

Superior Quad HD / Full HD Analog Solution



WISeNET HD+

4MP Camera



HCB-7000A



HCO-7070RA



HCO-7010RA/20RA/30RA



HCD-7070RA



HCD-7010RA/20RA/30RA



HCV-7070RA



HCV-7010RA/20RA/30RA

2MP Camera



HCB-6001



HCB-6000



HCZ-6320



SCB-6003



HCO-6080R/6070R



SCO-6083R



SCD-6023R



HCD-6080R/6070R



HCV-6080R/6070R



HCP-6320HA/6320A



SCD-6083R



SCD-6023R



SCD-6013



SCV-6083R



SCV-6023R

DVR

16CH DVR



HRD-1642



HRD-1641

8CH DVR



HRD-842

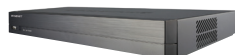


HRD-841

4CH DVR



HRD-442



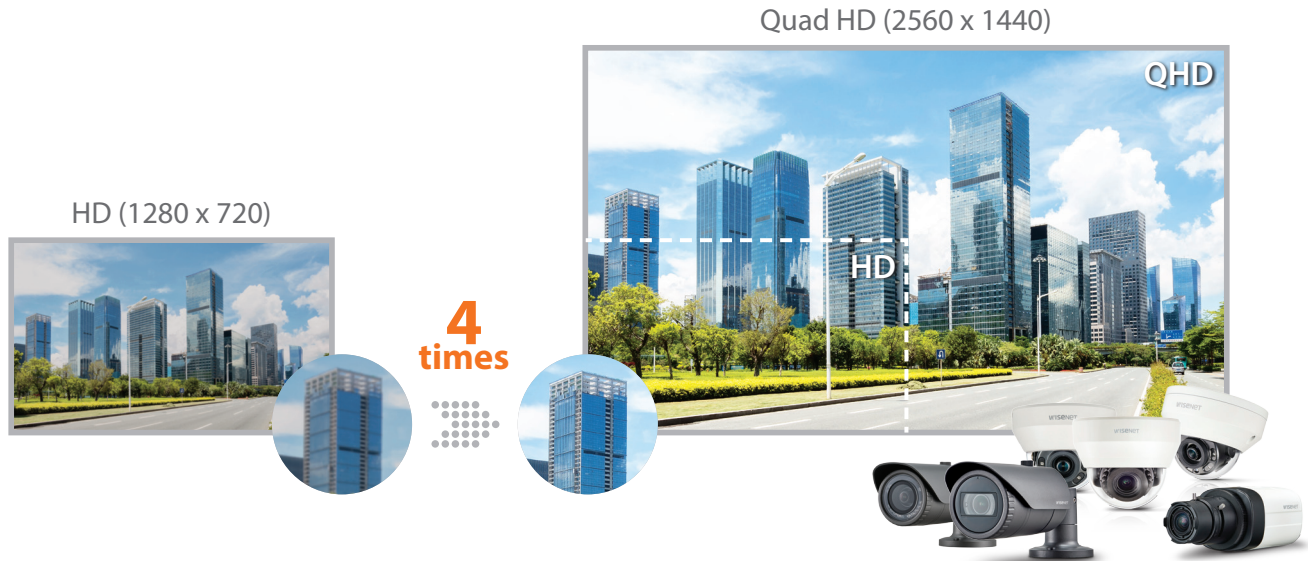
HRD-440

Experience the superior clarity (Max. 4MP)

The new Wisenet HD+ series supports 4MP (2560 x 1440) and 2MP (1920 x 1080) resolution with superior clarity down to the last detail. This feature not only provides a better performance than the existing analog system, but also supports the same resolution as the network system without experiencing any delays. The images it delivers are much clearer and more vivid than before.

4MP Wisenet HD+ series is ideal for mid to large-sized businesses and projects requiring a highly reliable surveillance system.

In addition, the cameras can transmit 30fps with 4MP (QHD) video.



