



BRC Series Color Video Cameras

BRC-H700
BRC-Z700
BRC-Z330
BRC-300

The BRC Series consists of four Pan/Tilt/Zoom (P/T/Z) cameras—the BRC-H700, BRC-Z700, BRC-Z330, and BRC-300. They offer wide and smooth pan/tilt/zoom capabilities together with exceptional picture quality from SD to full HD images. You can remotely control these cameras using the RM-BR300 Remote Control Unit or the BRS-200 Remote Camera Operating Switcher. The BRC Series is ideal for a variety of remote video shooting applications, and each camera integrates easily into a wide range of indoor and outdoor systems. These features enable users to enjoy the benefits of the BRC Series cameras, particularly in education, broadcast, corporate, wedding and event applications.

PRODUCT LINEUP

BRC-H700

Equipped with three 1/3-type HD CCDs, the BRC-H700 offers excellent picture quality with high sensitivity and a high resolution of 1,070,000 effective pixels. This camera has the best sensitivity of the BRC Series; delivering superb performance in dimly lit environments, such as concerts or wedding venues. Moreover, the camera offers the widest viewing angle of the BRC Series, delivering broad images of each scene and providing a complete picture of ongoing events.



BRC-Z700

The BRC-Z700 offers a resolution of 1,040,000 effective pixels by deploying three 1/4-type ClearVid™ CMOS image sensors in combination with Sony-developed DSP technology. This camera includes a 20x optical auto-focus zoom lens with an optical image stabilizer. The perfect choice for long-distance-shooting applications, such as sporting coverage, this camera provides dual SD/HD outputs, enabling users to smoothly transition to a total HD system.

BRC-Z330

Equipped with a single 1/3-type 2-megapixel CMOS image sensor, the BRC-Z330 delivers stunning HD and SD images. This camera enables 1080i and 720p to be integrated in various HD systems. It also outputs SD signals simultaneously for added system flexibility; this is particularly useful when executing a system upgrade. In addition, the camera's quiet movement, compact size, light weight, and stylish design broaden the options when developing ideal applications.



BRC-300

The standard-definition BRC-300 comes equipped with three 1/4.7-type Advanced HAD™ CCD sensors. This camera delivers reliable picture quality and is the best choice for cost-efficient SD applications. It can capture images in 4:3 and 16:9 aspect ratios, the latter providing a wider viewing angle.

FEATURES

Auto White Balance

The BRC-Z700 and BRC-Z330 have an enhanced type of auto mode (Auto 2), which adds to the conventional auto mode (Auto 1). In Auto 2, the camera recognizes a wider range of color temperature as white – this is useful for video shooting when there are frequent variations in the lighting source.

Color Adjustment

The BRC-Z700 and BRC-Z330 can enhance or reduce a specific color region without changing the white balance focusing point. Both of these cameras adjust the saturation of six colors independently, and the BRC-H700 is able to modulate six colors simultaneously.

Color Detail

The BRC-Z700 and BRC-Z330 can adjust the image enhancer of a specific color, which is an enhancement over the conventional skin tone detail function. This allows you to adjust not only skin tone color but also all other colors.

Color AE

The BRC-Z330 is equipped with a Color AE function. When the camera detects a particular color, it adjusts exposure specifically for the color. This feature is useful when shooting objects that are located in front of a single-colored background. Also, the camera can adjust the skin tone color to the best brightness.

APPLICATIONS

Corporate/Boardroom

The BRC Series cameras are excellent for various business communication applications, such as videoconferencing, corporate training, and transmission of managers' regular speeches. Each camera in the series offers particular benefits, broadening the scope of camera choices for a wide range of applications. To quickly re-use a camera after



someone else has been using it, simply touch a button on the supplied controller to recall pre-selected positions for capturing audio and switching scenes.

Auditorium/Concert Hall

With pan/tilt movement, the wide shooting range of a single camera can capture an entire live performance, including audience shots. This ability of the BRC Series means that fewer cameras and camera operators are required, resulting in huge cost savings. These cameras can easily get close shots of performers from locations that are typically difficult for a



photographer to reach. Additionally, each camera's compact size and quiet movement avoid distracting audiences from the performance.

