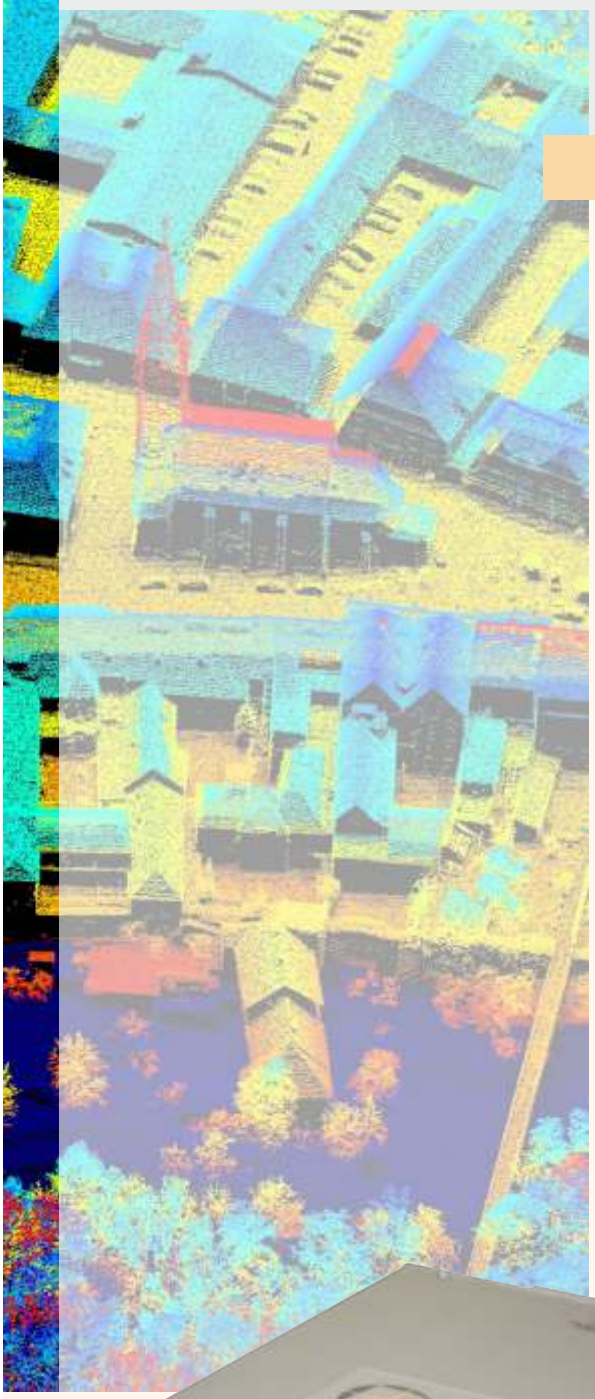
Airborne Data Recorder for Storage of Full Waveform Data



DR680

The *RIEGL*® DR680 is the accompanying Digital Data Recorder to the state-of-the-art *RIEGL* Airborne Laser Scanners, using three removable drive carriers with integrated Solid State Drives for smooth operation.

Providing various data interfaces the DR680 is universally suited to store data acquired with the full waveform laser scanners *RIEGL* LMS- Q560, LMS-Q680(i), and LMS-Q780 as well as with the *RIEGL*'s new online-waveform processing V-line laser scanners.

Using solid state drives increases the reliability in harsh environment and at high flying altitudes. The drives are hot-swappable and allow immediate access to data already acquired, ready to be analyzed on the fly or in the office. Data rates of up to 80 MBytes/sec guarantee uninterruptible storage of data covering the requirements of actual and future generations of *RIEGL* high speed laser scanners. Additionally an online data integrity check is performed prior transferring the scan data to the solid state drives.

- ***Solid State Drives (SSD) 3 x 2.5"***
- ***Removable drive carriers***
- ***Up to 20 hours airborne data logging capacity***
- ***High data rates (READ/WRITE) up to 100 MByte/sec / 80 MByte/sec***
- ***Online data integrity check***
- ***Specified for a flight altitude up to 18,000 ft***

