

Title (en)

Active matrix display device with additional dummy datalines

Title (de)

Anzeigeeinrichtung mit aktiver Matrix mit zusätzlichen Dummy-Datenleitungen

Title (fr)

Appareil d'affichage à matrice active avec lignes de données factices additionnelles

Publication

EP 0678850 B1 20000621 (EN)

Application

EP 95400895 A 19950421

Priority

JP 10760294 A 19940422

Abstract (en)

[origin: EP0678850A1] The active matrix display device has a plurality of gate lines X provided on horizontal lines, a plurality of data lines Y provided on vertical lines, and a plurality of picture elements PXL provided at each intersection of both lines. The picture elements PXL provided horizontally and vertically constitute the display region 1. The vertical scanning circuit 2 scans vertically each gate line X sequentially, and selects picture elements on a respective one horizontal line every one horizontal period. The horizontal scanning circuit 3 scans each data line Y sequentially in one horizontal period, samples image signal Vsig, and writes by dot sequential scanning the image signal Vsig on picture elements PXL of a respective selected horizontal line. The data lines are defined in two sections, real data lines Y1, Y2, ...,YL provided in the display region 1, and dummy data lines YD1, YD2, YD3, and YD4 provided outside the display region, which dummy data lines intersect with the end section of the gate lines. The horizontal scanning circuit 3 scans horizontally the real data lines Y1, Y2,...,YL with a sampling timing overlapping a plurality of the real data lines, subsequently continues to scan the dummy data lines YD1, YD2, YD3 and YD4 with the overlapped sampling timing. Thereby, a band defect usually appearing on the side end of the screen when an active matrix display device is driven dot sequentially, is eliminated. <IMAGE>

IPC 1-7

G09G 3/36; G09G 3/30

IPC 8 full level

G02F 1/133 (2006.01); **G09G 3/20** (2006.01); **G09G 3/30** (2006.01); **G09G 3/36** (2006.01)

CPC (source: EP KR)

G09G 3/30 (2013.01 - EP); **G09G 3/3648** (2013.01 - EP KR); **G09G 2230/00** (2013.01 - KR); **G09G 2300/043** (2013.01 - EP KR); **G09G 2300/08** (2013.01 - EP KR); **G09G 2310/0205** (2013.01 - EP KR); **G09G 2320/0219** (2013.01 - EP KR); **G09G 2320/0223** (2013.01 - EP KR)

Cited by

EP2270857A3; EP2760049A1; US8128448B2; US8454403B2; US8698136B2

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EP 0678850 A1 19951025; **EP 0678850 B1 20000621**; DE 69517552 D1 20000727; DE 69517552 T2 20010208; JP 3297962 B2 20020702; JP H07295522 A 19951110; KR 100337851 B1 20021205; KR 950034031 A 19951226; MY 115352 A 20030531; SG 46128 A1 19980220

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