City Council

Remotely controlled by the RM-BR300 or BRS-200, BRC Series cameras move quickly to capture key scenes at council meetings and courtroom trials. Single-operator switching and broadcasting are supported by the BRS-200 switcher, while



operation is simplified and streamlined by multiple pre-sets which pre-define P/T/Z positions and other parameters.

Sporting Events

With high-speed and extremely smooth pan/tilt movement, BRC Series cameras can follow the swift, spontaneous flow of sports action. By pre-installing cameras in elevated positions, they can deliver extensive views of each sporting event, and capture shots at unique angles, typically very difficult to



achieve with conventional shooting. Also, optical fiber connection (max. 2,000 m) achieves long-distance data transfer and enables single-operator broadcasting.

Studio

The BRC Series is also ideal for use in the broadcast industry. The BRC-H700, BRC-Z700 and BRC-Z330*² can output HD-SDI signals – a necessity for highly demanding broadcasters who seek uncompromising picture quality. With flexible installation, these cameras can be painlessly integrated into the current operating studio with tripods or ceiling brackets. For the wide angles required in studio shooting, wide conversion lenses are available*³. And there are other camera benefits, including



quiet and smooth P/T/Z movement, a tally indicator, cost-efficiency, and more.

*² HD-SDI outputs are available using optional video cards.

*³ Wide conversion lenses are available for the BRC-Z700 and BRC-300.

Education

By deploying BRC Series cameras, instructors can offer students new educational opportunities anytime and anywhere. With real-time distribution of lectures and



educational content, academic institutions can deliver e-learning classes, and professors can share lectures and collaborate via networked communication.

House of Worship

By using a large screen in combination with the highly sensitive BRC Series cameras, an organizer can deliver clear video images with accurate color reproduction. Attendees can be more involved in the service and follow ongoing



events better than ever before. With a variety of peripheral components, a range of user-friendly systems can be designed to suit the size and budget of every institution.

Wedding and Event




Pre-installed BRC Series cameras, with their quiet movement, are conducive to a perfectly peaceful and tranquil atmosphere. With high picture performance and zoom



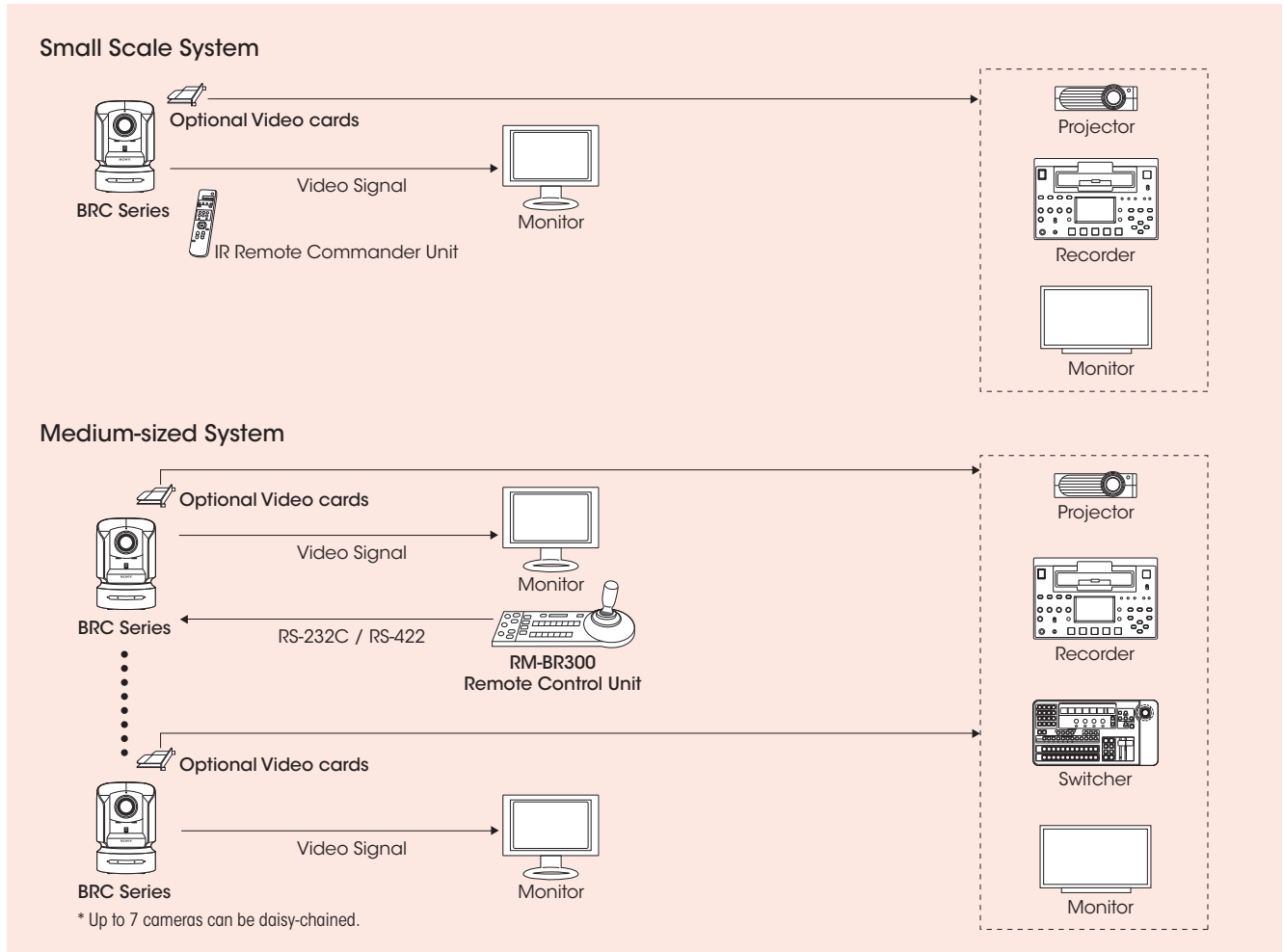
capabilities, these cameras can capture natural facial expressions and graceful movements. Also, due to their compact and sleek design, these cameras blend easily into the surrounding environment.










