X series XND-6020R







# **XND-6020R**

2M H.265 IR Dome Camera











#### **Key Features**

- Built-in 4mm fixed lens
- Max. 60fps@all resolutions (H.265/H.264)
- H.265, H.264, MJPEG codec supported, Multiple streaming
- Day & Night (ICR), WDR (150dB), Defog
- Loitering, Directional detection, Fog detection, Tampering
- Audio detection, Digital auto tracking, Sound classification
- Heatmap, People counting, Queue management
- Handover, WiseStream II support
- microSD/SDHC/SDXC memory slot (Max. 512GB)

#### **Compatible Devices**















SBP-120WM

SBP-300PM

SBP-300KM

SBP-300WM1

SBP-300LM

SBP-390WM2



SBP-300CM









SBP-300HM7



SBP-300WM



SBP-300NB

X series XND-6020R



## XND-6020R

2M H.265 IR Dome Camera







### **Specifications**

Video	
Imaging Device	1/2.8" 2MP CMOS
Resolution	1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264: Max. 60fps/50fps(60Hz/50Hz) MJPEG: Max. 30fps/25fps(60Hz/50Hz)
Min. Illumination	Color: 0.015Lux(F1.4, 1/30sec) BW: OLux(IR LED on)
Video Out	CVBS: 1.0 Vp-p / 75 $\Omega$ composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation
Lens	
Focal Length (Zoom Ratio)	4mm fixed focal
Max. Aperture Ratio	F1.4
Angular Field of View	H: 88.6°, V: 47.5°, D: 104.8°
Min. Object Distance	0.4m(1.31ft)
Lens Type	Fixed
Pan / Tilt / Rotate	
Pan / Tilt / Rotate Range	0°~354° / 0°~67° / 0°~355°
Operational	
Camera Title	Displayed up to 85 characters
Day & Night	Auto(ICR)
Backlight Compensation	BLC, HLC, WDR, SSDR
Wide Dynamic Range	150dB
Digital Noise Reduction	SSNRV
Digital Image Stabilization	Support
Defog	Support
Motion Detection	8ea, 8point polygonal zones
Privacy Masking	32ea, polygonal zones - Color: Grey/Green/Red/Blue/Black/White - Mosaic
Gain Control	Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor
LDC	Support
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (2~1/12,000sec)
Video Rotation	Flip, Mirror, Hallway view(90°/270°)
Analytics	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Digital au tracking, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Sound classification

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com. Hanwha Vision is formerly known as Hanwha Techwin.





