LiDAR – Brief Overview

LiDAR acts as an eye of the self-driving vehicles providing a 360-degree view of the surrounding helping them to drive themselves safely and sending thousands of laser pulses every second. These pulses collide with the surrounding objects and reflect back and in doing so resulting light reflections are then used to create a 3D point cloud. An on-board computer records each laser's reflection point and translates this rapidly updating point cloud into an animated 3D representation.

The 3D representation monitors the distance between the other passing by vehicle (objects) and any other vehicle in front of it helping command the brakes to slow or stop and direct the vehicle. When the road ahead is clear, it also allows the vehicle to speed up.

LiDAR is also being incorporated into a new development called Pre-Scan where a laser scans the road surface several hundred times a second. This information is then fed to the cars on-board computer and processed in a fraction of a second, adjusting the individual suspension at each wheel and more.

With the help of LiDAR, autonomous vehicles can travel smoothly and avoid collisions by detecting the obstructions ahead improving the safety of the commuters and making autonomous cars less prone to accidents and truly being autonomous.

IDC Expertise - Test fixture for testing LiDAR Sensor Assemblies – Audit Use – testing for a 5.00 sccm. That is User adjustable to 40.00 sccm