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WV-NW964









2011 video surveillance quick reference guide
product specifications and technical data



Panasonic System Networks Company of America

Surveillance, Monitoring & Video Imaging

i-PRO Network PTZ Cameras

		HD 720p	HD 720p	HD 720p	HD 720p	HD 720p		
								
Model		WV-SW396	WV-SC386	WV-SW395	WV-SC385	WV-SC384	WV-NW964	WV-NS954
Camera Type		1.3 MP Indoor PTZ (Continuous 360°)	1.3 MP Indoor PTZ (Continuous 360°)	1.3 MP Outdoor PTZ (360° w/ auto flip)	1.3 MP Indoor PTZ (360° w/ auto flip)	1.3 MP Indoor PTZ (360° w/ auto flip)	Outdoor PTZ (Continuous 360°)	Indoor PTZ (Continuous 360°)
Super Dynamic		Mega Super Dynamic	Mega Super Dynamic	Mega Super Dynamic	Mega Super Dynamic	WDR (8x) ¹	SDIII	SDIII
Imaging Device		1/4" MOS Sensor Progressive Scan	1/4" MOS Sensor Progressive Scan	1/3" MOS Sensor Progressive Scan	1/3" MOS Sensor Progressive Scan	1/3" MOS Sensor Progressive Scan	1/4" CCD Progressive Output	1/4" CCD Progressive Output
Video Compression		H.264 MPEG-4 JPEG	H.264 MPEG-4 JPEG	H.264 MPEG-4 JPEG	H.264 MPEG-4 JPEG	H.264 MPEG-4 JPEG	MPEG-4 JPEG	MPEG-4 JPEG
Day/Night		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Removable IR (D&N)		Yes	Yes	Yes	Yes	No	Yes	Yes
Auto Back Focus		Auto Focus	Auto Focus	Auto Focus	Auto Focus	Auto Focus	Auto Focus	Auto Focus
VIQS		No	No	No	No	No	No	No
Minimum Illumination	Color	0.5 lux	0.5 lux	0.5 lux	0.5 lux	0.6 lux	0.5 lux	0.5 lux
	B/W	0.06 lux	0.06 lux	0.06 lux	0.06 lux	0.5 lux	0.04 lux	0.04 lux
fps JPEG		30fps (1280 x 960)	30fps (1280 x 960)	30fps (1280 x 960)	30fps (1280 x 960)	30fps (1280 x 960)	30fps (640 x 480)	30fps (640 x 480)
fps MPEG-4		30fps (640 x 480)	30fps (640 x 480)	30fps (640 x 480)	30fps (640 x 480)	30fps (640 x 480)	30fps (640 x 480)	30fps (640 x 480)
fps H.264		30fps (1280 x 960)	30fps (1280 x 960)	30fps (1280 x 960)	30fps (1280 x 960)	30fps (1280 x 960)	-	-
Max Image Resolution * MPEG-4 (640 x 480)		1280 x 960 (JPEG & H.264)	1280 x 960 (JPEG & H.264)	1280 x 960 (JPEG & H.264)	1280 x 960 (JPEG & H.264)	1280 x 960 (JPEG & H.264)	640 x 480 (JPEG & MPEG-4)	640 x 480 (JPEG & MPEG-4)
Audio Capability		2-way	2-way	2-way	2-way	2-way	2-way	2-way
SD Memory Card Slot		Yes (SDHC)	Yes (SDHC)	Yes (SDHC)	Yes (SDHC)	Yes (SDHC)	Yes (Mini)	Yes
SD Card Recording		30fps (H.264) 1fps (JPEG)	30fps (H.264) 1fps (JPEG)	30fps (H.264) 1fps (JPEG)	30fps (H.264) 1fps (JPEG)	30fps (H.264) 1fps (JPEG)	1fps (JPEG)	1fps (JPEG)
Lens Type		3.3mm~119mm	3.3mm~119mm	4.7mm~84.6mm	4.7mm~84.6mm	4.7mm~84.6mm	3.8mm~114mm	3.8mm~114mm
Zoom		36x (1.3MP) optical 72x (VGA) EX zoom 12x electric	36x (1.3MP) optical 72x (VGA) EX zoom 12x electric	18x (1.3MP) optical 36x (VGA) EX optical 12x electric	18x (1.3MP) optical 36x (VGA) EX optical 12x electric	18x (1.3MP) optical 36x (VGA) EX optical 8x electric	30x optical 10x electric	30x optical 10x electric
Network		10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4	10/100 BASE-TX IP v4
Power		24VAC PoE+ (IEEE802.3at)	12VDC PoE (IEEE802.3af)	24VAC PoE+ (IEEE802.3at)	12VDC PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)	24VAC	24VAC
Alarm In-/Outputs		2/1	2/1	2/1	2/1	2/1	2/1	2/1
Max Power Consumption		24W (PoE+) 43W (AC)	12W (PoE) 1000mA (DC)	24W (PoE+) 43W (AC)	12W (PoE) 1000mA (DC)	10W (PoE) 690mA (DC)	85W (w/ heater)	15W
Operating Temperature		-58°F~131°F (24VAC) -22°F~131°F (PoE+)	14°F~122°F	-40°F~122°F (24VAC) -30°F~122°F (PoE+)	14°F~122°F	14°F~122°F	-40°F~122°F	14°F~122°F
Mobile Phone Support ²		JPEG PTZ/AUX Control	JPEG PTZ/AUX Control	JPEG PTZ/AUX Control	JPEG PTZ/AUX Control	JPEG PTZ/AUX Control	No	No
Security		ID/PWD Host Authentication HTTPS	ID/PWD Host Authentication HTTPS	ID/PWD Host Authentication HTTPS	ID/PWD Host Authentication HTTPS	ID/PWD Host Authentication HTTPS	ID/PWD Host Authentication	ID/PWD Host Authentication
Other Key Features		Advanced Auto Tracking Drag and Zoom Image Stabilizer Face Detection Face Mega SD IP66	Advanced Auto Tracking Drag and Zoom Image Stabilizer Face Detection Face Mega SD	Auto Tracking Drag and Zoom Image Stabilizer Face Detection Face Mega SD IP66	Auto Tracking Drag and Zoom Image Stabilizer Face Detection Face Mega SD	Drag and Zoom Image Stabilizer Face Detection Face WDR	Auto Tracking Drag and Zoom Image Stabilizer IP66	Auto Tracking Drag and Zoom Image Stabilizer






