

Trimble MX90

MOBILE MAPPING SYSTEM

Elevate your large-scale scanning
and mobile mapping.



Achieve new levels of productivity

Premium

Powerful leading-edge mobile mapping solution with state-of-the-art Trimble® GNSS and inertial technology.

Delivers high-resolution immersive imagery for feature detection and inspection tasks and high-density colored point clouds with rich and accurate color projections.

Produces precise feature-rich data from trusted field-proven laser technology and immersive 360-degree panoramic and targeted cameras.

Productivity

Collect data right the first time and discover a new level of productivity by leveraging the complete Trimble field-to-finish workflow.

Efficiently capture, process and extract a wide range of meaningful deliverables to maximize the value of mobile mapping data to your organization.

Achieve high-quality data in challenging GNSS environments with an AP+60 IMU combined with the InFusion+ trajectory processing engine.

Simplicity

Easy installation with single cable connection.

Reduces costs related to road closures and enhances safety by minimizing the need to work in traffic on hazardous highways.

Manages mobile data capture with intuitive field software that ensures efficient and organized field operations.

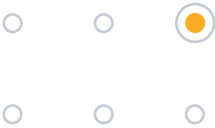
Leverage Trimble office software to export and easily integrate into a wide range of applications or cloud-based solutions for easy data sharing.



Find out more at:
geospatial.trimble.com/mx90

Trimble MX90

Mobile mapping system



| MX90 SYSTEM | | | | | | |
|--|---|---|----------------------|----------|--------------|----------|
| Scan speed | 500 scans/sec | | | | | |
| Number of laser scanners | 2 | | | | | |
| Laser positions | Adjustable in 3 horizontal and 3 vertical positions | | | | | |
| MX90 LASER SCANNER | | | | | | |
| Laser class | 1, eye-safe | | | | | |
| EFFECTIVE MEASUREMENT RATE ¹ | 300 kHz | 500 kHz | 1000 kHz | 1250 kHz | 1500 kHz | 1800 kHz |
| Maximum range target reflectivity > 80% ² | 475 m | 370 m | 235 m | | | |
| Maximum range target reflectivity > 10% ² | 170 m | 130 m | 85 m | | | |
| Maximum number of targets per pulse | up to 15 | up to 15 | up to 9 | up to 7 | up to 5 | up to 4 |
| Minimum range | 1 m @ PRR ≥ 1 MHz, 1.2 m @ PRR < 1 MHz | | | | | |
| Accuracy ³ /precision ⁴ | 5 mm/3 mm | | | | | |
| Field of view | 360° "full circle" | | | | | |
| EMBEDDED TRIMBLE GNSS-INERTIAL SYSTEM | | | | | | |
| IMU-Options | AP+60 | | | | | |
| ACCURACY—NO GNSS OUTAGES (POST PROCESSED) ⁵ | | | | | | |
| X, Y position (m) ⁶ | < 0.01 | | | | | |
| Z position (m) ⁶ | 0.01 | | | | | |
| Roll and pitch (deg) | 0.0025 | | | | | |
| Heading (deg) ⁷ | 0.015 | | | | | |
| ACCURACY—60 SECOND GNSS OUTAGE (POST PROCESSED) ⁵ | | | | | | |
| X, Y position (m) | 0.1 | | | | | |
| Z position (m) | 0.07 | | | | | |
| Roll and pitch (deg) | 0.0025 | | | | | |
| Heading (deg) ⁷ | 0.015 | | | | | |
| ACCESSORIES | | | | | | |
| GAMS | Yes, optional | | | | | |
| DMI ^{5,8} | Yes, optional | | | | | |
| CAMERAS | | | | | | |
| SPHERICAL CAMERA | | | | | | |
| Camera type | No | Mounting | FoV | | Focal length | |
| Spherical camera, 72 MP (6 × 12 MP) | 1 | Fixed | 90 % of full sphere | | 6.94 mm | |
| Capture modes | By distance or by time at 10 fps max | | | | | |
| PLANAR CAMERAS | | | | | | |
| Camera type | No | Mounting | FoV | | Focal length | |
| 12 MP side facing camera | 2 | Adjustable (in horizontal and vertical positions) | H: 47.6° V: 35.9° | | 16.0 mm | |
| 12 MP backward/downward facing camera | 1 | Fixed | H: 82.9° V: 65.9° | | 8.0 mm | |
| Capture modes | By distance or by time at 9 fps max | | | | | |

| ELECTRICAL DATA | |
|--|--|
| Power supply input voltage | 12 V-DC (12 V–16 V) |
| POWER CONSUMPTION | |
| Max | 350 W |
| Typical | 300 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 × 4 TBytes SSD, removable) ⁹ |
| Control interface | Tablet or Notebook, Wi-Fi® 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 (32 °F to 104 °F) |
| Storage temperature | -20 °C to +50 °C (-4 °F to +122 °F) |
| Relative humidity (operating) | 20 % to 80 % |
| Relative humidity (storage) | 20 % to 95 % |
| PHYSICAL CHARACTERISTICS | |
| Dimensions sensor unit (L x W x H) | 0.62 m × 0.55 m × 0.65 m |
| Weight sensor unit | 37 kg |
| Dimensions CU (L x W x H) | 0.46 m × 0.26 m × 0.41 m |
| Weight CU | 12.4 kg |
| Dimensions roof rack (L x W x H) | 1.13 m × 0.60 m × 0.31 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 With DMI option.
6 Measured in a controlled test area under Trimble conditions and procedures.
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 4 TBytes SSD is available as an accessory.

Specifications subject to change without notice.



Contact your local Trimble Authorized Distribution Partner for more information

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