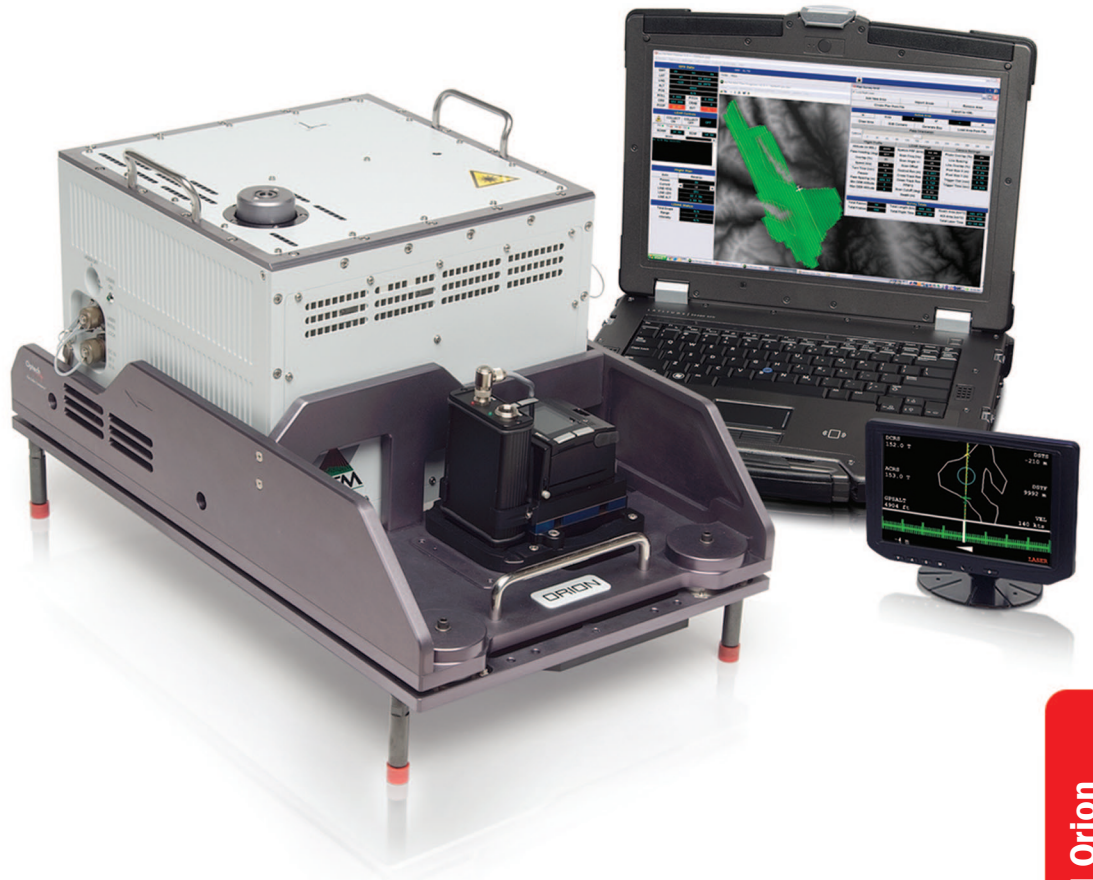


# ORION M/C 200

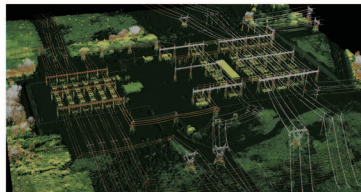
## Summary Specification Sheet



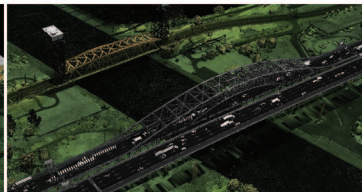
An ultra-compact 3D airborne mapping system for high-precision engineering applications.


