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BRC Series

Colour Video Cameras

BRC-H700 BRC-Z700 BRC-Z330 BRC-300/300P

IMAGE SENSING SOLUTIONS

The BRC Series consists of four Pan/Tilt/Zoom (P/T/Z) cameras. The BRC-H700, BRC-Z700, BRC-Z330, and BRC-300/300P.

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

The BRC Series 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 perfect for a variety of remote video shooting applications, and each camera integrates easily into a wide range of indoor and outdoor locations. These qualities enable more and more users to enjoy the benefits of BRC Series cameras, particularly in education, broadcast, bridal, and corporate applications.

Product Line up

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; it therefore delivers superior performance in dimly lit environments, such as concert or wedding halls. Moreover, the camera offers the widest viewing angle of the BRC Series, delivering wider 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 stabiliser. The perfect choice for long-distance-shooting applications, such as sporting coverage, this camera provides dual SD/HD outputs, enabling users to smoothly shift towards adopting a total HD system.

BRC-Z330

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

BRC-300/300P

The standard-definition BRC-300 comes equipped with three 1/4.7-type Advanced HAD™ CCD sensors. This camera delivers dependable picture quality and is the best for costefficient 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 recognises a wider range of colour temperature as white – this is useful for video shooting when there are frequent variations in the lighting source.

■ Colour Adjustment

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

■ Colour Detail

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

■ Colour AE

The BRC-Z330 is equipped with a Colour AE function. When the camera detects a particular colour, it adjusts exposure specifically for the colour. This feature is useful when shooting objects located in front of a single-coloured background. Also, the camera can adjust the skin tone colour 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. Since four cameras in the series each have a particular benefit, there is scope to select the right camera for every different application. To quickly re-use a camera after someone else has been using it, simply touch a button on the supplied controller to recall pre-specified positions for capturing speech 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 quickly move to capture the required action at council meetings or in trials. Single-operator switching and broadcasting are supported by the BRS-200 switcher, while operation is simplified and streamlined by multiple presets which pre-define P/T/Z positions and other parameters.

Sports 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 high 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. 1,000m) achieves long-distance data transfer*1 and enables single-operator broadcasting.

*1 Long-distance control using an optical fiber connection is available for the BRC-H700, BRC-Z700, and BRC-300/300P.

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 currently operating studio with tripods or ceiling brackets. For the wide angles required in studio shooting, wide conversion lenses are available*3. And there are numerous 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 optionalvideo cards.
*3 Wide conversion lenses are available for the BRC-Z700 and BRC-300.

Education

By deploying BRC Series cameras, tutors can offer students new educational opportunities anytime and anywhere. With the real-time distribution of lectures and educational content, academic institutions can deliver e-learning classes, and professors can usefully share professional opinions and collaborate via networked communication.

House of Worship

By using a large screen in combination with highly sensitive BRC Series cameras, an organiser can deliver clear video images with accurate colour 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.

Bridal

Pre-installed BRC Series cameras are conducive to a perfectly peaceful and tranquil atmosphere, as their silent movement cannot disturb anyone. With high picture performance and zooming 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.

