

Title (en)  
COMPACT LIDAR SYSTEMS FOR VEHICLE CONTOUR FITTING

Title (de)  
KOMPAKTE LIDAR-SYSTEME ZUR FAHRZEUGKONTURANPASSUNG

Title (fr)  
SYSTÈMES LIDAR COMPACTS POUR AJUSTEMENT DE CONTOUR DE VÉHICULE

Publication  
**EP 4348296 A1 20240410 (EN)**

Application  
**EP 22748604 A 20220705**

Priority

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Abstract (en)  
[origin: WO2023283205A1] An apparatus of a light detection and ranging (LiDAR) scanning system for at least partial integration with a vehicle is disclosed. The apparatus comprises an optical core assembly including an oscillating reflective element, an optical polygon element, and transmitting and collection optics. The apparatus includes a first exterior surface at least partially bounded by at least a first portion of a vehicle roof or at least a portion of a vehicle windshield. A surface profile of the first exterior surface aligns with a surface profile associated with at least one of the first portion of the vehicle roof or the portion of the vehicle windshield. A combination of the first exterior surface and the one or more additional exterior surfaces form a housing enclosing the optical core assembly including the oscillating reflective element, the optical polygon element, and the transmitting and collection optics.

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