SYSTEM CONFIGURATION

You can configure a variety of systems to meet your application needs by choosing HD and/or SD components.

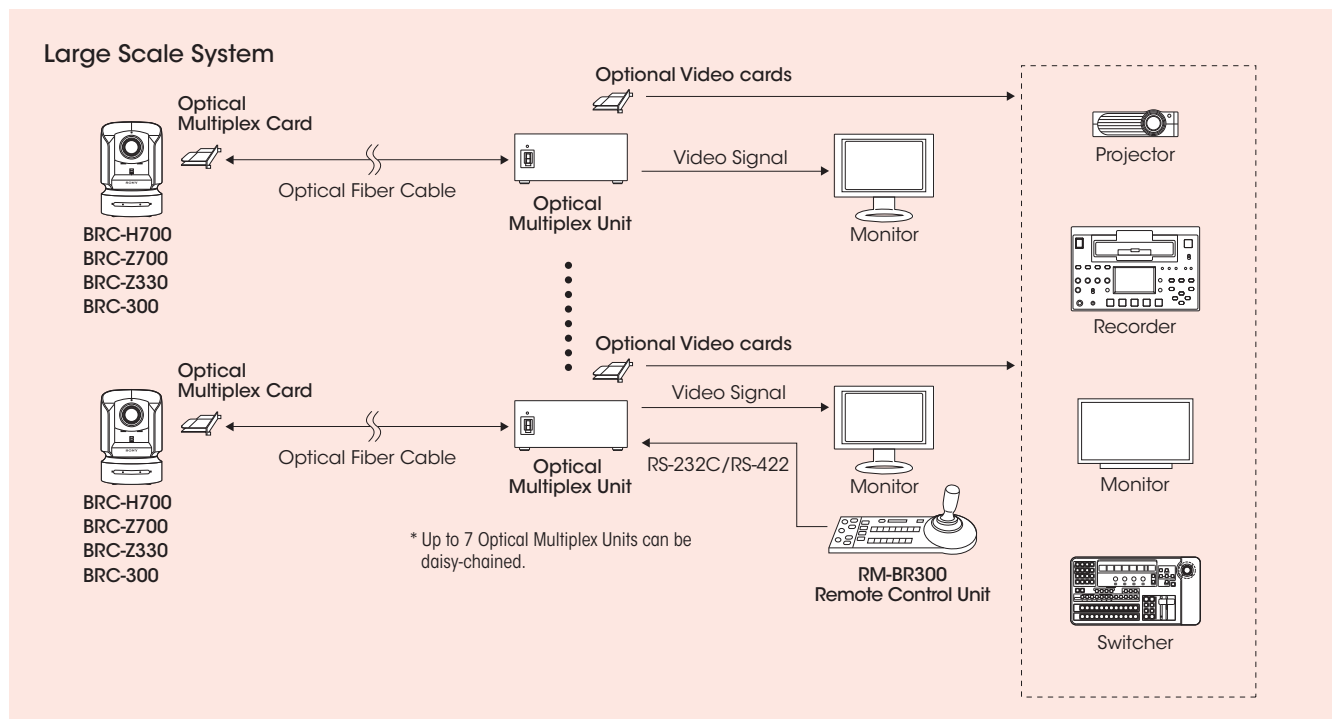
BRC Simple System				
	BRC-H700	BRC-Z700	BRC-Z330	BRC-300
Wide Conversion Lens	—	VCL-HG0862* 	—	VCL-0737W 
Optional Video Card (inserted to the BRC Series)	HFBK-HD1 HD-SDI, HD Component (Y/Pb/Pr), RGB	BRBK-HSD1 HD-SDI, SD-SDI	BRBK-HSD2 HD/SD-SDI	BRBK-301 Composite, Y/C, SD Component (Y/Cb/Cr), RGB
	HFBK-SD1 SD-SDI, Composite, Y/C, SD Component (Y/Cb/Cr), RGB		BRBK-HD2 HD-SDI	BRBK-302 SD-SDI
	HFBK-TS1 i.LINK (HDV)		BRBK-SA1 Analog SD Output Card	BRBK-304 i.LINK (DV)
	HFBK-XG1 WXGA, XGA, VGA			
Remote Control unit	RM-BR300 			

* The lens hood supplied with the VCL-HG0862K cannot be used.



