

| Camera Option Matrix                                                                                                                  | Full Resolution 1920 X 1080P at 60 Frames per Second or Greater                                   |                                                   |                                                                                                                                                                                          | Full Resolution 1920 X 720P or 1280 X 720P at 60 FPS                                         |                                                              |                                                                                              | Full Resolution 1920 X 1080P at 60 Frames per Second or Greater                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Camera Option Matrix                                                                                                                  |
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| Sensor Type                                                                                                                           | 3 chip 2/3" sensors                                                                               |                                                   |                                                                                                                                                                                          | Large Formay Bayer Array Sensors                                                             |                                                              |                                                                                              |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Sensor Type                                                                                                                           |
| Camera Make & Model                                                                                                                   | Sony HDCP1                                                                                        | Ikegami HDL-50/HS                                 | Cerberus LMP HD1200 (Single Bayer Array)                                                                                                                                                 | Canon 5D Mark III                                                                            | Canon EOS C500                                               | Cathx Ocean M-12 Wideangle HD                                                                | Sony NEXFS100U                                                                               | Sony NEX-FS700U                                                                                                                                                                                          | Sony PMW-F3K                                                                                                                            | Sony PMW-F5                                                                                                                                           | Camera Make & Model                                                                                                                   |
| Camera Aquisition Resolution (Video)                                                                                                  | 1920 x 1080                                                                                       | 1920 x 1080                                       | 1920x1080                                                                                                                                                                                | 1920x1080 (30p) 1280 x 720 (at 60 fps)                                                       | 2K YCC 4:2:2, 1-60, 62-120 in 2 frame increments             | 1920x1080                                                                                    | 3.43 M pixels (2464 x 1394)                                                                  | 4096 x 2160, 8.8 effective Megapixels                                                                                                                                                                    | 2448 x 1377, 3.4 million pixels (16:9)                                                                                                  | 4096 x 2160, 8.8 effective Megapixels                                                                                                                 | Camera Aquisition Resolution (Video)                                                                                                  |
| Active Sensor Size                                                                                                                    | 8.8mm x 6.6mm                                                                                     |                                                   | 10.34 mm x 5.50 mm                                                                                                                                                                       | 36 mm x 24mm                                                                                 | 26.2 x 13.8 mm                                               | 22.5 x 16.9mm                                                                                | 23.6mm x 13.3mm                                                                              | 24 x 12.7 mm                                                                                                                                                                                             | 23.6 x 13.3 mm                                                                                                                          | 24 x 12.7 mm                                                                                                                                          | Active Sensor Size                                                                                                                    |
| Sensor Type and Raw Resolution                                                                                                        | 3-CCD 2/3-inch type, 14-bit 1920 x 1080                                                           | 3-CCD 2/3-inch type, ??-bit 1920 x 1080           | 2/3" CMOS (vimagic 9215), with Rolling Shutter 2048x1148 total pixel                                                                                                                     | CMOS sensor 35mm full frame 22.3 megapixels                                                  | CMOS Super 35, 4206 x 2340 pixels                            | APS-C CMOS with RGB Bayer Filter, 4096 x 3072, 12.5 megapixels                               | "Exmor" Super35 CMOS Sensor                                                                  | "Exmor" Super35 CMOS Sensor                                                                                                                                                                              | Exmor Super 35 CMOS Image Sensor                                                                                                        | "Exmor" Super35 CMOS Sensor with global shutter                                                                                                       | Sensor Type and Raw Resolution                                                                                                        |
| Pixel size                                                                                                                            |                                                                                                   |                                                   |                                                                                                                                                                                          | 6.25 µm square                                                                               | 6.4 µm cell pitch                                            | 5.5µm                                                                                        |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Pixel size                                                                                                                            |
| Aspect Ratio                                                                                                                          | 16:9                                                                                              |                                                   | 16 : 9                                                                                                                                                                                   |                                                                                              | 16 : 9                                                       | 16 : 9                                                                                       | 16:9                                                                                         | 17:9                                                                                                                                                                                                     |                                                                                                                                         | 17:9                                                                                                                                                  | Aspect Ratio                                                                                                                          |
| Horizontal resolution                                                                                                                 | 1000 TV lines (at center)                                                                         | 1000TVL 1080i/p                                   |                                                                                                                                                                                          |                                                                                              |                                                              | >1,000 line pairs per mm typical                                                             |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Horizontal resolution                                                                                                                 |