Clearer images with WDR 120dB, defog and noise reduction

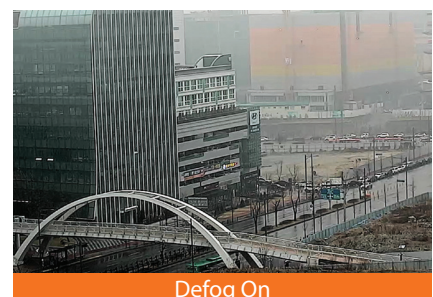
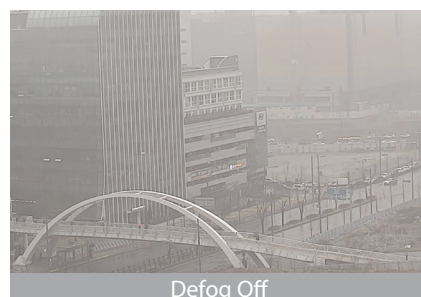
Wisenet HD+ 2MP cameras provide clearer images with WDR 120dB even in backlight environments. Hanwha Techwin's defogging technology delivers optimal results in areas where constant monitoring is required, such as in airports and ports.

(Wisenet HD+ 2MP cameras support)

WDR 120dB



Defog



Transmission distance up to 500m

The Wisenet HD+ series can transmit 4MP / 2MP video and audio up to 500m by using a single coaxial cable without any delays. This product is an excellent solution that removes the need for a short transmission distance found in typical analog type products.



Max. 4K(3840 x 2160) monitor support with HDMI cable

Wisenet HD+ DVR provides 4K (3840 x 2160) resolution with HDMI cable, enabling four 2MP AHD camera images to be monitored in four split screens in 4K resolution.



Easy and flexible upgrade solution

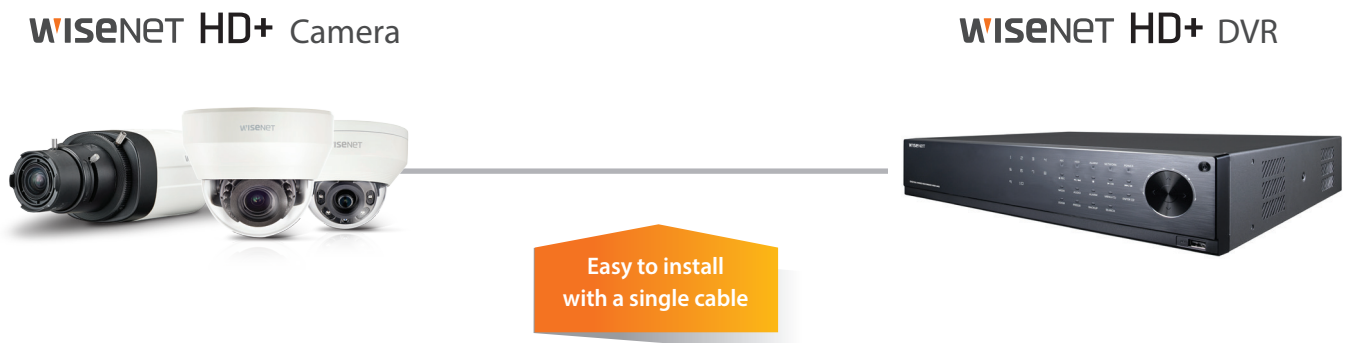
As the DVR featuring the AHD technology is compatible with both the Wisenet HD+ camera and general analog cameras, the user can avoid the expense of additional adaptors or changing their system.

When upgrading to the Wisenet HD+ system, you don't need to purchase an additional cable separately as it is possible to transmit full-HD images via the existing cable, which also saves money.



Easy Installation

Compared to a complex network system, AHD technology is easy to install while it provides 2MP high quality image. As it uses the same installation procedure as the existing analog system and does not require any specific prior knowledge, you can save time and effort compared to a network system.