Alarm Triggers Analytics, Network disconnect, Alarm input Alarm Events Principles Princi	Business Intelligence	People counting, Queue management, Heatmap
Alarm Events   File uplead via FTP and re-mail   SO/SCHC/SDXC or NAS recording at event triggers   SO/SCHC/SDXC or NAS recording	Alarm I/O	Input 1ea / Output 1ea
Notification via e-mail   SQ/SMC/SMC or NAS recording at event triggers   Audio In   SQ/SMC/SMC or NAS recording at event triggers   Audio In   Sq/SMC/SMC or NAS recording at event triggers   Audio In   Squphy voltage 2.5NDC(AmA), Input impedance: 2K Ohm   Audio Out   Line out, Max.output level: 1Vrms   Squphy voltage 2.5NDC(AmA), Input impedance: 2K Ohm   Audio Out   Line out, Max.output level: 1Vrms   Audio Compression   Nas output level: 1Vrms   Audio Compression   H.265/H.266-Main/Baseline/High, MJPEG   Audio Compression   H.265/H.266-Main/Baseline/High, MJPEG   Audio Compression   H.265/H.266-Main/Baseline/High, MJPEG   Audio Compression   G.726.16Kbps. 2Rkbps. 32kbps. 40Kbps   Audio Compression   Audio Compre	Alarm Triggers	Analytics, Network disconnect, Alarm input
Supply voltage? 2.5 VDC (4m A). Input impedance? 2K Ohm   Audio Out   Line out. Max.output level: 1Vrms	Alarm Events	Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers Alarm output
IR Viewable Length 30m(98.42ft)  Network  Ethernet RJ-45(10/100BASE-T) Video Compression H.265/H.264: Main/Baseline/High, MJPEG Audio Compression G.711 u-law 16,726 selectable G.726(APCM) BHCH, G.711 il BHTz G.726: 14Kbps, 30Kbps, 40Kbps AAC-CU-48kbps at 10kHps AAC-CU-48kbps at 10kHps AAC-CU-48kbps at 10kHps Biltrate Control H.264(H.265: CBR or VBR MJPEG-VBR Streaming Unicast20 users) / Multicast Multiple streaming Up to 10 profiles)  Protocol HPA, IPA, ICP/PL UDP/IP, RTP(IUPP), RTCP(FP, RTCP, RTSP, NTP, HTTP, HTTPS, SSI/TLS, DHCP, FTP, SMTP, IEMP, IGMP, SMMP/I/AC/V/SUMB-2), ARP, DNS, DDNS, QOS, PIM-SM, UPPR, Bonjour, LLDP, SRTP Security HTTPS(SSI) Login Authentication Digest topp Authentication Programming Interface Digest Digest topp Authentication Programming Interface Digest Dig	Audio In	
Network   Ethernet	Audio Out	Line out, Max.output level: 1Vrms
Ethernet RJ-45(10/100BASE-T) Video Compression H.265/H.264: Main/Baseline/High, MJPEG Audio Compression G.711 u-law (c.726 Selectable G.726(APCM) BMTs, G.718 EMTs, G.726 Selectable Bitrate Control Manual(Sca area), WiscStream II Bitrate Control H.264/L.265: CBR or VBR MJPEG: VBR Streaming Unicast(20 users) / Multicast Multiple streaming(IUp to 10 profiles) Protocol IPv4, IPv6, TCP/IP, UDP/IP, RTP(IUDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SMMPs/L//22/V3(MIB-2), ARP, DNS, DDNS, QOS, PIM-SM, UPnP, Bonjour, LLDP, SRTP Security HTTPS(SSL) Login Authentication IP, Address Filtering User access log B00.118 Authentication IP Address Filtering User access log B00.118 Authentication IP Address Filtering Wisenet open platform  General  Web Viewer Supported OS: Windows 7, 8, 1, 10, Mac OS X 10, 10, 11, 1, 1, 12 Recommended Browser, Google Chrome Supported OS: Windows 64bit only), Apple Safari(Mac OS X only) Edge Storage Micro SD/SDHC/SDXC 2slot 512GB Memory 1024MB RAM, 256MB Flash  Environmental & Electrical  Operating Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH	IR Viewable Length	30m(98.42ft)
Ethernet RJ-45(10/100BASE-T) Video Compression H.265/H.264: Main/Baseline/High, MJPEG Audio Compression G.711 u-law (c.726 Selectable G.726(APCM) BMTs, G.718 EMTs, G.726 Selectable Bitrate Control Manual(Sca area), WiscStream II Bitrate Control H.264/L.265: CBR or VBR MJPEG: VBR Streaming Unicast(20 users) / Multicast Multiple streaming(IUp to 10 profiles) Protocol IPv4, IPv6, TCP/IP, UDP/IP, RTP(IUDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SMMPs/L//22/V3(MIB-2), ARP, DNS, DDNS, QOS, PIM-SM, UPnP, Bonjour, LLDP, SRTP Security HTTPS(SSL) Login Authentication IP, Address Filtering User access log B00.118 Authentication IP Address Filtering User access log B00.118 Authentication IP Address Filtering Wisenet open platform  General  Web Viewer Supported OS: Windows 7, 8, 1, 10, Mac OS X 10, 10, 11, 1, 1, 12 Recommended Browser, Google Chrome Supported OS: Windows 64bit only), Apple Safari(Mac OS X only) Edge Storage Micro SD/SDHC/SDXC 2slot 512GB Memory 1024MB RAM, 256MB Flash  Environmental & Electrical  Operating Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity -10°C~+55°C(14°F ~ +131°F) / Less than 90% RH	Network	