| Maximum Frame Rates                                                                                                                   | 1080/50i, 59.94i, 1080/59.94p (confirmed) and 720/50P and 59.94P.                                 | 1080/59.94p (Conforms to SMPTE 372M)              | 1080p 120 in DDS mode, 1080p 240 in CDS mode.                                                                                                                                            | 1920x1080, 30p, 1280 x 720, 60p                                                              |                                                              | 1080p 30 or 720p 60                                                                          | 1920 x 1080/60p                                                                              | 240 fps 2K RAW continuous, 60 fps AVCHD codec continuous. 480 frames per second at 1920x1080 or up to 960 frames per second at 1280x720, at 21 Mb per second AVCHD codec, so far from Broadcast quality. | • 60 fps @ 1080p with SR-R1<br>• 60 fps @ 720p internal<br>• 30 fps @ 1080p internal                                                    | 240 fps @ 2K RAW with AXS-R5 and v2.0 upgrade, 180 fps @ 2K/HD XAVC with v3.0 upgrade                                                                 | Maximum Frame Rates                                                                                                                   |
| Output Formats                                                                                                                        |                                                                                                   |                                                   |                                                                                                                                                                                          |                                                                                              |                                                              |                                                                                              |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         | SDI Out 1 & 2 Rec Setting 59.94 XAVC 1920 × 1080P Output: 1920 × 1080 59.94P. HDMI out Rec Setting 59.94 XAVC 1920 × 1080P Output: 1920 × 1080 59.94P | Output Formats                                                                                                                        |
| Dynamic Range                                                                                                                         | ~ 10 stops                                                                                        |                                                   |                                                                                                                                                                                          |                                                                                              | During Normal Shooting: 300%, With Canon Log Gamma: 800%     |                                                                                              |                                                                                              | Over 12 stops (CineGamma 4)                                                                                                                                                                              | 12.5 stops                                                                                                                              | 14 stops                                                                                                                                              | Dynamic Range                                                                                                                         |
| Gain                                                                                                                                  |                                                                                                   | 0dB, + 6dB, +12dB, +18dB (+24dB, +30dB is option) | 0dB, +3dB, +6dB, +12dB                                                                                                                                                                   |                                                                                              | Normal Setting -6dB to 30 dB TBD                             |                                                                                              |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Gain                                                                                                                                  |
| Native ISO                                                                                                                            |                                                                                                   |                                                   |                                                                                                                                                                                          | ISO 100-25600                                                                                |                                                              |                                                                                              | 500                                                                                          | 500                                                                                                                                                                                                      | 1600 in S-Log                                                                                                                           | 2000 in S-Log 2                                                                                                                                       | Native ISO                                                                                                                            |
| Built-in-Filters                                                                                                                      | 1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND A: CROSS, B: 3200K, C: 4300K, D: 6300K                   |                                                   |                                                                                                                                                                                          |                                                                                              |                                                              |                                                                                              | none                                                                                         | 0, 0.6, 1.2, 1.8 (0, 2, 4, 6 stops)                                                                                                                                                                      |                                                                                                                                         | 0, 0.9, 1.8 (0, 3, 6 stops)                                                                                                                           | Built-in-Filters                                                                                                                      |
| Modulation Depth                                                                                                                      | 45% or more horizontally(800 TV lines at centre, 27.5 MHz, with typical lens)Pb/Pr: 80% of 12 MHz |                                                   |                                                                                                                                                                                          |                                                                                              |                                                              |                                                                                              |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Modulation Depth                                                                                                                      |
| Sensitivity                                                                                                                           | f10.0 with 59.94 Hz/f11.0 with 50.00 Hz (at 2000 lx with 89.9% reflectivity)                      | F7.2 at 2,000 lux (1080p)                         | F 11/2000 lx at nominal gain                                                                                                                                                             |                                                                                              | 59.94 Hz Mode: F9                                            |                                                                                              | 0.28 lx (1/30 shutter, IRIS F1.4, Auto GAIN)                                                 | 1.2 lx (lux)* with Shutter Speed 1/24 auto gain control, auto iris (when selecting [B0])                                                                                                                 | Sensitivity (2000 lux, Reflection ratio 89.9%, 1920 x 1080/59.94i), F11 (Typical)                                                       | Luminance: 2000 lx, 89.9% reflectance Video Gamma: T11@24p (3200K light source) S-Log2 Gamma: ISO 1250 (D55 Light source)                             | Sensitivity                                                                                                                           |
