

BOLIN

Blue Line



High Quality PTZ Camera
Lines Up For Any Budget

Blue Line PTZ Camera

Bolin's newly created Blue-Line PTZ cameras, now offer gold-standard features at an affordable price. Part of Bolin's PTZ camera manufacturing principle is to never compromise on image quality, industrial video standards, and end user experience on PTZ control operation.

Bolin Blue-Line PTZ camera focuses on delivering essential pro features to clients looking to outfit a lightweight AV system. High quality video from Full HD to 4K 60p resolution and standard control protocols essential in ProAV, UC, and light broadcast applications.

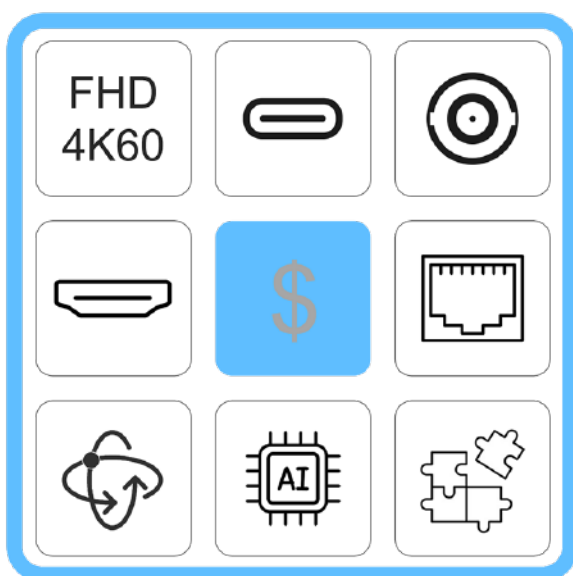
Bolin's commitment to the quality of the Blue-Line series cameras, includes the integration of cutting-edge technologies, such as an AI-powered engine - enabling precise Face Centric Smart Focus and Auto-Exposure.

In addition, the fitting of Sony's 1-inch sensor image block from our best-seller flagship product to selected blue-line camera offers to deliver pro-quality Sony DNA brilliant images to the mega-screen.

Bolin Blue-Line PTZ camera is just the beginning, and we're planning to bring many more pro-AV products to the market to bridge the gap between value and cost.



Bolin Blue-Line PTZ Camera Focus



- Gold-Standard Advantages
- Quality and Operation - No Compromises
- Standard Workflow Integration
- ProAV, UC and light broadcast application
- Feature Key Words
 - FHD/4K60
 - HDMI, SDI, USB, IP
 - Precision and Fine Control
 - AI Featured Capability
 - Compatibility and Integration
- Economical Solution

Blue Line PTZ Camera Models

B2-210/B2-220

FHD 10X/20X



B6-220/B6-420

FHD 20X/4K60 20X



B7-220

FHD 20X



B9-418

4K30/FHD 18X



Output	SKU	B2-210	B2-220	B6-220	B6-420	B7-220	B9-418
SONY Image Block							√
BOLIN Image Block		√	√	√	√	√	
FHD		√	√	√	√	√	√
4K60					√		
4K30							√
10X Zoom		√					
18X Zoom							√
20X Zoom			√	√	√	√	
HDMI 1.4		√	√	√		√	√
HDMI 2.0					√		
3G-SDI			√	√		√	√
USB 3.0							
USB 2.0		√	√	√	√	√	
IP Streaming		√	√	√	√	√	√
1 Inch Sensor							√

FEATURE OVERVIEW

High Quality Imaging - Full HD

Bolin's Bolin's Blue Line PTZ cameras are equipped with Sony sensor to provide brilliant, high-quality images in 1080p60 and 4K(2160p60) resolutions with 10 to 20x optical zoom.

Video Output

All Blue Line PTZ cameras deliver IP streaming video to network with local HDMI video and USB streaming to PC software for conventional video production and cloud based video conferencing applications. Cameras with 20X zoom range and 4K60 cameras also provides 3G-SDI, lossless baseband video for live production and light broadcast use.

Video Settings

Image parameter adjustments include exposure, focus, iris, shutter speed, white balance, gamma, wide dynamic range, E-flip/mirror and more with configurable video settings.

IP Video Streaming

With AVC/HEVC(H.264/265) codec encoder built-in, the Blue-Line cameras provide RTSP, RTMP, RTMPS, SRT streaming and IP control capability via IP network.

SRT Ready

WDelivery of high-quality and secure, low-latency video across the public Internet. SRT optimizes streaming performance across unpredictable networks with secure streams and easy firewall traversal, bringing the best quality live video over unstable networks..

