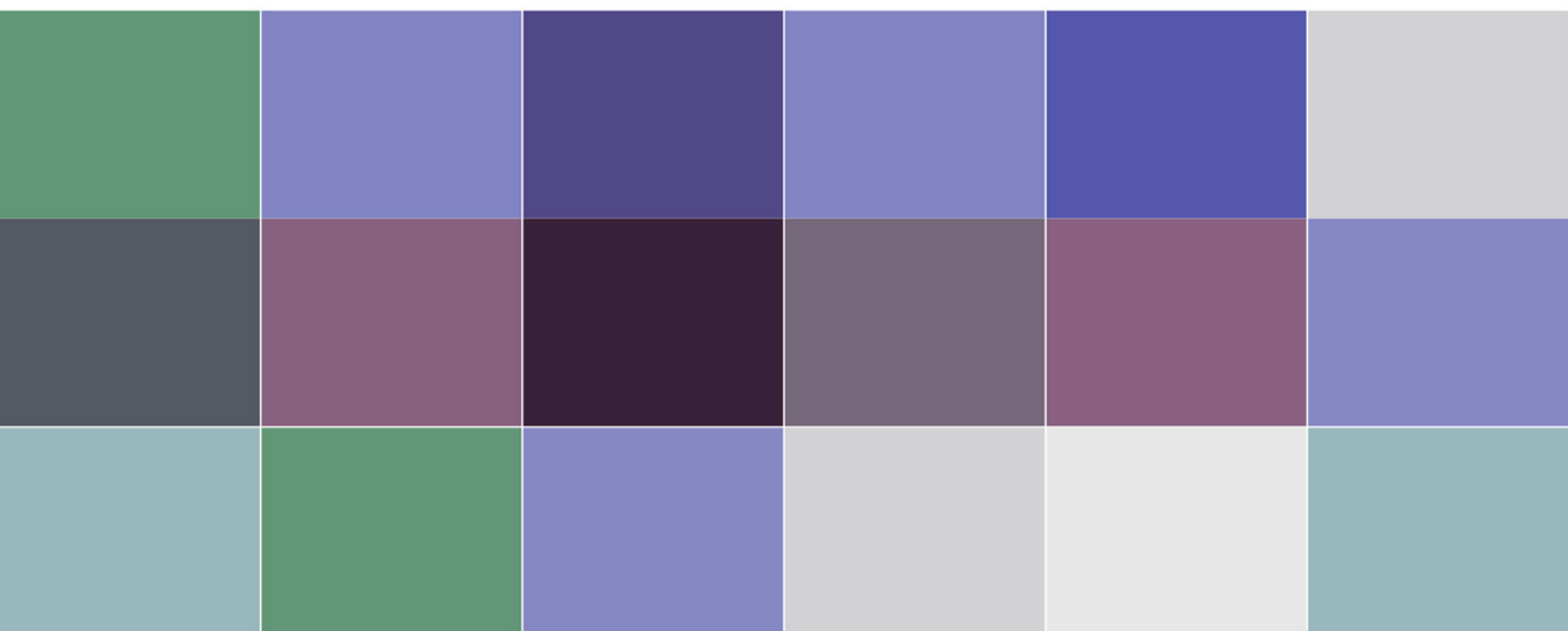


KEDACOM

Video Surveillance Product Manual 2014



KEDACOM



IPC411-E020

1.3MP HD 16x Network Speed Dome Camera



Features

Excellent Image Quality

- 1.3 Megapixel 1/3" Progressive Scan CMOS Sensor
- High definition and smooth picture, 960p@30fps
- H.264 high profile video codec, save up to 30% bandwidth and storage
- Low illumination, 0.03Lux with color picture
- WDR support / 3D noise reduction

Long Operation Lifespan

- Industrial components, withstand operation temperature of -40°C ~ 70°C
- IP66, TVS 6000V lightning protection, surge protection and voltage transient protection

Variety of Installation Application

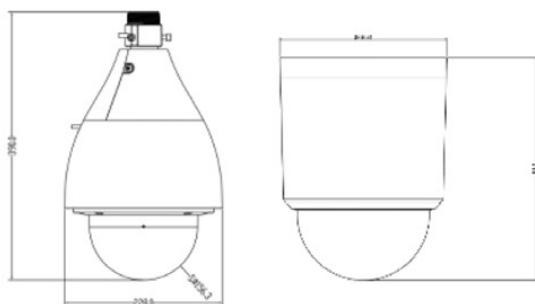
- Indoor ceiling / Indoor recessed / Outdoor

Abundant Functions and Features

- SD card slot, support Automatic Network Replenishment (ANR)
- Dual streams (960p+D1)
- Bi-directional audio / alarm in&out / video out / RS485

Dimensions

Units: mm



Specifications

	IPC 411-E020(-N0, -N1)
Camera	
Image Sensor	1/3" Progressive Scan CMOS
Pixels	1.3 Megapixel
Min. Illumination	Color: 0.03Lux @ (F1.5, AGC ON) B/W: 0.003Lux @ (F1.5, AGC ON)
Shutter Speed	1/10 ~ 1/10,000S
Day / Night	Auto (ICR) / Color / B/W
Wide Dynamic Range	Digital WDR
S/N Ratio	>52dB
White Balance	Auto / Manual
Gain Control	Auto / Manual
Backlight Compensation	Off / BLC / WDR
Lens	
Focal Length	6 ~ 96mm, 16x
Zoom Speed	Approx 3s (Optical)
Angle of View	56°~ 3.6° (Wide~Tele)
Min. Object Distance	300 ~ 1000mm (Wide~Tele)
Max. Aperture Ratio	F1.5 (Wide) / F3.6 (Tele)
Focus Control	Auto / Manual / Semi-Automatic
Pan and Tilt	
Pan / Tilt Range	360° Endless / -5° ~ 90°
Pan / Tilt Speed	Pan manual speed: 0.1° ~ 250°/s; Pan preset speed: 450°/s Tilt manual speed: 0.1° ~ 150°/s; Tilt preset speed: 350°/s
Proportional Zoom Preset	Pan / Tilt speed can be adjusted automatically according to zoom multiples 255
Patrol	8 Patrols scheme, up to 32 presets per patrol
Pattern Scan	4 Scan paths, each path can record 10 minutes of operation path
Power-off Memory	Power-off memory / Power-on recovery
Auto Guard	Patrol / Preset / Pan scan / Tilt scan / Frame scan / Random scan / Panorama scan / Pattern scan
PT Limit	Manual / Scan / Pan
3D Positioning	PTZ control with mouse click and drag
Video	
Compression Format	H.264
Image Resolution	Main stream: 960p Secondary stream: D1
Frame Rate	Main stream: 960p@30fps Secondary stream: D1@30fps
Bitrate	64kbps ~ 8Mbps
Bitrate Control	VBR / CBR
Dual Streams	Support
Caption	Date&Time / Alarm / 3 customized groups (Support up to 64 characters)
Privacy Masking	Up to 4 zones
Motion Detection	Up to 4 zones
Video Freeze	Support
Digital Noise Reduction	3D noise reduction
Image Flip	Flip / Mirror
Audio	
Compression Format	G.711a / G.711u / ADPCM / G.722 / AAC-LC
Bitrate	32kbps ~ 64kbps
Audio Function	Bi-directional audio / AEC / Mixed audio recording / Dumb / Mute
Network	
Network Protocol	TCP/IP, UDP, HTTP, DHCP, DNS/DDNS, RTP/RTCP, RTSP, PPPoE, FTP, VSIP
User Interface	IPC Control Client / Web IPC Control
Max. User Access	10 Users
Application Program	Onvif, GB/T 28181-2011, API
Alarm	
Alarm Triggers	Motion detection / Alarm input
Alarm Events	Alarm caption / Snapshot / External output
Interfaces	
Ethernet	10/100M, RJ45 interface
Audio In / Out	1 x Line in / 1 x Line out
Control	1 x RS485
Alarm In / Out	4 x Input / 2 x Output
Video Out	1 x BNC, 1.0V [p-p] / 75Ω
Memory Slot	SD card slot, support 32GB
Environmental	
Operating Temperature	-40°C ~ 70°C / -40°F ~ 158°F
Operating Humidity	10% ~ 95%
Protection Level	-N1(Outdoor): IP66, TVS 6000V lightning protection, surge protection and voltage transient protection
Electrical	
Power	24V AC / 3A (Power adapter included)
Power Consumption	Max. 45W (Heater on)
Mechanical	
Weight	-N0(Indoor): 3Kg / 6.6lb (Net Weight) -N1(Outdoor): 6Kg / 13.2lb (Net Weight)
Dimensions	-N0(Indoor): Φ165 × 220mm / Φ6.50" × 8.66" -N1(Outdoor): Φ228 × 390mm / Φ8.98" × 15.35"



