

**Canon**

# *J21ax 7.8B*



*Most Advanced  
"Tele" portable lens  
achieving high quality  
and wide angle  
in a compact size.*



**IFxS**

DIGITAL DRIVE  
**DD**



# J21ax 7.8B

*Most Advanced "Tele" portable lens achieving high quality and wide angle in a compact size.*

**IFXs**: The "Xs" comes from "Excess" and the new generation lens series, **IFXs** exceeds conventional lens specifications and concepts with breakthrough technology.

Canon has always pursued originality with advanced technology meeting user's demands and requirements. **IFXs**, which incorporates Canon's Power Optical System featuring the X-Element, is one such innovation and is incorporated within the most advanced "Tele" portable lens with a 21X zoom ratio and an incredible 7.8mm wide angle in a compact size.

## X-Element & Power Optical System

Canon has developed breakthrough optical design concepts using a newly developed optical element in the most effective way. We have named this design concept the "Power Optical System" which can achieve higher specifications and quality in a smaller size and lighter weight, using a unique optical "Element" which realizes complete elimination of its aberration. Thanks to the X-Element & Power Optical System, the J21aX7.8B is significantly smaller in size and weight compared to its predecessor offering both more telephoto and a wider angle with improved optical quality.

## Digital Drive Unit

Canon's exclusive Digital Drive System provides outstanding operation and features.

### Shuttle Shot :

By memorizing any two focal lengths, the Digital Drive can automatically "shuttle" between the two points, moving in either direction.



### Framing Preset :

An angle of view can be preset in memory and the lens will zoom to that position by pushing a simple button. During a performance, framing preset will reproduce the zoom position decided upon at the rehearsal. It's easy to repeat the same zoom as often as you like at the highest speed or in a preset zoom speed.



### Speed Preset :

A specific zoom speed can be preset in memory and it is possible to repeat the zoom speed as often as you like by pushing a simple button.



## Zoom Track

A new feature has been added to our "Useful" Digital Drive, called "Zoom Track". It allows the camera operator to adjust the electronic focal length to their desired range by memorizing zoom positions at both the tele and the wide side of the zoom.

### Zoom mode select

One of several selectable curves can be chosen which will allow different zoom movement characteristics when operating the rocker switch.

### PC connection

Using the Digital communication interface on the lens and an associated Dipswitch, a personal computer can be connected to the lens for operation by remote control. By using optional software, a personal computer system can be used for remote diagnostics of the lens.

### Digital demands series

Canon offers a unique digital Zoom Demand, the ZSD-300D and digital Focus Demand, the FPD-400D. The ZSD-300D zoom demand will operate the shuttle shot and frame preset features of

the lens. All digital demands connect to the lens via a new one-touch 20-pin connector. All current analog demands are compatible with digital drive lenses.

### Studio/Field digital lens demands

By using an adapter cable, it is possible to use the Studio/Field digital lens controllers with the J21aX7.8B.

### CROSSOVER

#### (Dual Aspect ratio Switching System)

The J21aX7.8B is available with the crossover option in two versions, the J21aX7.8B WRSD/WASD with 2X extender and the J21aX7.8B VRSD/VASD without 2X extender for switchable cameras.

### Accessories

1. Optical Accessories: 127mm Filters
2. Operation Accessories: Digital zoom demand ZSD-300D and digital zoom focus demand FPD-400D are available to remote the digital functions for EFP applications.

Zoom operation switch Return switch

VTR switch Shuttle-Shot switch



Framing preset switch  
Speed mode change over lever

Quiet Servo Operation

Memory switch



SHORT M.O.D., 0.8m(2ft 7in)

**COUNTERMEASURES AGAINST GHOSTING AND FLARES**

●New coating and anti-reflection paint achieve the elimination of ghosting and flare.

**ZOOM RATIO 21X**

●Faster and quieter servo system maximum zoom speed : 0.7 sec.

