

## HASSELBLAD **CF<sup>22</sup>** / **CF<sup>22MS</sup>** / **CF<sup>39</sup>** / **CF<sup>39MS</sup>**

The Hasselblad CF line of digital backs offers 22 and 39 megapixel digital solutions with the Hasselblad "I-adapter" open camera interface, and the ability to add true-color, Multi-shot capture. The CF backs bring a new level of flexibility to professional digital photographer, including the choice of storage media: CF card, 100GB Imagebank, or computer hard drive. All in all a level of flexibility which added to Hasselblad's image quality expands the horizons of leading edge digital photography.

### Large format 48x36mm digital capture

Today's digital photography demands higher resolution, less noise, and improved compositional choice, all of which the CF backs provide. The sensors are 22 or 39 megapixels in size and they are both more than twice the physical size of today's 35mm sensors.

This means more and larger pixels, which ensures the highest possible image quality and moiré free color rendering without gradation break-ups - in even the most subtly lit surfaces.

### Multi-shot for still-life: the 4\*Res upgrade option

In a still-life studio environment you can increase the color resolution of your captures by means of a unique Multi-shot technique controlled by the optional 4\*Res module (patent pending). The result is maximum resolution and absolutely moiré free images. The CF can be upgraded to a CF-MS with the 4\*Res module at any time. The CF-MS comes with the 4\*Res module already built in.

### Working with multiple cameras

By way of a simple 4-screw mounting plate, the CF is easily attached to most professional medium-format SLR cameras and view cameras on the market. This simple compatibility allows you to bring optimal digital capture to your existing cameras and lenses with the convenience of using only one digital back.

### Unique Hasselblad Natural Color Solution

In the past, color management solutions have imposed limitations on professional digital photographers, because of the need to choose a specific color profile to suit a specific job in order to capture various skin tones, metals, fabrics, flowers, etc. Hasselblad has helped solve this dilemma, with the development of a single powerful color profile to be used with its FlexColor imaging software. Working with the new Hasselblad Natural Color Solution (HNCS) enables you to produce outstanding and reliable out-of-the-box colors, with skin tones, specific product colors and other difficult tones reproduced easily and effectively.

In order to support our new unique color system, we have developed a custom Hasselblad raw file format called 3FR RAW



(3FR). The new 3FR RAW file format is designed to ensure that images captured on Hasselblad digital products are quickly, effectively and safely stored on the chosen media. The file format includes lossless image compression, which reduces the required storage space by 33%. The 3FR file defines the colors in the Hasselblad RGB color space with its out-of-the-box quality, and applied in FlexColor it removes both the need for experimenting with different color profiles to obtain optimal colors and the need for selective color corrections.

### DNG workflow

3FR files can be converted into Adobe's raw image format DNG ('Digital NeGative'), bringing this new technology standard to the professional photographer for the first time. In order to optimize the colors of the DNG file format, conversion from the 3FR must take place through FlexColor. The DNG file format enables raw, compressed image files to be opened directly in Adobe Photoshop. Hasselblad image files carry a full set of metadata, including capture conditions, keywords and copyright, facilitating workflow with image asset management solutions.

### IAA – helping you classify and select images

Building on the success of its Audio Exposure Feedback technology, Hasselblad has created Instant Approval Architecture (IAA), an enhanced set of feedback tools, designed to liberate the photographer from the selection process and to concentrate on the shoot. Audible and visible signals as well as recorded information in the file and in the file name all promote a quick and easy classification in the field or in the lab. Sorting becomes automatic, accessible and very fast, facilitating reviewing the best images for immediate client presentation.

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### FlexColor workflow for the professional photographer

FlexColor enables you to create an image processing workflow that gives you the highest degree of control for your studio photography. In tethered operation, tools such as overlay masking help bring productivity to advanced set composition. The latest version of the FlexColor software enables you to manipulate color temperature and compare image details across multiple images for precise image selection. FlexColor uses the 3FR files and runs on both Macintosh and Windows computers. The software is licensed to allow you to provide free copies for all your co-workers and production partners.

### Last, but Not Least

Naturally, as with all Hasselblad products, a new CF digital back affords access to the full range of Hasselblad service and support, ensuring that your investment will last a long time to come. And the latest firmware updates to your H-system back are always just a download away.

H2 camera with CF-39  
single shot back.