IPC411-E120

1.3MP HD 16x Network Speed Dome Camera



Features

Excellent Image Quality

- 1.3 Megapixel 1/3" Progressive Scan CMOS Sensor
- High definition and smooth picture, 960p@30fps
- H.264 high profile video codec, save up to 30% bandwidth and storage
- Low illumination, 0.03Lux with color picture
- WDR support / 3D noise reduction

Long Operation Lifespan

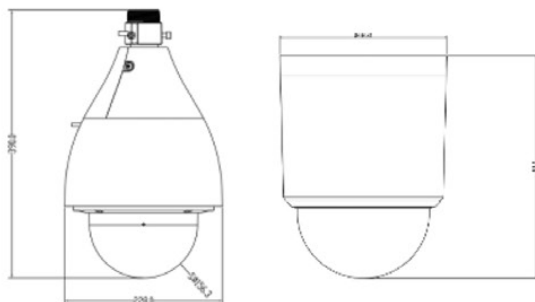
- Industrial components, withstand operation temperature of -40°C ~ 70°C
- IP66, TVS 6000V lightning protection, surge protection and voltage transient protection

Abundant Functions and Features

- SD card slot, support Automatic Network Replenishment (ANR)
- Dual streams (960p+D1)
- Bi-directional audio / alarm in&out

Dimensions

Units: mm



Specifications

	IPC 411-E120-N1
Camera	
Image Sensor	1/3" Progressive Scan CMOS
Pixels	1.3 Megapixel
Min. Illumination	Color: 0.03Lux @ (F1.5, AGC ON) B/W: 0.003Lux @ (F1.5, AGC ON)
Shutter Speed	1/10 ~ 1/10,000S
Day / Night	Auto (ICR) / Color / B/W
Wide Dynamic Range	Digital WDR
S/N Ratio	>52dB
White Balance	Auto / Manual
Gain Control	Auto / Manual
Backlight Compensation	Off / BLC / WDR
Lens	
Focal Length	6 ~ 96mm, 16x
Zoom Speed	Approx 3s (Optical)
Angle of View	56° ~ 3.6° (Wide-Tele)
Min. Object Distance	300 ~ 1000mm (Wide-Tele)
Max. Aperture Ratio	F1.5 (Wide) / F3.6 (Tele)
Focus Control	Auto / Manual / Semi-Automatic
Pan and Tilt	
Pan / Tilt Range	360° Endless / -5° ~ 90°
Pan / Tilt Speed	Pan manual speed: 0.1° ~ 250°/s; Pan preset speed: 450°/s Tilt manual speed: 0.1° ~ 150°/s; Tilt preset speed: 350°/s
Proportional Zoom	Pan / Tilt speed can be adjusted automatically according to zoom multiples
Patrol	8 Patrols scheme, up to 32 presets per patrol
Pattern Scan	4 Scan paths, each path can record 10 minutes of operation path
Power-off Memory	Power-off memory / Power-on recovery
Auto Guard	Patrol / Preset / Pan scan / Tilt scan / Frame scan / Random scan / Panorama scan / Pattern scan
PT Limit	Manual / Scan / Pan
3D Positioning	PTZ control with mouse click and drag
Video	
Compression Format	H.264
Image Resolution	Main stream: 960p Secondary stream: D1
Frame Rate	Main stream: 960p@30fps Secondary stream: D1@30fps
Bitrate	64kbps ~ 8Mbps
Bitrate Control	VBR / CBR
Dual Streams	Support
Caption	Date&Time / Alarm / 3 customized groups (Support up to 64 characters)
Privacy Masking	Up to 4 zones
Motion Detection	Up to 4 zones
Video Freeze	Support
Digital Noise Reduction	3D noise reduction
Image Flip	Flip / Mirror
Audio	
Compression Format	G.711a / G.711u / ADPCM / G.722 / AAC-LC
Bitrate	32kbps ~ 64kbps
Audio Function	Bi-directional audio / AEC / Mixed audio recording / Dumb / Mute
Network	
Network Protocol	TCP/IP, UDP, HTTP, DHCP, DNS/DDNS, RTP/RTCP, RTSP, PPPoE, FTP, VSIP
User Interface	IPC Control Client / Web IPC Control
Max. User Access	10 Users
Application Program	Onvif, GB/T 28181-2011, API
Alarm	
Alarm Triggers	Motion detection / Alarm input
Alarm Events	Alarm caption / Snapshot / External output
Interfaces	
Ethernet	10/100M, RJ45 interface
Audio In / Out	1 x Line in / 1 x Line out
Alarm In / Out	2 x Input / 1 x Output
Memory Slot	SD card slot, support 32GB
Environmental	
Operating Temperature	-40°C ~ 70°C / -40°F ~ 158°F
Operating Humidity	10% ~ 95%
Protection Level	IP66, TVS 6000V lightning protection, surge protection and voltage transient protection
Electrical	
Power	24V AC / 3A (Power adapter included)
Power Consumption	Max. 45W (Heater on)
Mechanical	
Weight	6Kg / 13.2lb (Net Weight)
Dimensions	Φ228 × 390mm / Φ8.98" × 15.35"



IPC421-E020

2.0MP HD 20x Network Speed Dome Camera



Features

Excellent Image Quality

- 2.0 Megapixel 1/2.8" Progressive Scan CMOS Sensor
- High definition and smooth picture, 1080p@30fps
- H.264 high profile video codec, save up to 30% bandwidth and storage
- Low illumination, 0.03Lux with color picture
- WDR support / 3D noise reduction

Long Operation Lifespan

- Industrial components, withstand operation temperature of -40°C ~ 70°C
- IP66, TVS 6000V lightning protection, surge protection and voltage transient protection

Variety of Installation Application

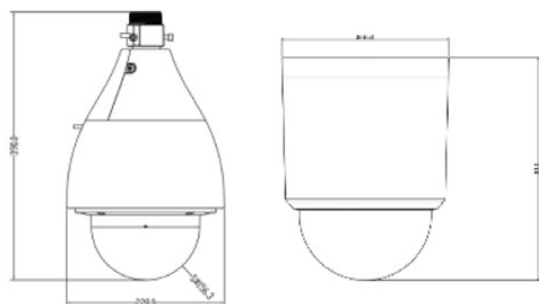
- Indoor ceiling / Indoor recessed / Outdoor

Abundant Functions and Features

- SD card slot, support Automatic Network Replenishment (ANR)
- Dual streams (1080p+D1)
- Bi-directional audio / alarm in&out / video out / RS485