**WIDE ANGLE OF 58.9 DEGREES AT 7.8mm**

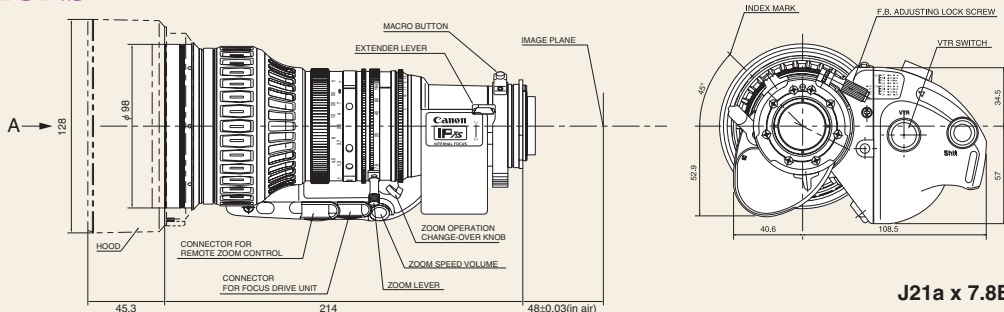
**CROSSOVER MODE**   
●For 16:9/4:3 switchable cameras.(Option)

**Built-in 2X Extender**

**Vari-Polar Hood**

●Supports high grade filter work 95 degree rotation for Polarized Light Filters, Cross Filters and etc.

## DIMENSIONS



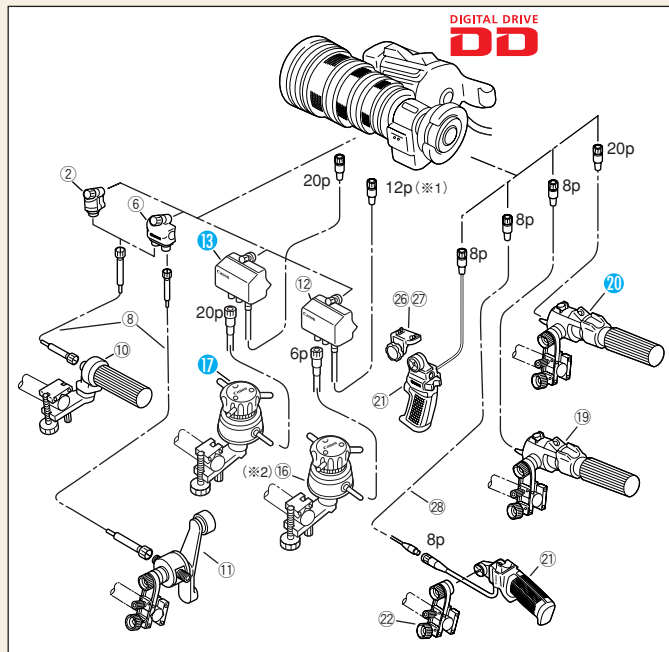
J21a x 7.8B IRSD (Unit:mm)

## SPECIFICATIONS

	NORMAL4:3		16:9		SWITCHABLE 4:3		
	8.8 x 6.6mm ; φ 11.0mm		9.6 x 5.4mm ; φ 11.0mm		7.2 x 5.4mm ; φ 9.0mm		
Image Format	8.8 x 6.6mm ; φ 11.0mm		9.6 x 5.4mm ; φ 11.0mm		7.2 x 5.4mm ; φ 9.0mm		
Built-in Extender	1.0X	2.0X	1.0X	2.0X	1.0X	1.2X	2.4X
Zoom Ratio							21X
Range of Focal length	7.8 - 164mm	15.6 - 328mm	7.8 - 164mm	15.6 - 328mm	6.45 - 136mm	7.8 - 164mm	15.6 - 328mm
Maximum Relative Aperture	1:1.8 at 7.8~121mm 1:2.45 at 164mm	1:3.6 at 15.6~241mm 1:4.9 at 328mm	1:1.8 at 7.8~121mm 1:2.45 at 164mm	1:3.6 at 15.6~241mm 1:4.9 at 328mm	1:1.8 at 6.45~119mm 1:2.05 at 136mm	1:1.8 at 7.8~121mm 1:2.45 at 164mm	1:3.6 at 15.6~241mm 1:4.9 at 328mm
Angular Field of View	58.9°x45.9° at 7.8mm 3.1°x2.3° at 164mm	31.5°x23.9° at 15.6mm 1.5°x1.2° at 328mm	63.2°x38.2° at 7.8mm 3.4°x1.9° at 164mm	34.2°x19.6° at 15.6mm 1.7°x0.9° at 328mm	58.9°x45.9° at 6.45mm 3.1°x2.3° at 136mm	49.6°x38.1° at 7.8mm 2.5°x1.9° at 164mm	26.0°x19.6° at 15.6mm 1.3°x0.9° at 328mm
Minimum object Distance(M.O.D.)	0.8m(10mm with Macro)						
Object Dimensions at M.O.D.	79.6x59.7cm at 7.8mm 3.9x2.9cm at 164mm	40.8x30.6cm at 15.6mm 2.0x1.5cm at 328mm	86.3x48.5cm at 7.8mm 4.2x2.4cm at 164mm	44.5x25.0cm at 15.6mm 2.2x1.2cm at 328mm	79.6x59.7cm at 6.45mm 3.9x2.9cm at 136mm	65.4x49.1cm at 7.8mm 3.2x2.4cm at 164mm	33.4x25.1cm at 15.6mm 1.6x1.2cm at 328mm
Size(IRSD)	157.5(W)x106(H)x214(L)mm						
Approx. Mass (IRSD/IASD)	1.65kg(3.63lbs)/1.75kg(3.86lbs)						
	IRSD/IASD				VRSD/VASD		—
					WRSD/WASD		



