

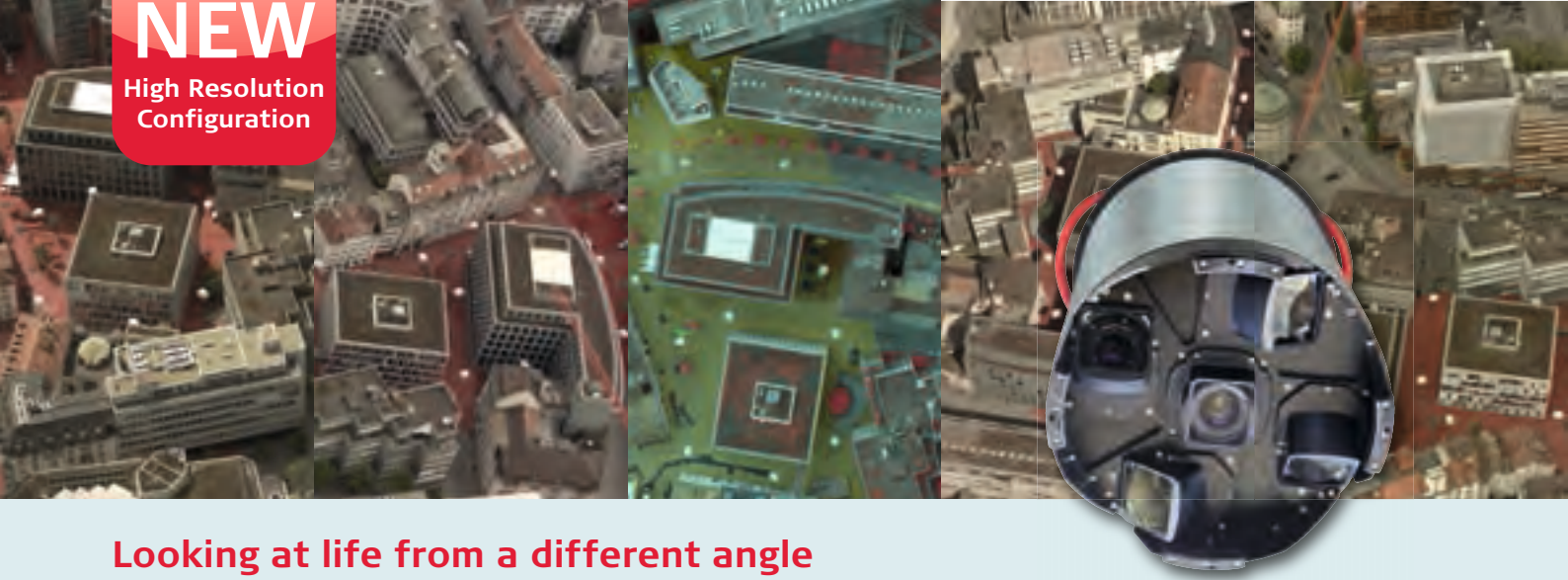
# Leica RCD30 Oblique

## Life from a different angle

### Enhanced resolution

**NEW**

High Resolution  
Configuration



### Looking at life from a different angle

The new Leica RCD30 Oblique camera system is specifically designed for high accuracy 3D urban mapping and 3D corridor mapping applications. A high resolution optics provides more building details. Based on the leading Leica RCD30, the world's first 80MP multi-spectral medium format camera, the Leica RCD30 Oblique boasts a number of unique photogrammetric design features that not only offer superior image quality and highest accuracy, but also highest flexibility.

#### Photogrammetric quality – a measurable difference for urban mapping

For 3D urban and corridor mapping applications, the Leica RCD30 Oblique has a number of distinct advantages:

- A choice of CH81 RGB only and CH82 multispectral RGBN camera heads
- Choose from two different Penta and one Trio configuration for a wide range of applications
- Multi-directional motion compensation for highest image quality
- 80MP camera heads to acquire more information
- Ruggedized design for photogrammetric applications and high geometric accuracy
- Compact, flexible and protected installation inside Leica PAV100 gyro stabilized mount
- Two different Penta pod lengths and lifter for flexible aircraft installation
- Single camera controller CC32 with integrated GNSS/IMU system
- Fully integrated workflow from mission planning to post processing
- Flexible Penta head configuration for corridor mapping and urban mapping applications
- High frame rate
- Standardised aircraft installation compatible with other Leica sensors
- Lens protection against environmental impacts like water, dust etc.
- Complete workflow solution using tridicon software
- Infrared oblique data for improved automatic building texturing using NVDI