Dimensions

Units: mm



Specifications

	IPC 421-E020(-N0, -N1)
Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Pixels	2.0 Megapixel
Min. Illumination	Color: 0.03Lux @ (F1.6, AGC ON) B/W: 0.003Lux @ (F1.6, AGC ON)
Shutter Speed	1/10 ~ 1/10,000S
Day / Night	Auto (ICR) / Color / B/W
Wide Dynamic Range	Digital WDR
S/N Ratio	>53dB
White Balance	Auto / Manual
Gain Control	Auto / Manual
Backlight Compensation	Off / BLC / WDR
Lens	
Focal Length	4.7 ~ 94mm, 20x
Zoom Speed	Approx 3s (Optical)
Angle of View	55.4° ~ 2.9° (Wide-Tele)
Min. Object Distance	300 ~ 1000mm (Wide-Tele)
Max. Aperture Ratio	F1.6 (Wide) / F3.5 (Tele)
Focus Control	Auto / Manual / Semi-Automatic
Pan and Tilt	
Pan / Tilt Range	360° Endless / -5° ~ 90°
Pan / Tilt Speed	Pan manual speed: 0.1° ~ 250°/s; Pan preset speed: 450°/s Tilt manual speed: 0.1° ~ 150°/s; Tilt preset speed: 350°/s
Proportional Zoom	Pan / Tilt speed can be adjusted automatically according to zoom multiples
Preset	255
Patrol	8 Patrols scheme, up to 32 presets per patrol
Pattern Scan	4 Scan paths, each path can record 10 minutes of operation path
Power-off Memory	Power-off memory / Power-on recovery
Auto Guard	Patrol / Preset / Pan scan / Tilt scan / Frame scan / Random scan / Panorama scan / Pattern scan
PT Limit	Manual / Scan / Pan
3D Positioning	PTZ control with mouse click and drag
Video	
Compression Format	H.264
Image Resolution	Main stream: 1080p Secondary stream: D1
Frame Rate	Main stream: 1080p@30fps Secondary stream: D1@30fps
Bitrate	64kbps ~ 8Mbps
Bitrate Control	VBR / CBR
Dual Streams	Support
Caption	Date&Time / Alarm / 3 customized groups (Support up to 64 characters)
Privacy Masking	Up to 4 zones
Motion Detection	Up to 4 zones
Video Freeze	Support
Digital Noise Reduction	3D noise reduction
Image Flip	Flip / Mirror
Audio	
Compression Format	G.711a / G.711u / ADPCM / G.722 / AAC-LC
Bitrate	32kbps ~ 64kbps
Audio Function	Bi-directional audio / AEC / Mixed audio recording / Dumb / Mute
Network	
Network Protocol	TCP/IP, UDP, HTTP, DHCP, DNS/DDNS, RTP/RTCP, RTSP, PPPoE, FTP, VSIP
User Interface	IPC Control Client / Web IPC Control
Max. User Access	10 Users
Application Program	Onvif, GB/T 28181-2011, API
Alarm	
Alarm Triggers	Motion detection / Alarm input
Alarm Events	Alarm caption / Snapshot / External output
Interfaces	
Ethernet	10/100M, RJ45 interface
Audio In / Out	1 x Line in / 1 x Line out
Control	1 x RS485
Alarm In / Out	4 x Input / 2 x Output
Video Out	1 x BNC, 1.0V [p-p] / 75Ω
Memory Slot	SD card slot, support 32GB
Environmental	
Operating Temperature	-40°C ~ 70°C / -40°F ~ 158°F
Operating Humidity	10% ~ 95%
Protection Level	-N1(Outdoor): IP66, TVS 6000V lightning protection, surge protection and voltage transient protection
Electrical	
Power	24V AC / 3A (Power adapter included)
Power Consumption	Max. 45W (Heater on)
Mechanical	
Weight	-N0(Indoor): 3Kg / 6.6lb (Net Weight) -N1(Outdoor): 6Kg / 13.2lb (Net Weight)
Dimensions	-N0(Indoor): Φ165 × 220mm / Φ6.50" x 8.66" -N1(Outdoor): Φ228 × 390mm / Φ8.98" x 15.35"



IPC421-E120

2.0MP HD 20x Network Speed Dome Camera



Features

Excellent Image Quality

- 2.0 Megapixel 1/2.8" Progressive Scan CMOS Sensor
- High definition and smooth picture, 1080p@30fps
- H.264 high profile video codec, save up to 30% bandwidth and storage
- Low illumination, 0.03Lux with color picture
- WDR support / 3D noise reduction

Long Operation Lifespan

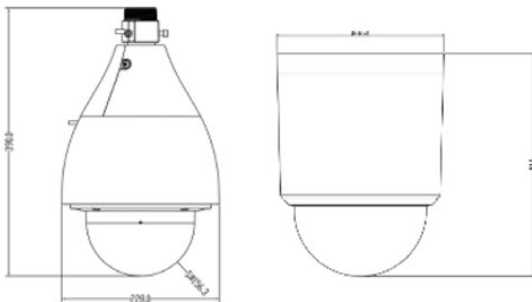
- Industrial components, withstand operation temperature of -40°C ~ 70°C
- IP66, TVS 6000V lightning protection, surge protection and voltage transient protection

Abundant Functions and Features

- SD card slot, support Automatic Network Replenishment (ANR)
- Dual streams (1080p+D1)
- Bi-directional audio / alarm in&out

Dimensions

Units: mm



Specifications

	IPC 421-E120 -N1
Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Pixels	2.0 Megapixel
Min. Illumination	Color: 0.03Lux @ (F1.6, AGC ON) B/W: 0.003Lux @ (F1.6, AGC ON)
Shutter Speed	1/10 ~ 1/10,000S
Day / Night	Auto (ICR) / Color / B/W
Wide Dynamic Range	Digital WDR
S/N Ratio	>53dB
White Balance	Auto / Manual
Gain Control	Auto / Manual
Backlight Compensation	Off / BLC / WDR
Lens	
Focal Length	4.7 ~ 94mm, 20x
Zoom Speed	Approx 3s (Optical)
Angle of View	55.4° ~ 2.9° (Wide-Tele)
Min. Object Distance	300 ~ 1000mm (Wide-Tele)
Max. Aperture Ratio	F1.6 (Wide) / F3.5 (Tele)
Focus Control	Auto / Manual / Semi-Automatic
Pan and Tilt	
Pan / Tilt Range	360° Endless / -5° ~ 90°
Pan / Tilt Speed	Pan manual speed: 0.1° ~ 250°/s; Pan preset speed: 450°/s Tilt manual speed: 0.1° ~ 150°/s; Tilt preset speed: 350°/s
Proportional Zoom Preset	Pan / Tilt speed can be adjusted automatically according to zoom multiples 255
Patrol	8 Patrols scheme, up to 32 presets per patrol
Pattern Scan	4 Scan paths, each path can record 10 minutes of operation path
Power-off Memory	Power-off memory / Power-on recovery
Auto Guard	Patrol / Preset / Pan scan / Tilt scan / Frame scan / Random scan / Panorama scan / Pattern scan
PT Limit	Manual / Scan / Pan
3D Positioning	PTZ control with mouse click and drag
Video	
Compression Format	H.264
Image Resolution	Main stream: 1080p Secondary stream: D1
Frame Rate	Main stream: 1080p@30fps Secondary stream: D1@30fps
Bitrate	64kbps ~ 8Mbps
Bitrate Control	VBR / CBR
Dual Streams	Support
Caption	Date&Time / Alarm / 3 customized groups (Support up to 64 characters)
Privacy Masking	Up to 4 zones
Motion Detection	Up to 4 zones
Video Freeze	Support
Digital Noise Reduction	3D noise reduction
Image Flip	Flip / Mirror
Audio	
Compression Format	G.711a / G.711u / ADPCM / G.722 / AAC-LC
Bitrate	32kbps ~ 64kbps
Audio Function	Bi-directional audio / AEC / Mixed audio recording / Dumb / Mute
Network	
Network Protocol	TCP/IP, UDP, HTTP, DHCP, DNS/DDNS, RTP/RTCP, RTSP, PPPoE, FTP, VSIP
User Interface	IPC Control Client / Web IPC Control
Max. User Access	10 Users
Application Program	Onvif, GB/T 28181-2011, API
Alarm	
Alarm Triggers	Motion detection / Alarm input
Alarm Events	Alarm caption / Snapshot / External output
Interfaces	
Ethernet	10/100M, RJ45 interface
Audio In / Out	1 x Line in / 1 x Line out
Alarm In / Out	2 x Input / 1 x Output
Memory Slot	SD card slot, support 32GB
Environmental	
Operating Temperature	-40°C ~ 70°C / -40°F ~ 158°F
Operating Humidity	10% ~ 95%
Protection Level	IP66, TVS 6000V lightning protection, surge protection and voltage transient protection
Electrical	
Power	24V AC / 3A (Power adapter included)
Power Consumption	Max. 45W (Heater on)
Mechanical	
Weight	6Kg / 13.2lb (Net Weight)
Dimensions	Φ228 × 390mm / Φ8.98" × 15.35"