AI Featured Smart Focus and Exposure

Built with Bolin's latest AI-powered face analytical engine which enables precise smart focus and smart exposure to bring customer a greater level of user experience and effective image quality improvement in a complex user environment.

Audio

HDMI/SDI/USB and IP video streaming signal has high-quality audio streaming embedded with support for Mic-in and Line-in audio inputs.

PTZ Movement

Extremely quiet and smooth operation for Pan/Tilt movements combined with enhanced adaptive, variable, and super slow speed control provides accurate and effective operation experiences. Picture Profile Preset: Image parameter settings restored with presets and quick access operation.

Remote Control and Setup PTZ Camera

Bolin's Blue Line PTZ cameras support serial RS232/RS422 control, Visca over IP control over network. Remotely control pan, tilt, zoom movements with full access to camera's image parameter settings via keyboard controller or IR controller.

Ease of Installation and Use

Use Bolin mounting accessories and simply connect one network cable with POE enabled ethernet network/POE device, or RJ45 port cable connection for serial control wiring makes the installation easy.

Always Up to Date

Free and easy firmware update via IP interface to keep camera features and performance up to date and even for customized function upgrades.

UNIQUE FEATURES (B9-418)

Uncompromising 1 Inch Sensor 4K image Quality

Equipped with Sony large, back-illuminated 1.0-type Exmor R CMOS sensor which delivers an uncompromised broadcast quality color pictures in detail-packed 4K/30p. The footage can also be captured in Full HD 60p for fast-moving action applications. Excellent low light sensitivity brings low noise color video images in low light levels as low as 0.5lx, making it an ideal choice for low light environment like live hall and theater.

SRZ - Super Resolution Zoom

Zoom range optical and SRZ 18X at 4K, or 24X at FHD

TRUE Dual Output

PTZ camera provides simultaneous 3G-SDI and remote IP video streaming and control. It is a TRUE Dual Output PTZ where SDI and IP formats can be set independently.

Comprehensive

Image parameter settings (Black Level, Color Matrix and Trace Memory) and Tally lights for Broadcast-friendly use and Pro AV applications.

Image Stabilizer

Built-in image stabilizer function eliminates the effect of blurred, shaky images caused by low-frequency vibration.

Other Features

Genlock simplifies integration with other systems. Optional HDBaseT and Optical video outputs.



B2-210



B2-220



B7-220



B9-418



SDI Optical Video Output Card (Optional)



HDBaseT Video Output Card (Optional)









