

ABSTRACT OF THE DISCLOSURE

THIN-FILM TRANSISTOR SUBSTRATE, DISPLAY DEVICE, CAD PROGRAM AND TRANSFER METHOD FOR THIN-FILM TRANSISTOR SUBSTRATE

A thin-film transistor substrate includes a pixel region where gate electrode lines are arranged on an insulating substrate sandwiching semiconductor layer patterns and a gate insulator with
5 the insulating substrate, wherein shapes of the semiconductor patterns and the gate electrode lines are set so that a value of K obtained by the following equation is smaller than a first set value when the thin-film transistor substrate is mounted on a metal table:

$$K = (L/C_e) \times \{C_a / (C_a + C_b)\} \times S$$

10 where C_a represents a capacitor between each of the semiconductor layer patterns and the metal table, C_b represents a capacitor between each of the semiconductor layer patterns and the gate electrode lines, C_e represents a capacitor between each of the gate electrode lines and the metal table, L represents a length of each of the gate
15 electrode line, and S represents a substrate surface area that one of the gate electrode lines are in charge of per unit length.

FIG. 4



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