



US 20090284341A1

(19) **United States**

(12) **Patent Application Publication**

Okada et al.

(10) **Pub. No.: US 2009/0284341 A1**

(43) **Pub. Date: Nov. 19, 2009**

(54) **COIL UNIT AND ELECTRONIC APPARATUS USING THE SAME**

(30) **Foreign Application Priority Data**

May 14, 2008 (JP) 2008-126747

(75) Inventors: **Hirofumi Okada**, Suwa-shi (JP);
Yoichiro Kondo, Chino-shi (JP)

Publication Classification

Correspondence Address:
OLIFF & BERRIDGE, PLC
P.O. BOX 320850
ALEXANDRIA, VA 22320-4850 (US)

(51) **Int. Cl.**
H01F 27/28 (2006.01)

(52) **U.S. Cl.** **336/232**

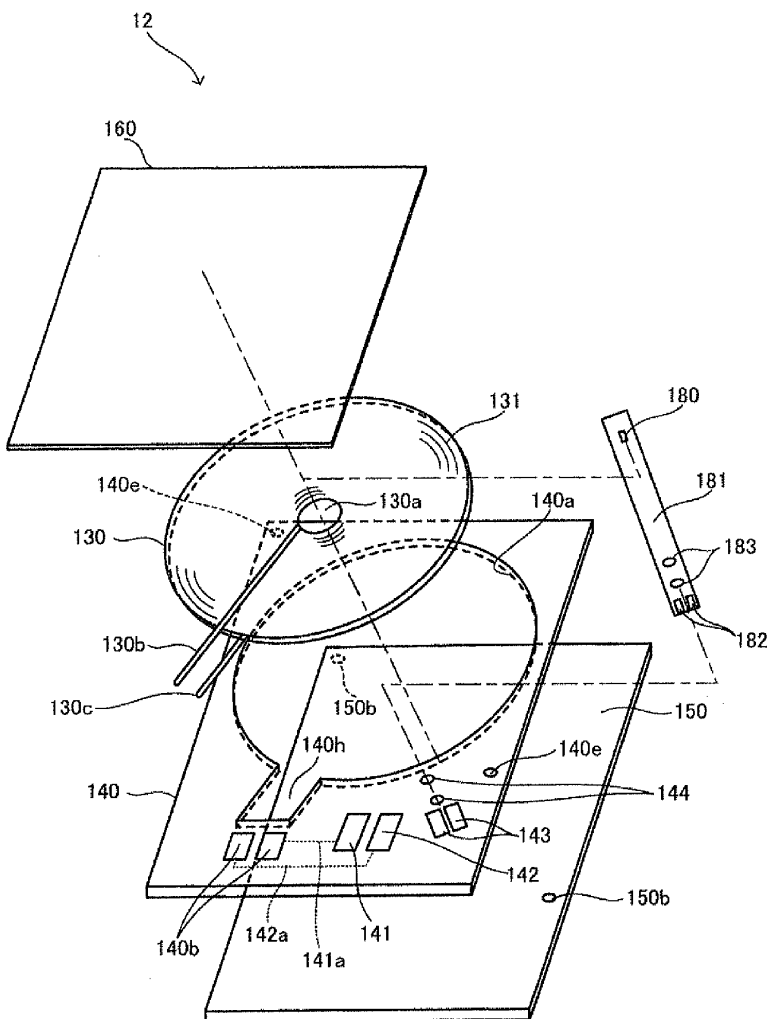
(57) **ABSTRACT**

A coil unit includes a coil formed by winding a coil wire, a wiring substrate, and a magnetic substance for receiving magnetic lines of force generated by the coil. The wiring substrate includes a connection terminal connected to both ends of the coil, an external connection terminal, and a wiring pattern for connecting the connection terminal and the external connection terminal. No circuit element other than the coil is mounted on the wiring substrate.

