

Title (en)
Infrared vehicle identification system.

Title (de)
Infrarotfahrzeugidentifikationsanlage.

Title (fr)
Système d'identification de véhicule à infrarouge.

Publication
EP 0613109 A1 19940831 (EN)

Application
EP 94301261 A 19940223

Priority
US 2397893 A 19930226

Abstract (en)
An infrared vehicle identification system [109] comprising a microprocessor controlled infrared (IR) transmitter [112] located on an aircraft nose wheel landing strut [111] and an infrared receiver [128] including a microprocessor [44] enclosed in a plurality of edge light assemblies [20] located along surface pathways of an airport including runways and taxiways. The infrared transmitter [112] comprises an array of light emitting diodes [120] (LEDs) arranged in a semicircle within the horizontal plane. The transmitter [112] emits a plurality of fields [121, Fig.13] of encoded data to provide vehicle identification and position information. One field [122] comprises a steady stream of pulses that allows the IR receiver [128] to calculate the baud rate of the transmitter [112] and automatically adjust its internal timing. The other fields include a unique word [123] for marking the beginning of a message, the number [124] of characters in the message, the vehicle identification number [125], the vehicle position [126] and a checksum [127]. The latter [127] ensures that a complete and correct message has been received. If the transmitted message is interrupted for any reason, the checksum [127] will detect it and the messages will be voided. The IR receiver [128] relays a valid message of vehicle identification [125] and position [126] to a central computer system [12, Fig.1] at the airport control tower via the edge light assembly power wiring [21, Fig.1]. <IMAGE>

IPC 1-7
G08G 5/06

IPC 8 full level
G08G 5/04 (2006.01); **G08G 5/06** (2006.01); **G08G 9/02** (2006.01)

CPC (source: EP)
G08G 5/0026 (2013.01); **G08G 5/0082** (2013.01); **G08G 5/065** (2013.01)

Citation (search report)
• [Y] US 3855571 A 19741217 - MASSA F
• [Y] WO 9004242 A1 19900419 - SWEDISH AIRPORT TECHNOLOGY HB [SE]
• [Y] FR 2620551 A1 19890317 - RINALDI MASSIMO [IT]
• [Y] EP 0209397 A2 19870121 - GEN INVEST & DESARROLLO SA [ES] & US 4845629 A 19890704 - MURGA MARIA V Z [ES]
• [Y] US 4093937 A 19780606 - HABINGER MAX
• [Y] US 3706969 A 19721219 - PAREDES CANDELARIO

Cited by
EP3079136A1; US8138964B2; US10089884B2; WO2010042681A1; WO9852174A1; WO2016162500A1; TWI649732B

Designated contracting state (EPC)
DE ES FR GB IT NL SE

DOCDB simple family (publication)
EP 0613109 A1 19940831; CA 2114482 A1 19940827; JP H06301899 A 19941028; NO 940626 D0 19940224; NO 940626 L 19940829

DOCDB simple family (application)
EP 94301261 A 19940223; CA 2114482 A 19940128; JP 2995394 A 19940228; NO 940626 A 19940224