# **KBVISION**

### KX-E2011SN2

2MP Covert Pinhole Network Camera-Main Box

Design and specifications are subject to change without notice. Pictures in the document are for reference only, and the actual product shall prevail.



 $\cdot$  Starlight 2MP 1/2.8" CMOS image sensor, excellent low luminance performance and high definition of images.

- $\cdot$  Outputs max. 2MP (1920  $\times$  1080)@25/30 fps.
- $\cdot$  H.265 codec allows high compression ratio and ultra-low bit rate.
- $\cdot$  ROI, SMART H.264 +/H.265+, flexible coding, applicable to various bandwidth and storage environments.

 $\cdot$  Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.

 $\cdot$  Intelligent detection: Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle

and human); abandoned object, missing object, loitering detection, people gathering, and face detection.

 $\cdot$  Abnormality detection: Motion detection, privacy masking, scene changing, audio detection, no SD card, SD card space warning, SD card

- error, network disconnection, IP conflict, illegal access, and voltage detection.
- $\cdot$  Alarm: 2 in, 2 out; audio: 1 in, 1 out; RS-232; max. 256 G Micro SD card.
- $\cdot$  12V DC/PoE power supply facilitates installation.
- $\cdot$  Multiple lens unit optional; require a lens unit to work together

Initial of view L2: Horizontal: 114°; Vertical: 60°; Diagonal: 136°   Iris Control Fixed   Close Focus Distance 2.8 mm: 0.5 m   Lens Detect Observe Recognize Identify								
Nax. Resolution1920 (H) × 1080 (V)No (PerimeterMax. Resolution1920 (H) × 1080 (V)Image: Processive intermeterProtection intermeterRAM512 MBStanning SystemProgressive intermeterProgressive intermeterScanning SystemProgressive intermeterAuto/Maruel 1/3 s-1/10,000 sFace Detection intermeterSignedAuto/Maruel 1/3 s-1/10,000 sSigned intermeterSigned intermeterMin. Illumination0.005 Lux@F2.0 (Color,30 IRE) 0.0005 Lux@F2.0 (B/W,30 IRE)Signed intermeterS/N Ratio> 56 dBSmart SearchVideoLens TypeFixed-focalFixed-focalLens TypeFixed-focalSearchVideoCompressionSmart CodecMax. Aperture2.8 mm: F2.0Field of ViewL1: Horizontal: 105°; Vertical: 58°; Diagonal: 118° L2: Horizontal: 105°; Vertical: 60°; Diagonal: 118° L2: Horizontal: 114°; Vertical: 60°; Diagonal: 118° 	Camera						Intelligence	
Max. Resolution1920 (H) × 1080 (V)Protection)ROM128 MB	Image Sensor	1/2.8" 2 M	egapixel pro	gressive CMO	S		IVS (Perimeter	
RAM512 MBSecond Second Sec	Max. Resolution	1920 (H) ×	1080 (V)					
Scanning SystemProgressiveSecond	ROM	128 MB						
Electronic Shutter SpeedAuto/Manual 1/3 s-1/100,000 sFace Detection Face DetectionMin. Illumination 0.0005 Lux@F2.0 (Color,30 IRE) 0.0005 Lux@F2.0 (B/W,30 IRE)Smart Search Smart SearchS/N Ratio> 56 dBVideoLensFixed-focalVideoLens Type Lens MountFixed-focalVideoM12Smart SearchVideoFocal Length Scal Length2.8 mm: F2.0Smart SearchField of ViewL1: Horizontal: 105°; Vertical: 58°; Diagonal: 118° 12: Horizontal: 114°; Vertical: 60°; Diagonal: 118° Stream CapabilStream CapabilIris ControlFixedStream CapabilClose Focus Distance2.8 mm: CUStream CapabilInis ControlFixedDetectObserveRecognizeIdentifyLens (138.1 ft)16.8 m (55.1 ft)8.4 m (27.6 ft)4.2 m (138.6 ft)DORI DistanceLinz.8 mm41.4 m (138.1 ft)16.6 m (55.1 ft)8.3 m (4.1 m	RAM	512 MB						
