 Lux/f1.4 [IR on]	
S/N Ratio	> 50dB	
Video Output	1 channel, BNC (1.0Vp-p/75Ω)	
Camera Features		
Max IR Distance	50m / 160ft, Intelligent Adaptive IR	
Day/Night	Auto [ICR] / Color / B&W	
Backlight Compensation	BLC / HLC / WDR (120dB)	
White Balance	Auto/Sunny/Night/Outdoor/Customized	
Gain Control	Auto/Manual	
Noise Reduction	3D	
Privacy Masking	Up to 4 zones	
Lens		
Focal Length	2.8mm-12mm	
Max Aperture	f1.4	
Focus Control	Motorized	
Angle of View	H: 100°-33°	
Lens Type	Motorized / Auto Iris (DC)	
Video		
Compression	H.264 / H.264B / H.264H / MJPEG	
Resolution	4M [2688×1520] / 4M [2560×1440] / 3M [2304×1296] / 720p [1280×720] / D1 [704×576] / CIF [352×288]	
Frame Rate	Main Stream	4M [1-20fps] / 3M [1-25/30fps]
	Sub Stream	D1 [1-25/30fps]
	Third Stream	720p [1-25/30fps]
Bit Rate	H.264: 32Kbps ~ 10Mbps	
Corridor Mode	Supported	
Audio		
Compression	G.711a / G.711μ / AAC	
Interface	1/1 Channel In/Out	
AVA Analytics		
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Scene Change, Camera Tampering, Missing/Abandoned Object, Audio Detection, Face Detection	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V, PoE (802.3af)	
Power Consumption	< 11.5W (with IR on and motorized lens working)	
Working Environment	-40°C ~ +60°C, < 95% RH	
Ingress Protection	IP67	
Dimensions	274mm × 95mm × 95mm	
Mount	Integrated 3-Axis Mount	
Weight	1.1kg	

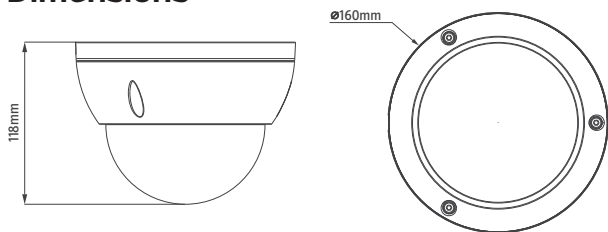


## 4 Megapixel IR Vandal Resistant Dome IP Camera

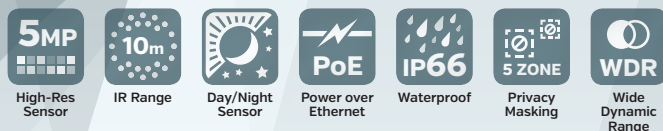
### Features

- 1/3" 4 Megapixel Progressive Scan CMOS
- H.264 & MJPEG Triple-Stream Compression
- Max 20fps@4M [2560×1440] & 25/30fps@3M [2304×1296]
- WDR, Day/Night [ICR], 3D-DNR, AWB, AGC, BLC
- AVA Analytics: Face Detection, Bi-Directional Tripwire, Perimeter Intrusion Detection
- Remote Monitoring with iPhone, iPad or PC [Internet Browser, ARMS Pro/HD, X5 Synergy VMS]
- 2.8mm-12mm Motorized Zoom Lens offering a 82-25° Field of View
- 50m/160ft IR LED Distance
- Extra Rugged IK10 & IP67 Housing
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Image Sensor	1/3" 4 Megapixel Progressive Scan CMOS	
Effective Pixels	2688 × 1520 [4,085,760 Pixels]	
Scanning System	Progressive	
Shutter Speed	Auto/Manual, 1/3[4]-1/10000s	
Min. Illumination	0.01 Lux/f1.4 [Color], 0 Lux/f1.4 [B&W, IR on]	
S/N Ratio	> 50dB	
Camera Features		
Max IR Distance	50m / 160ft	
Day/Night	Auto [ICR] / Color / B&W	
Backlight Compensation	BLC / HLC / WDR [120dB]	
White Balance	Auto/Manual	
Gain Control	Auto/Manual	
Noise Reduction	3D	
Privacy Masking	Up to 4 zones	
Lens		
Focal Length	2.8mm ~ 12mm	
Max Aperture	f1.4	
Focus Control	Motorized	
Angle of View	H: 82°~25°	
Video		
Compression	H.264 / MJPEG	
Resolution	4M [2560×1440] / 3M [2304×1296] / 1080p [1920×1080] / 1.3M [1280×960] / 720p [1280×720] / D1 [704×480] / CIF [352×240]	
Frame Rate	Main Stream	4M [1-20fps] / 3M [1-25/30fps]
	Sub Stream	D1/CIF [1-25/30fps]
	Third Stream	720p [1-5/8fps], WDR on / 720p [1-18/2fps], WDR off
Bit Rate	H.264: 32K ~ 10Mbps	
Corridor Mode	Support	
Audio		
Compression	G.711a / G.711μ / PCM	
Interface	1/1 Channel In/Out	
AVA Analytics		
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Scene Change, Camera Tampering, Audio Detection, Face Detection	
Network		
Ethernet	RJ-45 [10/100]	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V[AC24V optional], PoE [802.3af]	
Power Consumption	Max 10W [with IR and Motorized Lens on]	
Working Environment	-40°C ~ +60°C, < 95% RH	
Ingress Protection	IP67	
Vandal Resistance	IK10	
Dimensions	∅160mm × 118mm	
Weight	800g	

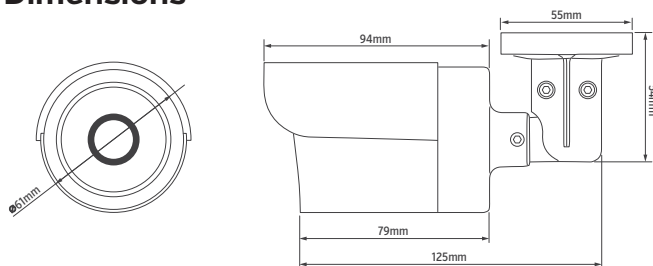


## 5 Megapixel IR Mini Bullet IP Camera

### Features

- 1/2.5" 5 Megapixel Progressive Scan CMOS
- 4mm Fixed Lens offering a 71.5° Field of View
- H.264 & MJPEG Dual-Stream Compression
- Max 10fps@5M [2592×1920] & 25/30fps@1080p [1920×1080]
- Day/Night [ICR], 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with PC [Internet Browser, X5 Synergy VMS]
- 10m/30ft IR LED Distance
- Rugged IP66 Housing
- Integrated 3-Axis Mount
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Processor	High-Performance TI DaVinci DSP	
Image Sensor	1/2.5" 5 Megapixel Progressive Scan CMOS	
Shutter Speed	1/5s ~ 1/50,000s	
S/N Ratio	> 50dB	
Video Output	1 channel, BNC (1.0Vp-p/75Ω)	
Camera Features		
Max IR Distance	10m / 30ft	
Day/Night	Auto-Switching IR Cut Filter	
Backlight Compensation	BLC / HLC / WDR	
White Balance	AWB	
Gain Control	AGC	
Noise Reduction	3D-DNR	
Privacy Masking	Up to 5 zones	
Lens		
Focal Length	4mm Lens	
Focus Control	Auto	
Angle of View	H: 71.5°	
Video		
Compression	H.264 / MJPEG	
Resolution	5M [2592×1920] / 3M [2048×1536] / 1080p [1920×1080] / 720p [1280×720] / D1 [640×480]	
Frame Rate	Main Stream	5M [10fps] / 3M [20fps] / 1080p [25/30fps]
	Sub Stream	D1 [25/30fps]
Bit Rate	200 ~ 12,000Kbps	
Audio		
Compression	G.711a / G.711μ / PCM	
Interface	1/1 Channel In/Out	
Network		
Ethernet	RJ-45 [10M/100M adaptive]	
Protocol	IPv4/IPv6, HTTP, TCP, UDP, RTSP, RTP, RTCP, DHCP, DNS, PPPoE, DDNS	
Compatibility	ONVIF v2.4	
Remote Access	PC [Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V±10%, PoE [802.3af]	
Power Consumption	4W	
Working Environment	-40°C ~ +60°C, < 95% RH	
Ingress Protection	IP66	
Dimensions	163mm × 63mm × 63mm	
Mount	Integrated 3-Axis Mount	
Weight	370g	

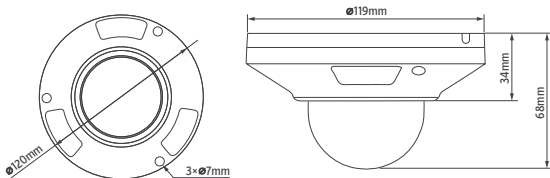


## 5 Megapixel IR Vandal Resistant Dome IP Camera

### Features

- 1/2.5" 5 Megapixel Progressive Scan CMOS
- 4mm Fixed Lens offering a 71.5° Field of View
- H.264 & MJPEG Dual-Stream Compression
- Max 10fps@5M [2592×1920] & 25/30fps@1080p [1920×1080]
- Day/Night [ICR], 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with PC [Internet Browser, X5 Synergy VMS]
- Rugged IP66 Housing
- Optional Wall Mounting/Lifting Bracket
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Processor	High-Performance TI DaVinci DSP	
Image Sensor	1/2.5" 5 Megapixel Progressive Scan CMOS	
Shutter Speed	1/5s ~ 1/50,000s	
S/N Ratio	> 50dB	
Video Output	1 channel, BNC (1.0Vp-p/75Ω)	
Camera Features		
Day/Night	Auto-Switching IR Cut Filter	
Backlight Compensation	BLC / HLC / WDR	
White Balance	AWB	
Gain Control	AGC	
Noise Reduction	3D-DNR	
Privacy Masking	Up to 5 zones	
Lens		
Focal Length	4mm	
Focus Control	Auto	
Angle of View	H: 71.5°	
Video		
Compression	H.264 / MJPEG	
Resolution	5M [2592×1920] / 3M [2048×1536] / 1080p [1920×1080] / 720p [1280×720] / D1 [640×480]	
Frame Rate	Main Stream	5M [10fps] / 3M [20fps] / 1080p [25/30fps]
	Sub Stream	D1 [25/30fps]
Bit Rate	200 ~ 12,000Kbps	
Network		
Ethernet	RJ-45 [10M/100M adaptive]	
Protocol	IPv4/IPv6, HTTP, TCP, UDP, RTSP, RTP, RTCP, DHCP, DNS, PPPoE, DDNS	
Compatibility	ONVIF v2.4	
Remote Access	PC [Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V±10%, PoE [802.3af]	
Power Consumption	<2.5W	
Working Environment	-40°C ~ +60°C, < 95% RH	
Ingress Protection	IP66	
Dimensions	ø120mm × 68mm	
Weight	270g	





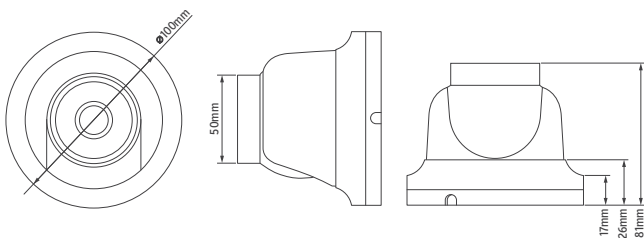
High-Res Sensor	IR Range	Day/Night Sensor	Power over Ethernet	Waterproof	Privacy Masking	Wide Dynamic Range

## 5 Megapixel IR Dome Camera

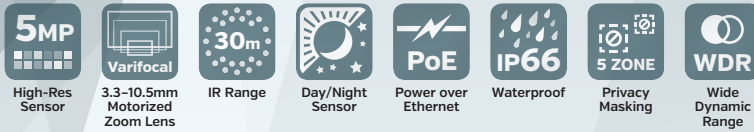
### Features

- 1/2.5" 5 Megapixel Progressive Scan CMOS
- 4mm Fixed Lens offering a 71.5° Field of View
- H.264 & MJPEG Dual-Stream Compression
- Max 10fps@5M [2592x1920] & 25/30fps@1080p [1920x1080]
- Day/Night [ICR], 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with PC [Internet Browser, X5 Synergy VMS]
- 15m/50ft IR LED Distance
- Rugged IP66 Housing
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Processor	High-Performance TI DaVinci DSP	
Image Sensor	1/2.5" 5 Megapixel Progressive Scan CMOS	
Shutter Speed	1/5s ~ 1/50,000s	
S/N Ratio	> 50dB	
Video Output	1 channel, BNC [1.0Vp-p/75Ω]	
Camera Features		
Max IR Distance	15m / 50ft	
Day/Night	Auto-Switching IR Cut Filter	
Backlight Compensation	BLC / HLC / WDR	
White Balance	AWB	
Gain Control	AGC	
Noise Reduction	3D-DNR	
Privacy Masking	Up to 5 zones	
Lens		
Focal Length	4mm	
Focus Control	Auto	
Angle of View	H: 71.5°	
Video		
Compression	H.264 / MJPEG	
Resolution	5M [2592x1920] / 3M [2048x1536] / 1080p [1920x1080] / 720p [1280x720] / D1 [640x480]	
Frame Rate	Main Stream	5M [10fps] / 3M [20fps] / 1080p [25/30fps]
	Sub Stream	D1 [25/30fps]
Bit Rate	200 ~ 12,000Kbps	
Audio		
Compression	G.711a / G.711μ / PCM	
Interface	1/1 Channel In/Out	
Network		
Ethernet	RJ-45 [10M/100M adaptive]	
Protocol	IPv4/IPv6, HTTP, TCP, UDP, RTSP, RTP, RTCP, DHCP, DNS, PPPoE, DDNS	
Compatibility	ONVIF v2.4	
Remote Access	PC [Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V±10%, PoE [802.3af]	
Power Consumption	4.5W	
Working Environment	-40°C ~ +60°C, < 95% RH	
Ingress Protection	IP66	
Dimensions	100mm × 100mm × 81mm	
Weight	400g	

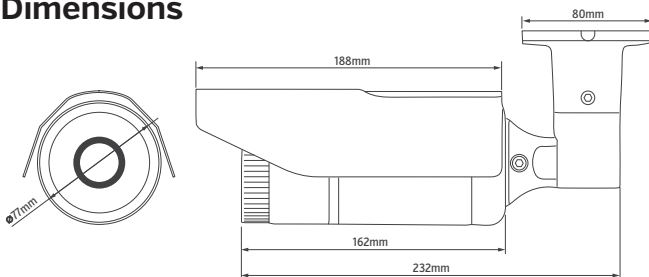


## 5 Megapixel IR Bullet IP Camera

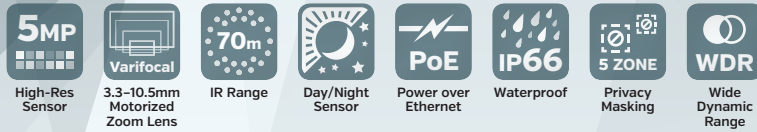
### Features

- 1/2.5" 5 Megapixel Progressive Scan CMOS
- 3.3-10.5mm Varifocal Lens offering a 82-31° Field of View
- Optional Motorized Lens
- H.264 & MJPEG Dual-Stream Compression
- Max 10fps@5M [2592×1920] & 25/30fps@1080p [1920×1080]
- Day/Night [ICR], 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with PC [Internet Browser, X5 Synergy VMS]
- 30m/100ft IR LED Distance
- Alarm I/O, Audio & RS485 Interfaces
- Rugged IP66 Housing
- Integrated 3-Axis Mount
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Processor	High-Performance TI DaVinci DSP	
Image Sensor	1/2.5" 5 Megapixel Progressive Scan CMOS	
Shutter Speed	1/5s ~ 1/50,000s	
S/N Ratio	> 50dB	
Video Output	1 channel, BNC (1.0Vp-p/75Ω)	
Camera Features		
Max IR Distance	30m / 100ft	
Day/Night	Auto-Switching IR Cut Filter	
Backlight Compensation	BLC / HLC / WDR	
White Balance	AWB	
Gain Control	AGC	
Noise Reduction	3D-DNR	
Privacy Masking	Up to 5 zones	
Lens		
Focal Length	3.3-10.5mm Lens (motorized optional)	
Focus Control	Auto	
Angle of View	H: 82.2° ~ 30.7°	
Video		
Compression	H.264 / MJPEG	
Resolution	5M [2592×1920] / 3M [2048×1536] / 1080p [1920×1080] / 720p [1280×720] / D1 [640×480]	
Frame Rate	Main Stream	5M [10fps] / 3M [20fps] / 1080p [25/30fps]
	Sub Stream	D1 [25/30fps]
Bit Rate	200 ~ 12,000Kbps	
Audio		
Compression	G.711a / G.711μ / PCM	
Interface	1/1 Channel In/Out	
Network		
Ethernet	RJ-45 [10M/100M adaptive]	
Protocol	IPv4/IPv6, HTTP, TCP, UDP, RTSP, RTP, RTCP, DHCP, DNS, PPPoE, DDNS	
Compatibility	ONVIF v2.4	
Remote Access	PC [Internet Browser, X5 Synergy VMS]	
Auxiliary Ports		
RS485	1 Port [half duplex]	
Alarm	1/1 Channel In/Out	
General		
Power Supply	DC12V±10%,PoE (802.3af)	
Power Consumption	7W	
Working Environment	-40°C ~ +60°C, < 95% RH	
Ingress Protection	IP66	
Dimensions	310mm × 75mm × 90mm	
Mount	Integrated 3-Axis Mount	
Weight	1.02kg	

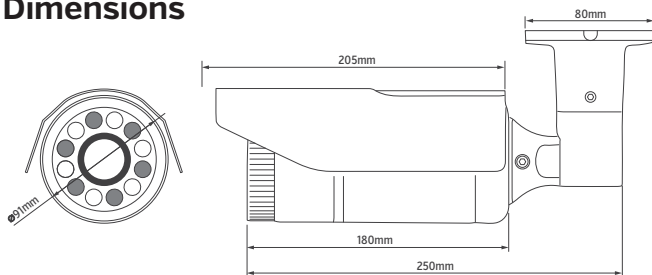


## 5 Megapixel IR Bullet IP Camera

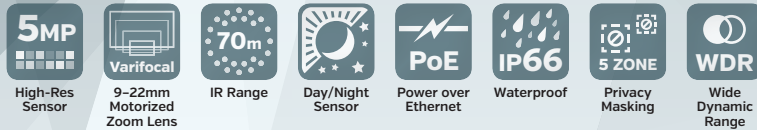
### Features

- 1/2.5" 5 Megapixel Progressive Scan CMOS
- 3.3-10.5mm Varifocal Lens offering a 82-31° Field of View
- Optional Motorized Lens
- H.264 & MJPEG Dual-Stream Compression
- Max 10fps@5M [2592x1920] & 25/30fps@1080p [1920x1080]
- Day/Night [ICR], 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with PC [Internet Browser, X5 Synergy VMS]
- 70m/230ft IR LED Distance
- Alarm I/O, Audio & RS485 Interfaces
- Rugged IP66 Housing
- Integrated 3-Axis Mount
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Processor	High-Performance TI DaVinci DSP	
Image Sensor	1/2.5" 5 Megapixel Progressive Scan CMOS	
Shutter Speed	1/5s ~ 1/50,000s	
S/N Ratio	> 50dB	
Video Output	1 channel, BNC (1.0Vp-p/75Ω)	
Camera Features		
Max IR Distance	70m / 230ft	
Day/Night	Auto-Switching IR Cut Filter	
Backlight Compensation	BLC / HLC / WDR	
White Balance	Auto	
Gain Control	Auto	
Noise Reduction	3D	
Privacy Masking	Up to 5 zones	
Lens		
Focal Length	3.3-10.5mm Lens (motorized optional)	
Focus Control	Auto	
Angle of View	H: 82.2° ~ 30.7°	
Video		
Compression	H.264 / MJPEG	
Resolution	5M [2592x1920] / 3M [2048x1536] / 1080p [1920x1080] / 720p [1280x720] / D1 [640x480]	
Frame Rate	Main Stream	5M [10fps] / 3M [20fps] / 1080p [25/30fps]
	Sub Stream	D1 [25/30fps]
Bit Rate	200 ~ 12,000Kbps	
Audio		
Compression	G.711a / G.711μ / PCM	
Interface	1/1 Channel In/Out	
Network		
Ethernet	RJ-45 [10M/100M adaptive]	
Protocol	IPv4/IPv6, HTTP, TCP, UDP, RTSP, RTP, RTCP, DHCP, DNS, PPPoE, DDNS	
Compatibility	ONVIF v2.4	
Remote Access	PC [Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V±10%, PoE [802.3af]	
Power Consumption	10W	
Working Environment	-40°C ~ +60°C, < 95% RH	
Ingress Protection	IP66	
Dimensions	330mm x 105mm x 120mm	
Mount	Integrated 3-Axis Mount	
Weight	1.13kg	

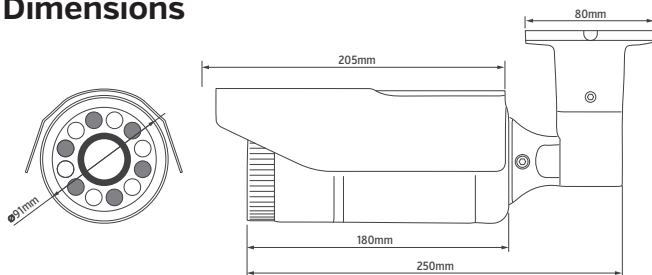


## 5 Megapixel IR Bullet IP Camera

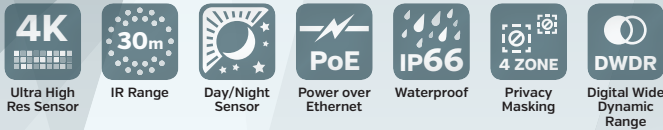
### Features

- 1/2.5" 5 Megapixel Progressive Scan CMOS
- 9–22mm Varifocal Lens offering a 35–15° Field of View
- Optional Motorized Lens
- H.264 & MJPEG Dual-Stream Compression
- Max 10fps@5M [2592×1920] & 25/30fps@1080p [1920×1080]
- Day/Night [ICR], 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with PC [Internet Browser, X5 Synergy VMS]
- 70m/230ft IR LED Distance
- Alarm I/O, Audio & RS485 Interfaces
- Rugged IP66 Housing
- Integrated 3-Axis Mount
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Processor	High-Performance TI DaVinci DSP	
Image Sensor	1/2.5" 5 Megapixel Progressive Scan CMOS	
Shutter Speed	1/5s ~ 1/50,000s	
S/N Ratio	> 50dB	
Video Output	1 channel, BNC (1.0Vp-p/75Ω)	
Camera Features		
Max IR Distance	70m / 230ft	
Day/Night	Auto-Switching IR Cut Filter	
Backlight Compensation	BLC / HLC / WDR	
White Balance	Auto	
Gain Control	Auto	
Noise Reduction	3D	
Privacy Masking	Up to 5 zones	
Lens		
Focal Length	9–22mm Lens (motorized optional)	
Focus Control	Auto	
Angle of View	H: 35.5° ~ 14.9°	
Video		
Compression	H.264 / MJPEG	
Resolution	5M [2592×1920] / 3M [2048×1536] / 1080p [1920×1080] / 720p [1280×720] / D1 [640×480]	
Frame Rate	Main Stream	5M [10fps] / 3M [20fps] / 1080p [25/30fps]
	Sub Stream	D1 [25/30fps]
Bit Rate	200 ~ 12,000Kbps	
Audio		
Compression	G.711a / G.711μ / PCM	
Interface	1/1 Channel In/Out	
Network		
Ethernet	RJ-45 [10M/100M adaptive]	
Protocol	IPv4/IPv6, HTTP, TCP, UDP, RTSP, RTP, RTCP, DHCP, DNS, PPPoE, DDNS	
Compatibility	ONVIF v2.4	
Remote Access	PC [Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V±10%, PoE [802.3af]	
Power Consumption	10W	
Working Environment	-40°C ~ +60°C, < 95% RH	
Ingress Protection	IP66	
Dimensions	330mm × 105mm × 120mm	
Mount	Integrated 3-Axis Mount	
Weight	1.13kg	

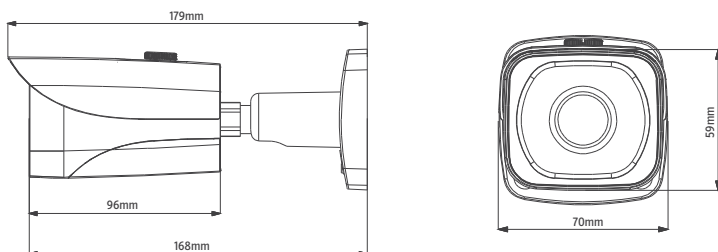


## 4K Ultra HD Network IR Mini Bullet Camera

### Features

- 1/2.3" 4K Progressive Scan CMOS
- 4K [8 Megapixel] Resolution
- H.264 & MJPEG Dual-Stream Compression
- 7fps @ 4K [3840x2160]
- DWDR, Day/Night [ICR], 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with iPhone, iPad or PC [Internet Browser, ARMS Pro/HD, X5 Synergy VMS]
- 4mm Fixed Lens offering a 80° Field of View
- 30m/100ft IR LED Distance
- Rugged IP66 Housing
- Integrated 3-Axis Mount
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Image Sensor	1/2.3" 4K Progressive Scan CMOS	
Effective Pixels	3840 × 2160 [8,294,400 Pixels]	
Shutter Speed	Auto/Manual, 1/3[4]-1/10000s	
Min. Illumination	0.1 Lux/f1.6 [Color], 0 Lux/f1.6 [IR on]	
S/N Ratio	> 50dB	
Camera Features		
Max IR Distance	30m / 100ft	
Day/Night	Auto [ICR] / Color / B&W	
Backlight Compensation	BLC / HLC / DWDR	
White Balance	Auto/Manual	
Gain Control	Auto/Manual	
Noise Reduction	3D	
Privacy Masking	Up to 4 zones	
Lens		
Focal Length	4mm	
Max Aperture	f1.6	
Focus Control	Manual	
Angle of View	H: 80°	
Video		
Compression	H.264 / MJPEG	
Resolution	4K [3840×2160] / 3M [2048×1536] / 1080p [1920×1080] / 720p [1280×720] / D1 [704×480] / CIF [352×240]	
Frame Rate	Main Stream	4K [1-7fps] / 3M/1080p [1-25/30fps]
	Sub Stream	D1/CIF [1-25/30fps]
Bit Rate	H.264: 20K ~ 16Mbps	
Network		
Ethernet	RJ-45 [10/100Base-T]	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V, PoE [802.3af]	
Power Consumption	< 7.5W	
Working Environment	-35°C ~ +60°C, < 95% RH	
Ingress Protection	IP66	
Dimensions	179mm × 70mm × 70mm	
Mount	Integrated 3-Axis Mount	
Weight	528g	

### Accessories (optional)

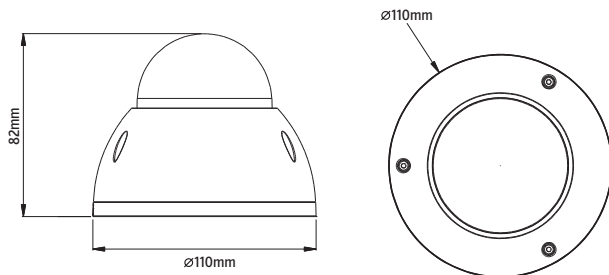


## 4K Ultra HD Network IR Mini Dome Camera

### Features

- 1/2.3" 4K Progressive Scan CMOS
- 4K [8 Megapixel] Resolution
- H.264 & MJPEG Dual-Stream Compression
- 7fps @ 4K [3840x2160]
- DWDR, Day/Night [ICR], 3D-DNR, AWB, AGC, BLC
- Remote Monitoring with iPhone, iPad or PC [Internet Browser, ARMS Pro/HD, X5 Synergy VMS]
- 4mm Fixed Lens offering a 80° Field of View
- 20m/65ft IR LED Distance
- Rugged IP66 & IK10 Housing
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Image Sensor	1/2.3" 4K Progressive Scan CMOS	
Effective Pixels	3840 x 2160 [8,294,400 Pixels]	
Shutter Speed	Auto/Manual, 1/3[4]-1/10000s	
Min. Illumination	0.1 Lux/f1.6 [Color], 0 Lux/f1.8 [IR on]	
S/N Ratio	> 50dB	
Camera Features		
Max IR Distance	20m / 65ft	
Day/Night	Auto [ICR] / Color / B&W	
Backlight Compensation	BLC / HLC / DWDR	
White Balance	Auto/Manual	
Gain Control	Auto/Manual	
Noise Reduction	3D	
Privacy Masking	Up to 4 zones	
Lens		
Focal Length	4mm	
Max Aperture	f1.6	
Focus Control	Manual	
Angle of View	H: 80°	
Video		
Compression	H.264 / MJPEG	
Resolution	4K [3840x2160] / 3M [2048x1536] / 1080p [1920x1080] / 720p [1280x720] / D1 [704x480] / CIF [352x240]	
Frame Rate	Main Stream	4K [1-7fps] / 3M/1080p [1-25/30fps]
	Sub Stream	D1/CIF [1-25/30fps]
Bit Rate	H.264: 20K ~ 16Mbps	
Network		
Ethernet	RJ-45 [10/100Base-T]	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	DC12V, PoE [802.3af]	
Power Consumption	< 7W	
Working Environment	-35°C ~ +60°C, < 95% RH	
Ingress Protection	IP66	
Vandal Resistance	IK10	
Dimensions	Ø110mm x 82mm	
Weight	406g	

### Accessories (optional)

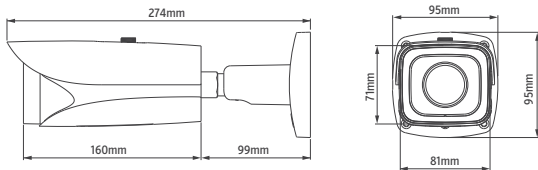


## 12MP IR Bullet IP Camera w/AVA Analytics

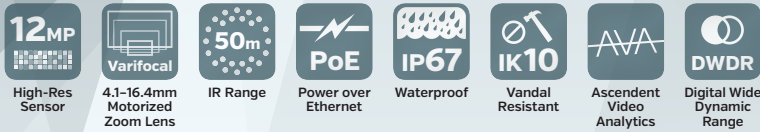
### Features

- 1/1.7" 12 Megapixel Progressive Scan CMOS
- Supports H.264 & MJPEG Compression
- Triple Video Stream Encoding
- Max 15fps@12MP or 25/30fps@8MP
- WDR, Day/Night (ICR), 3D-DNR, Auto Iris, AWB, AGC, BLC
- Defog, ROI, EIS, Intelligent Adaptive IR
- AVA Analytics: Face Detection, Bi-Directional Tripwire, Perimeter Intrusion Detection
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- 50m/160ft IR LED Distance
- 100/1000M Base-T Ethernet, PoE
- Edge Recording via SD Card
- Extra-Rugged IP67 Housing
- Integrated 3-Axis Mount

### Dimensions



Camera		
<b>Image Sensor</b>	1/1.7" 12 Megapixel Progressive Scan CMOS	
<b>Effective Pixels</b>	4000 × 3000 (12,000,000 Pixels)	
<b>Scanning System</b>	Progressive	
<b>Shutter Speed</b>	Auto/Manual, 1/4-1/100000s	
<b>Min. Illumination</b>	0.05 Lux/f1.4 (Color), 0 Lux/f1.4 (IR on)	
<b>S/N Ratio</b>	> 50dB	
<b>Video Output</b>	1 channel, BNC (1.0Vp-p/75Ω)	
Camera Features		
<b>Max IR Distance</b>	50m / 160ft, Intelligent Adaptive IR	
<b>Day/Night</b>	Auto (ICR) / Color / B&W	
<b>Backlight Compensation</b>	BLC / HLC / DWDR	
<b>White Balance</b>	Auto/Sunny/Night/Outdoor/Customized	
<b>Gain Control</b>	Auto/Manual	
<b>Noise Reduction</b>	3D	
<b>Privacy Masking</b>	Up to 4 zones	
<b>EIS</b>	On/Off	
<b>Dehaze/Defog</b>	On/Off	
Lens		
<b>Focal Length</b>	4.1mm-16.4mm	
<b>Max Aperture</b>	f1.53	
<b>Focus Control</b>	Auto Focus	
<b>Angle of View</b>	H: 84.5°-34°	
Video		
<b>Compression</b>	H.264 / H.264B / H.264H / MJPEG	
<b>Resolution</b>	12M [4000×3000] / 8M [4096×2160] / 8M [3840×2160] / 1080p [1920×1080] / 720p [1280×720] / D1 [704×576] / CIF [352×288]	
<b>Frame Rate</b>	<b>Main Stream</b>	12M [1-15fps] / 8M [4096×2160] [1-25/30fps]
	<b>Sub Stream</b>	D1/CIF [1-25/30fps]
	<b>Third Stream</b>	1080p/720p/D1 [1-25/30fps]
<b>Bit Rate</b>	H.264: 32Kbps ~ 16Mbps	
<b>ROI</b>	Up to 4 zones	
Audio		
<b>Compression</b>	G.711a / G.711μ / AAC	
<b>Interface</b>	1/1 Channel In/Out	
AVA Analytics		
<b>Detection Types</b>	Bi-Directional Tripwire, Perimeter Intrusion Detection, Scene Change, Camera Tampering, Missing/Abandoned Object, Audio Detection, Face Detection	
Network		
<b>Ethernet</b>	RJ-45	
<b>Protocol</b>	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
<b>Compatibility</b>	ONVIF, PSIA, CGI	
<b>Remote Access</b>	iPhone, iPad, Android, PC (ARMS Pro/HD, Internet Browser, X5 Synergy VMS)	
General		
<b>Power Supply</b>	DC12V, PoE (802.3at), < 24W Power Consumption	
<b>Working Environment</b>	-30°C ~ +60°C, < 95% RH	
<b>Ingress Protection</b>	IP67	
<b>Dimensions</b>	274mm × 95mm × 95mm	
<b>Mount</b>	Integrated 3-Axis Mount	
<b>Weight</b>	800g	

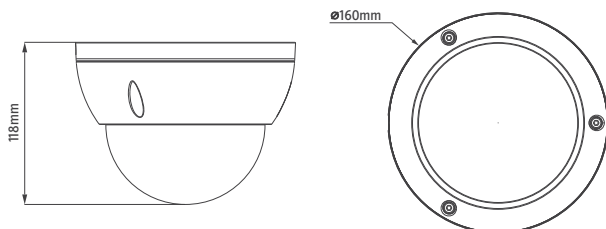


## 12MP IR Vandal Resistant Dome IP Camera

### Features

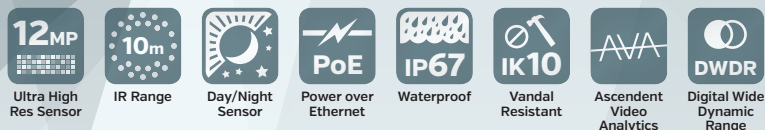
- 1/1.7" 12 Megapixel Progressive Scan CMOS
- Supports H.264 & MJPEG Compression
- Triple Video Stream Encoding
- Max 15fps@12MP or 25/30fps@8MP
- WDR, Day/Night (ICR), 3D-DNR, Auto Iris, AWB, AGC, BLC
- AVA Analytics: Face Detection, Bi-Directional Tripwire, Perimeter Intrusion Detection
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- 50m/160ft IR LED Distance
- 100/1000M Base-T Ethernet, PoE
- Extra-Rugged IP67 Housing

### Dimensions



Camera		
Image Sensor	1/1.7" 12 Megapixel Progressive Scan CMOS	
Effective Pixels	4000 × 3000 (12,000,000 Pixels)	
Scanning System	Progressive	
Shutter Speed	Auto/Manual, 1/4-1/100000s	
Min. Illumination	0.05 Lux/f1.4 (Color), 0 Lux/f1.4 (IR on)	
S/N Ratio	> 50dB	
Video Output	1 channel, BNC (1.0Vp-p/75Ω)	
Camera Features		
Max IR Distance	50m / 160ft, Intelligent Adaptive IR	
Day/Night	Auto (ICR) / Color / B&W	
Backlight Compensation	BLC / HLC / DWDR	
White Balance	Auto/Sunny/Night/Outdoor/Customized	
Gain Control	Auto/Manual	
Noise Reduction	3D	
Privacy Masking	Up to 4 zones	
Lens		
Focal Length	4.1mm~16.4mm	
Max Aperture	f1.4	
Focus Control	Motorized	
Angle of View	H: 84.5°~34°	
Video		
Compression	H.264 / H.264B / H.264H / MJPEG	
Resolution	12M [4000×3000] / 8M [4096×2160] / 8M [3840×2160] / 1080p [1920×1080] / 720p [1280×720] / D1 [704×576] / CIF [352×288]	
Frame Rate	Main Stream	12M [1~15fps] / 8M [4096×2160] [1~25/30fps]
	Sub Stream	D1/CIF [1~25/30fps]
	Third Stream	1080p/720p/D1 [1~25/30fps]
Bit Rate	H.264: 32Kbps ~ 16Mbps	
ROI	Up to 4 zones	
Audio		
Compression	G.711a / G.711μ / AAC	
Interface	1/1 Channel In/Out	
AVA Analytics		
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Scene Change, Camera Tampering, Missing/Abandoned Object, Audio Detection, Face Detection	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC (ARMS Pro/HD, Internet Browser, X5 Synergy VMS)	
General		
Power Supply	DC12V, PoE [802.3at], < 24W Power Consumption	
Working Environment	-30°C ~ +60°C, < 95% RH	
Ingress Protection	IP67	
Vandal Resistance	IK10	
Dimensions	∅160mm × 118mm	
Weight	1.1kg	



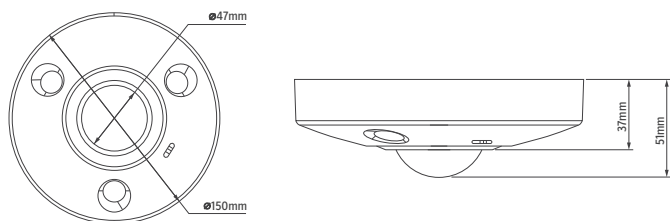


## 12MP Ultra HD Vandal Resistant IR Network Fisheye Camera

### Features

- 1/2.3" 12MP Progressive Scan CMOS
- H.264 & MJPEG Dual-Stream Compression
- 15fps@12M [4000x3000], 25/30fps@3M [2048x1536]
- Multiple Dewarping Display Modes: Panoramic, Dual Panoramic, ePTZ, Split Screen: 1+3/4
- DWDR, Day/Night [ICR], 3D-DNR, AWB, AGC, BLC
- AVA Analytics: Heat Map, Tripwire, Perimeter Intrusion
- Remote Monitoring with iPhone, iPad or PC [Internet Browser, ARMS Pro/HD, X5 Synergy VMS]
- Ultra-wide 185° 1.57mm Fisheye Lens offering a 360° Panoramic View
- 10m/30ft IR LED Distance
- Edge Recording via SD Card
- Extra Rugged IP67 & IK10 Housing
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera	
Image Sensor	1/2.3" 12MP Progressive Scan CMOS
Effective Pixels	4000 × 3000 [12,000,000 Pixels]
Shutter Speed	Auto/Manual 1/3-1/10000
Min. Illumination	0.01 Lux/f2.2 [Color], 0 Lux/f2.2 [IR on]
S/N Ratio	> 50dB
Camera Features	
Max IR Distance	10m / 30ft
Day/Night	Auto [ICR] / Color / B&W
Backlight Compensation	BLC / HLC / DWDR
White Balance	Auto/Manual
Gain Control	Auto/Manual
Noise Reduction	3D
Privacy Masking	Up to 4 zones
Lens	
Focal Length	1.57mm
Max Aperture	f2.2
Focus Control	Manual
Angle of View	185°
Video	
Compression	H.264H / MJPEG / JPEG
Resolution	12M [4000×3000] / 8M [2880×2880] / 6M [2880×2160] / 3M [2048×1536]
Frame Rate	<b>Main Stream</b> 12M [1-15fps] / 3M [1-25/30fps] <b>Sub Stream</b> D1/CIF [1-25/30fps]
Bit Rate	40Kbps-8192Kbps
Dewarping	Yes, removes fisheye effect
Display Modes	Panoramic, Dual Panoramic, Split Screen: 1+3/4
Audio	
Compression	G.711a / G.711μ / PCM
Interface	1/1 Channel In/Out [Built-in Mic]
AVA Analytics	
Detection Types	Heat Map, Bi-Directional Tripwire, Perimeter Intrusion Detection, Camera Tampering, Audio Detection
Network	
Ethernet	RJ-45 [10/100Base-T]
Protocol	HTTP, TCP, ARP, RTSP, RTP, UDP, RTCP, DHCP, DNS, DDNS, PPPoE, IPv4/v6, SNMP, UPnP, NTP
Compatibility	ONVIF, PSIA, CGI
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]
Auxiliary Ports	
Memory Slot	Micro SD
Alarm	2/1 Channel In/Out
General	
Power Supply	DC12V, PoE [802.3af]
Power Consumption	< 13W
Working Environment	-30°C ~ +60°C, < 95% RH
Ingress Protection	IP67
Vandal Resistance	IK10
Dimensions	∅150mm × 51mm
Weight	580g

### Accessories (optional)



\*Lens not included.