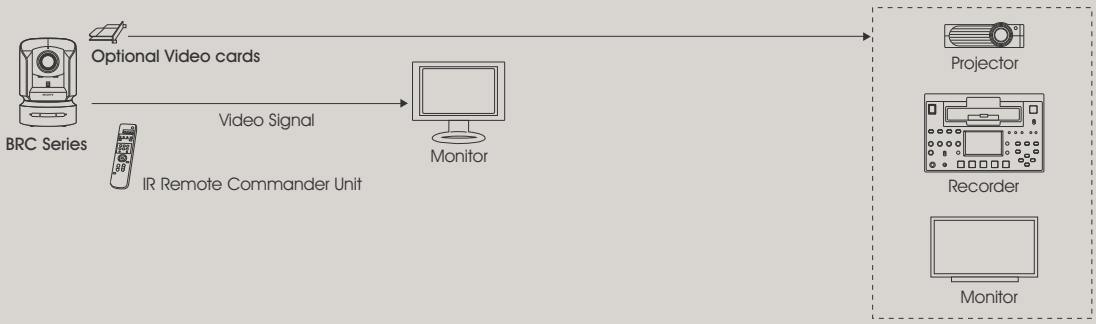
System Configurations

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

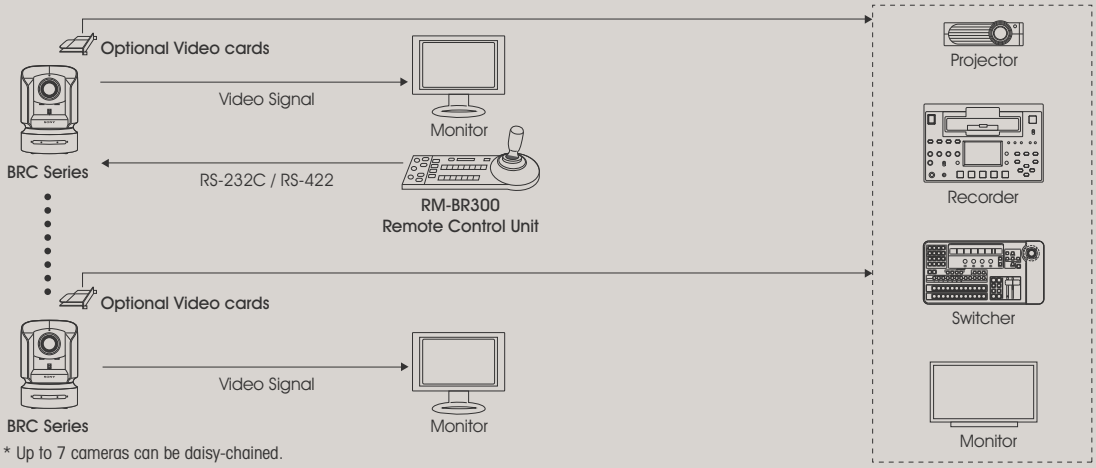
	BRC Simple System			
	BRC-H700	**BRC-Z700**	**BRC-Z330**	**BRC-300/300P**
Wide Conversion Lens	-	**VCL-HG0862***	-	**VCL-0737W**
Optical Video Card (inserted to the BRC Series)	**HFBK-HD1** HD-SDI, HD Component (Y/Pb/Pr), RGB	**BRBK-HSD1** HD-SDI, SD-SDI	**BRBK-HD2** HD-SDI	**BRBK-301** Composite, Y/C,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

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

Small Scale System



Midium-sized System

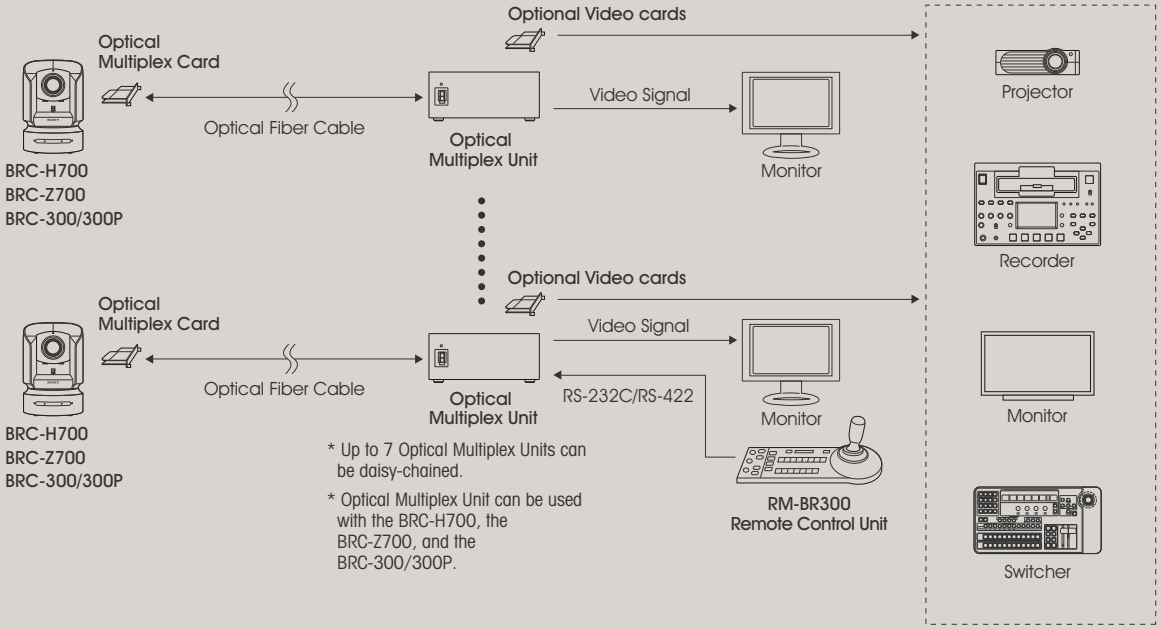


* Up to 7 cameras can be daisy-chained.

	BRC and BRU System		
	BRC-H700	**BRC-Z700**	**BRC-300/300P**
Wide Conversion Lens	-	**VCL-HG0862***	**VCL-0737W**
Optical Multiplex Card (inserted to the BRC Series)	**BRBK-H700**	**BRBK-MF1**	**BRBK-303**
Optical Fiber Cable	**CCFC-M100HG**		**CCFC-M100**
Optical Multiplex Unit	**BRU-H700**		**BRU-300/300P**
Optical Video Card (inserted to the BRC Series)	**HFBK-HD1** HD-SDI, HD Component (Y/Pb/Pr), RGB		**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-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.