B6-220



B6-420

SPECIFICATIONS

Model No. Product Name	B2-210 FHD PTZ Camera	B2-220	B7-220 FHD PTZ Camera	B6-220	B6-420 4K60 PTZ Camera	B9-418 1" 4K30 PTZ Camera
Product Picture						
Camera	10X	20X	20X	20X	20X	18X
Image Sensor	Sony Progressive scan CMOS image sensor 1/2.8 type					1.0-type back-illuminated Exmor R CMOS sensor
Number of effective pixels	1920X1080, 2.13 MP	1920X1080, 2.13 MP		3840x2160, 8.29MP		3840x2160, 8.29MP
Zoom	Optical Zoom 10X, Digital Zoom 16X	Optical Zoom 20X, Digital Zoom 16X		Optical Zoom 20X, Digital Zoom 16X		18X(4K), 24X(FHD)
Focal Length	f= 4.34 mm (Wide) to 35.17 mm (Tele)	f= 5.2 mm (Wide) to 104 mm (Tele)		f= 3.55 mm (WIDE) to 63.58 mm (TELE)		f=9.3 to 111.6mm, F2.8(Wide) ,F4.5(Tele)
Aperture	F1.85 (Wide) to F2.63 (Tele)	F1.6 (Wide) to F3.0 (Tele)		F1.8 (Wide) to F3.58 (Tele)		F2.8 Constant (W)-(T), 16 Steps
Horizontal Angle of View	68.8 °(W)-8.8° (T)	55.8° (W)-3.2° (T)		78.59° (W)-4.92° (T)		64.6° (Wide) - 6.1° (Tele),
Vertical Angle of View	39.5° (W)-5.1° (T)	-		48.71° (W)-2.81° (T)		-
Min. object distance	10mm (Wide)					80mm (Wide), 1000mm (Tele)
Min. Illumination	0.5lux (color) , 0.1lux (black)					0.5 lx (1/30 sec, 50%, High Sensitivity mode On) 2.0 lx (1/30 sec, 50%, High Sensitivity mode Off)
Shutter Speed	1/1 sec to 1/10000 sec (22 steps)					1/10000s to 1/8 (59.94/29.97) 1/10000s to 1/6 (50/25)
Focus	Auto, Manual, One Push					Auto Focus (Trigger/Interval), Manual Focus (Variable Speed), One Push Trigger, Near Limit,
White Balance	Auto, Indoor, Outdoor, OPW, ATW, Manual					AUTO, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor Lamp (Fix/Auto/Outdoor Auto)
Exposure	Auto, Manual, Shutter /Iris /Brightness priority					Full Auto, Gain, Shutter Priority, Iris Priority, Manual, Bright
Image Adjustment	Brightness, Color (Saturation), Contrast, Sharpness, HUE					
Back Light Compensation	On/Off					Yes
E-Flip	On/Off					Yes
WDR	On/Off					YES (130dB), Shown as VISIBILITY ENHANCER in OSD
Image Stabilizer	-					Yes, optical
Defog	-					Yes
Mirror	Horizontal					Yes
Day/Night	On/Off					Yes
Contrast	Yes					Yes
Color Gain	Yes					Yes
Color Hue	Yes					Yes
Color Matrix	Yes					Yes
Black Level	-					Yes
Gamma	Yes, 0-4					Yes
High Sensitivity	Yes					Yes
Scene	Default, Clear, Bright, Soft					-
Focus Zone	Face Priority, All Area, Upper Area, Central Area, Lower Area					-
AI Face Detection Focus	Yes					-
AI Face Auto Exposure	Yes					-
Noise Reduction	2D/3D, 1-255					On/Off (level 5 to 1 / Off, 6 steps), 2D/3D
S/N Ratio	≥50db					≥50db
OSD	Editable					Yes
HDMI Signal System						