| Signal to Noise Ratio                                                                                                                 | 55 dB                                                                                             | 54dB (Y) (1080/59.94i)                            |                                                                                                                                                                                          |                                                                                              | 59.94 Hz Mode: 54 dB (Typical)                               | >60dB                                                                                        |                                                                                              |                                                                                                                                                                                                          | 63 dB (Typical)                                                                                                                         | 57dB (Video Gamma, 24p, Noise Suppression                                                                                                             | Signal to Noise Ratio                                                                                                                 |
| Shutter Speed                                                                                                                         | 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 s (1080/50i mode)                                       |                                                   | Global electronic shutter, 5 steps up to 1/1000 auto shutter with adjustable exposure                                                                                                    |                                                                                              |                                                              |                                                                                              | 60i/30p/60p: 1/3 - 1/10000, 24p: 1/3 - 1/10000 (electronic)                                  | 60i/30p/60p: 1/3 - 1/10000, 24p: 1/3 - 1/10000 (electronic)                                                                                                                                              | 1/32 - 1/2000 sec                                                                                                                       | 1/24s to 1/6,000s                                                                                                                                     | Shutter Speed                                                                                                                         |
| Color Method                                                                                                                          | F1.4 prism system                                                                                 | F1.4 prism system                                 | 16 : 9 C-Mount adjustable back-focus, adaptors for B4, Nikon, Arri PL                                                                                                                    |                                                                                              |                                                              | Bayer array                                                                                  | Bayer array                                                                                  | Bayer array                                                                                                                                                                                              |                                                                                                                                         |                                                                                                                                                       | Color Method                                                                                                                          |
| Lens Mount                                                                                                                            | Sony 2/3-type bayonet mount (B4)                                                                  | 2/3 inch format B4                                | Canon EF Lenses (excluding EF-S Lenses)                                                                                                                                                  |                                                                                              |                                                              | E-Mount Hot Shoe (adapters for PL mount, Canon FD, Nikon F, Leica M and Sony A mount lenses) | E-Mount Hot Shoe (adapters for PL mount, Canon FD, Nikon F, Leica M and Sony A mount lenses) | Sony FZ and supplied PL adaptor. Hot shoe for ARRI® LDS and Cooke® /i metadata. Also adapter for Nikon G/DX, Canon FD and Canon                                                                          | Sony FZ and supplied PL adaptor. Hot shoe for ARRI® LDS and Cooke® /i metadata. Also adapter for Nikon G/DX, Canon FD and               |                                                                                                                                                       | Lens Mount                                                                                                                            |
| Flange Focal Distance                                                                                                                 | 48mm                                                                                              | 48mm                                              | 17.526mm                                                                                                                                                                                 | 18mm                                                                                         |                                                              | 18mm                                                                                         | 18mm                                                                                         | 18mm                                                                                                                                                                                                     |                                                                                                                                         | 18mm                                                                                                                                                  | Flange Focal Distance                                                                                                                 |
| Fits Image intensifier?                                                                                                               |                                                                                                   |                                                   |                                                                                                                                                                                          |                                                                                              |                                                              |                                                                                              |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Fits Image intensifier?                                                                                                               |
| Viewfinder                                                                                                                            | none                                                                                              | none                                              | none                                                                                                                                                                                     | Built in                                                                                     |                                                              | none                                                                                         | none                                                                                         | Built in                                                                                                                                                                                                 |                                                                                                                                         |                                                                                                                                                       | Viewfinder                                                                                                                            |
| Power                                                                                                                                 | DC 10.5–17V, 24W                                                                                  | 11-16VDC 20W                                      | 8-15V DC, 15Watt                                                                                                                                                                         |                                                                                              |                                                              | 24V, 30W                                                                                     | 8.4V / 7.2V, 5-7W                                                                            | 8.4V / 7.2V, approx. 9.6 W                                                                                                                                                                               | 24W                                                                                                                                     | DC 12 V (11 V to 17.0 V) Approx. 25 W                                                                                                                 | Power                                                                                                                                 |
