

Patent Number:

Date of Patent:

United States Patent [19]

Terada et al.

[54] SEMICONDUCTOR INTEGRATED CIRCUIT

- [75] Inventors: **Yutaka Terada; Toru Iwata**, both of Osaka, Japan
- [73] Assignee: Matsushita Electric Industrial Co., Ltd., Japan
- [21] Appl. No.: **08/997,558**
- [22] Filed: Dec. 23, 1997

[30] Foreign Application Priority Data

- Dec. 27, 1996 [JP] Japan 8-350227
- [51] Int. Cl.⁶ G11C 7/00

[56] References Cited

U.S. PATENT DOCUMENTS

5,410,278	4/1995	Itoh et al 365/227 X
5,726,946	3/1998	Yamagata et al 365/226

FOREIGN PATENT DOCUMENTS

5,933,384

Aug. 3, 1999

06029834 4/1994 Japan . 06208790 7/1994 Japan .

[11]

[45]

Primary Examiner—Huan Hoang Attorney, Agent, or Firm—McDermott, Will & Emery

[57] ABSTRACT

In serially connected first and third inverters, the high-levelside source nodes are connected to a first pseudo-power supply line and the low-level-side source nodes are connected to a third pseudo-power supply line. In serially connected second and fourth inverters, the high-level-side source nodes are connected to a second pseudo-power supply line and the low-level-side source nodes are connected to a fourth pseudo-power supply line. The source nodes of transistors which are cut off in the operation mode, are disconnected from the power supply when first to fourth switch transistors are turned off according to an input signal, and these source nodes are short-circuited when either of fifth and sixth switch transistors is turned on.

10 Claims, 9 Drawing Sheets

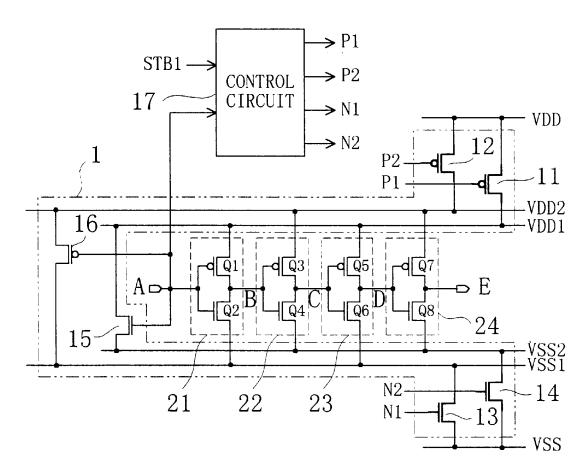


Fig.1

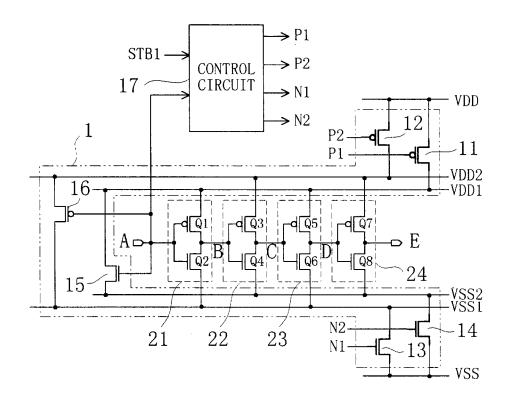
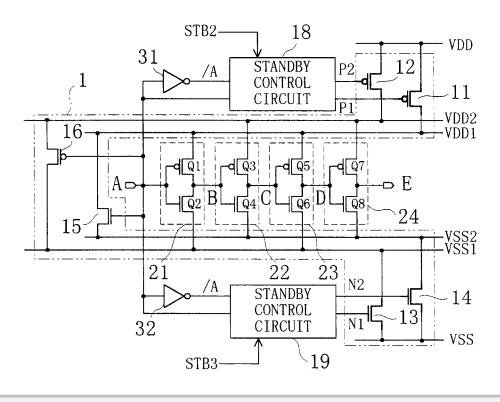


Fig.2



DOCKET A L A R M Find authenticated court documents without watermarks at <u>docketalarm.com</u>.

