

Camera Overview

Description	Model	Serial Number
Head ▽	DV8 87 E CS - BV - 9CJ	X-1827
Controller Card	CCI-22	C-1776
Other:		
Other:		

▽ Sensor types are defined in Table 1 using the last letters in box Model Number.

Special Feature	(✓)
Special AR coated Window	
MgF ₂ Input	
Other (specify)	

A/D Feature		
A/D resolution	Readout Time	Readout Speed
14 bit	100nS per pixel	10MHz
14 bit	200nS per pixel	5 MHz
14 bit	333nS per pixel	3MHz
14 bit (D only)	1000nS per pixel	1MHz
16 bit (E only)	1000nS per pixel	1MHz

CCD Details

Manufacturer / Model No.	Pixels	Serial Number
E2V TECH CCD65	576x288, 20x30 μ m ²	
E2V TECH CCD87	512x512, 16 μ m ²	
E2V TECH CCD97	512x512, 16 μ m ²	04243-05-24
E2V TECH CCD60	128x128, 24 μ m ²	

▽ Table 1; Key code to define the meanings of the last letters in the Model Number

Options		
Letters	Sensor	Window
FI	Front illuminated sensor	Standard AR coated fused silica window
BV	Back illuminated sensor with 550nm AR coating	Standard AR coated fused silica window
UV	Front illuminated sensor with UV phosphor	Uncoated fused silica window
UVB	Back illuminated sensor with UV phosphor	Uncoated fused silica window

Summary of System Test Data Readout Noise \blacklozenge 1 and Base Mean Level

A/D Rate	EM = electron multiplication Con = conventional	Options (\checkmark)	Preamp setting	CCD Sensitivity \blacklozenge 3 electrons per A/D count	Single Pixel Noise electrons	Base Level \blacklozenge 2 (Counts)
10 MHz 14 bit EM amplifier		\checkmark	2.4	26.9	64.1	972
5 MHz 14 bit EM amplifier		\checkmark	2.4	24.3	56.3	1044
3 MHz 14 bit EM amplifier		\checkmark	5.1	11.4	32.8	1015
1 MHz 14 bit EM amplifier (D only)						
1 MHz 16 bit EM amplifier (E only)		\checkmark	5.1	4.6	19.8	1017
3 MHz 14 bit Con amplifier		\checkmark	5.1	1.7	9.0	1026
1 MHz 14 bit Con amplifier (D only)						
1 MHz 16 bit Con amplifier (E only)		\checkmark	5.1	0.7	5.7	1044
Saturation Signal per pixel (5MHz 14 bit EM amplifier)			170035		Electrons/pixel	

CCD Dark Current

Minimum Dark Current Achievable \blacklozenge4	0.0018	electrons/pixel/sec		
@ Sensor Temperature of \blacklozenge5	-98.7	$^{\circ}$ C	16	$^{\circ}$ C water cooling
		With PSU		

Linearity and Uniformity

Linearity better than \blacklozenge6	1	% over 14 bits
Response Uniformity better than \blacklozenge7	0.38	%