Ultra High Res Sensor



0.001 Lux Capable



Power over Ethernet



Privacy Masking



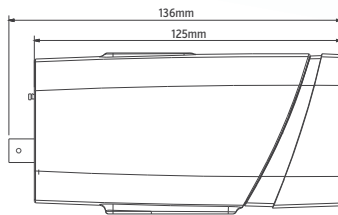
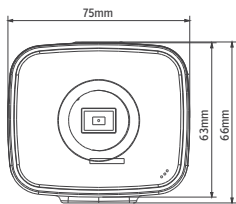
Digital Wide Dynamic Range

## 12 Megapixel Ultra HD Network Camera

### Features

- 1/2.3" 12MP Progressive Scan CMOS
- H.264 & MJPEG Dual-Stream Compression
- 15fps@12M [4000x3000]
- Defog, ROI, EIS
- Auto Back Focus
- Built-in Mic
- 100/100M Base-T Ethernet

### Dimensions



Camera		
Image Sensor	1/2.3" 12MP Progressive Scan CMOS	
Effective Pixels	4000 × 3000 [12,000,000 Pixels]	
Shutter Speed	Auto/Manual 1/3-1/10000	
Min. Illumination	0.01 Lux/f1.2 [Color], 0.001 Lux/f1.2 [B&W]	
S/N Ratio	> 50dB	
Video Output	1 Channel, BNC [1.0Vp-p,75Ω]	
Camera Features		
Day/Night	Auto [ICR] / Color / B&W	
Backlight Compensation	BLC / HLC / DWDR	
White Balance	Auto/Manual	
Gain Control	Auto/Manual	
Noise Reduction	3D	
Privacy Masking	Up to 4 zones	
EIS	Supported	
Defog	Supported	
Focus	ABF	
Lens		
Mount Type	C/CS	
Video		
Compression	H.264 / MJPEG	
Resolution	12M [4000×3000] / 8M [3840×2160] / 1080p [1920×1080] / 720p [1280×720] / D1 [704×576] / CIF [352×288]	
Frame Rate	Main Stream	12M [1-15fps] / 8M/1080p [1-25/30fps]
	Sub Stream	D1/CIF [1-50/60fps]
	Third Stream	1080p/720p/D1 [1-50/60fps]
Bit Rate	H.264: 32K-96Mbps	
ROI	Up to 4 zones	
Audio		
Compression	G.711a / G.711μ	
Interface	1/1 Channel In/Out [Built-in Mic]	
Network		
Ethernet	RJ-45 [10/100/1000Base-T]	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
Auxiliary Ports		
Memory Slot	Micro SD, Max 128GB	
RS485	1 Port	
Alarm	2/1 Channel In/Out	
General		
Power Supply	DC12V/AC24V, PoE [802.3af]	
Power Consumption	< 12W [ABF & ICR On]	
Working Environment	-30°C ~ +60°C, < 95% RH	
Dimensions	75mm × 66mm × 136mm	
Weight	300g	







# AVA

## Ascendent Video Analytics

Our new line of AVA cameras offer advanced analytics including: Perimeter Intrusion, Tripwire, Restricted Zone, Missing Object, Camera Tampering, Face Detection and Audio Detection. (See the following pages for more information.)

Using these intelligent detection filters provides real-time alerts, allowing for proactive use of video surveillance as events are occurring.

**AVA Detection Types →**

**Additional Features & PTZ →**

### AVA Capable Cameras

3MP-B-IR-2712-AVA-CS

4MP-B-IR-2712-MZ-AVA-CS

12MP-B-IR-416-MZ-AVA-CS

3MP-VRD-IR-2712-AVA-CS

4MP-VRD-IR-2712-MZ-AVA-CS

12MP-VRD-IR-416-MZ-AVA-CS

12MP-VRD-IR-360FE-AVA-CS

### AVA Capable PTZs

2MP-PTZ-IR-30X-AVA-CS

2MP-PTZ-IR-20X-ATA-CS

2MP-PTZ-ZLID-30X-SL-ATA-CS

2MP-PTZ-IR-39X-LR-ATA-CS

4MP-PTZ-IR-30X-AVA-CS

2MP-PTZ-IR-30X-ATA-CS

2MP-PTZ-ZLID-39X-ATA-CS

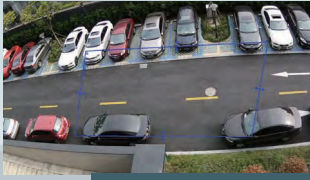
2MP-PTZ-ZLID-39X-ATA-CS

### AVA Capable NVRs

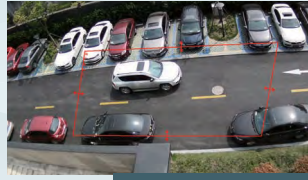
X5S-NVR-2U-64CH/124CH-4K-AVA

X5S-NVR-3U-64CH/124CH-4K-AVA

X5S-NVR-4U-250CH-4K-AVA



Normal Status



Alarm Status

## Perimeter Intrusion Detection

Perimeter Intrusion Detection allows user-defined zones to be drawn, and will trigger an alarm and recording when intrusions occur.



Normal Status



Alarm Status

## Tripwire

Tripwires allow a user-defined line to be drawn, which can be set to trigger alarms and recording when the line is crossed. This can be configured to be triggered in a single direction, or bi-directionally.



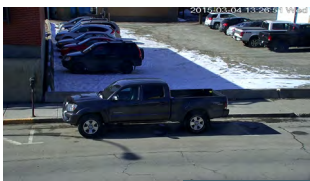
Normal Status



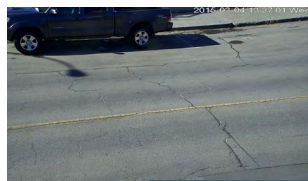
Alarm Status

## Restricted Zone/Missing Object

These rules allow a user to define a zone and a time limit that will trigger an alarm and recording if an object/vehicle/person dwells in the zone for too long, or exits the zone for too long.



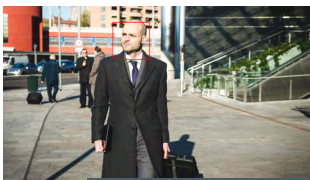
Normal



Tampered

## Camera Tampering Detection

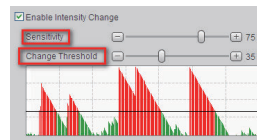
Detects when the camera is out of focus or if the camera has been moved and can trigger an alarm and recording.



Face Detection

## Face Detection

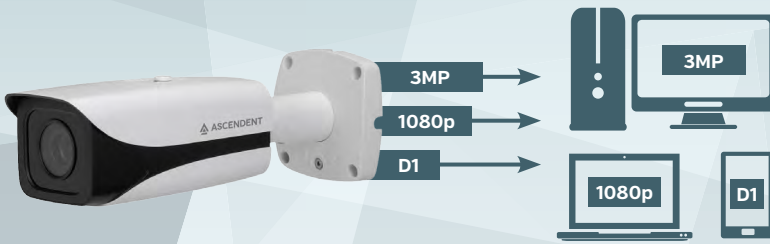
Face Detection can detect when a face is present in an image, and trigger alarms and recording.



## Audio Detection

Audio Detection can trigger an alarm and recording when sound levels exceed a user-defined threshold.

## Additional Features & PTZ →



## Triple Streams

Triple Streams provide flexibility by allowing separate resolutions, codec, frame rate, and bitrate settings on each stream.



EIS Off



EIS On

## Electronic Image Stabilization

EIS reduces blurring of images caused by camera vibration and oscillation.



Defog Off



Defog On

## Defog

Defog technology mitigates the effects of fog, haze, smog, mist, and other atmospheric conditions to deliver superior performance in difficult environments.

# PTZ Analytics



## Intelligent PTZ Positioning

Ascendent's C Series AVA IP cameras support Intelligent PTZ Positioning by activating user-defined presets on X5S NVRs when detection analytics are triggered providing an automated surveillance solution. This can be augmented by a human operator to track and identify the threat in real time for unparalleled security and protection.

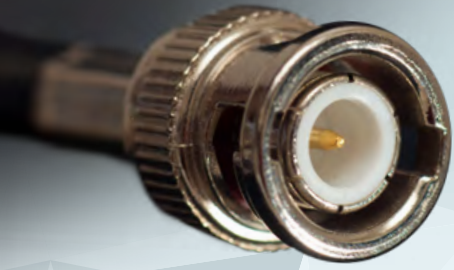
## PTZ Auto-Tracking

Ascendent's C Series ATA PTZs can use the AVA algorithms to trigger auto-tracking of targets. The Sigma/Terra PTZ series can provide ultra-long range auto-tracking at distances up to 30km day/night, and can utilize C Series AVA IP cameras as auxiliary sensors for detection and acquisition of targets making it ideal for large perimeters, critical infrastructure, and border protection. This revolutionary technology offers a superior solution that provides not only detection, but true day/night identification of targets making it the clear industry leader.



*Uncompressed 1080p  
HD Video over Coax  
500m Transmission Distance  
Zero Latency  
OSD & Lens Control  
Use existing Coax  
Plug & Play*





# HDX Cameras

## High Definition over Coaxial Cable

New HDX technology offers Full HD 1080P resolution surveillance over standard coax cable. HDX technology is set to revolutionize the CCTV industry by offering easy upgrades to existing installations, and a low cost alternative to Analog, SDI, and IP cameras. Hybrid HDX DVRs make it easy to add new HDX or IP cameras while maintaining existing analog cameras.

### Our HDX Camera Lineup

**HDX-1MP-EB-IR-28**

**HDX-1MP-EB-IR-2812**

**HDX-2MP-EB-IR-28**

**HDX-2MP-EB-IR-2812-MZ**

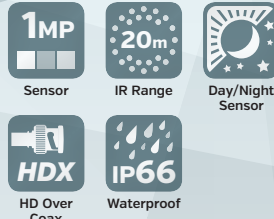
**HDX-2MP-B-IR-20X**

### Our HDX DVR Lineup

**X5S-HDX-Mini-4CH-1MP**

**X5S-HDX-1U-8CH-2MP**

**X5S-HVR-1.5U-4CH/8CH/16CH-2MP**

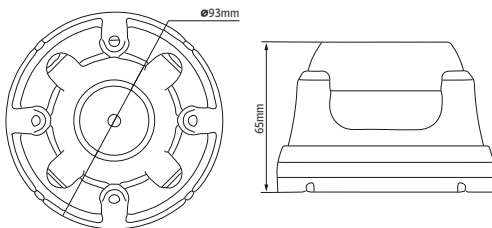


## 1 Megapixel Outdoor HDX IR Dome Camera

### Features

- 1/2.9" 1 Megapixel CMOS Sensor
- 2.8mm Lens offering a 82° Field of View
- Real-time HD Video over Coaxial Cable
- Long Distance 500m Transmission via 75-3 cable
- Auto Flickerless
- Auto Day/Night [ICR]
- New IR LED Array Technology
- 20m/65ft IR LED Distance
- HDX Output
- Waterproof IP66 Housing

### Dimensions



Camera	
<b>Image Sensor</b>	1/2.9" 1.0 Megapixel Progressive Scan CMOS
<b>Effective Pixels</b>	1280×720 [921,600 Pixels]
<b>Shutter Speed</b>	4/25 ~ 1/450000s
<b>Min. Illumination</b>	0 Lux/f1.2 [IR on]
<b>Synchronization</b>	Internal
Camera Features	
<b>Max IR Distance</b>	20m/65', 2 IR LED Array
<b>Day/Night</b>	Auto
<b>Backlight Compensation</b>	Auto
<b>White Balance</b>	Auto
Lens	
<b>Focal Length</b>	2.8mm
<b>Max Aperture</b>	f1.2
<b>Angle of View</b>	H: 82°
Video	
<b>Resolution</b>	1280×720
<b>Frame Rate</b>	50Hz: 720p@25fps / 60Hz: 720p@30fps
<b>Video Output</b>	HDX [BNC]
General	
<b>Power Supply</b>	DC12V±10%, 300mA
<b>Power Consumption</b>	<4W
<b>Working Environment</b>	-10°C ~ +50°C, < 85 % RH [non-condensation]
<b>Ingress Protection</b>	IP66
<b>Weight</b>	300g



1MP Sensor	Varifocal 2.8-12mm Lens	30m IR Range
Day/Night Sensor	HDX HD Over Coax	IP66 Waterproof

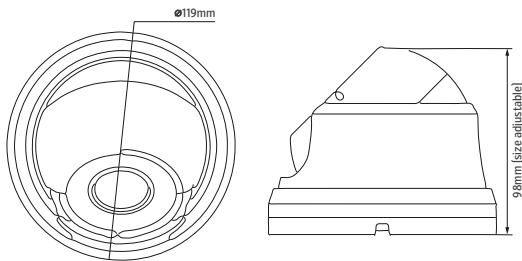
Camera	
Image Sensor	1/2.9" 1.0 Megapixel Progressive Scan CMOS
Effective Pixels	1280x720 [921,600 Pixels]
Shutter Speed	4/25 ~ 1/450000s
Min. Illumination	0 Lux/f1.2 [IR on]
Synchronization	Internal
Camera Features	
Max IR Distance	30m/100'; 3 IR LED Array
Day/Night	Auto
Backlight Compensation	Auto
White Balance	Auto
Lens	
Focal Length	2.8mm ~ 12mm
Max Aperture	f1.2
Angle of View	H: 82° ~ 23°
Video	
Resolution	1280x720
Frame Rate	50Hz: 720p@25fps / 60Hz: 720p@30fps
Video Output	HDX [BNC]
General	
Power Supply	DC12V±10%, 390mA
Power Consumption	<5W
Working Environment	-10°C ~ +50°C, < 85 % RH [non-condensation]
Ingress Protection	IP66
Weight	630g

## 1 Megapixel Outdoor HDX IR Dome Camera

### Features

- 1/2.9" 1 Megapixel CMOS Sensor
- 2.8-12mm Lens offering a 82-23° Field of View
- Real-time HD Video over Coaxial Cable
- Long Distance 500m Transmission via 75-3 cable
- Auto Flickerless
- Auto Day/Night [ICR]
- New IR LED Array Technology
- 30m/100ft IR LED Distance
- HDX Output
- Waterproof IP66 Housing

### Dimensions



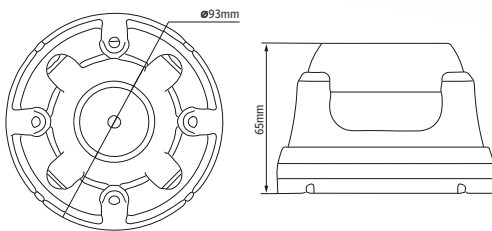


## 2 Megapixel Outdoor HDX IR Dome Camera

### Features

- 1/2.8" 2 Megapixel Sony Exmor CMOS Sensor
- 2.8mm Lens offering a 83° Field of View
- Real-time Full HD Video over Coaxial Cable
- Long Distance 500m Transmission via 75-3 cable
- Defog, DWDR, 8X Digital Zoom
- New IR LED Array Technology
- 20m/65ft IR LED Distance
- HDX/BNC 960H Dual Output
- Waterproof IP66 Housing

### Dimensions



Camera	
<b>Image Sensor</b>	1/2.8" 2.0 Megapixel Sony Exmor CMOS
<b>Effective Pixels</b>	1984x1105 (2,192,320 Pixels)
<b>Min. Illumination</b>	0 Lux/f2.0 [IR on]
<b>S/N Ratio</b>	>50dB [AGC off]
Camera Features	
<b>Max IR Distance</b>	20m/65', 2 IR LED Array
<b>Day/Night</b>	External, Color, B&W, Auto
<b>White Balance</b>	Auto
<b>Defog</b>	On/Off
<b>DNR</b>	2D & 3D NR
<b>WDR</b>	Off/Low/Middle/High
<b>Privacy Mask</b>	16 Areas
<b>Motion Detection</b>	4 Areas
Lens	
<b>Focal Length</b>	2.8mm
<b>Max Aperture</b>	f2.0
<b>Angle of View</b>	H: 83°
Video	
<b>Resolution</b>	1080p Digital / 700TVL Analog
<b>Frame Rate</b>	30fps
<b>Video Output</b>	HDX [BNC] / 1Vp-p Composite Output [75Ω/BNC]
General	
<b>Power Supply</b>	DC12V±10%, 300mA
<b>Power Consumption</b>	<4W
<b>Working Environment</b>	-10°C ~ +50°C, < 85 % RH [non-condensation]
<b>Ingress Protection</b>	IP66
<b>Weight</b>	310g



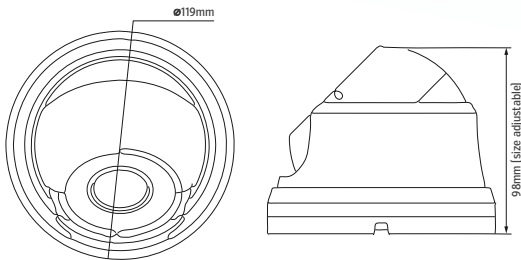
- 2MP**  
Sensor
- Varifocal**  
2.8-12mm  
Motorized  
Zoom Lens
- 40m**  
IR Range
- Day/Night**  
Sensor
- HDX**  
HD Over  
Coax
- IP66**  
Waterproof
- DWDR**  
Digital Wide  
Dynamic  
Range

## 2 Megapixel Outdoor HDX IR Dome Camera

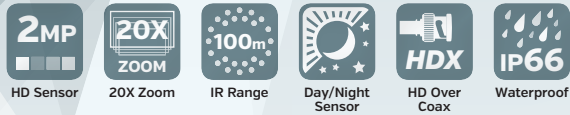
### Features

- 1/2.8" 2 Megapixel Sony Exmor CMOS Sensor
- 2.8-12mm Motorized Zoom Lens offering a 83-24° Field of View
- Real-time Full HD Video over Coaxial Cable
- Long Distance 500m Transmission via 75-3 cable
- Defog, DWDR, 8X Digital Zoom
- New IR LED Array Technology
- 40m/130ft IR LED Distance
- HDX/BNC 960H Dual Output
- Waterproof IP66 Housing

### Dimensions



Camera	
<b>Image Sensor</b>	1/2.8" 2.0 Megapixel Sony Exmor CMOS
<b>Effective Pixels</b>	1984x1105 (2,192,320 Pixels)
<b>Min. Illumination</b>	0 Lux/f2.0 (IR on)
<b>S/N Ratio</b>	>50dB [AGC off]
Camera Features	
<b>Max IR Distance</b>	40m/130', 3 IR LED Array
<b>Day/Night</b>	External, Color, B&W, Auto
<b>White Balance</b>	Auto
<b>Defog</b>	On/Off
<b>DNR</b>	2D & 3D NR
<b>WDR</b>	Off/Low/Middle/High
<b>Privacy Mask</b>	16 Areas
<b>Motion Detection</b>	4 Areas
Lens	
<b>Focal Length</b>	2.8mm ~ 12mm Motorized Zoom
<b>Max Aperture</b>	f2.0
<b>Angle of View</b>	H: 83° ~ 24°
Video	
<b>Resolution</b>	1080p Digital / 700TVL Analog
<b>Frame Rate</b>	30fps
<b>Video Output</b>	HDX [BNC] / 1Vp-p Composite Output [75Ω/BNC]
General	
<b>Power Supply</b>	DC12V±10%, 410mA
<b>Power Consumption</b>	<5W
<b>Working Environment</b>	-10°C ~ +50°C, < 85 % RH (non-condensation)
<b>Ingress Protection</b>	IP66
<b>Weight</b>	620g



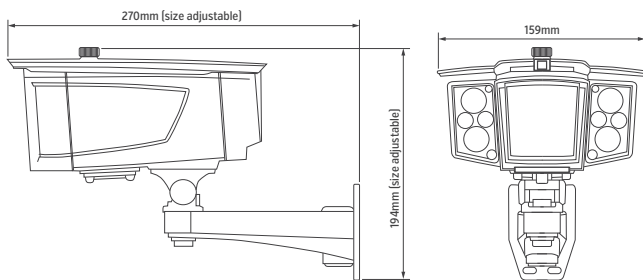
Camera	
<b>Image Sensor</b>	1/3" 2 Megapixel Sony Exmor CMOS
<b>Effective Pixels</b>	1984x1105 (2,192,320 Pixels)
<b>Min. Illumination</b>	0 Lux/f2.0 (IR on)
<b>S/N Ratio</b>	>50dB (AGC off)
Camera Features	
<b>Max IR Distance</b>	100m/325ft, 4 Super Power IR Array, 4 Mini IR Array
<b>Day/Night</b>	External, Color, B&W, Auto
<b>Privacy Mask</b>	16 Areas
<b>Motion Detection</b>	4 Areas
Lens	
<b>Focal Length</b>	4.8mm ~ 96mm (20X Zoom)
<b>Max Aperture</b>	f2.0
<b>Angle of View</b>	H: 53° ~ 2.8°
Video	
<b>Resolution</b>	1080p Digital / 700TVL Analog
<b>Frame Rate</b>	30fps
<b>Video Output</b>	HDX [BNC] / 1Vp-p Composite Output [75Ω/BNC]
General	
<b>Power Supply</b>	DC12V±10%, 410mA
<b>Power Consumption</b>	<5W
<b>Working Environment</b>	-10°C ~ +50°C, < 85 % RH (non-condensation)
<b>Ingress Protection</b>	IP66
<b>Weight</b>	1.5kg

## 2 Megapixel Outdoor HDX IR Bullet Camera

### Features

- 1/3" 2 Megapixel Sony Exmor CMOS Sensor
- 4.8–96mm Lens offering a 53–3° Field of View (20X Zoom)
- Real-time HD Video & Control over Coax
- Long Distance 500m Transmission via 75-3 cable
- Auto Focus, HLC, IR Control
- 100m/325ft IR LED Distance
- Zoom/Focus Control from DVR
- Waterproof IP66 Housing

### Dimensions





**SYNERGY ONVIF**

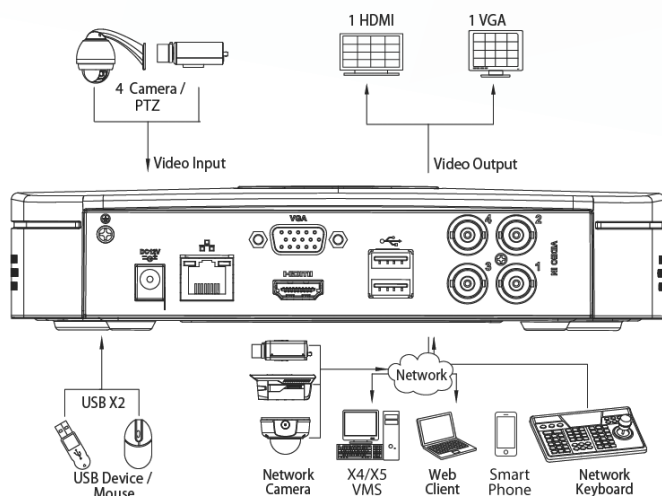
<b>720p HD</b> Recording Resolution	<b>Dual Core Processor</b>	<b>1 SATA</b> Up to 4TB	<b>1 HDMI</b>	<b>HDX</b> HD Over Coax	<b>H.264</b> Compression	<b>Smart Phone Controllable</b>
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## HDX 1U 4 Channel Standalone DVR

### Features

- 1080p Realtime Preview
- 720p Realtime Recording
- Timeline Search
- H.264 Dual-Stream Video Compression
- HDMI/VGA Simultaneous Video Output
- Supports 1 SATA HDD up to 4TB
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)

### System Connection



System	
<b>Main Processor</b>	Embedded Processor
<b>Operating System</b>	Embedded LINUX
Video	
<b>Input</b>	4 Channels, BNC
<b>Video Standard</b>	1080p/720p HDX
Audio	
<b>Input</b>	4 Channels, RCA
<b>Output</b>	1 Channel, RCA
<b>Two-way Talk</b>	Uses Audio Input/Output Channel 1
Display	
<b>Interface</b>	2 HDMI, 1 VGA
<b>Resolution</b>	1920×1080, 1280×1024, 1280×720, 1024×768, 800×600
<b>Display Split</b>	1/4/8/9
<b>Privacy Masking</b>	4 Rectangular Zones per Camera
OSD	
Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording	
Recording	
<b>A/V Compression</b>	H.264/G.711
<b>Resolution</b>	1080p (1920×1080) ~ QCIF (176×120)
<b>Record Rate</b>	<b>Main Stream</b> 720p/960H/D1/HD1/2CIF/CIF [1-25/30fps] <b>Extra Stream</b> CIF/QCIF [1-25/30fps], D1 [1-12/15fps]
<b>Bit Rate</b>	48-4096Kbps
<b>Record Mode</b>	Manual, Continuous, Motion Detection, Alarm
<b>Pre/Post Record</b>	Pre-record: 1-30 sec, Post-record: 10-300 sec
Video Detection & Alarm	
<b>Event Triggering</b>	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup
<b>Video Detection</b>	Motion Detection, Video Loss, Camera Masking
Playback & Backup	
<b>Sync Playback</b>	1/4 (limited by resolution and bitrate)
<b>Search Mode</b>	Time/Date, Timeline Search, Alarm, Motion Detection
<b>Playback Functions</b>	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom
<b>Backup Mode</b>	Network / USB / External CD-R & DVD-RW
Network	
<b>Ethernet</b>	RJ-45 Port (10/100M)
<b>Network Functions</b>	HTTP, IPV4/IPV6, TCP/IP, UPNP, RTSP, UDP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter, SNMP, P2P
<b>Remote Access</b>	iPhone, iPad, Android, PC (ARMS Pro/HD, Internet Browser, X5 Synergy VMS)
Storage	
<b>Internal HDD</b>	1 SATA Ports (up to 4TB)
Auxiliary Ports	
<b>USB</b>	2 Ports (2 Rear USB 2.0)
<b>RS485</b>	1 Port (for PTZ Control)
General	
<b>Power Supply</b>	DC12V/2A
<b>Power Consumption</b>	10W (without HDD)
<b>Working Environment</b>	-10°C ~ +55°C / 10%~90% RH / 86~106kpa
<b>Dimension (W×D×H)</b>	205mm×205mm×40mm
<b>Weight</b>	0.5kg (without HDD)

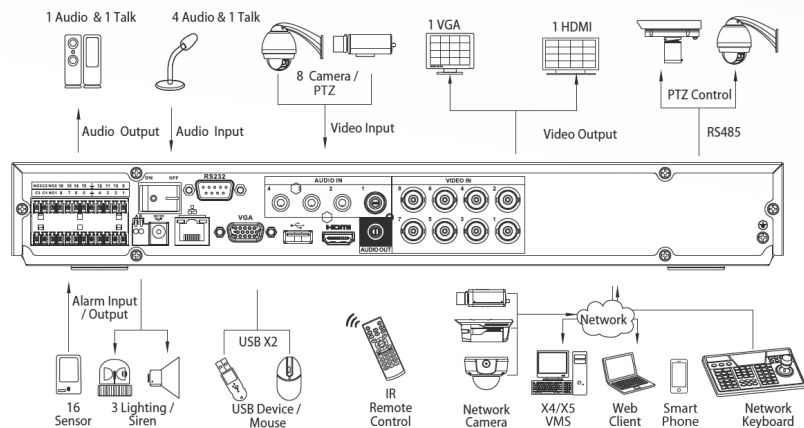


## HDX 1U 8 Channel Standalone DVR

### Features

- Supports HDX/Analog Input
- 1080p Realtime Live View & Realtime Recording
- Timeline Search
- H.264 Dual-Stream Video Compression
- Supports 2 SATA HDDs up to 8TB
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)

### System Connection



System		
<b>Main Processor</b>	Embedded Processor	
<b>Operating System</b>	Embedded LINUX	
Video		
<b>Input</b>	8 Channels, BNC	
<b>Video Standard</b>	<b>HDX</b>	1080p/720p HDX
	<b>Analog</b>	NTSC, PAL
Audio		
<b>Input</b>	4 Channels, RCA	
<b>Output</b>	1 Channel, RCA	
<b>Two-way Talk</b>	Uses Audio Input/Output Channel 1	
Display		
<b>Interface</b>	2 HDMI, 1 VGA	
<b>Resolution</b>	1920×1080, 1280×1024, 1280×720, 1024×768, 800×600	
<b>Display Split</b>	1/4/8/9	
<b>Privacy Masking</b>	4 Rectangular Zones per Camera	
<b>OSD</b>	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording	
Recording		
<b>A/V Compression</b>	H.264/G.711	
<b>Resolution</b>	1080p [1920×1080] ~ QCIF [176×120]	
<b>Record Rate</b>	<b>Main Stream</b>	1080p/720p/960H/D1/HD1/2CIF/CIF [1-25/30fps]
	<b>Extra Stream</b>	CIF/QCIF [1-25/30fps], D1 [1-12/15fps]
<b>Bit Rate</b>	48-6144Kbps	
<b>Record Mode</b>	Manual, Continuous, Motion Detection, Alarm	
<b>Pre/Post Record</b>	Pre-record: 1-30 sec, Post-record: 10-300 sec	
Video Detection & Alarm		
<b>Event Triggering</b>	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup	
<b>Video Detection</b>	Motion Detection, Video Loss, Camera Masking	
<b>Alarm I/O</b>	16 Channels In, 3 Channels Out	
Playback & Backup		
<b>Sync Playback</b>	1/4/9 (limited by resolution and bitrate)	
<b>Search Mode</b>	Time/Date, Timeline Search, Alarm, Motion Detection	
<b>Playback Functions</b>	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom	
<b>Backup Mode</b>	Network / USB / External CD-R & DVD-RW	
Network		
<b>Ethernet</b>	RJ-45 Port [10/100/1000M]	
<b>Network Functions</b>	HTTP, IPv4/IPv6, TCP/IP, UPNP, RTSP, UDP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
<b>Remote Access</b>	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
Storage		
<b>Internal HDD</b>	2 SATA Ports (up to 8TB)	
Auxiliary Ports		
<b>USB</b>	2 Ports (1 Rear USB 2.0, 1 Front USB 2.0)	
<b>RS485</b>	1 Port [for PTZ Control]	
General		
<b>Power Supply</b>	DC12V/5A	
<b>Power Consumption</b>	15W [without HDDs]	
<b>Working Environment</b>	-10°C ~ +55°C / 10%~90% RH / 86~106kpa	
<b>Dimension (W×D×H)</b>	1U, 375mm×285mm×55mm	
<b>Weight</b>	2.35kg [without HDDs]	



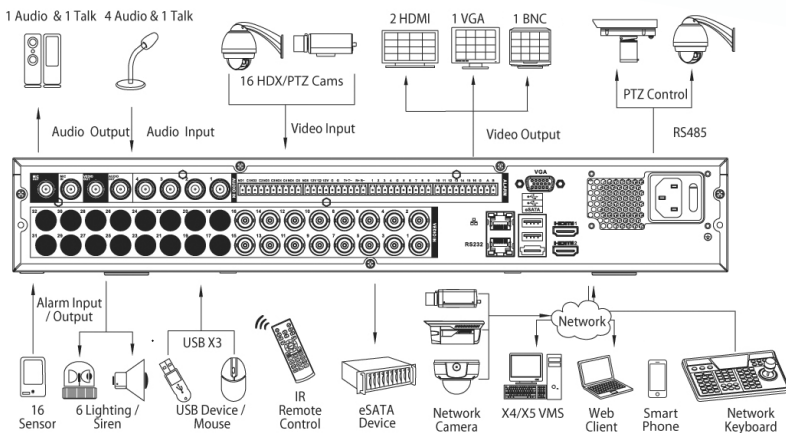


## HDX 1.5U 4/8/16 Channel Hybrid Standalone DVR

### Features

- Each Channel Supports HDX/Analog/IP Video Inputs
- 1 HDMI/VGA/TV Video Output, 1 HDMI Separate Output
- 1080p Realtime Live View
- Timeline Search
- H.264 Dual-Stream Video Compression
- Supports 4 SATA HDDs up to 16TB
- Supported IP Camera Brands: Ascendent, Arecont Vision, AXIS, Bosch, Canon, Dynacolor, Honeywell, ONVIF, Panasonic, Pelco, Samsung, Sanyo, Sony, Vivotek
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)

