

Title (en)

Plasma display apparatus and driving method thereof

Title (de)

Plasmaanzeigevorrichtung und Verfahren zu ihrer Ansteuerung

Title (fr)

Appareil d'affichage à plasma et procédé de commande correspondant

Publication

EP 1939843 A1 20080702 (EN)

Application

EP 06256591 A 20061227

Priority

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Abstract (en)

A plasma display apparatus comprises a scan electrode and a sustain electrode; a data electrode for intersecting the scan electrode and the sustain electrode; and a pulse controller arranged to apply respective pulses having opposite polarities to the scan electrode and the sustain electrode respectively during a reset period, and to apply respective negative sustain pulses to the scan electrode and the sustain electrode respectively during a sustain period, wherein the distance between the scan electrode and the sustain electrode is longer than that between the sustain electrode and the data electrode. Therefore, a surface discharge mode can be used even when applying negative pulses to the sustain electrode in a reset period. The size and cost of a plasma display apparatus can be reduced by applying a negative pulse of the same magnitude as a sustain voltage without the need to provide a separate negative voltage source.

IPC 8 full level

G09G 3/28 (2006.01); **G09G 3/288** (2006.01); **G09G 3/292** (2013.01); **G09G 3/294** (2013.01)

CPC (source: EP)

G09G 3/2927 (2013.01); **G09G 3/2942** (2013.01); **G09G 2310/066** (2013.01); **G09G 2320/0228** (2013.01); **G09G 2320/043** (2013.01)

Citation (search report)

- [A] US 2006164343 A1 20060727 - SASAKI TAKASHI [JP], et al
- [A] EP 1357535 A2 20031029 - FUJITSU HITACHI PLASMA DISPLAY [JP]
- [X] CHO B-G ET AL: "A NEW DRIVING WAVEFORMS FOR IMPROVING LUMINOUS EFFICIENCY IN AC PDP WITH LARGE SUSTAIN GAP UNDER HIGH XE CONTENT", 2005, 2005 SID INTERNATIONAL SYMPOSIUM DIGEST OF TECHNICAL PAPERS. BOSTON ,MA, MAY 24 - 27, 2005, SID INTERNATIONAL SYMPOSIUM DIGEST OF TECHNICAL PAPERS, SAN JOSE, CA : SID, US, PAGE(S) 1138-1141, XP001244333
- [A] KIM H ET AL: "Firing and Sustaining Discharge Characteristics in Alternating Current Microdischarge Cell With Three Electrodes", April 2004, IEEE TRANSACTIONS ON PLASMA SCIENCE, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, PAGE(S) 488-492, ISSN: 0093-3813, XP011114572
- [A] SANG DAE PARK ET AL: "P-69: Luminance and Luminous Efficiency of AC PDP with Coplanar Long-Gap and High Xe Content Gas-Mixture", 2004 SID INTERNATIONAL SYMPOSIUM. SEATTLE, WA, MAY 25 - 27, 2004, SID INTERNATIONAL SYMPOSIUM, SAN JOSE, CA : SID, US, 25 May 2004 (2004-05-25), pages 506 - 509, XP007012106

Cited by

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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 LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

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