

## (12) United States Patent Rekimoto et al.

# (10) Patent No.:

US 7,088,342 B2

(45) Date of Patent:

Aug. 8, 2006

### (54) INPUT METHOD AND INPUT DEVICE

### (75) Inventors: **Junichi Rekimoto**, Tokyo (JP); Tatsushi Nashida, Kanagawa (JP);

Ivan Poupyrev, Tokyo (JP)

(73) Assignee: Sony Corporation, Tokyo (JP)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 429 days.

Appl. No.: 10/437,797

(22)Filed: May 14, 2003

**Prior Publication Data** (65)

US 2003/0234768 A1 Dec. 25, 2003

### (30)Foreign Application Priority Data

(JP) May 16, 2002 ...... 2002-141742

(51) Int. Cl.

G09G 5/00 (2006.01)

345/157, 168, 169, 173, 176, 179, 160, 162, 345/172, 705, 773; 178/18.01, 18.02, 19.01, 178/19.02; 715/771, 773, 705

See application file for complete search history.

#### (56)References Cited

### U.S. PATENT DOCUMENTS

5,543,588	A *	8/1996	Bisset et al 178/18.06
5,729,219	A *	3/1998	Armstrong et al 341/20
6,023,265	A *	2/2000	Lee 345/173
6,747,635	B1 *	6/2004	Ossia 345/169
6,909,424	B1 *	6/2005	Liebenow et al 345/169
2002/0149561	A1*	10/2002	Fukumoto et al 345/156
2003/0184528	A1*	10/2003	Kawasaki et al 345/173

### \* cited by examiner

Primary Examiner—Bipin Shalwala Assistant Examiner—Nitin Patel

(74) Attorney, Agent, or Firm-Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.

#### (57)**ABSTRACT**

A display panel disposed on the front surface of a device shows information related to an operation input. A sensor for detecting a touch of an object is disposed on the back surface of the device. A mark representing the touch position is displayed at a position directly above the position of a touch detected by the sensor on the display panel. When the mark representing the touch position and the display position of the information are overlapped, an input process corresponding to the overlapped information is performed.

### 6 Claims, 11 Drawing Sheets

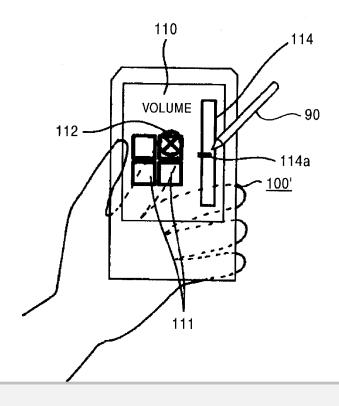




FIG. 1

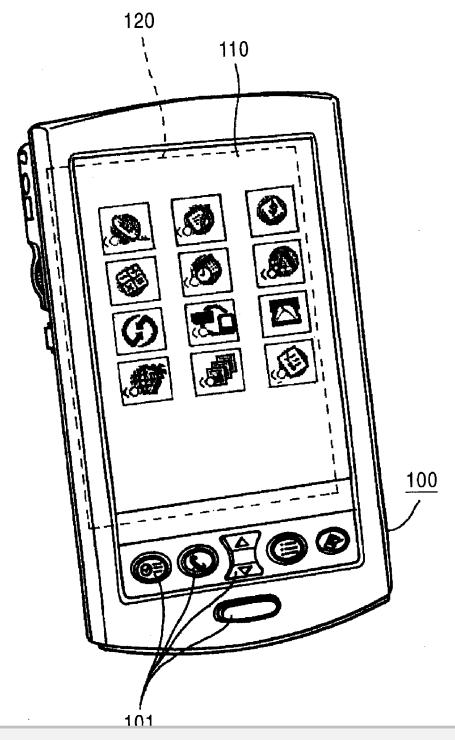
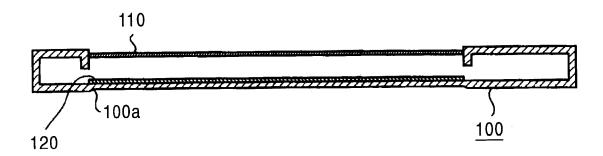


FIG. 2





122 AMPLIFI-CATION DISPLAY DRIVER SIGNAL SOURCE <u>∞</u> CONTROLLER 3 LPF A/D



FIG. 4A

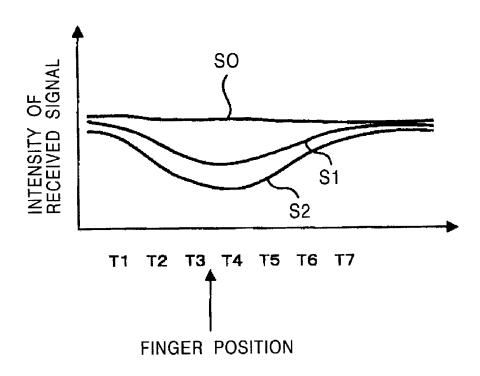
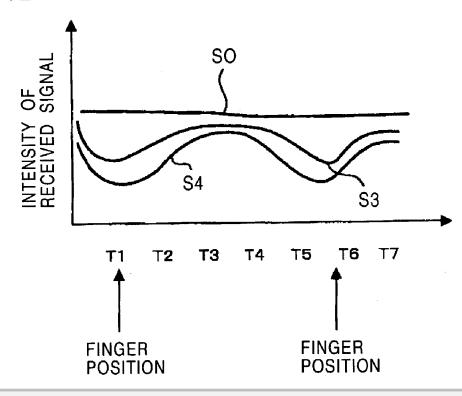


FIG. 4B





# DOCKET A L A R M

# Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

# **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

### **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

