Leica RCD30 Series
Multispectral. Metric. Modular.

The new Leica RCD30 Series – imaging revolution from the leader

The new Leica RCD30 Series of medium format cameras represents a true revolution in airborne imaging. Just like the RC30 has once set standards in film based airborne imaging, the new Leica RCD30 is setting new standards in what you and your customers can expect from a medium format digital camera.

A true Masterpiece
The Leica RCD30 Series is not only true imaging innovation, it's a masterpiece. The Leica RCD30 offers performance that is otherwise only known from large-format airborne sensors at a lower cost and thus makes digital multispectral photogrammetry available to everyone.

The Leica RCD30 boasts quite a number of innovative and unique "world's first" features and is the only suitable medium format camera for photogrammetric and remote sensing applications:

- 60MP single camera head delivers co-registered, multi-spectral RGBN imagery
- Mechanical Forward Motion Compensation (FMC) along two axis
- Ruggedized and thermal stabilized lens system with innovative bayonet mount and user replaceable central shutter with automatically controlled high precision aperture
- Modular concept for single standalone, multihead and oblique configurations
- Full integration with Leica ALS LIDAR and other third party sensors

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Leica
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Leica RCD30 Series
Product Specifications

Characteristics of Data Acquisition

CCD Size (60MP)
8956 x 6708 pixels
Pixel Size
6 µm
Dynamic Range of CCD
73 dB
Resolution A/D Converter
14-bit
Data Channel
16-bit lossless
Maximum Frame Rate
1,0 sec
Motion Compensation
Mechanical forward and lateral motion compensation along two axis

Spectral Range

Camera Head CH61	RGB
Camera Head CH62	RGB and Near-Infrared, coregistered
Near-Infrared	780 – 880 nm

Optics

Lenses
Leica NAG-D 50 mm
Leica NAT-D 80 mm
Ruggedized and temperature compensated for high accuracy performance between – 10°C and +30°C
Shutter
Central shutter, user replaceable
Life >200'000 frames
Aperture
2.8, 4.0, 5.6, 8.0 for NAT-D 80 mm
4.0, 5.6, 8.0, 11 for NAG-D 50 mm
Automatically controlled aperture
Lens Mount
Easy to use bayonet connection
Automated electrical connection
Stabilized connection mechanics

Physical

Camera Head CH6x

Weight	(w/o lens)	3.0 kg
	with NAG-D 50 mm	4.4 kg
	with NAT-D 80 mm	4.1 kg
Height	(w/o lens)	147 mm
	with NAG-D 50 mm	223 mm
	with NAT-D 80 mm	193 mm
	Diameter	128 mm

Camera Controller CC31/CC32
Weight without MM1 5.0 kg
L x W x H 300 x 260 x 140
Controls up to five CH6x
Camera Controller CC31
Without GNSS/IMU system (for use with Leica ALS)
Camera Controller CC32
With GNSS/IMU system for standalone use
Processor CC31/CC32
64-bit Cwc17, 8-bit RAM 32GB flash, USB 2.0, SATA
GNSS/IMU
Supports wide variety of IMUs
Supports GPS/GLONASS
Deeply coupled solution for more efficient data acquisition
Mass Memory MM30
Solid state drive, 300 GB, 600 GB, 1,200 GB
Weight 0.5 kg
Removable, portable

Peripherals

Leica RCD30 Uno/Duo Pod
For single or dual installation in Leica PAV80
Height 485 mm
Diameter 314/390 mm
Weight (incl IMU, excl. camera) 13.5 kg
Leica RCD30 Oblique
For installation of oblique Trio and Penta Cameras
Height 485 mm
Diameter 380/390 mm
Weight (incl. IMU) 17 kg
Mount
Leica PAV80 gyro stabilized mount
Operator Interface OC52
12.1" screen with 1024 x 768 pixel resolution
Interface Stand IS40
IS40 stand fits RC30 NAV-sight installation
Pilot Interface OC50
6.3" touch screen with 1024 x 768 pixel resolution designed for cockpit mounting
Guidance Indicator GI40
LED array display designed for cockpit mounting

Operational

Capacity of Mass Memory MM30

	Single MM30	Joint MM30
MM30-1200	19,800 RGB 15,800 RGBN	39,600 RGB 31,600 RGBN
MM30-600	9,900 RGB 7,900 RGBN	18,800 RGB 15,800 RGBN
MM30-300	5,300 RGB 4,200 RGBN	10,600 RGB 8,400 RGBN

Typical image storage per MM30 configuration.

Inflight exchange two slots, supporting joint- and backup mode
Firmware & Software
FCMS Flight and Sensor Control Management System
Automatic integration time control

Environmental

Pressure
Non-pressurized 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 (CH62, CC32, PAV80, OC52, OC50, GI40, IMU)
< 265 W/28 VDC
Fuses on Aircraft Power Outlet
Typically 1 × 20 A

Standards

General Standards for Temperature, Electronics Environment, etc.
RTCA DO-160G, EUROCAE-14E
Standard for Emergency Landings
FAR§23.561, FAR§27.561
Conformity to National Regulations
USA: FCC Part 15, EU: Directive 1999/5/EC

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, RGBN, NRG, NIR and NDVI band combinations

TQM
ISO 9001 / ISO 14001

Total Quality Management – our commitment to total customer satisfaction.
Ask your local Leica Geosystems dealer for more information about our TQM program.

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