| Camera Dimensions                                                                                                                     | 86mm(W) x 130mm(H) x 189mm(D)                                                                     | W90×H103×D180 mm, (W3.54×H4.06×D7.09inches)       | camera head: 38x44x48 mm, CCU: 140x120x30 mm                                                                                                                                             | 6.0 x 4.6 x 3.0 in. (152.0 x 116.4 x 76.4 mm )                                               |                                                              |                                                                                              | 5 x 4 x 7 5/8 inch (126.5 x 101.5 x 193.5 mm)                                                | 5-3/4 x 7 1/8 x 10 inches (145 x 179 x 254 mm)                                                                                                                                                           |                                                                                                                                         |                                                                                                                                                       | Camera Dimensions                                                                                                                     |
| Camera Weight                                                                                                                         | 1.7 kg (3 lb 12 oz)                                                                               | 1.5kg                                             |                                                                                                                                                                                          | Approx. 30.3 oz / 860g (Body only)                                                           |                                                              |                                                                                              | 2 lbs. 4oz (1.04 kg)                                                                         | 3 lb 11 oz (1.7 kg)                                                                                                                                                                                      |                                                                                                                                         | Body only: 4.88 lb (2.2 kg)                                                                                                                           | Camera Weight                                                                                                                         |
| Lens Recommendation                                                                                                                   |                                                                                                   |                                                   |                                                                                                                                                                                          |                                                                                              |                                                              |                                                                                              |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Lens Recommendation                                                                                                                   |
| Model                                                                                                                                 | Fujinon HAEf5 5mm                                                                                 | or Zeiss DigiPrime 5mm T1.6                       |                                                                                                                                                                                          | See lens data                                                                                | See lens data                                                | 11.5-46mm, f/2.8                                                                             | Rokinon 14mm T3.3 or 16mm T2.2 Cine lens                                                     | See lens data                                                                                                                                                                                            | See lens data                                                                                                                           | See lens data                                                                                                                                         | Model                                                                                                                                 |
| Field of view (air)                                                                                                                   | 87°36' x 56°39'                                                                                   |                                                   |                                                                                                                                                                                          |                                                                                              |                                                              | H88 V72 D102, at widest                                                                      |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Field of view (air)                                                                                                                   |
| Storage/Recording                                                                                                                     |                                                                                                   |                                                   |                                                                                                                                                                                          |                                                                                              |                                                              |                                                                                              |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Storage/Recording                                                                                                                     |
| Internal Storage Type                                                                                                                 | None                                                                                              | None                                              | None                                                                                                                                                                                     | CF Cards (Type I); Compatible with UDMA CF cards; SD, SDHC, and SDXC Memory Cards            | CF Card (Type 1 Only); 2 Slots (Movie Files); UDMA supported | 256GB internal                                                                               | HXR-FMU128optional 128 GB Memory Module                                                      | HXR-FMU128optional 128 GB Memory Module                                                                                                                                                                  |                                                                                                                                         | SXS PRO PLUS 128GB cards (x2) SD card slot (x1)                                                                                                       | Internal Storage Type                                                                                                                 |
| Internal Storage Format                                                                                                               | NA                                                                                                | NA                                                | NA                                                                                                                                                                                       | MOV (Image data: H.264/MPEG-4 AVC; Audio: Linear PCM)                                        | 8 Bit MPEG-2 Long GOP                                        | H.264 MPEG-4, 1080P, 24                                                                      | AVCHD codec, HD PS (28Mbps) 1920x1080 60p                                                    | AVCHD codec, HD PS (28Mbps) 1920x1080 60p                                                                                                                                                                | MPEG 4:2:0, 8 bit, 35 Mbps internal, SR File, 10-bit, 4:4:4 or 4:2:2, 176, 352 or 704 with SR-R1                                        | 1920 X 1080 @ 60P as XVAC level 5.2 codec which is 10bit and 422 sampling. I get 284Mb/sec.                                                           | Internal Storage Format                                                                                                               |
