

# Trimble MX7 Mobile Imaging system

## Key Features

**Versatile** system offers significant operational **flexibility**

Six 5 megapixel **cameras** provide **rapid 360-degree** image documentation

**Precision positioning** using tightly coupled GNSS and inertial referencing system

Deploys on **all sizes** of on- and off-road vehicles

Use with **Trimble Mobile Imaging Capture** software and **Trimble Trident** office software for data capture, extraction and analysis



## ENTER THE WORLD OF MOBILE IMAGING

The Trimble® MX7 Mobile Imaging System with VISION™ technology, is a vehicle-mounted photogrammetric system that makes it easy to quickly and completely capture road and site infrastructure information. Capture 360-degree, 30 megapixel geo-referenced images at highway speeds to rapidly reduce project field time. Then, use Trimble Trident™ office software to extract and analyze your collected data. The Trimble MX7 is the ideal solution for organizations looking to enter the world of mobile imaging with a smaller investment.

### Rapid Collection of Geo-Referenced Images

Capture a 30 megapixel panoramic image of the surrounding environment in static or mobile—up to highway speed—modes with the Trimble MX7. Equipped with six, 5 megapixel cameras and Trimble Applanix® GNSS and inertial geo-referencing modules, the Trimble MX7 enables you to manage assets—such as bridges, buildings, roads, highways, and power stations—and document site conditions with geo-referenced images. This compact, lightweight, and rugged sensor can be mounted on vehicles of all sizes.

System control and data recording functions are provided wirelessly by a ruggedized tablet PC. Trimble Trident software is available with the system and offers a clear, intuitive user interface—making it easy to use—allowing the operator to rapidly set system parameters and manage data recording.

### Capture Now, Measure Later

Avoid site rework and benefit from increased quality control and data validation by capturing the data now and measuring later. The Trimble MX7 allows you to visually observe and capture the job site, then produce deliverables in the office later using Trimble Trident and Applanix POSPac™ MMS software.

Trident Imaging Hub software is available with the system and offers robust object positioning, measurement, data layer creation, 3D models and analysis of geo-referenced imagery. This powerful software gives you the ability to extract additional data and features without having to re-visit the site. For post-processing requirements, use Trimble's powerful Applanix POSPac MMS software.

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## PERFORMANCE AND SPECIFICATION

System Specification	
Resolution	30 MP (5 MP x 6 sensors)
Field of View	90% of full sphere
Spherical Distance	Calibrated from 2 m to infinity
Operating Temperature	0 °C to +45 °C
Power Consumption	12 V to 24 V, 13 W via GPIO
Weight	16.5 kg
Positioning Sub-system (RMS Error) <sup>1</sup>	
Type	Trimble AP15 GNSS-Inertial System
Technology	Advanced Applanix IN-Fusion™ GNSS-Inertial integration technology
# of GNSS channels	220
Inertial Measurement Unit	Applanix IMU-55 (non ITAR) with 200 Hz data rate
Azimuth Determination	2 GNSS antennas, Applanix GNSS Azimuth Measurement System tightly coupled with IMU data
Position (m): No GNSS Outages <sup>4</sup> 1 km or 1 minute GNSS Outage <sup>4,5</sup>	0.02–0.05 (post-processed) <sup>2</sup> ; 0.02–0.05 (RTK) <sup>3</sup> 0.2–0.8 (post-processed) <sup>2</sup> ; 1–2 (RTK) <sup>3</sup>
True Heading (deg): No GNSS Outages <sup>4</sup> 1 km or 1 minute GNSS Outage <sup>4,5</sup>	0.06 (post-processed) <sup>2</sup> ; 0.09 (RTK) <sup>3</sup> 0.20 (post-processed) <sup>2</sup> ; 0.30 (RTK) <sup>3</sup>

Trimble Trident
Trajectory Import
Camera Bore-sight Calibration
Database connectivity
Photogrammetric Feature addition
3D Measurements
360° Imagery Visualization
Image Converter
RGB Point Cloud Colorization
SHP/DXF Import and Export
Pavement Defects Report

Options	
Analysis	Applanix POSPac MMS
Positioning	Distance Measurement Indicator (DMI)

1 Typical performance in a standard road vehicle with appropriate initialization and dynamics. Actual results are dependent upon satellite configuration, atmospheric conditions and other environmental effects.  
 2 POSPac MMS.  
 3 Applanix IN-Fusion Inertially-Aided RTK, typical results.  
 4 With GAMS and 2 m baseline between antennas.  
 5 With DMI option.

Specifications subject to change without notice.

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