

# Pegasus:Multiscope

## Unmanned reality capture



### Hazardous surveys

Designed to be deployed quickly and in challenging environments, the Pegasus:Multiscope can access areas either too difficult for normal vehicles or hazardous for human entry. The treaded design and zero turning radius, enable surveying of river banks, mines or contaminated power generation sites successfully. Enabling multiple sensors, including pollution monitoring, complete reality capture is possible.



### Autonomous patrolling

From borders to secure facilities, the Pegasus:Multiscope creates a complete view of the environment including images calibrated to 3D point clouds and thermal imaging or airborne particulate detection. No change will go undetected with the Pegasus:Two multiple sensor platform in use. Combined with automatic charging stations, long patrols, not possible for humans, are now a reality.



### Unmanned monitoring

For large area monitoring of vineyards or large scale crop farming, the Pegasus:Multiscope offers an unmanned option to regularly capture information for irrigation, pruning, mowing, trimming or even ripeness for harvest. This unmanned capacity offers the user the ability to collect data to make the best decisions independent of time, location or terrain.

# Pegasus:Multiscope specifications

## Leica Pegasus:Two

### CAMERA SENSOR

Number of cameras	8
CCD size	2000 x 2000
Pixel size	5.5 x 5.5 microns
Maximum frame rate	8 fps x camera, equal to 256 M pixels x second (collected, compressed, stored)
Lens	8.0 mm focal, ruggedised; 2.7 mm focal, top
Coverage	360° x 270° excluding rear down facing camera

### SCANNER

Please refer to scanner manufacturer datasheet.

### CONTROL UNIT

Multi-core industrial PC, low power consumption, 1 TB SSD hard disk with USB3 interface. USB, Ethernet, and wireless connections available through the battery system. Service support available through remote interface.

### BATTERY SYSTEM PERFORMANCE

Typical operating time	9 hrs, profiler version; 13 hrs, scanner version
VAC input voltage	100 min to 240 max VAC autoranging
AC input power (charge cycle)	350 W Max
AC input frequency	50/60 Hz
Time to full charge	11.0 max h starting 0 %
DC output	21 - 29 volts
Watt/Amp hours	2685 Watts hours / 104 Amp hours

### GNSS/IMU/SPAN SENSOR

Includes triple band - L-Band, SBAS, and QZSS for GPS, GLONASS, Galileo, and BeiDou constellations, single and dual antenna support, wheel sensor input, tactical grade - no ITAR restrictions, low noise FOG IMU.

Frequency	200 Hz
MTBF	35,000 hour
Gyro bias in-run stability (±deg/hr)	0.75
Gyro bias offset (deg/hr)	0.75
Gyro angular rand. walk (deg/√hr)	0.1
Gyro scale factor (ppm)	300
Gyro range (±deg/s)	450
Accelerometer bias (mg)	1
Accelerometer scale factor (ppm)	300
Accelerometer range (±g)	5
Position accuracy after 10 sec of outage duration	0.020 m RMS horizontal, 0.020 m RMS vertical, 0.008 degrees RMS pitch/roll, 0.013 degrees RMS heading.

### BATTERY

Weight	34.8 kg
Size	65 x 32 x 37cm

### ENVIRONMENTAL

Operating temperature	0° C to + 40° C, non-condensing IP protection level IP52, excluding the scanner. Please refer to scanner documentation.
Storage temperature	- 20° C to + 50° C, non-condensing

\* If not specified, data refers to a Leica Pegasus:Two with a ZF9012 profiler and an iMAR FSAS IMU. Datasheet is subject to change without notice.

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### TYPICAL ACCURACY\*

Horizontal accuracy	0.020 m RMS
Vertical accuracy	0.015 m RMS
Conditions	Without control points, open sky conditions

### SENSOR PLATFORM

Weight	51 kg (without case), 86 kg (with case)
Size	60 x 76 x 68 cm, profiler version 60 x 79 x 76 cm, Leica ScanStation P20
Size with case	68 x 68 x 65 cm

### EXPORT OPTIONS\*

Images	JPEG and ASCII for photogrammetric parameters
Point cloud	Binary LAS 1.2. X,Y,Z, intensity, RGB values Colourisation by camera pictures Hexagon Point Format, Recap

## Milrem Multiscope

### SPECIFICATIONS

Speed	15...22mph
Driving capability	up to 45 degree rise
Base length	79 inches
Base width	36-83 inches
Base height	38,5 inches
Turning radius	0 m
Weight	1875 lbs
Payload	1655 lbs
Power source	Diesel generator Li-Ion battery packs Graphene ultracapacitors
Nominal work hours	10 h

### CONTROL OPTIONS



Remote control / teleoperation



Way point operation

Leica Geosystems AG  
www.leica-geosystems.com



- when it has to be **right**

**Leica**  
Geosystems