

New Scanner Technology for Autonomous Vehicle Lidar



Autonomous vehicles require long-range, high-resolution Lidar at highway speeds for navigation and collision avoidance. This requires a large aperture and high-speed scanning. Polygon scanners meet all these requirements but a large-aperture polygon scanner might not fit in a compact Lidar system.

[Precision Laser Scanning](#) is now introducing its MIM scanners. MIM stands for '*Motor In Mirror*'. The MIM scanner design has a very low profile by building the compact, precision-scanning motor inside a hollow, precision polygon mirror. A four-sided MIM scanner can scan 120 degrees wide in front of the vehicle. The mirror aperture is large enough to see hundreds of metres ahead of the vehicle. Depending on the configuration, scan rates in the KHz range are possible with very low power consumption.

MIM scanners are rugged for motor vehicle use. Scanning is not upset by shock and vibration. Wide temperature swings do not affect performance. Start Of Scan detection provides highly accurate beam positioning. The MIM scanner design is scalable for a wide range of aperture sizes, scan angles and scan rates.