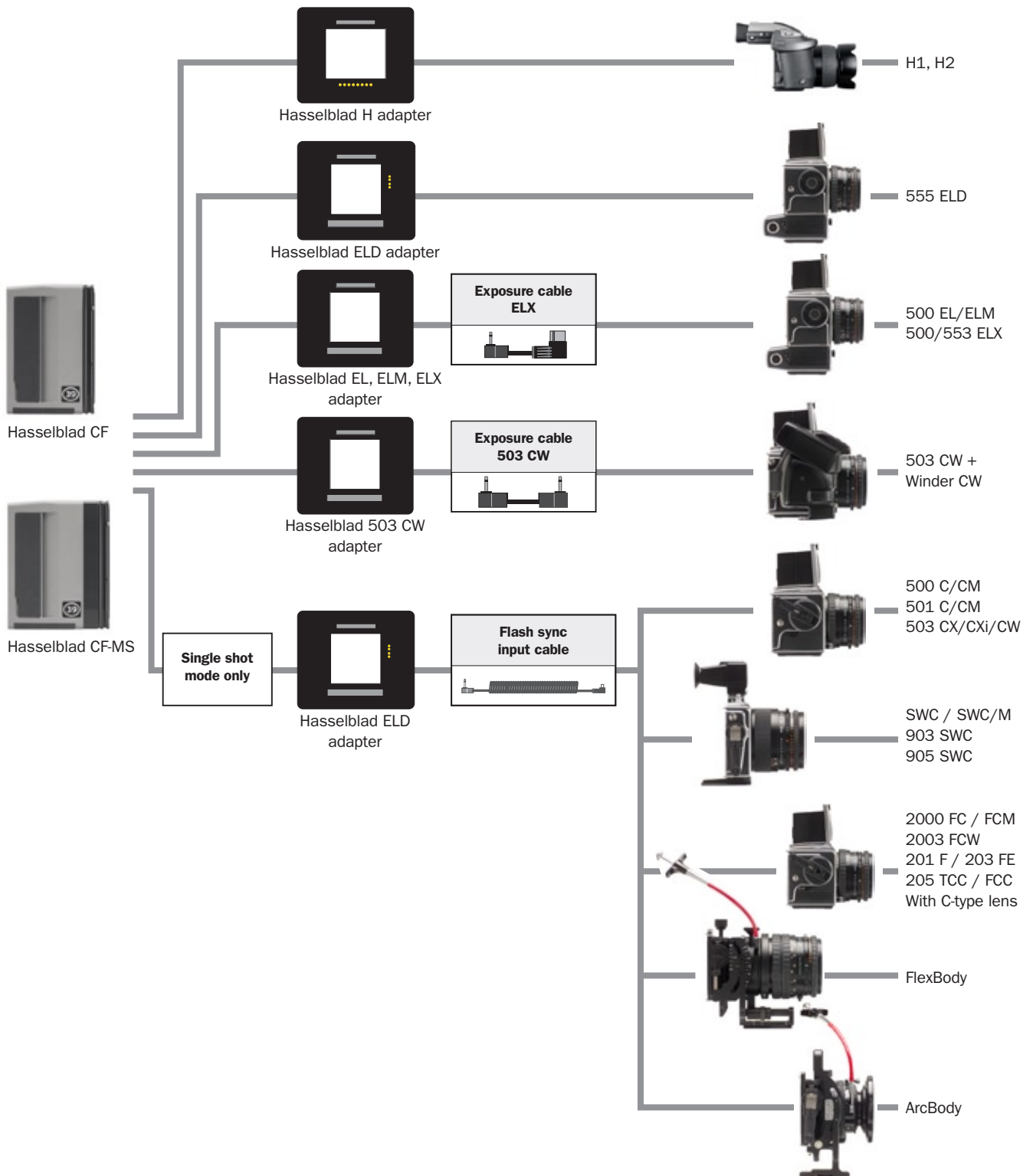


H2 camera with CF-39 MS  
multi-shot back.

