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The Director

of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this United States

Patent

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Katherine Kelly Vidal

DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

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If the application for this patent was filed on or after June 8, 1995, the term of this patent begins on the date on which this patent issues and ends twenty years from the filing date of the application or, if the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121, 365(c), or 386(c), twenty years from the filing date of the earliest such application (“the twenty-year term”), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b), and any extension as provided by 35 U.S.C. 154(b) or 156 or any disclaimer under 35 U.S.C. 253.

If this application was filed prior to June 8, 1995, the term of this patent begins on the date on which this patent issues and ends on the later of seventeen years from the date of the grant of this patent or the twenty-year term set forth above for patents resulting from applications filed on or after June 8, 1995, subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b) and any extension as provided by 35 U.S.C. 156 or any disclaimer under 35 U.S.C. 253.



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(54) **TOUCH KEY DESIGN METHOD BASED ON TOUCH SCREEN**

(71) Applicant: **Guangzhou Yuda Electronics Co., Ltd.**, Guangzhou (CN)
(72) Inventors: **Ming Fai Christopher Wong**, Hong Kong (HK); **Yanping Zhang**, Ganzhou (CN)
(73) Assignee: **GUANGZHOU YUDA ELECTRONICS CO., LTD.**, Guangzhou (CN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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CPC **G06F 3/0416** (2013.01); **G06F 1/1643** (2013.01); **G06F 3/04886** (2013.01); **G06F 9/451** (2018.02)

(58) **Field of Classification Search**
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See application file for complete search history.

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Primary Examiner — Ryan A Lubit

(74) *Attorney, Agent, or Firm* — Chun-Ming Shih;
LANWAY IPR SERVICES

(57) **ABSTRACT**

The present disclosure discloses a touch key design method based on a touch screen, wherein a plastic part is placed on a touch screen, so that the touch screen is equally divided into a plurality of (such as 4×4) areas with the same size. In this way, the touch screen can be regarded as a plurality of (such as 4×4) matrix touch keys. When one of the touch keys is touched by hand, an MCU (a main control unit of a recording software controller) determines which touch key is pressed through the X and Y coordinate values returned by the touch screen, and then controls the corresponding functions. On the touch screen, not only the function name of the recording software corresponding to each touch key is displayed, but also the state of pressing or releasing the touch key and the state about whether the corresponding function on the recording software is activated or non-activated can be displayed in real time. In addition, users are allowed to change the position and the function name of each touch key in the touch screen randomly according to their own usage habits and preferences.

4 Claims, 2 Drawing Sheets