Electronic Shutter Speed   Auto/Manual 1/3 s=1/100,000 s     Min. Illumination   0.005 Lux@F2.0 (Color,30 IRE)   Second State     S/N Ratio   > 56 dB   Smart Search     Lens   Fixed-focal   Wideo     Lens Mount   M12   Video   Mint Color     Focal Length   2.8 mm   Vitration   Smart Code Compression     Max. Aperture   2.8 mm   Vitration Sole   Stream Code Compression     Field of View   11: Horizontal 105°; V=trical: 58°; Diagonal: 118°   Video Frame R     Close Focus   2.8 mm   Detect   Observe   Recognize   Identify     Long   Detect   Observe   Recognize   Identify     Long   2.4 mm   16.8 m   8.4 m   4.2 m   Bit Rate Control     Long   4.1 m   16.6 m   8.3 m   4.1 m   Bit Rate Control     Long   4.1 m   16.6 m   8.3 m   4.1 m   Mine Minter	Scanning System	Progressive	е				Free Detertion	
Min. Illumination0.0005 Lux@F2.0 (B/W,30 IRE)Smart SearchS/N Ratio> 56 dBSmart SearchLensFixed-focalVideoLens TypeFixed-focalFixed-focalLens MountM12VideoFocal Length2.8 mmSamart SearchKax. Aperture2.8 mm: F2.0Smart SearchField of ViewL1: Horizontal: 105°; Vertical: 58°; Diagonal: 118° L2: Horizontal: 114°; Vertical: 60°; Diagonal: 136°Smart CodecField of ViewL1: Arror Site ComponentiationStream CapabilitiesClose Focus DistanceDetectObserveRecognizeIdentifyLensDetectObserveRecognizeIdentifyL1-2.842.1 m (138.1 ft)16.6 m 		Auto/Man	ual 1/3 s–1/1	100,000 s			Face Detection	
VideoVideoLensFixed-focalLens MountM12Focal Length2.8 mm2.8 mm2.8 mmFocal Length2.8 mm2.8 mm2.8 mm: F2.0Field of ViewL1: Horizontal: 105°; Vertical: 58°; Diagonal: 118° L2: Horizontal: 114°; Vertical: 60°; Diagonal: 136°Field of ViewL1: Horizontal: 114°; Vertical: 60°; Diagonal: 136°Close Focus Distance2.8 mm: 0LensDetectObserveRecognizeIdentifyL1-2.842.1 m (138.1 ft)L2-2.841.4 m (138.1 ft)L2-2.841.4 m (16.6 m)L2-2.841.4 m (16.6 m) <td>Min. Illumination</td> <td>-</td> <td></td> <td>,</td> <td></td> <td></td> <td></td>	Min. Illumination	-		,				
Lens Type Fixed-focal Video Compression Lens Mount M12 Focal Length 2.8 mm Coal Length 2.8 mm Las Momental 2.8 mm Las Max Aperture 2.8 mm FLO Field of View Las Horizontal 105°; Vertical: 58°; Diagonal: 118° Las Horizontal 105°; Vertical: 60°; Diagonal: 118° Las Horizontal 114°; Vertical: 60°; Diagonal: 118° Las Material 114°; Vertical: 60°; Diagonal: 118° Las Material 114°; Vertical: 60°; Diagonal: 118° Las Detect Observe Recognize Identify Las Alas M (138.1 ft) 16.8 m 8.4 m 4.2 m (13.8 ft) Las Alas M (138.1 ft) 16.6 m 8.3 m (13.8 ft) Las M (138.1 ft) 16.6 m 8.3 m (13.8 ft) Las M (138.1 ft) 16.6 m 8.3 m (13.8 ft) (13.8 ft) Las M (138.1 ft) 16.6 m 8.3 m (13.8 ft) (13.8 ft) Las M (138.1 ft) 16.6 m 8.3 m (13.8 ft) (13.8 ft) Las M (138.1 ft) 16.6 m 8.3 m (13.8 ft) (13.8 ft) Las M (138.1 ft) 16.6 m 8.3 m (13.8 ft) (13.8 ft) Las M (138.1 ft) 16.6 m 8.3 m (13.8 ft) (13.8 ft) Las M (138.1 ft) 16.6 m 8.3 m (13.8 ft) (13.8 ft) (13.8 ft) Las M (138.1 ft) 16.6 m 8.3 m (13.8 ft) (1	S/N Ratio	> 56 dB					Smart Search	
Lens MountM12VideoFocal Length2.8 mm2.8 mmSmart CodecMax. Aperture2.8 mm: F2.0Smart CodecField of ViewL1: Horizontal: 105°; Vertical: 58°; Diagonal: 118° L2: Horizontal: 114°; Vertical: 60°; Diagonal: 136°Video Frame RIris ControlFixedStream CapabilClose Focus Distance2.8 mm: 0Stream CapabilLensDetectObserveRecognizeIdentifyL1-2.842.1 m16.8 m8.4 m4.2 mL2-2.841.4 m16.6 m8.3 m4.1 mL2-2.841.4 m16.6 m8.3 m4.1 mL2-2.841.4 m16.6 m8.3 m4.1 m	Lens						Video	
