Leica GEOSYSTEMS



Leica DMC-5

Built for flexibility, engineered for performance

Greater efficiency

With up to 68,800 pixels across-track, DMC-5 captures over 30% more data compared to previous generations. The increased coverage enables operators to map larger areas with fewer flight lines, improving the efficiency of every flight.

Flexible configuration

With field-of-view options ranging from 36° to 63°, DMC-5 can be configured to match different mapping requirements. Operators can balance image swath and ground resolution according to project objectives, flight altitude and airspace constraints.

Consistent image quality

Leveraging the Leica MFC250 camera core and proven DMC technology, DMC-5 delivers sharp, geometrically accurate imagery across a wide range of acquisition conditions. The system provides the consistent data quality required for demanding large-area mapping projects.

HEXAGON



Leica DMC-5

System Configuration	
Leica DMC-5	Flexible, high efficiency imaging leveraging the MFC250 core module with two lens configuration options (DMC-5 or DMC-5X) and multiple swath and product resolution combinations to cover the widest range of applications
Selectable composite frame / across-track (nadir) field of view (FOV) / lens system focal length)	**Leica DMC-5** 46200 x 14336 RGBN / 63° FOV / 106 mm equivalent focal length 41824 x 14336 RGBN / 58° FOV / 106 mm equivalent focal length 31264 x 14336 RGBN / 45° FOV / 106 mm equivalent focal length 24512 x 17776 RGBN / 36° FOV / 106 mm equivalent focal length **Leica DMC-5X** 68800 x 9392 RGBN / 71.2° FOV / 135 mm equivalent focal length
Nadir RGB : NIR ratio	Leica DMC-5 1 : 1.5 Leica DMC-5X 1 : 1.9
Pod height / diameter	Height: 594 mm Diameter: 435 mm (upper) / 408 mm (lower)
Pod weight	40.5 kg
Flying height & Product examples[1]	
Ultra-high efficiency applications	DMC-5X: 71° FOV / 4,800 m AGL for 10 cm resolution products
Multi-use, 2D and 3D applications	DMC-5: 63° or 58° FOV / 3,768 m AGL for 10 cm resolution products
Lean restricted and corridor applications	DMC-5: 45° or 36° FOV / 1,884 m AGL for 5 cm resolution products
Imaging Specifications	
Pixel size & type	2.81 um, BSI CMOS
Dynamic range	81 dB
A/D converter	14-bit
Data channel	14-bit proprietary compression
Shutter	Max. speed 1/1,000 sec Mechanical central shutter with up to 500,000 cycles
Aperture	Automatically controlled aperture
Motion compensation	Mechanical Forward-Motion-Compensation (FMC)
Min. Frame Rate	0.7 sec
Spectral bands	R (580 – 660 nm) G (480 – 590 nm) B (420 – 510 nm) NIR (720 – 850 nm, monochrome)

[1] Reduced AGL planning and processing at listed product resolutions is available to meet operational airspace, altitude and cabin pressure requirements

Integrated GNSS/IMU System	
IMU	SPAN CNUS5-H, Class 5, 500 Hz, FOG no export license required US ECCN 7A994
GNSS	NovAtel SPAN OEM77, 555 channel multi constellation receiver with 10 Hz GNSS data rate
Additional features	Real-time deeply coupled solution for position and attitude at highest accuracies, fully integrated and embedded solution
Position RMS DGNSS	Post-processed (specification): X,Y ≤ 3 – 5 cm, Z ≤ 5 – 7 cm Post-processed (typical): X,Y ≤ 2 – 3 cm, Z ≤ 3 – 5 cm
Attitude RMS	Post-processed (specification): R,P ≤ 0.005°, H ≤ 0.008° Post-processed (typical): R,P ≤ 0.003°, H ≤ 0.004°
Peripherals	
Sensor mount	Leica PAV200 gyro-stabilised sensor mount for high-performance data acquisition 36.0 kg
Operator console	Leica OC61 12.1“ screen with 1,024 x 768 resolution 3.9 kg
Pilot display	Leica PD61 6.3“ screen with 1,024 x 768 resolution, designed for cockpit mounting 1.0 kg
Display stand	IS40-LW stand for Leica OC61 Operator Display 3.2 kg
Mass memory	2x Leica MM60 solid state drive, 15.36 TB each Total storage 30.72 TB Recording time about 8.0 hours for typical requirements
Environmental	
Pressure	Non-pressurised cabin up to ICAO 25,000 ft
Humidity	0% to 95% RH according to ISO7137 (non-condensing)
Operating temperature	-10°C to 40°C
Storage temperature	-40°C to 70°C
Electrical	
Max. avg. powerconsumption of completesystem	451 W / 28 VDC
Max. peak power consumption of complete system	521 W (<60 s) / 28 VDC
Fuse on aircraft power outlet	1 x 40 A recommended
System Installation Weight	
Complete system	< 90 Kg
Software	
Mission planning	Leica MissionPro
Flight navigation & sensor operation	Leica FlightPro
GNSS/INS trajectory processing	NovAtel Inertial Explorer
Point cloud/image processing	Leica HxMap
Standards	
RTCA DO-160G, EUROCAE-14G, USA FCC Part 15, ISO7137	

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