Comparison Chart

WISENET HD+



**Wisenet HD+
HCB-7000A**

**Wisenet HD+
HCO-7070RA**

**Wisenet HD+
HCO-7010RA/20RA/30RA**

**Wisenet HD+
HCD-7070RA**

**Wisenet HD+
HCD-7010RA/20RA/30RA**

**Wisenet HD+
HCV-7070RA**

**Wisenet HD+
HCV-7010RA/20RA/30RA**

TV Lines / Resolutions		4MP	4MP	4MP	4MP	4MP	4MP	4MP
VIDEO	Imaging Device	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS
	Horizontal Resolution	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440
	Min. Illumination	Color : 0.16Lux B/W : 0.009Lux	Color : 0.16Lux B/W : 0Lux (IR LED on)	Color : 0.26Lux (HCO-7010R) 0.27Lux (HCO-7020R/7030R) B/W : 0Lux (IR LED on)	Color : 0.16Lux B/W : 0Lux (IR LED on)	Color : 0.26Lux (HCD-7010R) 0.27Lux (HCD-7020R/7030R) B/W : 0Lux (IR LED on)	Color : 0.16Lux B/W : 0Lux (IR LED on)	Color : 0.26Lux (HCV-7010R) 0.27Lux (HCV-7020R/7030R) B/W : 0Lux (IR LED on)
	Lens	-	3.2 ~ 10mm (3.1x) V/F (F1.6)	2.8mm Fixed (F1.8) (HCO-7010R) 4.0mm Fixed (F2.0) (HCO-7020R) 6.0mm Fixed (F2.0) (HCO-7030R)	3.2 ~ 10mm (3.1x) V/F (F1.6)	2.8mm Fixed (F1.8) (HCD-7010R) 4.0mm Fixed (F2.0) (HCD-7020R) 6.0mm Fixed (F2.0) (HCD-7030R)	3.2 ~ 10mm (3.1x) V/F (F1.6)	2.8mm Fixed (F1.8) (HCV-7010R) 4.0mm Fixed (F2.0) (HCV-7020R) 6.0mm Fixed (F2.0) (HCV-7030R)
	IR Viewable Length	-	30m (98.43ft)	20m (65.62ft) (HCO-7010R) 25m (82.02ft) (HCO-7020R) 30m (98.43ft) (HCO-7030R)	20m (65.62ft)	20m (65.62ft) (HCD-7010R) 25m (82.02ft) (HCD-7020R) 30m (98.43ft) (HCD-7030R)	30m (98.43ft)	20m (65.62ft) (HCV-7010R) 25m (82.02ft) (HCV-7020R) 30m (98.43ft) (HCV-7030R)
	Angular Field of View	-	H : 93.48° (Wide) ~ 29.44° (Tele) / V : 50.47° (Wide) ~ 16.64° (Tele) / D : 112.53° (Wide) ~ 33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCO-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCO-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCO-7030R)	H : 93.48° (Wide) ~ 29.44° (Tele) / V : 50.47° (Wide) ~ 16.64° (Tele) / D : 112.53° (Wide) ~ 33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCD-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCD-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCD-7030R)	H : 93.48° (Wide) ~ 29.44° (Tele) / V : 50.47° (Wide) ~ 16.64° (Tele) / D : 112.53° (Wide) ~ 33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCV-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCV-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCV-7030R)
	Focus Control	Manual	Manual	Fixed	Manual	Fixed	Manual	Fixed
	Pan / Tilt / Rotate	-	-	-	0° ~ 350° / 0° ~ 63° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
OPERATIONAL	Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
	Backlight Compensation	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR
	Digital Noise Reduction	2D DNR	2D DNR	2D DNR	2D DNR	2D DNR	2D DNR	2D DNR
	Motion Detection	Support	Support	Support	Support	Support	Support	Support
	Privacy Masking	2 Zones	2 Zones	2 Zones	2 Zones	2 Zones	2 Zones	2 Zones
FEATURES	Alarm I/O	MD Output 1	MD Output 1	-	MD Output 1	-	MD Output 1	-
	Communication	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron) RS-485 : Samsung T, Pelco D/P	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)
	Environment Protection	-	IP66, IK10	IP66, IK10	-	-	IP66, IK10	IP66, IK10
	Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)
	Power	Max. 3.6W (24V AC & 12V DC)	Max. 5.8W (24V AC & 12V DC)	Max. 5.0W (12V DC)	Max. 5.8W (24V AC & 12V DC)	Max. 5.0W (12V DC)	Max. 5.8W (24V AC & 12V DC)	Max. 5.0W (12V DC)
	Dimensions (WxHxD) / Weight	68.4 x 59.6 x 92.7mm (2.69" x 2.35" x 3.65") 186g (0.41 lb)	Ø78.0 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02 lb)	Ø70.0 x 246.0 mm (Ø2.76" x 9.69") (Without sunshield) 670g (1.48 lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 320g (0.71 lb)	Ø110.1 x 86.1mm (Ø4.33" x 3.39") 240g (0.53 lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 715g (1.58 lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.12 lb)
	Additional Features	Video Transmission up to 500m (5C2V Coaxial cable)	Video Transmission up to 500m (5C2V Coaxial cable)	Video Transmission up to 500m (5C2V Coaxial cable)	Video Transmission up to 500m (5C2V Coaxial cable)	Video Transmission up to 500m (5C2V Coaxial cable)	Video Transmission up to 500m (5C2V Coaxial cable)	Video Transmission up to 500m (5C2V Coaxial cable)