(73) Assignee: **SEIKO EPSON CORPORATION**, Tokyo (JP)

(21) Appl. No.: **12/429,781**

(22) Filed: **Apr. 24, 2009**



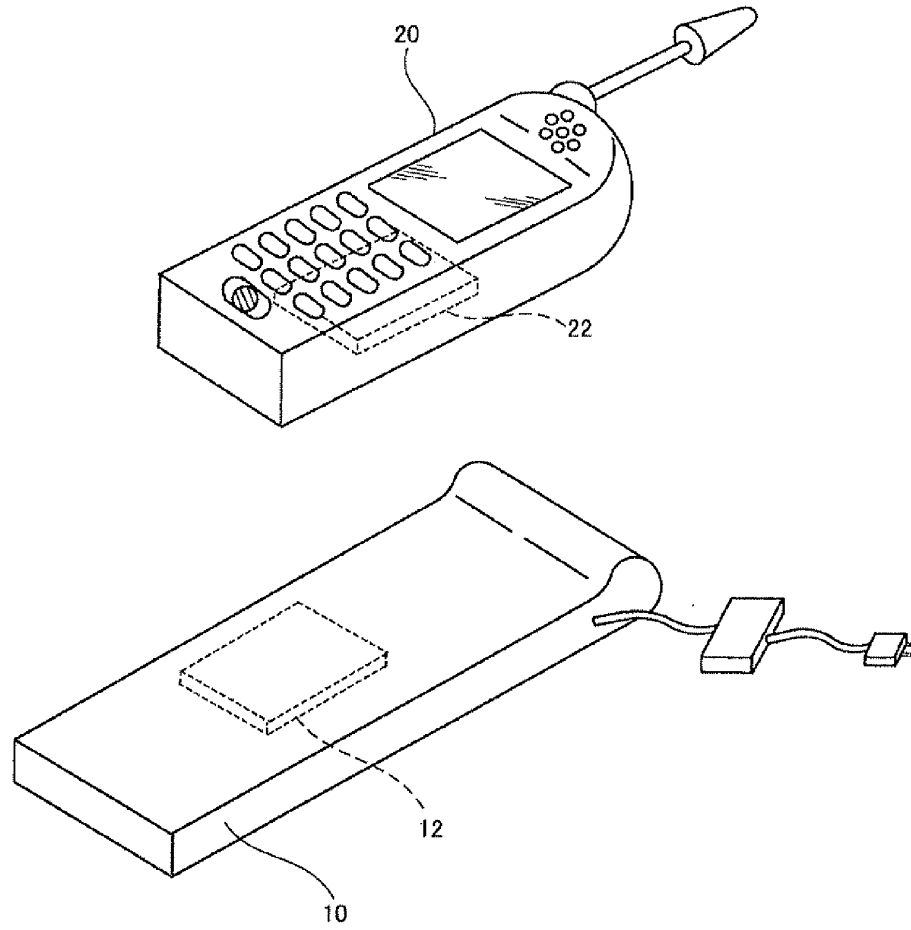