¹: WDR (Wide Dynamic Range) ²: See the supported mobile phones on the Panasonic web site

i-PRO Network PTZ and Fixed Dome Cameras

		HD 1080p		HD 720p		HD 720p		
								
			SmartHD	SmartHD	SmartHD	SmartHD	SmartHD	SmartHD
Model		WV-NS202A	WV-NW502S	WV-SW355	WV-SW352	WV-NW484S	WV-SF346	WV-SF342
Camera Type		Indoor PTZ (0~350°)	3.0 MP Outdoor vandal dome	1.3 MP outdoor vandal dome	Outdoor vandal dome	Outdoor vandal dome	1.3 MP Indoor vandal dome	Indoor vandal dome
Super Dynamic		SDIII	Mega Super Dynamic	Mega Super Dynamic	Super Dynamic	SDIII	WDR (8x) *1	WDR (8x) *1
Imaging Device		1/4" CCD Progressive Output	1/3" CCD Progressive Scan	1/3" MOS Sensor Progressive Scan	1/3" MOS Sensor Progressive Scan	1/3" CCD Progressive Output	1/3" MOS Sensor Progressive Scan	1/3" MOS Sensor Progressive Scan
Video Compression		MPEG-4 JPEG	H.264 MPEG-4 JPEG	H.264 MPEG-4 JPEG	H.264 MPEG-4 JPEG	MPEG-4 JPEG	H.264 MPEG-4 JPEG	H.264 MPEG-4 JPEG
Day/Night		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Removable IR (D&N)		No	Yes	Yes	Yes	Yes	No	No
Auto Back Focus		Auto Focus	Yes	Yes (Lens ABF)	Yes (Lens ABF)	Yes	Yes (Lens ABF)	Focus Assist
VIQS		No	Yes	Yes	Yes	No	Yes	Yes
Minimum Illumination	Color	0.7 lux	3MP: 2.0 lux 1.3MP: 1.0 lux	0.3 lux	0.2 lux	0.6 lux	0.3 lux	0.2 lux
	B/W	0.5 lux	3MP: 0.16 lux 1.3MP: 0.08 lux	0.05 lux	0.04 lux	0.08 lux	0.2 lux	0.13 lux
fps JPEG		30fps (640 x 480)	5fps (2048 x 1536) 30fps (1280 x 960)	30fps (1280 x 960)	30fps (800 x 600)	30fps (640 x 480)	30fps (1280 x 960)	30fps (800 x 600)
fps MPEG-4		30fps (640 x 480)	30fps (640 x 480)	30fps (640 x 480)	30fps (640 x 480)	30fps (640 x 480)	30fps (640 x 480)	30fps (640 x 480)
fps H.264		-	15fps (1920 x 1080) 30fps (1280 x 960)	30fps (1280 x 960)	30fps (800 x 600)	-	30fps (1280 x 960)	30fps (800 x 600)
Max Image Resolution * MPEG-4 (640 x 480)		640 x 480 (JPEG & MPEG-4)	2048 x 1536 (JPEG) 1920 x 1080 (H.264)	1280 x 960 (JPEG & H.264)	800 x 600 (JPEG & H.264)	640 x 480 (JPEG & MPEG-4)	1280 x 960 (JPEG & H.264)	800 x 600 (JPEG & H.264)
Audio Capability		2-way (Half-duplex)	2-way	2-way	2-way	No	2-way	2-way
SD Memory Card Slot		Yes	Yes (SDHC)	Yes (SDHC)	Yes (SDHC)	Yes	Yes (SDHC)	Yes (SDHC)
SD Card Recording		1fps (JPEG)	30fps (H.264) 1fps (JPEG)	30fps (H.264) 1fps (JPEG)	30fps (H.264) 1fps (JPEG)	1fps (JPEG)	30fps (H.264) 1fps (JPEG)	30fps (H.264) 1fps (JPEG)
Lens Type		3.8mm~83mm	2.8x vari-focal 2.8mm~8.0mm	3.6x vari-focal 2.8mm~10.0mm	3.6x vari-focal 2.8mm~10.0mm	2.0x vari-focal 3.8mm~8.0mm	3.6x vari-focal 2.8mm~10.0mm	3.6x vari-focal 2.8mm~10.0mm
Zoom		22x optical 10x electric	2.8x optical 4x electric	3.6x optical 7.2x (VGA) EX optical 4x electric	3.6x optical 7.2x (VGA) EX optical 4x electric	2x optical 4x electric	3.6x optical 4x electric	3.6x optical 4x electric
Network		10/100 BASE-TX IP v4	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6
Power		12VDC PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)	24VAC/12VDC PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)
Alarm In-/Outputs		2/1	2/1	1/1	1/1	1/1	1/1	1/1
Max Power Consumption		12W (PoE) 1000mA (DC)	7.6W (PoE) 630mA (DC)	11.5W (PoE) 1.1 A (DC)	11.5W (PoE) 1.1 A (DC)	12W (PoE) 16 W (AC) 920mA (DC)	4.2W (PoE) 320mA (DC)	4.2W (PoE) 320mA (DC)
Operating Temperature		14°F~122°F	-22°F~122°F	-22°F~122°F	-22°F~122°F	-22°F~122°F	14°F~122°F	14°F~122°F
Mobile Phone Support *2		No	No	JPEG	JPEG	No	JPEG	JPEG
Security		ID/PWD Host Authentication	ID/PWD Host Authentication	ID/PWD Host Authentication HTTPS	ID/PWD Host Authentication HTTPS	ID/PWD Host Authentication	ID/PWD Host Authentication	ID/PWD Host Authentication
Other Key Features		Auto Tracking Drag and Zoom Image Stabilizer	Face Detection Face Mega SD Dehumidification Device IP66	Face Detection Face Mega SD Dehumidification Device Heater PoE *3 IP66	Face Detection Face Super Dynamic Dehumidification Device Heater PoE *3 IP66	Dehumidification Device Heater PoE *3 IP66	Face Detection Face WDR	Face Detection Face WDR