Comparison Chart



Wisenet HD+
HCB-6001



Wisenet HD+
HCB-6000



Wisenet HD+
HCZ-6320



Wisenet HD+
HCO-6080R



Wisenet HD+
HCV-6070R

TV Lines / Resolutions		2MP	2MP	2MP	2MP	2MP
VIDEO	Imaging Device	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2.38M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS
	Horizontal Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
	Min. Illumination	Color: 0.09Lux B/W: 0.009Lux	Color: 0.09Lux B/W: 0.009Lux	Color: 0.2Lux B/W: 0.01Lux	Color: 0.11 Lux B/W: 0 Lux (IR LED on)	Color: 0.11 Lux B/W: 0 Lux (IR LED on)
	Lens	-	-	4.44 ~ 142.6mm (Optical 32x) F1.6(Wide) / F4.4(Tele)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	3.2 ~ 10mm (3.1x) V/F (F1.6)
	IR Viewable Length	-	-	-	30m (98.43ft)	30m (98.43ft)
	Angular Field of View	-	-	H: 62.8°(Wide) ~ 2.23°(Tele) / V: 36.80°(Wide) ~ 1.26°(Tele)	H: 110.2°(Wide) ~ 32°(Tele) / V: 55.4°(Wide) ~ 18°(Tele) / D: 128.4°(Wide) ~ 36.6°(Tele)	H: 110.2°(Wide) ~ 32°(Tele) / V: 55.4°(Wide) ~ 18°(Tele) / D: 128.4°(Wide) ~ 36.6°(Tele)
	Focus Control	Simple Focus	Manual	Auto / Manual / One push	Simple focus (motorized V/F) / Manual	Manual
	Pan / Tilt / Rotate	-	-	-	-	-
OPERATIONAL	Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
	Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
	Digital Noise Reduction	SSNRIV	SSNRIV	SSNRIII	SSNRIV	SSNRIV
	Motion Detection	Support	Support	Support	Support	Support
	Privacy Masking	4 Zones	8 Zones	12 Zones	8 Zones	8 Zones
FEATURES	Alarm I/O	0 / 1, External D/N 1	0 / 1, External D/N 1	-	MD Output 1	MD Output 1
	Communication	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), RS-485: Samsung T/E, Pelco D/P, Panasonic Bosch, Honeywell, Vicon, GE, AD	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol), RS-485: Samsung T, Pelco D/P, Panasonic Bosch, Honeywell, Vicon, GE, AD	AHD: ACP (AHD Coax Protocol), RS-485: Samsung T/E, Pelco-D/P, Panasonic, Bosch, Honeywell, Vicon, AD	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)
	Environment Protection	-	-	-	IP66, IK10	IP66, IK10
	Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)
	Power	Max. 6.0W (24V AC & 12V DC)	Max. 3.5W (24V AC & 12V DC)	Max. 6.0W (12V DC)	Max. 6.0W (24V AC & 12V DC)	Max. 6.0W (24V AC & 12V DC)
	Dimensions (WxHxD) / Weight	73.1x67.2x123.9mm (2.88"x2.65"x4.88") 287g (0.63 lb)	68.4x59.6x92.7mm (2.69"x2.35"x3.65") 186g (0.41 lb)	72.0x60x137mm (2.83"x2.36"x5.39") 476g (1.05 lb)	Ø78.0x259.8mm (Ø3.07"x10.23") (Without sunshield) 948g (2.09 lb)	Ø78.0x259.8mm (Ø3.07"x10.23") (Without sunshield) 914g (2.02 lb)
	Additional Features	Video Transmission up to 500m (5C2V Coaxial cable)	Video Transmission up to 500m (5C2V Coaxial cable)	Defog	Video Transmission up to 500m (5C2V Coaxial cable)	Video Transmission up to 500m (5C2V Coaxial cable)