IPC413-E020

1.3MP HD 20x Network IR Speed Dome Camera



Features

Excellent Image Quality

- 1.3 Megapixel 1/3" Progressive Scan CMOS Sensor
- High definition and smooth picture, 960p@30fps
- H.264 high profile video codec, save up to 30% bandwidth and storage
- Low illumination, 0.05Lux with color picture
- WDR support / IR automatically adjust / 3D noise reduction

Long Operation Lifespan

- Industrial IR LED and components, withstand operation temperature of -40°C ~ 70°C
- IP66, TVS 6000V lightning protection, surge protection and voltage transient protection

Large Scale

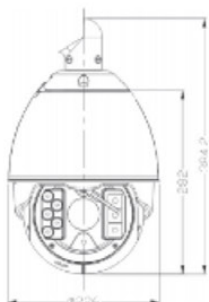
- 20x optical zoom
- IR distance up to 150m

Abundant Functions and Features

- TF card slot, support Automatic Network Replenishment (ANR)
- Dual streams (960p+D1)
- Bi-directional audio / alarm in&out / video out

Dimensions

Units: mm



Specifications

	IPC 413-E020
Camera	
Image Sensor	1/3" Progressive Scan CMOS
Pixels	1.3 Megapixel
Min. Illumination	Color: 0.05Lux @ (F1.6, AGC ON) B/W: 0.005Lux @ (F1.6, AGC ON); 0Lux with IR
Shutter Speed	1 ~ 1/10,000S
Day / Night	Auto (ICR) / Color / B/W
Wide Dynamic Range	Digital WDR
S/N Ratio	>51dB
White Balance	Auto / Manual / Daylight lamp / Sodium lamp
Gain Control	Auto / Manual
Backlight Compensation	Off / BLC / WDR
Digital Zoom	16x
Lens	
Focal Length	4.7 ~ 94mm, 20x
Zoom Speed	Approx 3s (Optical)
Angle of View	55.2° ~ 2.9° (Wide-Tele)
Min. Object Distance	10 ~ 1500mm (Wide-Tele)
Max. Aperture Ratio	F1.4 (Wide) / F3.5 (Tele)
Focus Control	Auto / Manual / Semi-Automatic
Infrared	
IR LED	8pcs IR LED Array
IR Distance	100 ~ 150m
IR Intensity	Automatically adjust according to zoom ratio
Pan and Tilt	
Pan / Tilt Range	360° Endless / -5° ~ 90° (Auto Flip)
Pan / Tilt Speed	Pan manual speed: 0.1° ~ 220°/s; Pan preset speed: 240°/s Tilt manual speed: 0.1° ~ 120°/s; Tilt preset speed: 200°/s
Proportional Zoom	Pan / Tilt speed can be adjusted automatically according to zoom multiples
Preset	256
Patrol	8 Patrols scheme, up to 32 presets per patrol
Power-off Memory	Power-off memory / Power-on recovery
Auto Guard	Patrol / Preset / Pan scan / Tilt scan / Frame scan / Random scan / Panorama scan
PT Limit	Manual / Scan / Pan
3D Positioning	PTZ control with mouse click and drag
Video	
Compression Format	H.264
Image Resolution	Main stream: 960p Secondary stream: D1
Frame Rate	Main stream: 960p@30fps Secondary stream: D1@30fps
Bitrate	64kbps ~ 8Mbps
Bitrate Control	VBR / CBR
Dual Streams	Support
Caption	Date&Time / Alarm / 3 customized groups (Support up to 64 characters)
Privacy Masking	Up to 4 zones
Motion Detection	Up to 4 zones
Video Freeze	Support
Digital Noise Reduction	3D noise reduction
Image Flip	Flip / Mirror
Audio	
Compression Format	G.711a / G.711u / ADPCM / G.722 / AAC-LC
Bitrate	32kbps ~ 64kbps
Audio Function	Bi-directional audio / AEC / Mixed audio recording / Dumb / Mute
Network	
Network Protocol	TCP/IP, UDP, HTTP, DHCP, DNS/DDNS, RTP/RTCP, RTSP, PPPoE, FTP, VSIP
User Interface	IPC Control Client / Web IPC Control
Max. User Access	10 Users
Application Program	Onvif, GB/T 28181-2011, API
Alarm	
Alarm Triggers	Motion detection / Alarm input
Alarm Events	Alarm caption / Snapshot / External output
Interfaces	
Ethernet	10/100M, RJ45 interface
Audio In / Out	1 x Line in / 1 x Line out
Alarm In / Out	4 x Input / 2 x Output
Video Out	1 x BNC, 1.0V [p-p] / 75Ω
Memory Slot	TF card slot, support 32GB
Environmental	
Operating Temperature	-40°C ~ 70°C / -40°F ~ 158°F
Operating Humidity	10% ~ 95%
Protection Level	IP66, TVS 6000V lightning protection, surge protection and voltage transient protection
Electrical	
Power	24V AC / 3A (Power adapter included)
Power Consumption	Max. 40W (IR on)
Mechanical	
Weight	8Kg / 17.6lb (Gross Weight)
Dimensions	Φ226 × 384mm / Φ8.90" × 15.12"



IPC423-E020

2.0MP HD 20x Network IR Speed Dome Camera



Features

Excellent Image Quality

- 2.0 Megapixel 1/2.8" Progressive Scan CMOS Sensor
- High definition and smooth picture, 1080p@30fps
- H.264 high profile video codec, save up to 30% bandwidth and storage
- Low illumination, 0.05Lux with color picture
- WDR support / IR automatically adjust / 3D noise reduction

Long Operation Lifespan

- Industrial IR LED and components, withstand operation temperature of -40°C ~ 70°C
- IP66, TVS 6000V lightning protection, surge protection and voltage transient protection

Large Scale

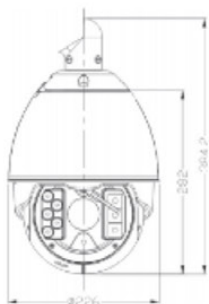
- 20x optical zoom
- IR distance up to 150m