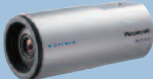

*1: WDR (Wide Dynamic Range) *2: See the supported mobile phones on the Panasonic web site *3: Heater optional

i-PRO Network Fixed Dome Cameras

		HD 720p		HD 720p		HD 720p		HD 720p	
									
Model		WV-SW155	WV-SW152	WV-SF135	WV-SF132	WV-SF336	WV-SF335	WV-SF332	
Camera Type		1.3MP Outdoor vandal dome	800x600 Outdoor vandal dome	1.3MP Indoor dome	Indoor dome	1.3MP Indoor dome	1.3MP Indoor dome	800x600 Indoor dome	
Super Dynamic		Mega Super Dynamic	Super Dynamic	No	No	WDR (8x) *1	WDR (8x) *1	WDR (8x) *1	
Imaging Device		1/3" MOS Sensor Progressive Scan	1/3" MOS Sensor Progressive Scan	1/3" MOS Sensor Progressive Scan	1/5" MOS Sensor Progressive Scan	1/3" MOS Sensor Progressive Scan	1/3" MOS Sensor Progressive Scan	1/3" MOS Sensor Progressive Scan	
Video Compression		H.264 JPEG	H.264 JPEG	H.264 JPEG	H.264 JPEG	H.264 MPEG-4 JPEG	H.264 MPEG-4 JPEG	H.264 MPEG-4 JPEG	
Day/Night		Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Removable IR (D&N)		No	No	No	No	No	No	No	
Auto Back Focus		No	No	No	No	Yes (Lens ABF)	Focus Assist	Focus Assist	
VIQS		Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Minimum Illumination	Color	0.8 lux	0.6 lux	0.8 lux	2.0 lux	0.3 lux	0.3 lux	0.2 lux	
	B/W	0.6 lux	0.4 lux	0.6 lux	1.3 lux	0.2 lux	0.2 lux	0.13 lux	
fps JPEG		30fps (1280 x 960)	30fps (800 x 600)	30fps (1280 x 960)	30fps (640 x 480)	30fps (1280 x 960)	30fps (1280 x 960)	30fps (800 x 600)	
fps MPEG-4		-	-	-	-	30fps (640 x 480)	30fps (640 x 480)	30fps (640 x 480)	
fps H.264		30fps (1280 x 960)	30fps (800 x 600)	30fps (1280 x 960)	30fps (640 x 480)	30fps (1280 x 960)	30fps (1280 x 960)	30fps (800 x 600)	
Max Image Resolution * MPEG-4 (640 x 480)		1280 x 960 (JPEG & H.264)	800 x 600 (JPEG & H.264)	1280 x 960 (JPEG & H.264)	640 x 480 (JPEG & H.264)	1280 x 960 (JPEG & H.264)	1280 x 960 (JPEG & H.264)	800 x 600 (JPEG & H.264)	
Audio Capability		No	No	No	No	2-way	2-way	2-way	
SD Memory Card Slot		Yes (SDHC)	Yes (SDHC)	No	No	Yes (SDHC)	Yes (SDHC)	Yes (SDHC)	
SD Card Recording		30fps (H.264) 1fps (JPEG)	30fps (H.264) 1fps (JPEG)	No	No	30fps (H.264) 1fps (JPEG)	30fps (H.264) 1fps (JPEG)	30fps (H.264) 1fps (JPEG)	
Lens Type		Fixed focal length 1.95mm	Fixed focal length 1.95mm	Fixed focal length 1.95mm	Fixed focal length 1.95mm	3.6x vari-focal 2.8mm~10.0mm	3.6x vari-focal 2.8mm~10.0mm	3.6x vari-focal 2.8mm~10.0mm	
Zoom		2x (VGA) Ex zoom	2x (VGA) Ex zoom	2x (VGA) Ex zoom	No	3.6x optical 4x electric	3.6x optical 4x electric	3.6x optical 4x electric	
Network		10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	
Power		PoE (IEEE802.3af)	PoE (IEEE802.3af)	PoE (IEEE802.3af)	PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)	
Alarm In-/Outputs		No	No	No	No	1/1	1/1	1/1	
Max Power Consumption		2.7W (PoE)	2.7W (PoE)	2.6W (PoE)	2.2W (PoE)	4.2W (PoE) 320mA (DC)	3.5W (PoE) 280mA (DC)	3.5W (PoE) 280mA (DC)	
Operating Temperature		-22°F~122°F	-22°F~122°F	32°F~104°F	32°F~104°F	14°F~122°F	14°F~122°F	14°F~122°F	
Mobile Phone Support *2		JPEG	JPEG	JPEG	JPEG	JPEG	JPEG	JPEG	
Security		ID/PWD Host Authentication HTTPS	ID/PWD Host Authentication HTTPS	ID/PWD Host Authentication HTTPS	ID/PWD Host Authentication HTTPS	ID/PWD Host Authentication	ID/PWD Host Authentication	ID/PWD Host Authentication	
Other Key Features		Face Detection Face Mega SD IP66 compatible with EN50155	Face Detection Face Mega SD IP66 compatible with EN50155	Face Detection ABS *4	Face Detection ABS *4	Face Detection Face WDR	Face Detection Face WDR	Face Detection Face WDR	