Video Format - HDMI	1920x1080p:60/59.94/50/30/29.97/25; 1280x720p:60/59.94/50/30/25			4KP-2160p:60/59.94/50/30/29.97/25; 1080p:60/59.94/50/30/29.97/25; 1080i:60/59.94/50; 720p:60/59.94/50/30/25		3840x2160p/29.97/23.98/24; 1920x1080p/60/59.94/50/30/29.97/25/2 4/23.98; 1920x1080i/60/59.94/50; 1280x720p/60/59.94/50
Color Format	10bit(HDMI), YCbCr					10bit(HDMI), YCbCr
Color Space	YUV, RGB					YUV, RGB
OSD Menu Display	YES					Yes
SDI Signal System						
SDI Video Format	-	1080p:60/59.94/50/30/29.97/25; 720p:60/59.94/50/30/25		-	1920x1080p/60/59.94/50/30/29.97/25/2 4/23.98; 1920x1080i/60/59.94/50; 1280x720p/60/59.94/50	
Color Precision	-	10bit(SDI), YCbCr, 4:2:2		-	10bit(SDI), YCbCr, 4:2:2	
Color Space	-	YUV		-	YUV	
Standard	-	3G-SDI, SMPTE424/SMPTE292, TE 425-A (3Gb/s) standard / 75 Ω (BNC x 1), With SMPTE352 SDI Metadata Supported		-	3G-SDI, SMPTE424/SMPTE292, TE 425-A (3Gb/s) standard / 75 Ω (BNC x 1), With SMPTE352 SDI Metadata Supported	
True Dual Output	-	IP and SDI signal can be output with different format		-	IP and SDI signal can be output with different format	
OSD Menu Display	-	YES		-	Yes	
USB Signal System						
USB Port	USB2.0, Type C			USB3.0, Type C		-
Encoder	H.264/MJPEG/YUV2			H.264/MJPEG/YUV2 H.264/MJPEG:(3840x2160, 1920x1080, 1280x720, 800x600, 704x576, 640x480, 320x240) 50/60/25/30fps YUV2: 3840x2160 15fps (1920X1080, 1280X720, 800x600, 704x576, 640x480, 320X240) 50/60/25/30fps		-
USB Video Format	1920x1080p60/50/30/25fps, 1280x720p60/50/30/25fps					-
Compatible Integration	UVC, UAC					-
Video Conference Compatibility	Most video conference platform in the market					-
Network-IP Streaming						
Video Codec	MJPEG, AVC/HEVC-H.264/265 by SoC					MJPEG, AVC/HEVC-H.264/265 by SoC
Network Interface	RJ45 port-Standard 1Gbps Ethernet					RJ45 port-Standard 1Gbps Ethernet
IP Video - 1st Stream	1920x1080, 1280x720; Frame Rate: P60/50/30/25			3840x2160, 1920x1080, 1280x720; Frame Rate: P60/50/30/25		3840x2160p30/25, 1920x1080p/60/50/30/25, 1280x720p60/50/30/25;
IP Video - 2nd Stream	704x576, 640x480, 640x360, 576x480, 352x228, 320x240, 320x180; Frame Rate P60/50/30/25					
True Dual Output	Video resolution and framerate: IP and HDMI can be output with different format (SDI and HDMI will be the same, SDI is the same or lower than HDMI, USB is the same as IP)					
IP Protocols	TCP/IP, ICMP, ARP, RTP, SIP, UDP, HTTP, HTTPS, DNS, DHCP, FTP, NTP					
Application Protocols	RTP, RTSP, RTMP, RTMPS, SRT					
Multi-stream	2 Streams (Up to 20 viewers at the same time)					
Audio Compression	AAC-LC, G.711, G.726 Broadband Audio Encoding					