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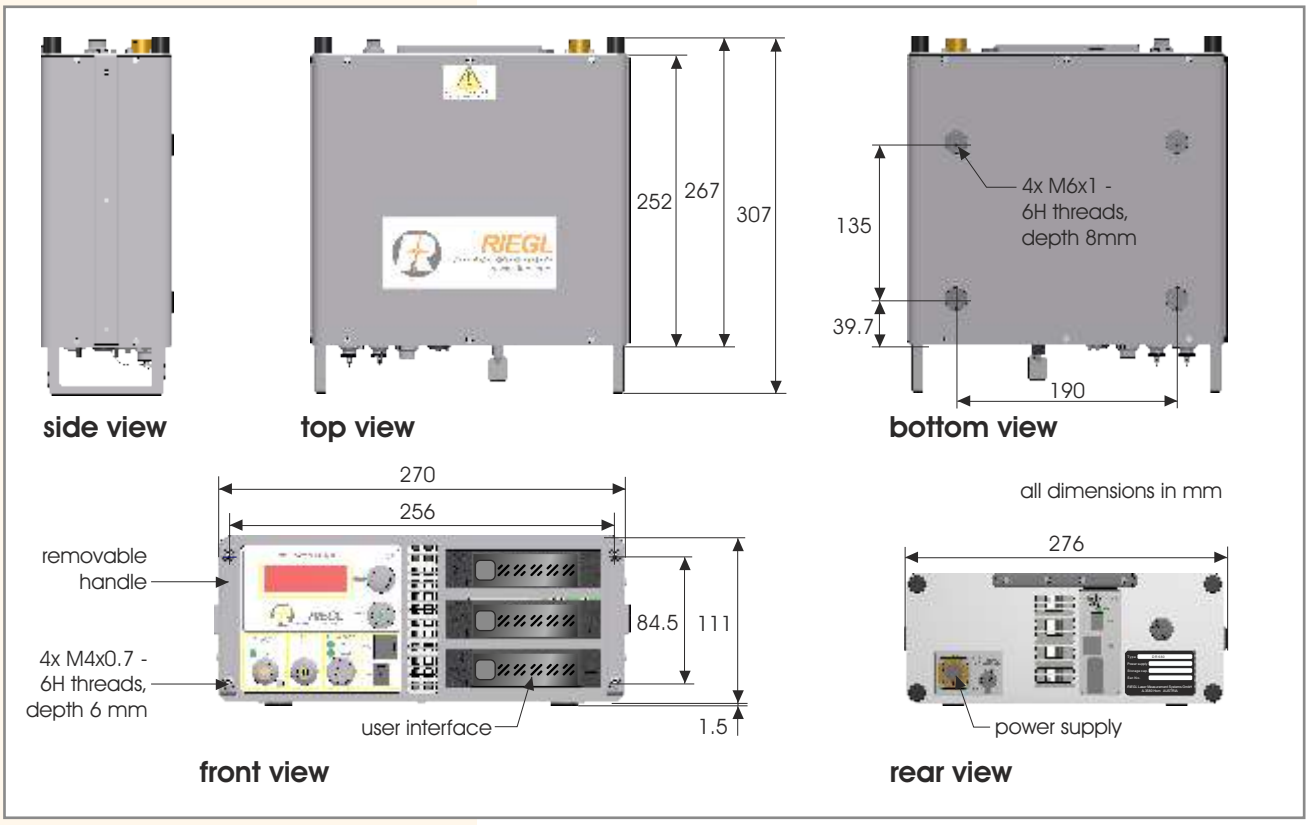
RIEGL®
LASER MEASUREMENT SYSTEMS

Dimensional Drawings *RIEGL* DR680



Technical Data *RIEGL* DR680

Data Recorder Performance

Storage Capacity	3 x 512 GByte [1]
Data Rate (WRITE)	up to 80 MByte/sec
Logging Capacity [2]	typically 20 h
Data Rate (READ) [3]	up to 100 MByte/sec

1) Subject to rapid technical change, storage capacity of Solid State Drives may differ from values given at the time of datasheet's issue.
We expect 800 GByte - 1 TByte in near future.

2) at 200 kHz laser pulse repetition frequency of the LMS-Q680 scanner, 2 targets (200 Bytes/measurement), 45° scan angle
3) removable hard disk in mounting frame with SATA interface on up to date PC

Data Interfaces

Input Interface	2 x High Speed Serial Data Link 2 x Small Form-Factor Pluggable Transceiver (SFP) GigE-LAN
Output Interface	SATA on removable drive carrier GigE-LAN USB

General Technical Data

Power Supply	18 - 32 V DC
Current Consumption	approx. 1.2 A @ 24 V DC
Main Dimension (L x W x H)	307 x 276 x 113 mm
Weight	approx. 6.1 kg (3 drive carriers included)
Max. Flight Altitude	18 000 ft (5 500 m) above MSL
Temperature Range	0°C up to +40°C (operation) / -10°C up to +50°C (storage)

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