

Title (en)
Illumination for electromagnetic display panel

Title (de)
Beleuchtungssystem für elektromagnetische Anzeigevorrichtung

Title (fr)
Système d'éclairage pour panneau d'affichage électromagnétique

Publication
EP 1591984 A3 20060816 (EN)

Application
EP 05007968 A 20050412

Priority
SI 200400128 A 20040428

Abstract (en)
[origin: EP1591984A2] A new concept of illumination of the electromagnetic display panels is described using invisible UV light illumination (11, 16) of the display panel to extend the operation of said display panels into low ambient light conditions. Such a solution is possible, if one uses UV fluorescent dyes in the paints or plastic material for the reflective surface (13p) of the selected pixel element instead of the regular reflective ones. The said dyes absorb the invisible near-UV light and upon absorbing it reemit the light in the visible range. The described display panel illumination concept results in excellent contrast, as there is no visible light scattering from the background or protective display panel top covers, which in turn result in haze and glare. Furthermore unlike with the electromagnetic display panels, using built-in light sources imbedded in each pixel element (i.e.: LED,...), the appearance / perception of the displayed characters (shape, geometry) as well as the angular visibility remain unchanged in the high as well as in the low or "dark" ambient light conditions.

IPC 8 full level
G09F 13/20 (2006.01); **G09F 3/04** (2006.01); **G09F 9/37** (2006.01)

CPC (source: EP)
G09F 9/375 (2013.01); **G09F 13/20** (2013.01)

Citation (search report)
• [DA] US 4914427 A 19900403 - TRUNK EDMUND G [US]
• [DA] GB 2297185 A 19960724 - MARK IV IND LTD [CA]

Cited by
US9646562B1; US9195320B1; US8998434B2; US9014417B1; US9164596B1; US9576551B2; US9804683B1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1591984 A2 20051102; **EP 1591984 A3 20060816**; CN 1691094 A 20051102; RU 2004134002 A 20060510; RU 2289168 C2 20061210; SI 21767 A 20051031

DOCDB simple family (application)
EP 05007968 A 20050412; CN 200410099758 A 20041231; RU 2004134002 A 20041122; SI 200400128 A 20040428