Comparison Chart



WISENET HD+
HCD-6080R



WISENET HD+
HCD-6070R



WISENET HD+
HCV-6080R



WISENET HD+
HCV-6070R



WISENET HD+
HCP-6320HA/6320A

TV Lines / Resolutions		2MP	2MP	2MP	2MP	2MP
VIDEO	Imaging Device	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2.38M CMOS
	Horizontal Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
	Min. Illumination	Color: 0.11Lux B/W: 0Lux (IR LED on)	Color: 0.11Lux B/W: 0Lux (IR LED on)	Color: 0.11Lux B/W: 0Lux (IR LED on)	Color: 0.11Lux B/W: 0Lux (IR LED on)	Color: 0.2Lux B/W: 0.01Lux
	Lens	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	3.2 ~ 10mm (3.1x) V/F (F1.6)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	3.2 ~ 10mm (3.1x) V/F (F1.6)	4.44 ~ 142.6mm (Optical 32x) F1.6(Wide) / F4.4(Tele)
	IR Viewable Length	20m (65.62ft)	20m (65.62ft)	30m (98.43ft)	30m (98.43ft)	-
	Angular Field of View	H: 110.2°(Wide) ~ 32°(Tele) / V: 55.4°(Wide) ~ 18°(Tele) / D: 128.4°(Wide) ~ 36.6°(Tele)	H: 110.2°(Wide) ~ 32°(Tele) / V: 55.4°(Wide) ~ 18°(Tele) / D: 128.4°(Wide) ~ 36.6°(Tele)	H: 110.2°(Wide) ~ 32°(Tele) / V: 55.4°(Wide) ~ 18°(Tele) / D: 128.4°(Wide) ~ 36.6°(Tele)	H: 110.2°(Wide) ~ 32°(Tele) / V: 55.4°(Wide) ~ 18°(Tele) / D: 128.4°(Wide) ~ 36.6°(Tele)	H: 62.8°(Wide) ~ 2.23°(Tele) / V: 36.8°(Wide) ~ 1.26°(Tele)
	Focus Control	Simple focus (motorized V/F) / Manual	Manual	Simple focus (motorized V/F) / Manual	Manual	Auto / Manual / One push
	Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	360° Endless / 210° (-15° ~ 195°) / -
OPERATIONAL	Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
	Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
	Digital Noise Reduction	SSNRIV	SSNRIV	SSNRIV	SSNRIV	SSNRIII
	Motion Detection	Support	Support	Support	Support	Support
	Privacy Masking	8 Zones	8 Zones	8 Zones	8 Zones	32 Zones
FEATURES	Alarm I/O	MD Output 1	MD Output 1	MD Output 1	MD Output 1	4 / 2 (Relay)
	Communication	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD: ACP (AHD Coax Protocol), RS-485: Samsung-T/E, Pelco-P/D, Sungjin, Panasonic, Honeywell, AD, Vicon, Bosch, GE
	Environment Protection	-	-	IP66, IK10	IP66, IK10	IP66, IK10 (HCP-6320HA), IK10 (With SHP-3701H) (HCP-6320A)
	Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-50°C ~ +55°C (-58°F ~ +131°F) (HCP-6320HA), -10°C ~ +55°C (+14°F ~ +131°F) (HCP-6320A)
	Power	Max. 6.0W (24V AC & 12V DC)	Max. 4.2W (24V AC & 12V DC)	Max. 4.2W (24V AC & 12V DC)	Max. 4.2W (24V AC & 12V DC)	Max. 24.0W / 65.0W - Heater off / on (24V AC) (HCP-6320HA) Max. 20.0W (24V AC) (HCP-6320A)
	Dimensions (WxHxD) / Weight	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 330g (0.73 lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 320g (0.71 lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 725g (1.60 lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 715g (1.58 lb)	Ø220.0 x 293.6mm (Ø8.66" x 11.56") 3.3Kg (7.28 lb) (SNP-6320HA), Ø152.0 x 218.0mm (Ø5.98" x 8.58") 2.2Kg (4.85 lb) (SNP-6320A)
	Additional Features	Video Transmission up to 500m (5C2V Coaxial cable)	Video Transmission up to 500m (5C2V Coaxial cable)	Video Transmission up to 500m (5C2V Coaxial cable)	Video Transmission up to 500m (5C2V Coaxial cable)	Defog