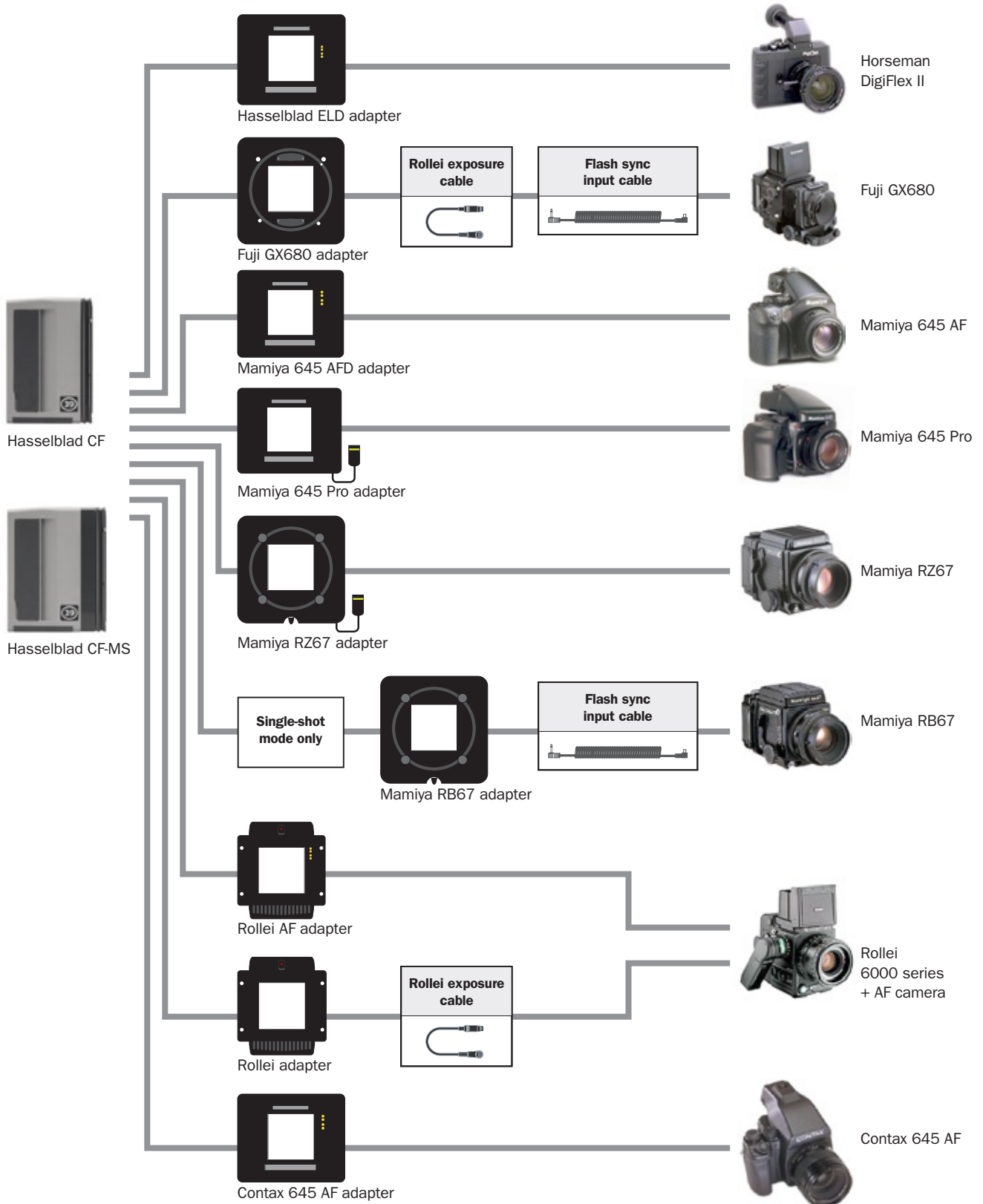


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### Hasselblad camera connectivity diagram