Abundant Functions and Features

- TF card slot, support Automatic Network Replenishment (ANR)
- Dual streams (1080p+D1)
- Bi-directional audio / alarm in&out / video out

Dimensions

Units: mm



Specifications

	IPC 423-E020
Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Pixels	2.0 Megapixel
Min. Illumination	Color: 0.05Lux @ (F1.6, AGC ON) B/W: 0.005Lux @ (F1.6, AGC ON); 0Lux with IR
Shutter Speed	1 ~ 1/10,000S
Day / Night	Auto (ICR) / Color / B/W
Wide Dynamic Range	Digital WDR
S/N Ratio	>58dB
White Balance	Auto / Manual / Daylight lamp / Sodium lamp
Gain Control	Auto / Manual
Backlight Compensation	Off / BLC / WDR
Digital Zoom	16x
Lens	
Focal Length	4.7 ~ 94mm, 20x
Zoom Speed	Approx 3s (Optical)
Angle of View	54.1° ~ 2.9° (Wide-Tele)
Min. Object Distance	10 ~ 1500mm (Wide-Tele)
Max. Aperture Ratio	F1.6 (Wide) / F3.5 (Tele)
Focus Control	Auto / Manual / Semi-Automatic
Infrared	
IR LED	8pcs IR LED Array
IR Distance	100 ~ 150m
IR Intensity	Automatically adjust according to zoom ratio
Pan and Tilt	
Pan / Tilt Range	360° Endless / -5° ~ 90° (Auto Flip)
Pan / Tilt Speed	Pan manual speed: 0.1° ~ 220°/s; Pan preset speed: 240°/s Tilt manual speed: 0.1° ~ 120°/s; Tilt preset speed: 200°/s
Proportional Zoom Preset	Pan / Tilt speed can be adjusted automatically according to zoom multiples 256
Patrol	8 Patrols scheme, up to 32 presets per patrol
Power-off Memory	Power-off memory / Power-on recovery
Auto Guard	Patrol / Preset / Pan scan / Tilt scan / Frame scan / Random scan / Panorama scan
PT Limit	Manual / Scan / Pan
3D Positioning	PTZ control with mouse click and drag
Video	
Compression Format	H.264
Image Resolution	Main stream: 1080p Secondary stream: D1
Frame Rate	Main stream: 1080p@30fps Secondary stream: D1@30fps
Bitrate	64kbps ~ 8Mbps
Bitrate Control	VBR / CBR
Dual Streams	Support
Caption	Date&Time / Alarm / 3 customized groups (Support up to 64 characters)
Privacy Masking	Up to 4 zones
Motion Detection	Up to 4 zones
Video Freeze	Support
Digital Noise Reduction	3D noise reduction
Image Flip	Flip / Mirror
Audio	
Compression Format	G.711a / G.711u / ADPCM / G.722 / AAC-LC
Bitrate	32kbps ~ 64kbps
Audio Function	Bi-directional audio / AEC / Mixed audio recording / Dumb / Mute
Network	
Network Protocol	TCP/IP, UDP, HTTP, DHCP, DNS/DDNS, RTP/RTCP, RTSP, PPPoE, FTP, VSIP
User Interface	IPC Control Client / Web IPC Control
Max. User Access	10 Users
Application Programming	Onvif, GB/T 28181-2011, API
Alarm	
Alarm Triggers	Motion detection / Alarm input
Alarm Events	Alarm caption / Snapshot / External output
Interfaces	
Ethernet	10/100M, RJ45 interface
Audio In / Out	1 x Line in / 1 x Line out
Alarm In / Out	4 x Input / 2 x Output
Video Out	1 x BNC, 1.0V [p-p] / 75Ω
Memory Slot	TF card slot, support 32GB
Environmental	
Operating Temperature	-40°C ~ 70°C / -40°F ~ 158°F
Operating Humidity	10% ~ 95%
Protection Level	IP66, TVS 6000V lightning protection, surge protection and voltage transient protection
Electrical	
Power	24V AC / 3A (Power adapter included)
Power Consumption	Max. 40W (IR on)
Mechanical	
Weight	8Kg / 17.6lb (Gross Weight)
Dimensions	Φ226 × 384mm / Φ8.90" x 15.12"



IPC423-C030

2.0MP HD 30x Network IR Speed Dome Camera



Features

Excellent Image Quality

- 2.0 Megapixel 1/3" Progressive Scan CMOS Sensor
- High definition and smooth picture, 1080p@30fps
- H.264 high profile video codec, save up to 30% bandwidth and storage
- Low illumination, 0.05Lux with color picture
- WDR support / IR automatically adjust / 3D noise reduction

Long Operation Lifespan

- Industrial IR LED and components, withstand operation temperature of -40°C ~ 70°C
- IP66, TVS 6000V lightning protection, surge protection and voltage transient protection

Large Scale

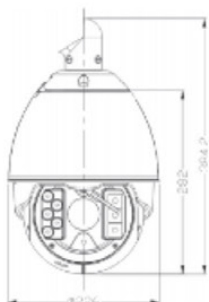
- 30x optical zoom
- IR distance up to 150m

Abundant Functions and Features

- TF card slot, support Automatic Network Replenishment (ANR)
- Dual streams (1080p+D1)
- Bi-directional audio / alarm in&out / video out

Dimensions

Units: mm



Specifications

	IPC 423-C030
Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Pixels	2.0 Megapixel
Min. Illumination	Color: 0.05Lux @ (F1.6, AGC ON) B/W: 0.005Lux @ (F1.6, AGC ON); 0Lux with IR
Shutter Speed	1 ~ 1/10,000S
Day / Night	Auto (ICR) / Color / B/W
Wide Dynamic Range	Digital WDR
S/N Ratio	>58dB
White Balance	Auto / Manual / Daylight lamp / Sodium lamp
Gain Control	Auto / Manual
Backlight Compensation	Off / BLC / WDR
Digital Zoom	16x
Lens	
Focal Length	4.3 ~ 129mm, 30x
Zoom Speed	Approx 3s (Optical)
Angle of View	65° ~ 2.1° (Wide-Tele)
Min. Object Distance	10 ~ 1500mm (Wide-Tele)
Max. Aperture Ratio	F1.6 (Wide) / F5.0 (Tele)
Focus Control	Auto / Manual / Semi-Automatic
Infrared	
IR LED	8pcs IR LED Array
IR Distance	100 ~ 150m
IR Intensity	Automatically adjust according to zoom ratio
Pan and Tilt	
Pan / Tilt Range	360° Endless / -5° ~ 90° (Auto Flip)
Pan / Tilt Speed	Pan manual speed: 0.1° ~ 220°/s; Pan preset speed: 240°/s Tilt manual speed: 0.1° ~ 120°/s; Tilt preset speed: 200°/s
Proportional Zoom Preset	Pan / Tilt speed can be adjusted automatically according to zoom multiples 256
Patrol	8 Patrols scheme, up to 32 presets per patrol
Power-off Memory	Power-off memory / Power-on recovery
Auto Guard	Patrol / Preset / Pan scan / Tilt scan / Frame scan / Random scan / Panorama scan
PT Limit	Manual / Scan / Pan
3D Positioning	PTZ control with mouse click and drag
Video	
Compression Format	H.264
Image Resolution	Main stream: 1080p Secondary stream: D1
Frame Rate	Main stream: 1080p@30fps Secondary stream: D1@30fps
Bitrate	64kbps ~ 8Mbps
Bitrate Control	VBR / CBR
Dual Streams	Support
Caption	Date&Time / Alarm / 3 customized groups (Support up to 64 characters)
Privacy Masking	Up to 4 zones
Motion Detection	Up to 4 zones
Video Freeze	Support
Digital Noise Reduction	3D noise reduction
Image Flip	Flip / Mirror
Audio	
Compression Format	G.711a / G.711u / ADPCM / G.722 / AAC-LC
Bitrate	32kbps ~ 64kbps
Audio Function	Bi-directional audio / AEC / Mixed audio recording / Dumb / Mute
Network	
Network Protocol	TCP/IP, UDP, HTTP, DHCP, DNS/DDNS, RTP/RTCP, RTSP, PPPoE, FTP, VSIP
User Interface	IPC Control Client / Web IPC Control
Max. User Access	10 Users
Application Program	Onvif, GB/T 28181-2011, API
Alarm	
Alarm Triggers	Motion detection / Alarm input
Alarm Events	Alarm caption / Snapshot / External output
Interfaces	
Ethernet	10/100M, RJ45 interface
Audio In / Out	1 x Line in / 1 x Line out
Alarm In / Out	4 x Input / 2 x Output
Video Out	1 x BNC, 1.0V [p-p] / 75Ω
Memory Slot	TF card slot, support 32GB
Environmental	
Operating Temperature	-40°C ~ 70°C / -40°F ~ 158°F
Operating Humidity	10% ~ 95%
Protection Level	IP66, TVS 6000V lightning protection, surge protection and voltage transient protection
Electrical	
Power	24V AC / 3A (Power adapter included)
Power Consumption	Max. 40W (IR on)
Mechanical	
Weight	8Kg / 17.6lb (Gross Weight)
Dimensions	Φ226 × 384mm / Φ8.90" × 15.12"