*1: WDR (Wide Dynamic Range) *2: See the supported mobile phones on the Panasonic web site *4: ABS (Adaptive Black Stretch)

i-PRO Network Fixed Box Cameras

		HD 1080p	HD 720p	HD 720p		HD 720p	
							
			<i>SmartHD</i>	<i>SmartHD</i>	<i>SmartHD</i>	<i>SmartHD</i>	<i>SmartHD</i>
Model		WV-NP502	WV-SP306	WV-SP305	WV-SP302	WV-SP105	WV-SP102
Camera Type		3.0 MP Box	1.3 MP Box	1.3 MP Box	800x600 Box	1.3 MP Box	Box
Super Dynamic		Mega Super Dynamic	WDR (8x) *1	WDR (8x) *1	WDR (8x) *1	No	No
Imaging Device		1/3" CCD Progressive Scan	1/3" MOS Sensor Progressive Scan	1/3" MOS Sensor Progressive Scan	1/3" MOS Sensor Progressive Scan	1/3" MOS Sensor Progressive Scan	1/5" MOS Sensor Progressive Scan
Video Compression		H.264 MPEG-4 JPEG	H.264 MPEG-4 JPEG	H.264 MPEG-4 JPEG	H.264 MPEG-4 JPEG	H.264 JPEG	H.264 JPEG
Day/Night		Yes	Yes	Yes	Yes	Yes	Yes
Removable IR (D&N)		Yes	Yes	No	No	No	No
Auto Back Focus		Yes	Yes (Lens ABF)	Focus Assist	Focus Assist	No	No
VIQS		Yes	Yes	Yes	Yes	Yes	Yes
Minimum Illumination	Color	3MP: 2.0 lux 1.3MP: 1.0 lux	0.3 lux	0.3 lux	0.2 lux	0.8 lux	2.0 lux
	B/W	3MP: 0.16 lux 1.3MP: 0.08 lux	0.05 lux	0.2 lux	0.13 lux	0.4 lux	1.3 lux
fps JPEG		5fps (2048 x 1536) 30fps (1280 x 960)	30fps (1280 x 960)	30fps (1280 x 960)	30fps (800 x 600)	30fps (1280 x 960)	30fps (640 x 480)
fps MPEG-4		30fps (640 x 480)	30fps (640 x 480)	30fps (640 x 480)	30fps (640 x 480)	-	-
fps H.264		15fps (1920 x 1080) 30fps (1280 x 960)	30fps (1280 x 960)	30fps (1280 x 960)	30fps (800 x 600)	30fps (1280 x 960)	30fps (640 x 480)
Max Image Resolution * MPEG-4 (640 x 480)		2048 x 1536 (JPEG) 1920 x 1080 (H.264)	1280 x 960 (JPEG & H.264)	1280 x 960 (JPEG & H.264)	800 x 600 (JPEG & H.264)	1280 x 960 (JPEG & H.264)	640 x 480 (JPEG & H.264)
Audio Capability		2-way	2-way	2-way	2-way	No	No
SD Memory Card Slot		Yes (SDHC)	Yes (SDHC)	Yes (SDHC)	Yes (SDHC)	No	No
SD Card Recording		30fps (H.264) 1fps (JPEG)	30fps (H.264) 1fps (JPEG)	30fps (H.264) 1fps (JPEG)	30fps (H.264) 1fps (JPEG)	No	No
Lens Type		Optional	Optional	Optional	Optional	Fixed focal length 3.54mm	Fixed focal length 2.00mm
Zoom		4x electric	4x electric	4x electric	4x electric	2x (VGA) Ex optical	No
Network		10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6	10/100 BASE-TX IP v4/v6
Power		12VDC PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)	12VDC PoE (IEEE802.3af)
Alarm In-/Outputs		2/1	1/1	1/1	1/1	No	No
Max Power Consumption		7.6W (PoE) 630mA (DC)	4.4W (PoE) 350mA (DC)	3.4W (PoE) 270mA (DC)	3.4W (PoE) 270mA (DC)	2.8W (PoE) 200mA (DC)	2.0W (PoE) 140mA (DC)
Operating Temperature		14°F~122°F	14°F~122°F	14°F~122°F	14°F~122°F	32°F~104°F	32°F~104°F
Mobile Phone Support *2		No	JPEG	JPEG	JPEG	JPEG	JPEG
Security		ID/PWD Host Authentication	ID/PWD Host Authentication	ID/PWD Host Authentication	ID/PWD Host Authentication	ID/PWD Host Authentication	ID/PWD Host Authentication
Other Key Features		Face Detection Face Mega SD	Face Detection Face WDR	Face Detection Face WDR	Face Detection Face WDR	ABS *4	ABS *4