Fig. 3(a)

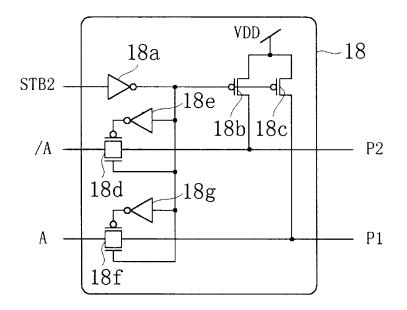
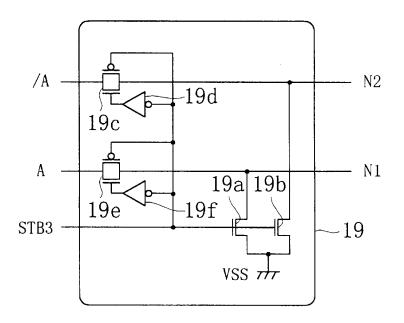


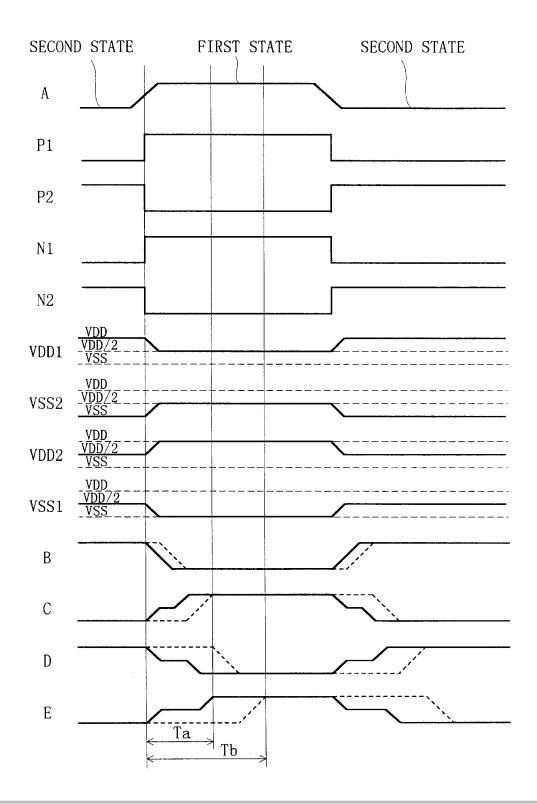
Fig. 3(b)



Find authenticated court documents without watermarks at <u>docketalarm.com</u>.

Α

Fig. 4



`KF

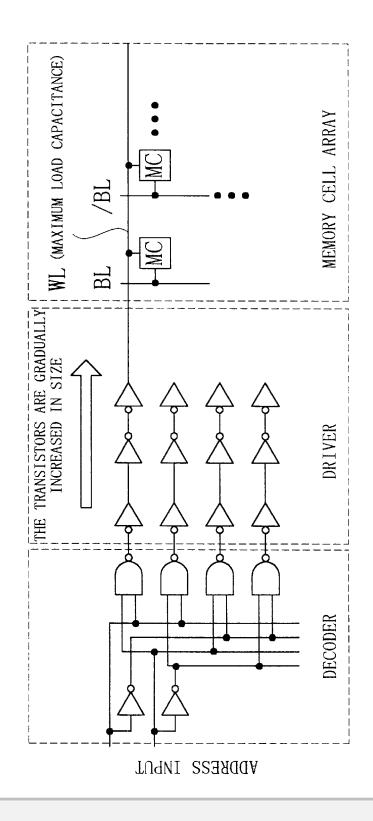
R

Δ

λ

Α

Fig.5



Find authenticated court documents without watermarks at <u>docketalarm.com</u>.

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.