### System Connection



	X5S-HDX-15U-HY-4CH	X5S-HDX-15U-HY-8CH	X5S-HDX-15U-HY-16CH
<b>System</b>			
Main Processor	Embedded Processor		
Operating System	Embedded LINUX		
<b>Video</b>			
Input	4 Channels	8 Channels	16 Channels
Video Standard	HDX	1080p/720p HDX	
	Analog	NTSC, PAL, Effio 960H	
	IP	1080p, 720p, D1, CIF	
<b>Audio</b>			
Input	4 Channels, BNC		
Output	1 Channel, BNC		
Two-way Talk	1 Channel In, 1 Channel Out, BNC		
<b>Display</b>			
Interface	2 HDMI, 1 VGA, 1 TV		
Resolution	1920×1080, 1280×1024, 1280×720, 1024×768, 800×600		
Display Split	1/4	1/4/8/9	1/4/8/9/16
Privacy Masking	4 Rectangular Zones per Camera		
OSD	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording		
<b>Recording</b>			
A/V Compression	H.264/G.711		
Resolution	1080p (1920×1080) ~ QCIF (176×120)		
Record Rate	Main Stream	1080p/720p/960H/D1/HD1/2CIF/CIF [1-25/30fps]	
	Extra Stream	CIF/QCIF [1-25/30fps]	
Bit Rate	48-8192Kbps		
Record Mode	Manual, Continuous, Motion Detection, Alarm		
Pre/Post Record	Pre-record: 1-30 sec, Post-record: 10-300 sec		
<b>Video Detection &amp; Alarm</b>			
Event Triggering	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup		
Video Detection	Motion Detection, Video Loss, Camera Masking		
Alarm Input	4 Channels	8 Channels	16 Channels
Relay Output	6 Channels		
<b>Playback &amp; Backup</b>			
Sync Playback	1/4 (limited by resolution and bitrate)	1/4/9 (limited by resolution and bitrate)	1/4/9/16 (limited by resolution and bitrate)
Search Mode	Time/Date, Timeline Search, Alarm, Motion Detection		
Playback Functions	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom		
Backup Mode	Network / USB / Internal CD-R & DVD-RW / eSATA		
<b>Network</b>			
Ethernet	RJ-45 Port [10/100/1000M]		
Network Functions	HTTP, IPv4/IPv6, TCP/IP, UPNP, RTSP, UDP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter		
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]		
<b>Storage</b>			
Internal HDD	4 SATA Ports (up to 16TB)		
External HDD	1 eSATA Port (up to 16TB)		
<b>Auxiliary Ports</b>			
USB	3 Ports [2 Rear USB 2.0, 1 Front USB 2.0]		
RS232	1 Port (for PC Communication & Keyboard)		
RS422	1 Port (for Keyboard)		
RS485	1 Port (for PTZ Control)		
<b>General</b>			
Power Supply	AC 100-240 V, 50/60 Hz		
Power Consumption	40W (without HDDs)		
Working Environment	-10°C ~ +55°C / 10%~90% RH / 86~106kpa		
Dimension (W×D×H)	1.5U, 440mm×410mm×70mm		
Weight	6kg (without HDDs)		





# Analog Cameras

CCTV Closed-Circuit Television

## Analog Cameras

700-VRD-35IR-2812

700-B-72IR-2812

AP-700-IR-550-PRO

540-SUB-LED-30M

## Nova Series

NV-580-50M-12X

NV-600-120M-37X

## Analog PTZ

540-PTZ-36X-2FL



Day/Night



Zero Light Capabilities



Submersible Waterproof



Vandal Resistant



IR Range

## Vandal Resistant Dome

### Features

- 700TVL 1/3" Super HAD CCD Sensor
- Precision Engineered IR Corrected 2.8mm-12mm Lens offering a 81-23° Field of View
- IP 68 Sealed; No Water Or Dust Ingression
- Rugged Vandal-Proof Dome Enclosure
- Extreme Weather -55°C to +60°C
- Intelligent Active IR Illumination (18m/60ft)
- IR Cut Filter 0 Phase Shift Between Day/Night Mode
- Photocell for Automatic Day/Night Operation
- Low Light Sensitivity with DNR 2 and Sense-Up
- User Defined DNR, HLC, BLC, AWB, etc. via OSD
- Dual Voltage 12VDC/24VAC auto-sensing
- 4 Axis Design for Easy Camera and Lens Adjustment
- Easy Twist & Lock Installation with 3 Security Screws
- Mounts for Upright, Inverted, and Pole Installation
- Easy Mount Wall Mount

<b>Camera</b>	
<b>Image Sensor</b>	1/3" Sony Super HAD CCD
<b>Resolution</b>	700TVL
<b>Shutter Speed</b>	1/50 ~ 1/10,000s
<b>S/N Ratio</b>	50dB (AGC off)
<b>Video Output</b>	1 V <sub>pp</sub> Composite Output, 75Ω
<b>IR Illumination</b>	
<b>Day/Night</b>	Electronic Photocell Controlled (EPC)
<b>Distance</b>	18m/60' Rated
<b>Wavelength</b>	810nm [940nm Stealth optional]
<b>IR LEDs</b>	35 High Output IR LEDs
<b>Intelligent Illumination</b>	Automatically Adjusts IR for Even Illumination
<b>Lens</b>	
<b>Focal Length</b>	2.8mm-12mm Aspherical Varifocal Lens
<b>Angle of View</b>	H: 81.2° - 22.6°
<b>IR Filter</b>	MICF (Mechanical IR Cut Filter)
<b>Min. Illumination</b>	0.32 Lux [Color], 0 Lux [B&W, IR on]
<b>Installation</b>	
<b>OSD</b>	HCL, BLC, AWB, ACE, PIP, TBL, DNR 2, Mirror, Flip, Privacy, Brightness, Freeze, Sharpness, Sense-Up, Day/Night
<b>Lens Adjustment</b>	4-Axis Twist & Lock for Easy Adjustment of Camera, Lens, and IR Board
<b>Configuration</b>	User Defined Area and Intensity for Image Enhancements
<b>General</b>	
<b>Power Supply</b>	Dual Voltage 12 Volt DC/ 24V AC
<b>Power Consumption</b>	350 mA / 700 mA [IR on]
<b>Working Environment</b>	-55°C ~ +60°C
<b>Ingress Protection</b>	IP68 Sealed, NEMA 4X
<b>Dimensions (W×H)</b>	148mm×137mm
<b>Weight</b>	1.4kg



Day/Night



Zero Light Capabilities



Waterproof



2.8-12mm Lens



IR Range

## IR Rugged Extreme Weather Surveillance Security Camera

### Features

- 1/3" 700TVL Ex-CCD for Superb Color Images By Day
- 35m/120ft of Identification Performance in Complete Darkness for Excellent True Day/Night Performance
- 2.8-12mm Varifocal IR Corrected Lens offering a 81-23° Field of View
- Split Window Eliminates IR Bleed and Reflection
- Easy Installation via OSD and Lens Trap Door
- Intelligent IR with No Washout or Hotspots
- IP66 Rugged Vandal Proof Enclosure and Mount
- Internal Heater/Blower -50°C to +50°C Operation
- Installer Friendly Plug and Play Operation
- Photocell for Automatic Day/Night Switching (EPC)
- 150m Adaptive IR Illumination Distance
- IP66 Extruded High Strength Aluminum Construction

<b>Camera</b>	
<b>Image Sensor</b>	1/3" Sony EXview HAD CCD II
<b>Resolution</b>	700TVL
<b>Shutter Speed</b>	1/50 ~ 1/100,000s
<b>S/N Ratio</b>	> 52dB
<b>Video Output</b>	1 V <sub>pp</sub> , 72Ω
<b>IR Illumination</b>	
<b>Day/Night</b>	Electronic Photocell Controlled (EPC)
<b>Distance</b>	60m/195' Rated
<b>Wavelength</b>	810nm [940nm Stealth optional]
<b>IR LEDs</b>	72 Super Bright IR LEDs
<b>Intelligent IR Control</b>	Automatic Microprocessor Control (AMC)
<b>Lens</b>	
<b>Focal Length</b>	2.8mm-12mm Varifocal Lens
<b>Angle of View</b>	H: 81.2° - 22.6°
<b>IR Filter</b>	MICF [Mechanical IR Cut Filter]
<b>Min. Illumination</b>	0.05 Lux [Color], 0 Lux [B&W, IR on]
<b>Installation</b>	
<b>OSD</b>	Backlight, Flickerless, Gain Control, White Balance, Etc.
<b>Lens Adjustment</b>	Trap Door for Lens Focus and Adjustment
<b>Mount</b>	Rotating Wall Mount
<b>General</b>	
<b>Power Supply</b>	DC12V at Minimum 750mA
<b>Working Environment</b>	-25°C ~ +50°C
<b>Ingress Protection</b>	IP66
<b>Dimensions (W×H×L)</b>	Xmm×Xmm×Xmm
<b>Weight</b>	1.6kg



Day/Night



Zero Light Capabilities



Waterproof



5-50mm Lens



IR Range

## Long Range Rugged IR Camera

### Features

- Long-Range True Day/Night IR Camera
- Superb Color By Day and Quality B&W at Night
- 1/3" 700TVL Ex-CCD for Crystal Clear Images
- 5-50mm Varifocal IR Corrected Lens offering a 51-6° Field of View
- Active IR Performs in 0 Lux (complete darkness)
- Rated for 180m/600ft IR Recognition, 100m/350ft Identification
- Split Window Eliminates IR Bleed and Reflection
- Optically Pure Polycarbonate Viewing Window
- Easy Installation via OSD and Lens Trap Door
- Intelligent IR with No Washout or Hotspots
- IP66 Rugged Vandal Proof Enclosure and Mount
- Internal Heater/Blower -50°C to +50°C Operation
- Installer Friendly Plug and Play Operation
- Photocell for Automatic Day/Night Switching (EPC)
- 150m Adaptive IR Illumination Distance
- IP66 Extruded High Strength Aluminum Construction

Camera	
Image Sensor	1/3" Sony Super HAD CCD
Resolution	700TVL
Shutter Speed	1/50 ~ 1/100,000s
S/N Ratio	> 50dB+
Video Output	1 V <sub>pp</sub> Composite Output, 75Ω
IR Illumination	
Day/Night	Electronic Photocell Controlled (EPC)
Distance	600' Recognition, 350' Identification
Wavelength	810nm [940nm Stealth optional]
IR LEDs	PRO Series Hybrid LEDs
Intelligent IR Control	Automatic Microprocessor Control (AMC)
Lifetime	20,000 Hours [hand-welded]
Lens	
Focal Length	5mm-50mm IR Corrected Varifocal Lens
Angle of View	H: 51.3° - 5.5°
IR Filter	MICF [Mechanical IR Cut Filter]
Min. Illumination	0.05 Lux [Color], 0 Lux [B&W, IR on]
Installation	
OSD	Backlight, Flickerless, Gain Control, White Balance, Etc.
Lens Adjustment	Trap Door for Lens Focus and Adjustment
Mount	Rotating Wall Mount
General	
Power Supply	24V AC [CE, ROHS, FCC]
Power Consumption	<26W [IR on, Heater on]
Working Environment	-50°C ~ +50°C [temperature controlled heater/blower]
Ingress Protection	IP66, NEMA 4X
Dimensions (W×H×L)	300mm×158mm×354mm
Weight	4.5kg

Zero Light  
CapabilitiesSubmersible  
Waterproof

## Submersible Underwater IP68 Snake Camera

### Features

- 1/3" 540TVL Super HAD CCD Sensor
- 6mm Fixed Lens offering a 43° Field of View
- 8 White Light LEDs for operation in complete darkness
- 30m Cable Lead
- Remote Control

Camera	
Image Sensor	1/3" Sony Super HAD CCD
Resolution	540TVL
Shutter Speed	1/60 ~ 1/100,000s
S/N Ratio	≥50dB (AGC off)
Video Output	1 V <sub>pp</sub> Composite Output, 75Ω
Illumination	8 White Light LEDs
LED Effective Distance	5m
Lens	
Focal Length	6mm Fixed Lens
Max Aperture	f1.8
Angle of View	H: 43.6°
Min. Illumination	0 Lux (f1.4 3200°K/LED Activated)
General	
Power Supply	12V DC
Working Environment	-10°C ~ +50°C / 30% ~ 90% RH
Ingress Protection	IP68
Weight	2.4kg (shipping weight)



50m  
IR Range



Day/Night



0 LUX  
Zero Light Capabilities



12X  
ZOOM  
5-55mm  
Lens



IP66  
Waterproof

## IR High Speed Dome

### Features

- Mid-range day/night PTZ surveillance solution
- Color by day and quality monochrome at night
- 1/3" HAD CCD greatly increases IR light distance
- Endless 360° high-speed, PTZ positioning
- IR intensity adjusts with motorized zoom lens
- 55m/180ft Recognition, 35m/110ft Identification
- 4-46mm IR corrected continuous zoom lens offering a 62-6° Field of View
- Accurate to 0.01° [Micro-Step Technology]
- Flawless IR with no washout or hotspots
- Up to 220 Pan-Tilt-Zoom presets with guard tours
- Adjustable EPC for automatic day/night and IR activation
- Extreme -45°C to +60°C heater/blower
- Rugged IP 66, 4.5" housing for harsh environments
- All brackets and fastening hardware included
- Pelco D/P communication protocol via RS-485
- 12X optical zoom / 16X digital zoom = 192X total zoom
- Image Enhancers: TBL/ATW/DIS/HLC/SSNR II
- OSD for programming configuration
- Endless 360° rotation / 90° tilt up to 200°/s

Camera	
Image Sensor	1/3" HAD CCD
Resolution	580TVL Day / 680TVL Night
Shutter Speed	1/50 ~ 1/100,000s
IR Illumination	
Hybrid IR LEDs	Syncs with Zoom Lens
Distance	55m/180' Recognition, 35m/110' Identification
Wavelength	810nm [940nm Stealth optional]
Lens	
Focal Length	4mm-46mm IR Corrected Continuous Zoom Lens
Zoom	12X Optical, 16X Digital [192X Total]
Angle of View	H: 61.9° - 6.0°
IR Filter	Dual MICF [Mechanical IR Cut Filter]
Min. Illumination	0.05 Lux Color, 0 Lux B&W [IR on]
Communication & Presets	
Presets	220 Presets
Preset Tours	3 Preset Tours
Home Position	Yes [preset 1 or tour]
Communication	RS485
Control Protocol	Pelco-D, Pelco-P
Mechanical	
Accuracy	< 0.01° Micro-Step Technology
Drive Unit	Integral Micro-Step Pan and Tilt
Pan Angle	360° Continuous Pan
Tilt Angle	90°
Speed Control	Closed Loop Electronics [0.05°-200°]
Preset Accuracy	> 0.1°
Proportional P/T to Zoom Position	Yes
General	
Construction	High Strength Aluminum & Flat Tempered Glass
Power Supply	24V AC [CE, ROHS, FCC]
Power Consumption	≤40W [Heater on]
Lightning Protection	3,000 Volts
Working Environment	-45°C to +60°C [temperature controlled heater/blower]
Ingress Protection	IP66, NEMA 4X
Dimensions [H×Ø]	300mm×114mm
Weight	2.1kg





120m  
IR Range



Day/Night



0 LUX  
Zero Light Capabilities



37X  
ZOOM  
3.5-129.5mm Lens



IP66  
Waterproof

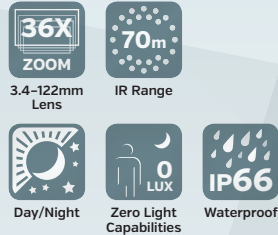
## IR High Speed Dome

### Features

- Long-range day/night PTZ surveillance solution
- Color by day and quality monochrome at night
- 1/4" EX-View HAD II greatly increases IR light distance
- PTZ positioning, 90° tilt up to 200°/s
- IR intensity adjusts with motorized zoom lens
- 140m/450ft Recognition, 100m/325ft Identification
- 3.5-129mm IR corrected continuous zoom lens offering a 54-2° Field of View
- Accurate to 0.01° [Micro-Step Technology]
- Flawless IR with no washout or hotspots
- Up to 120 Pan-Tilt-Zoom presets with guard tours
- Adjustable EPC for automatic day/night and IR activation
- Extreme -45°C to +60°C heater/blower
- Rugged IP 66, 7" housing for harsh environments
- All brackets and fastening hardware included
- Pelco D/P communication protocol via RS-485
- 37X optical zoom / 12X digital zoom = 592X total zoom
- Image Enhancers: TBL/ATW/DIS/HLC/SSNR II
- OSD for programming configuration
- Endless high speed 360° rotation

Camera	
Image Sensor	1/4" Ex-View II HAD CCD
Resolution	600TVL Day / 700TVL Night
Shutter Speed	1/50 ~ 1/10,000s
IR Illumination	
Hybrid IR LEDs	Syncs with Zoom Lens
Distance	120m Recognition, 90m Identification
Wavelength	810nm [940nm Stealth optional]
Lens	
Focal Length	3.5mm-129.5mm IR Corrected Continuous Zoom Lens
Zoom	37X Optical, 12X Digital [444X Total]
Angle of View	H: 54.4° - 1.6°
IR Filter	Dual MICF [Mechanical IR Cut Filter]
Min. Illumination	0.05 Lux Color, 0 Lux B&W [IR on]
Communication & Presets	
Presets	120 Presets
Preset Tours	3 Preset Tours
Home Position	Yes [preset 1 or tour]
Communication	RS485
Control Protocol	Pelco-D, Pelco-P
Mechanical	
Accuracy	< 0.05° Micro-Step Technology
Drive Unit	Integral Micro-Step Pan and Tilt
Pan Angle	360° Continuous Pan
Tilt Angle	90°
Speed Control	Closed Loop Electronics [0.05°-200°]
Preset Accuracy	> 0.1°
Proportional P/T to Zoom Position	Yes
General	
Construction	High Strength Aluminum & Flat Tempered Glass
Power Supply	24V AC [CE, ROHS, FCC]
Power Consumption	≤40W [Heater on]
Lightning Protection	3,000 Volts
Working Environment	-45°C to +60°C [temperature controlled heater/blower]
Ingress Protection	IP66, NEMA 4X
Dimensions [H×Ø]	300mm×215mm
Weight	2.7kg





# Rugged Pan-Tilt-Zoom IR Camera

## Features

- Active IR provides detection and identification in poor lighting environments
- Extremely rugged design: constructed of 5-15mm thick high strength aluminum alloy, to withstand the most brutal assaults
- IP66/NEMA 4X Weather proof housing with heater for a temperature variance of -50°C ~ 55°C
- Highly tuned precision-engineered IR corrected optics integrated MICF mechanical filter
- 3.4-122mm Continuous Zoom Lens offering a 60-2° Field of View
- Constructed of 5mm thick optically pure tempered glass eliminates dithering and distortion, further enhancing image clarity
- Gear box and micro-step technology for quick accurate pan and tilting better than [.01] providing reliability and performance
- Flexible mounting: can be installed vertically or inverted to accommodate installation in virtually any application
- Multi-protocol communication for integration with new or existing CCTV infrastructure to act either autonomously or part of a larger CCTV solution
- Mobile PPT Vehicle Mount Optional

Camera	
Image Sensor	1/4" CCD
Resolution	540TVL
Shutter Speed	1/4 – 1/10,000s
IR Illumination	
IR Lens	Two pairs of 7X 1W, 6X Ø8
Distance	Up to 70m of illumination
Angle	40°
Wavelength	840nm [940nm Stealth optional]
Lens	
Focal Length	3.4mm-122.4mm IR Corrected Continuous Zoom Lens
Zoom	36X Optical, 12X Digital [432X Total]
Max Aperture	f1.6 – f4.5
Angle of View	H: 57.8° - 1.7°
IR Filter	Dual MICF (Mechanical IR Cut Filter)
Min. Illumination	1.4 Lux Color, 0.01 Lux B&W (IR on)
Communication & Presets	
Presets	Up to 255 Presets accurate to <0.1°
Preset Tours	4 Preset Tours
Home Position	Yes (preset 1 or tour)
Communication	RS485 / RS422
Control Protocol	Pelco-D, Pelco-P
Camera Orientation Display Function	N, NE, E, SE, S, SW, W, NW [Total 8 Orientations]
Mechanical	
Drive Unit	Integral Pan/Tilt Brushless Motor Drive, Micro Step
Pan Angle & Speed	360° Continuous Pan, Variable Speed up to 90°/s
Tilt Angle & Speed	125°, Variable Speed up to 90°/s
Speed Control	Closed Loop Electronics
Preset Accuracy	> 0.1°
Proportional P/T to Zoom Position	Yes, Automatic adjust speed with zoom in for accurate pan tilt zoom
General	
Construction	5-15mm Thick High Strength Aluminum & 5mm Thick Flat Tempered Glass
Window Wiper	External Window Wiper Included
Power Supply	18VAC-24VAC/18VDC-24VDC (CE, ROHS, FCC)
Power Consumption	≤60W (Heater on)
Working Environment	-50°C to +55°C [temperature controlled heater/blower]
Ingress Protection	IP66, NEMA 4X
Dimensions (H×Ø)	483mm×173mm
Weight	12.3kg



60

59

57

60



# PTZ Cameras

## Pan/Tilt/Zoom

PTZ cameras can be Panned, Tilted, and Zoomed to cover large areas, reducing costs and providing greater flexibility than traditional fixed cameras. Operators can manually control PTZs to respond to incidents, track, and gather evidence on intruders. Powerful zoom allows for detection up to 100X further than a standard fixed lens camera, allowing you to capture license plates at distances up to 200m.

PTZs may also be placed on user defined guard tours which will move the camera to predetermined areas (Presets).

**See Page 21 for more info on semi-autonomous PTZ.**

### IP PTZ Cameras

2MP-PTZ-12X-CS

2MP-PTZ-IR-12X-CS

2MP-PTZ-20X-CS

2MP-PTZ-30X-CS

2MP-PTZ-IR-30X-AVA-CS

2MP-PTZ-IR-20X-ATA-CS

2MP-PTZ-IR-30X-ATA-CS

2MP-PTZ-ZLID500-30X-SL-ATA-CS

2MP-PTZ-ZLID500-39X-ATA-CS

2MP-PTZ-IR200-39X-ATA-CS

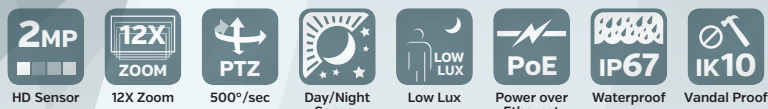
2MP-PTZ-ZLID700-39X-ATA-CS

4MP-PTZ-IR-30X-AVA-CS

4MP-PTZ-30X-AVA-CM-CS

5MP-PTZ-IR-30X-AVA-CS

4K-PTZ-IR-30X-ATA-CS

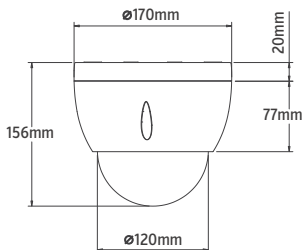


## 2 Megapixel 12X Mini PTZ IP Camera

### Features

- Powerful 12X Optical Zoom, 16X Digital Zoom (192X)
- 1/2.8" HD CMOS Progressive Scan Sensor
- 5.1–61.2mm Lens offering a 51–5° Field of View
- H.264 & MJPEG Dual-Stream Compression
- DWDR, Day/Night (ICR), DNR (2D&3D), Auto Iris, Auto Focus, AWB, AGC, BLC
- Max 300°/s Pan Speed, 360° Endless Rotation
- Up to 80 Presets, 5 Auto Scans, 8 Tours, 5 Patterns
- Built-in 2/1 Alarm In/Out
- Rugged IP66 Housing
- PoE: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Image Sensor	1/2.8" Exmor Progressive Scan CMOS	
Effective Pixels	1944 × 1092 [2,122,848 Pixels]	
Shutter Speed	1/3 – 1/30,000s	
S/N Ratio	> 55dB	
Camera Features		
Day/Night	Auto (ICR) / Color / B&W	
Backlight Compensation	BLC / HLC / DWDR [Digital WDR]	
White Balance	Auto, ATW, Indoor, Outdoor, Manual	
Gain Control	Auto / Manual	
Noise Reduction	2D/3D	
Privacy Masking	Up to 24 areas	
Lens		
Focal Length	5.1 mm – 61.2mm [12X Optical Zoom]	
Max Aperture	f1.6 – f3.0	
Focus Control	Auto / Manual	
Angle of View	H: 51.3° – 4.64°	
PTZ		
Pan/Tilt Range	Pan: 0° – 360° Endless; Tilt: -2° – 90°, Auto Flip 180°	
Manual Control Speed	Pan: 0.1° – 300°/s; Tilt: 0.1° – 120°/s	
Preset Speed	Pan: 300°/s; Tilt: 200°/s	
PTZ Modes	5 Patterns, 8 Tours, 5 Auto Scans, Auto Pan, 80 Presets	
Video		
Compression	H.264 / MJPEG	
Resolution	1080p [1920×1080] / 720p [1280×720] / D1 [704×576 / 704×480] / CIF [352×288 / 352×240]	
Frame Rate	Main Stream	1080p/D1 [1 – 25/30fps], 720p [1–50/60fps]
	Sub Stream	D1/CIF [1 – 25/30fps]
Bit Rate	H.264: 448K – 8192Kbps, MJPEG: 56K – 20480Kbps	
Audio		
Compression	G.711a / G.711μ [32kbps] / PCM [128kbps]	
Interface	1/1 Channel In/Out	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	AC24V/1.5A(±10%), PoE [802.3at]	
Power Consumption	12W	
Working Environment	-20°C – 60°C / Less than 90% RH	
Ingress Protection	IP66	
Weight	1.8kg	

### Accessories (optional)



1080p  
FULL HD  
HD Video

12X  
ZOOM  
12X Zoom

100m  
IR Range

PTZ  
400°/sec

Day/Night  
Sensor

PoE+  
Power over  
Ethernet

IP66  
Waterproof

24 ZONE  
Privacy  
Masking

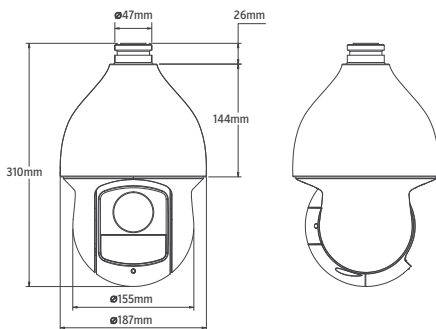


## 2 Megapixel 12X IR PTZ IP Camera

### Features

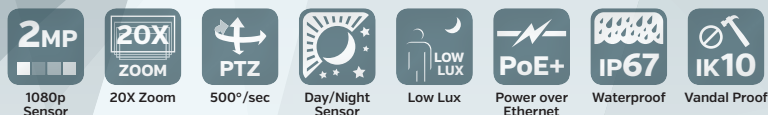
- Powerful 12X Optical Zoom, 16X Digital Zoom (192X)
- 1/2.8" HD CMOS Progressive Scan Sensor
- 5.1–61.2mm Lens offering a 51–5° Field of View
- H.264 & MJPEG Dual-Stream Compression
- DWDR, Day/Night (ICR), DNR, Auto Iris, Auto Focus
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Max 400°/s Pan Speed, 360° Endless Rotation
- Up to 300 Presets, 5 Auto Scans, 8 Tours, 5 Patterns
- Built-in 2/1 Alarm In/Out
- IR Distance up to 100m/325ft (AC24V) / 80m/260ft (DC12V)
- Edge Recording via SD Card
- Rugged IP66 Housing
- PoE+: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera					
Image Sensor	1/2.8" Exmor Progressive Scan CMOS				
Effective Pixels	1944 × 1092 [2,122,848 Pixels]				
Shutter Speed	1/3 – 1/30,000s				
S/N Ratio	> 55dB				
Camera Features					
Day/Night	Auto (ICR) / Color / B&W				
Backlight Compensation	BLC / HLC / DWDR [Digital WDR]				
White Balance	Auto, ATW, Indoor, Outdoor, Manual				
Gain Control	Auto / Manual				
Noise Reduction	DNR [2D/3D]				
Privacy Masking	Up to 24 areas				
Lens					
Focal Length	5.1mm ~ 61.2mm [12X Optical Zoom]				
Max Aperture	f1.6 – f3.0				
Focus Control	Auto / Manual				
Angle of View	H: 51.3° ~ 4.64°				
PTZ					
Pan/Tilt Range	Pan: 0° ~ 360° Endless; Tilt: -15° ~ 90°, Auto Flip 180°				
Manual Control Speed	Pan: 0.1° ~ 300°/s, Tilt: 0.1° ~ 200°/s				
Preset Speed	Pan: 400°/s, Tilt: 300°/s				
PTZ Modes	5 Patterns, 8 Tours, 5 Auto Scans, Auto Pan, 300 Presets				
Video					
Compression	H.264 / MJPEG				
Resolution	1080p [1920×1080] / 720p [1280×720] / D1 [704×576 / 704×480] / CIF [352×288 / 352×240]				
Frame Rate	<table border="1"> <tr> <th>Main Stream</th> <td>1080p/D1 [1 ~ 25/30fps], 720p [1~50/60fps]</td> </tr> <tr> <th>Sub Stream</th> <td>D1/CIF [1 ~ 25/30fps]</td> </tr> </table>	Main Stream	1080p/D1 [1 ~ 25/30fps], 720p [1~50/60fps]	Sub Stream	D1/CIF [1 ~ 25/30fps]
Main Stream	1080p/D1 [1 ~ 25/30fps], 720p [1~50/60fps]				
Sub Stream	D1/CIF [1 ~ 25/30fps]				
Bit Rate	H.264: 448K ~ 8192Kbps, MJPEG: 5120K ~ 10240Kbps				
Audio					
Compression	G.711a / G.711μ [32kbps] / PCM [128kbps]				
Interface	1/1 Channel In/Out				
Network					
Ethernet	RJ-45				
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter				
Compatibility	ONVIF, PSIA, CGI				
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]				
General					
Power Supply	AC24V / DC12V, PoE+ [802.3at]				
Power Consumption	DC12V: 13W, 20W [IR on], AC24V: 13W, 23W [IR on]				
Working Environment	DC12V: -30°C ~ 60°C / Less than 90% RH AC24V: -40°C ~ 70°C / Less than 90% RH				
Ingress Protection	IP66				
Weight	3.5kg				

### Accessories (optional)

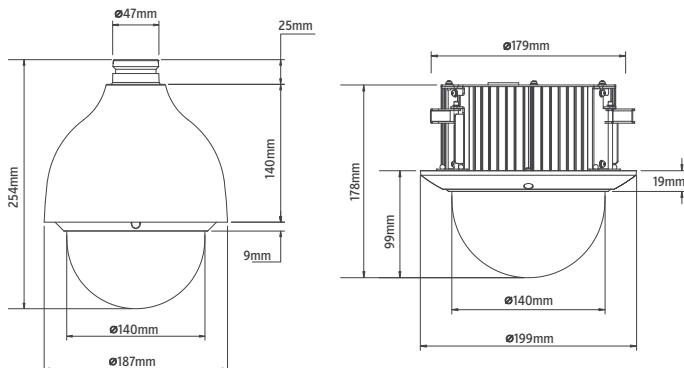


## 2MP 20X PTZ IP Camera

### Features

- Powerful 20X Optical Zoom, 16X Digital Zoom [320X]
- 1/2.8" HD CMOS Progressive Scan Sensor
- 5.5-110mm Lens offering a 51-3° Field of View
- H.264 & MJPEG Dual-Stream Compression
- DWDR, Day/Night (ICR), DNR, Auto Iris, Auto Focus
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Max 500°/S Pan Speed, 360° Endless Pan Rotation
- Up to 300 Presets, 5 Auto Scans, 8 Tours, 5 Patterns
- Built-in 2/1 Alarm In/Out
- Edge Recording via SD Card
- Extra Rugged IP67 & IK10 Housing
- PoE+: Power, Video & Control over a Single CAT5 Cable

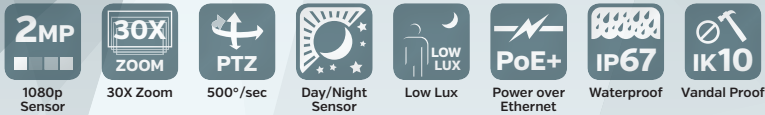
### Dimensions



Camera		
Image Sensor	1/2.8" Exmor Progressive Scan CMOS	
Effective Pixels	1920 × 1080 [2,073,600 Pixels]	
Shutter Speed	1/3 – 1/30,000s	
S/N Ratio	> 55dB	
Camera Features		
Day/Night	Auto (ICR) / Color / B&W	
Backlight Compensation	BLC / HLC / DWDR [Digital WDR]	
White Balance	Auto, ATW, Indoor, Outdoor, Manual	
Gain Control	Auto / Manual	
Noise Reduction	Ultra DNR [2D/3D]	
Privacy Masking	Up to 24 areas	
Lens		
Focal Length	5.5mm-110mm [20X Optical Zoom]	
Max Aperture	f1.6-f3.5	
Focus Control	Auto / Manual	
Angle of View	H: 51.0° – 2.60°	
PTZ		
Pan/Tilt Range	Pan: 0° – 360° endless; Tilt: 0° – 90°, Auto Flip 180°	
Manual Control Speed	Pan: 0.1° – 350° /s; Tilt: 0.1° – 250° /s	
Preset Speed	Pan: 500° /s; Tilt: 500° /s	
PTZ Modes	5 Patterns, 8 Tours, Auto Pan, Auto Scan, 300 presets	
Video		
Compression	H.264 / MJPEG	
Resolution	1080p [1920×1080] / 720p [1280×720] / D1 [704×576 / 704×480] / CIF [352×288 / 352×240]	
Frame Rate	Main Stream	1080p/D1 [1 – 25/30fps], 720p [1–50/60fps]
	Sub Stream	D1/CIF [1 – 25/30fps]
Bit Rate	H.264: 448K – 8192Kbps	
Audio		
Compression	G.711a / G.711μ [32kbps] / PCM [128kbps]	
Interface	1/1 Channel In/Out	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	AC24V/1.5A [±10%], PoE plus[802.3at]	
Power Consumption	Outdoor: 13W, 23W [Heater on]; In-ceiling: 13W	
Working Environment	Outdoor: -40°C – 60°C / Less than 90% RH; In-ceiling: -20°C – 60°C / Less than 90% RH	
Ingress Protection	IP67 [Outdoor], IK10	
Weight	Outdoor: 2.5kg, In-ceiling: 2.2kg	

### Accessories (optional)



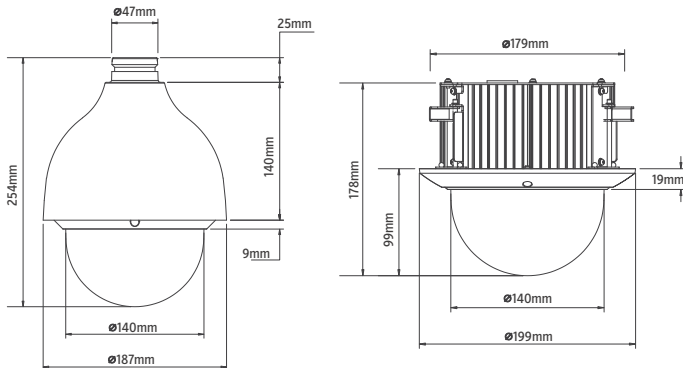


## 2MP 30X PTZ IP Camera

### Features

- Powerful 30X Optical Zoom, 16X Digital Zoom (480X)
- 1/2.8" HD CMOS Progressive Scan Sensor
- 4.3-129mm Lens offering a 65-2° Field of View
- H.264 & MJPEG Dual-Stream Compression
- DWDR, Day/Night (ICR), DNR, Auto Iris, Auto Focus
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Max 500°/S Pan Speed, 360° Endless Pan Rotation
- Up to 300 Presets, 5 Auto Scans, 8 Tours, 5 Patterns
- Built-in 2/1 Alarm In/Out
- Edge Recording via SD Card
- Extra Rugged IP67 & IK10 Housing
- PoE+: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Image Sensor	1/2.8" Exmor Progressive Scan CMOS	
Effective Pixels	1920 × 1080 (2,073,600 Pixels)	
Shutter Speed	1/3 – 1/30,000s	
S/N Ratio	> 55dB	
Camera Features		
Day/Night	Auto (ICR) / Color / B&W	
Backlight Compensation	BLC / HLC / DWDR (Digital WDR)	
White Balance	Auto, ATW, Indoor, Outdoor, Manual	
Gain Control	Auto / Manual	
Noise Reduction	Ultra DNR (2D/3D)	
Privacy Masking	Up to 24 areas	
Lens		
Focal Length	4.3mm-129mm (30X Optical Zoom)	
Max Aperture	f1.6-f5.0	
Focus Control	Auto / Manual	
Angle of View	H: 65.1° – 2.34°	
PTZ		
Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: 0° ~ 90°, Auto Flip 180°	
Manual Control Speed	Pan: 0.1° ~350° /s; Tilt: 0.1° ~250° /s	
Preset Speed	Pan: 500° /s; Tilt: 500° /s	
PTZ Modes	5 Patterns, 8 Tours, Auto Pan, Auto Scan, 300 presets	
Video		
Compression	H.264 / MJPEG	
Resolution	1080p [1920×1080] / 720p [1280×720] / D1 [704×576 / 704×480] / CIF [352×288 / 352×240]	
Frame Rate	Main Stream	1080p/D1 [1 ~ 25/30fps], 720p [1~50/60fps]
	Sub Stream	D1/CIF [1 ~ 25/30fps]
Bit Rate	H.264: 448K ~ 8192Kbps	
Audio		
Compression	G.711a / G.711μ [32kbps] / PCM [128kbps]	
Interface	1/1 Channel In/Out	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	AC24V/1.5A (±10%), PoE plus(802.3at)	
Power Consumption	Outdoor: 13W, 23W [Heater on]; In-ceiling: 13W	
Working Environment	Outdoor: -40°C ~ 60°C / Less than 90% RH; In-ceiling: -20°C ~ 60°C / Less than 90% RH	
Ingress Protection	IP67 [Outdoor], IK10	
Weight	Outdoor: 2.5kg, In-ceiling: 2.2kg	

### Accessories (optional)



 1080p FULL HD HD Video	 30X ZOOM 30X Zoom	 100m IR Range
 PTZ 400°/sec	 Day/Night Sensor	 PoE+ Power over Ethernet
 IP66 Waterproof	 24 ZONE Privacy Masking	 AVA Ascendent Video Analytics