SPECIFICATIONS

Model No.	B2-210		B2-220/B7-220/B6-220		B6-420		B9-418		
Camera	10X		20X		20X		18X		
Network-IP Streaming									
Compatible Integration	ONVIF2.4 (Profile S, Profile G, Profile T), VISCA Over IP								
OSD	Customized OSD								
Browser Support	Cross Browser Compatibility - HTML5 support for Microsoft Edge, Google Chrome, Firefox, and Safari								
Latency - Codec	<150ms at 1080p60				<380ms at 4K60		<150ms at 1080p60;		
Bandwidth	2-4Mbps at 1080p60				4-8Mbps at 4K60		3-6Mbps at 4K30		
Results may vary depending on network configuration and management settings.									
Interface									
HDMI Video Output	HDMI 1.4X1 Type A				HDMI 2.0X1 Type A		HDMI 1.4X1 Type A		
IP Video Stream	Up to 1080p60				Up to 4K60		Up to 4K30, 1080p60		
SDI Video Output	3G-SDI, SMPTE424/SMPTE292,TE 425-A(3Gb/s) standard / 75 Ω (BNC x 1), With SMPTE352 SDI Metadata Supported						3G-SDI, SMPTE424/SMPTE292,TE 425-A(3Gb/s) standard / 75 Ω (BNC x 1), With SMPTE352 SDI Metadata Supported		
HDBaseT Module							Detachable slot, 1XRJ45-HDBaseT(4K), With HDBaseT video output transmission distance up to 80-100 meters (Insert card is not included)		
Fiber Optic SDI Module							Detachable slot, Connector: Duplex LC, Laser Unit: Single-mode 1,310nm DFB-LD transmitter and PIN receiver Compliant with MSA SFP+ Specification SFF-8402. (Insert card is not included)		
Camera Control Interface	RJ45X1-RS422, RJ45X1-IP Control, IR Remote Control								
Control Protocol	VISCA, VISCA Over IP, Pelco P/D								
LAN Port	RJ45X1 (1000BASE-T Ethernet port)								
USB Port	USB2.0,Type C				USB2.0,Type C				
USB Protocol	UVC, UAC								
Synchronization	Internal synchronization								
Tally Light	Tally lamp in front, Red and Green Color								
Dip Switch	Camera bottom panel: 8 PIN x 2								
Firmware Upgrade	HEVC IP stream system upgrade via IP						Camera back panel: x 1		
	Upgrade via IP for camera system MCU and Encoder						HEVC IP stream system upgrade via IP		
IR ID	ID selector for IR controller, total 3								
Power Connector Type	DC12V (IEC60130-10 (JEITA standard RC-5320A) TYPE4)						DC12V (IEC60130-10 (JEITA standard RC-5320A) TYPE4)		
	INPUT: RJ45, PoE+ (IEEE802.3at)								
Audio Input	MIC/LINE input, 3.5mm audio jack	USB port to 3.5mm audio jack	Line in input, 3.5mm audio jack*						
	ACC (Bit Rate(bps)48K*/96K; Sampling Rate(bps)16/24*/32								
Audio Output	-	USB port to 3.5mm audio jack-	Line in input, 3.5mm audio jack*						
Audio Output	Embedded with HDMI/SDI/IP streaming, 24bit Stereo, sample rate: 44k1 to 192k, PCM24								
Audio S/N Ratio	≥85dB								
Audio THD+N	≤0.05%								
Audio Noise (RMS)	≤-90dB								
Mechanical									
Pan Movement	Horizontal:±170 degrees continuous pan (Zoom Adaptive Speed Range: 0.05°~100°/S)								
Tilt Movement	Vertical:+90 degrees to -30 degrees (Zoom Adaptive Speed Range: 0.05°~50°/S)								
Speed Proportional	Pan/Tilt Speed proportional to zoom range								
Preset Position	255 positions, Speed 150°/s, Accuracy: 0.05° 6 presets on remote controller								
Preset Speed	0~5 Level Adjustable								
Preset Memory	YES, (Picture Profile Preset-Preset Memory for image parameters, like: Backlight Compensation, White Balance, R-Gain/B-Gain, Auto Exposure, Bright, Iris, Shutter, Gain, Aperture, Effect, Noise Reduction, Mirror, Gamma, Ex-COMP, Color Hue, Contrast etc.)								
Motionless Preset	On/Off								
PTZ Trace Memory	Yes, 4 (Supported via IP interface)								
Cruise	Yes,4								
Adaptive PT	Zoom range adaptive Pan/Tilt speed								
Pan/Tilt Direction	Normal, Invert								
Quietness	NC35 or less								
Home Position	Support								
Environmental	Indoor								
General									
Body	Partial Magnesium Alloy				Aluminum Alloy		Partial Magnesium Alloy		
Mount	Ceiling mount, Wall mount, Tripod								
Size of Tripod Screw Hole	1/4"-20UNC with safety joint								
Operating Temperature	-10 to +50 (°C), 32 to 130 (°F)								
Operating Humidity	≤80% Suitable for Use								
Power Input	DC±12V, PoE+(Compatible with IEEE802.3at)								
Power Consumption	Min:10W(Static state with no movement); Max:13W(Fully loaded operation)		Min:15W; Max:19W		Min:13W(Static state with no movement); Max:18W(Fully loaded operation)		Min: 25W(Static state with no movement); Max: 45Watts (Fully loaded operation)		
Dimension	143x143x161mm (LxWxH)		178.75x159x211mm		280*159*173mm (LxWxH)		165x196x247mm		
Weight	1.5kg (Net weight)		2kg		2kg (Net weight)		3.3kg (Net weight)		
Body Color	Black/White				Dark Grey		Black/White		
Accessory									
Power Supply	12VDC 4A X1, Universal various power core.								
Remote Controller	Full Function IR Controller X1								
Serial Control Adaptor	RS232/RS422 adapter cable x1 For serial RS232/422 control								
Insert Video Card (Optional)							HDBaseT Module		
Insert Video Card (Optional)							Fiber Optic SDI Module		

