



# LASER ROAD SURFACE PROFILER

The Laser based Road Surface Profilometer system offered by Intellitest uses a combined 6 axis low noise accelerometer and gyro system to compensate for vehicle pitch and roll. This leads to lower drift in the assessment of vehicle's motion relative to the road and therefore a more accurate laser compensation calculation giving more repeatable results between runs.

**INTELLITEST'S LASER ROAD SURFACE PROFILER FULFILL ALL THE MAJOR STANDARDS**

- ▶ ASTM E950
- ▶ ASTM E1926
- ▶ World Bank Class 1 Profiler

## Specifications

|  |  |
|--|--|
| Measuring Technique                              | : High Speed Laser Optical triangulation   |
| No. of Lasers                                    | : As per User requirement from 01 to 41 Laser  |
| Sensors / accessories<br>Optionally user may add | : Right of Way Cameras, 360° Camera, IMU, GPS, DGPS and Non Contact type DMI, Lidar, Laser Crack Measurement Systems (LCMS), Pavement Surface Temperature etc. |
| Keypad Entry                                     | : User may mark the road defect and inventory during survey  |
| Vehicle Speed                                    | : Test can be performed from 20 to 140 km / h vehicle speed  |
| Measurement Parameter                            | : Roughness, Rutting, Texture, Longitudinal profile, transverse profile, depend on laser configuration   |
| Laser Class                                      | : Laser Class 3B according to EN 60825-1:2014 and 21 CFR 1040.10 and 1040.11   |
| Laser Sampling Frequency                         | : 32 kHz   |
| Laser Measuring Range                            | : 200 mm   |
| System Power Supply                              | : 10 ... 36 VDC  |
| Display Type                                     | : i-Pad with wireless connection to control unit   |
| Control Unit                                     | : Core xi5 / 8 GB / 256 GB drive and touch screen  |
| Memory   | : For more than 15000 km depend on accessories   |
| DMI Type   | : Optical Encoder to be fixed on vehicle wheel   |
| Distance Resolution                              | : 0.001 km   |
| Distance Accuracy                                | : Better than $\pm 1.0\%$  |
| Elevation Resolution                             | : 0.01 mm  |
| Elevation Accuracy                               | : $\pm 0.1\text{mm}$   |
| IRI Resolution                                   | : 0.01 IRI   |
| IRI Accuracy                                     | : $\pm 0.1$ IRI  |
| GPS Accuracy                                     | : Better than 5 meters   |
| Operating Temperature                            | : 0 to 40 °C   |
| Storage Temperature                              | : 0 to 60 °C   |
| Data Export                                      | : USB Interface  |
| Export Data Format                               | : MS-Excel   |
| Protection class                                 | : IP67   |
| Packed Dimensions                                | : 56 X 43 X 24 cm approx   |
| Packed Weight                                    | : Less than 10 kg  |
| Warranty   | : 1 Year (Optional Extended Warranty)  |

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