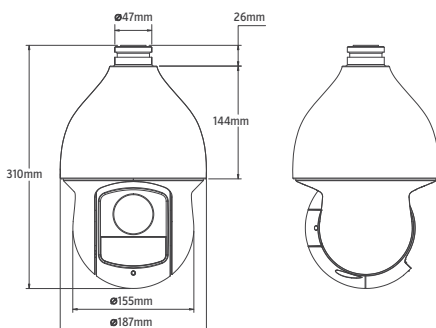


## 2 Megapixel 30X IR PTZ IP Camera w/Analytics

### Features

- Powerful 30X Optical Zoom, 16X Digital Zoom (480X)
- 1/2.8" HD CMOS Progressive Scan Sensor
- 4.5–135mm Lens offering a 54–3.2° Field of View
- H.264 & MJPEG Dual-Stream Compression
- DWDR, Day/Night (ICR), Ultra DNR, Auto Iris, Auto Focus
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Max 400°/s Pan Speed, 360° Endless Rotation
- Up to 300 Presets, 5 Auto Scans, 8 Tours, 5 Patterns
- Built-in 2/1 Alarm In/Out
- IR Distance up to 100m/325ft (AC24V) / 80m/260ft (DC12V)
- Edge Recording via SD Card
- Rugged IP66 Housing
- PoE+: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Image Sensor	1/2.8" Exmor Progressive Scan CMOS	
Effective Pixels	1944 × 1092 [2,122,848 Pixels]	
Shutter Speed	1/3 – 1/30,000s	
Min. Illumination	0.05 Lux/f1.6 [Color], 0.005 Lux/f1.6 [B&W]	
S/N Ratio	> 55dB	
Camera Features		
Day/Night	Auto (ICR) / Color / B&W	
Backlight Compensation	BLC / HLC / DWDR [Digital WDR]	
White Balance	Auto, ATW, Indoor, Outdoor, Manual	
Gain Control	Auto / Manual	
Noise Reduction	Ultra DNR [2D/3D]	
Privacy Masking	Up to 24 areas	
Lens		
Focal Length	4.5mm–135mm [30X Optical Zoom]	
Max Aperture	f1.4 – f2.6	
Focus Control	Auto / Manual	
Angle of View	H: 54.1° ~ 3.2°	
PTZ		
Pan/Tilt Range	Pan: 0° ~ 360° Endless; Tilt: -15° ~ 90°, Auto Flip 180°	
Manual Control Speed	Pan: 0.1° ~ 300°/s, Tilt: 0.1° ~ 200°/s	
Preset Speed	Pan: 400°/s, Tilt: 300°/s	
PTZ Modes	5 Patterns, 8 Tours, 5 Auto Scans, Auto Pan, 300 Presets	
Video		
Compression	H.264 / MJPEG	
Resolution	1080p [1920×1080] / 720p [1280×720] / D1 [704×576 / 704×480] / CIF [352×288 / 352×240]	
Frame Rate	Main Stream	1080p/D1 [1 ~ 25/30fps], 720p [1~50/60fps]
	Sub Stream 1	D1/CIF [1 ~ 25/30fps]
	Sub Stream 2	720p/D1/CIF [1 ~ 25/30fps]
Bit Rate	H.264: 448K ~ 8192Kbps, MJPEG: 5120K ~ 10240Kbps	
Audio		
Compression	G.711a / G.711μ [32kbps] / PCM [128kbps]	
Interface	1/1 Channel In/Out	
AVA Analytics		
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Missing/Abandoned Object, Face Detection	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	AC24V, PoE+ [802.3at]	
Power Consumption	13W, 20W [IR on]	
Working Environment	-40°C ~ 70°C / < 90% RH	
Ingress Protection	IP66	
Dimensions	Ø187mm × 310mm	
Weight	3.5kg	



1080p  
FULL HD  
HD Video

20X  
ZOOM  
20X Zoom

150m  
IR Range

PTZ  
240°/sec

Day/Night  
Sensor

IP66  
Waterproof

AVA  
Analytics

Auto  
Tracking

24 ZONE  
Privacy  
Masking

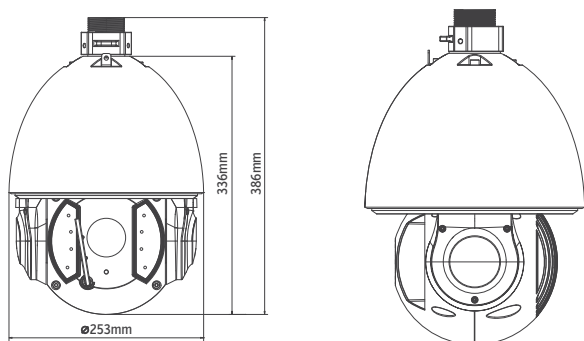


## 2MP IR 20X PTZ IP Camera w/AVA Analytics and Auto-Tracking

### Features

- Powerful 20X Optical Zoom, 16X Digital Zoom (320X)
- 1/2.8" HD CMOS Progressive Scan Sensor
- 4.7-94mm Lens offering a 54-3° Field of View
- Auto-Tracking and AVA Analytics
- Defog, DWDR, Day/Night (ICR), DNR, EIS, Auto Focus
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Triple Video Stream Encoding
- Built-in 7/2 Alarm In/Out
- 150m/500ft Adaptive IR Illumination Distance
- Edge Recording via SD Card
- Rugged IP66 Housing

### Dimensions



Camera		
<b>Image Sensor</b>	1/2.8" Exmor Progressive Scan CMOS	
<b>Effective Pixels</b>	1944 × 1092 [2,122,848 Pixels]	
<b>Shutter Speed</b>	1/1 ~ 1/30,000s	
<b>S/N Ratio</b>	> 50dB	
<b>Video Output</b>	BNC [1V <sub>pp</sub> /75Ω], PAL / NTSC	
Camera Features		
<b>Day/Night</b>	Auto (ICR) / Color / B/W	
<b>Backlight Compensation</b>	BLC / HLC / DWDR [Digital WDR]	
<b>White Balance</b>	Auto, ATW, Indoor, Outdoor, Manual	
<b>Gain Control</b>	Auto / Manual	
<b>Noise Reduction</b>	DNR [2D/3D]	
<b>Privacy Masking</b>	Up to 24 areas	
<b>Defog</b>	On / Off	
Lens		
<b>Focal Length</b>	4.7mm-94.0mm [20x Optical zoom]	
<b>Max Aperture</b>	f1.6-f3.5	
<b>Focus Control</b>	Auto / Manual	
<b>Angle of View</b>	H: 54.1° ~ 3.20°	
PTZ		
<b>Pan/Tilt Range</b>	Pan: 0° ~ 360° endless; Tilt: -10° ~ 90°, auto flip 180°	
<b>Manual Control Speed</b>	Pan: 0.1° ~ 200°/s; Tilt: 0.1° ~ 120°/s	
<b>Preset Speed</b>	Pan: 240°/s; Tilt: 200°/s	
<b>PTZ Modes</b>	5 Patterns, 8 Tours, Auto Pan, Auto Scan, 255 presets	
<b>IR Illumination Distance</b>	150m/500' Rated [100m/325' Effective], Zoom Adaptive	
Video		
<b>Compression</b>	H.264 / MJPEG	
<b>Resolution</b>	1080p [1920×1080] / 720p [1280×720] / D1 [704×576] / CIF [352×288]	
<b>Frame Rate</b>	<b>Main Stream</b>	1080p [1 ~ 25/30fps] / 720p [1-50/60fps]
	<b>Sub Stream 1</b>	D1/CIF [1 ~ 25/30fps]
	<b>Sub Stream 2</b>	720p/D1/CIF [1 ~ 25/30fps]
<b>Bit Rate</b>	H.264: 56K ~ 8192Kbps, MJPEG: 56K ~ 20480Kbps	
Audio		
<b>Compression</b>	G.711a / G.711μ [32kbps] / PCM [128kbps]	
<b>Interface</b>	1/1 Channel In/Out	
AVA Analytics & Auto Tracking		
<b>Auto Tracking</b>	Single-Scene, Multi-Scene, Panoramic Scene	
<b>Detection Types</b>	Bi-Directional Tripwire, Perimeter Intrusion Detection, Loitering Detection, Missing Object Detection, Illegal Parking, Speed Trigger	
<b>Tracking Activation</b>	Manual / Auto [alarm triggered]	
<b>Tracking Event Trigger</b>	Zoom/Tracking, Recording, Snapshot, Alarm Output	
Network		
<b>Ethernet</b>	RJ-45	
<b>Protocol</b>	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
<b>Compatibility</b>	ONVIF, PSIA, CGI	
<b>Remote Access</b>	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
<b>Power Supply</b>	AC 24V/3A [±16%]	
<b>Power Consumption</b>	20W, 43W [IR on, Heater on]	
<b>Working Environment</b>	-40°C ~ 70°C / Less than 90% RH	
<b>Ingress Protection</b>	IP66	
<b>Weight</b>	6.75kg	



1080p  
FULL HD  
HD Video

30X  
ZOOM  
30X Zoom

150m  
IR Range

PTZ  
240°/sec

Day/Night  
Sensor

IP66  
Waterproof

AVA  
Analytics

Auto  
Tracking

24 ZONE  
Privacy  
Masking

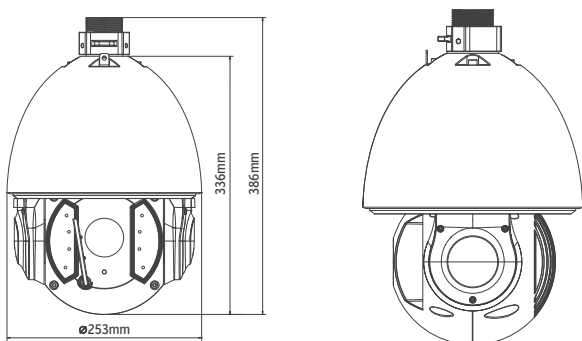


## 2MP IR 30X PTZ IP Camera w/AVA Analytics and Auto-Tracking

### Features

- Powerful 30X Optical Zoom, 16X Digital Zoom (480X)
- 1/2.8" HD CMOS Progressive Scan Sensor
- 4.3-129mm Lens offering a 68-2.8° Field of View
- Auto-Tracking and AVA Analytics
- Defog, DWDR, Day/Night (ICR), DNR, EIS, Auto Focus
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Triple Video Stream Encoding
- Built-in 7/2 Alarm In/Out
- 150m/500ft Adaptive IR Illumination Distance
- Edge Recording via SD Card
- Rugged IP66 Housing

### Dimensions



Camera		
Image Sensor	1/2.8" Exmor Progressive Scan CMOS	
Effective Pixels	1944 × 1092 [2,122,848 Pixels]	
Shutter Speed	1/1 ~ 1/30,000s	
S/N Ratio	> 50dB	
Video Output	BNC [1V <sub>pp</sub> /75Ω], PAL / NTSC	
Camera Features		
Day/Night	Auto (ICR) / Color / B/W	
Backlight Compensation	BLC / HLC / DWDR [Digital WDR]	
White Balance	Auto, ATW, Indoor, Outdoor, Manual	
Gain Control	Auto / Manual	
Noise Reduction	DNR [2D/3D]	
Privacy Masking	Up to 24 areas	
Defog	On / Off	
Lens		
Focal Length	4.3mm-129mm HD Lens [30x Optical Zoom]	
Max Aperture	f1.6-f4.7	
Focus Control	Auto / Manual	
Angle of View	H: 67.8° ~ 2.77°	
PTZ		
Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -10° ~ 90°, auto flip 180°	
Manual Control Speed	Pan: 0.1° ~ 200°/s; Tilt: 0.1° ~ 120°/s	
Preset Speed	Pan: 240°/s; Tilt: 200°/s	
PTZ Modes	5 Patterns, 8 Tours, Auto Pan, Auto Scan, 255 presets	
IR Illumination Distance	150m/500' Rated [100m/325' Effective], Zoom Adaptive	
Video		
Compression	H.264 / MJPEG	
Resolution	1080p [1920×1080] / 720p [1280×720] / D1 [704×576] / CIF [352×288]	
Frame Rate	Main Stream	1080p [1 ~ 25/30fps] / 720p [1-50/60fps]
	Sub Stream 1	D1/CIF [1 ~ 25/30fps]
	Sub Stream 2	720p/D1/CIF [1 ~ 25/30fps]
Bit Rate	H.264: 56K ~ 8192Kbps, MJPEG: 56K ~ 20480Kbps	
Audio		
Compression	G.711a / G.711μ [32kbps] / PCM [128kbps]	
Interface	1/1 Channel In/Out	
AVA Analytics & Auto Tracking		
Auto Tracking	Single-Scene, Multi-Scene, Panoramic Scene	
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Loitering Detection, Missing Object Detection, Illegal Parking, Speed Trigger	
Tracking Activation	Manual / Auto [alarm triggered]	
Tracking Event Trigger	Zoom/Tracking, Recording, Snapshot, Alarm Output	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	AC 24V/3A [±16%]	
Power Consumption	20W, 43W [IR on, Heater on]	
Working Environment	-40°C ~ 70°C / Less than 90% RH	
Ingress Protection	IP66	
Weight	6.75kg	



<b>1080p</b> FULL HD HD Video	<b>30X</b> ZOOM 30X Zoom	<b>ZLID</b> Up to 500m Nightvision
<b>PTZ</b> 240°/sec	<b>Starlight</b> Sensor	<b>IP67</b> Waterproof
<b>AVA</b> Analytics	<b>Auto</b> Tracking	<b>24 ZONE</b> Privacy Masking

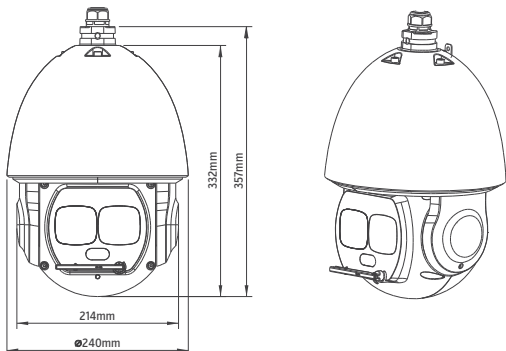


## 2MP HD 30X PTZ Starlight IP Camera

### Features

- Powerful 30X Optical Zoom, 16X Digital Zoom (480X)
- Ultra-low Light Starlight Camera
- 6-180mm Lens offering a 51.2-1.8° Field of View
- Auto-Tracking and AVA Analytics
- Defog, 120dB WDR, EIS, ROI, Day/Night, DNR (2D&3D), Auto Iris, Auto Focus, AWB, AGC, BLC
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Triple Video Stream Encoding
- Built-in 7/2 Alarm In/Out
- 500m/1600ft IR Illumination Distance
- Micro SD Memory Card Support
- Rugged IP67 Housing

### Dimensions



Camera		
<b>Image Sensor</b>	1/1.9" Progressive Scan CMOS	
<b>Effective Pixels</b>	1944 × 1092 [2,122,848 Pixels]	
<b>Shutter Speed</b>	1/1 ~ 1/30,000s	
<b>Minimum Illumination</b>	Color: 0.005Lux @ f1.6; B&W: 0.0005Lux @ f1.6; IR: 0Lux	
<b>S/N Ratio</b>	> 56dB	
<b>Video Output</b>	BNC [1V <sub>pp</sub> /75Ω], PAL / NTSC	
Camera Features		
<b>Day/Night</b>	Auto [ICR] / Color / B&W	
<b>Backlight Compensation</b>	BLC / HLC / WDR [120dB]	
<b>White Balance</b>	Auto, ATW, Indoor, Outdoor, Manual	
<b>Gain Control</b>	Auto / Manual	
<b>Noise Reduction</b>	Ultra DNR [2D/3D]	
<b>Privacy Masking</b>	Up to 24 areas	
<b>EIS &amp; Defog</b>	Supported	
Lens		
<b>Focal Length</b>	6mm-180mm [30x optical zoom, 16X digital zoom]	
<b>Max Aperture</b>	f1.6-f4.8	
<b>Focus Control</b>	Auto / Manual	
<b>Angle of View</b>	H: 51.2° ~ 1.8°	
IR Illumination		
<b>Laser Light Control</b>	Auto / Manual	
<b>Laser Distance</b>	Up to 500m/1600' rated [350m/1100' clean]	
<b>Angle of Laser Light</b>	2° ~ 60°	
PTZ		
<b>Pan/Tilt Range</b>	Pan: 0° ~ 360° endless; Tilt: -10° ~ 90°, auto flip 180°	
<b>Manual Control Speed</b>	Pan: 0.1° ~ 240°/s; Tilt: 0.1° ~ 120°/s	
<b>Preset Speed</b>	Pan: 240°/s; Tilt: 200°/s	
<b>PTZ Modes</b>	5 Patterns, 8 Tours, Auto Pan, Auto Scan, 300 presets	
<b>Protocol</b>	Pelco-P/D	
Video		
<b>Compression</b>	H.264 / MJPEG	
<b>Resolution</b>	1080p [1920×1080] / 720p [1280×720] / D1 [704×576] / CIF [352×288]	
<b>Frame Rate</b>	<b>Main Stream</b>	1080p/D1 [1 ~ 25/30fps] / 720p [1-50/60fps]
	<b>Sub Stream 1</b>	D1/CIF [1 ~ 25/30fps]
	<b>Sub Stream 2</b>	720p/D1/CIF [1 ~ 25/30fps]
<b>Bit Rate</b>	H.264: 56K ~ 8192Kbps, MJPEG: 56K ~ 20480Kbps	
Audio		
<b>Compression</b>	G.711a / G.711μ [32kbps] / PCM [128kbps], 1/1 Ch In/Out	
AVA Analytics & Auto Tracking		
<b>Auto Tracking</b>	Single-Scene, Multi-Scene, Panoramic Scene	
<b>Detection Types</b>	Bi-Directional Tripwire, Perimeter Intrusion Detection, Loitering Detection, Missing Object Detection, Illegal Parking, Speed Trigger	
<b>Tracking Activation</b>	Manual / Auto [alarm triggered]	
<b>Tracking Event Trigger</b>	Zoom/Tracking, Recording, Snapshot, Alarm Output	
Network		
<b>Ethernet</b>	RJ-45 [10/100 Base-T]	
<b>Protocol</b>	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
<b>Compatibility</b>	ONVIF, PSIA, CGI	
<b>Remote Access</b>	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
Auxiliary Interface		
<b>Memory Slot</b>	Micro SD, Max 64GB	
<b>Alarm</b>	7/2 Channel In/Out	
General		
<b>Power Supply</b>	AC 24V/3A [±25%], Hi-PoE	
<b>Power Consumption</b>	20W, 43W [IR on, Heater on]	
<b>Working Environment</b>	-40°C ~ 70°C / Less than 90% RH	
<b>Ingress Protection</b>	IP67	
<b>Weight</b>	6.75kg	

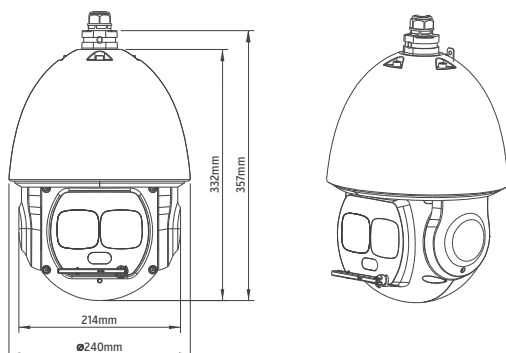


## 2MP HD 39X PTZ IP Camera w/AVA Analytics and Auto-Tracking

### Features

- Powerful 39X Optical Zoom, 16X Digital Zoom (640X Total)
- 8-315mm Lens offering a 37-1° Field of View
- Auto-Tracking and AVA Analytics
- Defog, DWDR, EIS, ROI, Day/Night, DNR (2D&3D), Auto Iris, Auto Focus, AWB, AGC, BLC
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Triple Video Stream Encoding
- Built-in 7/2 Alarm In/Out
- 500m/1600ft IR Illumination Distance
- Micro SD Memory Card Support
- Rugged IP67 Housing

### Dimensions



Camera		
<b>Image Sensor</b>	1/2.8" Exmor Progressive Scan CMOS	
<b>Effective Pixels</b>	1944 × 1092 [2,122,848 Pixels]	
<b>Shutter Speed</b>	1/1 ~ 1/30,000s	
<b>Minimum Illumination</b>	Color: 0.05Lux @ f1.6; B&W: 0.005Lux @ f1.6; IR: 0Lux	
<b>S/N Ratio</b>	> 55dB	
<b>Video Output</b>	BNC [1V <sub>pp</sub> /75Ω], PAL / NTSC	
Camera Features		
<b>Day/Night</b>	Auto [ICR] / Color / B&W	
<b>Backlight Compensation</b>	BLC / HLC / DWDR	
<b>White Balance</b>	Auto, ATW, Indoor, Outdoor, Manual	
<b>Gain Control</b>	Auto / Manual	
<b>Noise Reduction</b>	Ultra DNR (2D/3D)	
<b>Privacy Masking</b>	Up to 24 areas	
<b>EIS &amp; Defog</b>	Supported	
Lens		
<b>Focal Length</b>	8mm-315mm [39x optical zoom, 16X digital zoom]	
<b>Max Aperture</b>	f1.6~f6.1	
<b>Focus Control</b>	Auto / Manual	
<b>Angle of View</b>	H: 37° ~ 1°	
ZLID IR Illumination		
<b>Laser Light Control</b>	Auto / Manual	
<b>Laser Distance</b>	Up to 500m/1600' rated [350m/1100' clean]	
<b>Angle of Laser Light</b>	2° ~ 60°	
PTZ		
<b>Pan/Tilt Range</b>	Pan: 0° ~ 360° endless; Tilt: -10° ~ 90°, auto flip 180°	
<b>Manual Control Speed</b>	Pan: 0.1° ~ 240°/s; Tilt: 0.1° ~ 120°/s	
<b>Preset Speed</b>	Pan: 240°/s; Tilt: 200°/s	
<b>PTZ Modes</b>	5 Patterns, 8 Tours, Auto Pan, Auto Scan, 300 presets	
<b>Protocol</b>	Pelco-P/D	
Video		
<b>Compression</b>	H.264 / MJPEG	
<b>Resolution</b>	1080p [1920×1080] / 720p [1280×720] / D1 [704×576] / CIF [352×288]	
<b>Frame Rate</b>	<b>Main Stream</b>	1080p/D1 [1 ~ 25/30fps] / 720p [1-50/60fps]
	<b>Sub Stream 1</b>	D1/CIF [1 ~ 25/30fps]
	<b>Sub Stream 2</b>	720p/D1/CIF [1 ~ 25/30fps]
<b>Bit Rate</b>	H.264: 56K ~ 8192Kbps, MJPEG: 56K ~ 20480Kbps	
Audio		
<b>Compression</b>	G.711a / G.711μ [32kbps] / PCM [128kbps], 1/1 Ch In/Out	
AVA Analytics & Auto Tracking		
<b>Auto Tracking</b>	Single-Scene, Multi-Scene, Panoramic Scene	
<b>Detection Types</b>	Bi-Directional Tripwire, Perimeter Intrusion Detection, Loitering Detection, Missing Object Detection, Illegal Parking, Speed Trigger	
<b>Tracking Activation</b>	Manual / Auto [alarm triggered]	
<b>Tracking Event Trigger</b>	Zoom/Tracking, Recording, Snapshot, Alarm Output	
Network		
<b>Ethernet</b>	RJ-45 [10/100 Base-T]	
<b>Protocol</b>	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
<b>Compatibility</b>	ONVIF, PSIA, CGI	
<b>Remote Access</b>	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
Auxiliary Interface		
<b>Memory Slot</b>	Micro SD, Max 64GB	
<b>Alarm</b>	7/2 Channel In/Out	
General		
<b>Power Supply</b>	AC 24V/3A [±25%], Hi-PoE	
<b>Power Consumption</b>	20W, 43W [IR on, Heater on]	
<b>Working Environment</b>	-40°C ~ 70°C / Less than 90% RH	
<b>Ingress Protection</b>	IP67	
<b>Weight</b>	6.75kg	

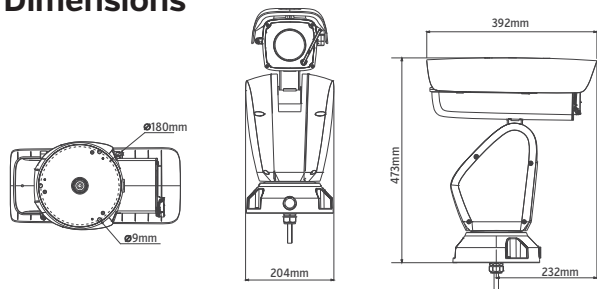


## 2 Megapixel 39X IR PTZ IP Camera

### Features

- 1/2.8" HD CMOS Progressive Scan Sensor
- Powerful 39X Optical Zoom, 16X Digital Zoom (640X)
- 8-315mm IR Corrected Continuous Zoom Lens offering a 37-1° Field of View
- Auto-Tracking and AVA Analytics
- Defog, Wiper, DWDR, DNR, Low Bitrate, EIS, ROI, Day/Night (ICR), Auto Iris, Auto Focus
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Up to 300 Presets, 8 Tour, 5 Pattern, 5 Auto Scan
- 200m/650ft Adaptive IR Illumination Distance
- Rugged IP66 Housing

### Dimensions



Camera		
Image Sensor	1/2.8" Exmor Progressive Scan CMOS	
Effective Pixels	1944 × 1092 [2,122,848 Pixels]	
Shutter Speed	1/1 ~ 1/30,000s	
S/N Ratio	> 55dB	
Video Output	BNC (1V <sub>pp</sub> /75Ω), PAL / NTSC	
Camera Features		
Day/Night	Auto (ICR) / Color / B/W	
Backlight Compensation	BLC / HLC / DWDR (Digital WDR)	
White Balance	Auto, ATW, Indoor, Outdoor, Manual	
Gain Control	Auto / Manual	
Noise Reduction	DNR [2D/3D]	
Privacy Masking	Up to 24 areas	
Defog	On / Off	
Lens		
Focal Length	8mm ~ 315mm HD Lens (39X Optical Zoom)	
Max Aperture	f1.6 ~ f6.1	
Focus Control	Auto / Manual	
Angle of View	H: 37° ~ 1°	
PTZ		
Pan/Tilt Range	Pan: 0° ~ 360° Endless, Tilt: -90° ~ 45°	
Manual Control Speed	Pan: 0.1° ~ 160°/s, Tilt: 0.1° ~ 60°/s	
Preset Speed	Pan: 0.1° ~ 160°/s, Tilt: 0.1° ~ 60°/s	
PTZ Mode	5 Pattern, 8 Tour, Auto Pan, Auto Scan, 255 presets	
Positioning Accuracy	±0.1°	
Protocol	Pelco-P/D	
IR Illumination Distance	200m/650' Rated [100m/325' Effective]	
Video		
Compression	H.264 / MJPEG	
Resolution	1080p [1920×1080] / 720p [1280×720] / D1 [704×576 / 704×480] / CIF [352×288 / 352×240]	
Frame Rate	Main Stream	1080p [1 ~ 25/30fps] / 720p [1 ~ 50/60fps]
	Sub Stream 1	D1/CIF [1 ~ 25/30fps]
	Sub Stream 2	720p/D1/CIF [1 ~ 25/30fps]
Bit Rate	H.264: 56K ~ 8192Kbps, MJPEG: 56K ~ 20480Kbps	
Audio		
Compression	G.711a / G.711μ [32kbps] / PCM [128kbps]	
Interface	1/1 Channel In/Out	
AVA Analytics & Auto Tracking		
Auto Tracking	Single-Scene, Multi-Scene, Panoramic Scene	
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Loitering Detection, Missing Object Detection, Illegal Parking, Speed Trigger	
Tracking Activation	Manual / Auto [alarm triggered]	
Tracking Event Trigger	Zoom/Tracking, Recording, Snapshot, Alarm Output	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	AC 24V/5A	
Power Consumption	100W	
Working Environment	-40°C ~ +70°C / Less than 90% RH	
Ingress Protection	IP66, All-Metal Aluminum Alloy, 6000V Anti-Lightning Surge	
Weight	10kg	



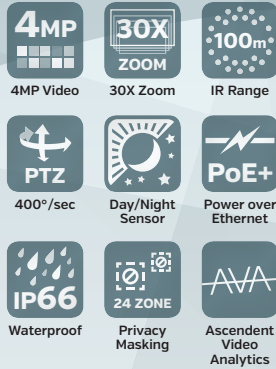
## 2 Megapixel 39X IR PTZ IP Camera w/ZLID

### Features

- 1/2.8" HD CMOS Progressive Scan Sensor
- Powerful 39X Optical Zoom, 16X Digital Zoom (640X)
- 8-315mm IR Corrected Continuous Zoom Lens offering a 37-1° Field of View
- Auto-Tracking and AVA Analytics
- Defog, Wiper, DWDR, DNR, Low Bitrate, EIS, ROI, Day/Night (ICR), Auto Iris, Auto Focus
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Up to 300 Presets, 8 Tour, 5 Pattern, 5 Auto Scan
- 500m/1600ft Zoom Laser IR Diode Illumination Distance
- Rugged IP66 Housing

Camera		
Image Sensor	1/2.8" Exmor Progressive Scan CMOS	
Effective Pixels	1944 × 1092 [2,122,848 Pixels]	
Shutter Speed	1/1 ~ 1/30,000s	
S/N Ratio	> 55dB	
Video Output	BNC (1V <sub>pp</sub> /75Ω), PAL / NTSC	
Camera Features		
Day/Night	Auto (ICR) / Color / B/W	
Backlight Compensation	BLC / HLC / DWDR (Digital WDR)	
White Balance	Auto, ATW, Indoor, Outdoor, Manual	
Gain Control	Auto / Manual	
Noise Reduction	DNR [2D/3D]	
Privacy Masking	Up to 24 areas	
Defog	On / Off	
Lens		
Focal Length	8mm ~ 315mm HD Lens (39X Optical Zoom)	
Max Aperture	f1.6 ~ f6.1	
Focus Control	Auto / Manual	
Angle of View	H: 37° ~ 1°	
PTZ		
Pan/Tilt Range	Pan: 0° ~ 360° Endless, Tilt: -90° ~ 45°	
Manual Control Speed	Pan: 0.1° ~ 160°/s, Tilt: 0.1° ~ 60°/s	
Preset Speed	Pan: 0.1° ~ 160°/s, Tilt: 0.1° ~ 60°/s	
PTZ Mode	5 Pattern, 8 Tour, Auto Pan, Auto Scan, 255 presets	
Positioning Accuracy	±0.1°	
Protocol	Pelco-P/D	
IR Illumination Distance	Up to 700m/2250' rated [500m/1600' clean]	
Video		
Compression	H.264 / MJPEG	
Resolution	1080p [1920×1080] / 720p [1280×720] / D1 [704×576 / 704×480] / CIF [352×288 / 352×240]	
Frame Rate	Main Stream	1080p [1 ~ 25/30fps] / 720p [1 ~ 50/60fps]
	Sub Stream 1	D1/CIF [1 ~ 25/30fps]
	Sub Stream 2	720p/D1/CIF [1 ~ 25/30fps]
Bit Rate	H.264: 56K ~ 8192Kbps, MJPEG: 56K ~ 20480Kbps	
Audio		
Compression	G.711a / G.711μ [32kbps] / PCM [128kbps]	
Interface	1/1 Channel In/Out	
AVA Analytics & Auto Tracking		
Auto Tracking	Single-Scene, Multi-Scene, Panoramic Scene	
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Loitering Detection, Missing Object Detection, Illegal Parking, Speed Trigger	
Tracking Activation	Manual / Auto [alarm triggered]	
Tracking Event Trigger	Zoom/Tracking, Recording, Snapshot, Alarm Output	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	AC 24V/5A	
Working Environment	-10°C ~ +70°C / Less than 90% RH	
Ingress Protection	IP66, All-Metal Aluminum Alloy, 6000V Anti-Lightning Surge	
Weight	15kg	



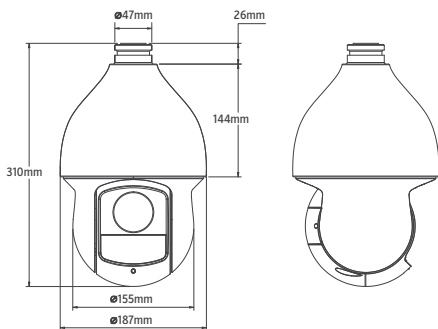


## 4 Megapixel 30X IR PTZ IP Camera w/Analytics

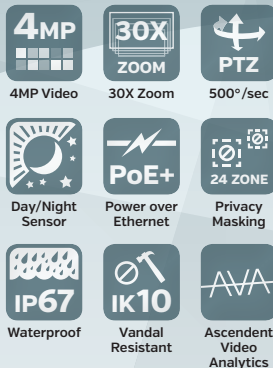
### Features

- Powerful 30X Optical Zoom, 16X Digital Zoom (480X)
- 1/3" 4MP CMOS Progressive Scan Sensor
- 4.5–134mm Lens offering a 60–2.2° Field of View
- H.265 & H.264 Encoding with ultra-low bitrate transmission
- WDR, Day/Night (ICR), Ultra DNR, Auto Iris, Auto Focus
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Max 400°/s Pan Speed, 360° Endless Rotation
- Up to 300 Presets, 5 Auto Scans, 8 Tours, 5 Patterns
- Built-in 2/1 Alarm In/Out
- IR Distance up to 100m/325ft
- Edge Recording via SD Card
- Rugged IP66 Housing
- PoE+: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Image Sensor	1/3" Progressive Scan CMOS	
Effective Pixels	2688 × 1520 (4,085,760 Pixels)	
Shutter Speed	1/3 – 1/30,000s	
Min. Illumination	0.05 Lux/f1.6 (Color), 0.005 Lux/f1.6 (B&W)	
S/N Ratio	> 55dB	
Camera Features		
Day/Night	Auto (ICR) / Color / B&W	
Backlight Compensation	BLC / HLC / WDR	
White Balance	Auto, ATW, Indoor, Outdoor, Manual	
Gain Control	Auto / Manual	
Noise Reduction	Ultra DNR (2D/3D)	
Privacy Masking	Up to 24 areas	
Lens		
Focal Length	4.5mm–134mm (30X Optical Zoom)	
Max Aperture	f1.4 – f4.4	
Focus Control	Auto / Manual	
Angle of View	H: 60° ~ 2.2°	
PTZ		
Pan/Tilt Range	Pan: 0° ~ 360° Endless; Tilt: -15° ~ 90°, Auto Flip 180°	
Manual Control Speed	Pan: 0.1° ~ 300°/s, Tilt: 0.1° ~ 200°/s	
Preset Speed	Pan: 400°/s, Tilt: 300°/s	
PTZ Modes	5 Patterns, 8 Tours, Auto Scan, Auto Pan, 300 Presets	
Video		
Compression	H.265 / H.264 / MJPEG	
Resolution	4M [2592×1520] / 3M [2304×1296] / 1080p [1920×1080] / 1.3M [1280×960] / 720p [1280×720] / D1 [704×576 / 704×480] / CIF [352×288 / 352×240]	
Frame Rate	Main Stream	4M/3M (1 ~ 25/30fps), 1080p (1~50/60fps), 1.3M/720p (1 ~ 25/30fps)
	Sub Stream 1	D1/CIF (1 ~ 25/30fps)
	Sub Stream 2	1080p/1.3M/720p (1 ~ 25/30fps)
Bit Rate	H.265/H.264: 192K ~ 8192Kbps, MJPEG: 192K ~ 2048Kbps	
Audio		
Compression	G.711a / G.711µ [32kbps] / PCM [128kbps]	
Interface	1/1 Channel In/Out	
AVA Analytics		
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Missing/Abandoned Object, Face Detection	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	AC24V, PoE+ [802.3at]	
Power Consumption	13W [20W with IR on]	
Working Environment	-30°C ~ 60°C / < 90% RH	
Ingress Protection	IP66	
Dimensions	Ø187mm × 310mm	
Weight	3.5kg	

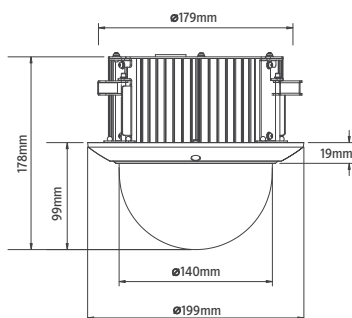


## 4 Megapixel 30X PTZ IP Camera w/Analytics

### Features

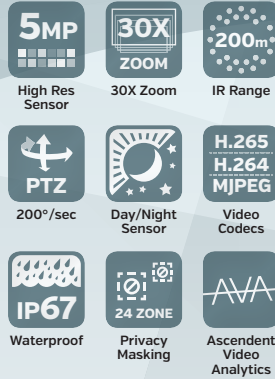
- Powerful 30X Optical Zoom, 16X Digital Zoom (480X)
- 1/3" 4MP CMOS Progressive Scan Sensor
- 4.5–135mm Lens offering a 60–2.2° Field of View
- H.264 & H.265 Encoding with ultra-low bitrate transmission
- WDR, Day/Night (ICR), Ultra DNR, Auto Iris, Auto Focus
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Max 500°/s Pan Speed, 360° Endless Rotation
- Up to 300 Presets, 5 Auto Scans, 8 Tours, 5 Patterns
- Built-in 2/1 Alarm In/Out
- IR Distance up to 100m/325ft (AC24V) / 80m/260ft (DC12V)
- Edge Recording via SD Card
- Extra Rugged IP66 & IK10 Vandal Resistant Housing
- PoE+: Power, Video & Control over a Single CAT5 Cable