Video Compression     H.265/H.264: Main/Baseline/High, MJPEG       Audio Compression     G.711 u-law (6.726 selectable C.711 8KHz G.731 8KHZ		R I-45(10/100BASE-T)
Audio Compression G.711 u-law /G.726 Selectable G.726 (ADPCN) 8KHz, G.711 8KHz G.726 (ADPCN) 8KHz, G.711 8KHz G.726 (ADPCN) 8KHz, G.711 8KHz Smart Codec Manual (Sea area), WiseStream II Bitrate Control H.264 (H.265: CBR or VBR MJPEG: VBR MJPEG: VBR MJEGE VBR MJEGE VBR WJEGE VBR WJEGE VBR WJEGE VBR MJEGE VBR WJEGE VBR WJEGE VBR WJEGE VBR WJEGE VBR MJEGE VBR WJEGE VBR MJEGE VBR WJEGE VBR WJEGE VBR MJEGE VBR WJEGE VBR MJEGE V		
Bitrate Control  H.264/H.265: CBR or VBR MJPEG: VBR  Streaming Unicast[20 users) / Multicast Multiple streaming(Up to 10 profiles)  Protocol  PP4, IP4, IP4, IP2/IP, IDP/IP, RTP(IDP), RTCP, RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SMMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour, LLDP, SRTP  Security  HTTPS(SSL) Login Authentication pliest Login Authentication programming Interface  ONVIF Profile S/G/T SUNAP/IHTTP API) Wisener open platform  General  Web Viewer  Supported OS: Windows 7, 8.1, 10, Mac OS X 10.10, 10.11, 10.12 Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only)  Edge Storage  Micro SD/SDHC/SDXC 2slot 512GB  Memory  1024MB RAM, 256MB Flash  Environmental & Electrical  Operating Temperature / Humidity  -10°C+55°C(14°F ~ +131°F) / Less than 90% RH  Storage Temperature / Humidity  -50°C ~ +60°C (~58°F ~ +140°F) / Less than 90% RH  Certification  IKO8  Input Voltage  PoE (IEEE802.3af, Class3), 12VDC  Power Consumption  PoE: Max 9W 12VDC: Max. 8W  Mechanical  Color / Material  Novy / Aluminum		G.711 u-law /G.726 Selectable G.726(ADPCM) 8KHz, G.711 8KHz G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps
Streaming Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles)  Protocol IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, ISMP, ISMP1/ACz(v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour, LLDP, SRTP  Security Hry Address Filtering User access log 802.1X Authentication IP Address Filtering User access log 802.1X Authentication (EAP-TLS, EAP-LEAP)  Application Programming Interface Supported OS: Windows 7, 8.1, 10, Mac OS X 10.10, 10.11, 10.12 Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only)  Edge Storage Micro SD/SDHC/SDXC 2slot 512GB  Memory 1024MB RAM, 256MB Flash  Environmental & Electrical  Operating Temperature / Humidity -10°C~+55°C(14°F~+131°F) / Less than 90% RH  Storage Temperature / Humidity -50°C ~ 460°C (-58°F~+140°F) / Less than 90% RH  Storage Temperature / Humidity -50°C ~ 460°C (-58°F~+140°F) / Less than 90% RH  Certification IK08  Input Voltage PoE(IEEEB02.3af, Class3), 12VDC  Power Consumption PoE: Max 8W 12VDC: Max. 8W  Mechanical  Color / Material Novy / Aluminum	Smart Codec	Manual (5ea area), WiseStream II
Multiple streaming(Up to 10 profiles)  Protocol   Plv4, IPv6, TcP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTPS, SSL/TLS, DHCP, FTP Security   SMP1, ICMP, ISMP2, SMP21/V2c/V3/(IIIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPNP, Bonjour, LLDP, SRTP  Security   HTTPS(SSL) Login Authentication	Bitrate Control	
SMTP, ICMP, ICMP, ICMP, ISMPV1/V2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour, LLDP, SRTP HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP)  Application Programming Interface ONVIP Profile S/G/T SUNAPI(HTTP API) Wisenet open platform  Supported OS: Windows 7, 8.1, 10, Mac OS X 10.10, 10.11, 10.12 Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only)  Edge Storage Micro SD/SDHC/SDXC 2slot 512GB Memory 1024MB RAM, 256MB Flash  Environmental & Electrical Operating Temperature / Humidity -10°C~+55°C(14°F ~+131°F) / Less than 90% RH Storage Temperature / Humidity -50°C ~+60°C (-58°F ~+140°F) / Less than 90% RH Certification IKO8 Input Voltage PoE(IEEE802.3af, Class3), 12VDC Power Consumption PATILITY PROFILE PRO	Streaming	
Digest Login Authentication   P Address Filtering   User access log   802.1X Authentication(EAP-TLS, EAP-LEAP)  Application Programming Interface   ONVIF Profile \$/G/T   SUNAPI(HTTP API)   Wisenet open platform    General   Supported OS: Windows 7, 8.1, 10, Mac OS X 10.10, 10.11, 10.12   Recommended Browser: Google Chrome   Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X 701ly)    Edge Storage   Micro SD/SDHC/SDXC 2slot 512GB   Memory   1024MB RAM, 256MB Flash    Environmental & Electrical   Operating Temperature / Humidity   -10°C~+55°C(14°F~+131°F) / Less than 90% RH    Storage Temperature / Humidity   -50°C~+60°C (-58°F~+140°F) / Less than 90% RH    Certification   IKO8   Input Voltage   PoE (IEEE802.3af, Class3), 12VDC    Power Consumption   PoE : Max 9W   12VDC: Max. 8W    Mechanical   Moory / Aluminum   Moory / Alumin	Protocol	
