UltraCamFalconPrime - Technical Specifications

Image Product Specification

Analogous to an aerial film image at a format of 23 cm x 15 cm, scanned at 13 μm
JPEG, TIFF with options for 8 and 16 bits, standard tiff format
Full resolution panchromatic, separate color channels at color resolution
Full resolution R, G, B, Near-IR channels, planar or pixel-interleaved

Camera Digital Sensor Subsystem

Panchromatic image size
17,310 * 11,310 pixels
6.0 μm
624 Mega Bytes
103.86 mm * 67.86 mm
4 channels – R, G, B & NRI
5,770 * 3,770 pixels
6.0 μm

Camera Computer And Data Storage Subsystem (CFDF)

Modular stack, stacked onto sensor head or released with cabling to sensor head
Solid state disc pack, with RAID system for data protection
Unlimited with use of multiple data units DF; per DF unit ~3.3 TB, ~ 5,200 images
< 3 kg
< 1/4.0
Prontor magnetic 0 – Vexcel
1/500 to 1/32
50 pixels
1 frame per 1.35 seconds
72 dB
>12 bit
14 bits
16 bits

Camera Operational Specification

Operating / storage temperature
0 °C to 45 °C / -20 °C to 65 °C
5 % ... 95 % no condensation
± 5,000 m AGL
≤ 1,675 m
≤ 000 m AGL
≤ 1,167 m

Humidity
5 % ...
Flight altitude non-pressurized (full accuracy, full temperature range)
≤ 7,000 m AGL
Data recording time @ 10 cm GSD, 60% forward overlap, 140 kts
1,675 m
Max. flight speed @ 10 cm GSD (@ 5 cm GSD) with 80% forward overlap
326 kts (163 kts)

Flight altitude non-pressurized (reduced temperature range; 0 °C to 25 °C)
Max. flight speed @ 10 cm GSD (@ 5 cm GSD) with 80% forward overlap
326 kts (163 kts)
No limitation unless cabin pressure stays above 5000 m pressure
UltraMap, UM/AT extension, PC network or Laptop

Flight altitude pressurized aircraft
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Shipping of DF, or transfer by high capacity storage medium
UltraMap, UM/AT extension, PC network or Laptop

Post-processing of collected raw images
TIFF-output compatible with Customer’s photogrammetric production software
Using adapter ring for most current film camera mounts (UltraMount G3M 3000, PAV-80, T-AS)

Photogrammetric Production
UltraNav (Applanix POSTrack OEM) full embedded into camera head
Compatible with all major commercial systems (TrackAir, CCNS-4, …)

Extended Ortho Workflow
Compatible with all major DGPS/IMU systems (Applanix POS-Nav, IGI Aero-Control, …)

Full ortho workflow by UltraMap

Image geometric accuracy
Better ±2 μm

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