*1: WDR (Wide Dynamic Range) *2: See the supported mobile phones on the Panasonic web site *4: ABS (Adaptive Black Stretch)







Network Cameras

						
Model	BB-HCM705A	BB-HCM701A	BB-HCM715A	BB-HCM527A	BB-HCM581A	BB-HCM580A
Camera Type	1.3 Megapixel fixed dome	Fixed dome	1.3 Megapixel pan/tilt	PTZ	PTZ	PTZ
Imaging Device	1/3" MOS Progressive Scan	1/5" CMOS Progressive Scan	1/3" MOS Progressive Scan	1/3.6" MOS Progressive Scan	1/4" CCD Progressive Scan	1/4" CCD Progressive Scan
Compression	Motion JPEG, MPEG-4, H.264	Motion JPEG, MPEG-4, H.264	Motion JPEG, MPEG-4, H.264	Motion JPEG, MPEG-4	Motion JPEG, MPEG-4	Motion JPEG, MPEG-4
PoE	Yes	Yes	Yes	Yes	Yes	No
Minimum Illumination (color night view mode)	0.6lux (0.07lux) 2x2 Pixel Binning: 0.3lux (0.04lux)	1.5lux (0.4lux)	0.6lux (0.07lux) 2x2 Pixel Binning: 0.3lux (0.04lux)	2lux (0.2lux)	2lux (0.09lux)	2lux (0.09lux)
Key Features	Shock detection Sound detection Motion detection Cell phone monitoring ¹	Shock detection Sound detection Motion detection Cell phone monitoring ¹	Motion detection Cell phone monitoring ¹	Motion detection Cell phone monitoring ¹	Motion detection Cell phone monitoring ¹	Motion detection Cell phone monitoring ¹
Frames Per Second	Up to 30	Up to 30	Up to 30	Up to 30	Up to 30	Up to 30
Image Resolution	1,280 x 960 (Quad-VGA)	640 x 480 (VGA)	1,280 x 960 (Quad-VGA)	640 x 480 (VGA)	640 x 480 (VGA)	640 x 480 (VGA)
Audio Capability	1-way monitoring (camera to PC) Built-in microphone	1-way monitoring (camera to PC) Built-in microphone	2-way (half duplex) Built-in microphone External microphone input	2-way (half duplex) Built-in microphone External microphone input	2-way (half duplex) External microphone input ²	No
SD Memory Card Slot	Yes (SD/SDHC)	Yes (SD/SDHC)	Yes (SD/SDHC)	Yes (SD/SDHC)	Yes (SD/SDHC)	Yes (SD/SDHC)
Lens Type Viewing Angle (Horiz/Vert) Pan (Horiz/Vert) Tilt (Horiz/Vert)	f2.4 69°/51° 20°/104° 57°/114°	f2.0 66°/50° 20°/104° 57°/114°	f2.4 69°/51° 104° 53°	f1.9 (wide)-f2.8 (tele) 73°/55° 350° 82°	f1.6 (wide)-f3.6 (tele) 51°/38° 350° 120° on table/90° on ceiling	f1.6 (wide)-f3.6 (tele) 51°/38° 350° 120° on table/90° on ceiling
Zoom	6x zoom (2x Ex zoom, 3x digital zoom)	3x digital zoom	6x zoom (2x Ex zoom, 3x digital zoom)	4.6x (2.3x optical, 2x digital)	42x (21x optical, 2x digital)	42x (21x optical, 2x digital)
Network	10/100 Base-TX	10/100 Base-TX	10/100 Base-TX	10/100 Base-TX	10/100 Base-TX	10/100 Base-TX
I/O Terminals	1	1	3	3	3	3
Analog Video Output	No	No	NTSC/PAL	NTSC/PAL	NTSC/PAL	NTSC/PAL
Security	User ID/Password, SSL	User ID/Password, SSL	User ID/Password, SSL	User ID/Password, SSL	User ID/Password	User ID/Password
Operating Temperature	32°F – 104°F	32°F – 104°F	32°F – 104°F	32°F – 104°F	32°F – 104°F	32°F – 104°F
Operating Humidity	20% to 80% (No condensation)	20% to 80% (No condensation)	20% to 80% (No condensation)	20% to 80% (No condensation)	20% to 80% (No condensation)	20% to 80% (No condensation)

