Trimble MX9

MOBILE MAPPING SOLUTION

KEY FEATURES

- Very high point cloud density with complimentary immersive imagery
- State of the art Trimble® GNSS and Inertial technology
- Dual and single laser configuration available to match customer needs
- Lightest and most compact premium mobile mapping system
- Simple installation and browser based operation from any smart device
- Compatible with existing Trimble software and workflows
- Enhanced remote support capabilities
- Supported by Trimble Business Center Mobile Mapping for efficient data processing
- Trimble MX software for feature extraction workflows and data publishing

Learn more:
geospatial.trimble.com

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MX9 SYSTEM		
Effective measurement rate[1]	Dual laser	Single laser
	2 MHz	1 MHz
	1.5 MHz	750 kHz
	1 MHz	500 kHz
	600 kHz	300 kHz
Scan speed	500 scans/sec	250 scans/sec
Number of laser scanners	2	1
Laser Positions	Adjustable in 3 horizontal and 3 vertical positions	

MX9 LASER SCANNER				
Laser class	1, eye-safe			
EFFECTIVE MEASUREMENT RATE[1]	300 kHz	500 kHz	750 kHz	1 MHz
Maximum range, target reflectivity > 80%[2]	420 m	330 m	270 m	235 m
Maximum range, target reflectivity > 10%[2]	150 m	120 m	100 m	85 m
Maximum number of targets per pulse	practically unlimited			
Minimum range	1.2 m			
Accuracy[3] / precision[4]	5 mm / 3 mm			
Field of view	360° "full circle"			

EMBEDDED TRIMBLE GNSS-INERTIAL SYSTEM		
IMU-Options	AP60	AP40[5]
ACCURACY - NO GNSS OUTAGES (POST PROCESSED)[6]		
X, Y Position (m)	0.020	0.020
Z Position (m)	0.050	0.050
Velocity (m/s)	0.005	0.005
Roll and Pitch (deg)	0.005	0.020
Heading (deg)[7]	0.015	0.020
ACCURACY - 60 SECOND GNSS OUTAGE (POST PROCESSED)[6]		
X, Y Position (m)	0.100	0.120
Z Position (m)	0.070	0.100
Roll and pitch (deg)	0.005	0.020
Heading (deg)[7]	0.015	0.020
ACCESSORIES		
GAMS	yes, optional	
DMI[6,8]	yes, optional	

CAMERAS				
Camera type	No	Mounting	FoV	Focal length
Spherical camera, 30 MP (6 x 5 MP)	1	fixed	90 % of full sphere	4.4 mm
5 MP side looking camera[9]	2	adjustable (in horizontal and vertical positions)	H: 53,1° V: 45,3°	8.5 mm
5 MP backward/downward looking camera[9]	1	fixed	H: 53,1° V: 45,3°	8.5 mm
Capture modes	by distance or by time at 10 fps max.			

ELECTRICAL DATA		
Power supply input voltage	12 V-DC (12 V–16 V)	
POWER CONSUMPTION		
	Dual laser	Single laser
Max	350 W	250 W
Typical	280 W	200 W

SYSTEM COMPONENTS	
Sensor unit	included
Control unit	included
Power unit	included
Roof rack	included, standard cross bars not included
Transport box	included
Field software	TMI, browser-based, no installation necessary
Cable, battery to power unit	5 m
Cable, power unit to control unit	3 m
Cable, control unit to sensor unit	5 m
Data storage	1 set (2 x 2 TBytes SSD, removable)
Control interface	Tablet or Notebook, WiFi or LAN cable, byod

3RD PARTY HARDWARE INTEGRATION OPTIONS	
Synchronization output at sensor unit	1 (NMEA + PPS)

ENVIRONMENTAL CHARACTERISTICS	
Maximum vehicle speed for data acquisition	110 km/h (68 mph)
IP rating	IP64 (sensor unit)
Operating temperature	0 °C to +40 °C
Storage temperature	–20 °C to +50 °C
Relative humidity (operating)	20 % to 80 %
Relative humidity (storage)	20 % to 95 %

PHYSICAL CHARACTERISTICS	
Dimensions sensor unit	0.62 m x 0.55 m x 0.62 m
Weight sensor unit (dual laser unit)	37 kg
Weight sensor unit (single laser unit)	31 kg
Dimensions roof rack	1.03 m x 0.48 m x 0.28 m
Weight roof rack	18 kg

1 Rounded values, selectable by measurement program.
2 Typical values for average conditions.
3 Accuracy is the degree of conformity of a measured quantity to its actual (true) value.
4 Precision is the degree to which further measurements show the same results.
5 Single laser version has only the AP40 option.
6 With DMI option.
7 With GAMS option, 2 m baseline.
8 One sigma values, with DMI option, post-processed using base station data. Typical performance. Actual results are dependent upon satellite configuration, atmospheric conditions and other environmental effects.
9 Only available with dual laser version.

Specifications subject to change without notice.

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