| Internal Storage Rate at 1920x1080 60P or max. resolution at 60P (Mb per second)                                                      |                                                                                                   |                                                   |                                                                                                                                                                                          | 1280 x 720, 60 fps ALL-I: 12 min. (610 MB/min.) / IPB: 37 min. (205 MB/min.)                 |                                                              | 24 fps *other optional frame rates available upon request                                    |                                                                                              | NEX-FS700U now features an upgrade that enables full 2K RAW up to 240fps or 4K RAW up to 60fps recording to Sony's AXS-R5 RAW recorder.                                                                  |                                                                                                                                         | 284<br><br>120 minutes                                                                                                                                | Internal Storage Rate at 1920x1080 60P or max. resolution at 60P (Mb per second)                                                      |
| Internal Recording Time<br>External Interface Format<br>External Storage Type<br>External Recorder Size GB<br>External Recording Time |                                                                                                   |                                                   |                                                                                                                                                                                          |                                                                                              |                                                              |                                                                                              |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Internal Recording Time<br>External Interface Format<br>External Storage Type<br>External Recorder Size GB<br>External Recording Time |
| Interface                                                                                                                             |                                                                                                   |                                                   |                                                                                                                                                                                          |                                                                                              |                                                              |                                                                                              |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Interface                                                                                                                             |
| Lens Iris Control                                                                                                                     | 12-pin (x1)                                                                                       |                                                   |                                                                                                                                                                                          |                                                                                              |                                                              |                                                                                              |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Lens Iris Control                                                                                                                     |
| Lens Focus Zoom Control                                                                                                               |                                                                                                   |                                                   |                                                                                                                                                                                          |                                                                                              |                                                              |                                                                                              |                                                                                              |                                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Lens Focus Zoom Control                                                                                                               |
| Remote Control                                                                                                                        | 8-pin (x1)                                                                                        |                                                   |                                                                                                                                                                                          |                                                                                              |                                                              |                                                                                              | LANC type 2.5mm                                                                              | LANC type 2.5mm                                                                                                                                                                                          |                                                                                                                                         |                                                                                                                                                       | Remote Control                                                                                                                        |
| Computer Interface                                                                                                                    | RJ-45 (x1), 10BASE-T/100BASE-TX, D-sub 15-pin (female) (x1)                                       |                                                   | duplex / simplex RS 485, duplex / simplex RS 232, USB 2.0 / TTL 1 Mbaud                                                                                                                  | USB 2.0 Hi-Speed, Gigabit-Ethernet, only available via the Wireless File Transmitter WFT-E7A |                                                              | supplied GUI (Ethernet or RS485), customer specified protocols (Ethernet or RS485)           | USB                                                                                          | USB                                                                                                                                                                                                      |                                                                                                                                         |                                                                                                                                                       | Computer Interface                                                                                                                    |
| Video Output                                                                                                                          | BNC (x1) Can be switched between HD-SDI and SD-SDI                                                | HD-SDI Dual Link (Conforms to SMPTE 372M)         | HDSDI interlaced (2x BNC), HDSDI Dual Link progressive, SDI, CVBS, analog component, or Y/B-Y/R-Y interlaced, HDSDI RAW Data in 12/10 bit, WeissCam or Cineform DFX, HDMI (1x Mini-HDMI) | Reported overheating problems for shooting long video. Fixed in 1D                           |                                                              | HD-SDI or direct transfer of images to NAS or Computer                                       | 8-bit HDMI 1.4 output 4:2:2 or 3G SDI OUT with embedded audio                                | 8-bit HDMI 1.4 output 4:2:2 or RGB, 3G SDI OUT with embedded audio                                                                                                                                       | HD-SDI x2, Dual Link HD-SDI, HDMI 1.4, 3G-SDI is available for 10-bit RGB 1080 23.98/25/29.97PsF or 10-bit 4:2:2 1080 50/59.94p output. | 3G-SDI x4, HDMI 1.4a                                                                                                                                  | Video Output                                                                                                                          |
| Retail Cost                                                                                                                           | \$29,000                                                                                          | \$28,630                                          | \$16,300                                                                                                                                                                                 | \$3,400                                                                                      |                                                              | \$58,000                                                                                     | \$4600                                                                                       | \$4,614                                                                                                                                                                                                  | \$14,000                                                                                                                                | \$17,000                                                                                                                                              | Retail Cost                                                                                                                           |





