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(54) Video display device and operating method therefore

(57) A video display device comprises

- a plurality of light emitting elements (1-1, 1-2, ..., 1-n) arranged in a matrix having rows and columns;

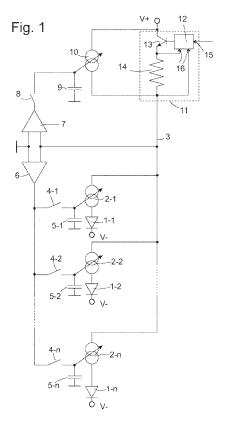
- a plurality of first current modulators (2-1, 2-2, ..., 2-n), each of which is associated to one of said light emitting elements(1-1, 1-2, ..., 1-n), for drawing a feed current of programmable intensity (I_{D1} , I_{D2} , ..., I_{Dn}) for the associated light emitting element (1-1, 1-2, ..., 1-n) from a circuit node (3) associated to each of said columns;

- a current generator (11) controlled by video data representative of desired luminosities (D1, D2, ..., Dn) of said light emitting elements for supplying a first current (I_{DATA}) to said circuit node (3), the intensity of which is representative of a desired luminosity (D1, D2, ..., Dn) of at least one of said light emitting elements (1-1, 1-2, ..., 1-n);

the circuit node (3) having a specific voltage level when the intensity supplied by said current generator (11) is drawn from the current node (3) by the first current modulator (2-1, 2-2, ..., 2-n) associated to said at least one light emitting element(1-1, 1-2, ..., 1-n);

- a second current modulator (10) for supplying a second current (I_{10}) to said circuit node (3);
- a comparator (7) having inputs connected to said circuit node (3) and to a reference terminal which is constantly held at said specific voltage level and an output connected to a control input of said second current modulator (10), whereby the second current (I_{10}) from said second

current modulator (10) is controlled so as to yield said specific voltage level at the circuit node (3).



EP 1 863 005 A3



EUROPEAN SEARCH REPORT

Application Number

EP 07 10 8551

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