ORDER INFORMATION

- B2-210 (FHD, 10X Zoom, Black)
- B2-210W (FHD, 10X Zoom, White)
- B6-220 (FHD, 20X Zoom, Gray)
- B7-220 (FHD, 20X Zoom, Black)
- B9-418 (4K30/FHD, 18X Zoom, Black)
- B2-220 (FHD, 20X Zoom, Black)
- B2-220W (FHD, 20X Zoom, White)
- B6-420 (4K60, 20X Zoom, Gray)
- B7-220W (FHD, 20X Zoom, White)
- B9-418W (4K30/FHD, 18X Zoom, White)

ACCESSORIES



VCC-RC-2
IR Remote Controller



VCC-P12-2
12VDC 2A Power Adapter



VCC-CC45RS
RJ45 To RS232/RS422/485 Adapter



VCC-WM
Wall Mount Bracket-Optional

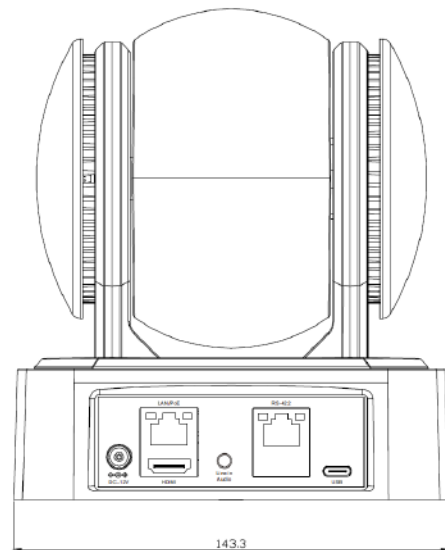
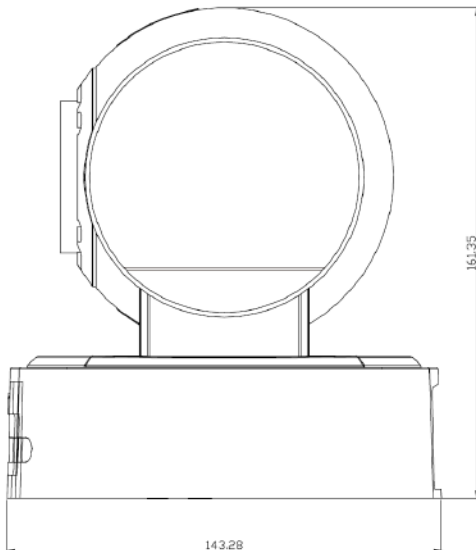
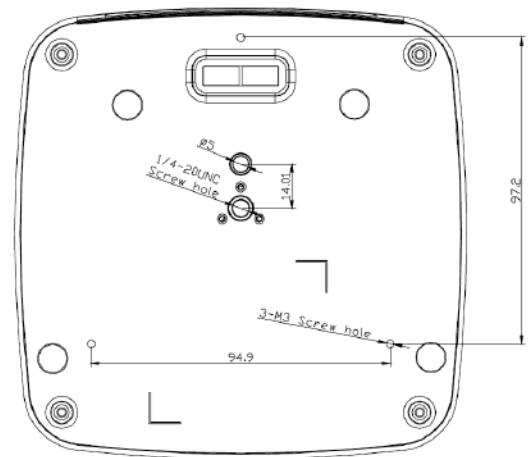
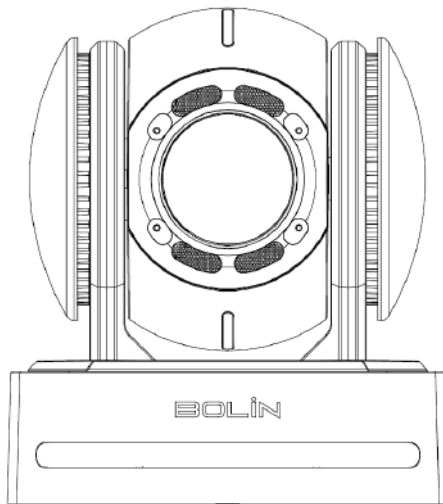