### Dimensions



Camera		
Image Sensor	1/3" Progressive Scan CMOS	
Effective Pixels	2688 × 1520 (4,085,760 Pixels)	
Shutter Speed	1/1 ~ 1/30,000s	
Min. Illumination	0.05 Lux/f1.6 (Color), 0.005 Lux/f1.6 (B&W)	
S/N Ratio	> 50dB	
Camera Features		
Day/Night	Auto (ICR) / Color / B&W	
Backlight Compensation	BLC / HLC / WDR (120dB)	
White Balance	Auto, ATW, Indoor, Outdoor, Manual	
Gain Control	Auto / Manual	
Noise Reduction	Ultra DNR (2D/3D)	
Privacy Masking	Up to 24 areas	
Lens		
Focal Length	4.5mm–135mm (30X Optical Zoom)	
Max Aperture	f1.4 ~ f4.4	
Focus Control	Auto / Manual	
Angle of View	H: 60° ~ 2.2°	
PTZ		
Pan/Tilt Range	Pan: 0° ~ 360° Endless; Tilt: 0° ~ 90°, Auto Flip 180°	
Manual Control Speed	Pan: 0.1° ~ 350°/s, Tilt: 0.1° ~ 250°/s	
Preset Speed	Pan: 500°/s, Tilt: 500°/s	
PTZ Modes	5 Patterns, 8 Tours, Auto Scan, Auto Pan, 300 Presets	
Video		
Compression	H.265 / H.264 / MJPEG	
Resolution	4M (2592×1520) / 3M (2304×1296) / 1080p (1920×1080) / 1.3M (1280×960) / 720p (1280×720) / D1 (704×576 / 704×480) / CIF (352×288 / 352×240)	
Frame Rate	Main Stream	4M/3M (1 ~ 25/30fps), 1080p (1~50/60fps), 1.3M/720p (1 ~ 25/30fps)
	Sub Stream 1	D1/CIF (1 ~ 25/30fps)
	Sub Stream 2	1080p/1.3M/720p (1 ~ 25/30fps)
Bit Rate	H.265/H.264: 192K ~ 8192Kbps, MJPEG: 192K ~ 2048Kbps	
Audio		
Compression	G.711a / G.711µ (32kbps) / PCM (128kbps)	
Interface	1/1 Channel In/Out	
AVA Analytics		
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Missing/Abandoned Object, Face Detection	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	AC24V/1.5A (±10%), PoE+ (802.3at)	
Power Consumption	13W	
Working Environment	-20°C ~ 60°C / < 90% RH	
Ingress Protection	IP67, IK10	
Dimensions	Ø187mm × 310mm	
Weight	2.2kg	

# 5MP-PTZ-IR-30X-AVA-CS

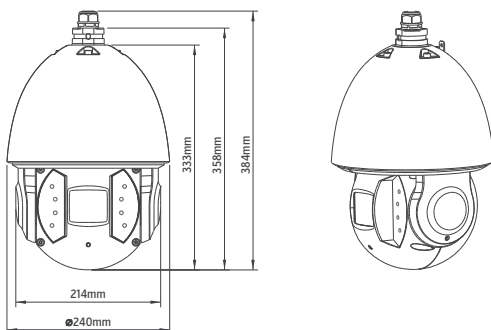


## 5 Megapixel 30X IR PTZ IP Camera w/Analytics

### Features

- Powerful 30X Optical Zoom, 4X Digital Zoom (120X)
- 1/1.9" HD Exmor Progressive Scan CMOS Sensor
- 6-180mm Lens offering a 61-2.3° Field of View
- H.265 Encoding, Ultra-low Bit Rate Transmission
- Defog, EIS, ROI, DWDR, Day/Night (ICR), DNR (2D & 3D), Auto Iris, Auto Focus, AWB, AGC, BLC
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Max 240°/s Pan Speed, 360° Endless Rotation
- Up to 300 Presets, 5 Auto Scans, 8 Tours, 5 Patterns
- Built-in 7/2 Alarm In/Out
- IR Distance up to 200m/650ft
- Edge Recording via SD Card (supports up to 128GB)
- Vandal-Proof IP67 & IK10 Housing

### Dimensions



Camera		
Image Sensor	1/1.9" Exmor Progressive Scan CMOS	
Effective Pixels	2560 × 1920 (4,915,200 Pixels)	
Shutter Speed	1/1 ~ 1/30,000s	
Min. Illumination	0.01 Lux/f1.5 [Color], 0.001 Lux/f1.5 [B&W], 0 Lux [IR on]	
S/N Ratio	> 50dB	
Camera Features		
Day/Night	Auto (ICR) / Color / B&W	
Backlight Compensation	Supported	
White Balance	Auto, ATW, Indoor, Outdoor, Manual	
Gain Control	Auto / Manual	
Noise Reduction	Ultra DNR (2D/3D)	
Privacy Masking	Up to 24 areas	
Defog	Yes	
Lens		
Focal Length	6mm~180mm (30X Optical Zoom)	
Max Aperture	f1.5 ~ f4.3	
Focus Control	Auto / Manual	
Angle of View	H: 61.2° ~ 2.3°	
PTZ		
Pan/Tilt Range	Pan: 0° ~ 360° Endless; Tilt: -10° ~ 90°, Auto Flip 180°	
Manual Control Speed	Pan: 0.1° ~ 200°/s, Tilt: 0.1° ~ 120°/s	
Preset Speed	Pan: 240°/s, Tilt: 200°/s	
PTZ Modes	5 Patterns, 8 Tours, Auto Pan, Auto Scan	
Idle Motion	Activate Preset/Tour/Scan/Pattern after a preset amount of time	
Powerup Action	Auto-restore previous view	
Scheduled Actions	Activate Preset/Tour/Scan/Pattern at a preset time	
Video		
Compression	H.265 / H.264 / MJPEG	
Resolution	5MP [2560×1920] / 3MP [2048×1536] / 1080p [1920×1080] / 1.3MP [1280×960] / 720p [1280×720]	
Frame Rate	Main Stream	5MP [1 ~ 25/30fps] / 3MP [1~25/30fps] / 1080p [1~25/30fps] / 1.3MP [1~25/30fps] / 720p [1~25/30fps]
	Sub Stream 1	D1/CIF [1 ~ 25/30fps]
	Sub Stream 2	5MP [1 ~ 20fps] / 1080p [1~25/30fps] / 1.3MP [1~25/30fps] / 720p [1~25/30fps]
Audio		
Compression	G.711a / G.711µ / AAC / G.722 / G.726	
Interface	1/1 Channel In/Out	
AVA Analytics		
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Missing/Abandoned Object, Face Detection	
Network		
Ethernet	RJ-45	
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
Compatibility	ONVIF, PSIA, CGI	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
Power Supply	AC24V/3A (±25%)	
Power Consumption	24W, 38W [IR on]	
Working Environment	-40°C ~ 70°C / < 90% RH	
Ingress Protection	IP67 & IK10	
Dimensions	ø240mm × 384mm	
Weight	6.8kg	





## 4K IR 30X PTZ IP Camera w/AVA Analytics and Auto-Tracking

### Features

- Powerful 30X Optical Zoom, 16X Digital Zoom (480X)
- 1/1.7" HD CMOS Progressive Scan Sensor
- 6–180mm Lens offering a 61.2–2.1° Field of View
- Auto-Tracking and AVA Analytics
- Defog, DWDR, Day/Night (ICR), DNR, EIS, Auto Focus
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Triple Video Stream Encoding
- H.265 Compression
- 200m/650ft IR Illumination Distance
- Edge Recording via SD Card
- Rugged IP67 & IK10 Housing

Camera		
<b>Image Sensor</b>	1/1.7" Exmor Progressive Scan CMOS	
<b>Effective Pixels</b>	3840 × 2160 [8,294,400 Pixels]	
<b>Minimum Illumination</b>	Color: 0.05 Lux @ f/1.6; IR: 0 Lux	
<b>S/N Ratio</b>	> 56dB	
Camera Features		
<b>Day/Night</b>	Auto (ICR) / Color / B&W	
<b>Backlight Compensation</b>	BLC / HLC / DWDR (Digital WDR)	
<b>White Balance</b>	Auto, ATW, Indoor, Outdoor, Manual	
<b>Gain Control</b>	Auto / Manual	
<b>Noise Reduction</b>	Ultra DNR (2D/3D)	
<b>Privacy Masking</b>	Up to 24 areas	
<b>Defog</b>	On / Off	
Lens		
<b>Focal Length</b>	6mm–180mm HD Lens (30x Optical Zoom)	
<b>Max Aperture</b>	f1.6–f4.8	
<b>Focus Control</b>	Auto / Manual	
<b>Angle of View</b>	H: 61.2°~ 2.1°	
PTZ		
<b>Pan/Tilt Range</b>	Pan: 0°~ 360° endless; Tilt: -20°~ 90°, auto flip 180°	
<b>Manual Control Speed</b>	Pan: 0.1° ~200°/s; Tilt: 0.1° ~120°/s	
<b>Preset Speed</b>	Pan: 240°/s; Tilt: 200°/s	
<b>PTZ Modes</b>	5 Patterns, 8 Tours, Auto Pan, Auto Scan, 300 presets	
<b>IR Illumination Distance</b>	200m/650' Rated [100m/325' Effective]	
Video		
<b>Compression</b>	H.256 / H.264 / MJPEG	
<b>Resolution</b>	4K [3840×2160] / 1080p [1920×1080] / 1.3M [1280×960] / 720p [1280×720]	
<b>Frame Rate</b>	<b>Main Stream</b>	4K/1.3M/720p [1 ~ 25/30fps] / 1080p [1-50/60fps]
	<b>Sub Stream 1</b>	D1/CIF [1 ~ 25/30fps]
	<b>Sub Stream 2</b>	1080p/720p/D1 [1 ~ 25/30fps]
<b>Bit Rate</b>	H.265/H.264: 256K ~ 8192Kbps, MJPEG: 256K ~ 64256Kbps	
Audio & Alarm		
<b>Audio Compression</b>	G.711a / G.711μ [32kbps] / PCM [128kbps]	
<b>Audio Interface</b>	1/1 Channel In/Out	
<b>Alarm</b>	7/2 Channel In/Out	
AVA Analytics & Auto Tracking		
<b>Auto Tracking</b>	Single-Scene, Multi-Scene, Panoramic Scene	
<b>Detection Types</b>	Bi-Directional Tripwire, Perimeter Intrusion Detection, Loitering Detection, Missing Object Detection, Illegal Parking, Speed Trigger	
<b>Tracking Activation</b>	Manual / Auto (alarm triggered)	
<b>Tracking Event Trigger</b>	Zoom/Tracking, Recording, Snapshot, Alarm Output	
Network		
<b>Ethernet</b>	RJ-45	
<b>Protocol</b>	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter	
<b>Compatibility</b>	ONVIF, PSIA, CGI	
<b>Remote Access</b>	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
General		
<b>Power Supply</b>	AC 24V/3A [±25%], Hi-PoE	
<b>Power Consumption</b>	24W, 43W (IR on)	
<b>Working Environment</b>	-40°C ~ 70°C / Less than 90% RH	
<b>Ingress Protection</b>	IP67 & IK10	
<b>Weight</b>	6.75kg	





*Standalone  
Integrated VMS Platform  
Linux OS  
Resistant to Malware  
Scalable  
Efficient Architecture  
Full-Spectrum  
Cross Compatibility  
AVA [Ascendent Video Analytics]  
Ultra HD 4K Video  
Up to 250 Channel Servers*



# NVRs

## Network Video Recorders

### 2MP NVRs

**X5S-NVR-Nano-4CH/8CH-2MP**

### 5MP NVRs

**X5S-NVR-Mini-8CH/16CH-5MP**

### 4K NVRs

**X5S-NVR-1U-8CH/16CH/32CH-4K**

**X5S-NVR-1.5U-8CH/16CH/32CH-4K**

**X5S-NVR-2U-8CH/16CH/32CH-4K**

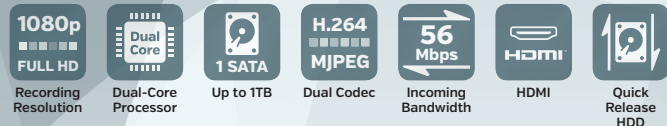
**X5S-NVR-2U-64CH/124CH-4K-AVA**

**X5S-NVR-3U-64CH/124CH-4K-AVA**

**X5S-NVR-4U-250CH-4K-AVA**

Ascendent X5S standalone NVRs run on an embedded Linux OS, offering unparalleled stability, performance, and cutting-edge features. While a conventional CMS solution requires dedicated PC hardware, proprietary VMS software, camera license fees, frequent updates, and maintenance, X5S standalone NVRs offer a superior turn-key solution at lower prices. Full spectrum cross compatibility with our IP cameras, DVRs, HDX DVRs, NVRs, and video encoders make the X5S platform a completely integrated VMS solution.

Choose from models featuring integrated AVA (Ascendent Video Analytics), Ultra HD 4K video, 360° Panoramic Fisheye support with dewarping, hot-swappable RAID arrays, up to 250 channels per server, and virtually unlimited storage. While X5S NVRs operate autonomously and independently from each other, any NVR can record video feeds from any other NVRs, DVRs, HDX DVRs, NVRs, IP cameras, or video encoders. This makes our NVRs the most versatile solution on the market; perfect for any application from residential and small businesses to multi-national corporations, airports, casinos, universities, law enforcement, military, and shopping centers.

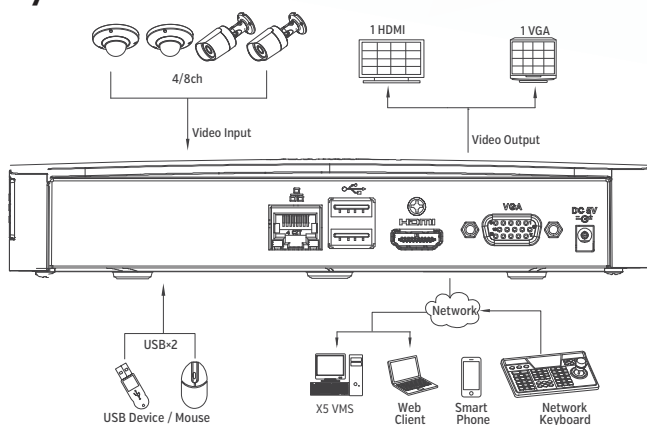


## X5S Nano 4/8 Channel Standalone NVR

### Features

- 4/8 Camera Channels
- H.264/MJPEG Dual Codec Decoding
- Up to 56Mbps Incoming Bandwidth
- HDMI/VGA Simultaneous Video Output
- Supported IP Camera Brands: Ascendent, Arecont Vision, AXIS, Bosch, Canon, Dynacolor, Honeywell, ONVIF, Panasonic, Pelco, Samsung, Sanyo, Sony, Vivotek
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- C-Series & ONVIF Version 2.3 Compliance

### System Connection

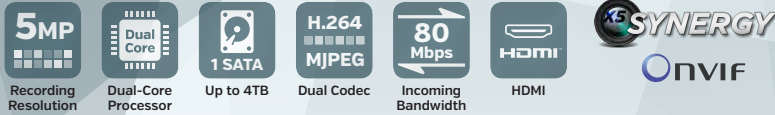


	X5S-NVR-Nano-4CH-2MP	X5S-NVR-Nano-8CH-2MP
<b>System</b>		
<b>Main Processor</b>	Dual-Core Embedded Processor	
<b>Operating System</b>	Embedded LINUX	
<b>Video &amp; Audio</b>		
<b>Input</b>	4 Channels	8 Channels
<b>Two-way Talk</b>	1 Ch In / 1 Ch Out, RCA	
<b>Display</b>		
<b>Interface</b>	1 HDMI, 1 VGA	
<b>Resolution</b>	1920×1080, 1280×1024, 1280×720, 1024×768	
<b>Display Split</b>	1/4	1/4/8/9
<b>OSD</b>	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording	
<b>Recording</b>		
<b>Compression</b>	H.264 / MJPEG	
<b>Resolution</b>	1080p [1920×1080] / 720p [1280×720] / D1 [704×480]	
<b>Record Rate</b>	56Mbps	
<b>Bit Rate</b>	48~ 8192kbps	
<b>Recording Mode</b>	Manual, Continuous, Motion Detection, Alarm	
<b>Pre/Post Recording</b>	Pre-record: 1~30 sec, Post-record: 10~300 sec	
<b>Video Detection &amp; Alarm</b>		
<b>Event Triggering</b>	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup	
<b>Video Detection</b>	Motion Detection, Video Loss, Camera Masking	
<b>Playback &amp; Backup</b>		
<b>Sync Playback</b>	1/4 (limited by resolution and bitrate*)	1/4/9 (limited by resolution and bitrate*)
<b>Search Modes</b>	Time/Date, Timeline Search, Alarm, Motion Detection	
<b>Playback Functions</b>	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom	
<b>Backup Modes</b>	Network / USB / External CD-R & DVD-RW	
<b>Storage</b>		
<b>Internal HDD</b>	1 SATA Port, up to 1TB	
<b>Network</b>		
<b>Ethernet</b>	1 RJ-45 Port (10/100/1000Mbps)	
<b>Network Function</b>	HTTP, TCP/IP, IPv4/IPv6, UPNP, RTSP, UDP, NTP, DHCP, DNS, IP Filter, DDNS, Alarm Server, IP Search (Supports IP Cameras and DVRs), SNMP, P2P	
<b>Remote Access</b>	iPhone, iPad, Android, PC (ARMS Pro/HD, Internet Browser, X5 Synergy VMS)	
<b>Auxiliary Ports</b>		
<b>USB</b>	2 Ports (2 Rear USB 2.0)	
<b>General</b>		
<b>Power Supply</b>	DC5V/2A	
<b>Power Consumption</b>	<4W (without HDD)	
<b>Working Environment</b>	-10°C ~+55°C / 10%~90% RH / 86~106kpa	
<b>Dimension (W×D×H)</b>	193mm × 129mm × 37mm	
<b>Weight</b>	320g (without HDD)	

\*Limited to 2 channels @1080p viewing or playback, >1080p recording only, video must be viewed remotely.



# X5S-NVR-Mini-8CH/16CH-5MP

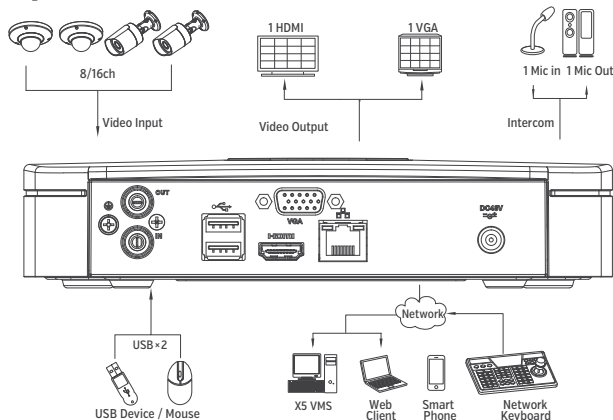


## X5S Mini 8/16 Channel Standalone NVR

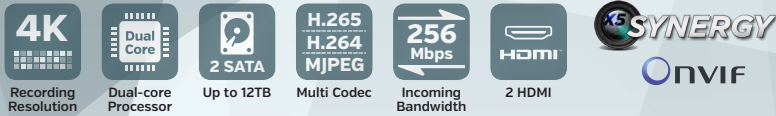
### Features

- 8/16 Camera Channels
- H.264/MJPEG Dual Codec Decoding
- Up to 80Mbps Incoming Bandwidth
- Up to 5MP Resolution Preview and Playback
- HDMI/VGA Simultaneous Video Output
- Supports 1 SATA HDD (Up to 4TB)
- Supported IP Camera Brands: Ascendent, Arecont Vision, AXIS, Bosch, Canon, Dynacolor, Honeywell, ONVIF, Panasonic, Pelco, Samsung, Sanyo, Sony, Vivotek
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- C-Series & ONVIF Version 2.3 Compliance

### System Connection



	X5S-NVR-Mini-8CH-5MP	X5S-NVR-Mini-16CH-5MP
<b>System</b>		
Main Processor	Dual-Core Embedded Processor	
Operating System	Embedded LINUX	
<b>Video &amp; Audio</b>		
Input	8 Channels	16 Channels
Two-way Talk	1 Ch In / 1 Ch Out, RCA	
<b>Display</b>		
Interface	1 HDMI, 1 VGA	
Resolution	1920×1080, 1280×1024, 1280×720, 1024×768	
Display Split	1/4/8/9	1/4/8/9/16
OSD	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording	
<b>Recording</b>		
Compression	H.264 / MJPEG	
Resolution	5MP [2560×1920] / 3MP [2048×1536] / 1080p [1920×1080] / 720p [1280×720] / D1 [704×480]	
Record Rate	80Mbps	
Bit Rate	48- 8192kbps	
Recording Mode	Manual, Continuous, Motion Detection, Alarm	
Pre/Post Recording	Pre-record: 1-30 sec, Post-record: 10-300 sec	
<b>Video Detection &amp; Alarm</b>		
Event Triggering	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup	
Video Detection	Motion Detection, Video Loss, Camera Masking	
<b>Playback &amp; Backup</b>		
Sync Playback	1/4/9 [limited by resolution and bitrate]	1/4/9/16 [limited by resolution and bitrate]
Search Modes	Time/Date, Timeline Search, Alarm, Motion Detection	
Playback Functions	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom	
Backup Modes	Network / USB / External CD-R & DVD-RW	
<b>Storage</b>		
Internal HDD	1 SATA Port, up to 4TB	
<b>Network</b>		
Ethernet	1 RJ-45 Port (10/100/1000Mbps)	
Network Function	HTTP, TCP/IP, IPv4/IPv6, UPNP, RTSP, UDP, NTP, DHCP, DNS, IP Filter, DDNS, Alarm Server, IP Search (Supports IP Cameras and DVRs), SNMP, P2P	
Remote Access	iPhone, iPad, Android, PC (ARMS Pro/HD, Internet Browser, X5 Synergy VMS)	
<b>Auxiliary Ports</b>		
USB	2 Ports (1 Rear USB 3.0, 1 Front USB 2.0)	
<b>General</b>		
Power Supply	DC12V/2A	
Power Consumption	<10W (without HDD)	
Working Environment	-10° C ~+55° C / 10%~90% RH / 86~106kpa	
Dimension (W×D×H)	205mm × 205mm × 46mm	
Weight	0.5kg (without HDD)	

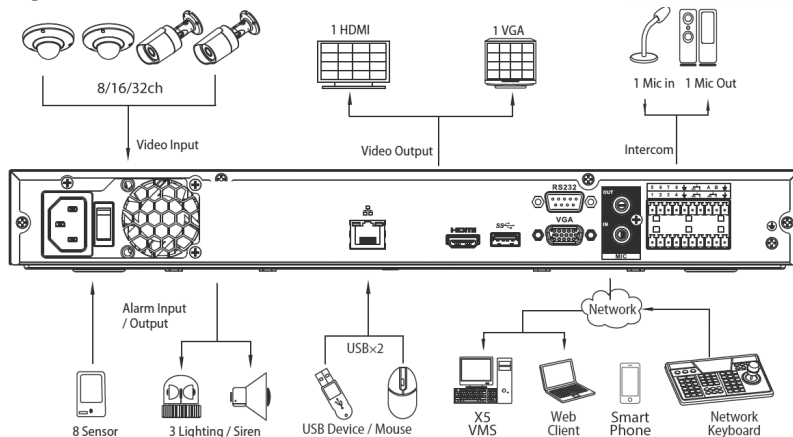


## X5S 1U 8/16/32 Channel Standalone NVR

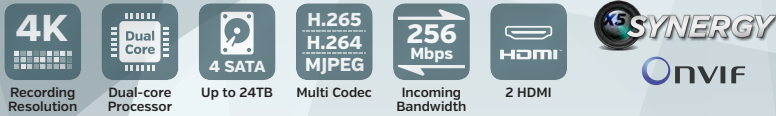
### Features

- 8/16/32 IP Camera Channels
- H.265/H.264/MJPEG
- Up to 256Mbps Incoming Bandwidth
- Up to 12MP Resolution Preview & Playback
- HDMI/VGA Simultaneous Video Output
- Supports 2 SATA HDDs (up to 12TB)
- Supported IP Camera Brands: Ascendent, Arecont Vision, AXIS, Bosch, Canon, Dynacolor, Honeywell, ONVIF, Panasonic, Pelco, Samsung, Sanyo, Sony, Vivotek
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- C-Series & ONVIF Version 2.4 Compliance

### System Connection



	X5S-NVR-1U-8CH-4K	X5S-NVR-1U-16CH-4K	X5S-NVR-1U-32CH-4K
<b>System</b>			
Processor	Dual-core Embedded Processor		
Operating System	Embedded LINUX		
<b>Video &amp; Audio</b>			
Input	8 Channels	16 Channels	32 Channels
Two-way Talk	1 Channel In, 1 Channel Out, RCA		
<b>Display</b>			
Interface	1 HDMI, 1 VGA		
Resolution	3840×2160, 1920×1080, 1280×1024, 1280×720, 1024×768		
Display Split	1/4/8/9	1/4/8/9/16	1/4/8/9/16
OSD	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording		
<b>Recording</b>			
Compression	H.265/H.264/MJPEG		
Resolution	12MP, 8MP, 6MP, 5MP, 3MP, 1080p, 1.3MP, 720p, etc		
Record Rate	192Mbps		
Bit Rate	1~20Mbps		
Recording Mode	Manual, Continuous, Motion Detection, Alarm		
Pre/Post Recording	Pre-record: 1~30 sec, Post-record: 10~300 sec		
<b>Video Detection &amp; Alarm</b>			
Event Triggering	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup		
Video Detection	Motion Detection, Video Loss, Camera Masking		
Alarm I/O	8 Channels In, 3 Channels Out		
<b>Playback &amp; Backup</b>			
Sync Playback	1/4/9 (limited by resolution and bitrate)	1/4/9/16 (limited by resolution and bitrate)	1/4/9/16 (limited by resolution and bitrate)
Search Modes	Time/Date, Timeline Search, Alarm, Motion Detection		
Playback Functions	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom		
Backup Modes	Network / USB / Internal CD-R & DVD-RW		
<b>Network</b>			
Interface	1 RJ-45 ports [10/100/1000Mbps]		
Network Function	HTTP, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, Alarm Server, IP Search		
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]		
<b>Storage</b>			
Internal HDD	2 SATA III Ports, up to 12TB		
<b>Auxiliary Ports</b>			
USB	2 USB Ports [1 Rear USB 3.0, 1 Front USB 2.0]		
RS232	1 Port [for PC Communication & Keyboard]		
RS485	1 Port [for PTZ Control]		
<b>General</b>			
Power Supply	Single, DC12V/4A		
Power Consumption	8.7W		
Working Environment	-10°C ~+55°C, 10%~90%RH, 86~106kpa		
Dimensions [W×D×H]	1U, 375mm×275mm×56mm		
Weight	1.65kg [without HDDs]		

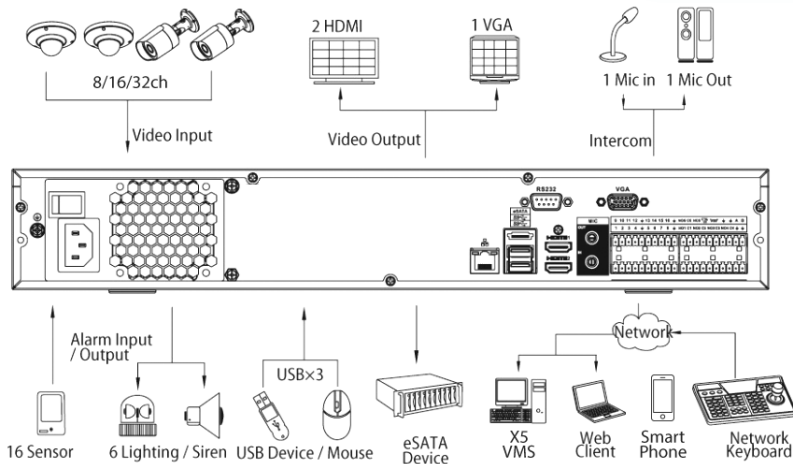


## X5S 1.5U 8/16/32 Channel Standalone NVR

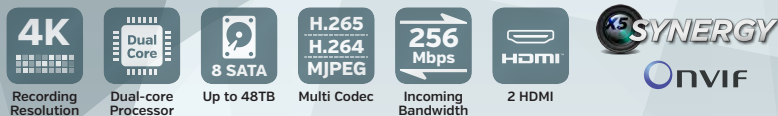
### Features

- 8/16/32 IP Camera Channels
- H.265/H.264/MJPEG
- Up to 256Mbps Incoming Bandwidth
- Up to 12MP Resolution Preview & Playback
- 2 HDMI / 1 VGA Simultaneous Video Output
- Supports 4 SATA HDDs (up to 24TB)
- Supported IP Camera Brands: Ascendent, Arecont Vision, AXIS, Bosch, Canon, Dynacolor, Honeywell, ONVIF, Panasonic, Pelco, Samsung, Sanyo, Sony, Vivotek
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- C-Series & ONVIF Version 2.4 Compliance

### System Connection



	X5S-NVR-1.5U-8CH-4K	X5S-NVR-1.5U-16CH-4K	X5S-NVR-1.5U-32CH-4K
<b>System</b>			
Processor	Dual-core Embedded Processor		
Operating System	Embedded LINUX		
<b>Video &amp; Audio</b>			
Input	8 Channels	16 Channels	32 Channels
Two-way Talk	1 Channel In, 1 Channel Out, RCA		
<b>Display</b>			
Interface	2 HDMI, 1 VGA		
Resolution	3840×2160, 1920×1080, 1280×1024, 1280×720, 1024×768		
Display Split	1/4/8/9	1/4/8/9/16	1/4/8/9/16
OSD	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording		
<b>Recording</b>			
Compression	H.265/H.264/MJPEG		
Resolution	12MP, 8MP, 6MP, 5MP, 3MP, 1080p, 1.3MP, 720p, etc		
Record Rate	192Mbps		
Bit Rate	1-20Mbps		
Recording Mode	Manual, Continuous, Motion Detection, Alarm		
Pre/Post Recording	Pre-record: 1-30 sec, Post-record: 10-300 sec		
<b>Video Detection &amp; Alarm</b>			
Event Triggering	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup		
Video Detection	Motion Detection, Video Loss, Camera Masking		
Alarm I/O	16 Channels In, 6 Channels Out		
<b>Playback &amp; Backup</b>			
Sync Playback	1/4/9 (limited by resolution and bitrate)	1/4/9/16 (limited by resolution and bitrate)	1/4/9/16 (limited by resolution and bitrate)
Search Modes	Time/Date, Timeline Search, Alarm, Motion Detection		
Playback Functions	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom		
Backup Modes	Network / USB / Internal CD-R & DVD-RW / eSATA		
<b>Network</b>			
Interface	2 RJ-45 ports (10/100/1000Mbps)		
Network Function	HTTP, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, Alarm Server, IP Search		
Remote Access	iPhone, iPad, Android, PC (ARMS Pro/HD, Internet Browser, X5 Synergy VMS)		
<b>Storage</b>			
Internal HDD	4 SATA III Ports, up to 24TB		
External HDD	1 eSATA Port		
<b>Auxiliary Ports</b>			
USB	3 USB Ports (2 Rear USB 3.0, 1 Front USB 2.0)		
RS232	1 Port (for PC Communication & Keyboard)		
RS485	1 Port (for PTZ Control)		
<b>General</b>			
Power Supply	Single, AC 100-240V, 50/60 Hz		
Power Consumption	17W (without HDDs)		
Working Environment	-10°C--+55°C, 10%~90%RH, 86-106kpa		
Dimensions (W×D×H)	1.5U, 440mm×405mm×76mm		
Weight	4.35kg (without HDDs)		

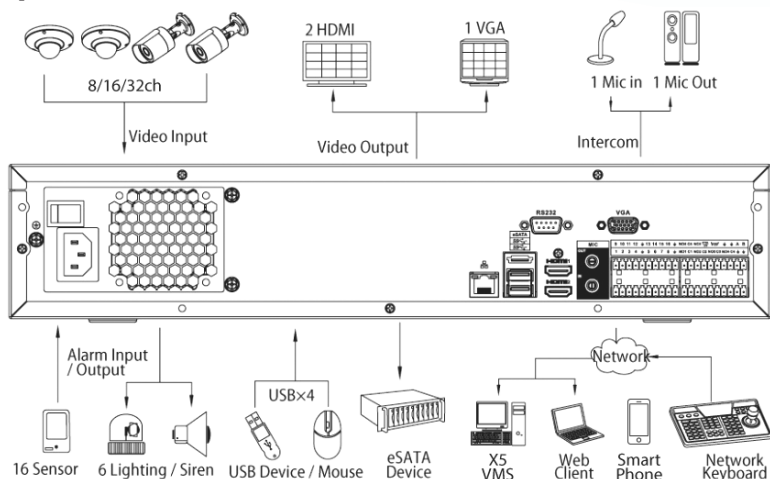


## X5S 2U 8/16/32 Channel Standalone NVR

### Features

- 8/16/32 IP Camera Channels
- H.265/H.264/MJPEG
- Up to 256Mbps Incoming Bandwidth
- Up to 12MP Resolution Preview & Playback
- 2 HDMI / 1 VGA Simultaneous Video Output
- Supports 8 SATA HDDs (up to 48TB)
- Supported IP Camera Brands: Ascendent, Arecont Vision, AXIS, Bosch, Canon, Dynacolor, Honeywell, ONVIF, Panasonic, Pelco, Samsung, Sanyo, Sony, Vivotek
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- C-Series & ONVIF Version 2.4 Compliance

### System Connection



	X5S-NVR-2U-8CH-4K	X5S-NVR-2U-16CH-4K	X5S-NVR-2U-32CH-4K
<b>System</b>			
Processor	Dual-core Embedded Processor		
Operating System	Embedded LINUX		
<b>Video &amp; Audio</b>			
Input	8 Channels	16 Channels	32 Channels
Two-way Talk	1 Channel In, 1 Channel Out, RCA		
<b>Display</b>			
Interface	2 HDMI, 1 VGA		
Resolution	3840×2160, 1920×1080, 1280×1024, 1280×720, 1024×768		
Display Split	1/4/8/9	1/4/8/9/16	1/4/8/9/16
OSD	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording		
<b>Recording</b>			
Compression	H.265/H.264/MJPEG		
Resolution	12MP, 8MP, 6MP, 5MP, 3MP, 1080p, 1.3MP, 720p, etc		
Record Rate	192Mbps		
Bit Rate	1-20Mbps		
Recording Mode	Manual, Continuous, Motion Detection, Alarm		
Pre/Post Recording	Pre-record: 1-30 sec, Post-record: 10-300 sec		
<b>Video Detection &amp; Alarm</b>			
Event Triggering	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup		
Video Detection	Motion Detection, Video Loss, Camera Masking		
Alarm I/O	16 Channels In, 6 Channels Out		
<b>Playback &amp; Backup</b>			
Sync Playback	1/4/9 (limited by resolution and bitrate)	1/4/9/16 (limited by resolution and bitrate)	1/4/9/16 (limited by resolution and bitrate)
Search Modes	Time/Date, Timeline Search, Alarm, Motion Detection		
Playback Functions	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom		
Backup Modes	Network / USB / Internal CD-R & DVD-RW / eSATA		
<b>Network</b>			
Interface	2 RJ-45 ports (10/100/1000Mbps)		
Network Function	HTTP, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, Alarm Server, IP Search		
Remote Access	iPhone, iPad, Android, PC (ARMS Pro/HD, Internet Browser, X5 Synergy VMS)		
<b>Storage</b>			
Internal HDD	8 SATA III Ports, up to 48TB		
External HDD	1 eSATA Port		
<b>Auxiliary Ports</b>			
USB	4 USB Ports (2 Rear USB 3.0, 2 Front USB 2.0)		
RS232	1 Port (for PC Communication & Keyboard)		
RS485	1 Port (for PTZ Control)		
<b>General</b>			
Power Supply	Single, AC 100-240V, 50/60 Hz		
Power Consumption	18.8W (without HDDs)		
Working Environment	-10°C ~ +55°C, 10%~90%RH, 86-106kpa		
Dimensions (W×D×H)	2U, 445mm×440mm×95mm		
Weight	6.6kg (without HDDs)		