Large Scale System

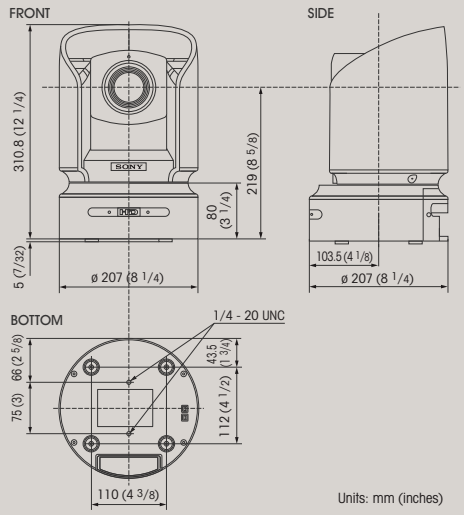


* Up to 7 Optical Multiplex Units can be daisy-chained.

* Optical Multiplex Unit can be used with the BRC-H700, the BRC-Z700, and the BRC-300/300P.

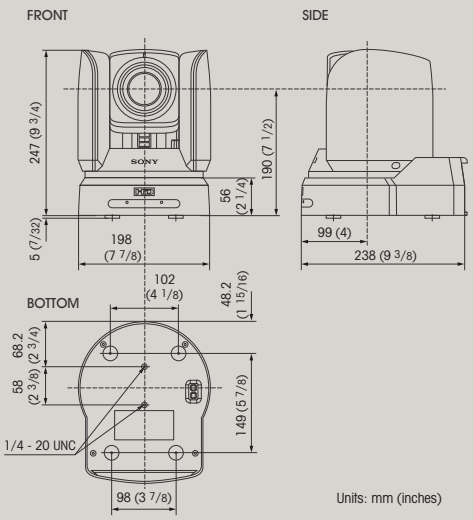
Dimensions

BRC-H700



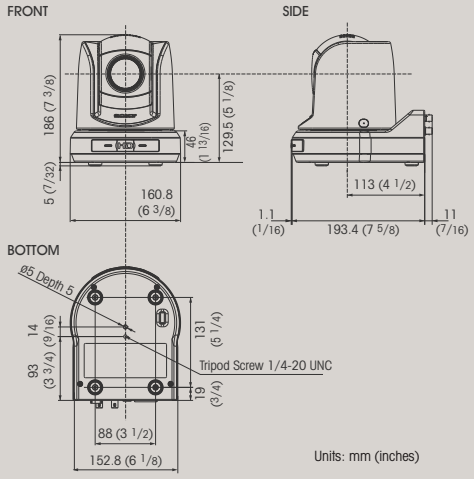
Units: mm (inches)

BRC-Z700



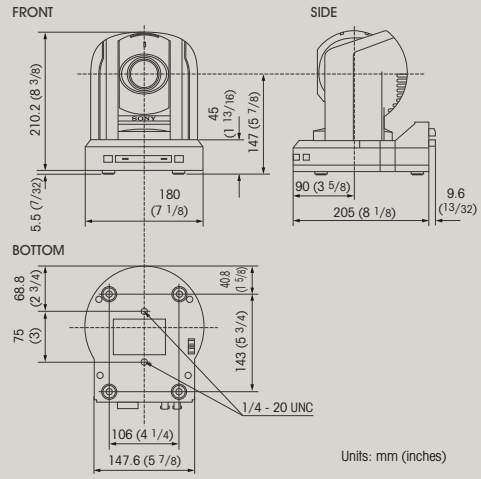
Units: mm (inches)

BRC-Z330



Units: mm (inches)

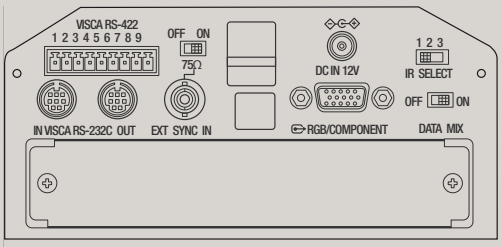
BRC-300/300P



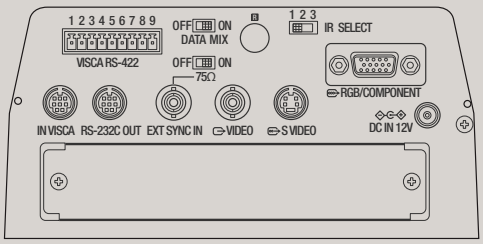
Units: mm (inches)