Focal Length2.8 mmSmart CodecMax. Aperture2.8 mm: F2.0Smart CodecField of ViewL1: Horizontal: 105°; Vertical: 58°; Diagonal: 118° L2: Horizontal: 114°; Vertical: 60°; Diagonal: 136°Video Frame RIris ControlFixedStream CapabilClose Focus Distance2.8 mm: 0.5 mRecognizeIdentifyLensDetectObserveRecognizeIdentifyDORI DistanceL1-2.8 mm42.1 m (138.1 ft)16.8 m (55.1 ft)8.4 m (27.6 ft)4.2 m (13.8 ft)DORI DistanceL2-2.8 (41.4 m)41.4 m (55.1 ft)16.6 m (50.0 ft)8.1 m (13.8 ft)Bit Rate Control Video Bit Rate	Lens Type	Fixed-focal	l				Video	
Max. Aperture   2.8 mm: F2.0   Video Frame R.     Field of View   L1: Horizontal: 105°; Vertical: 58°; Diagonal: 118° L2: Horizontal: 114°; Vertical: 60°; Diagonal: 136°   Video Frame R.     Iris Control   Fixed   Stream Capabil     Close Focus Distance   2.8 mm: 0.5 m   Recognize   Identify     Lens   Detect   Observe   Recognize   Identify     DORI Distance   L1-2.8   42.1 m   16.8 m   8.4 m   4.2 m     L2-2.8   41.4 m   16.6 m   8.3 m   4.1 m	Lens Mount	M12					Compression	
Field of ViewL1: Horizontal: 105°; Vertical: 58°; Diagonal: 118° L2: Horizontal: 114°; Vertical: 60°; Diagonal: 136°Video Frame RIris ControlFixedStream Capabil ResolutionClose Focus Distance $2.8 \text{ mm}: 0.5 $	Focal Length	2.8 mm					Smart Codec	
Field of View   L2: Horizontal: 114°; Vertical: 60°; Diagonal: 136°   Stream Capabil     Iris Control   Fixed   Stream Capabil     Close Focus   2.8 mm: 0.5 m   Resolution     Distance   Lens   Detect   Observe   Recognize   Identify     Bit Rate Control   L1-2.8   42.1 m   16.8 m   8.4 m   4.2 m     DORI Distance   L2-2.8   41.4 m   16.6 m   8.3 m   4.1 m	Max. Aperture	2.8 mm: F2	2.0					
Close Focus Distance     2.8 mm: 0.5 m     Recognize     Identify     Resolution       Lens     Detect     Observe     Recognize     Identify     Bit Rate Control       DORI Distance     L1-2.8     42.1 m     16.8 m     8.4 m     4.2 m       L2-2.8     41.4 m     16.6 m     8.3 m     4.1 m	Field of View		,	,	0		Video Frame Rate	
Distance     2.8 mm: 0.5 m     Resolution       Distance     Lens     Detect     Observe     Recognize     Identify       DORI Distance     L1-2.8     42.1 m     16.8 m     8.4 m     4.2 m       L2-2.8     41.4 m     16.6 m     8.3 m     4.1 m       L2-2.8     41.4 m     16.6 m     8.3 m     4.1 m	Iris Control	Fixed					Stream Capability	
DORI Distance     L1-2.8 mm     42.1 m (138.1 ft)     16.8 m (55.1 ft)     8.4 m (27.6 ft)     4.2 m (13.8 ft)     Bit Rate Control       L2-2.8     41.4 m (25.5 ft)     16.6 m (27.6 ft)     8.3 m (27.6 ft)     4.1 m (27.5 ft)     Video Bit Rate							Resolution	
DORI Distance     mm     (138.1 ft)     16.8 m     8.4 m     4.2 m       L2-2.8     41.4 m     16.6 m     8.3 m     4.1 m     Video Bit Rate       (435.0 ft)     (45.5 ft)     (50.0 ft)     (13.8 ft)     Video Bit Rate		Lens	Detect	Observe	Recognize	Identify		
L2-2.8 41.4 m 16.6 m 8.3 m 4.1 m Video Bit Rate	DORI Distance	L1-2.8			•••••		Bit Rate Control	
			. ,	. ,	, ,	. ,	Video Bit Rate	
Day/Night							Dov/Night	
			(_00.0.10)	(	(- 5.0 )	(_0.0)		