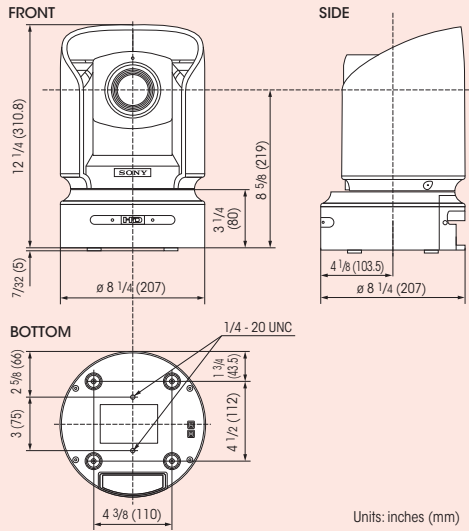
BRC and BRU System				
	BRC-H700	BRC-Z700	BRC-Z330	BRC-300
Wide Conversion Lens	—	VCL-HG0862* 	—	VCL-0737W 
Optical Multiplex Card (inserted to the BRC Series)	BRBK-H700	BRBK-MF1	BRBK-SF1	BRBK-303
Optical Fiber Cable	CCFC-M100HG 		CCFC-S200 	CCFC-M100 
Optical Multiplex Unit	BRU-H700 		BRU-SF10 	BRU-300 
Optional Video Card (inserted to the BRC Series)	HFBK-HD1 HD-SDI, HD Component (Y/Pb/Pr), RGB		BRBK-HSD2 HD/SD-SDI	BRBK-301 Composite, Y/C, SD Component (Y/Cb/Cr), RGB
	HFBK-SD1 SD-SDI, Composite, Y/C, SD Component (Y/Cb/Cr), RGB			BRBK-302 SD-SDI
	HFBK-TS1 i.LINK (HDV)		BRBK-SA1 Analog SD Output	BRBK-304 i.LINK (DV)
	HFBK-XG1 WXGA, XGA, VGA			
Remote Control unit	RM-BR300 			

* The lens hood supplied with the VCL-HG0862K cannot be used.

