- **B2-210**
- **B2-220**

KEY FEATURES

- Zoom: Optical 10X, 20X
- Video Output: HDMI, SDI, IP, USB C
- Horizontal Angel of View: 69°
- Video Resolution up to Full HD
- UVC/UAC supported for video conference use
- IP resolution up to 1080P60.
- RTSP, RTMP, SRT IP streaming
- Control: RS232, RS422/485, IP/Onvif/Visca Over IP
- AI Exposure, AI Focus
- Power: 12VDC, PoE

OVERVIEW

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 Blue-Line PTZ camera provides simultameous HDMI/SDI video with no latency and remote IP streaming and USB video for Unified Communication conferencing applications.

Ideal for gaming activity, video-conferencing, studio, house of worship, broadcast, educational, environment, corporate training, distance learning applications.

Bridge the Gap Between Value and Cost

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FUNCTIONALITY

- B2-210 and B2-220 is equipped with Sony senor to provide brilliant, high-quality images in 1080p60 resolutions with 10X or 20x optical zoom range.

- Compact design and USB 2.0 (C Type) video used for Huddle Space cloud based video conferencing application.
- B2-210/B2-220 cameras deliver IP streaming (RTSP, RTMP, SRT) video to network with local HDMI video and USB streaming to PC software for conventional video production and cloud based video conferencing applications. B2-220 also provides 3G-SDI, lossless baseband video for live production and light broadcast use.
- Image parameter adjustments includes exposure, focus, iris, shutter speed, white balance, gamma, wide dynamic range, flip/mirror and more with configurable video settings.
- Another Gold Standard feature of the Blue Line is the Color Matrix. With it, you can easily make subtle and specific corrections to the colors in your camera's image.
- Built with Bolin's latest AI-powered facial analytics engine, which enables smart focus and smart exposure to provide faster, more precise focusing and improved auto exposure on faces in complex lighting environments.
- HDMI/SDI/USB and IP video has high–quality audio streaming embedded with support for Mic-in and Line-in audio input.
- Extremely quiet and smooth operation for Pan/Tilt movements combined with enhanced adaptive, variable, and super slow adaptive speed control provides accurate and effective operation experiences. Picture Profile Preset: Image parameter settings restored with presets and quick access operation.
- Supprot 1GB Ethernet network, independent PoE(IEEE 802.3af) power and 12VDC; Standard mounting and ceiling mounting with E-Flip function.
- Firmware updates, upgrade via IP interface to keep camera features and performance up to date.