Intelligence				
IVS (Perimeter Protection)	Tripwire, intrusion, fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection, people gathering, and parking detection			
Face Detection	Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attribute extraction including 6 attributes (gender, age, glasses, expressions, mask and beard) and 8 expressions (anger, calm, happiness, sadness, disgust, surprise, confusion and fear); face snapshot set as face or one-inch photo; 3 snapshot strategies (real-time snapshot, optimization snapshot, and quality priority); face angle filter; optimization time setting			
Smart Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos			
Video				
Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)			
Smart Codec	Smart H.265+ Smart H.264+			
Video Frame Rate	Main stream: 1920 × 1080 @25/30 fps Sub stream: 704 × 576 @25 fps; 704 × 480 @30 fps Third stream: 1920 × 1080 @25/30 fps			
Stream Capability	3 streams			
Resolution	1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)			
Bit Rate Control	CBR/VBR			
Video Bit Rate	H.264: 3 kbps–20480 kbps H.265: 3 kbps–20480 kbps			
Day/Night	Color/B/W			
BLC	Yes			
HLC	Yes			

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### 2MP Covert Pinhole Network Camera-Main Box

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WDR	120 dB
Scene Self- adaptation	Yes
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Manual; auto
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Defog	Yes
Image Rotation	$0^{\circ}/90^{\circ}/180^{\circ}/270^{\circ}$ (support $90^{\circ}/270^{\circ}$ with 1080p resolution and lower)
Mirror	Yes
Privacy Masking	4 areas
Audio	
Audio Compression	G.711a; G.711Mu; PCM; G.726; G.723
Alarm	
Alarm Event	No SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, motion detection, video tampering, tripwire, intrusion, fast moving, missing object, abandoned object, parking detection, loitering detection, people gathering; scene changing, audio detection, voltage detection, external alarm, face detection , and security exception.
Network	
Network Port	RJ-45 (10/100 Base-T)
SDK and API	Yes
Network Protocol	IPv4; IPv6; HTTP;TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec
User/Host	20 (Total bandwidth: 64 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE: IE8, IE9, and IE11 Chrome Firefox
Management Software	KBiVMS, KBView Plus
Mobile Client	IOS; Android
Mobile Client	
Cyber Security	Video encryption; Firmware encryption; Configuration encryption; Digest; WSSE; Account lockout; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted execution; Trusted upgrade
	encryption; Digest; WSSE; Account lockout; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted
Cyber Security	encryption; Digest; WSSE; Account lockout; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted

Alarm Input	2 channels in: 5 mA 3V–5V DC		
Alarm Output	2 channels out: 1,000 mA 30V DC/500 mA 50V DC		
Power			
Power Supply	12V DC/PoE(802.3af)		
Power Consumption	Basic: 2.3W (12V DC); 2.8W (PoE) Max. (Intelligence + WDR): 3.7W (12V DC); 4.5W (PoE)		
Environment			
Operating Temperature	-40°C to +60°C (-40°F to 140°F)		
Operating Humidity	≤95%		
Storage Temperature	-40°C to +60°C (-40°F to 140°F)		
Protection	IP66 (L3)		
Structure			
Casing	Metal		
Product Dimensions	Main: 110 mm × 83 mm × 24 mm (4.33" × 3.27" × 0.94") L1: Φ30.5 mm × 48.7 mm (Φ1.20" × 1.92") L2: Φ30.5 mm × 57.6 mm (Φ1.20" × 2.27")		
Net Weight	210 g (0.5 lb)		
Gross Weight	376 g (0.8 lb)		
Accessories (Optional)			

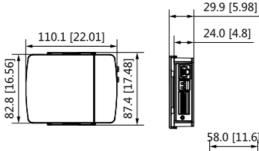


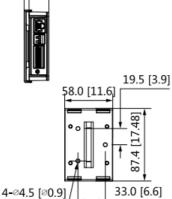
2MP Covert Pinhole Network Camera-Lens Unit

2MP Covert Pinhole Network Camera-Lens Unit

#### Dimensions (mm[inch])

Mainbox:





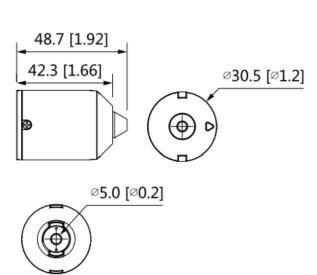
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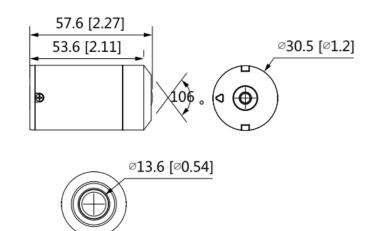
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<u>L1:</u>





<u>L2:</u>