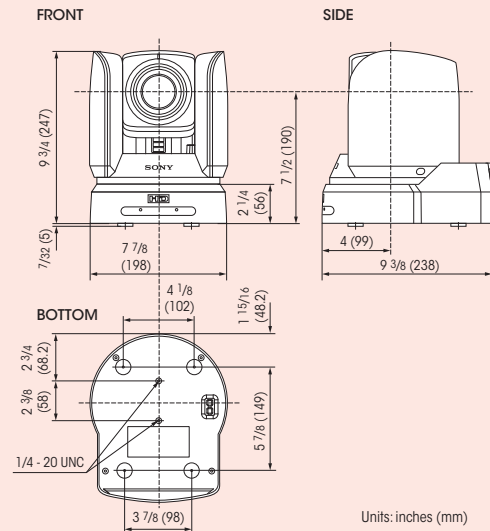


DIMENSIONS

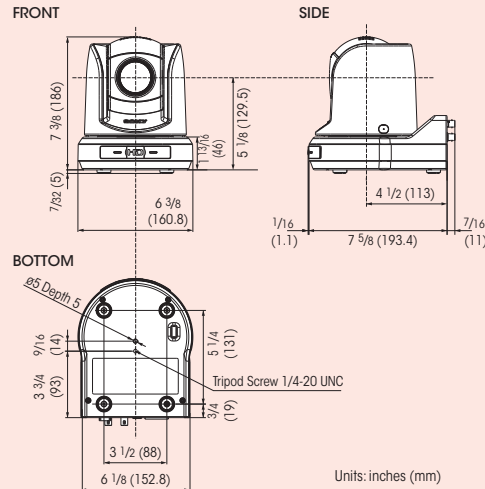
BRC-H700



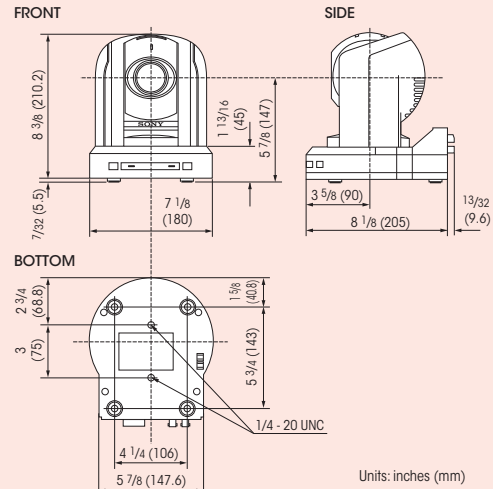
BRC-Z700



BRC-Z330

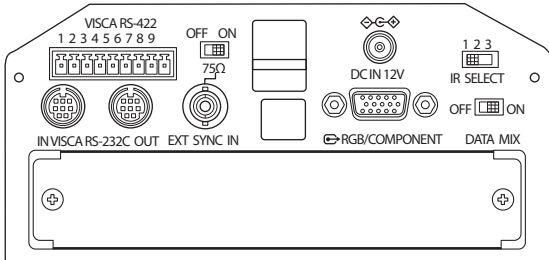


BRC-300

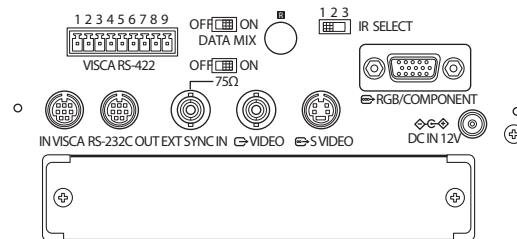


REAR PANELS

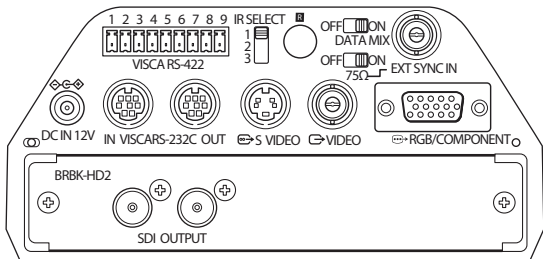
BRC-H700



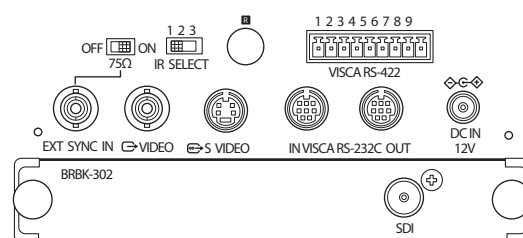
BRC-Z700



BRC-Z330



BRC-300



OPTIONAL ACCESSORIES



BRC-H700

BRBK-H700

HD Optical Multiplex Card



BRC-H700 BRU-H700

HFBK-HD1

HD Interface Board



BRC-H700 BRU-H700

HFBK-SD1

SD Interface Board



BRC-H700 BRU-H700

HFBK-XG1

XGA Interface Board



BRC-H700 BRU-H700

HFBK-TS1

i.LINK (HDV) Interface Board



BRC-Z700

BRBK-MF1

HD Optical Multiplex Card



BRC-Z700

BRBK-HSD1

HD/SD-SDI Output Card



BRC-Z330

BRBK-HD2

HD-SDI Output Card



BRC-300

BRBK-303

SD Optical Multiplex Card



BRC-300 BRU-300

BRBK-301

Analog RGB Component Card



BRC-300 BRU-300

BRBK-302

SDI Card



BRC-300 BRU-300

BRBK-304

DV Card



BRC-Z330 BRU-SF10

BRBK-HSD2

HD/SD-SDI Output Card



BRC-Z330 BRU-SF10

BRBK-SA1

Analog SD Output Card



BRC-Z330

BRBK-SF1

HD Optical Multiplex Card



BRC-H700 BRC-Z700

BRU-H700

HD Optical Multiplex Unit



BRC-Z330

BRU-SF10

HD/SD Optical Multiplex Unit



BRC-300

BRU-300

SD Optical Multiplex Unit



BRC-H700 BRC-Z700

CCFC-M100HG