¹Only still images in JPEG format can be displayed on a cell phone.

²Connection with external devices requires the included Audio/Video Cable.

Network Cameras

					
Model	BB-HCM511A	BB-HCM735A	BB-HCM547A	BB-HCM531A	BB-HCM371A
Camera Type	Pan/tilt	Outdoor* 1.3 Megapixel pan/tilt	Outdoor* PTZ	Outdoor* Pan/tilt	Wireless Outdoor* Pan/tilt
Imaging Device	1/4" CCD Progressive Scan	1/3" MOS Progressive Scan	1/3.6" MOS Progressive Scan	1/4" CCD Progressive Scan	1/4" CCD Progressive Scan
Compression	Motion JPEG, MPEG-4	Motion JPEG, MPEG-4, H.264	Motion JPEG, MPEG-4	Motion JPEG, MPEG-4	Motion JPEG
PoE	Yes	Yes	Yes	Yes	No
Minimum Illumination (color night view mode)	2lux (0.2lux)	0.6lux (0.07lux) 2x2 Pixel Binning: 0.3lux (0.04lux)	2lux (0.2lux)	2lux (0.2lux)	3lux (0.2lux)
Key Features	Motion detection Cell phone monitoring ¹	Motion detection Cell phone monitoring ¹ Splash resistance (IP55)	Motion detection Cell phone monitoring ¹ Splash resistance	Motion detection Cell phone monitoring ¹ Splash resistance	Motion detection Cell phone monitoring ¹ Splash resistance
Frames Per Second	Up to 30	Up to 30	Up to 30	Up to 30	Up to 30
Image Resolution	640 x 480 (VGA)	1,280 x 960 (Quad-VGA)	640 x 480 (VGA)	640 x 480 (VGA)	640 x 480 (VGA)
Audio Capability	2-way (half duplex) Built-in microphone External microphone input	2-way (half duplex) Built-in microphone External microphone input	2-way (half duplex) Built-in microphone External microphone input	2-way (half duplex) Built-in microphone External microphone input	2-way (half duplex) Built-in microphone External microphone input
SD Memory Card Slot	Yes (SD/SDHC)	Yes (SD/SDHC)	Yes (SD/SDHC)	Yes (SD/SDHC)	Yes (SD/SDHC)
Lens Type Viewing Angle (Horiz/Vert) Pan (Horiz/Vert) Tilt (Horiz/Vert)	<i>f</i> 2.8 54°/40° 120° 65°	<i>f</i> 2.4 69°/51° 104° 53°	<i>f</i> 1.9 (wide)- <i>f</i> 2.8 (tele) 73°/55° 350° 82°	<i>f</i> 2.8 54°/40° 120° 65°	<i>f</i> 3.5 53°/40° 120° 65°
Zoom	10x digital (by area)	6x zoom (2x Ex zoom, 3x digital zoom)	4.6x (2.3x optical, 2x digital)	10x digital (by area)	10x digital (by area)
Network	10/100 Base-TX	10/100 Base-TX	10/100 Base-TX	10/100 Base-TX	10/100 Base-TX
I/O Terminals	3	3	3	3	3
Analog Video Output	NTSC/PAL	NTSC/PAL	NTSC/PAL	NTSC/PAL	No
Security	User ID/Password	User ID/Password, SSL	User ID/Password, SSL	User ID/Password	User ID/Password
Operating Temperature	32°F – 104°F	-4°F – 122°F	-4°F – 122°F	-4°F – 122°F	-4°F – 122°F
Operating Humidity	20% to 80% (No condensation)	20% to 90% (No condensation)	20% to 90% (No condensation)	20% to 90% (No condensation)	20% to 90% (No condensation)

