

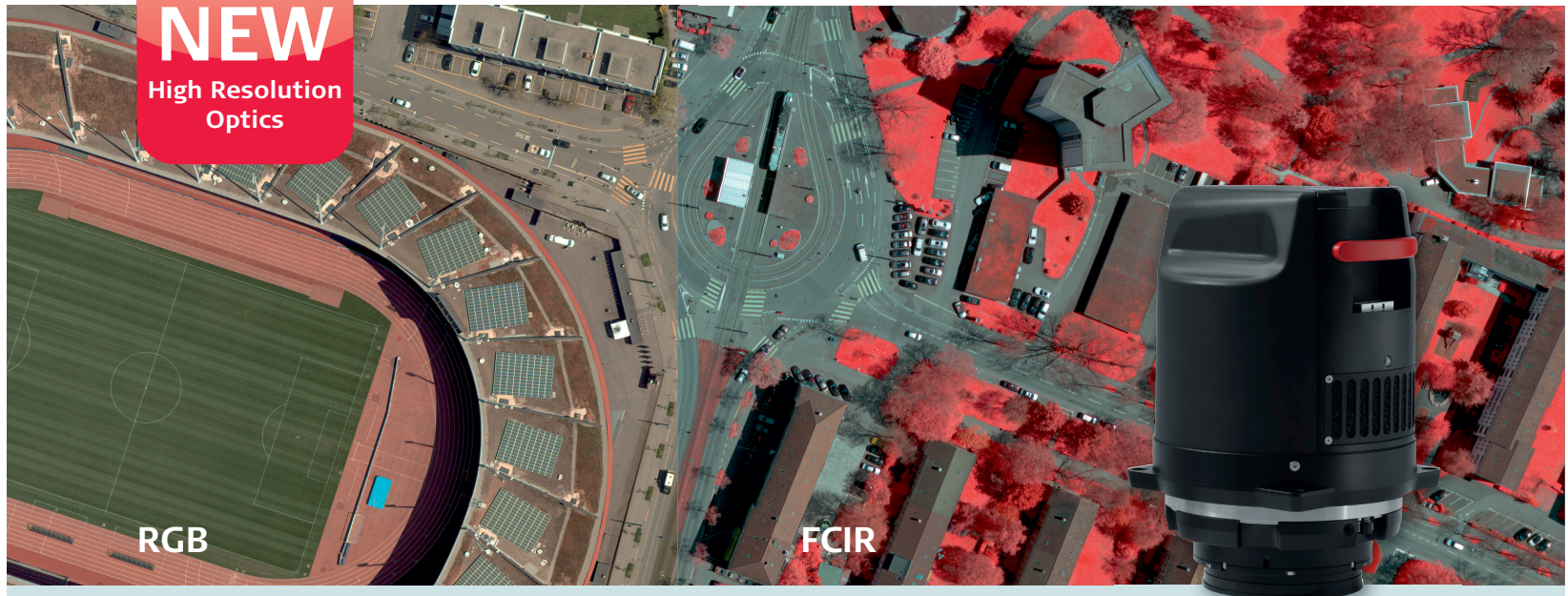
# Leica RCD30 Series

## 80 MP Camera

### Multispectral RGBN Imagery

**NEW**

High Resolution  
Optics



### The new Leica RCD30 Series – unique imaging innovation from the leader

The new Leica RCD30 camera is presently the only single head camera in the market which is able to collect 80 MP RGBN multispectral imagery perfectly co-registered. Now we have released a new high resolution optics with 150mm focal length. When first released, the Leica RCD30 Series of medium format cameras started a revolution in airborne imaging. Since then, just like the RC30 has once set standards in film based airborne imaging, the 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 remains 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 and 80MP single camera heads deliver

co-registered, multispectral RGBN imagery

- Choose from three different focal lengths for a wide range of applications
- 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 as well as the Leica MissionPro and Leica FlightPro Software

# Leica RCD30 Series Product Specifications

## Characteristics of Data Acquisition

### CCD Size (80MP – Camera Head CH81/82)

10320 x 7752 pixels

#### Pixel Size

5.2 µm

#### Dynamic Range of CCD

73 dB

### CCD Size (60MP – Camera Head CH61/62)

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

60MP: 1.00 sec

80MP: 1.25 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

Ruggedized and temperature compensated for high accuracy performance between -10°C and +30°C

### Shutter

Central shutter, user replaceable

Life >200'000 frames

### Aperture

4, 5.6, 8, 11 for NAG-D 50 mm

2.8, 4, 5.6, 8 for NAT-D 80 mm

4, 5.6, 8, 11 for SAT-D 150 mm

Automatically controlled aperture

### Lens Mount

Easy to use bayonet connection

Automated electrical connection

Stabilized connection mechanics

## Physical

### Camera Head CH8x/CH6x

Weight	w/o lens 3.1 kg
	with NAG-D 50 mm 3.9 kg
	with NAT-D 80 mm 3.6 kg
Height	with SAT-D 150 mm 3.9 kg
	w/o lens 168 mm
	with NAG-D 50 mm 238 mm
Diameter	with NAT-D 80 mm 193 mm
	with SAT-D 150 mm 242 mm
	128 mm

### Camera Controller CC31/CC32

Weight without MM30 5.0 kg

L x W x H 300 x 260 x 140

Controls up to five Camera Heads

### 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

Core-i7, Win7 64 Bit, 8 GB RAM, 32 GB CF-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

For installation in Leica PAV80 for RCD

Height 492,5 mm

Diameter 314 mm

Weight 10 kg

### Leica RCD30 Oblique

For installation of oblique Trio and Penta Cameras

in Leica PAV100 gyro stabilized mount

Pod 37

Height/diameter/weight 533 mm/407 mm/17 kg

Pod 53

Height/diameter/weight 693 mm/407 mm/18 kg

### Operator Interface OC60

12.1" screen with 1024 x 768 pixel resolution

### Interface Stand IS40

IS40 stand fits RCD30 NAV-sight installation

### Pilot Interface PD60

6.3" touch screen with 1024 x 768 pixel resolution

designed for cockpit mounting

## Operational

### Capacity of Mass Memory MM30 (CH8x)

	Single MM30	Joint MM30
MM30-1600	21,000 RGB 16,800 RGBN	42,100 RGB 33,600 RGBN
MM30-600	7,900 RGB 6,300 RGBN	15,000 RGB 12,600 RGBN

### Capacity of Mass Memory MM30 (CH6x)

	Single MM30	Joint MM30
MM30-1600	26,400 RGB 21,000 RGBN	52,800 RGB 42,100 RGBN
MM30-600	9,900 RGB 7,900 RGBN	18,800 RGB 15,800 RGBN

Typical image storage per MM30 configuration.

Inflight exchange two slots, supporting joint- and backup mode

### Firmware & Software

Leica FlightPro 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 (CH82/CH62, CC32, PAV80 for RCD, OC60, PD60, IMU)

< 281 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

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

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- when it has to be **right**

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