UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-4 REGISTRATION STATEMENT UNDER

THE SECURITIES ACT OF 1933

ADVANCED MICRO DEVICES, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware (State of Incorporation) 3674 (Primary Standard Industrial Classification Code Number) 94-1692300 (IRS Employer Identification No.)

2485 Augustine Drive Santa Clara, California 95054 (408) 749-4000

(Address, including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Harry A. Wolin Senior Vice President, General Counsel and Corporate Secretary Advanced Micro Devices, Inc. 2485 Augustine Drive Santa Clara, California 95054 (408) 749-4000 (Name, Address, including Zip Code, and Telephone Number, including Area Code, of Agent for Service)

Copies to:

Tad J. Freese Jonathan P. Solomon Latham & Watkins LLP 140 Scott Drive Menlo Park, California 94025 (650) 328-4600 Catia Hagopian Senior Vice President, General Counsel and Secretary Xilinx, Inc. 2100 Logic Drive San Jose, California 95124 (408) 559-7778 Kenton J. King Sonia K. Nijjar Skadden, Arps, Slate, Meagher & Flom LLP 525 University Avenue, Suite 1400 Palo Alto, California 94301 (650) 470-4500

Approximate date of commencement of proposed sale of the securities to the public: As soon as practicable after this Registration Statement becomes effective and the conditions contemplated by the Agreement and Plan of Merger described herein have been satisfied or waived.

If the securities being registered on this form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, please check the following box. \Box

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the "Securities Act"), check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \square Registration No. 333- 251119

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	Accelerated filer	
Non-accelerated filer	Smaller reporting company	
	Emerging growth company	

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. \Box

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13e-4(i) (Cross-Border Issuer Tender Offer)

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Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer) 🛛

This registration statement will become effective automatically upon filing with the Securities and Exchange Commission pursuant to Rule 462(b) under the Securities Act of 1933, as amended.

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EXPLANATORY NOTE

Pursuant to its Registration Statement on Form S-4 (Registration No. 333-251119) (the "Prior Registration Statement"), declared effective as of March 5, 2021, Advanced Micro Devices, Inc. ("AMD") registered an aggregate of 423,544,331 shares of its common stock and paid an aggregate fee of \$3,399,639. AMD is filing this Registration Statement on Form S-4 pursuant to General Instruction K to Form S-4 and Rule 462(b) of the Securities Act of 1933, as amended, solely to register 10,455,669 additional shares of its common stock for issuance in connection with the consummation of the merger contemplated by the Agreement and Plan of Merger, dated October 26, 2020, by and among AMD, Thrones Merger Sub, Inc., a wholly owned subsidiary of AMD, and Xilinx, Inc. In connection with the registration of additional shares of its common stock, AMD is paying an additional registration fee of \$107,207.69.

STATEMENT OF INCORPORATION BY REFERENCE

This Registration Statement incorporates by reference the contents of the Prior Registration Statement, including all amendments, supplements and exhibits thereto and all information incorporated or deemed to be incorporated by reference therein. Additional opinions and consents required to be filed with this Registration Statement are listed on the Exhibit Index included with this Registration Statement.

Exhibit Index

Exhibit <u>Number</u>	Description
5.1*	Opinion of Latham & Watkins LLP.
23.1*	Consent of independent registered public accounting firm of Advanced Micro Devices, Inc.
23.2*	Consent of independent registered public accounting firm of Xilinx, Inc.
23.3*	Consent of Latham & Watkins LLP (included in Exhibit 5.1).
24.1**	Powers of Attorney.
107*	Filing Fee Table.

* Filed herewith.

** Previously filed with the registrant's Registration Statement on Form S-4 (Registration No. 333-251119), as amended, which was initially filed with the Securities and Exchange Commission on December 4, 2020.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Santa Clara, in the State of California, on February 3, 2022.

Advanced Micro Devices, Inc.

By: /s/ Dr. Lisa T. Su

Name: Dr. Lisa T. Su Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date	
/s/ Dr. Lisa T. Su Dr. Lisa T. Su	President, Chief Executive Officer and Director (Principal Executive Officer)	February 3, 2022	
/s/ Devinder Kumar Devinder Kumar	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer)	February 3, 2022	
/s/ Darla Smith Darla Smith	Corporate Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 3, 2022	
* John E. Caldwell	Director and Chairman of the Board	February 3, 2022	
* Nora M. Denzel	Director	February 3, 2022	
* Mark Durcan	Director	February 3, 2022	
* Mike P. Gregoire	Director	February 3, 2022	
* Joseph A. Householder	Director	February 3, 2022	
* John W. Marren	Director	February 3, 2022	
* Abhi Y. Talwalkar	Director	February 3, 2022	

* Dr. Lisa T. Su, by signing her name hereto, signs this registration statement on behalf of the directors of the registrant above in front of whose name an asterisk appears pursuant to powers of attorney duly executed by such directors and filed with the SEC.