FIG. 1

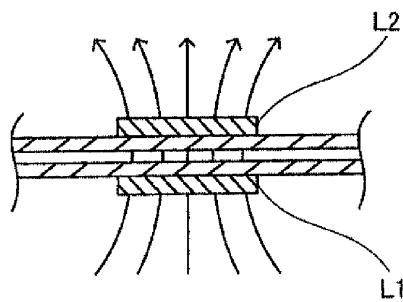


FIG. 2

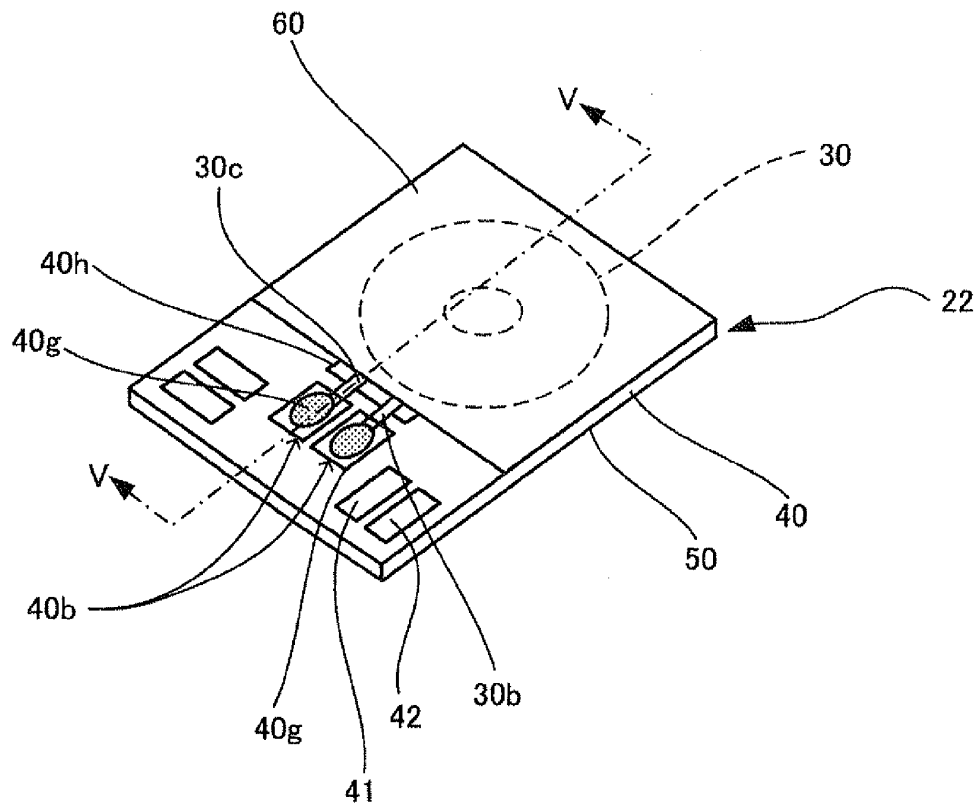


FIG. 3