IPC415-E120-N

1.3MP HD 16x Network IR Speed Dome Camera



Features

Excellent Image Quality

- 1.3 Megapixel 1/3" Progressive Scan CMOS Sensor
- High definition and smooth picture, 960p@30fps
- H.264 high profile video codec, save up to 30% bandwidth and storage
- Low illumination, 0.05Lux with color picture
- WDR support / IR automatically adjust / 3D noise reduction

Long Operation Lifespan

- Industrial IR LED and components, withstand operation temperature of -40°C ~ 70°C
- IP66, TVS 6000V lightning protection, surge protection and voltage transient protection

Large Scale

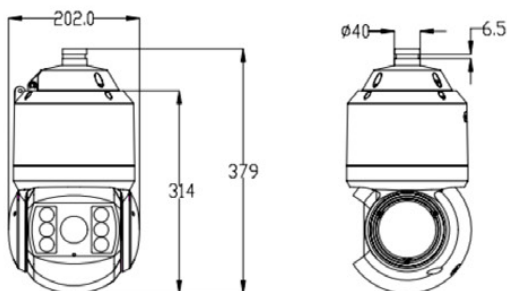
- 16x optical zoom
- IR distance up to 150m

Abundant Functions and Features

- SD card slot, support Automatic Network Replenishment (ANR)
- Dual streams (960p+D1)
- Bi-directional audio / alarm in&out

Dimensions

Units: mm



Specifications

IPC 415-E120-N	
Camera	
Image Sensor	1/3" Progressive Scan CMOS
Pixels	1.3 Megapixel
Min. Illumination	Color: 0.05Lux @ (F1.5, AGC ON) B/W: 0.005Lux @ (F1.5, AGC ON); 0Lux with IR
Shutter Speed	1/10 ~ 1/10,000S
Day / Night	Auto (ICR) / Color / B/W
Wide Dynamic Range	Digital WDR
S/N Ratio	>55dB
White Balance	Auto / Manual
Gain Control	Auto / Manual
Backlight Compensation	Off / BLC / WDR
Lens	
Focal Length	6 ~ 96mm, 16x
Zoom Speed	Approx 3s (Optical)
Angle of View	56° ~ 3.6° (Wide~Tele)
Min. Object Distance	300 ~ 1000mm (Wide~Tele)
Max. Aperture Ratio	F1.5 (Wide) / F3.6 (Tele)
Focus Control	Auto / Manual / Semi-Automatic
Infrared	
IR LED	6pcs IR LED Array
IR Distance	100 ~ 150m
IR Intensity	Automatically adjust according to zoom ratio
Pan and Tilt	
Pan / Tilt Range	360° Endless / -20° ~ 90° (Auto Flip)
Pan / Tilt Speed	Pan manual speed: 0.1° ~ 175°/s; Pan preset speed: 193°/s Tilt manual speed: 0.1° ~ 130°/s; Tilt preset speed: 160°/s
Proportional Zoom Preset	Pan / Tilt speed can be adjusted automatically according to zoom multiples 255
Patrol	8 Patrols scheme, up to 32 presets per patrol
Power-off Memory	Power-off memory / Power-on recovery
Auto Guard	Patrol / Preset / Pan scan / Tilt scan / Frame scan / Random scan / Panorama scan
PT Limit	Manual / Scan / Pan
3D Positioning	PTZ control with mouse click and drag
Video	
Compression Format	H.264
Image Resolution	Main stream: 960p Secondary stream: D1
Frame Rate	Main stream: 960p@30fps Secondary stream: D1@30fps
Bitrate	64kbps ~ 8Mbps
Bitrate Control	VBR / CBR
Dual Streams	Support
Caption	Date&Time / Alarm / 3 customized groups (Support up to 64 characters)
Privacy Masking	Up to 4 zones
Motion Detection	Up to 4 zones
Video Freeze	Support
Digital Noise Reduction	3D noise reduction
Image Flip	Flip / Mirror
Audio	
Compression Format	G.711a / G.711u / ADPCM / G.722 / AAC-LC
Bitrate	32kbps ~ 64kbps
Audio Function	Bi-directional audio / AEC / Mixed audio recording / Dumb / Mute
Network	
Network Protocol	TCP/IP, UDP, HTTP, DHCP, DNS/DDNS, RTP/RTCP, RTSP, PPPoE, FTP, VSIP
User Interface	IPC Control Client / Web IPC Control
Max. User Access	10 Users
Application Program	Onvif, GB/T 28181-2011, API
Alarm	
Alarm Triggers	Motion detection / Alarm input
Alarm Events	Alarm caption / Snapshot / External output
Interfaces	
Ethernet	10/100M, RJ45 interface
Audio In / Out	1 x Line in / 1 x Line out
Alarm In / Out	2 x Input / 1 x Output
Memory Slot	SD card slot, support 32GB
Environmental	
Operating Temperature	-40°C ~ 70°C / -40°F ~ 158°F
Operating Humidity	10% ~ 95%
Protection Level	IP66, TVS 6000V lightning protection, surge protection and voltage transient protection
Electrical	
Power	24V AC / 3A (Power adapter included)
Power Consumption	Max. 45W (IR on)
Mechanical	
Weight	8Kg / 17.6lb (Gross Weight)
Dimensions	Φ202 × 379mm / Φ7.95" × 14.92"



IPC425-E120-N

2.0MP HD 20x Network IR Speed Dome Camera



Features

Excellent Image Quality

- 2.0 Megapixel 1/2.8" Progressive Scan CMOS Sensor
- High definition and smooth picture, 1080p@30fps
- H.264 high profile video codec, save up to 30% bandwidth and storage
- Low illumination, 0.05Lux with color picture
- WDR support / IR automatically adjust / 3D noise reduction

Long Operation Lifespan

- Industrial IR LED and components, withstand operation temperature of -40°C ~ 70°C
- IP66, TVS 6000V lightning protection, surge protection and voltage transient protection