**NOW 200 kHz**

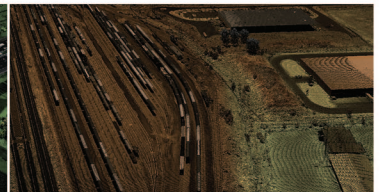
ALTM Orion



 Transmission Networks



 Roads and Bridges

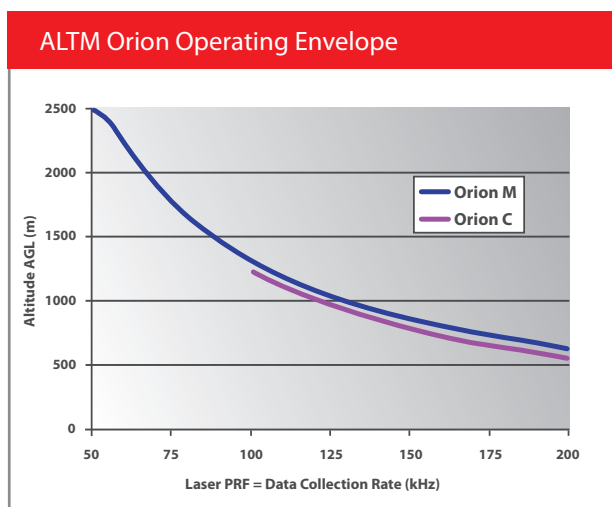


 Railway Lines



## The ALTM Orion Advantage

- High-accuracy and precision regardless of pulse rate, enabled by Optech's iFLEX™ technology
- A rugged and modular design purpose-built for maximum reliability and ease of field serviceability
- The world's most compact full-system design for unlimited flexibility and installation options
- ALTM-NAV Flight Management Software with underlying DEM planning capability, and real-time swath coverage directly exportable to Google™ Earth, and others
- The latest in tightly-coupled inertial and Virtual Reference System processing technology, enabling steep turns, extended baselines, and the elimination of remote base stations for maximum collection efficiency without sacrificing accuracy
- Powerful DASHMap lidar pre-processing software with embedded 3D viewer for rapid XYZI data output and visualization
- Fully-integrated digital mapping camera options
- Available as a COTS solution for UAV platforms and ISR applications



Parameter	M 200	C 200
Operational envelope <sup>1,2</sup>	200 - 2500 m AGL, nominal	50 - 1000 m AGL, nominal
Laser wavelength <sup>3</sup>	1064 nm	1541 nm
Horizontal accuracy <sup>2</sup>	1/5, 500 x altitude	1/3, 000 x altitude
Elevation accuracy <sup>2</sup>	<5-15 cm; 1σ	<5-10 cm; 1σ
Effective laser repetition rate	50 - 200 kHz	100 - 200 kHz
Position and orientation system	POS AV™ 510 (OEM) GPS/GNSS/L-Band receiver	POS AV™ 410 (OEM) GPS/GNSS/L-Band receiver
Scan width (FOV)	Programmable; 50° max.	
Scan frequency	Programmable; 70 Hz max.	
Beam divergence	0.25 mrad (1/e)	
Roll compensation	Programmable; 10° min.	
Minimum vertical target separation distance	<0.7 m	
Range capture	Up to 4 range measurements for each pulse, including last	
Intensity capture	Up to 4 intensity returns for each pulse, including last	
Intensity measurement	12-bit dynamic measurement and data range	
Data storage	Internal SSD; External SSD (optional)	
Image capture	60 MP medium format camera (optional)	
Power requirements	28 V; 300 W; 12 A	
Dimensions and weight	340 x 340 x 250 mm, 27 kg	
Humidity	0 – 95% non-condensing	

1 20% reflective target

2 Dependent on selected operational parameters using nominal 50° FOV in standard atmospheric conditions

3 NOHD (unaided) = 7 m; (ANSI Z136.1-2000)



US FDA 21 CFR 1040.10 and 1040.11; IEC/EN 60825-1

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