

Title (en)
A highway electronic display

Title (de)
Elektronische Autobahnanzeige

Title (fr)
Affichage électronique d'autoroute

Publication
EP 2226780 A1 20100908 (EN)

Application
EP 09154130 A 20090302

Priority
EP 09154130 A 20090302

Abstract (en)
The present invention is directed to a highway electronic display comprising a printed circuit board (PCB) having a plurality of light emitting diodes (LEDs), an optics stage, and a display cover. The optics stage comprises an alignment plate and an optics plate, the alignment plate comprising a sheet of opaque material positioned intermediate the PCB and the optics plate and having a plurality of through holes arranged in rows and columns coincident with the LEDs, and the optics plate comprises a sheet of transparent material having a plurality of optical elements arranged in rows and columns coincident with the LEDs. Each optical element comprises a convex boss protruding outwardly from a rear face of the optics plate proximal the LEDs and a cylinder having a diffusing lens protruding outwardly from a front face of the optics plate distal from the LEDs. Each optical element is formed in a single, unitary piece with the sheet of transparent material. The advantage of providing such a highway electronic display is that the optics plate will be more cost effective to manufacture than manufacturing a plurality of individual optical elements.

IPC 8 full level
G09F 9/33 (2006.01); **G09F 13/22** (2006.01); **G09F 19/22** (2006.01); **G09F 13/04** (2006.01)

CPC (source: EP US)
G09F 9/33 (2013.01 - EP US); **G09F 13/0472** (2021.05 - EP); **G09F 13/22** (2013.01 - EP); **G09F 19/22** (2013.01 - EP US); **G09F 27/008** (2013.01 - EP)

Citation (applicant)
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Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2226780 A1 20100908

DOCDB simple family (application)
EP 09154130 A 20090302