

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD. AND
SAMSUNG ELECTRONICS AMERICA, INC.,

Petitioners,

v.

HARBOR ISLAND DYNAMIC, LLC,

Patent Owner.

Patent No. 7,745,886

Filing Date: September 29, 2008

Issue Date: June 29, 2010

Inventors: Robert L. Zwingman and Marco Racanelli

Title: SEMICONDUCTOR ON INSULATOR (SOI)
SWITCHING CIRCUIT

PATENT OWNER'S UNOPPOSED MOTION TO AMEND

Case No. IPR2024-01402

LIST OF EXHIBITS

Exhibit No.	Description of Document
2001	Docket Control Order, Dkt. 38, in <i>Harbor Island Dynamic, LLC v. Samsung Elecs. Co.</i> , Case No. 2:24-cv-00140-JRG-RSP (E.D. Tex. Aug. 5, 2024)
2002	Order Denying Samsung's Motion to Stay Pending <i>Inter Partes</i> Review, Dkt. 62, in <i>Harbor Island Dynamic, LLC v. Samsung Elecs. Co.</i> , Case No. 2:24-cv-00140-JRG-RSP (E.D. Tex. Dec. 19, 2024)
2003	Defendants' Invalidity Contentions, served on September 26, 2024, in <i>Harbor Island Dynamic, LLC v. Samsung Elecs. Co.</i> , Case No. 2:24-cv-00140-JRG-RSP (E.D. Tex.)
2004	U.S. Patent No. 6,804,502 entitled SWITCH CIRCUIT AND METHOD OF SWITCHING RADIO FREQUENCY SIGNALS to Burgener et al., issued October 12, 2004
2005	Deposition of Scott E. Thompson, Ph.D., taken on June 17, 2025
2006	Declaration of Mr. John Berg
2007	Email from Board authorizing Patent Owner to file a Motion to Amend

I. INTRODUCTION

On July 1, 2025, Patent Owner received authorization from the Board to file this Motion to Amend. Ex. 2007. Patent Owner hereby seeks cancellation of Claims 1-2 and 4-7 of U.S. Patent No. 7,745,886. Patent Owner does not propose any substitute claims, and does not propose any amendments to any other claims. Petitioner does not oppose this Motion.

II. REQUEST FOR PRELIMINARY GUIDANCE

Patent Owner requests preliminary guidance from the Board regarding this Motion to Amend pursuant to 37 C.F.R. § 42.121(a)(ii) and § 42.121(e).

III. CLAIMS LISTING

Pursuant to the requirements of 37 C.F.R. § 42.121(b), a full claim listing is provided as an Appendix to this Motion. Because no substitute claims or claim amendments are proposed, Patent Owner believes that the requirements of 37 C.F.R. §42.121(b)(1) and (2) are not triggered. Patent Owner also requests preliminary guidance from the Board regarding these requirements pursuant to 37 C.F.R. § 42.121(a)(ii) and § 42.121(e).

IV. ARGUMENT

Because Patent Owner merely seeks to cancel the subject claims, and because this Motion is unopposed by Petitioner, Patent Owner believes that it has satisfied its burdens pursuant to 37 C.F.R. § 42.121(d). Patent Owner requests preliminary guidance from the Board regarding any additional information it may need regarding

this Motion to Amend.

V. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Board cancel Claims 1-2 and 4-7 of U.S. Patent No. 7,745,886.

Respectfully submitted,

Dated: July 7, 2025

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APPENDIX

1. **(cancellation requested)** A switching circuit comprising:

a plurality of cascaded transistors fabricated in a device layer situated over a buried oxide layer and a bulk semiconductor layer;

each of said plurality of cascaded transistors having a source/drain junction that does not contact said buried oxide layer, thereby forming a source/drain junction capacitance;

at least one trench extending through said device layer and contacting a top surface of said buried oxide layer, thereby electrically isolating at least one of said plurality of cascaded transistors in said switching circuit so as to reduce voltage and current fluctuations in said device layer.

2. **(cancellation requested)** The switching circuit of claim 1, wherein said at least one of said plurality of cascaded transistors is situated within an isolated island in said device layer.

3. **(original)** The switching circuit of claim 1, wherein said plurality of cascaded transistors is situated within an isolated island in said device layer.