¹Only still images in JPEG format can be displayed on a cell phone. *Splash resistant body: camera placement under an eave is recommended

analog PTZ and Fixed Dome Cameras



Model	WV-CW974/964	WV-CW594	WV-CS954	WV-CS584	WV-CS574	WV-CW504S/F
Camera Type	Outdoor PTZ	Outdoor PTZ	Indoor PTZ	Indoor PTZ	Indoor PTZ	Outdoor Vandal
Wide Dynamic	SDIII	SD6	SDIII	SD6	No	SD5
Imaging Device	1/4"	1/4"	1/4"	1/4"	1/4"	1/3"
Day/Night	Yes	Yes	Yes	Yes	No	Yes
Removable IR (D & N)	Yes	Yes	Yes	Yes	No	Yes
Focus	Auto focus	Auto focus	Auto focus	Auto focus	Auto focus	Auto Back Focus
Minimum Illumination (w/clear dome when applicable)						
Color	0.5lux	0.5lux	0.5lux	0.5lux	1.0lux	0.1lux
Color w/enhancement	0.02lux @ 32x sens up	0.02lux @ 32x sens up	0.02lux @ 32x sens up	0.02lux @ 32x sens up	0.032lux @ 32x sens up	0.003lux @ 32x sens up
B/W	0.04lux	0.04lux	0.04lux	0.04lux	N/A	0.01lux
B/W w/enhancement	0.0013lux @ 32x sens up	0.0013lux @ 32x sens up	0.0013lux @ 32x sens up	0.0013lux @ 32x sens up	N/A	0.0003lux @ 32x sens up
Key Features	Advanced auto tracking w/PTZ (WV-CW974) Auto tracking w/pan/tilt (WV-CW964) Privacy zone masking	Auto tracking w/pan/tilt Privacy zone masking	Auto tracking w/pan/tilt Privacy zone masking	Auto tracking w/pan/tilt Privacy zone masking	Privacy zone masking	Intelligent VMD (object abandonment/removal, loitering, direction) Dehumidification device
Horiz. Resolution	540 lines	650 lines	540 lines	650 lines	510 lines	650 lines
Focal Length	3.8mm-114mm	3.3mm-119mm	3.8mm-114mm	3.3mm-119mm	3.79mm-83.4mm	3.8mm-8.0mm vari-focal CS lens mount
Zoom	30x optical/ 10x digital	36x optical/ 20x digital	30x optical/ 10x digital	36x optical/ 20x digital	22x optical/ 10x digital	2.1x optical/ 2x digital
Motion Detection	Yes	Yes	Yes	Yes	Yes	i-VMD (Intelligent VMD)
On Screen Display	Yes	Yes	Yes	Yes	Yes	Yes
Image Stabilization	Yes	Yes	Yes	Yes	No	Yes
Light Control	ALC	ALC	ALC	ALC	ALC	ALC/ALC+
IP66	Yes	Yes	No	No	No	Yes
Power	24VAC	24VAC	24VAC	24VAC	24VAC	24VAC/12VDC
Power Consumption	Camera 17 W w/heater 62 W	98 W	13 W	4.3 W	13 W	AC 3.4W (w/o heater) AC 14W (w/heater) DC 280mA (w/o heater)
Operating Temp.	-40°F – 122°F	-58°F – 122°F	14°F – 122°F	14°F – 122°F	14°F – 122°F	14°F – 122°F -22°F – 122°F When optional heater used

analog Fixed Dome Cameras



Model	WV-CW364	WV-CW334	WV-CF504	WV-CF324	WV-CF294/284	WV-CF354/344
Camera Type	Outdoor Vandal	Outdoor Vandal	Indoor Minidome	Ruggedized Indoor Minidome	Indoor Minidome	Indoor Minidome
Wide Dynamic	No	No	SD5	No	No	No
Imaging Device	1/3"	1/3"	1/3"	1/4"	1/4"	1/3"
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes (Electrical)
Removable IR (D & N)	Yes	No	Yes	No	No	No
Focus	N/A	N/A	Auto Back Focus	Auto Focus	WV-CF294: Auto Focus WV-CF284: N/A	WV-CF354: Auto focus WV-CF344: N/A
Minimum Illumination <small>(w/clear dome when applicable)</small>						
Color	0.6lux	0.6lux	0.1lux	0.9lux	0.9lux	0.08lux
Color w/enhancement	N/A	N/A	0.003lux (32x sens up)	N/A	N/A	0.0025lux (32x sens up) 0.00016lux (512x sens up)
B/W	0.05lux	0.4lux	0.01lux	0.6lux	0.6lux	0.05lux
B/W w/enhancement	N/A	N/A	0.0003lux (32x sens up)	N/A	N/A	0.0016lux (32x sens up) 0.00010lux (512x sens up)
Key Features	Adaptive Black Stretch	Adaptive Black Stretch	Intelligent VMD (object abandonment/ removal, loitering, direction)	Adaptive Black Stretch	Adaptive Black Stretch	Adaptive Black Stretch Lens Distortion Compensation
Horiz. Resolution	540 lines	540 lines	650 lines	540 lines	540 lines	650 lines
Focal Length	2.8-10.0mm vari-focal	2.8-10.0mm vari-focal	3.8mm-8.0mm vari-focal CS lens mount	2.8mm-10.0mm vari-focal	WV-CF294: 2.8-10.0mm vari-focal WV-CF284: 2.8-6.0mm vari-focal	2.8-10mm vari-focal
Zoom	3.6x optical	3.6x optical	2.1x optical/ 2x digital	3.6x optical	WV-CF294: 3.6x optical WV-CF284: 2.1x optical	3.6x optical/ 2x digital
Motion Detection	No	No	i-VMD (Intelligent VMD)	No	No	Yes
On Screen Display	No	No	Yes	No	No	Yes
Image Stabilization	No	No	Yes	No	No	Yes
Light Control	ALC	ALC	ALC/ALC+	ALC	ALC	ALC/ALC+/ELC
IP66	Yes	Yes	No	No	No	No
Power	24VAC/12VDC	24VAC/12VDC	24VAC/12VDC	24VAC/12VDC	24VAC/12VDC	24VAC/12VDC
Power Consumption	AC 2.9 W (w/o heater) AC 13.1 W w/heater DC 250mA (w/o heater)	AC 2.9 W (w/o heater) AC 13.1 W w/heater DC 250mA (w/o heater)	AC 3.4 W DC 280mA	AC 2.7 W DC 220mA	WV-CF294: AC 3.0 W DC 265mA WV-CF284: AC 2.7 W DC 220mA	AC 2.1 W DC 180mA
Operating Temp.	14°F – 122°F -22°F – 122°F When optional heater used	14°F – 122°F -22°F – 122°F When optional heater used	14°F – 122°F	14°F – 122°F	14°F – 122°F	14°F – 122°F