Rear Panels

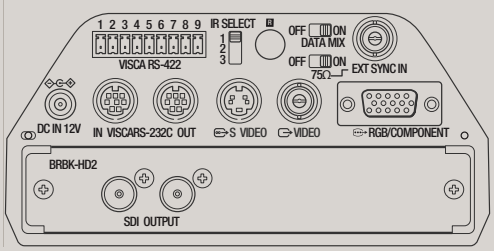
BRC-H700



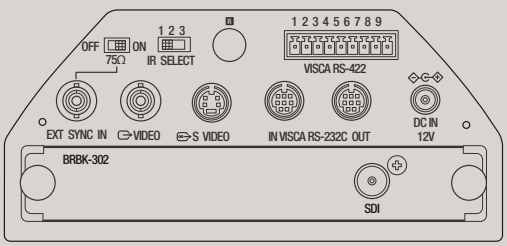
BRC-Z700



BRC-Z330



BRC-300/300P



Optional Accessories

BRBK-H700
HD Optical Multiplex Card

BRC-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

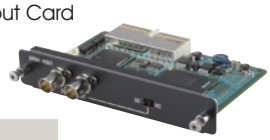
HFBK-TS1
i.LINK (HDV) Interface Board

BRC-H700 | BRU-H700

BRBK-MF1
HD Optical Multiplex Card

BRC-Z700

BRBK-HSD1
HD/SD-SDI Output Card



BRC-Z700

BRBK-303
SD Optical Multiplex Card

BRC-300

BRBK-301
Analog RGB Component Card

BRC-300 | BRU-300

BRBK-302
SDI Card

BRC-300 | BRU-300

BRBK-304
DV Card

BRC-300 | BRU-300

BRBK-HD2
HD-SDI Output Card

BRC-Z330

BRU-H700
HD Optical Multiplex Unit

BRC-H700 | BRC-Z700

BRU-300/BRU-300P
SD Optical Multiplex Unit

BRC-300

CCFC-M100HG
Optical Fiber Cable
2-core Multi-mode Optical Fiber Cable (100 m long), Extension Plug Included

BRC-H700 | BRC-Z700

CCFC-M100
Optical Fiber Cable
2-core Multi-mode Optical Fiber Cable (100 m long), Extension Plug Included

BRC-300

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

CCXC-9DBS*
RGB/Component, VBS Cable (9-pin D-sub)

VCL-HG0862 / VCL-HG0862K**
Wide Conversion Lens

BRC-Z700

VCL-0737W
Wide Conversion Lens

BRC-300

*These cables are for use with the BRBK-301 or HFBK-SD1.
**The lens hood supplied with the VCL-HG0862K cannot be used.

Peripheral Equipments

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-300/300P, six positions can be saved.

Specifications

	BRC-H700	BRC-Z700	BRC-Z330	BRC-300	BRC-300P
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	PAL
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				
Pan/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)	
Pan/Tilt speed	0.25 to 60 degrees/s (Pan/Tilt)	0.22 to 60 degrees/s (Pan/Tilt)	0.25 to 60 degrees/s (Pan/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 to 1/60 s or 1/10,000 to 1/50 s			1/10,000 to 1/4 s	1/10,000 to 1/3 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	0 to 40 °C (32 to 104 °F)				
Storage temperature	-20 to 60 °C (-4 to 140 °F)				
Power requirements	DC 10.8 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)	207 x 310.8 x 207 mm (8 1/4 x 12 1/4 x 8 1/4 inches)	198 x 247 x 238 mm (7 7/8 x 9 3/4 x 9 3/8 inches)	160.8 x 186 x 193.4 mm (6 3/8 x 7 3/8 x 7 5/8 inches)	180 x 210.1 x 205 mm (7 1/8 x 8 3/8 x 8 1/8 inches)	
Mass	4.5 kg (9 lb 15 oz)		1.9 kg (4 oz)	2.5 kg (5 lb 8 oz)	
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-300	BRU-300P
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	BNC: Composite (PAL), 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	0 to 40 °C (32 to 104 °F)		
Storage temperature	-20 to 60 °C (-4 to 140 °F)		
Power requirements	AC 100 to 240 V (50/60 Hz)		
Power consumption	Max. 10 W (without optional cards)	Max. 9 W (without optional cards)	
Dimensions (W x H x D)	210 x 86 x 240 mm (8 3/8 x 3 1/2 x 9 1/2 inches)	212 x 88 x 210 mm (8 3/8 x 3 1/2 x 8 3/8 inches)	
Mass	2.4 kg (5 lb 5 oz)	2.1 kg (4 lb 10 oz)	
Supplied accessories	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
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/VGA)	i.LINK 6 pin: HDV OUT (IEEE1394 S100)
Audio line input				Phono jack x2 (L/R)

	BRBK-HSD1	BRBK-301	BRBK-302	BRBK-304	BRBK-HD2
Video output	BNC x2: HD-SDI or SD-SDI	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)	HD-SDI

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