Large Scale

- 20x optical zoom
- IR distance up to 150m

Abundant Functions and Features

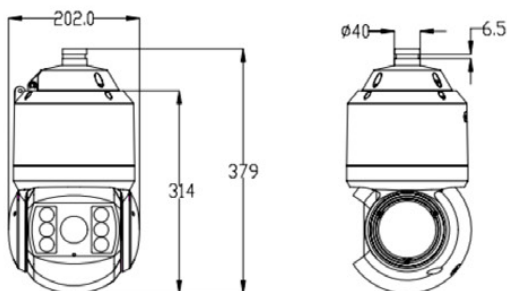
- SD card slot, support Automatic Network Replenishment (ANR)
- Dual streams (1080p+D1)
- Bi-directional audio / alarm in&out

Specifications

IPC 425-E120-N	
Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Pixels	2.0 Megapixel
Min. Illumination	Color: 0.05Lux @ (F1.6, AGC ON) B/W: 0.005Lux @ (F1.6, AGC ON); 0Lux with IR
Shutter Speed	1/10 ~ 1/10,000S
Day / Night	Auto (ICR) / Color / B/W
Wide Dynamic Range	Digital WDR
S/N Ratio	>55dB
White Balance	Auto / Manual
Gain Control	Auto / Manual
Backlight Compensation	Off / BLC / WDR
Lens	
Focal Length	4.7 ~ 94mm, 20x
Zoom Speed	Approx 3s (Optical)
Angle of View	55.4° ~ 2.9° (Wide~Tele)
Min. Object Distance	300 ~ 1000mm (Wide~Tele)
Max. Aperture Ratio	F1.6 (Wide) / F3.5 (Tele)
Focus Control	Auto / Manual / Semi-Automatic
Infrared	
IR LED	6pcs IR LED Array
IR Distance	100 ~ 150m
IR Intensity	Automatically adjust according to zoom ratio
Pan and Tilt	
Pan / Tilt Range	360° Endless / -20° ~ 90° (Auto Flip)
Pan / Tilt Speed	Pan manual speed: 0.1° ~ 175°/s; Pan preset speed: 193°/s Tilt manual speed: 0.1° ~ 130°/s; Tilt preset speed: 160°/s
Proportional Zoom	Pan / Tilt speed can be adjusted automatically according to zoom multiples
Preset	255
Patrol	8 Patrols scheme, up to 32 presets per patrol
Power-off Memory	Power-off memory / Power-on recovery
Auto Guard	Patrol / Preset / Pan scan / Tilt scan / Frame scan / Random scan / Panorama scan
PT Limit	Manual / Scan / Pan
3D Positioning	PTZ control with mouse click and drag
Video	
Compression Format	H.264
Image Resolution	Main stream: 1080p Secondary stream: D1
Frame Rate	Main stream: 1080p@30fps Secondary stream: D1@30fps
Bitrate	64kbps ~ 8Mbps
Bitrate Control	VBR / CBR
Dual Streams	Support
Caption	Date&Time / Alarm / 3 customized groups (Support up to 64 characters)
Privacy Masking	Up to 4 zones
Motion Detection	Up to 4 zones
Video Freeze	Support
Digital Noise Reduction	3D noise reduction
Image Flip	Flip / Mirror
Audio	
Compression Format	G.711a / G.711u / ADPCM / G.722 / AAC-LC
Bitrate	32kbps ~ 64kbps
Audio Function	Bi-directional audio / AEC / Mixed audio recording / Dumb / Mute
Network	
Network Protocol	TCP/IP, UDP, HTTP, DHCP, DNS/DDNS, RTP/RTCP, RTSP, PPPoE, FTP, VSIP
User Interface	IPC Control Client / Web IPC Control
Max. User Access	10 Users
Application Programming	Onvif, GB/T 28181-2011, API
Alarm	
Alarm Triggers	Motion detection / Alarm input
Alarm Events	Alarm caption / Snapshot / External output
Interfaces	
Ethernet	10/100M, RJ45 interface
Audio In / Out	1 x Line in / 1 x Line out
Alarm In / Out	2 x Input / 1 x Output
Memory Slot	SD card slot, support 32GB
Environmental	
Operating Temperature	-40°C ~ 70°C / -40°F ~ 158°F
Operating Humidity	10% ~ 95%
Protection Level	IP66, TVS 6000V lightning protection, surge protection and voltage transient protection
Electrical	
Power	24V AC / 3A (Power adapter included)
Power Consumption	Max. 45W (IR on)
Mechanical	
Weight	8Kg / 17.6lb (Gross Weight)
Dimensions	Φ202 × 379mm / Φ7.95" × 14.92"

Dimensions

Units: mm





IPC425-E130-N

2.0MP HD 30x Network IR Speed Dome Camera



Features

Excellent Image Quality

- 2.0 Megapixel 1/2.8" Progressive Scan CMOS Sensor
- High definition and smooth picture, 1080p@30fps
- H.264 high profile video codec, save up to 30% bandwidth and storage
- Low illumination, 0.05Lux with color picture
- WDR support / IR automatically adjust / 3D noise reduction

Long Operation Lifespan

- Industrial IR LED and components, withstand operation temperature of -40°C ~ 70°C
- IP66, TVS 6000V lightning protection, surge protection and voltage transient protection

Large Scale

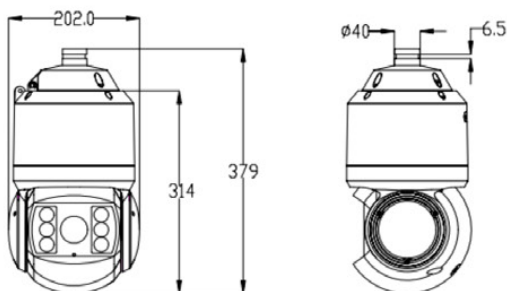
- 30x optical zoom
- IR distance up to 180m

Abundant Functions and Features

- SD card slot, support Automatic Network Replenishment (ANR)
- Dual streams (1080p+D1)
- Bi-directional audio / alarm in&out / video out / RS485
- Wiper

