• B7-220

KEY FEATURES

- Zoom: Optical 20X
- Video Output: HDMI, SDI, IP, USB C
- 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

FHD | 20X | HDMI | 3G-SDI | USB 2.0 | IP | HTML5 | RTSP RTMP | SRT READY | AI | Audio SDI/HDMI | VISCA over IP | Onvif | PELCO P/D | 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

VALUE · BRIDGE THE GAP · COST

FUNCTIONALITY

- B7-220 is equipped with Sony senor to provide brilliant, high-quality images in 1080p60/4K60 resolutions with 20x optical zoom range.

- Compact design and USB 2.0 (C Type) video used for Huddle Space cloud based video conferencing application.

- B7-220 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. B6-220 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, image stabilizer, flip/mirror and more with configurable video settings.

- 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 invironment.

- 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. Control protocal supports: Serial RS232/RS422/RS485, IP/Onvif/Visca-Over-IP, UVC, IR Remote.

- Simply connect one network cable from camera to any 1GB Ethernet network/POE device to access to existing IP network and HDMI/SDI cable to baseband video work flow. Independent PoE+ (IEEE 802.3at) 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.

B7-220

Model No.	B7-220
Camera	**20X Full HD**
Image Sensor	Sony Progressive scan CMOS image sensor 1/2.8 type
Number of effective pixels	1920X1080, 2.13 MP
Zoom	Optical Zoom 20X, Digital Zoom 16X
Focal Length	f= 5.2 mm (Wide) to 104 mm (Tele)
Aperture	F1.6 (Wide) to F3.0 (Tele)
Horizontal Angle of View	55.8° (W)~3.2° (T)
Vertical Angle of View	-
Min. object distance	10mm (Wide)
Min. Illumination	0.5lux (color) , 0.1lux (black)
Shutter Speed	1/1 sec to 1/10000 sec (22 steps)
Focus	Auto, Manual, One Push
White Balance	Auto, Indoor, Outdoor,OPW,ATW, Manual
Exposure	Auto, Manual, Shutter /Iris /Brightness priority
Image Adjustment	Brightness, Color(Saturation), Contrast, Sharpness, HUE
Back Light Compensation	On/Off
E-Flip	On/Off
WDR	On/Off
Image Stabilizer	-
Defog	-
Mirror	Horizontal
Day/Night	On/Off
Contrast	Yes
Color Gain	Yes
Color Hue	Yes
Color Matrix	Yes
Black Level	-
Gamma	Yes, 0-4
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, 1-255
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	10bit(HDMI), YCbCr
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	10bit(SDI), YCbCr, 4:2:2
Color Space	YUV
Standard	3G-SDI, SMPTE424/SMPTE292,TE 425-A(3Gb/s) standard / 75 Ω (BNC x 1), 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	1920x1080,1280x720; Frame Rate: P60/50/30/25
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

www.bolintechnology.com

BOLIN TECHNOLOGY

Product Specification

Model No.	B7-220
Camera	20X Full HD
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
Bandwidth	2-4Mbps 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, SMPTE424/SMPTE292,TE 425-A(3Gb/s) standard / 75 Ω (BNC x 1), With SMPTE352 SDI Metadata Supported
HDBaseT Module	-
Fiber Optic SDI Module	
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
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
	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+ (IEEE802.3at)
Audio Input	Line in input, 3.5mm audio jack*
	ACC (Bit Rate(bps)48K*/96K; Sampling Rate(bps)16/24*/32
Audio Output	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, On/Off
Motionless Preset	
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
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+(Compatibable with IEEE802.3at)
Power Consumption	Min:15W; Max:19W
Dimension	178.75x159x211mm
Weight	2kg (Net weight)
Body Color	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)	-
Insert Video Card (Optional)	-

ORDER INFORMATION

• B7-220 (20X, FHD, HDMI+SDI+USB, Black)

• B7-220W (20X, FHD, HDMI+SDI+USB, White)

All models and specifications are subject to change without notice.

www.bolintechnology.com

BOLiN TECHNOLOGY