Leica RCD30 Series
80 MP multispectral RGBN imagery

NEW
HIGH
RESOLUTION
OPTICS

Multispectral imaging
The Leica RCD30 is the first medium format single head camera which collects perfectly co-registered 80 MP RGBN multispectral imagery. Innovative features and configuration flexibility support photogrammetric and remote sensing applications, offering performance otherwise only known from large format airborne sensors.

High resolution optics
The Leica RCD30 is based on a modular concept for single standalone, multi-head and oblique configurations. It offers a choice of three focal lengths up to 150 mm for a variety of applications, features mechanical Forward Motion Compensation (FMC) along two axis and has a ruggedised and thermal stabilised lens system.

Modularity
This innovative camera offers full integration with the Leica ALS LiDAR sensor series, other third party sensors and professional UAV-based mapping solutions. It is also compatible with the highly efficient post-processing workflow RealWorld and the common mission and flight planning software Leica MissionPro and Leica FlightPro.

- when it has to be right
**CHARACTERISTICS OF DATA ACQUISITION**

**CCD Size**
- 80MP camera head CH81/82
  - 10320 x 7752 pixels
  - 5.2 μm
  - Dynamic range of CCD: 73 dB
- 60MP camera head CH61/62
  - 8956 x 6708 pixels
  - 6 μm
  - Dynamic range of CCD: 73 dB

**Resolution A/D Converter**
- 14-bit

**Data channel**
- 16-bit lossless

**Maximum frame rate**
- 80MP: 1.25 sec
- 60MP: 1.00 sec
- Penta: 1.50 sec

**Motion compensation**
- Mechanical forward and lateral motion compensation along two axis

**SPECTRAL RANGE**

**Camera head CH81/61**
- RGB

**Camera head CH82/62**
- RGB and NIR, coregistered

**NIR range**
- 780 – 880 nm

**OPTICS**

**Lenses**
- Leica NAG-D 50 mm
- Leica NAT-D 80 mm
- Leica SAT-D 150 mm
  - 53.8° FOV across track, 41.8° FOV along track
  - 35.9° FOV across track, 27.4° FOV along track
  - 19.5° FOV across track, 14.8° FOV along track
  - Ruggedised and temperature compensated for high accuracy performance between –10 °C and +30 °C

**Shutter**
- Central shutter, user replaceable

**Aperture**
- Leica NAG-D 50 mm
  - f/2.8, 4, 5.6, 8, 11
- Leica NAT-D 80 mm
  - 2.8, 4, 5.6, 8
- Leica SAT-D 150 mm
  - 2.8, 4, 5.6, 8

**Lens mount**
- Easy to use bayonet connection
  - Automated electrical connection
  - Stabilised connection mechanics

**PHYSICAL**

**Camera Head CH8x/CH6x**
- Weight, height
  - Without lens
    - Leica NAG-D 50 mm: 3.1 kg, 168 mm
    - Leica NAT-D 80 mm: 3.9 kg, 238 mm
    - Leica SAT-D 150 mm: 3.9 kg, 242 mm
  - Diameter: 128 mm

**Camera Controller CC31/CC32**
- Weight without MM30
  - 5.0 kg
  - 300 x 260 x 140
- Controls up to five camera heads
- Without GNSS/IMU system (for use with Leica ALS)
- With GNSS/IMU system for standalone use

**Processor CC31/CC32**
- Core-i7, Win7 64 Bit, 8 GB RAM, 32 GB G-card

**GNSS/IMU**
- Supports wide variety of IMUs
- Supports GPS/GLONASS
- Deeply coupled solution for more efficient data acquisition

**Mass memory MM30**
- Solid state drive, 600 GB, 1,600 GB
- Weight 0.5 kg, removable, portable

**PERIPHERALS**

**Leica RCD30 standalone**
- Height / diameter / weight
  - CH81/82: 492.5 mm / 314 mm / 10 kg
  - CH61/62: 693 mm / 407 mm / 18 kg

**Leica RCD30 Oblique**
- Pod 37
  - Height / diameter / weight
    - 533 mm / 407 mm / 17 kg
  - Pod 53
    - 693 mm / 407 mm / 18 kg

**Operator interface OC60**
- 12.1” screen, 1024 x 768 pixel resolution

**Interface stand IS40**
- 640 stand fits RC30 NAV-sight installation

**Pilot interface PD60**
- 6.3” touch screen with 1024 x 768 pixel resolution designed for cockpit mounting

**FIRMWARE & SOFTWARE**
- Leica FlightPro flight and sensor control management system
- Automatic integration time control

**ENVIRONMENTAL**

**Pressure**
- Non-pressurised cabin up to ICAO 25,000 ft (7,620 m)

**Humidity**
- 0 % to 95 % RH according ISO 7137

**Operating temperature**
- – 20 °C to + 55 °C

**Storage temperature (except CH6x and lens)**
- – 40 °C to + 85 °C

**Storage temperature CH6x and lens**
- – 40 °C to + 70 °C

**ELECTRICAL**

**Average power consumption of standalone system**
- CH82/CH62, CC32, PAV80 for RCD, OC60, PD60, IMU
  - <281 W/28 VDC
  - x281 W/28 VDC

**Fuses on aircraft power outlet**
- Typically 1 x 20 A

**STANDARDS**

**General standards for temperature, electronics environment, etc.**
- RTCA DO-160G, EUROCAE-14G

**Conformity to national regulations**

**POST-PROCESSING AND DATA FORMAT**

**Post-processing**
- Leica FramePro

**Output from Leica FramePro post-processing**
- Distortion-free, 8 and 16-bit JPEG, TIFF and BSQ images with RGB, RGBA, NIR, and NDVI band combinations