Dimensions

Units: mm



Specifications

	IPC 425-E130-N
Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Pixels	2.0 Megapixel
Min. Illumination	Color: 0.05Lux @ (F1.4, AGC ON) B/W: 0.005Lux @ (F1.4, AGC ON); 0Lux with IR
Shutter Speed	1/10 ~ 1/10,000S
Day / Night	Auto (ICR) / Color / B/W
Wide Dynamic Range	Digital WDR
S/N Ratio	>55dB
White Balance	Auto / Manual
Gain Control	Auto / Manual
Backlight Compensation	Off / BLC / WDR
Lens	
Focal Length	4.3 ~ 129mm, 30x
Zoom Speed	Approx 3s (Optical)
Angle of View	58.9°~ 2.1° (Wide~Tele)
Min. Object Distance	300 ~ 1500mm (Wide~Tele)
Max. Aperture Ratio	F1.4 (Wide) / F4.6 (Tele)
Focus Control	Auto / Manual / Semi-Automatic
Infrared	
IR LED	12pcs IR LED Array
IR Distance	120 ~ 180m
IR Intensity	Automatically adjust according to zoom ratio
Pan and Tilt	
Pan / Tilt Range	360° Endless / -20° ~ 90° (Auto Flip) Pan manual speed: 0.1° ~ 200°/s; Pan preset speed: 220°/s
Pan / Tilt Speed	Tilt manual speed: 0.1° ~ 150°/s; Tilt preset speed: 200°/s
Proportional Zoom Preset	Pan / Tilt speed can be adjusted automatically according to zoom multiples 255
Patrol	8 Patrols scheme, up to 32 presets per patrol
Power-off Memory	Power-off memory / Power-on recovery
Auto Guard	Patrol / Preset / Pan scan / Tilt scan / Frame scan / Random scan / Panorama scan
PT Limit	Manual / Scan / Pan
3D Positioning	PTZ control with mouse click and drag
Wiper	Support
Video	
Compression Format	H.264
Image Resolution	Main stream: 1080p Secondary stream: D1
Frame Rate	Main stream: 1080p@30fps Secondary stream: D1@30fps
Bitrate	64kbps ~ 8Mbps
Bitrate Control	VBR / CBR
Dual Streams	Support
Caption	Date&Time / Alarm / 3 customized groups (Support up to 64 characters)
Privacy Masking	Up to 4 zones
Motion Detection	Up to 4 zones
Video Freeze	Support
Digital Noise Reduction	3D noise reduction
Image Flip	Flip / Mirror
Audio	
Compression Format	G.711a / G.711u / ADPCM / G.722 / AAC-LC
Bitrate	32kbps ~ 64kbps
Audio Function	Bi-directional audio / AEC / Mixed audio recording / Dumb / Mute
Network	
Network Protocol	TCP/IP, UDP, HTTP, DHCP, DNS/DDNS, RTP/RTCP, RTSP, PPPoE, FTP, VSIP
User Interface	IPC Control Client / Web IPC Control
Max. User Access	10 Users
Application Programming	Onvif, GB/T 28181-2011, API
Alarm	
Alarm Triggers	Motion detection / Alarm input
Alarm Events	Alarm caption / Snapshot / External output
Interfaces	
Ethernet	10/100M, RJ45 interface
Audio In / Out	1 x Line in / 1 x Line out
Control	1 x RS485
Alarm In / Out	4 x Input / 2 x Output
Video Out	1 x BNC, 1.0V [p-p] / 75Ω
Memory Slot	SD card slot, support 32GB
Environmental	
Operating Temperature	-40°C ~ 70°C / -40°F ~ 158°F
Operating Humidity	10% ~ 95%
Protection Level	IP66, TVS 6000V lightning protection, surge protection and voltage transient protection
Electrical	
Power	24V AC / 3A (Power adapter included)
Power Consumption	Max. 50W (IR on)
Mechanical	
Weight	8Kg / 17.6lb (Gross Weight)
Dimensions	Φ202 × 379mm / Φ7.95" × 14.92"



IPC425-E130-NL

2.0MP HD 30x Network IR Speed Dome Camera



Features

Excellent Image Quality

- 2.0 Megapixel 1/2.8" Progressive Scan CMOS Sensor
- High definition and smooth picture, 1080p@30fps
- H.264 high profile video codec, save up to 30% bandwidth and storage
- Low illumination, 0.05Lux with color picture
- WDR support / Laser automatically adjust / 3D noise reduction

Long Operation Lifespan

- Industrial IR LED and components, withstand operation temperature of -40°C ~ 70°C
- IP66, TVS 6000V lightning protection, surge protection and voltage transient protection

Large Scale

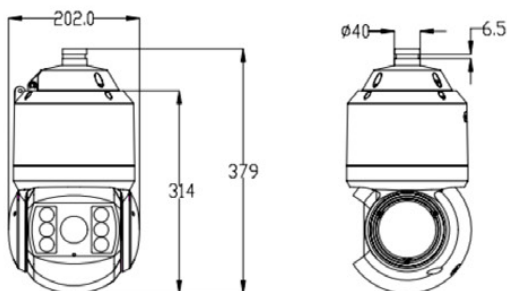
- 30x optical zoom
- Laser distance up to 300m

Abundant Functions and Features

- SD card slot, support Automatic Network Replenishment (ANR)
- Dual streams (1080p+D1)
- Bi-directional audio / alarm in&out / video out / RS485
- Wiper

Dimensions

Units: mm



Specifications

IPC 425-E130-NL	
Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Pixels	2.0 Megapixel
Min. Illumination	Color: 0.05Lux @ (F1.4, AGC ON) B/W: 0.005Lux @ (F1.4, AGC ON); 0Lux with IR
Shutter Speed	1/10 ~ 1/10,000S
Day / Night	Auto (ICR) / Color / B/W
Wide Dynamic Range	Digital WDR
S/N Ratio	>55dB
White Balance	Auto / Manual
Gain Control	Auto / Manual
Backlight Compensation	Off / BLC / WDR
Lens	
Focal Length	4.3 ~ 129mm, 30x
Zoom Speed	Approx 3s (Optical)
Angle of View	58.9° ~ 2.1° (Wide~Tele)
Min. Object Distance	300 ~ 1500mm (Wide~Tele)
Max. Aperture Ratio	F1.4 (Wide) / F4.6 (Tele)
Focus Control	Auto / Manual / Semi-Automatic
Laser	
Laser Distance	Max. 300m
Laser Intensity	Automatically adjust according to zoom ratio
Pan and Tilt	
Pan / Tilt Range	360° Endless / -20° ~ 90° (Auto Flip)
Pan / Tilt Speed	Pan manual speed: 0.1° ~ 200°/s; Pan preset speed: 220°/s Tilt manual speed: 0.1° ~ 150°/s; Tilt preset speed: 200°/s
Proportional Zoom	Pan / Tilt speed can be adjusted automatically according to zoom multiples
Pre-set	256
Patrol	8 Patrols scheme, up to 32 presets per patrol
Power-off Memory	Power-off memory / Power-on recovery
Auto Guard	Patrol / Pre-set / Pan scan / Tilt scan / Frame scan / Random scan / Panorama scan
PT Limit	Manual / Scan / Pan
3D Positioning	PTZ control with mouse click and drag
Wiper	Support
Video	
Compression Format	H.264
Image Resolution	Main stream: 1080p Secondary stream: D1
Frame Rate	Main stream: 1080p@30fps Secondary stream: D1@30fps
Bitrate	64kbps ~ 8Mbps
Bitrate Control	VBR / CBR
Dual Streams	Support
Caption	Date&Time / Alarm / 3 customized groups (Support up to 64 characters)
Privacy Masking	Up to 4 zones
Motion Detection	Up to 4 zones
Video Freeze	Support
Digital Noise Reduction	3D noise reduction
Image Flip	Flip / Mirror
Audio	
Compression Format	G.711a / G.711u / ADPCM / G.722 / AAC-LC
Bitrate	32kbps ~ 64kbps
Audio Function	Bi-directional audio / AEC / Mixed audio recording / Dumb / Mute
Network	
Network Protocol	TCP/IP, UDP, HTTP, DHCP, DNS/DDNS, RTP/RTCP, RTSP, PPPoE, FTP, VSIP
User Interface	IPC Control Client / Web IPC Control
Max. User Access	10 Users
Application Programming	Onvif, GB/T 28181-2011, API
Alarm	
Alarm Triggers	Motion detection / Alarm input
Alarm Events	Alarm caption / Snapshot / External output
Interfaces	
Ethernet	10/100M, RJ45 interface
Audio In / Out	1 x Line in / 1 x Line out
Control	1 x RS485
Alarm In / Out	4 x Input / 2 x Output
Video Out	1 x BNC, 1.0V [p-p] / 75Ω
Memory Slot	SD card slot, support 32GB
Environmental	
Operating Temperature	-40°C ~ 70°C / -40°F ~ 158°F
Operating Humidity	10% ~ 95%
Protection Level	IP66, TVS 6000V lightning protection, surge protection and voltage transient protection
Electrical	
Power	24V AC / 3A (Power adapter included)
Power Consumption	Max. 40W (IR on)
Mechanical	
Weight	8Kg / 17.6lb (Gross Weight)
Dimensions	Φ202 × 379mm / Φ7.95" × 14.92"