

Title (en)
CONCURRENTLY REFRESHING MULTIPLE AREAS OF A DISPLAY DEVICE USING MULTIPLE DIFFERENT REFRESH RATES

Title (de)
GLEICHZEITIGE AKTUALISIERUNG MEHRERER BEREICHE EINER ANZEIGEVORRICHTUNG MIT MEHREREN VERSCHIEDENEN AKTUALISIERUNGSRATEN

Title (fr)
RAFFRAÎCHISSEMENT SIMULTANÉ DE ZONES MULTIPLES D'UN DISPOSITIF D'AFFICHAGE EN UTILISANT DES FRÉQUENCES DE RAFFRAÎCHISSEMENT MULTIPLES DIFFÉRENTES

Publication
EP 3178083 A4 20180221 (EN)

Application
EP 15828956 A 20150715

Priority
• US 201462033586 P 20140805
• US 201414472272 A 20140828
• US 201414558663 A 20141202
• US 2015040632 W 20150715

Abstract (en)
[origin: CN106663402A] The invention discloses concurrently refreshing multiple areas of a display device using multiple different refresh rates. This application relates to methods and apparatus for refreshing a display device at various frequencies. Specifically, multiple areas of the display device can be refreshed concurrently at different frequencies. In this way, when static content is being displayed in certain areas of the display device, those certain areas can be refreshed at a lower rate than areas displaying dynamic content such as video or animation. By refreshing at lower rates, the energy consumed by the display device and subsystems associated with the display device can be reduced. Additionally, processes for reducing flicker when refreshing the display device at different refresh rates are disclosed herein.

IPC 8 full level
G09G 3/20 (2006.01); **G09G 3/36** (2006.01)

CPC (source: EP KR US)
G09G 3/20 (2013.01 - KR); **G09G 3/32** (2013.01 - EP KR US); **G09G 3/3611** (2013.01 - EP KR US); **G09G 2310/04** (2013.01 - EP KR US); **G09G 2320/0247** (2013.01 - EP KR US); **G09G 2320/103** (2013.01 - EP KR US); **G09G 2340/0435** (2013.01 - EP KR US)

Citation (search report)
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• [A] WO 2014080731 A1 20140530 - SHARP KK [JP] & EP 2924682 A1 20150930 - SHARP KK [JP]
• [A] US 2011032231 A1 20110210 - MARUYAMA JUNICHI [JP], et al
• [A] US 2009251445 A1 20091008 - ITO DAISUKE [JP], et al
• See also references of WO 2016022265A1

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Designated contracting state (EPC)
AL 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 RS SE SI SK SM TR

DOCDB simple family (publication)
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CN 201580041805 A 20150715; CN 202010422742 A 20150715; EP 15828956 A 20150715; KR 20177002988 A 20150715