VCC-CM
Ceiling Mount Bracket-Optional

DIMENSIONS

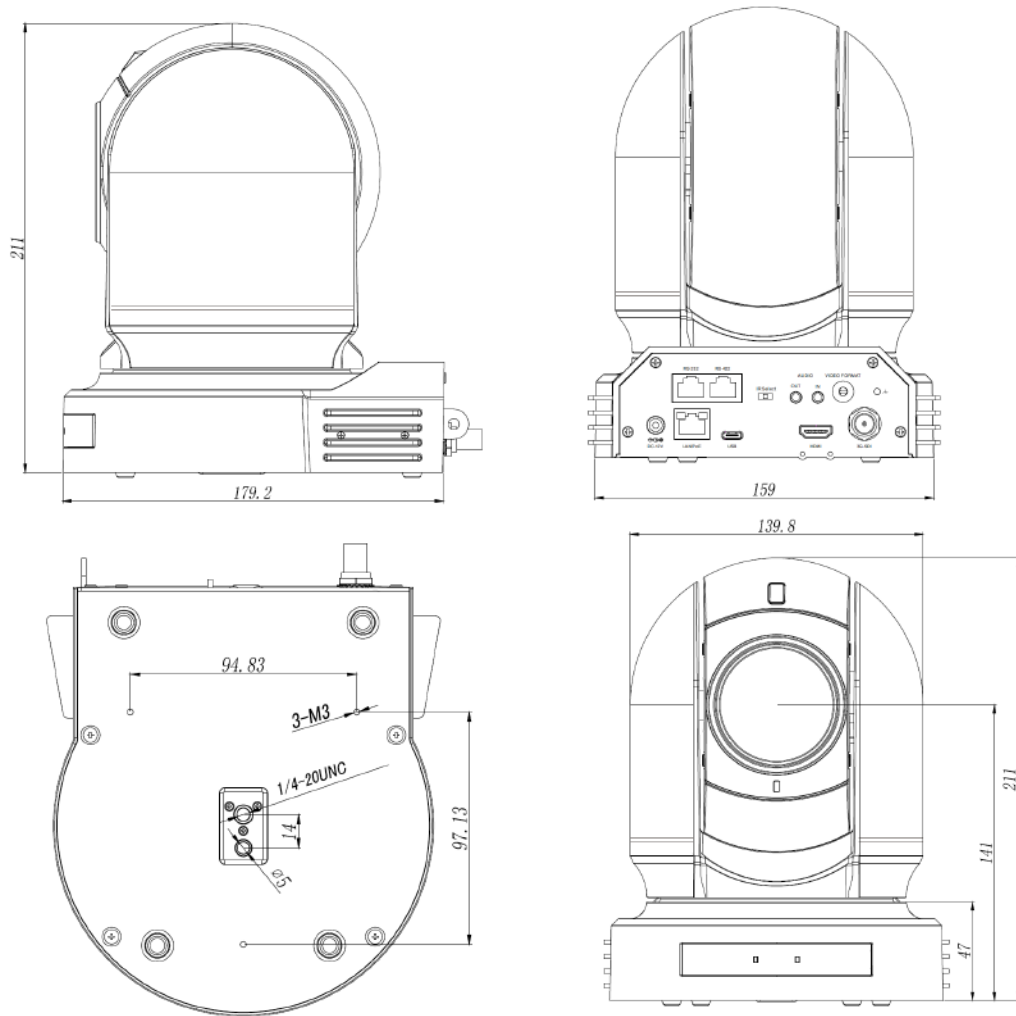
Unit: mm

B2-210/B2-220

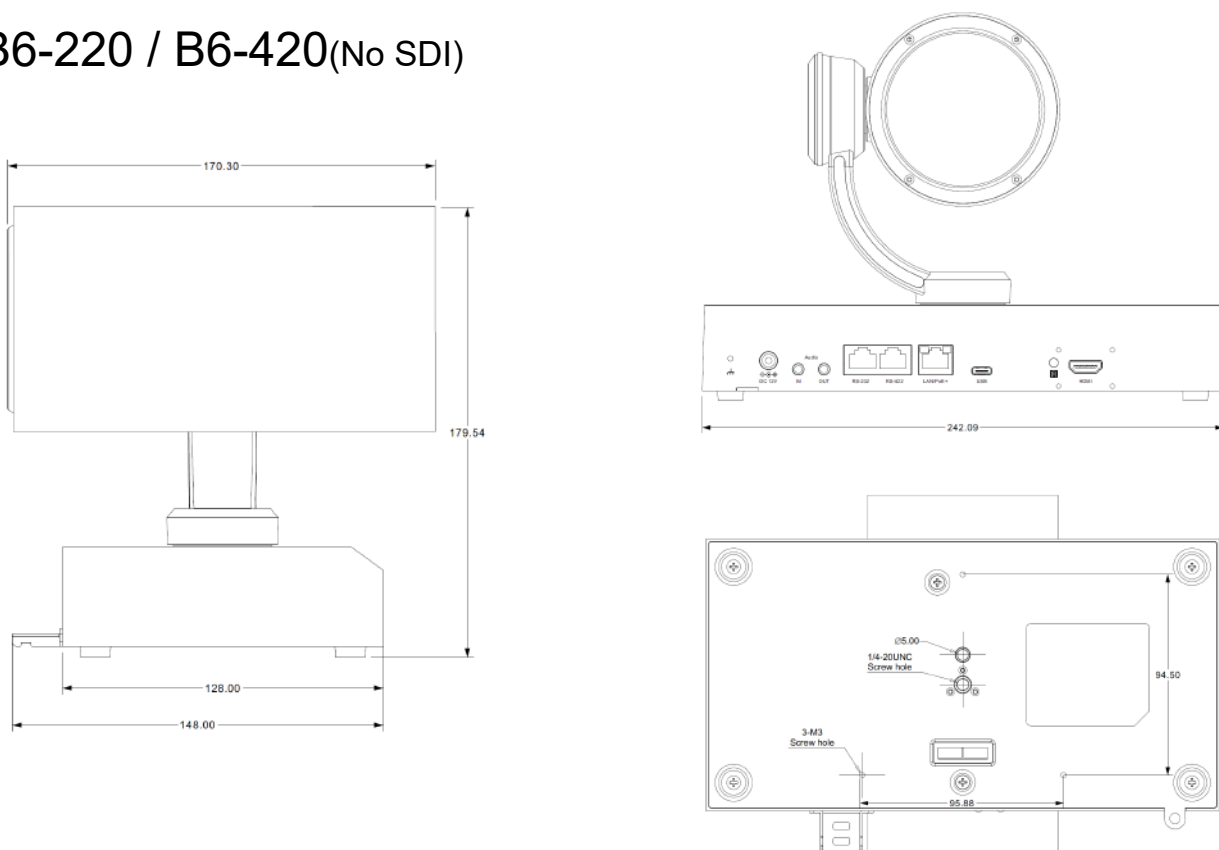


All models and specifications are subject to change without notice.
All brand names and registered trademarks are the property of their respective owners.