4. **(cancellation requested)** The switching circuit of claim 1, wherein said at least one of said plurality of cascaded transistors is an NFET with a gate driven by a switch control signal in a wireless communications device.

5. **(cancellation requested)** The switching circuit of claim 4, wherein said switch control signal drives said gate of said NFET through at least one resistor.

6. **(cancellation requested)** The switching circuit of claim 1, wherein said at least one of said plurality of cascaded transistors is a PFET with a gate driven by a switch control signal in a wireless communications device.

7. **(cancellation requested)** The switching circuit of claim 6, wherein said switch control signal drives said gate of said PFET through at least one resistor.

8. **(original)** The switching circuit of claim 1, wherein a power amplifier in a wireless communications device provides an input to said switching circuit, and wherein an output of said switching circuit drives an antenna in said wireless communications device, and said switching circuit is controlled by a switch control signal in said wireless communications device.

9. **(original)** The switching circuit of claim 8, wherein said wireless communications device is selected from the group consisting of a cellular telephone, a wireless personal computer, a wireless audio player, a wireless video player, and a wireless personal assistance device.

10. **(original)** The switching circuit of claim 1, wherein an antenna in a wireless communications device provides an input to said switching circuit, and wherein an output of said switching circuit drives a low noise amplifier in said wireless communications device, and wherein said switching circuit is controlled by a switch control signal in said wireless communications device.

11. **(original)** The switching circuit of claim 10, wherein said wireless communications device is selected from the group consisting of a cellular telephone, a wireless personal computer, a wireless audio player, a wireless video player, and a wireless personal assistance device.

12. **(original)** A wireless communications device comprising a power amplifier and an antenna, said wireless communications device further comprising:

a switching circuit controlled by a switch control signal and interposed between said power amplifier and said antenna, said switching circuit including:

a plurality of cascaded transistors fabricated in a device layer situated over a buried oxide layer and a bulk semiconductor layer, each of said plurality of cascaded transistors having a source/drain junction that does not contact said buried oxide layer, thereby forming a source/drain junction capacitance;

at least one trench extending through said device layer and contacting a top surface of said buried oxide layer, thereby electrically isolating at least one of said plurality

of cascaded transistors in said switching circuit so as to reduce voltage and current fluctuations in said device layer.

13. **(original)** The wireless communications device of claim 12, wherein said at least one of said plurality of cascaded transistors is situated within an isolated island in said device layer.

14. **(original)** The wireless communications device of claim 12, wherein said plurality of cascaded transistors is situated within an isolated island in said device layer.

15. **(original)** The wireless communications device of claim 12, wherein said wireless communications device is selected from the group consisting of a cellular telephone, a wireless personal computer, a wireless audio player, a wireless video player, and a wireless personal assistance device.

16. **(original)** A wireless communications device comprising an antenna and a low noise amplifier, said wireless communications device further comprising:

a switching circuit controlled by a switch control signal and interposed between said antenna and said low noise amplifier, said switching circuit including:

a plurality of cascaded transistors fabricated in a device layer situated over a buried oxide layer and a bulk semiconductor layer, each of said plurality of cascaded transistors having a source/drain junction that does not contact said buried oxide layer, thereby forming a source/drain junction capacitance;

at least one trench extending through said device layer and contacting a top surface of said buried oxide layer, thereby electrically isolating at least one of said plurality of cascaded transistors in said switching circuit so as to reduce voltage and current fluctuations in said device layer.

17. **(original)** The wireless communications device of claim 16, wherein said at least one of said plurality of cascaded transistors is situated within an isolated island in said device layer.

18. **(original)** The wireless communications device of claim 16, wherein said plurality of cascaded transistors is situated within an isolated island in said device layer.

19. **(original)** The wireless communications device of claim 16, wherein said wireless communications device is selected from the group consisting of a cellular telephone, a wireless personal computer, a wireless audio player, a wireless video player, and a wireless personal assistance device.

CERTIFICATE OF SERVICE

A copy of the foregoing Patent Owner's Unopposed Motion to Amend and Appendix have been served on Petitioners' counsel of record as follows:

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July 7, 2025

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IPR2022-00889

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