Optical Fiber Cable
2-core Multi-mode Optical Fiber Cable (100 m long), Extension Plug Included



BRC-Z330

CCFC-S200

Optical Fiber Cable
2-core Multi-mode Optical Fiber Cable (200 m long), Extension Plug Included



BRC-300

CCFC-M100

Optical Fiber Cable
2-core Multi-mode Optical Fiber Cable (100 m long), Extension Plug Included



CCMC-9DS*
RGB/Component, Y/C Cable (9-pin D-sub)



BRC-Z700

VCL-HG0862
VCL-HG0862K**
Wide Conversion Lens



BRC-300

VCL-0737W
Wide Conversion Lens

*These cables are for use with the BRBK-301 or HFBK-SD1.

**The lens hood supplied with the VCL-HG0862K cannot be used.

PERIPHERAL EQUIPMENT



BRS-200

Remote Camera Operating Switcher

- Live Production and Presentation Switcher for HD or SD Systems
- Multi Viewing Function
- Rich Selection of Inputs and Outputs
 - Standard: SDI input x 4 / output x 4, DVI-I output x 1
 - With option: SDI input x 8 / output x 4, DVI-I input x 1 / output x 2
- BRC Series Camera Control Capability



RM-BR300

Remote Control Unit

- Easy Operation of Versatile Camera Adjustments
- The VISCA RS-232C/RS-422 Communication Interfaces Allow High-speed, Long-distance Communication
- A Tally Lamp Input/Contact Output Terminal Allows Connection of a Video Switcher
- Preset Feature to Save Camera Settings up to 16 positions*

* For the BRC-300, six positions can be saved.