SUNAPI(HTTP API) Wisenet open platform  General  Web Viewer Supported OS: Windows 7, 8.1, 10, Mac OS X 10.10, 10.11, 10.12 Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only)  Edge Storage Micro SD/SDHC/SDXC 2slot 512GB  Memory 1024MB RAM, 256MB Flash  Environmental & Electrical  Operating Temperature / Humidity -10°C~+55°C(14°F~+131°F) / Less than 90% RH  Storage Temperature / Humidity -50°C ~+60°C (-58°F ~+140°F) / Less than 90% RH  Certification IK08  Input Voltage PoE(IEEE802.3af, Class3), 12VDC  Power Consumption PoE: Max 9W 12VDC: Max. 8W  Mechanical  Color / Material Ivory / Aluminum	Security	Digest Login Authentication IP Address Filtering User access log
Supported OS: Windows 7, 8.1, 10, Mac OS X 10.10, 10.11, 10.12 Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only)  Edge Storage Micro SD/SDHC/SDXC 2slot 512GB  Memory 1024MB RAM, 256MB Flash  Environmental & Electrical  Operating Temperature / Humidity -10°C~+55°C(14°F~+131°F) / Less than 90% RH  Storage Temperature / Humidity -50°C~+60°C (-58°F~+140°F) / Less than 90% RH  Certification IK08  Input Voltage PoE(IEEE802.3af, Class3), 12VDC  Power Consumption PoE: Max 9W 12VDC: Max. 8W  Mechanical  Color / Material Ivory / Aluminum	Application Programming Interface	SUNAPI(HTTP API)
Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only). Apple Safari(Mac OS X only)  Edge Storage Micro SD/SDHC/SDXC 2slot 512GB  Memory 1024MB RAM, 256MB Flash  Environmental & Electrical  Operating Temperature / Humidity -10°C~+55°C(14°F~+131°F) / Less than 90% RH  Storage Temperature / Humidity -50°C ~ +60°C (-58°F~+140°F) / Less than 90% RH  Certification IK08  Input Voltage PoE(IEEE802.3af, Class3), 12VDC  Power Consumption PoE: Max 9W 12VDC: Max. 8W  Mechanical  Color / Material Ivory / Aluminum	General	
Memory 1024MB RAM, 256MB Flash  Environmental & Electrical  Operating Temperature / Humidity -10°C~+55°C(14°F~+131°F) / Less than 90% RH  Storage Temperature / Humidity -50°C ~+60°C (-58°F~+140°F) / Less than 90% RH  Certification IK08  Input Voltage PoE (IEEE802.3af, Class3), 12VDC  Power Consumption PoE: Max 9W 12VDC: Max. 8W  Mechanical  Color / Material Ivory / Aluminum	Web Viewer	Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS
Environmental & Electrical  Operating Temperature / Humidity -10°C~+55°C(14°F~+131°F) / Less than 90% RH  Storage Temperature / Humidity -50°C ~ +60°C (-58°F~+140°F) / Less than 90% RH  Certification IK08  Input Voltage PoE(IEEE802.3af, Class3), 12VDC  Power Consumption PoE: Max 9W 12VDC: Max. 8W  Mechanical  Color / Material Ivory / Aluminum	Edge Storage	Micro SD/SDHC/SDXC 2slot 512GB
Operating Temperature / Humidity -10°C~+55°C(14°F~+131°F) / Less than 90% RH  Storage Temperature / Humidity -50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH  Certification IK08  Input Voltage PoE(IEEE802.3af, Class3), 12VDC  Power Consumption PoE: Max 9W 12VDC: Max. 8W  Mechanical  Color / Material Ivory / Aluminum	Memory	1024MB RAM, 256MB Flash
Storage Temperature / Humidity -50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH  Certification IK08  Input Voltage PoE(IEEE802.3af, Class3), 12VDC  Power Consumption PoE: Max 9W 12VDC: Max. 8W  Mechanical  Color / Material Ivory / Aluminum	Environmental & Electrical	
Certification IKO8 Input Voltage PoE(IEEE802.3af, Class3), 12VDC Power Consumption PoE: Max 9W 12VDC: Max. 8W  Mechanical Color / Material Ivory / Aluminum	Operating Temperature / Humidity	-10°C~+55°C(14°F ~ +131°F) / Less than 90% RH
Input Voltage PoE(IEEE802.3af, Class3), 12VDC  Power Consumption PoE: Max 9W 12VDC: Max. 8W  Mechanical  Color / Material Ivory / Aluminum		-50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH
Power Consumption PoE : Max 9W 12VDC : Max. 8W  Mechanical Color / Material Ivory / Aluminum	Certification	IK08
12VDC : Max. 8W  Mechanical  Color / Material	Input Voltage	PoE(IEEE802.3af, Class3), 12VDC
Color / Material Ivory / Aluminum	Power Consumption	
	Mechanical	
Product Dimensions / Weight Ø110x90mm(4.33"x3.54"), 380g(0.84 lb)	Color / Material	Ivory / Aluminum
	Product Dimensions / Weight	Ø110x90mm(4.33"x3.54"), 380g(0.84 lb)

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CAD Unit:mm [inch]