Comparison Chart

WISENET HD+



WISENET HD+

WISENET HD+

WISENET HD+

WISENET HD+

WISENET HD+

WISENET HD+

WISENET HD+

WISENET HD+

SCB-6003

SCO-6083R

SCO-6023R

SCD-6083R

SCD-6023R

SCD-6013

SCV-6083R

SCV-6023R

TV Lines / Resolutions		2MP	2MP	2MP	2MP	2MP	2MP	2MP
VIDEO	Imaging Device	1/3" 2M CMOS	1/3" 2M CMOS	1/3" 2M CMOS	1/3" 2M CMOS	1/3" 2M CMOS	1/3" 2M CMOS	1/3" 2M CMOS
	Horizontal Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
	Min. Illumination	Color: 0.04Lux B/W: 0.004Lux	Color: 0.11Lux B/W: 0Lux (IR LED on)	Color: 0.25Lux B/W: 0Lux (IR LED on)	Color: 0.11Lux B/W: 0Lux (IR LED on)	Color: 0.25Lux B/W: 0Lux (IR LED on)	Color: 0.1Lux B/W: 0.01Lux	Color: 0.11Lux B/W: 0Lux (IR LED on)
	Lens	-	2.8 ~ 12mm (4.3x) V/F (F1.4)	4mm Fixed (F 2.1)	2.8 ~ 12mm (4.3x) V/F (F1.4)	4mm Fixed (F 2.1)	2.8mm Fixed (F1.8)	2.8 ~ 12mm (4.3x) V/F (F1.4)
	IR Viewable Length	-	30m (98.43ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)	-	30m (98.43ft)
	Angular Field of View	-	H: 102°(Wide) ~ 32.2°(Tele) / V: 54°(Wide) ~ 18.2°(Tele) / D: 121°(Wide) ~ 38°(Tele)	H: 80.7° / V: 43.5° / D: 95.8°	H: 102°(Wide) ~ 32.2°(Tele) / V: 54°(Wide) ~ 18.2°(Tele) / D: 121°(Wide) ~ 38°(Tele)	H: 80.7° / V: 43.5° / D: 95.8°	H: 108.7° / V: 60.6° / D: 125.4°	H: 102°(Wide) ~ 32.2°(Tele) / V: 54°(Wide) ~ 18.2°(Tele) / D: 121°(Wide) ~ 38°(Tele)
	Pan / Tilt / Rotate	-	-	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
OPERATIONAL	Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
	Backlight Compensation	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR
	Digital Noise Reduction	SSNRIV	SSNRIV	SSNRIV	SSNRIV	SSNRIV	SSNRIV	SSNRIV
	Motion Detection	Support	Support	Support	Support	Support	Support	Support
	Privacy Masking	4 Zones	4 Zones	4 Zones	4 Zones	4 Zones	4 Zones	4 Zones
	Intelligent Video Analytics	-	-	-	-	-	-	-
FEATURES	Alarm I/O	0 / 1, External D/N 1	0 / 1	-	0 / 1	-	-	0 / 1
	Communication	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), RS-485	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron)
	Environment Protection	-	IP66, IK10	IP66	-	-	IP66, IK10	IP66, IK10
	Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) Less than 90% RH * Start up above -10°C (+14°F)
	Power	Max. 4.2W (24V AC & 12V DC)	Max. 6.0W (24V AC & 12V DC)	Max. 4.2W (12V DC)	Max. 4.2W (24V AC & 12V DC)	Max. 4.2W (12V DC)	Max. 2.5w (12V DC)	Max. 4.2W (24V AC & 12V DC)
	Dimensions (WxHxD) / Weight	68.4 x 59.6 x 92.7mm (2.69" x 2.35" x 3.65") 175.5g (0.39 lb)	Ø78.0 x 260.0mm (Ø3.07" x 10.24") (Without sunshield) 922g (2.03 lb)	Ø58.6 x 165.2mm (Ø2.31" x 6.50") (Without Sunshield) 208g (0.46 lb)	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 304g (0.67 lb)	Ø110.0 x 86.0mm (Ø4.33" x 3.39") 242g (0.53 lb)	Ø110.0 x 86.0mm (Ø4.33" x 3.39") 231g (0.51 lb)	Ø137.0 x 106.1mm (Ø5.39" x 4.18") 716g (1.58 lb)
	Additional Features	Defog	Defog	Defog	Defog	Defog	Defog	Defog