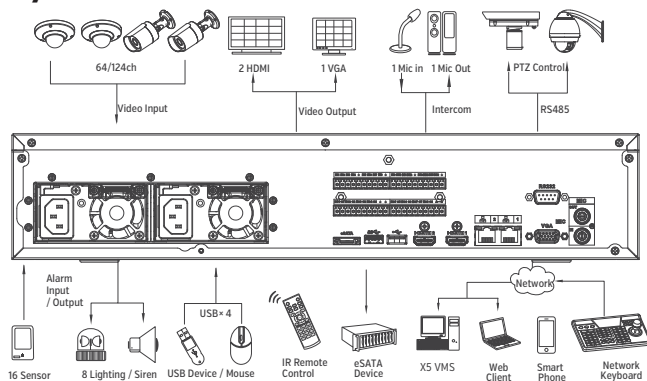


## X5S 2U 64/124 Channel Standalone NVR w/AVA

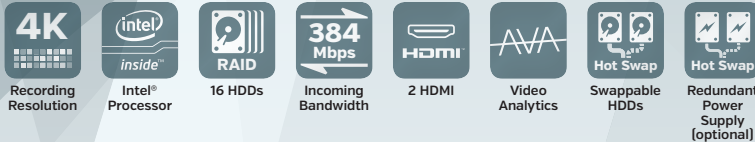
### Features

- 64/124 Camera Channels
- Up to 384Mbps Incoming Bandwidth
- Up to 8MP Resolution Preview and Playback
- 1 VGA + 2 HDMI
- Supports 8 Hot-Swappable HDDs (Up to 32TB)
- Support for RAID 0/1/5/6/10/50/60
- Supports AVA Analytics: Face Detection, Bi-Directional Tripwire, Perimeter Intrusion Detection (Limited to 1 Channel)
- Supported IP Camera Brands: Ascendent, Arecont Vision, AXIS, Bosch, Canon, Dynacolor, Honeywell, ONVIF, Panasonic, Pelco, Samsung, Sanyo, Sony, Vivotek
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- C-Series & ONVIF Version 2.4 Compatible
- Optional Redundant Power Supply Module

### System Connection



	X5S-NVR-2U-64CH-4K	X5S-NVR-2U-120CH-4K
<b>System</b>		
Main Processor	Intel® Processor	
Operating System	Embedded LINUX	
Memory	4GB DDR3	
<b>Video &amp; Audio</b>		
Recording	64ch@1080p/720p/D1	124ch@1080p/720p/D1
Preview	8ch@1080p / 16ch@720p / 32ch@D1	
Playback	128Mbps in RAID 5 mode 64Mbps in Independent HDD mode	
Recording Resolution	8MP, 6MP, 5MP, 3MP, 1080p, 720p, 960H, D1, CIF, QCIF, VGA	
Audio	1 Channel In, 1 Channel Out, RCA	
<b>Recording</b>		
Recording Mode	Manual, Continuous, Motion Detection, Alarm	
Alarm Recording	Video Loss, Camera Tampering, Motion Detection, External Alarm	
Backup Mode	Network / USB / External CD & DVD-RW / eSATA	
<b>Display</b>		
Video Output	HDMI 1 + HDMI 2 + VGA	
Multi-Screen Display	1st screen: 1/4/8/9/16/25/36 Views 2nd screen: 1/4/8/9/16 Views	
Privacy Masking	4 Custom Zones Per Camera	
<b>Storage</b>		
Internal HDD	8 SATA III Ports	
HDD Mode	Independent, RAID 0/1/5/6/10/50/60 (Supports Global Hot-Standby)	
<b>Network</b>		
Interface	2 RJ-45 ports (10/100/1000Mbps)	
Ethernet Mode	Teaming or Independent	
<b>MD &amp; Alarm</b>		
Motion Detection	User Defined Zones, Sensitivity: 1-100	
Alarm Input	16 Channel	
Relay Output	8 Channel, NO/NC Programmable	
<b>AVA Analytics</b>		
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Scene Change, Camera Tampering, Audio Detection, Face Detection (Limited to 1 Channel)	
<b>Auxiliary Ports</b>		
USB	4 USB Ports (3 USB 2.0, 1 USB 3.0)	
eSATA	1 eSATA Port	
RS232	1 Port (for PC Communication & Keyboard)	
RS485	1 Port (for PTZ Control)	
<b>General</b>		
Power Supply	AC 110V~240V, 50~60Hz	
Power Consumption	<40W (without HDDs)	
Working Environment	-10° C ~ 55° C	
Working Humidity	10% ~ 90% (non-condensation)	
Dimension (W×D×H)	455mm × 455mm × 91mm	
Weight	9kg (without HDDs)	

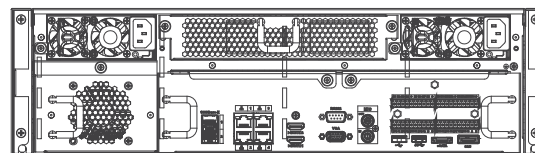
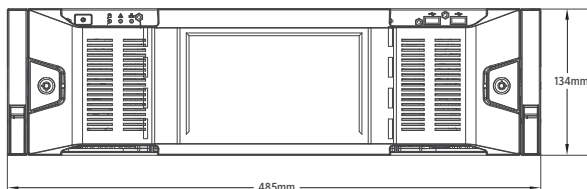


## X5S 3U 64/124 Channel Standalone NVR w/AVA

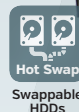
### Features

- Up to 64/124 IP Camera Channels
- Up to 384Mbps Incoming Bandwidth
- Up to 8MP Resolution Preview and Playback
- 1 VGA + 2 HDMI
- Supports 16 Hot-Swappable HDDs (Up to 96TB)
- Support for RAID 0/1/5/6/10/50/60
- Supports iSCSI & Mini SAS for Expandable Storage
- Supports AVA Analytics: Face Detection, Bi-Directional Tripwire, Perimeter Intrusion Detection (Limited to 1 Channel)
- Supported IP Camera Brands: Ascendent, Arecont Vision, AXIS, Bosch, Canon, Dynacolor, Honeywell, ONVIF, Panasonic, Pelco, Samsung, Sanyo, Sony, Vivotek
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- C-Series & ONVIF Version 2.4 Compliance
- Optional Redundant Power Supply Module
- Optional LCD Display

### Dimensions



	X5S-NVR-3U-64CH-4K	X5S-NVR-3U-124CH-4K
<b>System</b>		
Main Processor	Intel® Processor	
Operating System	Embedded LINUX	
Memory	4GB DDR3	
Case	Hot-Dipped Galvanized Sheet Steel [1.2mm thickened]	
<b>Video &amp; Audio</b>		
Recording	64ch@1080p/720p/D1	124ch@1080p/720p/D1
Preview	8ch@1080p / 16ch@720p / 32ch@D1	
Playback	128Mbps in RAID 5 Mode	
	64Mbps in Independent HDD Mode	
Recording Resolutions	8MP, 6MP, 5MP, 3MP, 1080p, 720p, 960H, D1, CIF, QCIF, VGA	
Audio	1 Channel In, 1 Channel Out, RCA	
<b>Recording</b>		
Recording Mode	Manual, Continuous, Motion Detection, Alarm	
Alarm Recording	Video Loss, Camera Tampering, Motion Detection, External Alarm	
Backup Mode	Network / USB / External CD & DVD-RW / eSATA	
<b>Display</b>		
Video Output	HDMI 1 + HDMI 2 + VGA	
Multi-Screen Display	1st screen: 1/4/8/9/16/25/36 Views	
	2nd screen: 1/4/8/9/16 Views	
Privacy Masking	4 Custom Zones Per Camera	
<b>Storage</b>		
Internal HDD	16 SATA III Ports, Up to 64TB	
HDD Mode	Independent, RAID 0/1/5/6/10/50/60 (Supports Global Hot-Standby)	
<b>Network</b>		
Interface	4 RJ-45 Ports [10/100/1000Mbps]	
Ethernet Modes	Teaming or Independent	
Optical Fiber Interface	2 Gigabit Optical Fiber Interface	
<b>MD &amp; Alarm</b>		
Motion Detection	User Defined Zones, Sensitivity: 1-100	
Alarm Input	16 Channel	
Relay Output	8 Channel, NO/NC Programmable	
<b>AVA Analytics</b>		
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Scene Change, Camera Tampering, Audio Detection, Face Detection (Limited to 1 Channel)	
<b>Auxiliary Interface</b>		
USB	4 USB Ports (3 USB 2.0, 1 USB 3.0)	
eSATA	1 eSATA Port	
SAS	1 Mini SAS Port	
RS232	1 Port, for PC communication & keyboard	
RS485	1 Port, for PTZ control	
<b>General</b>		
Power Supply	AC 100V ~ 240V, 50 ~ 60Hz	
Power Consumption	<40W (without HDDs)	
Working Environment	-10°C ~ 55°C	
Working Humidity	10% ~ 90% [non-condensation]	
Dimension [W×D×H]	3U, 485mm × 532mm × 134mm	
Weight	17.45kg (without HDDs)	



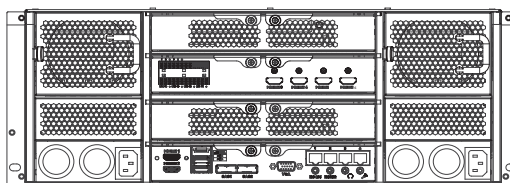
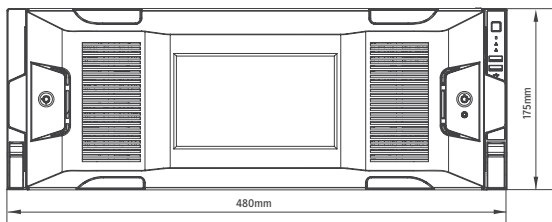
## X5S 4U 250 Channel Standalone NVR w/AVA

### Features

- Up to 250 IP Camera Channels
- Up to 512Mbps Incoming Bandwidth
- Up to 125ch@1080p, 250ch@720p Realtime Recording
- 2 HDMI or 1 HDMI + 1 VGA [Optional: 6 HDMI outputs]
- Supports 24 Hot-Swappable HDDs (Up to 96TB)
- Support for RAID 0/1/5/6/10/50/60
- Supports iSCSI & Mini SAS for Expandable Storage
- Supports AVA Analytics: Face Detection, Bi-Directional Tripwire, Perimeter Intrusion Detection (Limited to 1 Channel)
- Supported IP Camera Brands: Ascendent, Arecont Vision, AXIS, Bosch, Canon, Dynacolor, Honeywell, ONVIF, Panasonic, Pelco, Samsung, Sanyo, Sony, Vivotek
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- C-Series & ONVIF Version 2.4 Compliance
- Optional Redundant Power Supply Module
- Optional LCD Display

System	
Processor	Intel® Core™ i7 Processor
Operating System	Embedded LINUX
Memory	8GB DDR3
Case	Hot-Dipped Galvanized Sheet Steel [1.2mm thickened]
Video & Audio	
Recording	125ch@1080p / 250ch@720p
Preview	20ch@1080p / 40ch@720p / 68ch@D1 [Screens 1-2] Optional: 16ch@1080p / 16ch@720p / 16ch@D1 [Screens 3-6]
Playback	16ch@1080p / 16ch@720p / 16ch@D1 [RAID 5] 8ch@1080p / 16ch@720p / 16ch@D1 [Single HDD]
Recording Resolutions	8MP, 5MP, 3MP, 1080p, 720p, 960H, D1, CIF, QCIF, VGA
Audio	1 Channel In, 1 Channel Out
Recording	
Recording Mode	Manual, Continuous, Motion Detection, Alarm
Alarm Recording	Video Loss, Camera Tampering, Motion Detection, External Alarm
Backup Mode	Network / USB / External CD & DVD-RW / eSATA
Display	
Video Output	2 HDMI or 1 HDMI + 1 VGA [Optional: 6 HDMI outputs]
Multi-Screen Display	1st Screen: 1 / 4 / 8 / 9 / 16 / 25 / 36 / 64 Views 2nd Screen: 4 Views [Optional: 3-6 Screens: 4 Views]
Privacy Masking	4 Custom Zones Per Camera
Storage	
Internal HDD	24 Hot-Swappable HDDs
HDD Mode	Independent, RAID 0/1/5/6/10/50/60 [Supports Global Hot-Standby]
Network	
Interface	4 RJ-45 Ports [10/100/1000Mbps]
Ethernet Mode	Teaming or Independent
MD & Alarm	
Motion Detection	User Defined Zones, Sensitivity: 1-6
Alarm Input	4 Channel
Relay Output	4 Channel, NO/NC Programmable
AVA Analytics	
Detection Types	Bi-Directional Tripwire, Perimeter Intrusion Detection, Scene Change, Camera Tampering, Audio Detection, Face Detection [Limited to 1 Channel]
Auxiliary Ports	
USB	4 USB Ports [2 Front, 2 Rear], [2 USB 3.0, 2 USB 2.0]
eSATA	1 eSATA Port
SAS	2 Mini SAS Ports
General	
Power Supply	AC 100V ~ 240V, 47 ~ 63Hz
Power Consumption	200W ~ 400W [with HDDs]
Working Environment	0°C ~ 40°C
Working Humidity	10% ~ 80% [non-condensation]
Weight	29kg [without HDDs]

### Dimensions









# DVRs

## Digital Video Recorders

### Our DVR Lineup

**X5S-DVR-Mini-4CH/8CH/16CH**

**X5S-DVR-1U-4CH/8CH/16CH**

**X5S-DVR-1.5U-24CH/32CH**

**X5S-DVR-2U-4CH/8CH/16CH**

Analog video surveillance systems were introduced about 30 years ago. Cameras were fed into CCTV VCRs using coax cabling. As the surveillance market has evolved from a niche industry to mainstream use, the technology has evolved. These VCRs have been replaced with DVRs (Digital Video Recorders) and in the last few years, high resolution IP and HDX cameras have made analog cameras obsolete. While there is no debate that IP cameras are superior to analog cameras, most sites still use traditional analog cameras and coax wiring infrastructure.

Analog cameras present a problem when a customer wants to upgrade to the latest HD cameras but can't afford to replace their existing coax wiring infrastructure. To solve this issue, many manufacturers require customers to purchase video encoders (Network Video Servers). These typically come in 1-4 channel models and convert the analog cameras into IP video streams. Ascendent has designed our Analog and HDX DVRs to simultaneously function as a DVR and a video encoder. This gives you standard DVR operations (local recording, display, playback and backup) as well as converting the analog cameras to IP video streams, which can then be recorded with an X5S NVR. Available with up to 32 channels, our X5S DVRs offer a much more cost-effective method for integrating existing analog cameras into a digital system.

This video encoder technology, along with our hybrid DVR/NVR options make Ascendent's X5S platform the most powerful solution for merging existing analog cameras with the latest HD IP/HDX cameras into one integrated turnkey solution.

### Our HDX DVR Lineup

**X5S-HDX-Mini-4CH-1MP**

**X5S-HDX-1U-8CH-2MP**

**X5S-HVR-1.5U-4CH/8CH/16CH-2MP**

# X5S-DVR-Mini-4CH/8CH/16CH

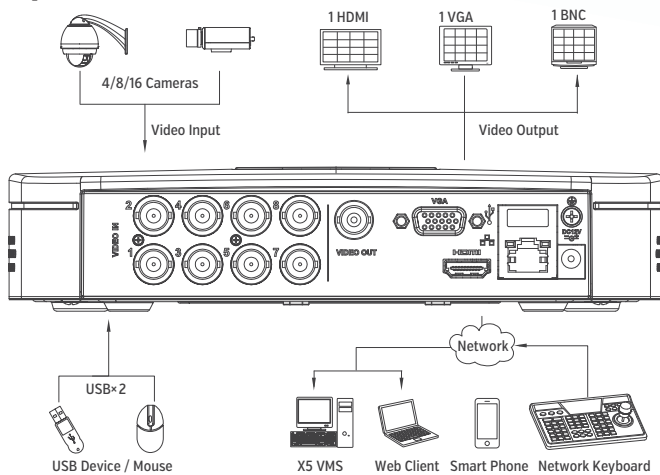


## X5S Mini 4/8/16 Channel Standalone Hybrid DVR & Video Encoder

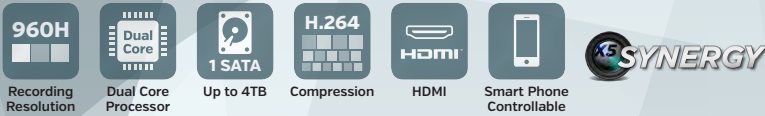
### Features

- 4/8/16 Channels
- H.264 Dual-Stream Video Compression
- 960H Realtime Recording
- HDMI/VGA/BNC Video Outputs
- Supports 1 SATA HDD up to 4TB
- Hybrid DVR/Video Server Capability
- High Definition Video Over Coax (HDX/SDI)
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)

### System Connection



	X5S-DVR-Mini-4CH	X5S-DVR-Mini-8CH	X5S-DVR-Mini-16CH
<b>System</b>			
Main Processor	Embedded Processor		
Operating System	Embedded LINUX		
<b>Video</b>			
Input	4 Channels, BNC	8 Channels, BNC	16 Ch, BNC
Standard	NTSC/PAL		
<b>Audio</b>			
Input	1 Channels, RCA	N/A	N/A
Output	1 Channels, RCA	N/A	N/A
Two-way Talk	Uses Audio Input/Output Channel 1	N/A	N/A
<b>Display</b>			
Interface	1 HDMI, 1 VGA, 1 TV		
Resolution	1920×1080, 1280×1024, 1280×720, 1024×768		
Display Split	1/4	1/4/8/9	1/4/8/9/16
Privacy Masking	4 Rectangular Zones per Camera		
OSD	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording		
<b>Recording</b>			
A/V Compression	H.264/G.711		
Resolution	960H (960×480) ~ QCIF (176×120)		
Record Rate	Main Stream	960H/D1/HDI/2CIF/CIF (1-25/30fps)	
	Extra Stream	QCIF (1-25/30fps)/CIF (1-6/7fps)	
Bit Rate	48-3072Kbps		
Record Mode	Manual, Continuous, Motion Detection, Alarm		
Pre/Post Record	Pre-record: 1-30 sec, Post-record: 10-300 sec		
<b>Video Detection &amp; Alarm</b>			
Event Triggering	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup		
Video Detection	Motion Detection, Video Loss, Camera Masking		
<b>Playback &amp; Backup</b>			
Sync Playback	1/4 (limited by resolution and bitrate)	1/4/9 (limited by resolution and bitrate)	1/4/9/16 (limited by resolution and bitrate)
Search Mode	Time/Date, Timeline Search, Alarm, Motion Detection		
Playback Functions	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom		
Backup Mode	Network / USB / External CD-R & DVD-RW		
<b>Network</b>			
Ethernet	RJ-45 port (10/100M)		
Network Functions	HTTP, IPv4/IPv6, TCP/IP, UPNP, RTSP, UDP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter, SNMP, P2P		
Remote Access	iPhone, iPad, Android, PC (ARMS Pro/HD, Internet Browser, X5 Synergy VMS)		
<b>Storage</b>			
Internal HDD	1 SATA Port (up to 4TB)		
<b>Auxiliary Ports</b>			
USB	2 Ports (1 Rear USB 2.0, 1 Front USB 2.0)		
<b>General</b>			
Power Supply	DC12V/2A		
Power Consumption	10W (without HDD)		
Working Environment	-10°C ~ +55°C / 10%~90% RH / 86-106kpa		
Dimension (W×D×H)	205mm × 205mm × 40mm	205mm × 205mm × 40mm	270mm × 205mm × 40mm
Weight	0.5kg	0.5kg	0.75kg

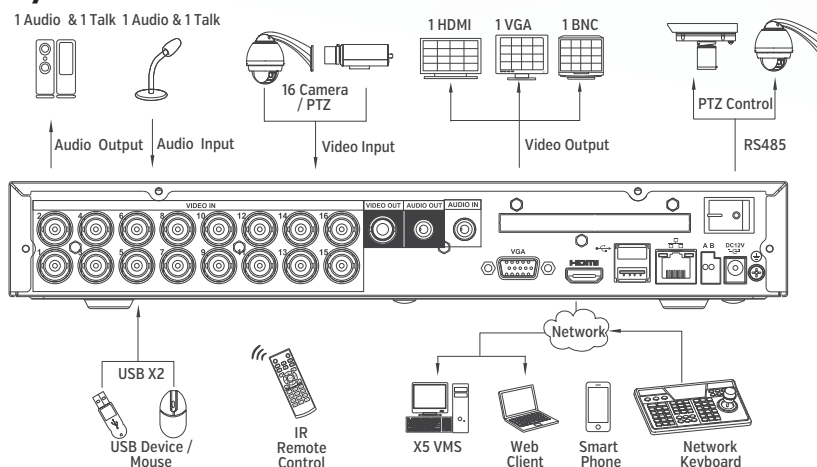


## X5S 1U 4/8/16 Channel Standalone Hybrid DVR & Video Encoder

### Features

- 4/8/16 Channels
- H.264 Dual-Stream Video Compression
- 960H Realtime Recording
- HDMI/VGA/BNC Video Outputs
- Supports 1 SATA HDD up to 4TB
- Hybrid DVR/Video Server Capability
- Remote Monitoring with iPhone, iPad or PC [Internet Browser, ARMS Pro/HD, X5 Synergy VMS]

### System Connection



	X5S-DVR-1U-4CH	X5S-DVR-1U-8CH	X5S-DVR-1U-16CH
<b>System</b>			
Main Processor	Embedded Processor		
Operating System	Embedded LINUX		
<b>Video</b>			
Input	4 Channels, BNC	8 Channels, BNC	16 Ch, BNC
Standard	NTSC/PAL		
<b>Audio</b>			
Input	1 Channel, RCA		
Output	1 Channel, RCA		
Two-way Talk	Uses Audio Input/Output Channel 1		
<b>Display</b>			
Interface	1 HDMI, 1 VGA, 1 TV		
Resolution	1920×1080, 1280×1024, 1280×720, 1024×768, 800×600		
Display Split	1/4	1/4/8/9	1/4/8/9/16
Privacy Masking	4 Rectangular Zones per Camera		
OSD	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording		
<b>Recording</b>			
A/V Compression	H.264/G.711		
Resolution	960H (960×480) ~ QCIF (176×120)		
Record Rate	Main Stream	960H/D1/HDI/2CIF/CIF (1-25/30fps)	
	Extra Stream	QCIF (1-25/30fps)/CIF (1-6/7fps)	
Bit Rate	48-3072Kbps		
Record Mode	Manual, Continuous, Motion Detection, Alarm		
Pre/Post Record	Pre-record: 1-30 sec, Post-record: 10-300 sec		
<b>Video Detection &amp; Alarm</b>			
Event Triggering	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup		
Video Detection	Motion Detection, Video Loss, Camera Masking		
<b>Playback &amp; Backup</b>			
Sync Playback	1/4 (limited by resolution and bitrate)	1/4/9 (limited by resolution and bitrate)	1/4/9/16 (limited by resolution and bitrate)
Search Mode	Time/Date, Timeline Search, Alarm, Motion Detection		
Playback Functions	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom		
Backup Mode	Network / USB / External CD-R & DVD-RW		
<b>Network</b>			
Ethernet	RJ-45 port (10/100M)		
Network Functions	HTTP, IPv4/IPv6, TCP/IP, UPNP, RTSP, UDP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter, SNMP, P2P		
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]		
<b>Storage</b>			
Internal HDD	1 SATA Port (up to 4TB)		
<b>Auxiliary Ports</b>			
USB	2 Ports (1 Rear USB 2.0, 1 Front USB 2.0)		
RS485	1 Port (for PTZ Control)		
<b>General</b>			
Power Supply	DC12V/2A		
Power Consumption	10W(without HDD)		
Working Environment	-10°C ~+55°C / 10%~90% RH / 86~106kpa		
Dimension (W×D×H)	Mini 1U, 325mm×255mm×45mm		
Weight	1.5kg (without HDD)		

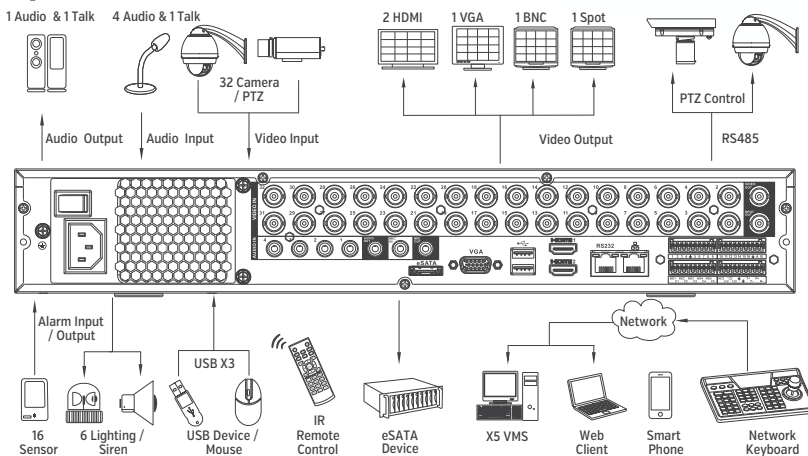


## X5S 1.5U 24/32 Channel Standalone Hybrid DVR & Video Encoder

### Features

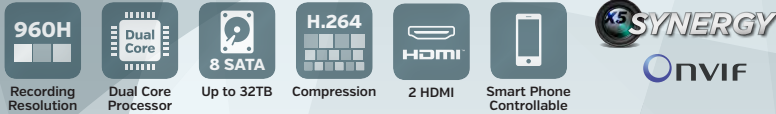
- 24/32 Channels
- H.264 Dual-Stream Video Compression
- 960H Realtime Recording
- 2 HDMI + VGA/BNC/Spot Video Outputs
- Supports 4 SATA HDDs up to 16TB
- Hybrid DVR/Video Server Capability
- High Definition Video Over Coax (HDX/SDI)
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)

### System Connection



	X5S-DVR-1.5U-24CH	X5S-DVR-1.5U-32CH
<b>System</b>		
Main Processor	Embedded Processor	
Operating System	Embedded LINUX	
<b>Video</b>		
Input	24 Channels, BNC	32 Channels, BNC
Standard	NTSC/PAL	
<b>Audio</b>		
Input	4 Channels, RCA	
Output	1 Channel, RCA	
Two-way Talk	1 Channel In, 1 Channel Out, RCA	
<b>Display</b>		
Interface	2 HDMI, 1 VGA, 1 BNC, 1 Spot	
Resolution	1920×1080, 1280×1024, 1280×720, 1024×768	
Display Split	1/4/8/9/16/25	1/4/8/9/16/25/36
Privacy Masking	4 Rectangular Zones per Camera	
OSD	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording	
<b>Recording</b>		
A/V Compression	H.264/G.711	
Resolution	960H [960×480] ~ QCIF [176×120]	
Record Rate	Main Stream	960H/D1/HDI/2CIF/CIF [1~25/30fps]
	Extra Stream	CIF/QCIF [1~25/30fps]
Bit Rate	48~3072Kb/s	
Record Mode	Manual, Continuous, Motion Detection, Alarm	
Pre/Post Record	Pre-record: 1~30 sec, Post-record: 10~300 sec	
<b>Video Detection &amp; Alarm</b>		
Event Triggering	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup	
Video Detection	Motion Detection, Video Loss, Camera Masking	
Alarm I/O	16 Channels In, 6 Channels Out	
<b>Playback &amp; Backup</b>		
Sync Playback	1/4/9/16 [limited by resolution and bitrate]	
Search Mode	Time/Date, Timeline Search, Alarm, Motion Detection	
Playback Functions	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom	
Backup Mode	Network / USB / Internal CD-R & DVD-RW / eSATA	
<b>Network</b>		
Ethernet	RJ-45 Port [10/100/1000M]	
Network Functions	HTTP, IPv4/IPv6, TCP/IP, UPNP, RTSP, UDP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter, Alarm Server, SNMP, P2P	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
<b>Storage</b>		
Internal HDD	4 SATA Ports [4HDDs or 3HDDs + 1CD/DVD-RW]	
External HDD	1 eSATA Port, up to 16TB	
<b>Auxiliary Ports</b>		
USB	3 Ports [2 Rear USB 2.0, 1 Front USB 2.0]	
RS232	1 Port [for PC Communication & Keyboard]	
RS485	1 Port [for PTZ Control]	
<b>General</b>		
Power Supply	AC100 ~ 240V, 50/60Hz	
Power Consumption	25W [without HDDs]	
Working Environment	-10°C ~ +55°C / 10 ~ 90% RH / 86 ~ 106kpa	
Dimension [W×D×H]	1.5U, 440mm × 417mm × 68mm	
Weight	6 kg [without HDDs]	

# X5S-DVR-2U-4CH/8CH/16CH

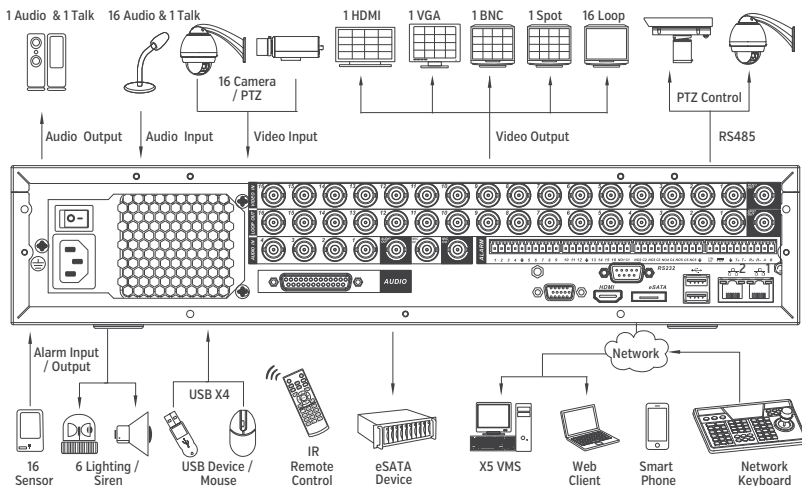


## X5S 2U 4/8/16 Channel Standalone Hybrid DVR & Video Encoder

### Features

- 4/8/16 Channels
- H.264 Dual-Stream Video Compression
- IP: 50Mbps Incoming Bandwidth, Analog: 4/8/16 Channels at 960H
- 2 HDMI + VGA/BNC/Spot & Loop Video Outputs
- Supports 8 SATA HDDs up to 32TB
- Hybrid DVR/Video Server Capability
- Supported IP Camera Brands: Ascendent, Arecont Vision, AXIS, Bosch, Canon, Dynacolor, Honeywell, ONVIF, Panasonic, Pelco, Samsung, Sanyo, Sony, Vivotek
- Remote Monitoring with iPhone, iPad or PC [Internet Browser, ARMS Pro/HD, X5 Synergy VMS]
- ONVIF Version 2.3 Compliance

### System Connection



	X5S-DVR-2U-4CH	X5S-DVR-2U-8CH	X5S-DVR-2U-16CH
<b>System</b>			
Main Processor	Dual-Core Embedded Processor		
Operating System	Embedded LINUX		
<b>Video</b>			
IP Video Input	4 Channels	8 Channels	16 Channels
Analog Input	4 Channels, BNC	8 Channels, BNC	16 Ch, BNC
Standard	NTSC/PAL		
Loop Output	4 Channels, BNC	8 Channels, BNC	16 Ch, BNC
<b>Audio</b>			
Input	4 Channels, BNC	8 Channels, BNC	16 Ch, BNC
Output	1 Channel, BNC		
Two-way Talk	1 Channel In, 1 Channel Out, BNC		
<b>Display</b>			
Interface	1 HDMI, 1 VGA, 1 TV, 1 Spot, BNC [1.0Vp-p, 75Ω]		
Resolution	1920×1080, 1280×1024, 1280×720, 1024×768		
Display Split	1/4	1/4/8/9	1/4/8/9/16
Privacy Masking	4 Rectangular Zones per Camera		
OSD	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording		
<b>Recording</b>			
A/V Compression	H.264/G.711		
Resolution	1080p [1920×1080] ~ QCIF [176×120]		
Record Rate	IP	Max 50Mbps Bandwidth Incoming	
	Analog	All Channels 960H [25/30fps]	
Bit Rate	IP: 48~8192 Kbps, Analog: 48~3072Kbps		
Record Mode	Manual, Continuous, Motion Detection, Alarm		
Pre/Post Record	Pre-record: 1~30 sec, Post-record: 10~300 sec		
<b>Video Detection &amp; Alarm</b>			
Event Triggering	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup		
Video Detection	Motion Detection, Video Loss, Camera Masking		
Alarm Input	4 Channels	8 Channels	16 Channels
Relay Output	6 Channels		
<b>Playback &amp; Backup</b>			
Sync Playback	1/4 (limited by resolution and bitrate)	1/4/9 (limited by resolution and bitrate)	1/4/9/16 (limited by resolution and bitrate)
Search Mode	Time/Date, Timeline Search, Alarm, Motion Detection		
Playback Functions	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom		
Backup Mode	Network / USB / Internal CD-R & DVD-RW / eSATA		
<b>Network</b>			
Ethernet	2 RJ-45 Ports [10/100/1000M]		
Network Functions	HTTP, IPv4/IPv6, TCP/IP, UPNP, RTSP, UDP, NTP, DHCP, DNS, PPPoE, DDNS, IP Filter, Alarm Server, SNMP, P2P		
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]		
<b>Storage</b>			
Internal HDD	8 SATA Ports [8HDDs or 6HDDs + 1CD/DVD-RW]		
External HDD	1 eSATA Port, up to 16TB		
<b>Auxiliary Ports</b>			
USB	4 Ports [2 Rear USB 2.0, 2 Front USB 2.0]		
RS232	1 Port [for PC Communication & Keyboard]		
RS485	1 Port [for PTZ Control]		
<b>General</b>			
Power Supply	AC100 ~ 240V, 50/60Hz		
Power Consumption	40W		
Working Environment	-10°C ~ +55°C / 10 ~ 90% RH / 86 ~ 106kpa		
Dimension (W×D×H)	2U, 440mm × 460mm × 89mm		
Weight	6.5kg (without HDDs)		





# X5 VMS Software

## Enterprise CMS Station



Ascendent's 5th generation X5 Synergy VMS platform provides complete control of your surveillance system including Cameras, Digital Matrix, Alarms, Fire, and Access Control.

The CMS software acts as the primary control for the X5 Synergy VMS platform, interfacing with the DCS, Matrix, NVR, and Proxy Servers. Featuring advanced Live View, Playback, Backup, E-Map, GPS Tracking, and Digital Matrix controls; the X5 Synergy VMS should be at the center of any enterprise surveillance system.

### System Configuration

- Intuitive video device configuration
- Camera grouping, multiple cameras from any site
- Remote configuration of server settings

### Global User Manager

- Rapidly deploy new users by copying user permissions
- Global users function independently of local system authorities
- Extensive hierarchy authoritative access rights down to an individual channel level

### Log Viewing

- View and track OS system log events
- View DVR/NVR log events

### Device Status

- Real-time system health monitoring
- Built-in filters display selected sort status

### Node Tree Navigation Structure

- Searchable tree structure decreases response time
- Complete multi-layer E-Map functions

### E-Map Interface

- Provides a graphical navigation interface for the system
- Multi-level in-depth mapping layers
- Unique Object Icons for each sensor, alarm, camera and camera group
- Color coded live object status
- Drag and drop live video and audio overlay on map

### Live View

- Full PTZ control including tours and presets
- Digital zoom feature with PIP
- Up to 64 channels per monitor

### Snapshot Management

- Save multiple snapshots at once to the Data Center Server
- Searchable database retains group snapshots

### Playback

- Instant Playback quickly displays recently recorded video without entering playback mode
- Local recording on CMS with parallel recording on DVR/NVR
- Playback from multiple channels and sites simultaneously

### Backup

- Single file clip creation for easy evidence retrieval
- Multi-channel backup with integrated playback software
- Backup to USB, DVD, network drives and cloud storage

### Alarm Notification System

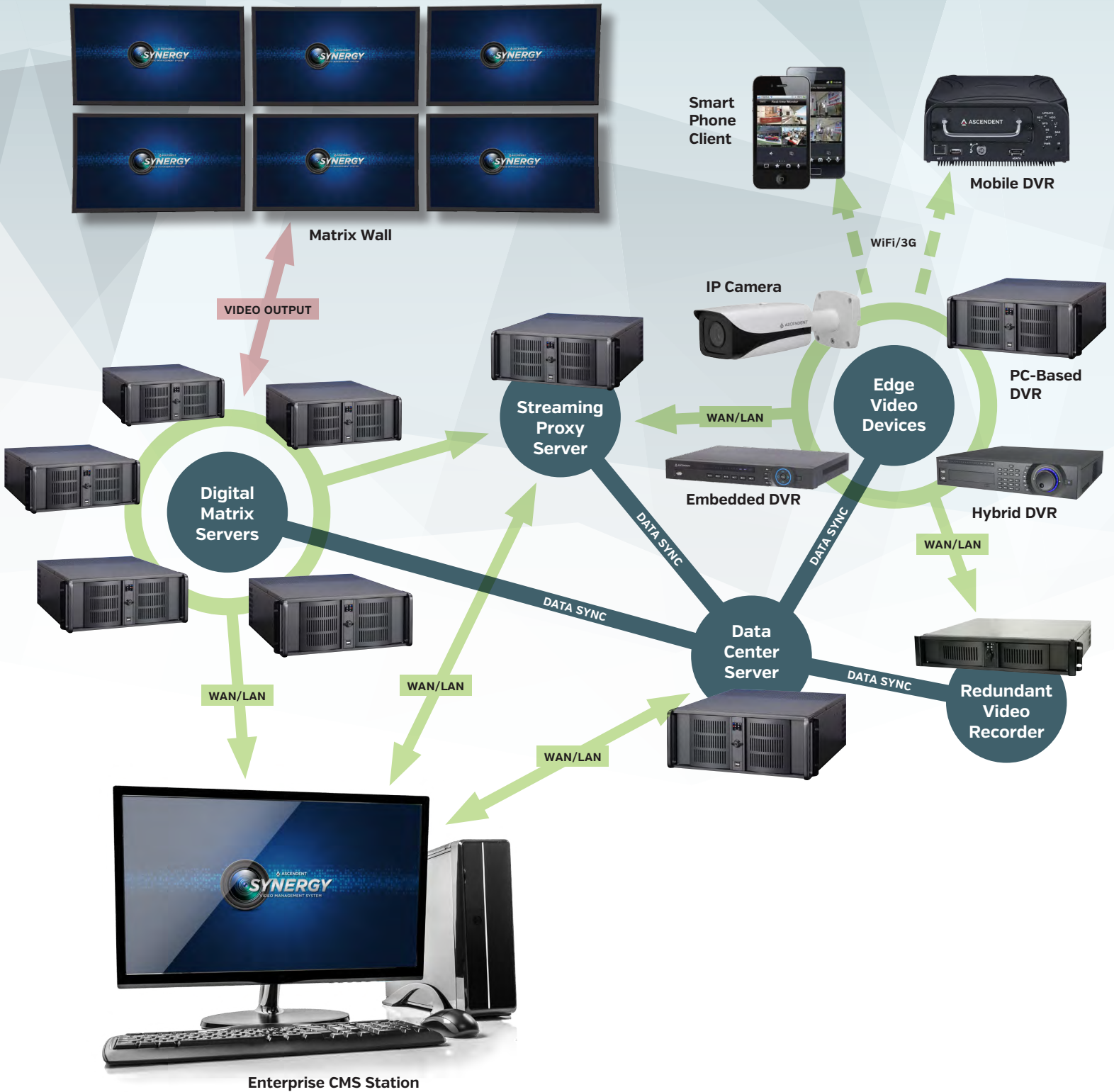
- Email alerts directly to your smart phone
- Customizable audio alerts for specific alarm conditions
- E-Map alerts to assist operators in determining alarm locations

### Chat Functionality

- Two-way voice communication between Client & Server
- Text chat capability between Client & Server

# X5 VMS Software

## System Overview





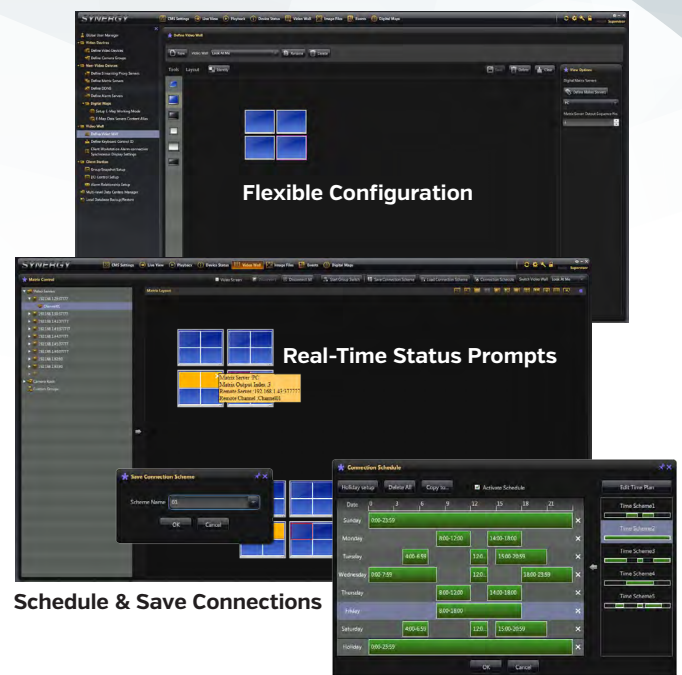


The Ascendent Digital Matrix is a powerful and versatile video wall solution. It utilizes Digital Matrix Servers which connect to all of your surveillance and display devices.