B2-210

B2-220

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Product Specification

Model No. Camera	B2-210 10X Full HD	B2-220 20X Full HD
Image Sensor	Sony Progressive scan CMOS image sensor 1/2.8 type	
Number of effective pixels	1920X1080, 2.13 MP	1920X1080, 2.13 MP
Zoom	Optical Zoom 10X, Digital Zoom 16X	Optical Zoom 20X, Digital Zoom 16X
Focal Length	f= 4.34 mm (Wide) to 35.17 mm (Tele)	f= 5.2 mm (Wide) to 104 mm (Tele)
Aperture	F1.85 (Wide) to F2.63 (Tele)	F1.6 (Wide) to F3.0 (Tele)
Horizontal Angle of View	68.8 °(W)~8.8° (T)	55.8° (W)~3.2° (T)
Vertical Angle of View	39.5° (W)~5.1° (T)	-
Min. object distance	10mm (Wide)	
Min. Illumination	0.5lux（color），0.1lux（black）	
Shutter Speed	1/25~1/100K sec	
Focus	Auto, Manual, One Push	
White Balance	Auto, Indoor, Outdoor, OPW, ATW, Manual, SVL USER	
Exposure	Auto, Manual, Shutter/Iris priority	
Image Adjustment	Brightness, Color(Saturation), Contrast, Sharpness, HUE	
Back Light Compensation	On/Off	
E-Flip	On/Off	
WDR	On/Off	
Image Stabilizer	-	
Defog	Yes	
Mirror	Horizontal	
Day/Night	On/Off	
Contrast	Yes	
Color Gain	Yes	
Color Hue	Yes	
Color Matrix	Yes	
Black Level	-	
Gamma	Yes, 4 levels (0.45, 0.50, 0.55, 0.63)	
High Sensitivity	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, 0-100	
S/N Ratio	≥50db	
OSD	Editable	
HDMI Signal System		
Video Format - HDMI	1920x1080p:60/59.94/50/30/29.97/25; 1280x720p:60/59.94/50/30/25	
Color Format	8bit(RGB), 12bit(YUV422),	
Color Space	YUV, RGB	
OSD Menu Display	YES	
SDI Signal System		
SDI Video Format	-	1080p:60/59.94/50/30/29.97/25; 720p:60/59.94/50/30/25
Color Precision	-	8bit(SDI), YCbCr, 4:2:2
Color Space	-	YUV
Standard	-	3G-SDI, SMPTE424M/SMPTE292M,TE 425-A(3Gb/s), with SMPTE352 SDI Metadata Supported
True Dual Output	-	SDI and HDMI has same video format when HDMI outputs FHD and lower.
OSD Menu Display	-	YES
USB Signal System		
USB Port	USB2.0,Type C	
Encoder	H.264/MJPEG/YUV2	
USB Video Format	1920×1080p60/50/30/25fps ,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	
Network Interface	RJ45 port-Standard 1Gbps Ethernet	
IP Video - 1st Stream	1080p60/59.94/50/30/29.97/25; 720p60/59.94/50/30/25	
IP Video - 2nd Stream	704x576, 640x480, 640x360, 576x480, 352x228; Frame Rate P30/25	
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, UDP, HTTP, DNS, DHCP, FTP, NTP	
Application Protocols	RTP, RTSP, RTMP,RTMPS, SRT	
Multi-stream	2 Streams（Up to 8 viewers at the same time）	
Audio Compression	AAC-LC, Broadband Audio Encoding	

Product Specification

Model No.	B2-210	B2-220
Camera	10X Full HD	20X Full HD
Network-IP Streaming		
Compatible Integration	ONVIF2.4 (Profile S), 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	
Bandwidth	1-11Mbps at 1080p60	
	Results may vary depending on network configuration and management settings.	
Interface		
HDMI Video Output	HDMI 1.4X1 Type A	
IP Video Stream	Up to 1080p60	
SDI Video Output	-	3G-SDI, standard / 75 Ω (BNC x 1)
Camera Control Interface	RJ45X1-RS422, RJ45X1-IP Control, IR Remote Control	
Control Protocol	VISCA. VISCA Over IP, Pelco P/D, Onvif	
LAN Port	RJ45X1 (1000BASE-T Ethernet port)	
USB Port	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		
	Upgrade via IP for camera system MCU and Encoder	
IR ID	ID selector for IR controller, total 3	
Power Connector Type	DC12V (IEC60130-10 (JEITA standard RC-5320A) TYPE4)	
	INPUT: RJ45, PoE(IEEE802.3af)	
Audio Input	MIC/LINE input, 3.5mm audio jack	USB port to 3.5mm audio jack
	AAC (Bit Rate(bps)48K*/64k / 96K / 128k; Sampling Rate(bps)44.1k / 48k	
Audio Output	-	USB port to 3.5mm audio jack-(Not Activated)
Audio Output	Embedded with HDMI, SDI, IP, USB streaming, 24bit Stereo, sample rate: 44.1KHz, 48KHz, 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°∽70°/S)	
Speed Proportional	Pan/Tilt Speed proportional to zoom range	
Preset Position	255 positions, Speed 100°/s, Accuracy: 0.05° 9 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, 12	
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	
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 (IEEE802.3 af Type 1 Calss 3)	
Power Consumption	Min:10W(Static state with no movement); Max:13W(Fully loaded operation)	
Dimension	143x143x161mm (LxWxH)	
Weight	1.5kg (Net weight)	
Body Color	Available in Black, (White - Special Order)	
Accessory		
Power Supply	12VDC 2A 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	

ORDER INFORMATION

- Visit Bolin Technology Website