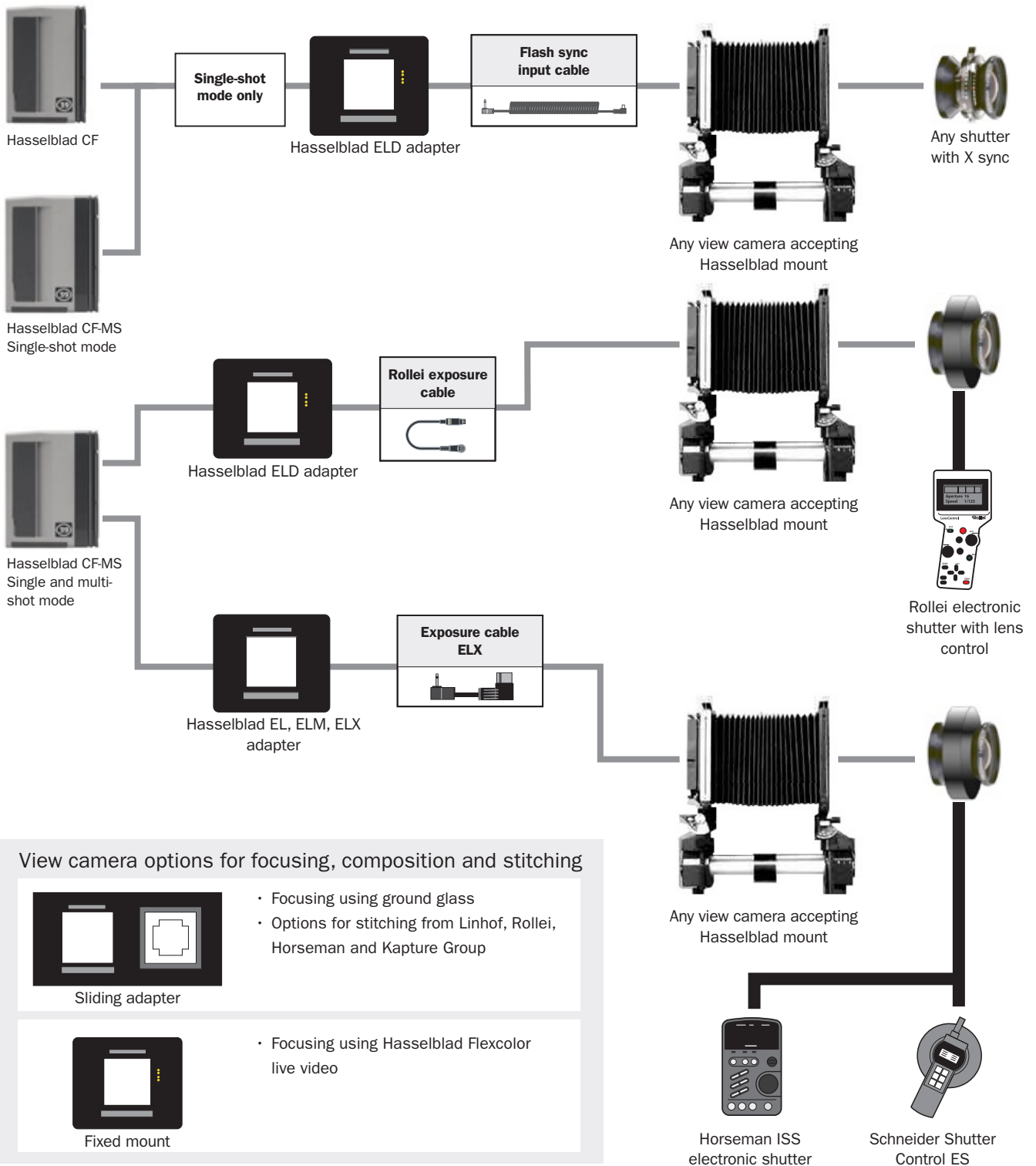


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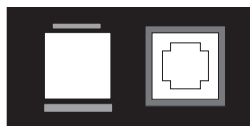


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View camera connectivity diagram



### View camera options for focusing, composition and stitching



Sliding adapter

- Focusing using ground glass
- Options for stitching from Linhof, Rollei, Horseman and Kapture Group



Fixed mount

- Focusing using Hasselblad Flexcolor live video

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## Technical specification

SPECIFICATIONS	Hasselblad CF-22	Hasselblad CF-39
Sensor size	22 Mpixels (4080 x 5440 pixels)	39 Mpixels (5412 x 7212 pixels)
Sensor dimensions	36.7 x 49.0 mm	
Image size	RAW 3FR capture 30 MB on average. TIFF 8 bit: 66 MB	RAW 3FR capture 50 MB on average. TIFF 8 bit: 117 MB
File format	Lossless compressed Hasselblad RAW 3FR	
Shooting mode	Single shot	
Color definition	16 bit	
ISO speed range	ISO 50, 100, 200 and 400	
Longest shutter speed	32 seconds	
Color management	Hasselblad Natural Color Solution	
Image storage	CF card type II (write speed >20 MB/sec), New Imagebank 100 GB or tethered to Mac or PC	
Storage capacity (single shot)	2 GB CF card holds 66 images on average	2 GB CF card holds 40 images on average
Battery type	Sony™ InfoLithiumL NP-F series	
Capture rate	2 seconds per capture	
Color display	Yes, 2.2 inch OLED type, 24 bit color	
IR filter	Mounted on sensor	
Histogram feedback	Yes	
IAA - Instant Approval Architecture	Acoustic feed back and Metadata classification	
Software	FlexColor (included for Mac and PC)	
Platform support	Macintosh: OSX. PC: NT, 2000, XP	
Host connection type	FireWire 800 (IEEE1394b)	
Operating temperature	0 - 45 °C / 32 - 113 °F	
Camera support via i-adapters	Hasselblad H system and V system, Rollei 600X and AF, Contax 645AF, Mamiya 645 Pro, 645 AFD, RB and RZ67, Fuji GX680I/II/III. All view cameras via Hasselblad adapter. Horseman DigiFlex II and PrecisionWide 35 via Hasselblad adapter.	
Dimensions	81 x 81 x 53 mm [W x H x D]	
Weight	450 g (excluding battery and i-adapter)	

## Multi-shot versions

SPECIFICATIONS	Hasselblad CF-22MS	Hasselblad CF-39MS
Shooting mode	Single & Multi-shot (4/16x)	Single & Multi-shot (4x)
Image size (8 bit RGB)	4-shot: TIFF 66 MB / 16-shot: 264 MB	4-shot: TIFF 117 MB
Color definition	16 bit	
Dimensions	81 x 81 x 68 mm [W x H x D]	
Weight	600 g (excluding battery and i-adapter)	