analog Fixed Box Cameras



Model	WV-CW384	WV-CL930 series	WV-CP500 series	WV-CP290 series	WV-CP310/314	WV-CP300/304
Camera Type	Outdoor Fixed Box	Fixed Box	Fixed Box	Fixed Box	Fixed Box	Fixed Box
Wide Dynamic	SDIII	No	SD5	No	No	No
Imaging Device	1/3"	1/2"	1/3"	1/3"	1/3"	1/3"
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes
Removable IR (D & N)	Yes	Yes	Yes	Yes	Yes	No
Focus	Auto Back Focus	Auto Back Focus	Auto Back Focus	N/A	N/A	N/A
Minimum Illumination <small>(w/clear dome when applicable)</small>						
Color	0.65lux	0.09lux@f1.4	0.1lux@f1.4	0.8lux@f1.4	0.08lux@f1.4	0.08lux@f1.4
Color w/enhancement	0.065lux(w/10x sens up)	0.003lux@f1.4 (w/32x sens up)	0.003lux@f1.4 (w/32x sens up)	N/A	0.0025lux (32x sens up) 0.00016lux (512x sens up)	0.0025lux (32x sens up) 0.00016lux (512x sens up)
B/W	0.09lux	0.008lux@f1.4	0.01lux@f1.4	0.05lux@f1.4	0.008lux@f1.4	0.05lux@f1.4
B/W w/enhancement	0.009lux (w/10x sens up)	0.0003lux@f1.4 (w/32x sens up)	0.0003lux@f1.4 (w/32x sens up)	N/A	0.00025lux (32x sens up) 0.00002lux (512x sens up)	0.0016lux (32x sens up) 0.00010lux (512x sens up)
Key Features	Built-in fan, heater and shield	Ultra high sensitivity Adaptive digital noise reduction	Intelligent VMD (object abandonment/removal, loitering, direction)	Adaptive Black Stretch	Adaptive Black Stretch Lens Distortion Compensation	Adaptive Black Stretch Lens Distortion Compensation
Horiz. Resolution	540 lines	540 lines	650 lines	540 lines	650 lines	650 lines
Focal Length	5mm-40mm vari-focal CS lens mount	Lens optional CS lens mount	Lens optional CS lens mount	Lens optional CS lens mount	Lens optional CS lens mount	Lens optional CS lens mount
Zoom	2x digital	N/A	2x digital	N/A	2x digital	2x digital
Motion Detection	Yes	Yes	i-VMD (Intelligent VMD)	No	Yes	Yes
On Screen Display	Yes	Yes	Yes	No	Yes	Yes
Image Stabilization	Yes	Yes	Yes	No	Yes	Yes
Light Control	ALC	ALC/ALC+/ELC	ALC/ALC+/ELC	ALC/ELC	ALC/ALC+/ELC	ALC/ALC+/ELC
IP66	Yes	No	No	No	No	No
Power	Camera 24VAC/12VDC Heater 24VAC	24VAC/12VDC	WV-CP500:120VAC WV-CP504: 24VAC/12VDC	WV-CP290: 120VAC WV-CP294: 24VAC/12VDC	WV-CP310:120VAC WV-CP314: 24VAC/12VDC	WV-CP300:120VAC WV-CP304: 24VAC/12VDC
Power Consumption	AC 18 W DC 540mA	WV-CL930: AC 4.6 W WV-CL934: AC 4.0 W DC 350mA	WV-CP500: AC 3.2 W WV-CP504: AC 3.6 W DC 310mA	WV-CP290: AC 2.5 W WV-CP294: AC 2.9 W DC 240mA	WV-CP310: AC 2.3 W WV-CP314: AC 2.1 W DC 180mA	WV-CP300: AC 2.3 W WV-CP304: AC 2.1 W DC 180mA
Operating Temp.	-22°F – 122°F (Heater On)	14°F – 122°F	14°F – 122°F	14°F – 122°F	14°F – 122°F	14°F – 122°F



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