The virtual display wall is easily managed and controlled through the CMS software. Choose from multiple grid configurations on each monitor, personalize channel schemes for manual or scheduled loading, customize channel rotation on each monitor or dynamically display channels based on alarm events.

## Features

- Combine multiple matrix servers to create scalable video wall solutions
- Decode any supported video devices including IP cameras, standalone DVRs/NVRs and encoders
- Display real time digital video from multiple locations on the same video wall
- Support for up to 8 monitors on each matrix server
- Intuitive GUI is designed to mirror the physical layout of the video wall
- User-friendly interface with Drag-n-Drop functionality
- Display live video events as they occur
- Dynamic matrix scheme loading and saving
- Multiple channel group switching modes
- Channel group switching within the same matrix grid or across all matrix grids
- Global display wall control of local and remote video walls



The Data Center is the central component of the X5 Synergy VMS platform. The Data Center server bridges the connection between the Client/CMS applications, VMS modules, video and alarm devices. Once the Synergy Client connects to the Data Center, it detects and displays all configured video devices on the Node Tree. Centralized management allows the Data Center to facilitate access to all of the devices.

Connecting the CMS to the Data Center provides control of multi-site/multi-unit surveillance systems. The CMS software allows you to setup and configure all aspects of the X5 Synergy VMS platform including: DVR/NVR Servers, IP Cameras, Global Users, Streaming Proxy Servers, Matrix Servers, E-Map Servers, NTP Servers, and NVR storage servers.

Ascendent's Data Center servers are custom built for each project and can be designed around various requirements including small form factors and specific hardware requirements. Our base specifications are shown below.

## Base Specifications

- 2U Rackmount Chassis
- Intel Dual-Core CPU
- SSD OS Drive w/Spare Drive
- 4GB DDR3 RAM
- 1000Mbps Ethernet Port
- Optional Redundant Server Power Supply



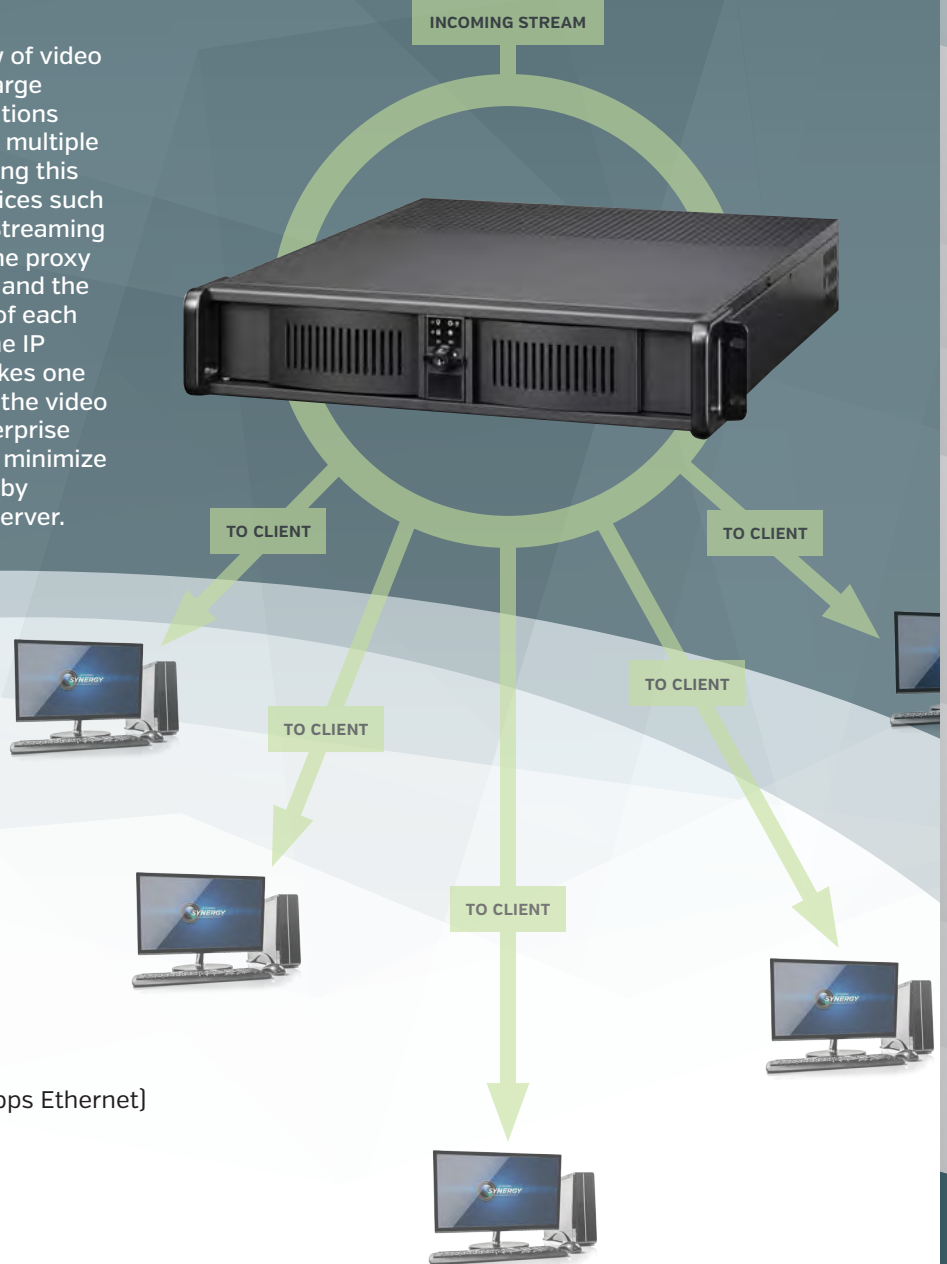
# X5 Streaming Proxy Server

The Streaming Proxy server optimizes the flow of video data over the network for efficient display of large numbers of IP video streams. In large organizations with many monitoring stations there are often multiple requests for the same video channels. Streaming this much video data can often overload video devices such as IP cameras, NVRs, and DVRs. Ascendent's Streaming Proxy VMS module addresses this by having the proxy act as a intermediary between Client stations, and the video devices they are connecting to. Instead of each Client establishing a separate connection to the IP Camera, NVR or DVR, the Streaming Proxy makes one connection to the device(s) and then forwards the video streams to the Client stations. This allows enterprise systems that have large numbers of Clients to minimize the load on their IP Cameras, NVRs, and DVRs by leveraging the power of the Streaming Proxy server.

Ascendent's Streaming Proxy servers are custom built for each project and can be designed around various requirements including small form factors and specific hardware requirements. Our base specifications are shown below.

## Base Specifications

- 2U Rackmount Chassis
- Intel Core i3 Dual-Core CPU
- SSD OS Drive w/Spare Drive
- 4GB DDR3 RAM
- 1000Mbps Ethernet Port (optional 4x 1000Mbps Ethernet)
- Optional Redundant Server Power Supply





# Mobile Solutions

## Mobile Cameras

**2MP-PTZ-ZLID-  
20X-MC-VS**

**PHX-30X-ZLID-450M/750M/1000M**

**PHX-37X-TI-35/50/100**

Ascendent's mobile DVRs/NVRs and rugged PTZ cameras are designed specifically for 24/7 operation in mobile applications, from industrial, municipal and military vehicles to marine vessels. They are built to withstand shock, vibration, and voltage fluctuations. IP 66-68 certification allows for outdoor installations where zero dust or water ingress is required. Ascendent's mobile products are military grade and will meet or exceed any commercial or industrial requirements.

These products are not only rugged but also include a host of features and capabilities such as real time remote accessibility, GPS positioning, WiFi/3G connectivity, solid state drives, and H.264 compression.

Ascendent's full spectrum of mobile camera options include HD, multi-sensor, gyro-stabilized, thermal, optical, and ZLID illuminated PTZ cameras. We also boast a complete range of mobile recording solutions from embedded mobile DVRs to hybrid PC NVRs. Ascendent's mobile products are designed to run autonomously. They can also be integrated into our NVRs, video matrix and VMS systems, creating an ideal solution for monitoring entire fleets of vehicles or remote sites from a single command center.

First and foremost, Ascendent is a solutions provider. We have a long, proud history of providing application specific solutions for military, governments, corporate enterprises and law enforcement. Clients include the US Military and Navy, Shell Oil, and RCMP. Ascendent consults and designs solutions that are tailored to the customer's requirements ensuring seamless integration and excellent ROI.

## Mobile Recorders

**X5S-DVR-Mobile-4CH**

**X5S-DVR-Mobile-4CH/8CH-Pro**

**X5S-NVR-Mobile-4CH-2MP**

**X5S-NVR-Portable-4CH-2MP**



ONVIF PSIA

<b>2MP</b> HD Sensor	<b>20X ZOOM</b> 4.7-94mm Zoom Lens	<b>PTZ</b> 300°/s	<b>ZLID</b> 60m Laser Illumination
<b>Day/Night</b>	<b>IP66</b> Waterproof	<b>24 ZONE</b> Privacy Masking	

## 2MP PTZ IP Camera w/Laser Illumination

### Features

- 1/2.8" Progressive Scan CMOS Sensor
- 4.7-94mm 20X Optical Zoom offering a 58-3.2° Field of View
- Shockproof Design for Vehicle Use
- 40-60m Illumination Distance
- Light Weight, Low Profile IP66 Housing

Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Effective Pixels	2,230,000 Effective Pixels
Shutter Speed	1-1/30,000s
Min. Illumination	0.05 Lux/f1.6 [Color], 0.005 Lux/f1.6 [B&W]
S/N Ratio	> 50dB
Camera Features	
Max IR Distance	60m
Day/Night	IR Cut Filter
Backlight Compensation	BLC
White Balance	Auto / Manual / ATW / Indoor / Outdoor
Noise Reduction	3D DNR
Privacy Masking	Up to 24 areas
Lens	
Focal Length	4.7mm ~ 94mm (20X Optical Zoom)
Max Aperture	f1.6 ~ f3.5
Focus Control	Auto / Semi-automatic / Manual
Angle of View	H: 58.3° ~ 3.2°
PTZ	
Pan/Tilt Range	Pan: 0° ~ 360° Endless; Tilt: -15° ~ 90° with Auto Flip
Positioning Accuracy	0.05°
Presets	64
Network	
Ethernet	RJ-45
General	
Power Supply	DC12V±0.5V/15W
Working Environment	-25°C ~ 70°C
Ingress Protection	IP66
Dimensions	ø130mm×163mm
Weight	1kg



## 30X Laser Illuminated PTZ IP Camera

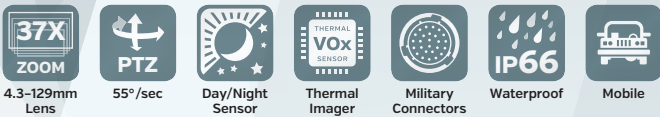
### Features

- Powerful 30X Optical Zoom, 16X Digital Zoom (480X total)
- 1/3" HD CMOS Day/Night Progressive Scan Sensor
- Up to 1km of ZLID (Zoom Lazier IR Diode) Illumination
- 4.3-129mm Lens offering a 40-1° Field of View
- User Defined WDR, HLC, BLC, AWB, etc. via OSD
- Integrated Mechanical Infrared Cut Filter for absolute clarity
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Military Connector: video, power and telemetry over 1 cable
- Flat Viewing Window w/Wiper eliminates dithering and distortion
- Micro-Step Technology for quick, accurate pan/tilt > 0.1°
- Multi-Protocol Communications for Integration with 3rd Party Systems
- 1 km/2400ft Adaptive IR Illumination Distance
- Rugged IP66 Housing

	PHX-30X-ZLID-450M	PHX-30X-ZLID-750M	PHX-30X-ZLID-1000M
<b>Camera</b>			
Image Sensor	1/3" Progressive Scan CMOS		
Resolution	1080p Full HD		
Shutter Speed	Auto: 1/50 ~ 1/10,000s		
<b>Lens</b>			
Focal Length	4.3mm-129.5mm IR Corrected Continuous Zoom Lens		
Angle of View	H: 40° ~ 1°		
IR Filter	Dual Mechanical IR Cut Filter (MCF)		
<b>IR Illuminator</b>			
ZLID	Zoom Laser IR Diode		
Illumination Distance	450m/1480ft	750m/2400ft	1000m/3280ft
Angle	1° ~ 40° [syncs with zoom lens]		
Wavelength	810nm [940nm Stealth optional] [13M NOHD]		
Control Protocol	Pelco-P/D standard		
<b>PTZ</b>			
Drive Unit	Integral Pan/Tilt Brushless Motor Drive		
Pan/Tilt Range	Pan: 0° ~ 360° Continuous Pan, Tilt: 40°		
Manual Control Speed	Pan: ≤ 55°/s; Tilt: 1.2° ~ 80°/s		
Preset Accuracy	0.01° (Micro-Step)		
PTZ Modes	4 Tours, up to 128 presets		
<b>Video</b>			
Compression	H.264 / MJPEG		
Resolution	1080p [1920x1080] / 720p [1280x720] / D1 [704x576] / CIF [352x288]		
Frame Rate	Main Stream	1080p (1 ~ 25/30fps) / 720p (1~50/60fps)	
	Sub Stream 1	D1/CIF (1 ~ 25/30fps)	
	Sub Stream 2	720p/D1/CIF (1 ~ 25/30fps)	
Bit Rate	H.264: 56K ~ 8192Kbps, MJPEG: 56K ~ 20480Kbps		
<b>General</b>			
Power Supply	18VAC-24VAC, 18VDC-24VDC [optional] [CE, ROHS, FCC]		
Power Consumption	Max 60W [heater on], 30W [without heater]		
Working Environment	-45°C ~ +60°C / Less than 90% RH		
Ingress Protection	IP66, NEMA 4X outdoor weather ring		
Weight	6.7kg		
<b>Available Options</b>			
Mounting	Upright Mount or Inverted Mount		
Vibration Damper	Reduces Shock and Camera Shake		
Image Stabilization	Available		





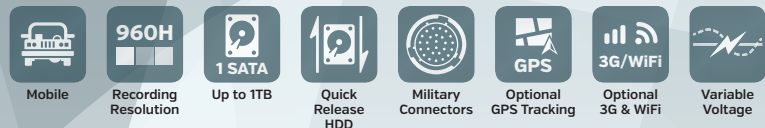


## 37X Thermal/Optical Integrated PTZ Camera

### Features

- Dual Sensor Optical and Thermal Integrated PTZ System
- High Resolution 37X Optical Zoom CCD Camera
- Thermal Camera for 2.9km Human and 8.8km Vehicle Detection
- Extreme Heater/Blower for Operation in -45°C to 60°C
- User Defined WDR, HLC, BLC, AWB, etc. via OSD
- Integrated Mechanical Infrared Cut Filter for absolute clarity
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Military Connector: video, power and telemetry over 1 cable
- Flat Viewing Window w/Wiper eliminates dithering and distortion
- Micro-Step Technology for quick, accurate pan/tilt > 0.1°
- Multi-Protocol Communications for Integration with 3rd Party Systems
- Rugged IP66/NEMA 4X Weather & Vandal Proof Housing

	PHX-37X-TI-35	PHX-37X-TI-50	PHX-37X-TI-100
<b>Camera</b>			
Image Sensor	1/4" Ex-View HAD II CCD		
Resolution	600TVL (day) / 700TVL (night)		
Shutter Speed	Auto: 1/50 ~ 1/10,000s		
<b>Lens</b>			
Focal Length	3.5mm-129.5mm IR Corrected Continuous Zoom Lens		
Angle of View	H: 54.4°~ 1.6° (our site) H: 49.1°~ 1.4° (scantips.com)		
IR Filter	Dual Mechanical IR Cut Filter (MICF)		
<b>336 V2 FLIR Thermal Imager [640 Optional]</b>			
Lens	35mm	50mm	100mm
	Optional 3X Thermal Zoom Lens, 26-75.5mm		
Image Sensor	FPA, Uncooled Vanadium Oxide Micro-Bolometer 7.5Hz NTSC, 8.3Hz PAL CMOS 8-14 Bit		
Picture Elements	324x256 pixels (640x480 optional with 8X zoom)		
Scene Temperature	-40°C to +160°C (High and Low Gain)		
Pixel Pitch	17µm [25% sharper fimage over 25 µm sensors] FLIR's proprietary noise reduction		
Image Optimizations	BPR, NUC & AGC'd user configurability via SDK, GUI		
Digital Zoom	2X & 4X dynamic zoom/pan with dynamic range switching		
Thermal Sensitivity	50 mk		
Image Display Modes	White Hot, Black Hot, False Color, and Color & Monochrome Palettes (LUTs)		
<b>PTZ</b>			
Drive Unit	Integral Pan/Tilt Brushless Motor Drive		
Pan/Tilt Range	Pan: 0° ~ 360° Continuous Pan, Tilt: 40°		
Manual Control Speed	Pan: ≤ 55°/s; Tilt: 1.2° ~ 80°/s		
Preset Accuracy	0.01° (Micro-Step)		
PTZ Modes	4 Tours, up to 128 presets		
<b>General</b>			
Power Supply	18VAC-24VAC, 18VDC-24VDC [optional] (CE, ROHS, FCC)		
Power Consumption	Max 60W (heater on), 30W (without heater)		
Working Environment	-45°C ~ +60°C / Less than 90% RH		
Ingress Protection	IP66, NEMA 4X outdoor weather ring		
Weight	6.7kg		
<b>Available Options</b>			
Mounting	Upright Mount or Inverted Mount		
Vibration Damper	Reduces Shock and Camera Shake		
Image Stabilization	Available		

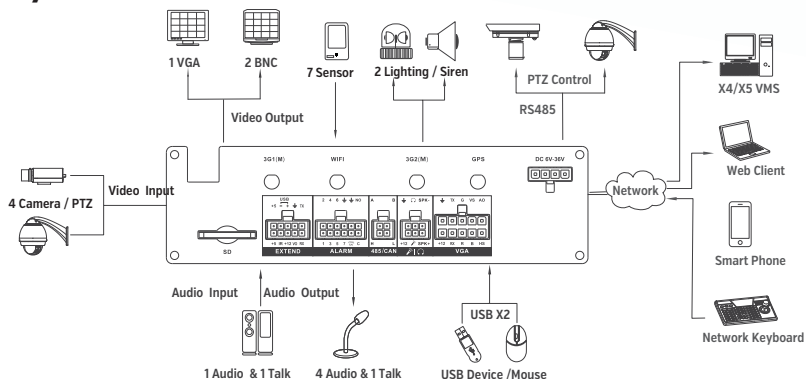


## X5S Mobile 4 Channel Standalone DVR

### Features

- Up to 4 Cameras with 1280×1024 Realtime Live View
- H.264 Dual-Stream Video Compression
- Full Channel @960H Realtime Recording
- VGA/BNC Simultaneous Video Output
- All Channel Synchronous Realtime Playback
- Supports 1 SATA HDD, 2 USB 2.0
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Military Style Quick Connectors
- Google Maps GPS Tracking via X5 Synergy VMS
- CBR/VBR Bandwidth Throttling

### System Connection



System		
Main Processor	Embedded Processor	
Operating System	Embedded LINUX	
Video		
Input	4 Channels	
Standard	NTSC (525 Line, 60fps), PAL (625 Line, 50fps)	
Audio		
Input	4 Channels	
Output	1 Channel	
Two-way Talk	1 Channel In, 1 Channel Out	
Display		
Interface	1 VGA, 2 BNC	
Resolution	1280×1024, 1280×720, 1024×768, 800×600	
Display Split	1/4	
Privacy Masking	4 Rectangular Zones per Camera	
OSD	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording	
Recording		
A/V Compression	H.264/G.711	
Resolution	960H (960×480) ~ QCIF (176×120)	
Record Rate	Main Stream	Full Channel @ 960H/D1 [1~25/30fps]
	Extra Stream	CIF/QCIF [1~25/30fps]
Bit Rate	48~4096Kb/s	
Image Quality	1~6 Level [level 6 is the best, VBR effectively]	
Record Mode	Manual, Continuous, Motion Detection, Alarm	
Record Interval	Pre-record: 1~30 sec, Post-record: 10~300 sec	
Video Detection & Alarm		
Event Triggering	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup	
Video Detection	Motion Detection, Video Loss, Camera Masking	
Alarm I/O	7 Channels In, 2 Channels Out	
Playback & Backup		
Sync Playback	1/4	
Search Mode	Time/Date, Timeline Search, Alarm, Motion Detection	
Playback Functions	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom	
Backup Mode	USB / Network	
Network		
Ethernet	RJ-45 Port [10/100/1000M]	
Wireless Network	3G/Wi-Fi Module [optional]	
GPS	High Accuracy GPS Module [optional]	
Network Functions	TCP/IP, UDP, DHCP, DNS, IP Filter, PPPoE, DDNS, Alarm Server	
Remote Access	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]	
Storage		
Internal HDD	1 SATA Port	
External HDD	1 SD Card	
Auxiliary Ports		
USB	2 Ports [1 Rear USB 2.0, 1 Front USB 2.0]	
RS232	1 Port [for PC Communication & Keyboard]	
RS485	1 Port [for PTZ Control]	
SSD	Optional	
Heater	Optional	
General		
Power Supply	6V~36V, <15W Power Consumption [with HDD]	
Working Environment	0°C ~ +55°C / 10% ~ 95% RH / 86 ~ 106kpa	
Dimension (W×D×H)	178mm×220mm×50mm	
Weight	2.1kg [with HDD]	
Vibration-Proof	5Hz~300Hz: X/Y/Z each direction 8 hours	
	5Hz~11Hz: Vibration amplitude 10mm 11Hz~300Hz: 50m/s <sup>2</sup>	

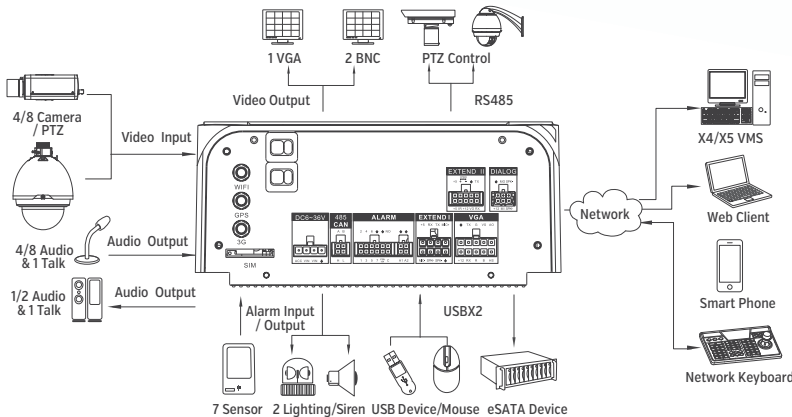


## X5S Mobile 4 Channel Standalone DVR

### Features

- Up to 4 Cameras with 1280×1024 Realtime Live View
- H.264 Dual-Stream Video Compression
- All Channel @960H Realtime Recording
- VGA/BNC Simultaneous Video Output
- Supports 2 SATA HDDs, 1 eSATA, 2 USB 2.0
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- Military Style Quick Connectors
- Rugged Alluminum Alloy Case
- CBR/VBR Bandwidth Throttling

### System Connection



System	
<b>Main Processor</b>	Embedded Processor
<b>Operating System</b>	Embedded LINUX
Video	
<b>Input</b>	4 Channels
<b>Standard</b>	NTSC (525 Line, 60fps), PAL (625 Line, 50fps)
Audio	
<b>Input</b>	4 Channels
<b>Output</b>	1 Channel
<b>Two-way Talk</b>	1 Channel In, 1 Channel Out
Display	
<b>Interface</b>	1 VGA, 2 BNC
<b>Resolution</b>	1280×1024, 1024×768, 800×600
<b>Display Split</b>	1/4
<b>Privacy Masking</b>	4 Rectangular Zones per Camera
OSD	
	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording
Recording	
<b>A/V Compression</b>	H.264/G.711
<b>Resolution</b>	960H (960×480) ~ QCIF (176×120)
<b>Record Rate</b>	<b>Main Stream</b> Full Channel @ 960H/D1 [1~25/30fps] <b>Extra Stream</b> CIF/QCIF [1~25/30fps]
<b>Bit Rate</b>	48~4096Kb/s
<b>Record Mode</b>	Manual, Continuous, Motion Detection, Alarm
<b>Record Interval</b>	Pre-record: 1~30 sec, Post-record: 10~300 sec
Video Detection & Alarm	
<b>Event Triggering</b>	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup
<b>Video Detection</b>	Motion Detection, Video Loss, Camera Masking
<b>Alarm I/O</b>	7 Channels In, 2 Channels Out
Playback & Backup	
<b>Sync Playback</b>	1/4
<b>Search Mode</b>	Time/Date, Timeline Search, Alarm, Motion Detection
<b>Playback Functions</b>	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom
<b>Backup Mode</b>	USB / eSATA / Network
Network	
<b>Ethernet</b>	RJ-45 Port (10/100/1000M)
<b>Wireless Network</b>	Internal 3G/Wi-Fi Module (optional)
<b>GPS</b>	Internal High Accuracy GPS Module (optional)
<b>Network Functions</b>	TCP/IP, UDP, DHCP, DNS, IP Filter, PPPoE, DDNS, Alarm Server
<b>Remote Access</b>	iPhone, iPad, Android, PC (ARMS Pro/HD, Internet Browser, X5 Synergy VMS)
Storage	
<b>Internal HDD</b>	2 SATA Ports
<b>External HDD</b>	1 eSATA Port
Auxiliary Ports	
<b>USB</b>	2 Ports (1 Rear USB 2.0, 1 Front USB 2.0)
<b>RS232</b>	1 Port (for PC Communication & Keyboard)
<b>RS485</b>	1 Port (for PTZ Control)
General	
<b>Power Supply</b>	DC 8V~36V, <15W Power Consumption
<b>Working Environment</b>	-20°C~+60°C / 5%~95%RH / 86~106kpa
<b>Dimension (W×D×H)</b>	203mm × 253mm × 92mm
<b>Weight</b>	3.5kg
<b>Vibration-Proof</b>	5Hz~300Hz: X/Y/Z each direction 8 hours 5Hz~11Hz: Vibration amplitude 10mm 11Hz~300Hz: 50m/s <sup>2</sup>



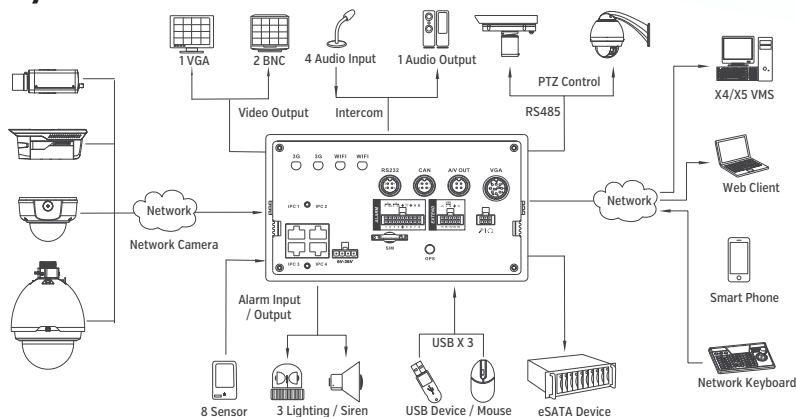
- Mobile
- 1080p FULL HD Recording
- 2 SATA Up to 2TB
- Variable Voltage
- Military Connectors
- Quick Release HDD
- Optional GPS
- Optional 3G & WiFi

## X5S Mobile 4 Channel Standalone DVR

### Features

- Up to 4 Cameras with 1080p Realtime Live View
- H.264/MJPEG Dual Codec Decoding
- 100/120fps@1080p Preview & Recording
- All Channel Synchronous Realtime Playback
- Supports 2 SATA HDDs, 1 eSATA, 3 USB 2.0
- Multi-Information Display and Recording: Car Number, Time, Channel, GPS, Speed, Overlay and Recording Settings
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- ONVIF Version 2.3 Compliance
- Military Style Quick Connectors
- 4 PoE Ports

### System Connection



System	
<b>Main Processor</b>	Dual-Core Embedded Processor
<b>Operating System</b>	Embedded LINUX
Audio/Video	
<b>Video Input</b>	4 Channels @ 1080p
<b>Audio Input</b>	4 Channels
<b>Audio Output</b>	1 Channel
<b>Two-way Talk</b>	1 Channel In, 1 Channel Out
Display	
<b>Interface</b>	1 VGA, 2 BNC
<b>Resolution</b>	1920×1080, 1280×1024, 1024×768, 800×600
<b>Display Split</b>	1/4
<b>Privacy Masking</b>	4 Rectangular Zones per Camera
<b>OSD</b>	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording
Recording	
<b>A/V Compression</b>	H.264/G.711
<b>Resolution</b>	1080p [1920×1080] ~ D1 [704×480]
<b>Record Rate</b>	100/120fps@1080p
<b>Bit Rate</b>	48~4096Kb/s
<b>Record Mode</b>	Manual, Continuous, Motion Detection, Alarm
<b>Record Interval</b>	Pre-record: 1~30 sec, Post-record: 10~300 sec
Video Detection & Alarm	
<b>Event Triggering</b>	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup
<b>Video Detection</b>	Motion Detection, Video Loss, Camera Masking
<b>Alarm I/O</b>	8 Channels In, 3 Channels Out
Playback & Backup	
<b>Sync Playback</b>	1/4
<b>Search Mode</b>	Time/Date, Timeline Search, Alarm, Motion Detection
<b>Playback Functions</b>	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom
<b>Backup Mode</b>	USB / eSATA / Network
Network	
<b>Ethernet</b>	RJ-45 Port [10/100/1000M]
<b>3G Wireless</b>	3G Module [optional]
<b>WiFi</b>	WiFi Module [optional]
<b>GPS</b>	High Accuracy GPS Module [optional]
<b>Network Functions</b>	TCP/IP, UDP, DHCP, DNS, IP Filter, PPPoE, DDNS, Alarm Server
<b>Remote Access</b>	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]
Storage	
<b>Internal HDD</b>	2 SATA Ports
<b>External HDD</b>	1 eSATA Port
Auxiliary Ports	
<b>USB</b>	3 Ports [1 Rear USB 2.0, 2 Front USB 2.0]
<b>RS232</b>	1 Port [for PC Communication & Keyboard]
<b>RS485</b>	1 Port [for PTZ Control]
<b>Memory Slot</b>	SD Card [Max 32GB]
General	
<b>Power Supply</b>	DC 8V~36V, <10W Power Consumption
<b>Working Environment</b>	-10°C ~ +55°C / 10%~90%RH / 86~106kpa
<b>Dimension [W×D×H]</b>	180mm × 209mm × 100mm
<b>Weight</b>	3kg [without HDD]

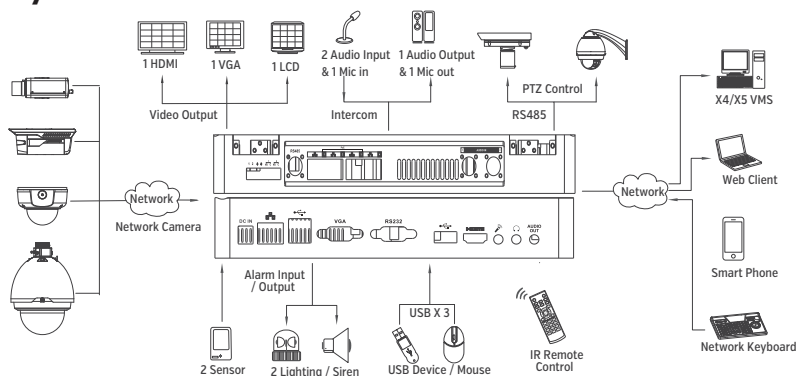


## X5S Mobile Portable 4 Channel Standalone NVR

### Features

- Up to 4 Cameras with 1080p Realtime Live View
- H.264/MJPEG Compression
- HDMI/VGA/LCD Simultaneous Video Output
- Synchronous Realtime Playback
- Timeline Search
- Supports 1 SATA HDDs, 2 CD-R/DVD-RW, 3 USB 2.0
- Camera, Temperature & Volume Information Overlay, One-Button Recording, PIP Live View
- Seamless CD Swapping
- Live Bookmarking
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)
- ONVIF Version 2.3 Compliance

### System Connection



System	
<b>Main Processor</b>	Dual-Core Embedded Processor
<b>Operating System</b>	Embedded LINUX
Audio/Video	
<b>IP Camera Input</b>	4 Channels [Supports PoE]
<b>Audio Input</b>	2 Channels [Aviation Port]
<b>Audio Output</b>	1 Channel [Standard 3.5mm Audio Port]
<b>Two-way Talk</b>	1 Channel In, 1 Channel Out [Standard 3.5mm Audio Port]
Display	
<b>Interface</b>	1 HDMI, 1 VGA, 1 LCD
<b>Resolution</b>	1920×1080, 1280×1024, 1024×768, 800×600
<b>Display Split</b>	1/4 / PIP
<b>OSD</b>	Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording
Recording	
<b>A/V Compression</b>	H.264/G.711
<b>Resolution</b>	1080p [1920×1080] ~ D1 [704×480]
<b>Record Rate</b>	100/120fps@1080p
<b>Bit Rate</b>	48 ~ 8192Kbps
<b>Record Mode</b>	Manual, Continuous, Motion Detection, Alarm
<b>Record Interval</b>	Pre-record: 1-30 sec, Post-record: 10-300 sec
Video Detection & Alarm	
<b>Event Triggering</b>	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup
<b>Video Detection</b>	Motion Detection, Video Loss, Camera Masking
<b>Alarm I/O</b>	2 Channels In, 2 Channels Out
Playback & Backup	
<b>Sync Playback</b>	1/4
<b>Search Mode</b>	Time/Date, Timeline Search, Alarm, Motion Detection
<b>Playback Functions</b>	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom
<b>Backup Mode</b>	USB / Network / CD/DVD
Network	
<b>Ethernet</b>	RJ-45 Port [10/100/1000M]
<b>PoE</b>	4 Ports
<b>Network Functions</b>	HTTP, IPv4, TCP/IP, RTSP, UDP, NTP, DHCP, DNS, DDNS, IP Filter
<b>Remote Access</b>	iPhone, iPad, Android, PC [ARMS Pro/HD, Internet Browser, X5 Synergy VMS]
Storage	
<b>Internal HDD</b>	1 HDD [2.5 inch]
<b>Internal DVD</b>	2 DVD Drives
Auxiliary Ports	
<b>USB</b>	3 Ports [USB 2.0]
<b>RS232</b>	1 Port [for PC Communication & Keyboard]
<b>RS485</b>	1 Port [for PTZ Control]
General	
<b>Power Supply</b>	DC 19V/4.74A, <40W Power Consumption [with HDD]
<b>Working Environment</b>	-10°C ~ +55°C / 10%~90%RH / 86~106kpa
<b>Dimension [W×D×H]</b>	340mm × 240mm × 48mm
<b>Weight</b>	5.5kg~6.5kg [with HDD and DVD Drives]



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# Accessories

## Add-ons & Mounts

### IP Radios

IPR-3KM-5G-300

IPR-5KM-5G-450

IPR-200KM-5G-500

IPR-100KM-5G-1200

### PTZ Keyboards

X5-PTZ-KB

X5S-PTZ-KB-IP

X5S-PTZ-KB-IP-TS

### Other Accessories

X5S-VE-1CH/2CH/4CH

KVM-EXT-USB

MON-27-LCD

SW-10-GB-POE-AT-112W-280M

IRF-30-180m

IRF-30-200m-PRO

### Mounting Accessories

Wall Mount Brackets	120
Ceiling Mount Brackets	121
Extensions & Adapters	122
Junction Boxes	123
Junction & Power Boxes	124
Pole & Corner Mount Brackets	125



## 5GHz 300Mbps 13dBi Outdoor CPE

### Features

- Built-in 13dBi 2x2 dual-polarized directional MIMO antenna
- Adjustable transmission power from 0 to 27dBm/500mw
- Optimized for more than 15km long range wireless transmission
- TDMA [Time-Division-Multiple-Access] technology improves product performance in throughput, capacity and latency performance, ideal for PTMP applications
- Centralized Management System Software
- AP / Client / Repeater / AP Router / AP Client Router [WISP] operation modes
- Passive PoE Adapter supports up to 60m/200ft Power over Ethernet deployment and allows the device to be reset remotely

System	
<b>Processor</b>	Qualcomm Atheros Enterprise AR9350B 560MHz CPU, MIPS 74Kc
<b>Memory</b>	64MB DDR2 RAM, 8MB Flash
Antenna	
<b>Gain</b>	13 dBi
<b>Beamwidth</b>	45° [H-Plane] / 30° [E-Plane]
<b>Max. VSWR</b>	1.6
<b>Polarity</b>	Horizontal/Vertical
<b>Cross-Polarity Isolation</b>	> 18 dB
Wireless	
<b>Wireless Standards</b>	IEEE 802.11a/n
<b>Proprietary Protocol</b>	TDMA Mode
<b>Frequency Range*</b>	5.15 ~ 5.85GHz
<b>Wireless Speed</b>	Up to 300Mbps [40MHz,Dynamic] Up to 144.4Mbps [20MHz,Dynamic] Up to 72.2Mbps [10MHz,Dynamic] Up to 36.1Mbps [5MHz,Dynamic]
<b>Max Transmit Power*</b>	27dBm/500mw (Adjustable power by 1dBm)
<b>Operation Modes</b>	AP / Client / Bridge / Repeater / AP Router Mode / AP Client Router [WISP Client] Mode
<b>Wireless Security</b>	WPA/WPA2, WPA-PSK/WPA2-PSK [AES/TKIP] Encryption, 64/128/152-bit WEP Encryption
Interfaces	
<b>Ethernet</b>	1 Passive PoE In, 1 Passive PoE Passthrough
<b>Grounding Terminal</b>	Yes
<b>Reset Button</b>	Yes
General	
<b>Power Supply</b>	Passive Power over Ethernet, 16~27VDC
<b>Power Consumption</b>	< 11W
<b>ESD Protection</b>	15KV
<b>Lightning Protection</b>	6000V
<b>Ingress Protection</b>	IPX5 Waterproof Certification
<b>Certification</b>	CE, FCC, RoHS, IPX5
<b>Operating Temperature</b>	-30° C ~ +70° C
<b>Operating Humidity</b>	10% ~ 95% Noncondensing
<b>Dimensions</b>	224mm × 79mm × 60mm
<b>Mount</b>	Pole-Mount [Straps Included]
<b>Weight</b>	860g

\*May vary depending on the limitations of the countries in which the device is used.