By: /s/ Dr. Lisa T. Su

Attorney-in-Fact

140 Scott Drive Menlo Park, California 94025 Tel: +1.650.328.4600 Fax: +1.650.463.2600 www.lw.com

FIRM / AFFILIATE OFFICES

Beijing Moscow Boston Munich Brussels New York Century City Orange County Chicago Paris Dubai Rivadh Düsseldorf San Diego Frankfurt San Francisco Hamburg Seoul Hong Kong Shanghai Silicon Valley Houston London Singapore Los Angeles Tokyo Madrid Washington, D.C. Milan

February 3, 2022

Advanced Micro Devices, Inc. 2485 Augustine Drive Santa Clara, California 95054

Re: Advanced Micro Devices, Inc. - Registration Statement on Form S-4

To the addressee set forth above:

We have acted as special counsel to Advanced Micro Devices, Inc., a Delaware corporation (the "*Company*"), in connection with the proposed issuance of up to 434,000,000 shares of common stock, \$0.01 par value per share (the "*Shares*"). The Shares are included in a registration statement on Form S-4 under the Securities Act of 1933, as amended (the "*Act*"), initially filed with the Securities and Exchange Commission (the "*Commission*") on December 4, 2020 (Registration No. 333-197806) (as amended, the "*Initial Registration Statement*") and a registration statement relating to the Initial Registration Statement filed pursuant to Rule 462(b) promulgated under the Act (together with the Initial Registration Statement, the "*Registration Statement*") in connection with the Agreement and Plan of Merger, dated October 26, 2020 (the "*Merger Agreement*"), among the Company, Thrones Merger Sub, Inc., a Delaware corporation ("*Xilinx*"), a copy of which is included as Annex A to the Registration Statement. This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or related prospectus contained therein, other than as expressly stated herein with respect to the issue of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware (the "*DGCL*"), and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the applicable Xilinx securityholders, and have been issued by the Company against payment therefor (not less than par value) in the circumstances contemplated by the Registration Statement and the Merger Agreement, the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and nonassessable.

LATHAM&WATKINS LLP

In rendering the foregoing opinion, we have assumed that (i) at or prior to the time of the delivery of any Shares, the Registration Statement will have been declared effective under the Act and that the registration will apply to all of the Shares and will not have been modified or rescinded and that there will not have occurred any change in law affecting the validity of the issuance of such Shares and (ii) the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the DGCL.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement and to the reference to our firm in the Registration Statement under the heading "Legal Matters." We further consent to the incorporation by reference of this letter and consent into any registration statement or post-effective amendment to the Registration Statement filed pursuant to Rule 462(b) under the Act with respect to the Shares. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Sincerely,

/s/ Latham & Watkins LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement on Form S-4 filed pursuant to Rule 462(b) of the Securities Act of 1933 of the reference to our firm under the caption "Experts" and to the incorporation by reference of our reports dated January 29, 2021, with respect to the consolidated financial statements of Advanced Micro Devices, Inc., and the effectiveness of internal control over financial reporting of Advanced Micro Devices, Inc., included in its Annual Report (Form 10-K) for the year ended December 26, 2020, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Jose, California February 3, 2022

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement on Form S-4 of Advanced Micro Devices, Inc. filed pursuant to Rule 462(b) of the Securities Act of 1933 of the reference to our firm under the caption "Experts" and to the incorporation by reference of our reports dated May 14, 2021, with respect to the consolidated financial statements and schedule of Xilinx, Inc., and the effectiveness of internal control over financial reporting of Xilinx, Inc., included in its Annual Report (Form 10-K) for the year ended April 3, 2021, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Jose, California February 3, 2022

Form S-4

(Form Type)

Advanced Micro Devices, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

_	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount <u>Registered(2)</u>	Proposed Maximum Offering Price Per Unit(1)	Maximum Aggregate Offering Price(1)	Fee Rate	Amount of Registration Fee
Fees to Be Paid	Equity	Common Stock, \$0.01 par value per share	Other	10,455,669	\$110.61	\$1,156,501,548.09	\$0.0000927	\$107,207.69
Total Offering Amounts Total Fees Previously Paid Total Fee Offsets Net Fee Due					\$1,156,501,548.09 \$1,156,501,548.09		\$107,207.69 \$107,207.69	

- (1) The number of shares of common stock, par value \$0.01 per share ("AMD common stock"), of the registrant, Advanced Micro Devices, Inc. ("AMD"), being registered is estimated solely for the purpose of calculating the registration fee, based on the average of the high and low prices of AMD common stock on January 31, 2022. This calculation is in accordance with Rule 457(h)(1) of the Securities Act of 1933, as amended.
- (2) Represents additional shares of AMD common stock to be issued upon consummation of the merger described in the proxy statement/prospectus included in the Registration Statement on Form S-4, as amended (Registration No. 333-251119) (the "Prior Registration Statement"). In connection with the filing of the Prior Registration Statement, the issuance of 423,544,331 shares of AMD common stock was registered with the Securities and Exchange Commission. AMD now anticipates that up to 10,455,669 additional shares of AMD common stock may be issued in connection with the merger.

Table 2: Fee Offset Claims and Sources

N/A

Table 3: Combined Prospectuses

N/A