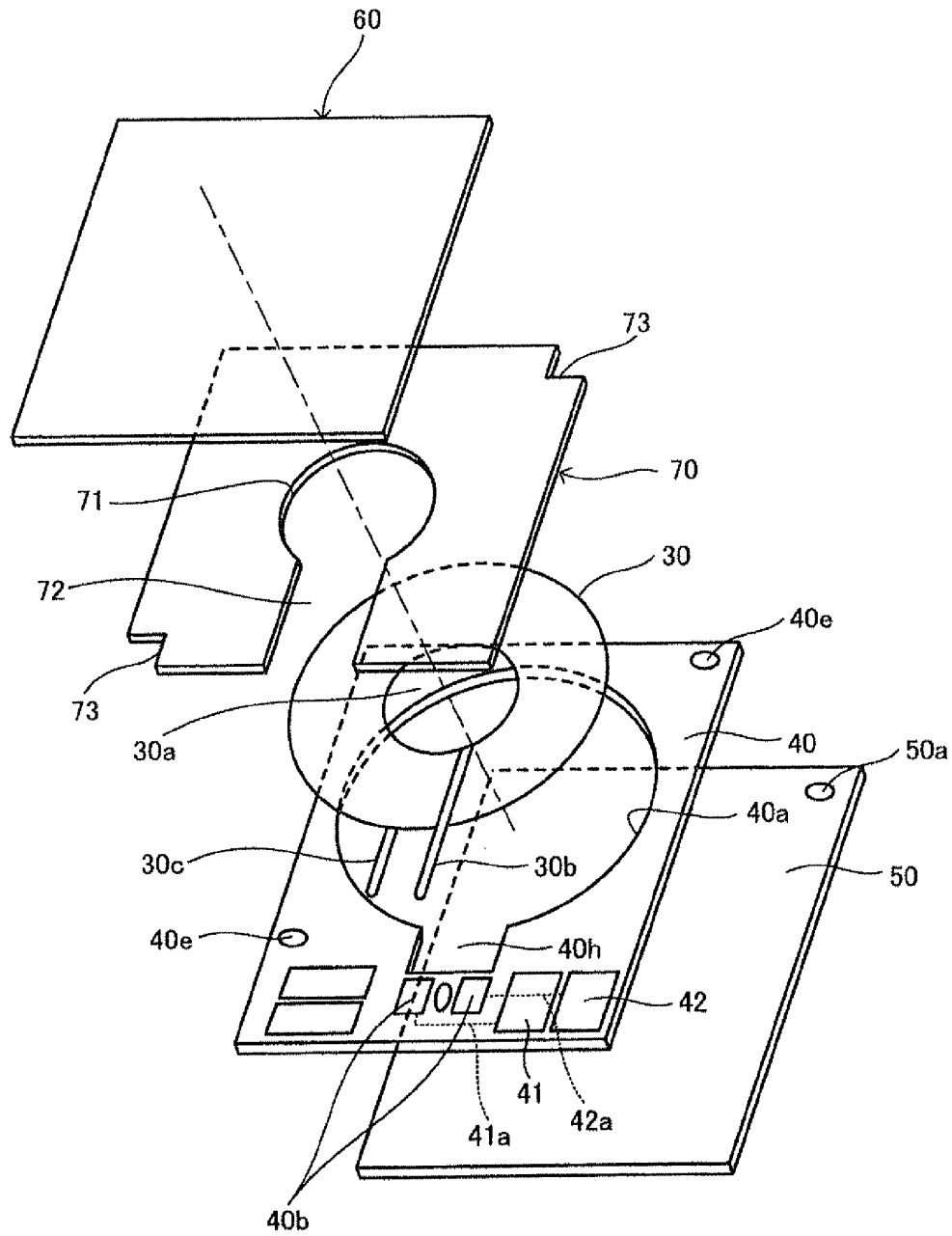


FIG. 4

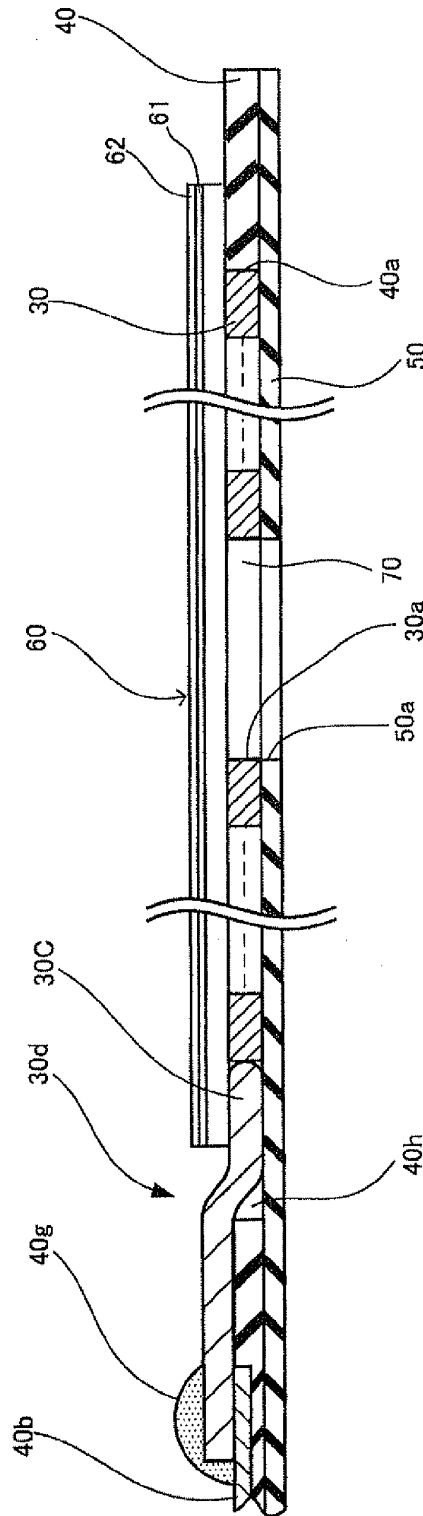


FIG. 5

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.