## High-Performance Bridge

### Features

- Uniform Beamwidth Maximizes Noise Immunity
- Innovative Mechanical Design
- High-Speed Processor for Superior Performance
- Intelligent QoS
- Scalability
- All-in-one Design
- Quick and Easy Installation
- Convenient Alignment

System & Compliance	
<b>Processor</b>	Atheros MIPS 74Kc, 560 MHz
<b>Memory</b>	64 MB DDR2, 8 MB Flash
<b>Networking Interface</b>	(1) 10/100 Ethernet Port
<b>Wireless Approvals</b>	FCC, IC, CE
<b>RoHS Compliance</b>	Yes
<b>LEDs</b>	Power, LAN, WLAN
<b>Signal Strength LEDs</b>	Software-Adjustable to Correspond to Custom RSSI Levels
<b>Channel Sizes</b>	5/8/10/20/30/40 MHz
<b>Polarization</b>	Dual Linear
<b>Gain</b>	19 dBi
<b>Operating Frequency</b>	Worldwide: 5170 - 5875 MHz USA: 5725 - 5850 MHz
Environmental	
<b>Wind Loading</b>	45.4 N @ 200 km/h [10.2 lbf @ 125 mph]
<b>Wind Survivability</b>	200 km/h [125 mph]
<b>Enclosure Outdoor</b>	UV Stabilized Plastic
<b>ESD/EMP Protection</b>	Air: ± 24 kV, Contact: ± 24 kV
<b>Operating Temperature</b>	-40°C ~ +70°C
<b>Operating Humidity</b>	5% - 95% Noncondensing
<b>Salt Fog Test</b>	IEC 68-2-11 [ASTM B117], Equivalent: MIL-STD-810 G Method 509.5
<b>Vibration Test</b>	IEC 68-2-6
<b>Temperature Shock Test</b>	IEC 68-2-14
<b>UV Test</b>	IEC 68-2-5 at 40°C, Equivalent: ETS 300 019-1-4
<b>Wind-Driven Rain Test</b>	ETS 300 019-1-4, Equivalent: MIL-STD-810 G Method 506.5
General	
<b>Power Supply</b>	24V, 0.5A PoE
<b>Power Consumption</b>	8W
<b>Dimensions</b>	Ø189mm × 125mm
<b>Mount</b>	Pole-Mount [Kit Included], Wall-Mount
<b>Weight</b>	530g



## 5 GHz Carrier Backhaul Radio w/5GHz Slant 45 Antenna

### Radio Features

- High-Performance Embedded Processor
- Up to 500+ Mbps Real Throughput, Up to 200+ km Range
- Full-band 5GHz Spectrum Certification with DFS Approval
- Channel Width Flexibility [10/20/30/40/50 MHz] for optimal operation in unlicensed bands
- GPS Synchronization
- Clean Power Output

### Antenna Features

- Powerful Performance for Long-Range Links
- Robust Design and Construction for Outdoor Use
- Worldwide License-Free Operation in 5 GHz frequencies

System	
Processor	High-Performance Embedded Processor
Maximum Throughput*	500+ Mbps
Maximum Range*	200+ km
Encryption	128-bit AES
OS	airOS F
Wireless Modes	Master/Slave
Radio	
Operating Frequency	5150-5925 MHz [Dependent on Regulatory Region]
Max. Conducted TX Power	26 dBm [Dependent on Regulatory Region]
Frequency Accuracy	± 2.5 ppm without GPS Synchronization ± 0.2 ppm with GPS Synchronization
Channel Bandwidth	10/20/30/40/50 MHz Selectable Programmable Uplink and Downlink Duty Cycles
Interfaces	
Data Port	10/100/1000 Ethernet Port
Management Port	10/100 Ethernet Port
RF Connectors	[2] RP-SMA Weatherproof [CH0, CH1] [1] SMA Weatherproof [GPS]
GPS Antenna	External, Magnetic Base
General	
Power Supply	24V, 1A PoE Gigabit Adapter (Included)
Power Method	Passive Power over Ethernet
Operating Temperature	-40°C ~ 55°C
Certifications	DFS Certified FCC Part 15.407 CE EN 302502 v1.2.1, EN 301 893 v1.7.1
Dimensions	224mm × 82mm × 48mm
Mount	GPS Pole Mount (Included), Rocket Mount Compatible
Weight	350g

\*Throughput and range values may vary depending on the environmental conditions.

Antenna Characteristics	
Frequency Range	5.1 ~ 5.9 GHz
Gain	23 dBi
+ 45° Beamwidth	10° [3 dB]
- 45° Beamwidth	10° [3 dB]
Front-to-Back Ratio	30 dB
Max. VSWR	1.5:1
Polarity	Dual-Linear
Cross-Polarity Isolation	> 35 dB
ETSI Specification	EN 302 326 DN2

Environmental	
Wind Loading	190 N @ 200 km/h [43 lbf @ 125 mph]
Wind Survivability	200 km/h [125 mph]

General	
Voltage Range	42-58VDC
Operating Temperature	-40°C ~ +55°C
Certifications	CE, FCC, IC
Dimensions	ø378mm × 290mm
Mount	Universal Pole Mount, airFiber X Radio Bracket, and Weatherproof RF Connectors (included)
Weight	3.4kg [with mount]

\*Throughput and range values may vary depending on the environmental conditions.



## Full-Duplex Point-to-Point Gigabit Radio

### Features

- High-Performance Embedded Processor
- High Performance Wireless Backhaul
- Extreme Long-Range Links
- Worldwide License-Free Operation in 5 GHz frequencies
- Gigabit Performance at 1.2+ Gbps
- Innovative 2x2 MIMO Dual-Antenna Architecture
- Radio Alignment Display for easy installations

System	
<b>Processor</b>	High-Performance Embedded Processor
<b>Maximum Throughput*</b>	1.2+ Gbps
<b>Maximum Range*</b>	100+ km (Dependent on Regulatory Region)
<b>Packets per Second</b>	1+ Million
<b>Encryption</b>	128-Bit AES
<b>Uplink/Downlink Ratio</b>	50% Fixed
<b>Radio Frame Synchronization</b>	GPS
<b>Dynamic Frequency Selection</b>	CE, FCC/IC
Networking Interface	
<b>Data Port</b>	10/100/1000 Ethernet Port
<b>Management Port</b>	10/100 Ethernet Port
Radio	
<b>Operating Frequency</b>	5470–5950 MHz (Dependent on Regulatory Region)
<b>Frequency Accuracy</b>	±2.5 ppm without GPS Synchronization ±0.2 ppm with GPS Synchronization
<b>Channel Bandwidth</b>	10/20/30/40/50 MHz
<b>Modulation</b>	1024QAM MIMO 256QAM MIMO 64QAM MIMO 16QAM MIMO QPSK MIMO ½ Rate QPSK xRT ¼ Rate QPSK xRT
Integrated Split Antenna	
<b>TX Gain</b>	23 dBi
<b>RX Gain</b>	23 dBi
<b>Beamwidth</b>	6°
<b>Front-to-Back Ratio</b>	70 dB
<b>Polarity</b>	Dual-Slant Polarization
<b>Cross-Polarity Isolation</b>	> 28 dB
Interfaces	
<b>Data Port</b>	10/100/1000 Ethernet Port
<b>Management Port</b>	10/100 Ethernet Port
<b>Auxiliary Port</b>	RJ-12, Alignment Tone Port
General	
<b>Power Supply</b>	50V, 1.2A PoE GigE Adapter (Included)
<b>Power Consumption</b>	<40W
<b>Power Method</b>	Passive Power over Ethernet
<b>Voltage Range</b>	42-58VDC
<b>Operating Temperature</b>	-40°C ~ +55°C
<b>Certifications</b>	CE, FCC, IC
<b>Dimensions</b>	940mm × 470mm × 282mm
<b>Mount</b>	Pole Mount Kit (included)
<b>Weight</b>	16kg [with mount]

\*Throughput and range values may vary depending on the environmental conditions.



System	
Joystick	3D
Control Mode	RS-485 Half-duplex Mode, Baud Rate: 1200 ~ 19200bps
Max Cable Length	1200m
Display	
LCD Screen	128mmx64mm
General	
Power Supply	DC12V
Working Temperature	-10°C ~ +55°C
Working Humidity	10% ~ 90%
Dimension (W×D×H)	360mm × 200mm × 108mm
Weight	3.3kg

## X5 NVR PTZ Keyboard Controller

### Features

- X5 Synergy VMS Compatible
- Control Software and PTZ Functions
- 3D Joystick



General	
<b>Keyboard Panel</b>	Electromechanical
<b>Joystick</b>	3-axis, vector-solving, w/twisting, return to-center head
<b>Connector</b>	RJ-45, RS232, RS485, RS422, USB
<b>Communication</b>	Direct Mode, Network Mode
<b>Control</b>	<b>Direct Mode</b>
	Interface: RS232/RS485 PTZ Protocol: PELCO-D/PELCO-P/PELCO-D1
<b>Network Mode</b>	Interface: RJ-45 DVR/NVR/IP Camera
General	
<b>Power Adapter</b>	Input 100V~240V 50Hz/60Hz, Output DC12V/1000mA
<b>Power Consumption</b>	5W
<b>Working Temperature</b>	-10°C ~ +55°C
<b>Working Humidity</b>	10% ~ 90%
<b>Atmosphere Pressure</b>	86kpa ~ 106kpa
<b>Dimension (W×D×H)</b>	330mm × 160mm × 38mm [excluding joystick]
<b>Weight</b>	2.5kg

## X5S IP PTZ/DVR/NVR Keyboard Controller

### Features

- Control & Display:
  - Standalone NVR/DVR
  - IP PTZ Cameras
  - IP Cameras
- RS232, RS422, RS485, USB & Network Connections
- Three Dimensional Joystick PTZ Control
- Supports Video Matrix Display
- Preset Position, Auto Scan, Auto Pan, Auto Tour & Pattern Control
- On-Screen Menu & User Operation Procedure Tips

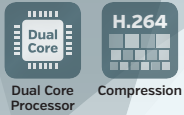


## X5S IP PTZ/DVR/NVR Keyboard Controller

### Features

- Control & Display:
  - Standalone NVR/DVR
  - IP PTZ Cameras
  - IP Cameras
- RS232, RS485 & Network Connections
- Four Dimensional Joystick PTZ Control
- Full HD 1080p Live View
- HDMI & VGA Sync Output
- Snapshot and Recording to USB Drive
- Supports Video Matrix Display
- Supports Bi-Directional Voice Communication
- Preset Position, Auto Scan, Auto Pan, Auto Tour & Pattern Control
- Touch Screen Operation
- Integrated WiFi

System		
<b>Main Processor</b>	Industrial Embedded Microprocessor	
<b>Operating System</b>	Embedded LINUX	
Audio		
<b>Compression</b>	G.711A	
<b>Output</b>	1 Channel Out	
<b>Voice Communication</b>	1 Channel In, 1 Channel Out	
Display		
<b>Display Split</b>	1/4/8/9/16	
<b>Resolution</b>	1080p/720p/D1/HD1/BC1F/C1F/QC1F	
<b>Screen</b>	10.2" Touch Screen LCD	
General		
<b>Keyboard Panel</b>	Electromechanical	
<b>Joystick</b>	4-axis [Zoom, Focus, Iris]	
<b>Control</b>	<b>Output</b>	Supports Matrix Display, HDMI/VGA output
	<b>Direct Mode</b>	Interface: 1 RS232/ 2 RS485 PTZ Protocol: PELCO-D/PELCO-P/PELCO-D1
	<b>Network Mode</b>	Interface: RJ45 [1 RJ-45 port [10/100/1000M]] / WiFi DVR/NVR/IP Camera
<b>Max Remote Users</b>	20 [each can manage up to 256 unit devices]	
<b>USB Interface</b>	2 Ports [for Mouse Control & Backup]	
General		
<b>Power Supply</b>	DC12V	
<b>Power Consumption</b>	5W	
<b>Working Temperature</b>	-10°C ~ +55°C	
<b>Working Humidity</b>	10% ~ 90%	
<b>Atmosphere Pressure</b>	86kpa ~ 106kpa	
<b>Dimension [W×D×H]</b>	480mm × 240mm × 87mm [excluding joystick]	
<b>Weight</b>	4.5kg	

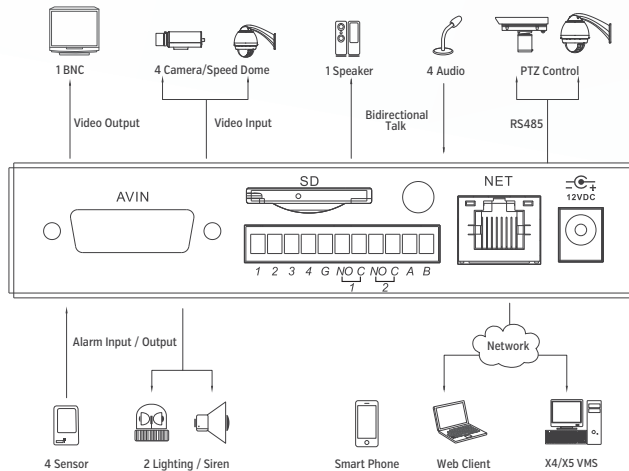


## X5S 1/2/4 Channel Video Encoder

### Features

- Converts Analog Video Signal to Digital
- 1/2/4 Channel Video And Audio Inputs
- H.264 Video Compression and JPEG Image Capture
- Full Channel@D1 (4CIF) Realtime Encoding
- SD Memory
- Remote Monitoring with iPhone, iPad or PC (Internet Browser, ARMS Pro/HD, X5 Synergy VMS)

### System Connection



System		
<b>Main Processor</b>	Dual-Core Embedded Processor	
<b>Operating System</b>	Embedded LINUX	
Video		
<b>Input</b>	1 Channel	
<b>Output</b>	1 TV Output, BNC	
<b>Standards</b>	NTSC/PAL	
Audio		
<b>Input</b>	1 Channel	
<b>Output</b>	1 Channel	
<b>Two-way Talk</b>	1 Channel In, 1 Channel Out	
Display		
<b>Resolution</b>	1280×1024, 1280×720, 1024×768, 800×600	
<b>Display Split</b>	1	
<b>Privacy Masking</b>	4 Rectangular Zones per Camera	
Recording		
<b>A/V Compression</b>	H.264/G.711	
<b>Resolution</b>	D1/CIF/QCIF/VGA/QVGA	
<b>Record Rate</b>	<b>Main Stream</b>	D1/BCIF/CIF/QCIF[1~25/30fps]
	<b>Extra Stream</b>	D1/BCIF/CIF/QCIF
<b>Digital Watermark</b>	Supported	
Video Detection & Alarm		
<b>Event Triggering</b>	Recording, Intelligent PTZ Positioning, Fullscreen Popup, Alarm Out, Push Video, Buzzer, Message Popup	
<b>Video Detection</b>	Motion Detection, Video Loss, Camera Masking	
<b>Alarm I/O</b>	4 Channels In, 2 Channels Out	
Playback & Backup		
<b>Search Mode</b>	Time/Date, Timeline Search, Alarm, Motion Detection	
<b>Playback Functions</b>	Play, Pause, Stop, Rewind, Fast Forward, Slow Playback, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Backup, Digital Zoom	
<b>Backup Mode</b>	Network	
Network		
<b>Ethernet</b>	RJ-45 (10/100Base-T)	
<b>Network Functions</b>	TCP/IP, PPPoE, DDNS, IP Filter, DNS, NTP, DHCP	
<b>Remote Access</b>	iPhone, iPad, Android, PC (ARMS Pro/HD, Internet Browser, X5 Synergy VMS)	
Storage		
<b>Memory Slot</b>	SD Card (Max 32GB)	
Auxiliary Ports		
<b>USB</b>	1 Port	
<b>RS485</b>	1 Port (for PTZ Control)	
General		
<b>Power Supply</b>	DC12V / 3A	
<b>Power Consumption</b>	<5W	
<b>Working Environment</b>	-30°C ~ +50°C / 10%~90% / 86kpa~106kpa	
<b>Dimension (W×D×H)</b>	163mm × 137mm × 30mm	
<b>Weight</b>	1.0Kg	



## USB VGA KVM Console Extender over CAT5 UTP

### Features

- Control a server, computer over CAT5 up to 150m/500ft away
- PS/2 and USB host PCs supported via the appropriate PS2 or USB KVM cable (USB style included)
- Use with a single computer or connect to an existing KVM switch
- Easy Installation using industry-standard UTP network cable
- Supports most combo keyboard and mouse sets (including Wireless)
- Intuitive Hotkey Commands
- Supports auto-switching between host and remote users or dedicated control

System	
Audio	No
KVM Ports	2
Multi-Monitor	No
PC Interface	USB
PC Video Type	VGA
Rack-Mountable	No
IP Control	No
Max Transfer Distance	150 m (492 ft)
Supported Resolutions	1280 x 1024 @ 100m/300' 1024 x 768 @ 150m/500'
Interfaces	
Console Interfaces	1 VGA, 2 USB A
Host Connectors	1 VGA
Other Interfaces	1 RJ-45
Power	
Center Tip Polarity	Positive
Input Current	0.2A
Input Voltage	110 ~ 240 AC
Output Current	0.6A
Output Voltage	9 DC
Plug Type	M
Power Source	AC Adapter Included
General	
Working Temperature	0°C ~ +40°C
Working Humidity	0% ~ 80%
Dimension (W×D×H)	155mm × 75mm × 20mm
Weight	300g





Resolution



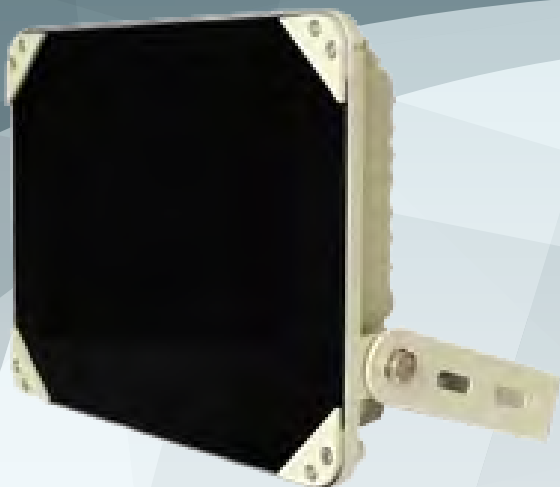
HDMI Input

## 27" Full HD IPS LED Monitor

### Features

- IPS Technology
- Full HD 1080p
- HDMI Input
- Energy Star® Qualified

Panel Specifications	
Screen Size	27" diagonal
Panel Type	IPS
Aspect Ratio	16:9
Resolution	1920×1080
Color Gamut	68% (CIE1976)
Brightness	200 cd/m2 (typical)
Contrast Ratio	1000:1 (original)
Response Time	5ms (typical)
Viewing Angle	170/160 (CR≥10)
Surface Treatment	AG, 3H
Inputs/Outputs	
HDMI	1 Port
VGA	1 Port
General	
Power Supply	100–240V, 50/60Hz
Power Consumption	27W
Dimensions (W×D×H)	642mm × 47mm × 390mm without stand, 642mm × 254mm × 485mm with stand
Weight	4.2kg without stand, 4.8kg with stand



IR Range



Waterproof

Technical Specifications	
LED Type	24pcs high-power IR LED
Wavelength	740nm / 850nm / 940nm
Beam Angle	15° to 120° [30°?]
Beam Distance	240m to 60m [850nm] [180m?]
Voltage	85-265V AC / 12-24V DC / 24V AC
Power Consumption	48W [850nm]
Day/Night Switch	Auto
Cable Length	1.3m
Mounting	Wall mount bracket
Operating Temperature	-30°C ~ +50°C [-50°C ~ +50°C with heater]
Ingress Protection	IP66
Housing	Die-cast Aluminum
Panel	Tempered Glass Panel + IR Passing Plastic
Weight	2.2kg
Dimensions	261mm×202mm×90mm

## IR Flood Illuminator

### Features

- Delivers high-powered infrared light for CCTV & IP cameras, improving performance in darkness
- 50,000 hour LED lifetime
- 3-year warranty
- IP66 waterproof and dustproof
- High thermal conductivity aluminum
- Energy saving technology
- Thinner and lighter design
- Optional white illuminator



IR Range



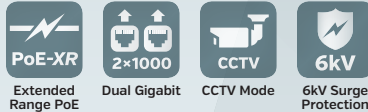
Waterproof

Technical Specifications	
LED Type	48pcs 2W dot-matrix IR LED
Wavelength	740nm / 850nm / 940nm
Voltage	AC85-265V/DC12V/AC24V
Power Consumption	108W (850nm)
Day/Night Switch	Auto
Cable Length	1.3m
Mounting	Wall mounting "U" bracket
Operating Temperature	-40°C ~ +50°C
Ingress Protection	IP66
Housing	Aluminum
Panel	High light transmittance toughened glass
Weight	7.8kg
Dimensions	409mm×206mm×117mm

## IR Flood Illuminator

### Features

- Delivers high-powered infrared light for CCTV & IP cameras, improving performance in darkness
- 30,000 hour LED lifetime
- 3-year warranty
- Two-stage constant current circuit
- IP66 waterproof and dustproof
- Twice direct cooling heat sink
- Flexible angle bracket for adjusting the illuminance range
- Optional white illuminator



## Dual Uplink PoE Switch

### Features

- 2xGigabit Uplink Ports
- 8x10/100Mbps PoE Ports
- Up to 280m transmission distance in CCTV mode
- Easy CCTV Mode
- Compliant with IEEE802.3, IEEE802.3u, IEEE802.3af, IEEE802.3at standards
- 6kV Lightning, ESD and Interference Protection
- Supports up to 112W of PoE Wattage
- Plug-and-play, no settings required

Ethernet	
<b>Speed</b>	8 Downlink Ports: 10/100Mbps (10Mbps when in Easy CCTV Mode) 2 Uplink Ports: 10/100/1000Mbps
<b>Transmission Distance</b>	Ports 1-8: 100m (280m in Easy CCTV Mode) Uplink Ports: 100m
<b>Ethernet Standard</b>	IEEE 802.3/802.3u, IEEE802.3af, IEEE802.3at
<b>Backplane</b>	7G
<b>Data Packet Cache</b>	1.5Mb
<b>MAC</b>	4K
Protection Level	
<b>EFT</b>	Level 2 IEC61000-4-4
<b>ESD</b>	Level 3 IEC61000-4-2
<b>Lightning Protection</b>	6kV IEC61000-4-5
General	
<b>Power Supply</b>	DC 48V~57V power adapter
<b>Power Consumption</b>	< 5W
<b>Working Environment</b>	-10°C ~ +55°C / Less than 95% RH
<b>Dimensions</b>	200mm×102mm×28mm
<b>Weight</b>	500g



# ARMS PRO/HD iPhone, iPad, Android Remote Surveillance Apps

## Features

- Live preview with main stream and extra stream
- Remote Color Setting adjustments
- Alarm Output Control allows for remote control of alarms, home appliances, lights, doors, thermostats, etc.
- Instant video recording to your phone or tablet
- HDD status shows DVR/NVR HDD usage
- Import custom E-map images for easy camera organization
- Push alerts for motion detection, sensors and alarm events
- QR Code scanning for easy device configuration



Download our ARMS mobile apps for your smartphone or tablet:

iPhone:



iPad:



Android:





# Wall Mount Brackets

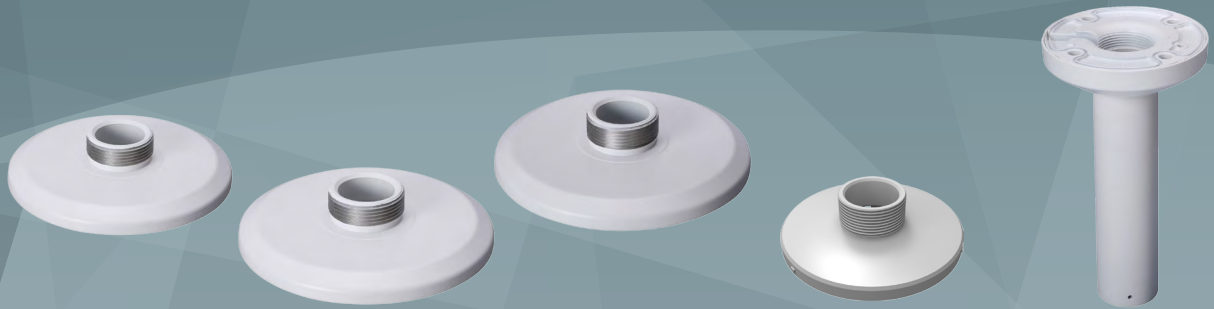


Model	WM-200	WM-201	WM-300	WM-302	WM-303
Material	Aluminum & ABS	Aluminum	Aluminum	Aluminum	Aluminum
Dimension	120mm×74mm×160mm	155mm×160mm×251mm	160mm×160mm×228mm	134mm×134mm×188mm	115mm×160mm×255mm
Pipe Thread	N/A	N/A	G 1½"	G 1½" M20(G ½")	G 1½"
Weight	0.35kg	0.65kg	0.5kg	0.7kg	0.7kg
Load Bearing	1.0kg	2.0kg	4.0kg	3.0kg	7.0kg
Operating Temperature	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C
Humidity	0~90% RH	0~90% RH	0~90% RH	0~90% RH	0~90% RH
Color	White	White	White	White	White

Dimensions	WM-200	WM-201	WM-300	WM-302	WM-303

Application	WM-200	WM-201	WM-300	WM-302	WM-303

# Ceiling Mount Brackets



Model	CLM-100	CLM-101	CLM-102	CLM-103	CLM-300
<b>Material</b>	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum & PC
<b>Dimension</b>	Ø151mm×37mm	Ø159mm×35mm	Ø169mm×37mm	Ø133mm×37mm	Ø134mm×236mm
<b>Pipe Thread</b>	G 1½"	G 1½"	G 1½"	G 1½"	G 1½"
<b>Weight</b>	0.2kg	0.23kg	0.25kg	0.13kg	0.75kg
<b>Load Bearing</b>	N/A	N/A	N/A	N/A	7.0kg
<b>Operating Temperature</b>	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C
<b>Humidity</b>	0~90% RH	0~90% RH	0~90% RH	0~90% RH	0~90% RH
<b>Color</b>	White	White	White	White	White
<b>Dimensions</b>					
<b>Application</b>					



# Extensions & Adapters



Model	EP-112	EP-113	ADP-110	ADP-111	ADP-114
<b>Material</b>	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
<b>Dimension</b>	ø53mm×220mm	ø53mm×420mm	ø59mm×53mm	ø60mm×48mm	ø60mm×50mm
<b>Pipe Thread</b>	G 1½"	G 1½"	G 1½"	G 1½"	G 1½"
<b>Weight</b>	0.5kg	1.0kg	0.2kg	0.23kg	0.25kg
<b>Operating Temperature</b>	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C
<b>Humidity</b>	0~90% RH	0~90% RH	0~90% RH	0~90% RH	0~90% RH
<b>Color</b>	White	White	White	White	White
<b>Dimensions</b>					
<b>Application</b>					

# Junction Boxes

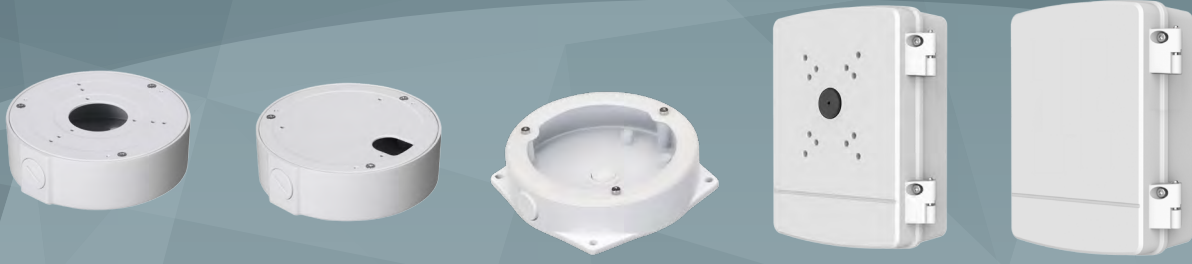


Model	JB-120	JB-121	JB-122	JB-123
Material	Aluminum	Aluminum	Aluminum	Aluminum
Dimension	115mm×160mm×37mm	134mm×134mm×55mm	134mm×134mm×55mm	134mm×134mm×51mm
Pipe Thread	M20 (G ½")	M20 (G ½")	M20 (G ½")	M20 (G ½")
Weight	0.5kg	0.5kg	0.5kg	0.6kg
Load Bearing	7.0kg	3.0kg	3.0kg	3.0kg
Operating Temperature	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C
Humidity	0~90% RH	0~90% RH	0~90% RH	0~90% RH
Color	White	White	White	White

Dimensions	JB-120	JB-121	JB-122	JB-123
	<p>Side view: 37mm height, M20 PL5 thread.</p> <p>Top view: 115mm width, 160mm height, 84mm inner width, 48mm inner height, 90mm mounting hole offset, 119mm mounting hole offset, 4-M8x15 screws, 4-ø9mm holes.</p>	<p>Top view: 134mm width, 134mm height, 98mm inner width, 98mm inner height, 70mm mounting hole offset, 65mm mounting hole offset, 48mm mounting hole offset, 12-M4x8 EQU screws, 48mm mounting hole offset, 65mm mounting hole offset, 70mm mounting hole offset.</p> <p>Side view: 55mm height.</p> <p>Bottom view: 48mm width, 90mm mounting hole offset, 4-ø9mm holes.</p>	<p>Top view: 134mm width, 134mm height, 98mm inner width, 98mm inner height, 55mm mounting hole offset, 70mm mounting hole offset, 84mm mounting hole offset, 101mm mounting hole offset, 12-M4x8 EQU screws.</p> <p>Side view: 55mm height.</p> <p>Bottom view: 48mm width, 90mm mounting hole offset, 4-ø9mm holes.</p>	<p>Top view: 134mm width, 134mm height, 98mm inner width, 98mm inner height, 51mm mounting hole offset, 110mm mounting hole offset, 98mm mounting hole offset, 84mm mounting hole offset, 9-M4x8 EQU screws.</p> <p>Side view: 51mm height.</p> <p>Bottom view: 48mm width, 90mm mounting hole offset, 4-ø9mm holes.</p>

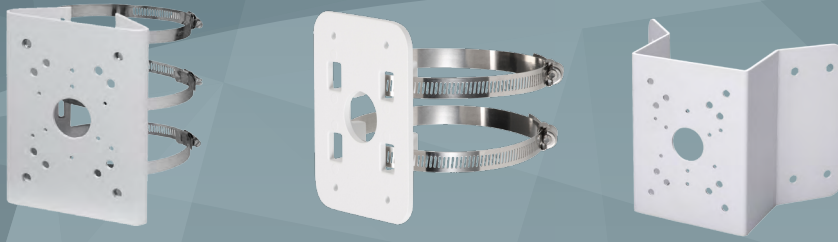
Application	JB-120	JB-121	JB-122	JB-123

# Junction & Power Boxes



Model	JB-130	JB-131	JB-132	JB-140	JB-141
<b>Material</b>	Aluminum & SECC	Aluminum & SECC	Aluminum	Aluminum	Aluminum
<b>Dimension</b>	Ø138mm×42mm	Ø138mm×42mm	155mm×155mm×39mm	297mm×248mm×107mm	297mm×248mm×107mm
<b>Pipe Thread</b>	M20 (G ½")	M20 (G ½")	M20 (G ½")	M20 (G ½")	M20 (G ½")
<b>Weight</b>	0.4kg	0.4kg	0.6kg	1.7kg	1.7kg
<b>Load Bearing</b>	3.0kg	3.0kg	3.0kg	8.0kg	8.0kg
<b>Operating Temperature</b>	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C
<b>Humidity</b>	0~90% RH	0~90% RH	0~90% RH	0~90% RH	0~90% RH
<b>Color</b>	White	White	White	White	White
<b>Dimensions</b>					
<b>Application</b>					

# Pole & Corner Mount Brackets



Model	PM-150	PM-152	CM-151
<b>Material</b>	Aluminum	Aluminum	Aluminum
<b>Dimension</b>	131mm×170mm×45mm	118mm×87mm×21mm	243mm×170mm×138mm
<b>Mast Diameter</b>	Ø80-130mm	Ø80-130mm	N/A
<b>Weight</b>	1.0kg	0.2kg	1.7 kg
<b>Load Bearing</b>	10.0kg	3.0kg	10.0kg
<b>Operating Temperature</b>	-40°C ~60°C	-40°C ~60°C	-40°C ~60°C
<b>Humidity</b>	0~90% RH	0~90% RH	0~90% RH
<b>Color</b>	White	White	White
<b>Dimensions</b>			
<b>Application</b>			