SPECIFICATIONS

	BRC-H700	BRC-Z700	BRC-Z330	BRC-300			
Camera							
Signal systems	1080/59.94i or 1080/50i (switchable)	1080/59.94i, NTSC or 1080/50i, PAL (switchable)	60 Hz: 1080/59.94i, 720/59.94P, NTSC 50 Hz: 1080/50i, 720/50P, PAL	NTSC			
Sync systems	Internal/External						
Image device	1/3-type IT CCD x 3	1/4-type CMOS x 3	1/3-type CMOS image sensor	1/4.7-type CCD x 3			
Effective picture elements	Approx. 1.07 Megapixels	Approx. 1.04 Megapixels	Approx. 2.16 Megapixels	Approx. 0.69 Megapixels			
Lens	12x optical zoom (48x with digital zoom), Carl Zeiss Vario-Sonnar T* lens	20x optical zoom (80x with digital zoom), Carl Zeiss Vario-Sonnar T* lens	18x optical zoom (72x with digital zoom)	12x optical zoom (48x with digital zoom)			
Focal length	f=4.5 to 54 mm (F1.6 to F2.8)	f=3.9 to 78 mm (F1.6 to F2.8)	f=4.6 to 82.8 mm (F1.6 to F2.2)	f=3.6 to 43.2 mm (F1.6 to F2.8)			
Lens filter diameter	72 mm	62 mm	—	37 mm			
Minimum object distance	500 mm (Wide), 800 mm (Tele)	10 mm (Wide, Limiter Off), 500 mm (Wide, Limiter On), 800 mm (Tele)	100 mm (Wide, Limiter Off), 500 mm (Wide, Limiter On), 1,500 mm (Tele)	300 mm (Wide), 800 mm (Tele)			
Horizontal viewing angle	5.5 to 60.3 degrees	1.8 to 55.2 degrees	3.3 to 55.1 degrees	4:3 mode: 3.3 to 37.8 degrees, 16:9 mode: 4.0 to 45.4 degrees			
Focusing system	Auto/Manual						
Par/Tilt angle	-170 to +170 degrees (Pan), -30 to +90 degrees (Tilt)		-175 to +175 degrees (Pan), -30 to +90 degrees (Tilt)	-170 to +170 degrees (Pan), -30 to +90 degrees (Tilt)			
Par/Tilt speed	0.25 to 60 degrees/s (Par/Tilt)	0.22 to 60 degrees/s (Par/Tilt)	0.25 to 60 degrees/s (Par/Tilt)				
Minimum illumination	6 lx (50 IRE, F1.6, +18 dB)	6 lx (50 IRE, F1.6, +24 dB)	7 lx (25 IRE, F1.6, +18 dB)				
Video S/N ratio	50 dB						
Shutter speed	1/10,000 s to 1/60 s or 1/10,000 s to 1/50 s			1/10,000 s to 1/4 s			
Gain	Auto/Manual (0 to 18 dB and Hyper Gain)	Auto/Manual (0 to 24 dB and Hyper Gain)	Auto/Manual (-3 to +24 dB and Hyper Gain)	Auto/Manual (-3 to +18 dB)			
White balance	Auto/Indoor/Outdoor/One-push/Manual	Auto1/Auto2/Indoor/Outdoor/One-push/Manual		Auto/Indoor/Outdoor/One-push/Manual			
Image stabilizer	On/Off (Optical)	—		—			
Image flip	On/Off						
ND filter	Off/ND1/ND2	—	Off/1/4/1/16 switchable in menu	—			
Preset positions	16			6			
Interfaces							
HD video output	D-Sub 15 pin: Component (Y/Pb/Pr) or RGB, HD, VD or SYNC			—			
SD video output	—	BNC: Composite, Mini DIN 4 pin :Y/C	Composite, Y/C	BNC: Composite (NTSC), Mini DIN 4 pin: Y/C BNC: Composite (PAL), Mini DIN 4 pin :Y/C			
External Sync input	BNC						
Camera control	Mini DIN 8 pin: RS-232C (VISCA IN), Mini DIN 8 pin: RS-232C (VISCA OUT), Connector plug 9 pin: RS-422 (VISCA IN/OUT)						
General							
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)						
Storage temperature	-4 °F to +140 °F (-20 °C to +60 °C)						
Power requirements	DC 10.8 V to 13.2 V						