B7-220

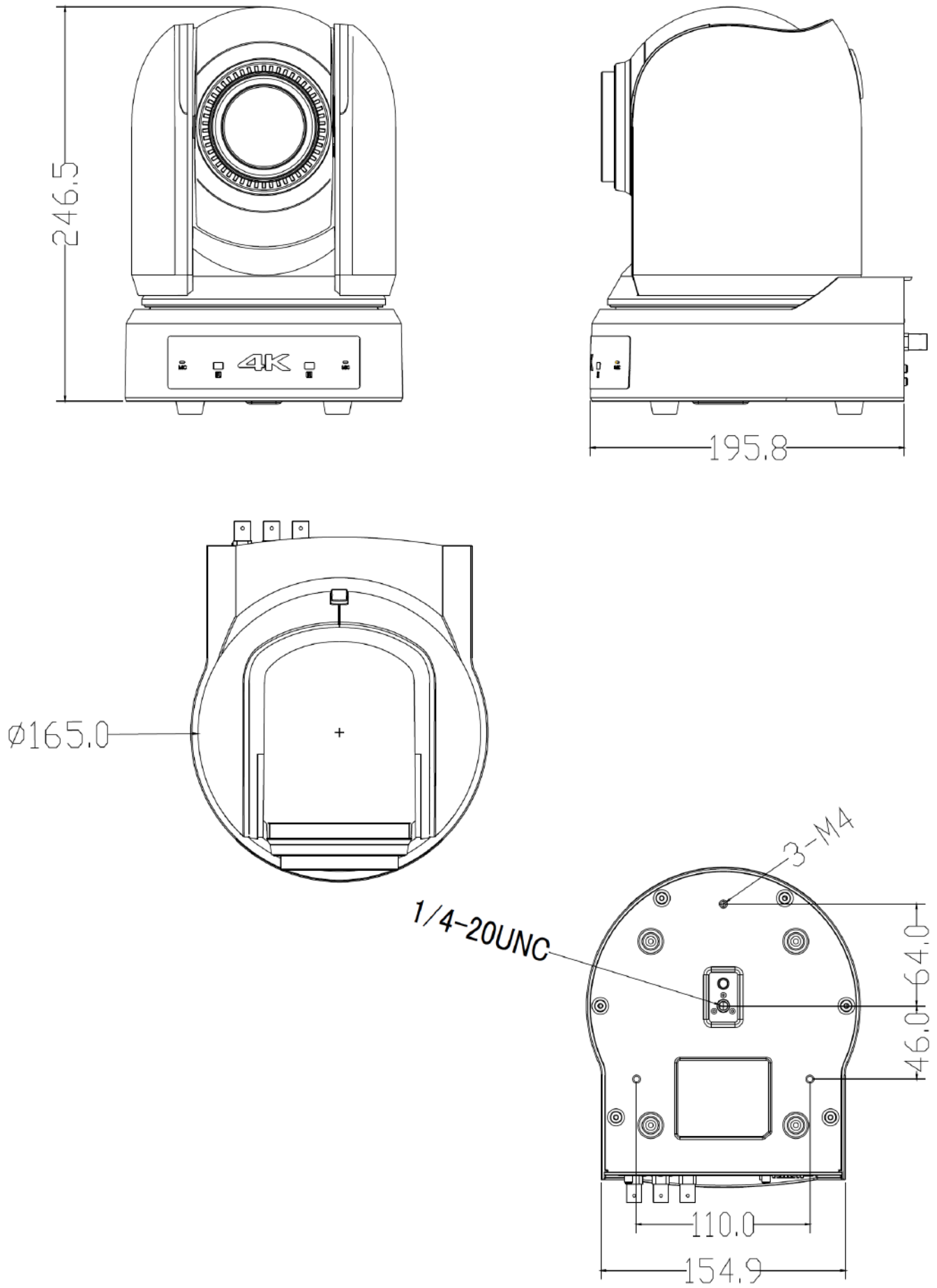


B6-220 / B6-420(No SDI)



All models and specifications are subject to change without notice.
All brand names and registered trademarks are the property of their respective owners.

B9-418



All models and specifications are subject to change without notice.
All brand names and registered trademarks are the property of their respective owners.