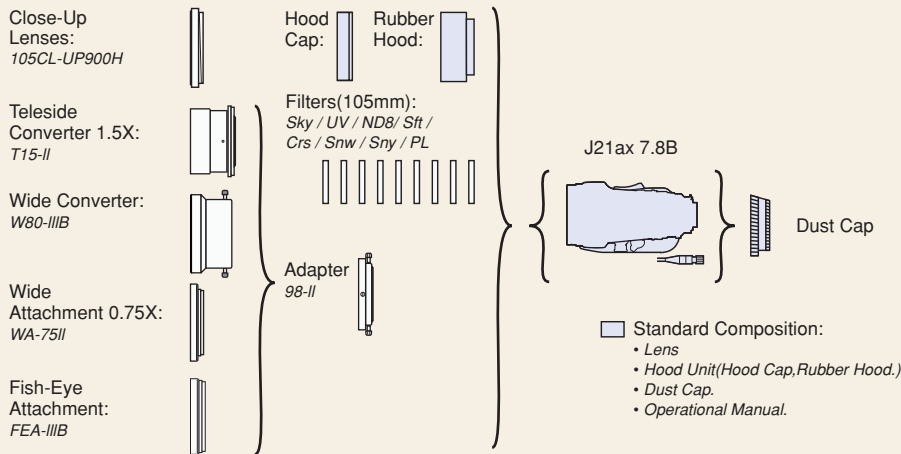
## CONTROL ACCESSORIES



- (※1) ③③ CC-2012 conversion cable is necessary to connect between IRSD Digital Drive Lens and FPM-420.  
 (※2) ③② CC-2006 conversion cable is necessary to connect between IASD Digital Drive Lens and FPD-400.

#	Unit	Description	CODE
②	FFM-100	Flex Focus Module	1824A015
⑥	FFM-200	Flex Dual Module	1824A013
⑧	FC-40	Flex Cable	1824A010
⑩	FFC-200	Flex Focus Controller	1824A014
⑪	FZC-100	Flex Zoom Controller	1824A021
⑫	FPM-420	Focus Positional Servo Module	1824A026
⑬	FPM-420D	Focus Positional Servo Module	1824A129
⑭	FPM-500	Focus Positional Servo Module	1824A027
⑯	FPD-400	Focus Positional Demand	1824A018
⑰	FPD-400D	Focus Positional Demand	1824A124
⑲	ZSD-300A*/M	Zoom Demand	A 1824A066 M 1824A067
⑳	ZSD-300D	Zoom Demand	1824A123
㉑	ZSG-200A*/M	Zoom Servo Grip	A 1824A068 M 1824A069
㉒	CR-10	Clamper	1824A007
㉔	ZGA-400**	Grip Adapter	0025T616
㉘	EC-80	Zoom Extension Cable (8P)	1824A009
㉚	CC-2006	Conv. Cable (20pM-6pF)	1824A125
㉛	CC-2012	Conv. Cable (20pM-12pF)	1824A126

## OPTICAL ACCESSORIES



MODEL	CODE
105CL-UP900H	1823A043
T15-II	1823A005
W80-III B	1823A006
WA-75II	1823A008
FEA-III B	1823A011
Adaptor98II	1824A004
UV / 105mmP1	1823A022
UV / 94P1*	1823A021
Sky / 105mmP1	1823A023
Crs / 105mmP1	1823A024
Sny / 105mmP1	1823A025
Snw / 105mmP1	1823A027
ND8 / 105mmP1	1823A026
Sft / 105mmP1	1823A020
PL / 105mmP1	1823A028

\*Filters with 105mmP1 are to be used for Hood Unit except for UV/94P1 which is to be used for Lens Barre/Thread.

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