# Leica RCD30 Oblique Specifications

## Camera head CH8x – sensor characteristics

CCD size (80MP)	10320 x 7752 pixels
Pixel size (80MP)	5.2 µm
Dynamic range of CCD	73 dB
Resolution A/D converter	14-bit
Data channel	16-bit lossless compressed
Maximum frame rate (Penta)	1.8 sec
Motion compensation	Mechanical, bi-directional
Spectral range	CH81RGB
Spectral range	CH82RGB and NIR (780–880 nm), coregistered
Weight (w/o lens)	3.1 kg
Dimensions	Height 168 mm, diameter 128 mm

## Camera head CH8x – optics

<b>Lenses</b>	
Leica NAG-D 50mm	Weight 0.8 kg, height 91 mm
Leica NAT-D 80mm	Weight 0.5 kg, height 46 mm
Leica SAT-D 150mm	Weight 0.8 kg, height 95 mm
	High accuracy performance between -10°C and +30°C
<b>Shutter</b>	Central shutter, user replaceable (~200,000 + frames)
<b>Aperture</b>	Automatically controlled 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
<b>Lens mount</b>	Precise bayonet connection, automated electrical connection
	Stabilized connection mechanics
<b>IMU selection</b>	SPAN CNU55, no export license required US ECCN 7A994

## Camera controller CC32

<b>Weight (w/o MM30)</b>	6.1 kg
<b>Dimensions LxWxH</b>	300 mm x 260 mm x 140 mm
<b>Capacity</b>	Controls up to 5 CH8x
	Includes deeply coupled GNSS/IMU solution
<b>Processor</b>	64-bit WIN7, 8 GB RAM, 32 GB flash, USB 2.0, SATA
<b>Mass memory</b>	MM30 Solid state available in 600 GB and 1,600 GB
	CC32 holds up to 2 MM30s
	Weight 0.5 kg
	Removable & portable

**Mass memory capacity** – for oblique configurations only a joint MM30 mode is available.

Joint MM30 1,600GB	42,100 RGB, 33,600 RGBN images
Joint MM30 600GB	15,000 RGB, 12,600 RGBN images

## Peripherals

<b>Leica RCD30 Oblique Pod</b>	Holds 5 RCD30 camera heads. Users exchangeable. Designed for installation with a Leica PAV100.
<b>Pod 37</b>	
Height / diameter / weight	533 mm / 407 mm / 17 kg
<b>Pod 53</b>	
Height / diameter / weight	693 mm / 407 mm / 18 kg
<b>Pod lifter</b>	Lifter for Pod 53, can be mounted on PAV100 to move POD 53 up and down in the aircraft to avoid vignetting
<b>Operator and pilot display</b>	
Operator display	OC60 12.1" screen with 1024 x 768 resolution Designed for installation with Interface Stand IS40
Pilot display	PD60 6.3" screen with 1024 x 768 resolution Designed for cockpit mounting

## Environmental

<b>Pressure</b>	Non-pressurized cabin up to ICAO 25,000 ft
<b>Humidity</b>	0% to 95% RH according ISO7137 (non-condensating)
<b>Operating temperature</b>	- 20°C to +45°C
<b>Storage temperature</b>	- 40°C to +85°C (except CH8x and lens)
<b>Storage temperature</b>	- 40°C to +70°C (CH8x plus lens)

## Electrical

<b>Average power consumption of Leica RCD30 Penta</b>	465 W/28 VDC
<b>Maximum peak power consumption of Leica RCD30 Penta</b>	~ 770 W/28 VDC < 0.3 s

## Standards

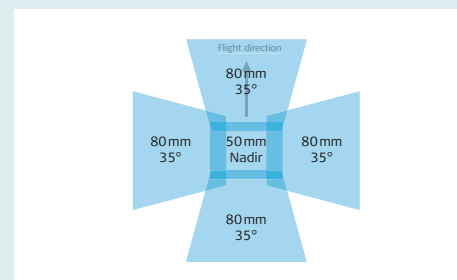
RTCA DO-160G, EUROCAE-14E, FAR§23.561, FAR§27.561, USA FCC Part 15, EU Directive 1999/5/EC



Leica RCD30 CH82 with Camera Controller CC32



Leica RCD30 cameras and penta pod installed in PAV100 with pod lifter



Leica RCD30 Oblique Penta footprint, default configuration



Leica RCD30 Oblique (RGB) and Nadir (RGBN) images

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