Comparison Chart

WISENET HD+



WISENET HD+
HRD-1642

WISENET HD+
HRD-1641

WISENET HD+
HRD-842

WISENET HD+
HRD-841

WISENET HD+
HRD-442

WISENET HD+
HRD-440

Channel		16CH	16CH	8CH	8CH	4CH	4CH
OS	Embedded	Linux	Linux	Linux	Linux	Linux	Linux
Live	Frame Rate (NTSC / PAL)	480fps / 400fps	480fps / 400fps	240fps / 200fps	240fps / 200fps	120fps / 100fps	120fps / 100fps
Recording	Max. Record Rate	240fps@2560 x 1440 480fps@1920 x 1080	240fps@2560 x 1440 480fps@1920 x 1080	120fps@2560 x 1440 240fps@1920 x 1080	120fps@2560 x 1440 240fps@1920 x 1080	60fps@2560 x 1440 120fps@1920 x 1080	60fps@2560 x 1440 120fps@1920 x 1080
		200fps@2560 x 1440 400fps@1920 x 1080	200fps@2560 x 1440 400fps@1920 x 1080	100fps@2560 x 1440 200fps@1920 x 1080	100fps@2560 x 1440 200fps@1920 x 1080	50fps@2560 x 1440 100fps@1920 x 1080	50fps@2560 x 1440 100fps@1920 x 1080
	Compression	H.264	H.264	H.264	H.264	H.264	H.264
Video	Inputs	16CH : AHD, NTSC, PAL, TVI, CVI	16CH : AHD, NTSC, PAL, TVI, CVI	8CH : AHD, NTSC, PAL, TVI, CVI	8CH : AHD, NTSC, PAL, TVI, CVI	4CH : AHD, NTSC, PAL, HD-TVI, HDCVI	4CH : AHD, NTSC, PAL, TVI, CVI
Audio	Inputs	16CH (Built-in 4CH)	4CH	8CH (Built-in 4CH)	4CH	4CH	1CH
Storage	Internal HDD	Up to 8 SATA HDDs	Up to 2 SATA HDDs	Up to 4 SATA HDDs	Up to 2 SATA HDDs	Up to 2 SATA HDDs	Up to 1 SATA HDD
	External HDD	Up to 2 Expansion Bays	Up to 1 Expansion Bays	Up to 2 Expansion Bays	Up to 1 Expansion Bays	-	-
Monitors	VGA	Yes	Yes	Yes	Yes	Yes	Yes
	HDMI	Yes	Yes	Yes	Yes	Yes	Yes
	Spot Composite	1CH (BNC)	1CH (BNC)	1CH (BNC)	1CH (BNC)	1CH (BNC)	1CH (BNC)
Connections	USB	2 ports	2 ports	2 ports	2 ports	2 ports	2 ports
	e-SATA	2 External SATA ports	1 External SATA port	2 External SATA ports	1 External SATA port	-	-
	Mouse	Yes	Yes	Yes	Yes	Yes	Yes
Network	Remote Users	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20
	Transmission	4MP, 1080p, 720p, WD1, 4CIF, CIF	4MP, 1080p, 720p, WD1, 4CIF, CIF	4MP, 1080p, 720p, WD1, 4CIF, 2CIF, CIF	4MP, 1080p, 720p, WD1, 4CIF, CIF	4MP, 1080P, 720P, WD1, 4CIF, CIF	4MP, 1080P, 720P, WD1, 4CIF, CIF
	Monitoring	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer
PTZ Control	Coax Protocol	NTSC/PAL : Pelco-C (Coaxitron) AHD : ACP (AHD Coax Protocol)	NTSC/PAL : Pelco-C (Coaxitron) AHD : ACP (AHD Coax Protocol)	NTSC/PAL : Pelco-C (Coaxitron) AHD : ACP (AHD Coax Protocol)	NTSC/PAL : Pelco-C (Coaxitron) AHD : ACP (AHD Coax Protocol)	NTSC/PAL : Pelco-C (Coaxitron) AHD : ACP (AHD Coax Protocol)	NTSC/PAL : Pelco-C (Coaxitron) AHD : ACP (AHD Coax Protocol)
	RS-485 Protocol	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO, GE	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO, GE	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO, GE	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO, GE	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO, GE	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO, GE

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