Power consumption	Max. 24 W (without optional cards)	Max. 28.8 W (without optional cards)	Max. 18 W (without optional cards)	Max. 21.6 W (without optional cards)			
Dimensions (W x H x D)	8 1/4 x 12 1/4 x 8 1/4 inches (207 x 310.8 x 207 mm)	7 7/8 x 9 3/4 x 9 3/8 inches (198 x 247 x 238 mm)	6 3/8 x 7 3/8 x 7 5/8 inches (160.8 x 186 x 193.4 mm)	7 1/8 x 8 3/8 x 8 1/8 inches (180 x 210.1 x 205 mm)			
Weight	9 lb 15 oz (4.5 kg)	—	4 oz (1.9 kg)	5 lb 8 oz (2.5 kg)			
Supplied accessories	IR Remote Commander Unit, AC power adaptor, AC power cord, RS-422 connector plug, Ceiling bracket x2, Wire rope, Screws, Operating instructions						
BRU-H700 BRU-SF10 BRU-300							
Interfaces							
Optical fiber connector	LC Duplex Fiber Connector						
HD video output	D-Sub 15 pin: Component (Y/Pb/Pr) or RGB, HD, VD or SYNC			—			
SD video output	—	BNC: Composite (NTSC), Mini DIN 4 pin: Y/C					
External sync input	BNC						
External sync output	BNC						
Audio line output	Phono jack x2 (L/R)						
Camera control	Mini DIN 8 pin: RS-232C (VISCA IN), Mini DIN 8 pin: RS-232C (VISCA OUT), Connector plug 9 pin: RS-422 (VISCA IN/OUT)						
Optional card slots	2 slots			2 slots (When both slots are used simultaneously, the interface cards must be of two different types.)			
General							
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)						
Storage temperature	-4 °F to +140 °F (-20 °C to +60 °C)						
Power requirements	AC 100 V to 240 V (50/60 Hz)	DC 12 V	AC 100 V to 240 V (50/60 Hz)				
Power consumption	Max. 10 W (without optional cards)	Max. 15.6 W (without optional cards)		Max. 9 W (without optional cards)			
Dimensions (W x H x D)	8 3/8 x 3 1/2 x 9 1/2 inches (210 x 86 x 240 mm)			8 3/8 x 3 1/2 x 8 3/8 inches (212 x 88 x 210 mm)			
Weight	5 lb 5 oz (2.4 kg)	4 lb 7 oz (2.0 kg)		4 lb 10 oz (2.1 kg)			
Supplied accessories	AC power cord, RS-422 connector plug, RS-232C cable (3 m, Mini DIN 8 pin), Operating instructions	AC adapter, Power cord, DC-card secure connection attachment, RS-232C connecting cable, RS-422 connector plug, Operating Instructions		AC power cord, RS-422 connector plug, RS-232C cable (3 m, Mini DIN 8 pin), Operating instructions			
HFBK-HD1 HFBK-SD1 HFBK-XG1 HFBK-TS1 BRBK-MF1 BRBK-HSD1 BRBK-HD2							
Video output	D-Sub 15 pin: Component (Y/Pb/Pr) or RGB, HD, VD or SYNC BNC x2: HD-SDI	D-Sub 9 pin: Component (Y/Pb/Pr) or RGB, Composite or Y/C, SYNC BNC: Composite BNC: SD-SDI	D-Sub 15 pin: RGB, HD, VD (WXGA/XGA/WGA)	i.LINK 6 pin: HDV OUT (IEEE1394 S100)	LC Duplex Fiber Connector	BNC x2: HD-SDI or SD-SDI	HD-SDI
Audio line input	—	—	Phono jack x2 (L/R)	Phono jack x2 (L/R)	—	—	—
BRBK-303 BRBK-301 BRBK-302 BRBK-304 BRBK-HSD2 BRBK-SA1 BRBK-SF1							
Video output	LC Duplex Fiber Connector	D-Sub 9 pin: Component (Y/Pb/Pr) or RGB, Composite or Y/C, SYNC	BNC: SD-SDI	i.LINK 6 pin: DV OUT (IEEE1394 S100)	BNC x3, HD-SDI or SD-SDI	BNC x1: VIDEO, Mini DIN 4pin x1: S VIDEO, D-sub 9pin x1: RGB/SYNC	LC Duplex Fiber Connector
Audio line input	—	—	—	—	—	—	Phono jack x2 (L/R)

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